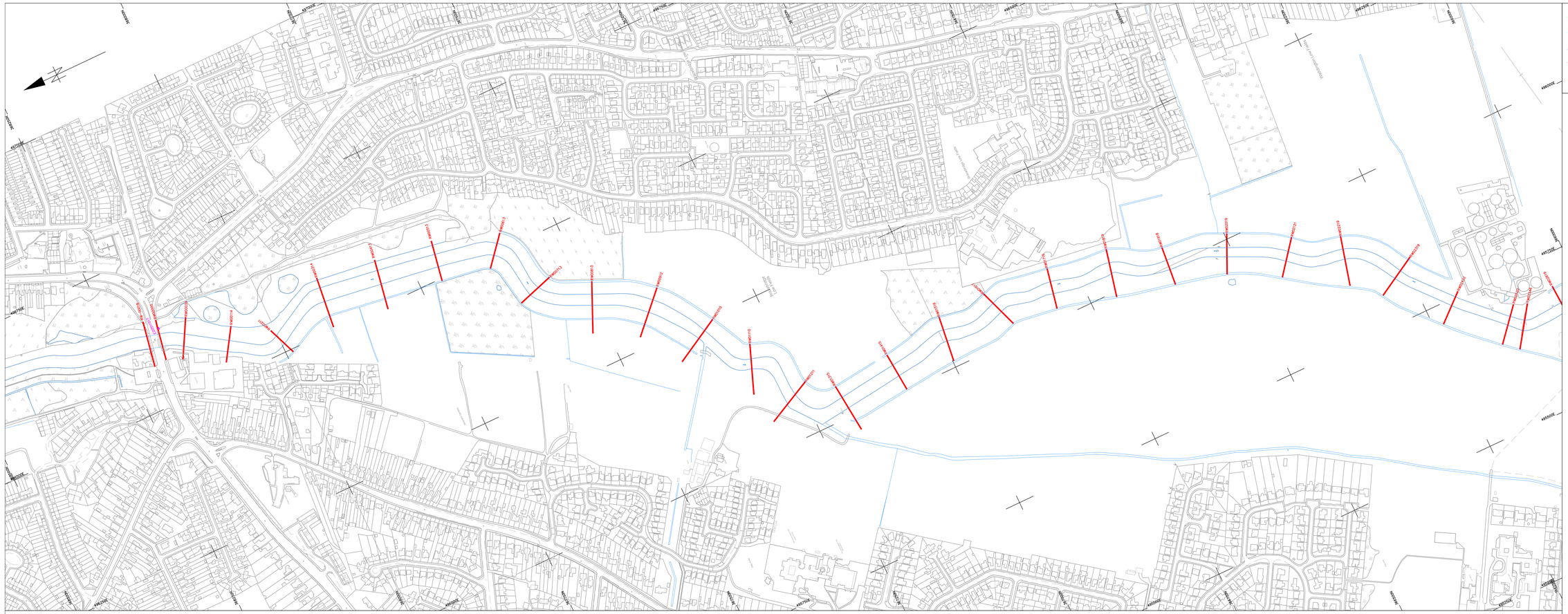
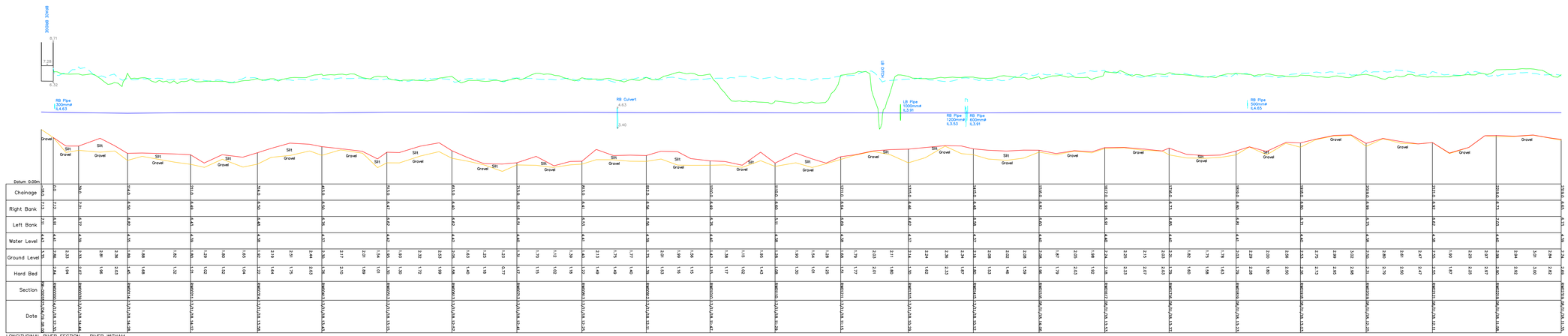


KEY TO LONGITUDINAL SECTION:

- LEFT BANK CREST
- RIGHT BANK CREST
  (VIEWED LOOKING DOWNSTREAM. POINTS INDICATED BY 'C' ON CROSS SECTIONS.)
- WATER LEVEL
- VISIBLE BED (TOP OF SILT)
- HARD BED (DETERMINED BY PROBING)



LONGITUDINAL RIVER SECTION – RIVER WITHAM
Horizontal Scale – 1:2500
Vertical Scale – 1:100

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. ORDNANCE SURVEY MATERIAL REPRODUCED WITH THE PERMISSION OF THE CONTROLLER OF H.M.S.O. COPYRIGHT LICENCE NO. 100026380.
3. THIS DRAWING PLOTS TO SCALE ON A0 SIZE PAPER

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	ROOT BARK
B	BOLLARD	FL	FLOOR LEVEL	RE	RIDGING EYE
BC	BOUNDARY BEACON	FP	FLAG POLE	RG	RIDGING GUTTER
BY	BOUGHPOT	FRM	FERAL WATER MANHOLE	RW	RETAINING WALL
BH	BOREHOLE	G	GULLY	SMP	RAINWATER PIPE
BL	BOLLARD LIGHT	GL	GROUND LEVEL	SP	SIGN POST
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GM	GAS MARKER	SK	SOAKAWAY
BM	BENCH MARK	HC	HOP CROP	SL	STREET LIGHT
BW	BRICK WALL	HW	HUCK WALL	SMH	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
CB	CATCH BASIN/PIT	IP	IRON PIPE/PEG	SP	SIGN POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STA	STATION
CL	COVER LEVEL	MF	INTERMEDIATE FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	KG	KERB GULLY GRATE	SW	SHEET WIRE FENCE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LB	LEFT BANK	TEMP	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LP	LAMP POST	TP	TELEPHONE POLE/POST
CR	CYCLE RACK	LV	LAMP POST	TC	TELECOM CABINET
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
D	DRAIN	MF	MOORING/FENDER FENCING	TR	TRAFFIC LIGHT
DK	DROP KERB	MH	MANHOLE	T	TRAFFIC LIGHT
DL	DOOR LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MR	METAL RAILING FENCE	TSU	TIMBER RUBBING STRIP
DS	DOWN SPOUT	NB	NOTICE BOARD	TW	TIMBER WALL
DWB	DOG WASTE BIN	NB	NOTICE BOARD	TCB	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	NRA	NATIONAL RIVERS AUTHORITY	V	VENT PIPE
EL	ELECTRICITY BOX	OHC	OVERHEAD CABLE	VB	VALVE BOX
ETF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EW	ELECTRIC WIRE FENCE	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMF	ELECTRICITY ANGLE FT	P	POST	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ET	ELECTRIC TOWER	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
EL	ELECTRICITY TRANSMISSION LINE	PO	POST	WR	WATER ROUTE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to the survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK93216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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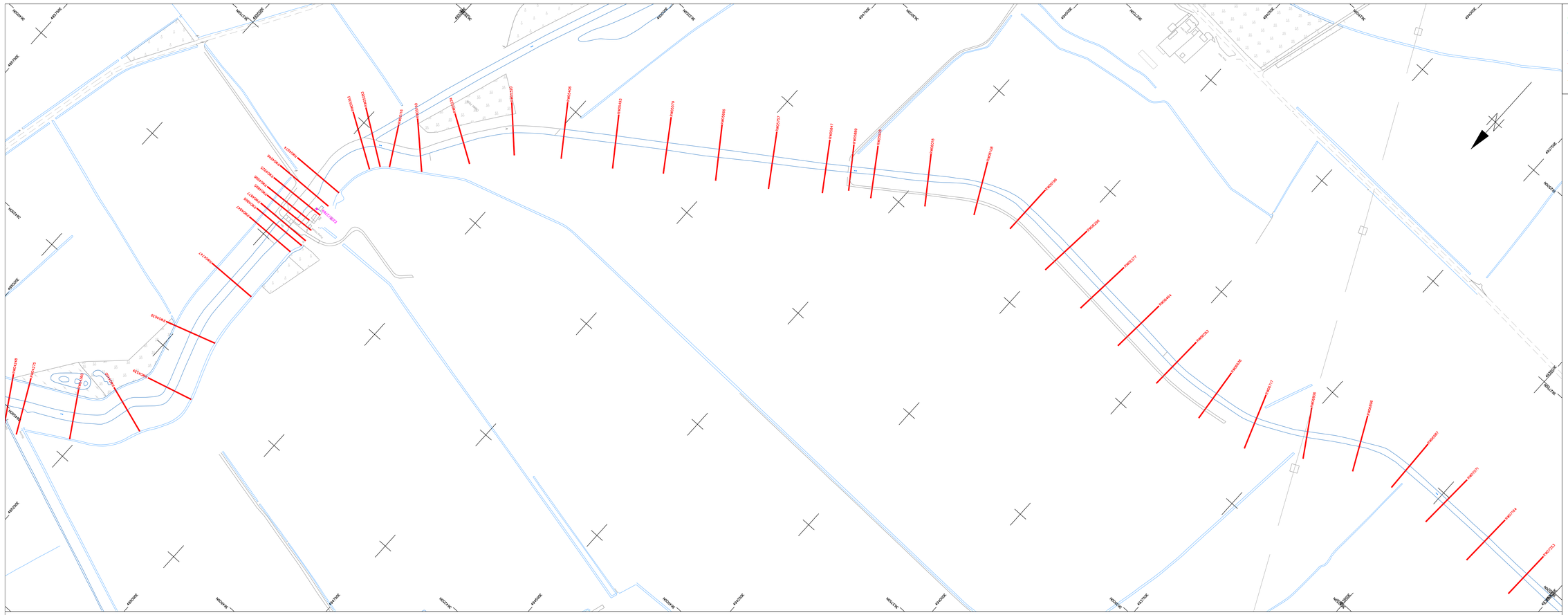
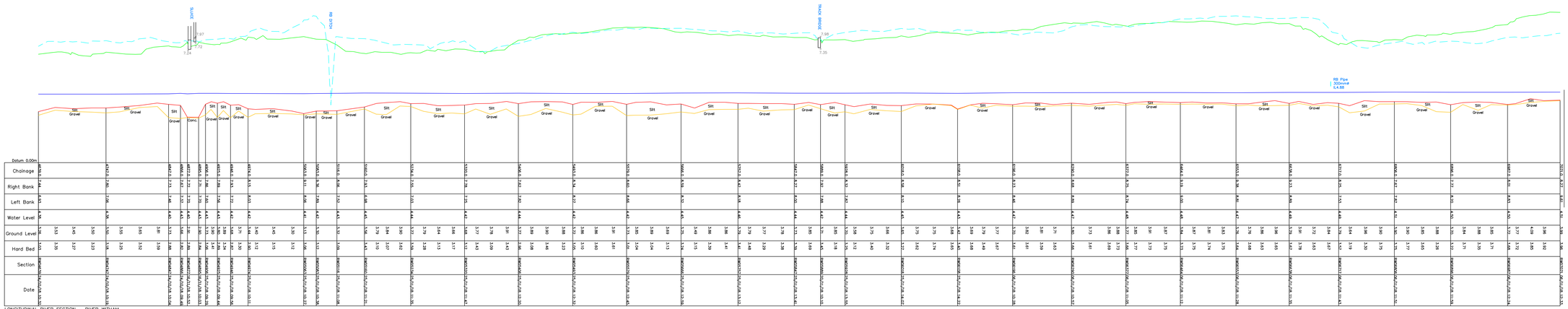
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Location Plan &
Long Profile

SURVEYED BY: Malcolm Hughes		Ref: 5258A
SURVEY DATE: November 2018		
SCALE: 1:2500H, 1:100V	DRN: K.D.L	CHKD: T.P
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. L–J01434–01	REV. –
CAD FILENAME: L–J01434.dwg		

Wadington Low Fields
Wadington Low Fields
Wadington Low Fields
Wadington Low Fields
Wadington Lane Ends
Wadington Lane
Wadington Lane
Wadington Lane





LONGITUDINAL RIVER SECTION – RIVER WITHAM
Horizontal Scale – 1:2500
Vertical Scale – 1:100

KEY TO LONGITUDINAL SECTION:

- LEFT BANK CREST
- RIGHT BANK CREST
  (VIEWED LOOKING DOWNSTREAM. POINTS INDICATED BY 'C' ON CROSS SECTIONS.)
- WATER LEVEL
- VISIBLE BED (TOP OF SILT)
- HARD BED (DETERMINED BY PROBING)

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. ORDNANCE SURVEY MATERIAL REPRODUCED WITH THE PERMISSION OF THE CONTROLLER OF H.M.S.O. COPYRIGHT LICENCE NO. 100026380.
3. THIS DRAWING PLOTS TO SCALE ON A0 SIZE PAPER

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FM	FIRE HYDRANT MARKER	RB	ROOT BARK
B	BOLLARD	FL	FLOOR LEVEL	RE	RIDGING END
BD	BOUNDARY DEACON	FP	FIELD PROBE	RF	RIDGING FIRE
BV	BOUNDARY	FWM	FOUL WATER MANHOLE	RW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BM	BENCH MARK	GL	GROUND LEVEL	S	SIGN POST
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GM	GAS MARKER	SK	SOAKAWAY
BSM	BASE STATION	GV	GAS VALVE	SL	SLEEPER WALL
BW	BRICK WALL	HW	HUCK WALL	SMH	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
CB	CATCH BASIN/GULLY	IL	INVERT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STN	STATION
CL	COVER LEVEL	MF	MESHWORK FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	MH	MANHOLE COVER	TBM	TEMPORARY BENCH MARK
CONC	CONCRETE	KG	KERB INLET GULLY	TMP	THICKY MAN FENCE
CP	CONCRETE POST	LB	LEFT BANK	TOM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LP	LAMP POST	TP	TELEGRAPH POLE/POST
CR	CYCLE RACK	LV	LAMP VOLT	TC	TELECOM CABINET
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
DA	DOG ANTI	MF	MESHWORK/PALISADE FENCING	TR	TRAFFIC LIGHT
DK	DROP KERB	MK	MARKER	TS	TRAFFIC LIGHT SIG
DL	DOOR LEVEL	MKP	MARKER POST	TSP	TRAFFIC LIGHT SIG
DP	DOWN PIPE	MP	MOORING PILE	TW	TIMBER WALL
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TSI	TIMBER RUBBING STRIP
DR	DOOR	NB	NATIVE BRICK	TW	TIMBER WALL
DWB	DOG WASTE BIN	NG	NOTICE BOARD	TSR	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	OA	ORDNANCE SURVEY AUTHORITY	VP	VENT PIPE
EB	ELECTRICITY BOX	OG	OVERHEAD CABLE	WB	WATER BOX
ECF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EGF	ELECTRIC GATE POST	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMF	ELECTRICITY MAST	P	PIER	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ET	ELECTRIC TOWER	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
EL	ELECTRICITY TRANSMISSION LINE	PO	POST	WS	WATER SHUTOFF
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FOR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to the survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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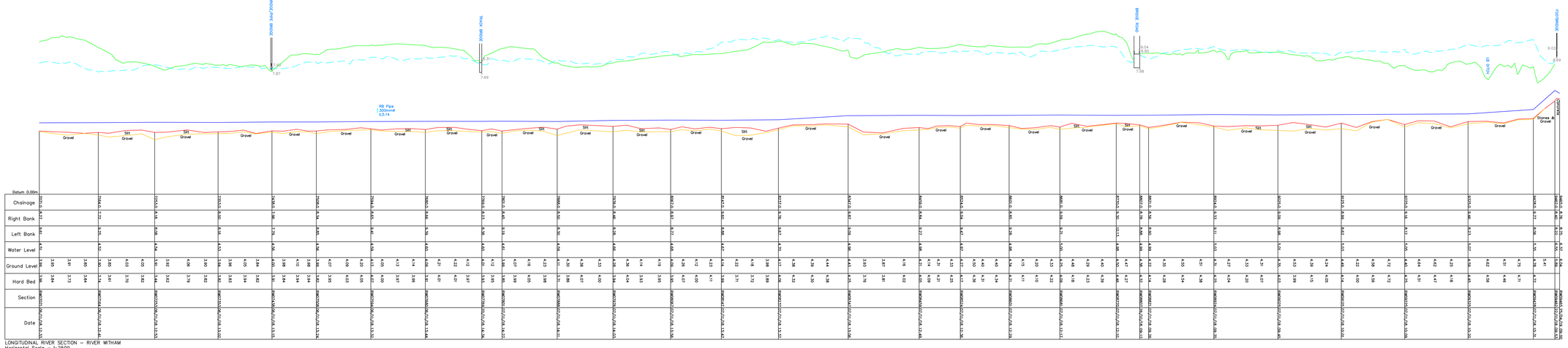
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Location Plan &
Long Profile

SURVEYED BY: Malcolm Hughes		Ref: 52584
SURVEY DATE: November 2018		
SCALE: 1:2500H, 1:100V	DRN: K.D.L	CHKD: T.P
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. L–J01434–03	REV. –
CAD FILENAME: L–J01434.dwg		



LONGITUDINAL RIVER SECTION – RIVER WITHAM
Horizontal Scale – 1:2500
Vertical Scale – 1:100

KEY TO LONGITUDINAL SECTION:

- LEFT BANK CREST
- RIGHT BANK CREST
  (VIEWED LOOKING DOWNSTREAM. POINTS INDICATED BY 'C' ON CROSS SECTIONS.)
- WATER LEVEL
- VISIBLE BED (TOP OF SILT)
- HARD BED (DETERMINED BY PROBING)

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. ORDNANCE SURVEY MATERIAL REPRODUCED WITH THE PERMISSION OF THE CONTROLLER OF H.M.S.O. COPYRIGHT LICENCE NO. 100026380.
3. THIS DRAWING PLOTS TO SCALE ON A0 SIZE PAPER

SURVEY LEGEND

AB	AIR BRICK	PM	POST & WIRE FENCE	PWF	POST & WIRE FENCE
AV	AIR VALVE	PM	FIRE HYDRANT MARKER POST	RB	ROOT BARK
B	BOLLARD	FL	FLOOR LEVEL	RE	RIDGING EVE
BE	BUS STOP/SHELTER	FO	FIBRE OPTIC	RG	RIDGING GABLE
BY	BOUNDARY	FWM	FOUL WATER MANHOLE	RW	RETAINING WALL
BH	BOREHOLE	G	GULLY	SMP	RAINWATER PIPE
BM	BENCH MARK	GL	GROUND LEVEL	SP	SIGN POST
BRK	BRICKWORK	GP	GATE POST	SPP	STAND PIPE
BS	BUS STOP	GM	GAS MARKER	SV	SOAKAWAY
BT	BOUNDARY MARK	GV	GAS VALVE	SW	SURFACE WATER
BW	BRICK WALL	HW	HIGH WALL	SWM	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SWP	SHEET METAL PILING
C	CONCRETE BOLLARD	K	KERBSTONE	TB	TELEBOX
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	TN	TUNNEL
CL	COVER LEVEL	MF	MESHMESH FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	MH	MANHOLE COVER	TP	TELEGRAPH POLE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LB	LEFT BANK	TEMP	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LT	LIGHT POLE	TRP	TRAFFIC LIGHT PEDESTRIAN POST
CR	STILE TOP	LP	LAMP POST	TC	TELECOM CABINET
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
D	DRAIN	MF	MESH/PALISADE FENCING	TP	TELEGRAPH POLE
DK	DROP KERB	MK	MARKER	TL	TRAFFIC LIGHT
DL	DOOR LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	METAL PALISADE FENCE	TLP	TRAFFIC LIGHT POST
DPC	DAMP PROOF COURSE	MPF	METAL RAILING	TSU	TIMBER RUBBING STRIP
DR	DOOR	MR	MOORING RING	TW	TIMBER WALL
DWB	DOG WASTE BIN	NB	NOTICE BOARD	TSW	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	NRA	NATIONAL RIVERS AUTHORITY	V	VENT PIPE
EL	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BOX
ELF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EM	ELECTRICITY MANHOLE	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMF	ELECTRICITY GARGLE FT	P	POST	WMF	WIRE MESH FENCE
ET	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ETP	ELECTRIC TRAP	PM	PREPAYMENT METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WR	WATER INLET
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FIR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to the survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216369	7.583
E20512429	Destroyed	
E60512814	SK91842277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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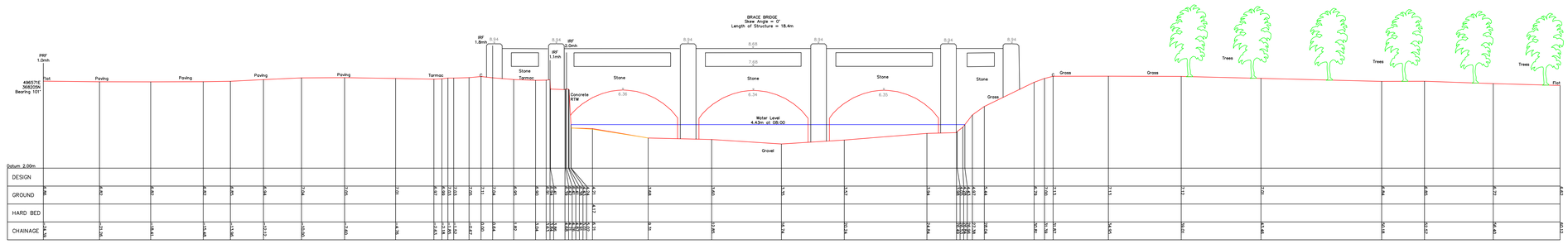
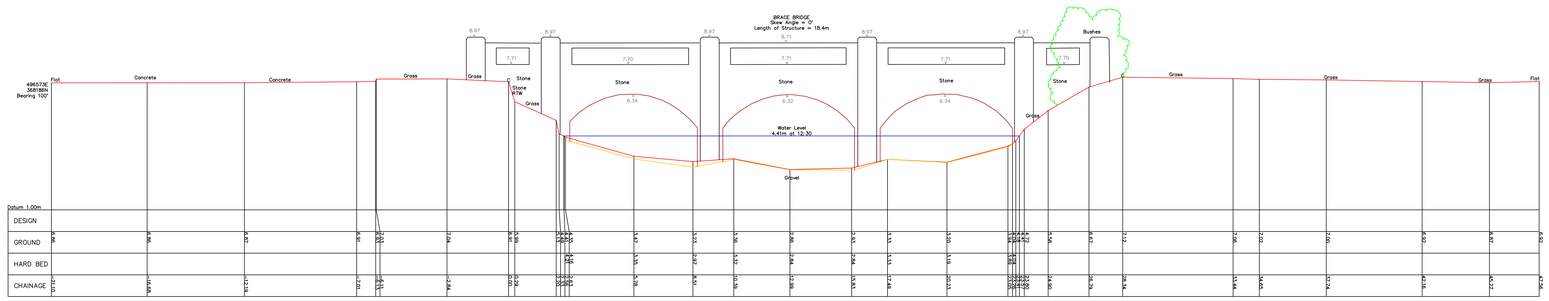
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Location Plan &
Long Profile

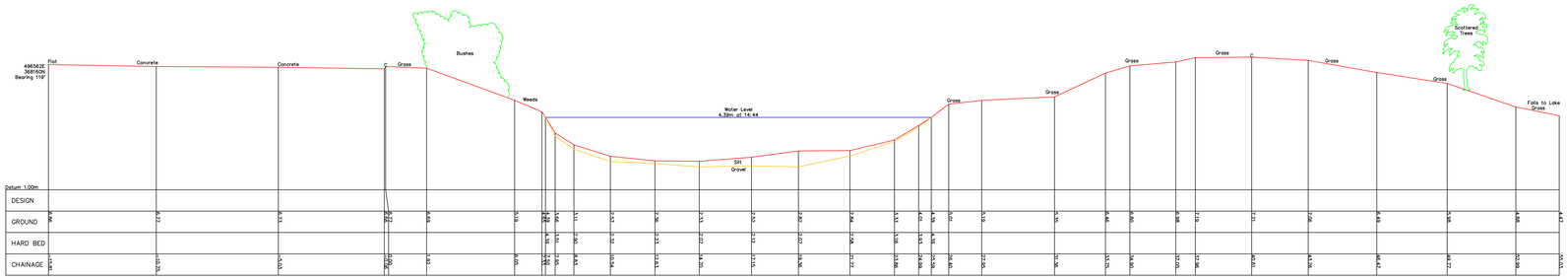
SURVEYED BY: Malcolm Hughes		Ref: 5258A	
SURVEY DATE: November 2018			
SCALE: 1:2500H, 1:100V	DRN: K.D.L	CHKD: T.P	
DATUM: ODN	DATE: DEC 18	DATE: DEC 18	
GRID: National	DRAWING NO.		REV.
CAD FILENAME: L-J01434.dwg	L-J01434-04		–



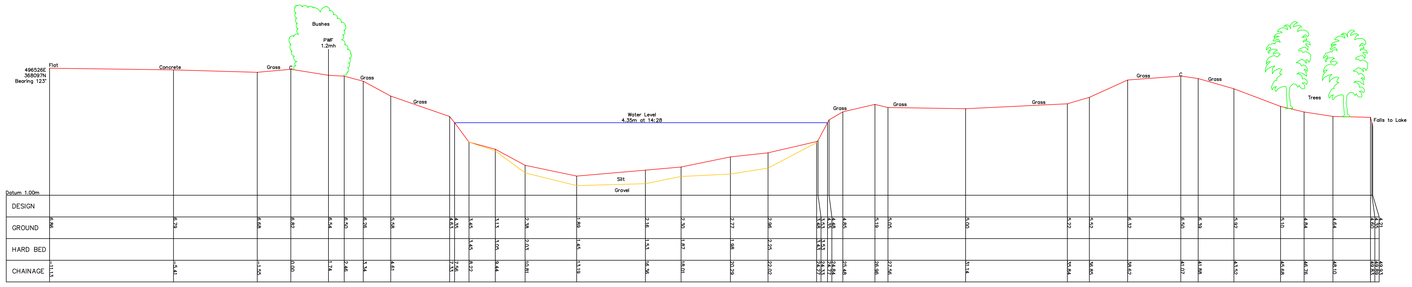
SECTION – RW-00018
CHAINAGE – 101
Date of Survey – 25/04/19



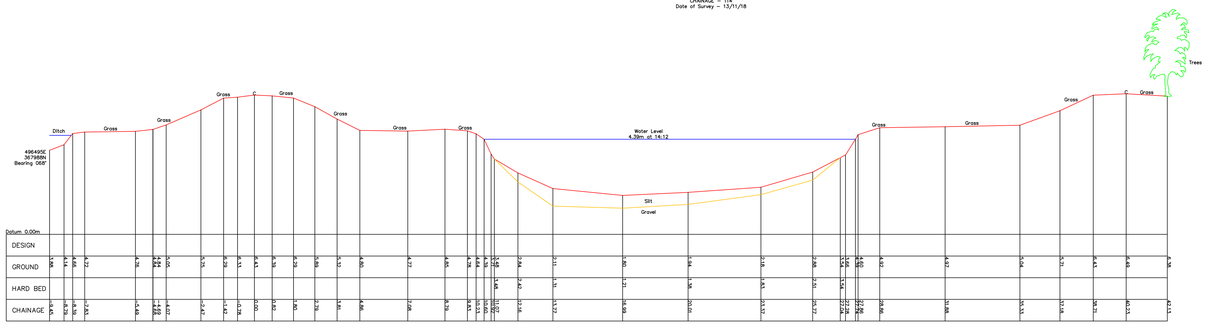
SECTION – RW00000
CHAINAGE – 0
Date of Survey – 14/11/18



SECTION – RW00039
CHAINAGE – 39
Date of Survey – 13/11/18

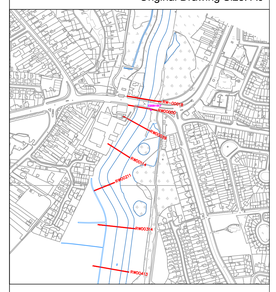


SECTION – RW00114
CHAINAGE – 114
Date of Survey – 13/11/18



SECTION – RW00211
CHAINAGE – 211
Date of Survey – 13/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BF	BOREHOLE	FP	FENCE POST	RD	ROAD SIGN
BR	BOLLARD BEACON	FR	FENCE ROLL	RS	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BM	BENCH MARK	G	GULLY	SA	SOAKAWAY PITS
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SGP	STAND PIPE
BS	BUS STOP	GR	GRATED GULLY	SL	SLOPE LEVEL
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURFACE WATER MANHOLE
CBF	CLOSE BOARDED FENCE	IC	INSPECTION CHAMBER	SP	SOIL VENT PIPE/ PLUMB
CBP	CLOSE BOARDED FENCE	L	MARKER LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	MF	IRON RAILING FENCE	STA	STATION
CH	CHAINAGE	MH	MANHOLE/CHAMBER	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CP	CONCRETE POST	JC	JUNCTION CHAMBER	TF	TIMBER PLANK FENCE
CP	CONCRETE POST	LB	LEFT BANK	TBM	TEMPORARY BENCH MARK
CPF	CONCRETE PALING FENCE	LP	LAMP POST	TCL/TCP	TELEPHONE CABLE/ POLE/POST
CR	CREST	LV	LEVER VALVE	TK	TELEPHONE KIOSK
CTV	CABLE T.V. MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
CL	CLOSE	MF	MESH/PALISADE FENCING	TL	TRAFFIC LIGHT
DS	DROP KERB	MH	MANHOLE	TL	TRAFFIC LEVEL
DL	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DRAIN PIPE	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MPF	METAL PALING FENCE	TRS	TIMBER RUBBING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DW	DOG WASTE BIN	NG	NATURAL GROUND	TW	TIMBER TRAFFIC RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	VP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY BOX FENCE	OP	OPEN PIPE RAILINGS	WL	WATER LEVEL/WATER LINE
EUF	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
E	EARTHING BOLT	PB	PARKING METER	WP	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIBRE BOX	POF	POST & RAIL FENCE	WW	WIRE FENCE
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to GA survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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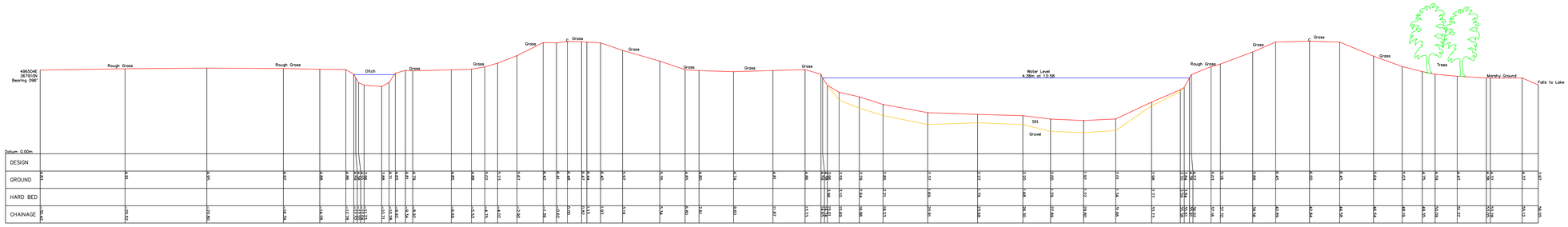
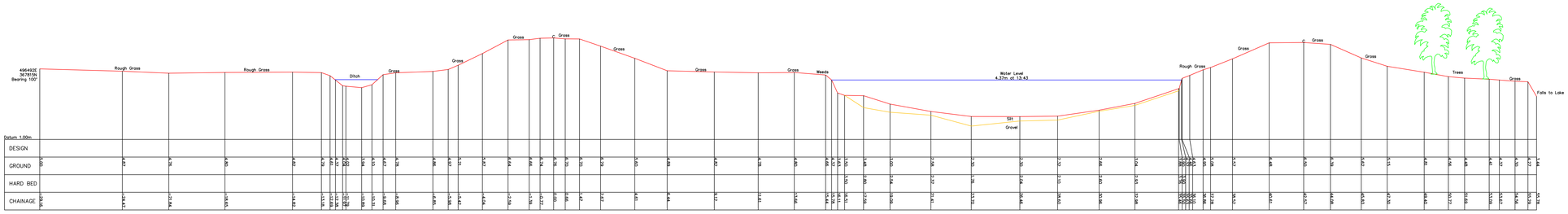
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW-00018 to RW00211

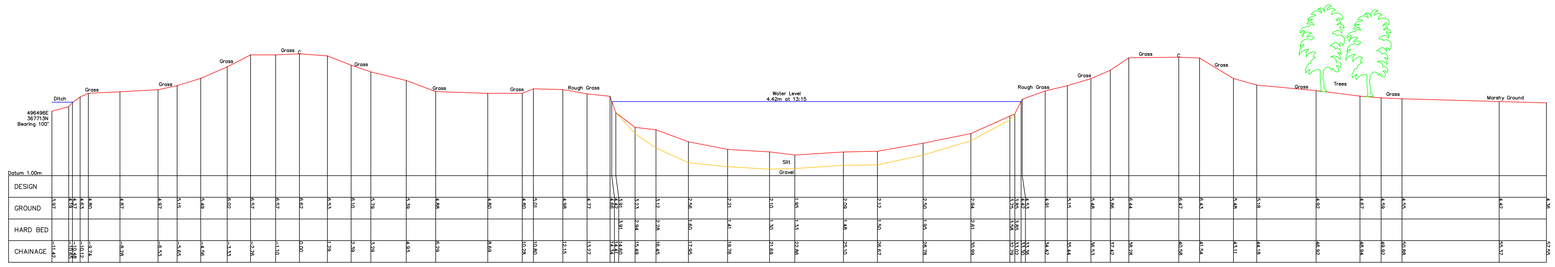
SURVEYED BY: Malcolm Hughes		Ref: 5258/
SURVEY DATE: November 2018		
SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. X-J01434-01	REV. –
CAD FILENAME: X-J01434.dwg		



SECTION – RW00314
CHAINAGE = 314
Date of Survey – 13/11/18



SECTION – RW00413
CHAINAGE = 413
Date of Survey – 13/11/18



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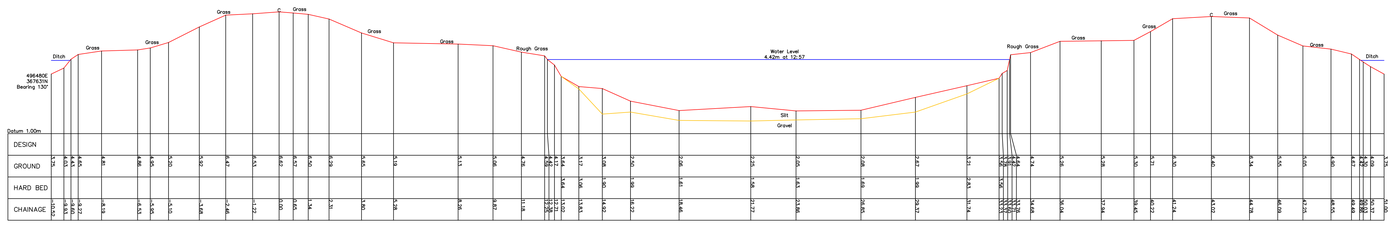
Date of Survey – 13/11/18



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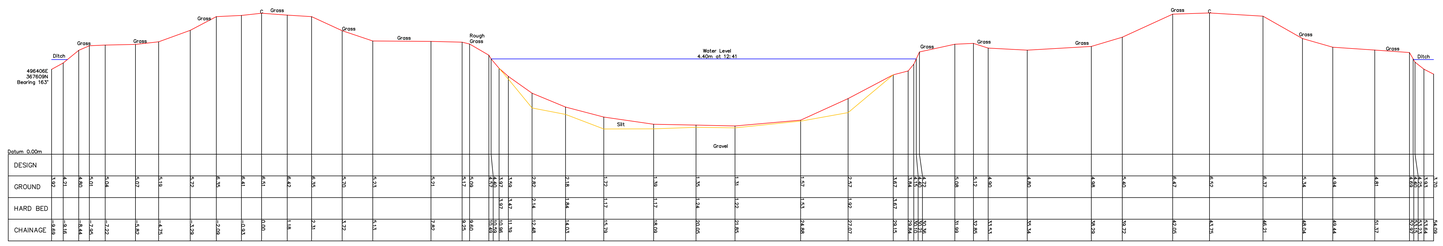
Date of Survey – 13/11/18



SECTION – RW00713
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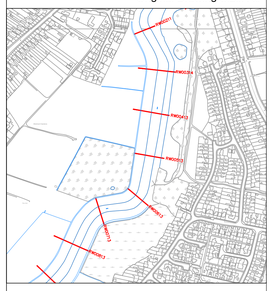
Date of Survey – 13/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BF	BOREHOLE	FP	FENCE POST	RD	ROAD SIGN
BB	BOLLARD BEACON	FS	FLOOD STATS	RS	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BORE HOLE	G	GULLY	RWP	RAINWATER PIPE
BL	BLD LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GR	GRATED GULLY	SF	SOFFIT LEVEL
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURFACE WATER MANHOLE
CAP	CAPPED WATER	I	INVERT LEVEL CHAMBER	SP	SIGN POST & PLANC
CBF	CLOSE BOARDED FENCE	L	MARKT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	MF	IRON RAILING FENCE	STN	STATION
CH	CHAINAGE	MH	MANHOLE COVER	SV	SCOUR VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	TSP	TOIL VENT PIPE
CONC	CONCRETE	KG	KERB INLET GULLY	TWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LP	LAMP POST	TWM	TELEPHONE WARNING MARK
CPF	CHESTNUT PALING FENCE	LTB	LETTERBOX	TSLPW	TELEPHONE CALL MAN/POST
CR	CALLS TIME	LP	LAMP POST	TC	TELECOM CABINET
CS	CABLE SERV. MANHOLE	MB	MAGNETIC BOLLARD	TBC	TRIANGULATION BOLT
CUL	CULVERT	MF	MISCELLANEOUS FENCING	TSL	THRESHOLD LEVEL
DB	DOWN BOLLARD	MH	MANHOLE	TP	TELEGRAPH POLE
DI	DECK LEVEL	MKS	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MAGNETIC PILE	TR	TRAFFIC RAILING
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TSR	TRUNCATED RUBBERS STRIP
DRN	DRAIN	MS	MILE STONE	TS	TREE STUMP
DRP	DOWN PIPE BRK	NB	NEW BENCH MARK	TW	TIMBER WATTEL RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
ED	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BRK
EF	ELECTRICITY PALING FENCE	OHL	OVERHEAD LINE	WC	WATER CONTROL/WATER LINE
ELF	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILING	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POST	PB	PUSH BOX	WP	WOODEN POST
EX	EXISTING BOX	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIBRE BOX	PPF	PALING FENCE	WW	WOODEN WALL
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CS survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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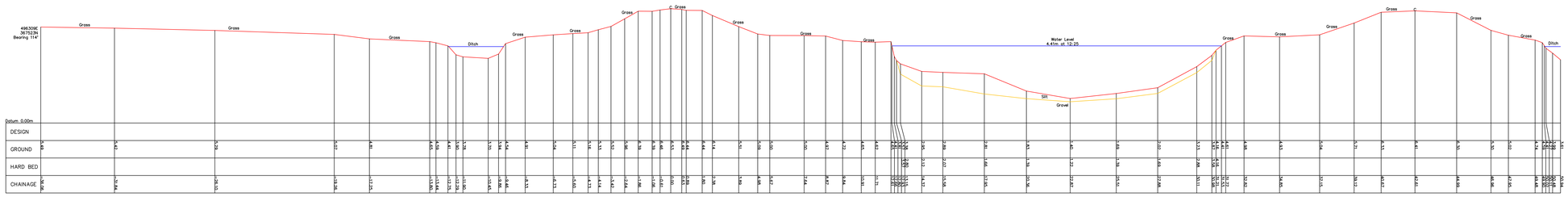
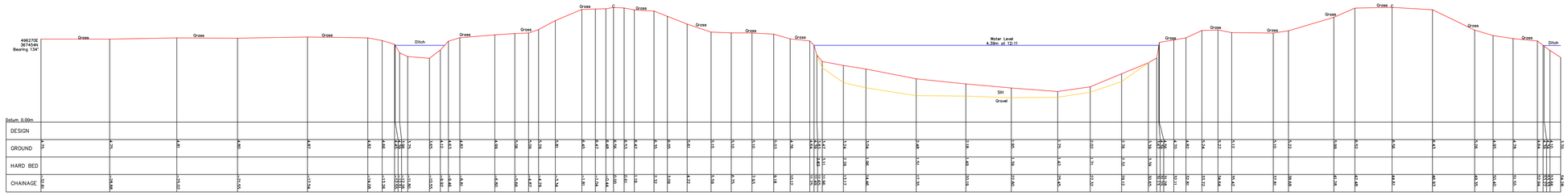
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW00314 to RW00713

SURVEYED BY: Malcolm Hughes — Ref. 5258M
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X-J01434-02 — REV. –
CAD FILENAME: F-01434.dwg



SECTION – RW00813
CHAINAGE = 813
Date of Survey – 13/11/18



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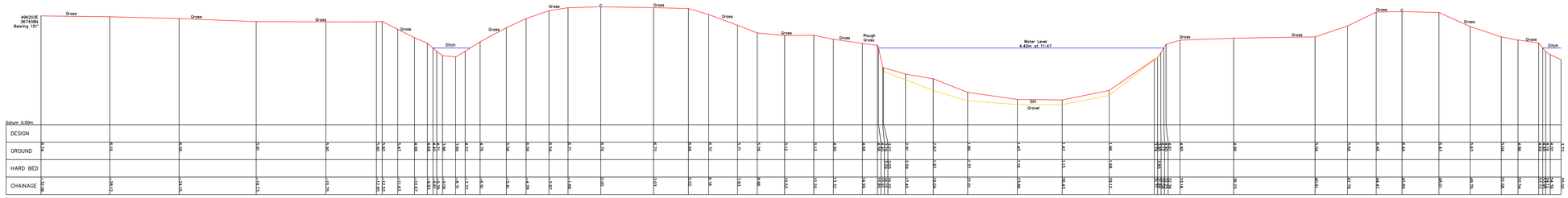
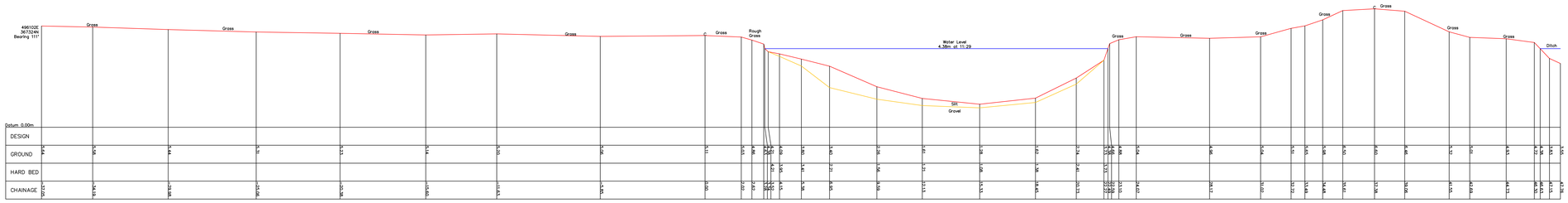
CHAINAGE = 912
Date of Survey – 13/11/18



SECTION – RW01010
CHAINAGE = 1010
Date of Survey – 13/11/18



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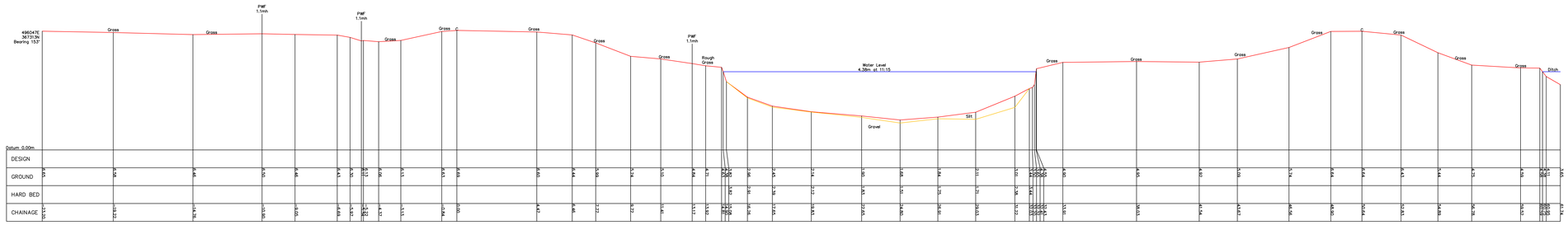
Date of Survey – 13/11/18



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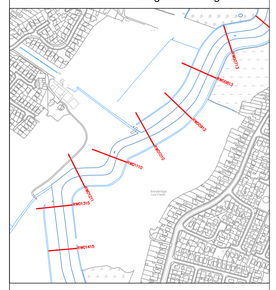
CHAINAGE = 1211
Date of Survey – 13/11/18

Original Drawing Size: A0



NOTES:
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3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHW	FIRE HYDRANT MARKER	RB	RIGHT BANK
BF	BORE HOLE	FP	FENCE POST	RD	ROAD SIGN
BR	BULLRIN BEACON	FS	FENCE POST	RS	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GATE	RW	RAINWATER PIPE
BL	BOLL LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GV	GAS VALVE	SF	SOFFIT LEVEL
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURFACE WATER MANHOLE
CBF	CLOSE BOARDED FENCE	I	INVERT LEVEL	SP	SIGN POST/PLANE
CBP	CLOSE BOARDED FENCE	IL	INVERT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	MF	MESH FENCING FENCE	STA	STAGE
CH	CHAINAGE	MH	MANHOLE COVER	SV	SCOUR VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CP	CONCRETE POST	JC	JUNCTION CHAMBER	TBM	TEMPORARY BENCH MARK
CP	CONCRETE POST	LB	LEFT BANK	TBM	TEMPORARY BENCH MARK
CPF	CONCRETE PALING FENCE	LP	LAMP POST	TCLP	TELEPHONE CABLE PILLPOST
CV	CATCH VALVE	LV	LEAF VALVE	TP	TELEPHONE POLE
CTV	CABLE T.V. MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
CL	CLOSE	MF	MESH FENCING FENCING	TP	TELEPHONE POLE
DS	DROP STONE	MI	MANHOLE	TL	TRAFFIC LEVEL
DL	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MOORING PILE	TP	TIMBER PILE/POST
DPC	DAMP PROOF COURSE	MPF	METAL PALING FENCE	TRS	TIMBER RUBBING STRIP
DR	DOOR	MS	MILE STONE	TS	TREE STUMP
DB	DOG WASTE BIN	NB	NOTICE BOARD	TW	TIMBER WALL RAILINGS
DA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY CABLE FENCE	OHL	OVERHEAD LINE	WL	WATER LEVEL/WATER LINE
EP	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
ER	ELECTRIC RISER	PB	PARKING BOX	WP	WOOD POST
E	EARTHING POST	PM	PARKING METER	WPF	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIBRE BOX	PPF	POST & RAIL FENCE	WW	WATER WELL
FMB	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to GA survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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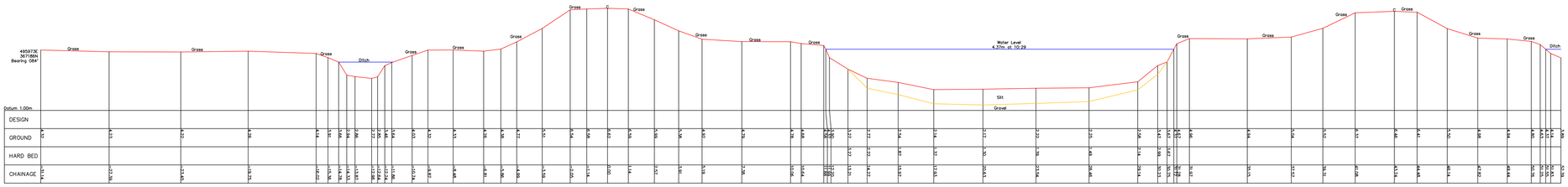
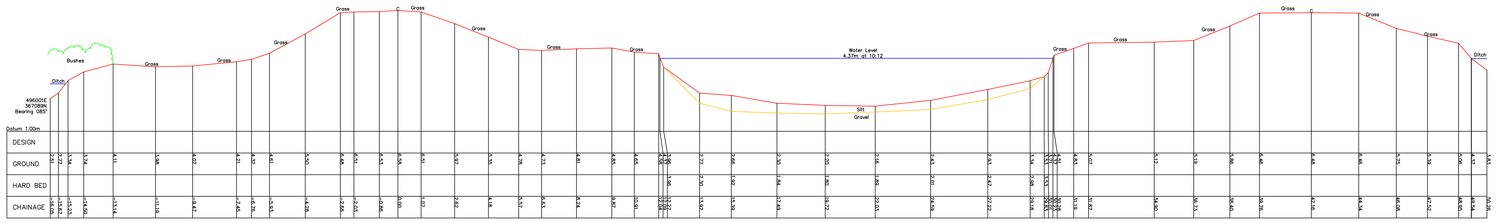
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW00813 to RW01211

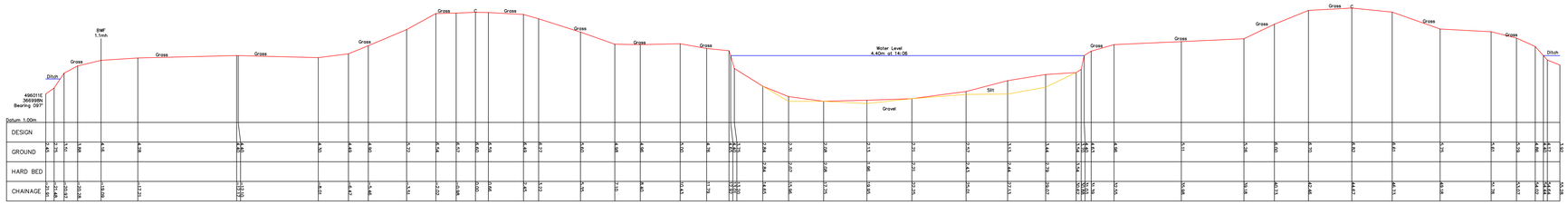
SURVEYED BY: Malcolm Hughes — Ref 5258f
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X–J01434–03 — REV. –
CAD FILENAME: X–J01434.dwg



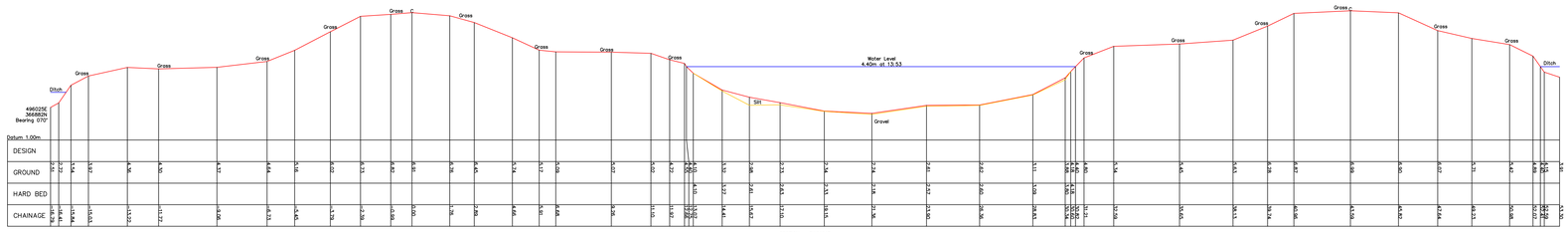
SECTION – RW01315
CHAINAGE – 1315
Date of Survey – 13/11/18



SECTION – RW01415
CHAINAGE – 1415
Date of Survey – 13/11/18



SECTION – RW01516
CHAINAGE – 1516
Date of Survey – 08/11/18



SECTION – RW01617
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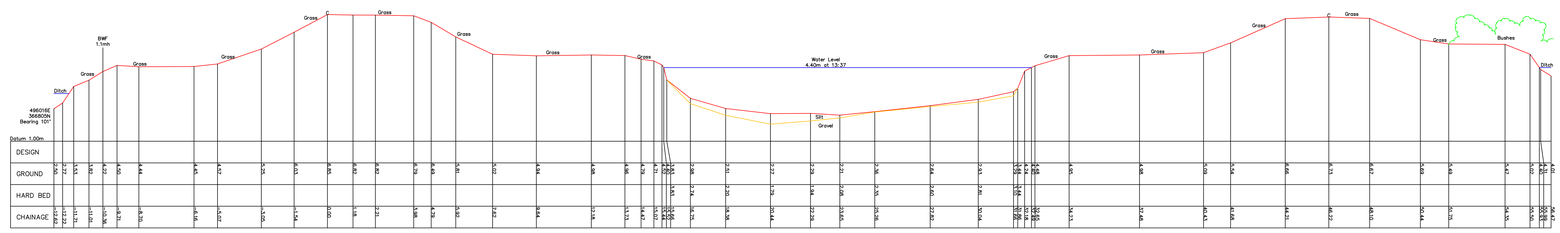
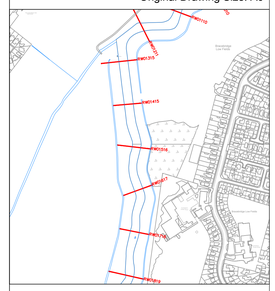
Date of Survey – 08/11/18



SECTION – RW01716
CHAINAGE – 1716
Date of Survey – 08/11/18

Original Drawing Size: A0



NOTES:
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3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	PH	PHONE	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RE	RIGHT EAVE
B	BOLLARD	FL	FLOOR LEVEL	RG	RODDING EYE
BC	BOUNDARY BEACON	FP	FIRE PLUG/POST	RL	RAIL LEVEL
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BL	BIN LEVEL	GL	GROUND LEVEL	S	STAND PIPE
BRK	BRICKWORK	GP	GATE POST	SP	STAND PIPE
BS	BUS STOP	GM	GAS MARKER	SK	SOAKWAY
BSP	BUS SHELTER	GV	GAS VALVE	SL	SLEEPER WALL
BW	BRICK WALL	HW	HIGH WALL	SMH	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
CF	CHAIN LINK FENCE	IL	INVERT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STN	STATION
CL	COVER LEVEL	WF	WATERMEN FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	KG	KERB GULLY	TBM	TEMPORARY BENCH MARK
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LB	LETTER BOX	TBM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LC	LIGHT CABLE	TCP	TELEPHONE CABLE PILLAR/POST
CV	CYCLE RACK	LP	LAMP POST	TL	TELEPHONE CABINET
DM	DRAIN MANHOLE	LS	LIGHTS ON STANDARD	TP	TELEGRAPH POLE
DTA	DUCTWORK	MF	MISCELLANEOUS FENCING	TRL	TRACTOR LEVEL
DV	DELIVERY	MT	MOTOR TRAP	TS	TRAFFIC SIGNAL
EN	EAVE HEIGHT	MW	MANHOLE	TW	TRAFFIC LIGHT BOX
EP	ELECTRIC POST	MP	MOORING PILE	TY	TELEGRAPH POLE
DP	DUMPIER	MPF	MOORING PILE FENCE	VP	VEHICLE PARKING STRIP
DPC	DAMP PROOF COURSE	MS	MILE STONE	TS	TREE STUMP
DR	DRAIN	NB	NOTICE BOARD	TSB	TUBULAR STEEL RAILINGS
DNB	DOG WASTE BIN	NG	NATURAL GAS AUTHORITY	TW	TRAFFIC WARDEN
E	ELECTRICITY AGENCY	OHC	OVERHEAD CABLE	WB	WASTE BIN
ES	ELECTRICITY BOX	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
ECF	ELECTRIC CABLE FENCE	OSR	OFFICE STEEL RAILINGS	WM	WATER METER
EM	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ET	ELECTRIC TRAP	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FLOWER BED	PWF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FIBERGLASS	PPM	PARKING TICKET MACHINE		(Nomenclature apply to the survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91845277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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PROJECT/WATERCOURSE

WITHAM CHANNEL SURVEY

SITE/LIMITS

SK96616819 to SK91286252
Cross Sections
RW01315 to RW01716

SURVEYED BY: Malcolm Hughes — Ref: 52584

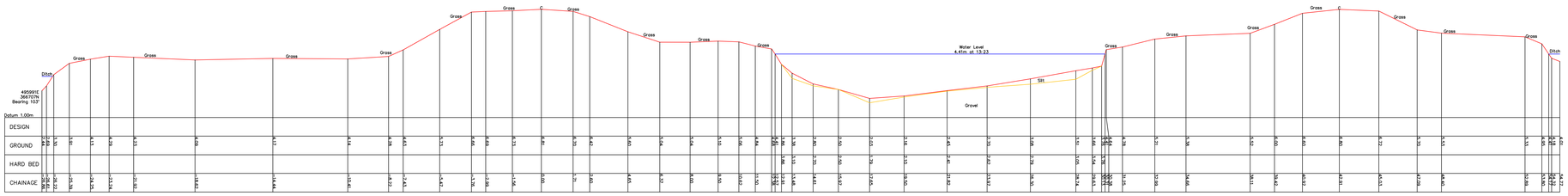
SURVEY DATE: November 2018

SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.

DATUM: ODN — DATE: DEC 18 — DATE: DEC 18

GRID: National — DRAWING NO. X-J01434-04 — REV. –

CAD FILENAME: X-J01434.dwg



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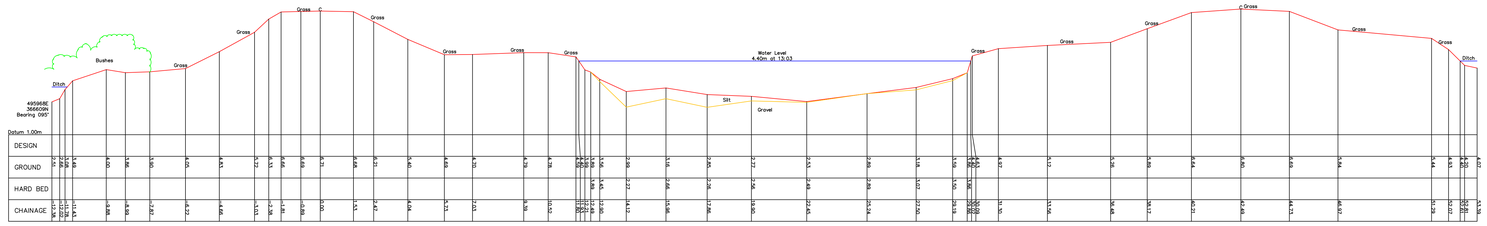
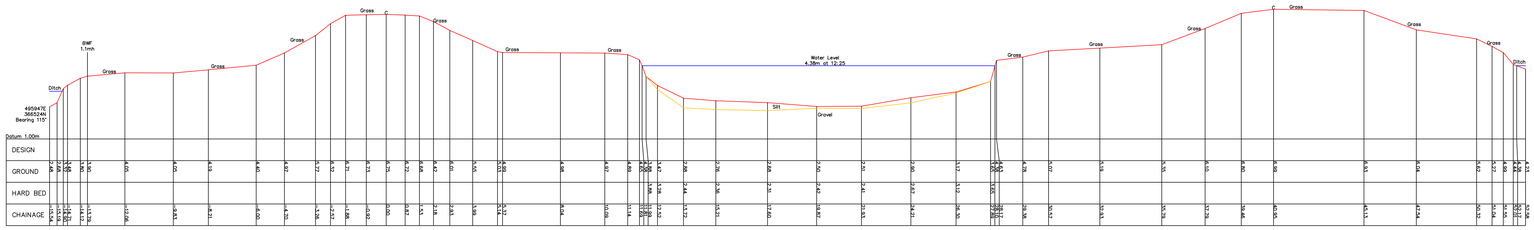
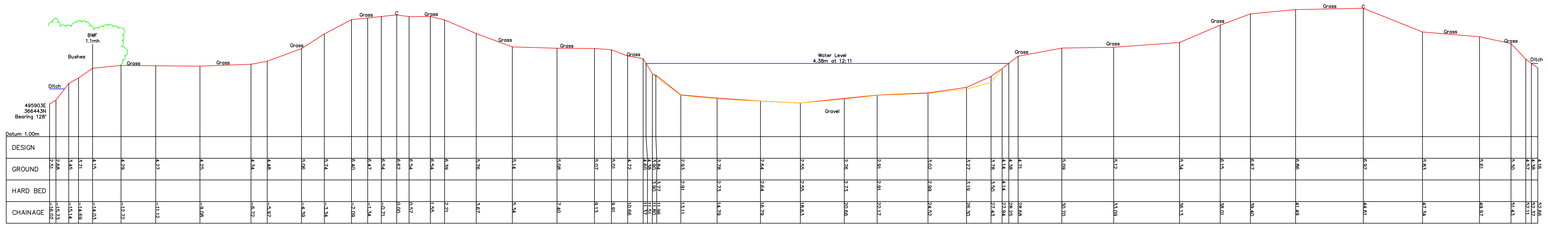
CHAINAGE – 1819
Date of Survey – 08/11/18



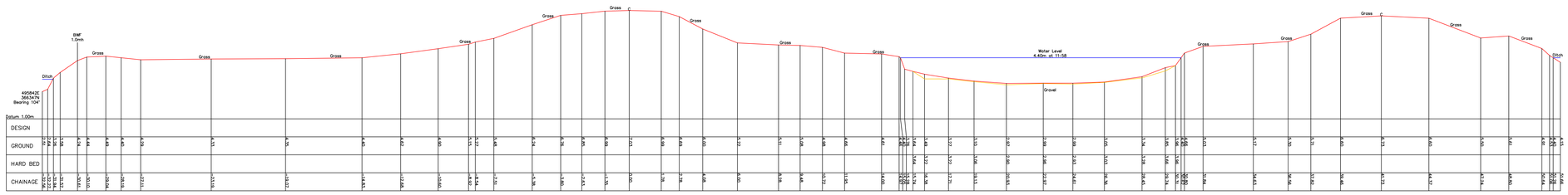
SECTION – RW01918
CHAINAGE – 1918
Date of Survey – 08/11/18



SECTION – RW02019
CHAINAGE – 2019
Date of Survey – 08/11/18

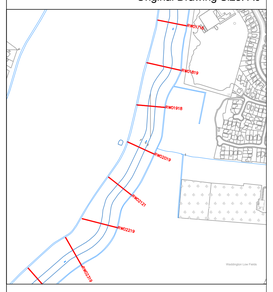


SECTION – RW02121
CHAINAGE – 2121
Date of Survey – 08/11/18



SECTION – RW02219
CHAINAGE – 2219
Date of Survey – 08/11/18

Original Drawing Size: A0



NOTES:
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2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER "OVER").
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	PO	POST 2mm
B	BOLLARD	FL	FLOOR LEVEL	RE	RODDING EYE
BE	BT BOX/PILLAR BEACON	FP	FIELD POND	RM	RAIL MARKER
BDY	BOUGHDRY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BM	BENCHMARK	GL	GROUND LEVEL	SA	STAND ALONE
BMK	BRICKWORK	GP	GATE POST	SP	STAND PIPE
BS	BUS STOP	GM	GAS MARKER	SK	SOAKAWAY
BSP	BUS SHELTER	GV	GAS VALVE	SLP	SLOPE/BANK
BW	BRICK WALL	HW	HIGH WALL	SMH	SURFACE WATER MANHOLE
BWP	BARBED WIRE FENCE	I	INSPECTION CHAMBER	SMP	SHEET METAL PILING
CF	CORRUGATED IRON FENCE	K	KERBSTONE	SP	SIGN POST
CP	CONSULARTED IRON FENCE	KW	IRON RAILING FENCE	STN	STATION
CL	CENTRE LINE	LP	LAMP POST	SV	STOP VALVE
CLY	CHAIN LINK FENCE	JB	JUNCTION BOX	SWP	SOIL VENT PIPE
CMH	CONCRETE	LB	LETTER BOX/ GULLY	TBM	TEMPORARY BENCH MARK
COP	COPING	LG	LIGHT GULLY	TCP	TRAFFIC CONTROL MARK
CPF	CHESTNUT PALING FENCE	LTB	LITTERBIN	TOS/TOP	TELEPHONE CALL BOX/POST
CR	CATTLE RAMP	M	MANHOLE	TP	TELEGRAPH POLE
CTV	CABLE T.V. MANHOLE	MB	MOORING BOLLARD	TWM	TELEGRAPH MANHOLE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
DA	DRAIN AREA	MHF	MANHOLE	TK	TRACK/ROAD
DL	DECK LEVEL	MKP	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DAMPER	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MPF	MOORING PALING FENCE	TPS	TEMPORARY PAINING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DWB	DOG WASTE BIN	NB	NOTICE BOARD	TSR	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	NBA	NOTICE BOARD AGENCY	TW	TIMBER WALL
ES	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
ESF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EM	ELECTRICITY MANHOLE	PR	PALING & RAIL FENCE	WMF	WIRE MESH FENCE
EMK	ELECTRICITY MARKER	P	PILE	WMP	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WPF	WOODEN POST
ET	ELECTRIC TRANSFORMER	PC	PUBLIC CONVENIENCE	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PG	PAGE	WV	WATER VALVE
FB	FLOWER BED	PPF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CD survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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PROJECT/WATERCOURSE

WITHAM CHANNEL SURVEY

SITE/LIMITS

SK96616819 to SK91286252
Cross Sections
RW01819 to RW02219

SURVEYED BY: Malcolm Hughes — Ref: S2584

SURVEY DATE: November 2018

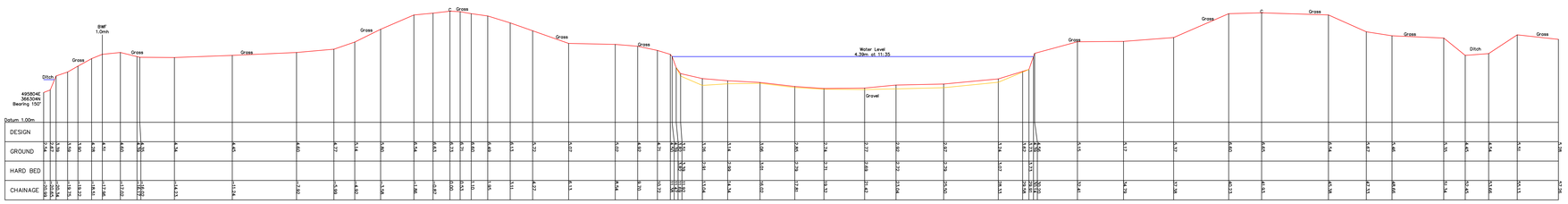
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.

DATUM: ODN — DATE: DEC 18 — DATE: DEC 18

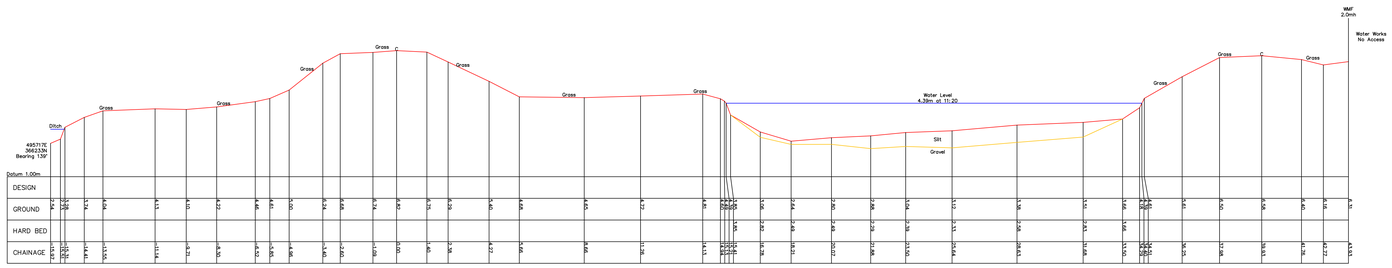
GRID: National — DRAWING NO. X-J01434-05 — REV. –

CAD FILENAME: X-J01434.dwg

Original Drawing Size: A0



SECTION – RW02319
CHAINAGE – 2319
Date of Survey – 08/11/18



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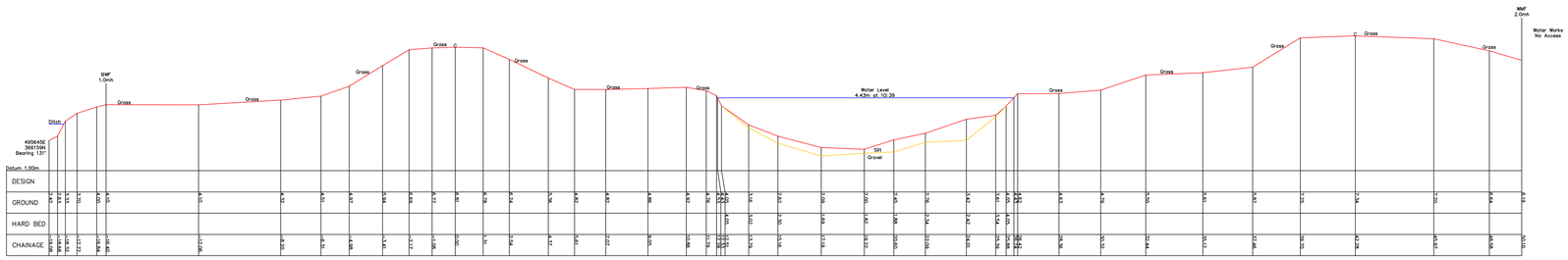
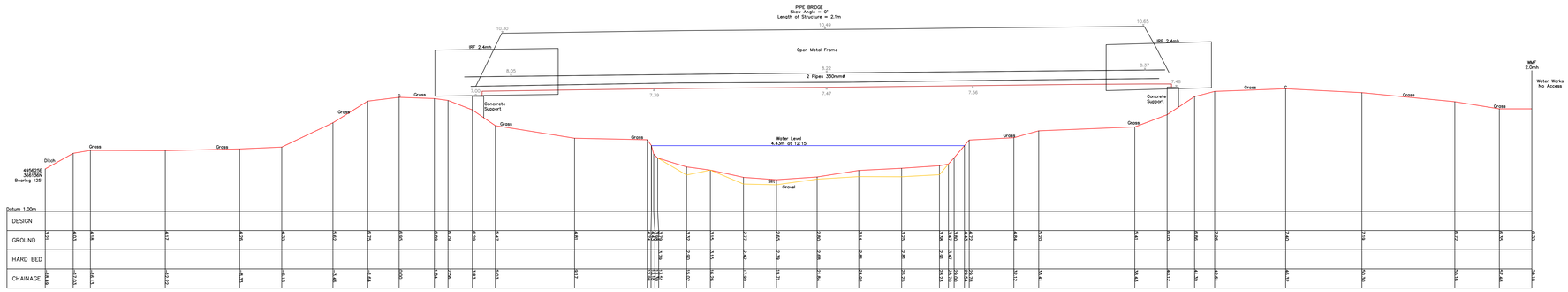
CHAINAGE – 2422
Date of Survey – 08/11/18



SECTION – RW02520
CHAINAGE – 2520
Date of Survey – 08/11/18



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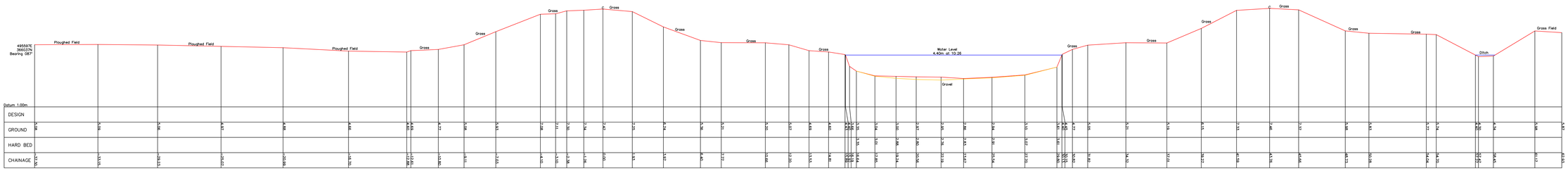
CHAINAGE – 2546
Date of Survey – 15/11/18



SECTION – RW02619
CHAINAGE – 2619
Date of Survey – 08/11/18

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RE	RIGHT EAVE
B	BOLLARD	FL	FLOOR LEVEL	RE	RIDGING EVE
BE	BUS STOP BEACON	FP	FIELD POND	RG	RIVER GAUGE
BGV	BOUGHOUT	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BL	BIN LOCATION	GL	GROUND LEVEL	S	STAND PIPE
BRK	BRICKWORK	GP	GATE POST	SCP	STAND CAPS
BS	BUS STOP	GM	GAS MARKER	SK	SOAKWAY
BT	BUS TIMETABLE	GV	GAS VALVE	SL	SLUICE GATE
BW	BRICK WALL	HW	HEAD WALL	SMH	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
C	CONCRETE SURFACE	IG	INDUSTRIAL GATE	SP	SIGN POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STN	STATION
CL	COVER LEVEL	WF	WATERMEN'S FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	KG	KERB GULLY	TBP	TELEGRAPH POLE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CPP	CONCRETE POST	LB	LETTER BOX	TEMP	TEMPORARY BENCH MARK
CRF	CORRUGATED IRON FENCE	LC	LIGHT CABLE	TGP	TELEGRAPH POLE/GUY/POST
CV	CYCLE RACK	LP	LAMP POST	TL	TELEGRAM CABINET
CW	CATTLE WATER MANHOLE	LS	LANDSCAPED AREA	TP	TRIAL PIT/TEST PIT
DIA	DIAMETER	MF	MISCELLANEOUS FENCING	TRL	TRAFFIC SIGNAL LEVEL
DL	DROP LEVEL	MH	MANHOLE	TS	TRAFFIC SIGNAL
DN	DROP KERB	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DUMPERS	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MPF	MOORING PILE FENCE	TRS	TREE SURGERY STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DWB	DOG WASTE BIN	NB	NOTICE BOARD	TSR	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	NGA	NATIONAL GRID AUTHORITY	TW	TRAFFIC WEIGHT
ES	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
ESF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EW	ELECTRICITY WARNING	OSR	ORNAMENTAL STEEL RAILINGS	WM	WATER METER
EM	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WPF	WOODEN POST
ET	ELECTRICITY TOWER	PM	PARKING METER	WPM	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Annotations apply to CS survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.563
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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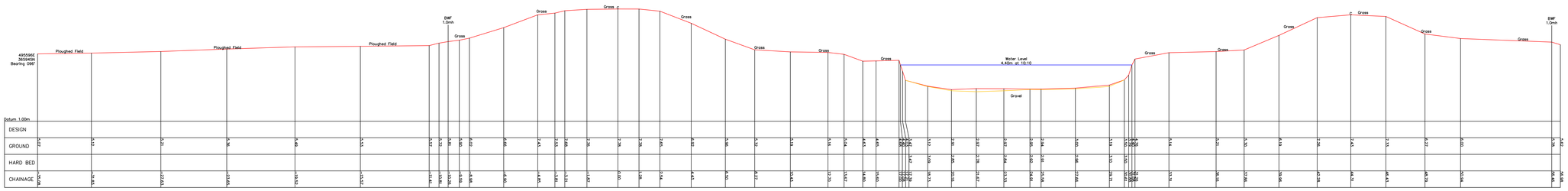
PROJECT/WATERCOURSE

WITHAM CHANNEL SURVEY

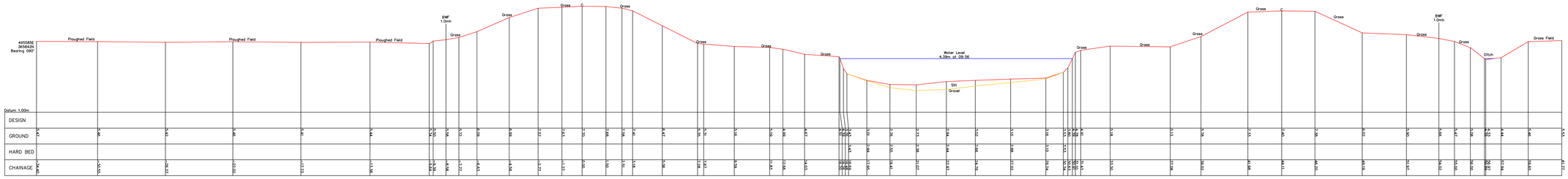
SITE/LIMITS

SK96616819 to SK91286252
Cross Sections
RW02319 to RW02619

SURVEYED BY: Malcolm Hughes		Ref: 52584
SURVEY DATE: November 2018		
SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. X–J01434–06	REV. –
CAD FILENAME: X–J01434.dwg		



SECTION – RW02720
CHAINAGE – 2720
Date of Survey – 08/11/18



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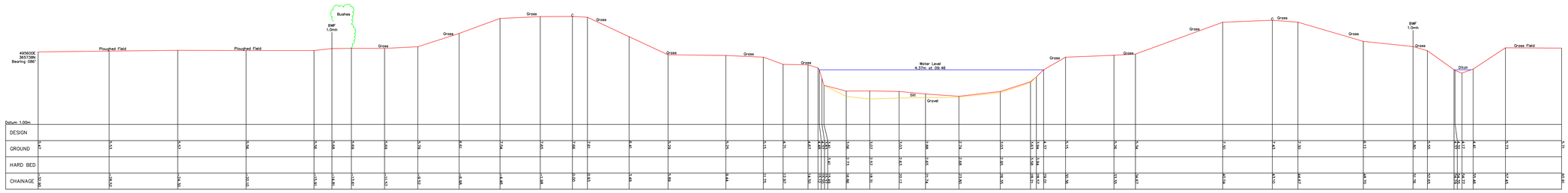
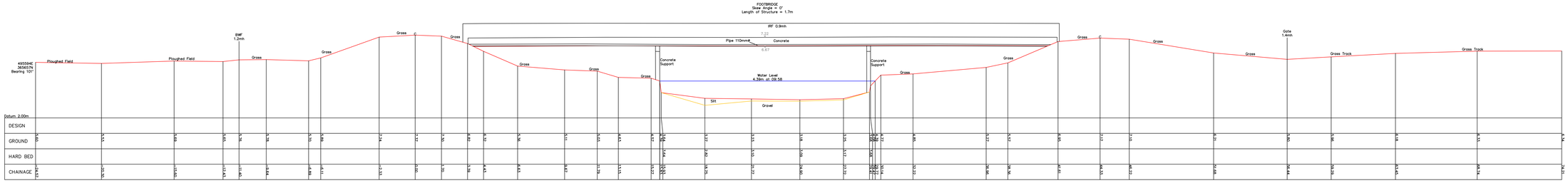
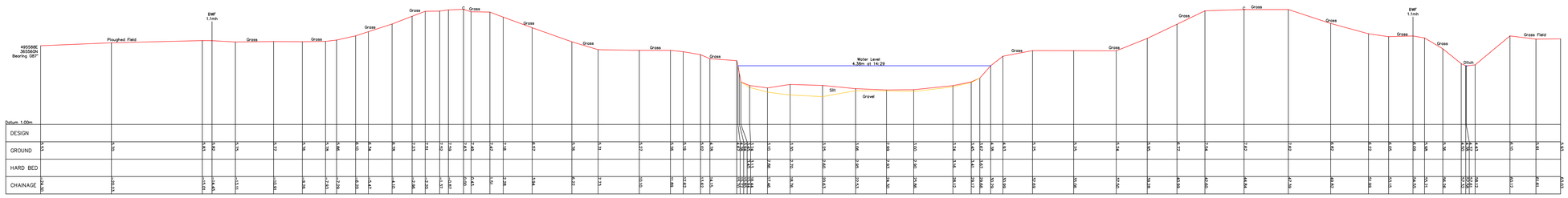
CHAINAGE – 2818
Date of Survey – 08/11/18



SECTION – RW02919
CHAINAGE – 2919
Date of Survey – 08/11/18

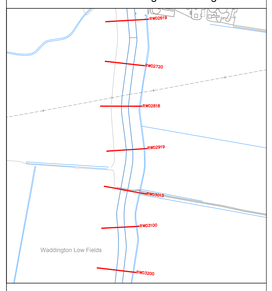


SECTION – RW03013
CHAINAGE – 3013
Date of Survey – 15/11/18



SECTION – RW03100
CHAINAGE – 3100
Date of Survey – 05/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BF	BOREHOLE	FP	FENCE POST	RC	RECTANGULAR CUL
BS	BELGIAN BEACON	FS	FENCE STOP	RG	ROAD SIGN
BSY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BT	BOUNDARY TRIP	G	GULLY	RWP	RAINWATER PIPE
BL	BUD LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BULLNECK	GS	GATE STOP	SCH	SCHOOL
BW	BUS WAITING	GV	GAS VALVE	SD	SOAKAWAY PIT
CM	CENTRE MARK	GW	GAS WATER	SL	SUPPLY LABEL
CP	CONCRETE POST	HT	HOLE TRIP	SMH	SURFACE WATER MANHOLE
DMP	DAMAGED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
DP	DOUBLE POWER FENCE	IP	INSPECTION PIT	SP	SOIL PIPE
DT	DOUBLE STAND-OFF FENCE	IR	IRON RAILING FENCE	SPK	SPRINKLER
CL	COVER LEVEL	INF	INTERMEDIATE FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	IV	INSPECTION VALVE	SWP	SHEET WIRE PIPE
CONC	CONCRETE	KG	KERB INLET (GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LB	LEFT BANK	TEM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LC	LAMP COLUMN	TELVOL	TELEPHONE VOLTAGE/POST
CV	CYCLE WALL	LP	LAMP POST	TS	TELECOM SIGNAL
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
DA	DRAIN ARM	MF	MESH & BARBED FENCING	TL	TRAFFIC LIGHT (LEVEL)
DK	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
D	DOOR LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOUBLE POST	MP	MOTOR PADLOCK PILE	TP	TRAFFIC LIGHT POST
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DOOR	MS	MILE STONE	TS	TREE STUMP
DW	DOG WASTE BIN	NG	NATURAL GAS	TW	TIMBER WHEEL RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VIEW POINT
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY BOLLARD FENCE	OHL	OVERHEAD LINE	WL	WATER LEVEL/WATER LINE
EIP	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POST	PB	PARKING BOX	WP	WOODEN POST
ES	EARTHING ROD	PM	PARKING METER	WPF	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PMP	PUMP	WV	WATER VALVE
FB	FIBRE BOX	PRF	POST & RAIL FENCE	WW	WOODEN WALL
	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CS survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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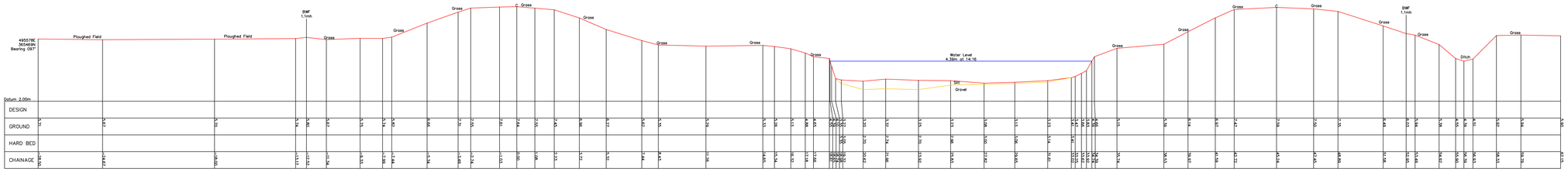
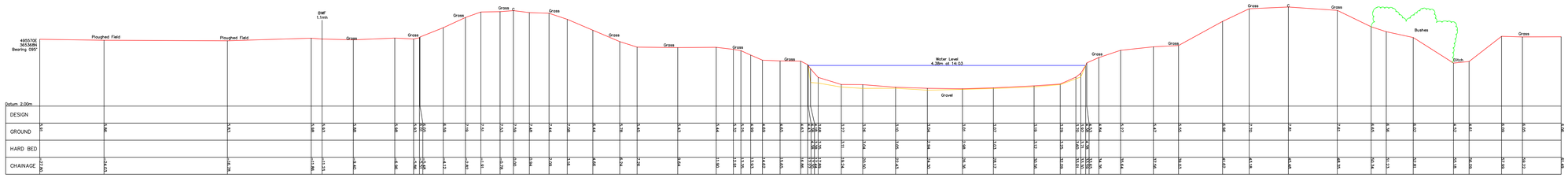
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW02720 to RW03100

SURVEYED BY: Malcolm Hughes — Ref 32584
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X-J01434-07 — REV. –
CAD FILENAME: X-J01434.dwg



SECTION – RW03200
CHAINAGE – 3200
Date of Survey – 05/11/18



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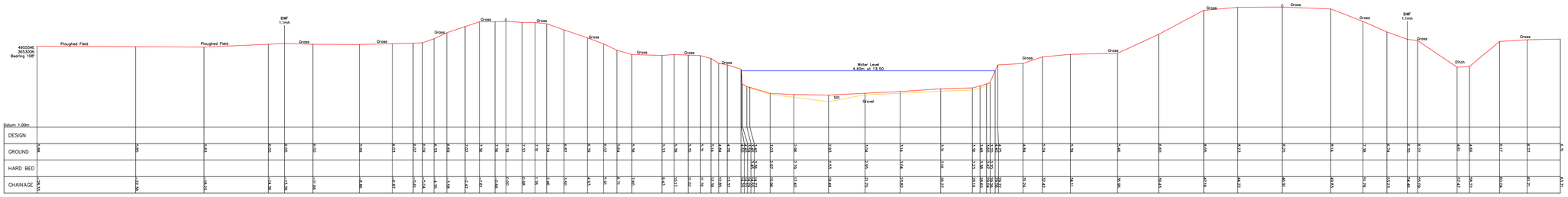
CHAINAGE – 3300
Date of Survey – 05/11/18



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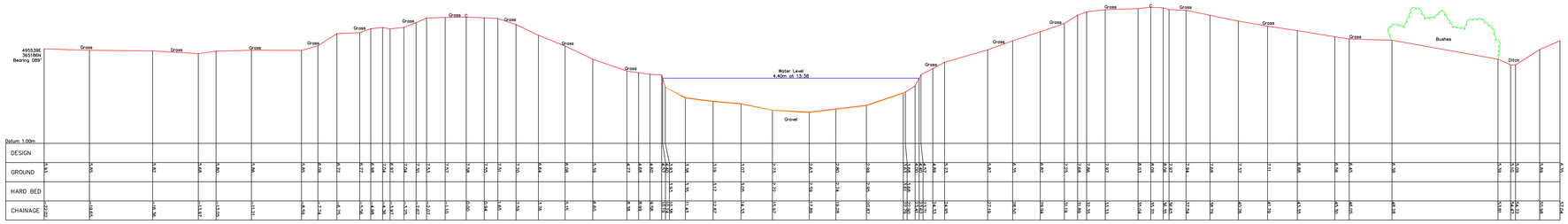
Date of Survey – 05/11/18



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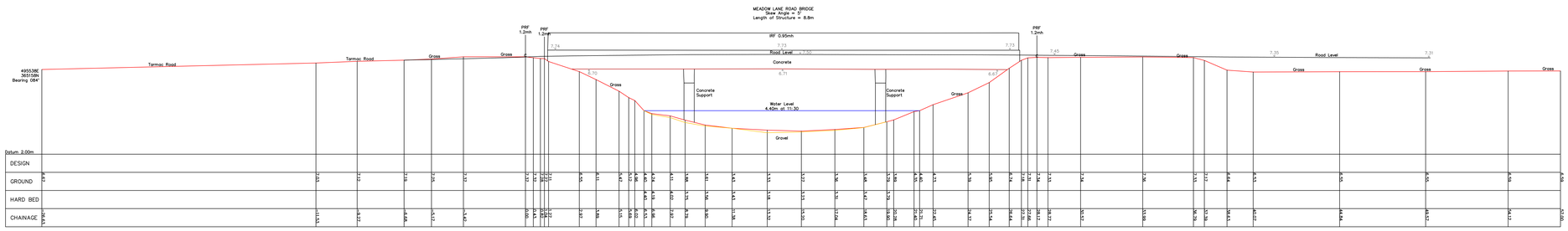
Date of Survey – 05/11/18



SECTION – RW03507
CHAINAGE – 3507
Date of Survey – 23/10/18

Original Drawing Size: A0

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BB	BILLBOARD	FL	FLOOD LEVEL	RC	RECTANGULAR CULVERT
BR	BOLLARD REACH	FO	FLOOR (EST)	RD	ROAD (SURF)
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BL	BOREHOLE	G	GRATE	RWP	RAINWATER PIPE
BL	BUD LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GR	GARAGE DOOR	SD	STORM DRAIN
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURVEYS WATER MANHOLE
CHF	CHAINLINK FENCE	I	INVERT LEVEL	SP	SIGN POST / PLANC
CHP	CLOSE BOARDED FENCE	IL	INVERT LEVEL	SP	SIGN POST
CIF	CORRUGATED IRON FENCE	IRF	IRON RAILING FENCE	STN	STATION
CL	CABLE (BOX)	JB	JUNCTION BOX FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
COND	CONDUIT	KS	KERB (NOT SCALY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	L	LIGHT	TBM	TEMPORARY BENCH MARK
CPF	CHESTNUT PALING FENCE	LTB	LETTERBOX	TCB/PCB	TELEPHONE CALL BOX/POST
CR	CABLE TEE	LP	LAMP POST	TD	TELECOM CABINET
CS	CABLE TEL MANHOLE	MB	MARKER BOLLARD	TGV	TRAFFIC GATE VALVE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
D	DOWN PIPE	MH	MANHOLE	TL	TOP LEVEL
DL	DECK LEVEL	MKS	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DAMP PROOF	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TR	TRUSS RUBBING STRIP
DRN	DRAIN	MS	MILE STONE	TS	TREE STUMP
DS	DOWN SPOUT BRK	NB	NATIONAL BOUNDARY	TSF	TIMBER SLATTED RAILINGS
E	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BOX
EF	ELECTRICITY BARBED FENCE	OHL	OVERHEAD LINE	WL	WATER LEVEL/WATER LINE
ELF	ELECTRICITY CABLE, FIT	OSF	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
ER	ELECTRICITY RISER	PB	PARKING BOX	WP	WOOD POST
EX	EXPANSION BOLT	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
F	FENCE	PP	PALING & RAIL FENCE	WW	WIRE WALL
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to CS survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E205111517	SK96626817	7.044
E205111539	SK95576513	5.733
E205124456	SK94636285	6.978
E205127769	SK95216390	7.583
E205112429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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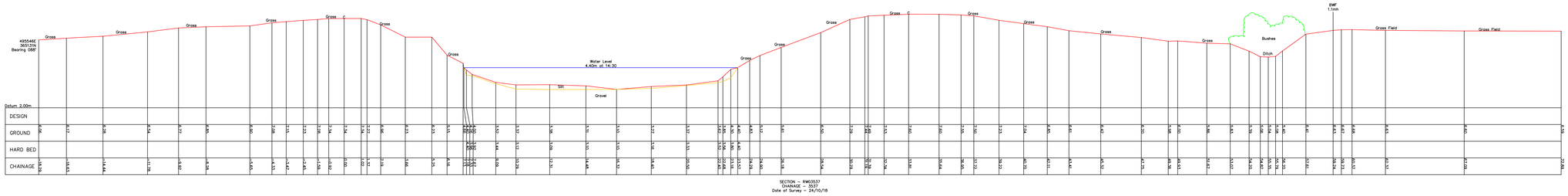
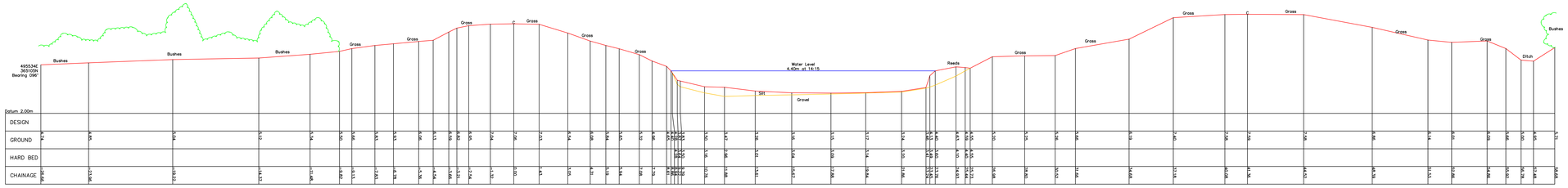
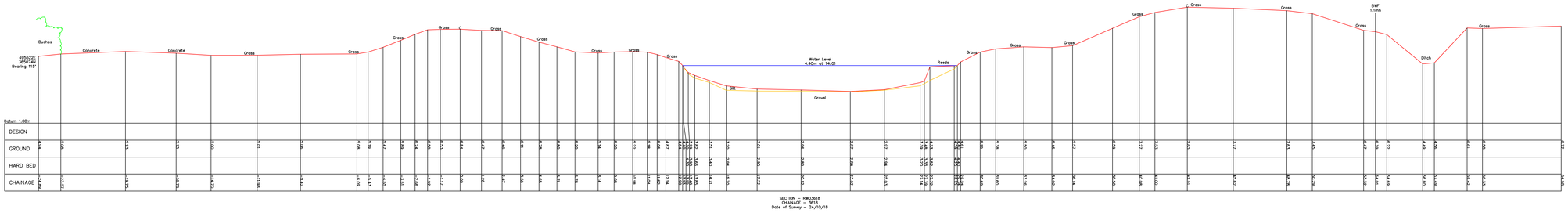
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

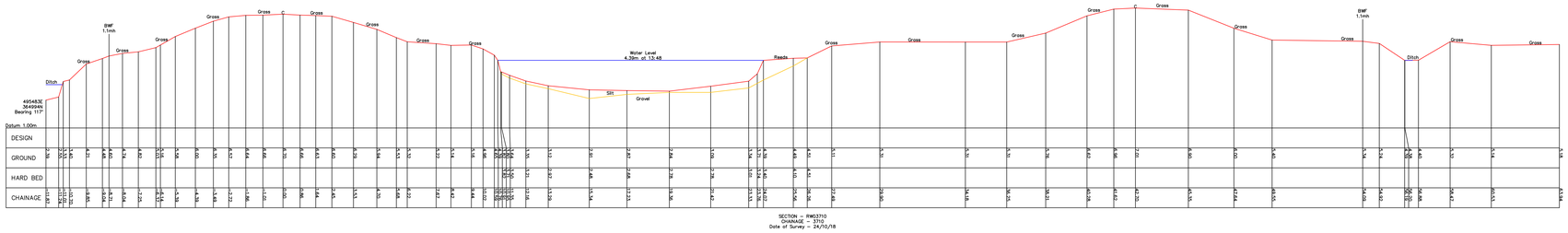
SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW03200 to RW03507

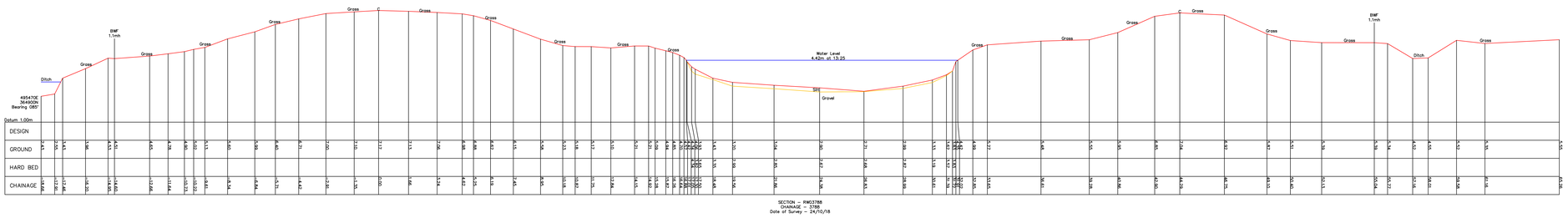
SURVEYED BY: Malcolm Hughes
Ref. 5258M
SURVEY DATE: November 2018
SCALE: 1:00 | DRN: K.D.L. | CHKD: T.P.
DATUM: ODN | DATE: DEC 18 | DATE: DEC 18
GRID: National | DRAWING NO. X-J01434-08 | REV. –
CAD FILENAME: F-01434.dwg











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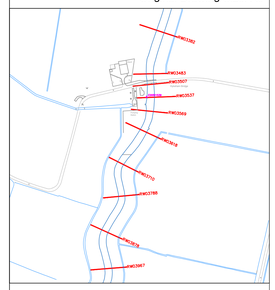

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER "OVER").
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BF	BOREHOLE	FP	FENCE POST	RD	ROAD SIGN
BS	BULLRAH BEACON	FS	FENCE POST	RS	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GRATE	SA	SOAKAWAY PITS
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BM	BENCH MARK	GV	GAS VALVE	SL	SLURRY LEVEL
BW	BENCH MARK	GY	GAS VALVE	TL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	TMH	SURFACE WATER MANHOLE
CBF	CLOSE BOARDED FENCE	I	INVERT LEVEL	TP	TELEGRAPH POLE/PLANC
CBF	CLOSE BOARDED FENCE	IL	INVERT LEVEL	TP	GASS POST
CF	CORRUGATED IRON FENCE	IRF	IRON RAILING FENCE	TV	STATION
CH	CHAINAGE	JB	JUNCTION BOX	TVV	TELECOM VALVE
CLF	CHAIN LINK FENCE	JC	JUNCTION BOX	SVP	SOIL VENT PIPE
CP	CONCRETE POST	KG	KERB GRATE/GULLY	TWF	TEMPORARY WOVEN FENCE
CP	CONCRETE POST	LB	LEFT BANK	TBM	TEMPORARY BENCH MARK
CW	ELECTRIC (PLAIN) FENCE	LP	LAMP POST	TCL/TCP	TELEPHONE CABLE/ POLE/POST
CV	CABLE TV	LV	LEVEL VALVE	TK	TELECOM KIOSK
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
DA	DRAIN ARM	MF	MOORING/ANCHOR FENCING	TSL	TELEPHONE SIGNAL
DCP	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
DL	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DRAIN PIPE	MP	MOORING PILE	TP	TRAFFIC LIGHT POST
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DW	DOG WASTE BIN	NG	NATURAL GRATE	TW	TIMBER WALL RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY (PLAIN) FENCE	OP	OBSERVATION POST	WL	WATER LEVEL/WATER LINE
ELF	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POST	PB	PARKING BOX	WP	WOODEN POST
E	EARTHING BOX	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	POST	POST	WV	WATER VALVE
FB	FIBRE BOX	PR	POST & RAIL FENCE	WW	WOODEN WALL
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to GS survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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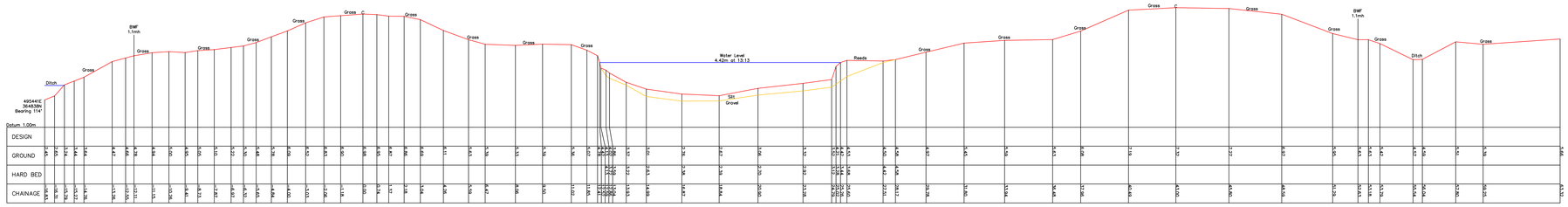
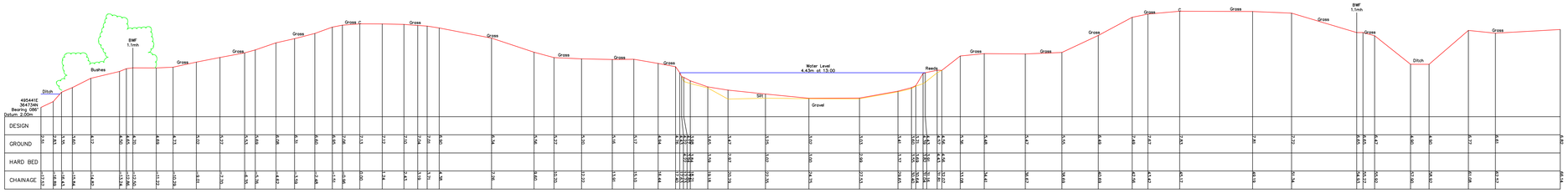
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW03537 to RW03788

SURVEYED BY: Malcolm Hughes — Ref: 5258/
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X–J01434–09 — REV. –
CAD FILENAME: X–J01434.dwg



SECTION – RW03878
CHAINAGE – 3878
Date of Survey – 24/10/18



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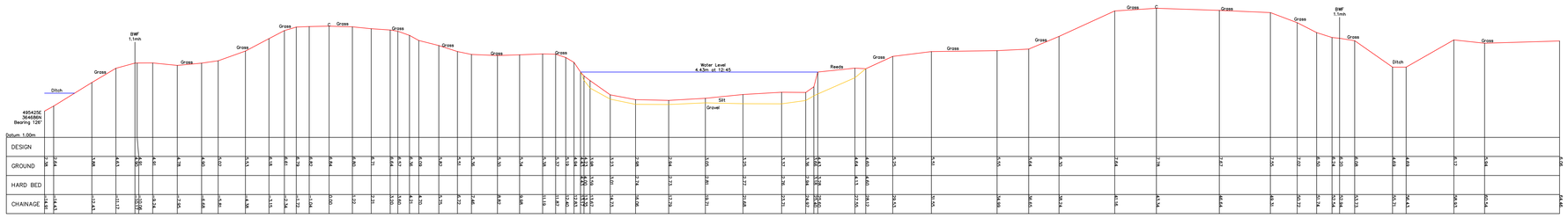
Date of Survey – 24/10/18



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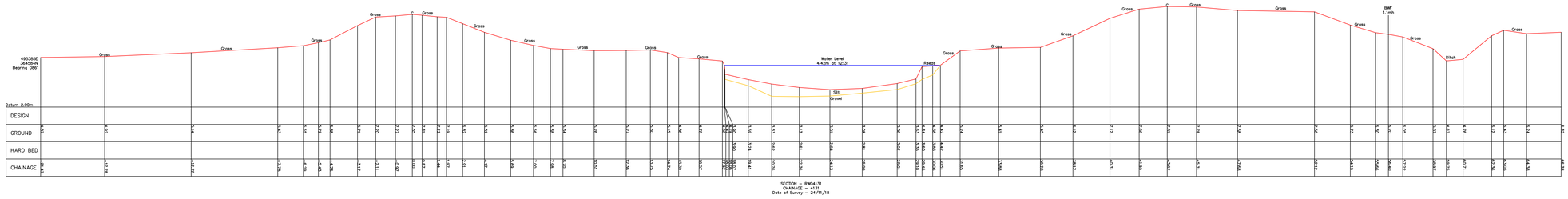
Date of Survey – 24/11/18



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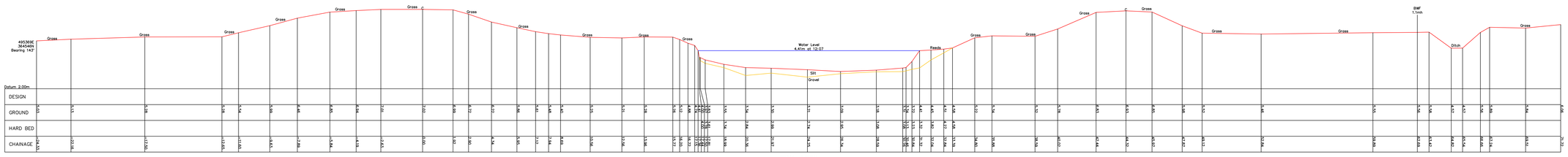
CHAINAGE – 4131
Date of Survey – 24/11/18



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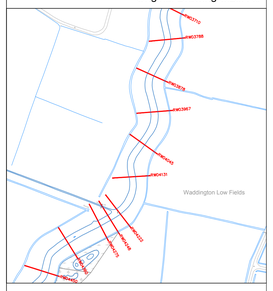
CHAINAGE – 4222
Date of Survey – 24/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & METAL FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
B	BOLLARD	FL	FLOOD LEVEL	RE	RIDGE END
BA	BUOYANT ANCHOR	FO	FENCE (OS)	RL	ROOF LEVEL
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GATE	SA	SOAKAWAY PITS
BL	BOX LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRM	BENCHMARK	GP	GATE POST	SGP	STAND PIPE
BS	BUS STOP	GV	GAS VALVE	SL	SIGN LEVEL
BW	BOOLY WARP	GW	GAS WAUKE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURVEYS WATER MANHOLE
CAP	CAPPED FENCE	I	INVERT LEVEL	SP	SIGN POST & PLINC
CBP	CLOSE BOARDED FENCE	IL	INVERT LEVEL	SP	SOIL PIPE
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STA	STATION
CH	CHAIN LINK FENCE	JB	JUNCTION BOXES	SV	SOIL VENT
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	L	LEVEL	TB	TELEPHONE BOX/KIOSK
CPF	CHESTNUT PALING FENCE	LP	LIFEBUOY	TCP/CP	TELEPHONE CAL BOL/POST
CR	CYCLE RACK	LP	LAMP POST	TC	TELECOM CABINET
CS	CATCH PIT MANHOLE	LS	LIGHT SIGNALS	TCP	TELEPHONE CALL POST
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
DH	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
DP	DOWN PIPE	MP	MOORING POST	TLB	TELEGRAPH BOX
D	DOMESTIC	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MS	MESH STRAINED FENCE	TS	TIMBER SLEEPER STOP
E	EDGE	MT	METAL TRELLIS	TS	TIMBER SLEEPER
EWS	EOU WASTE BIN	NS	NOTICE (SIGNS)	TSP	TUBULAR STEEL RAILINGS
EB	ELECTRICITY BOX (GENERIC)	OAC	OVERHEAD ELECTRICITY AUTHORITY	TW	TRAFFIC WARDEN
EB	ELECTRICITY BOX	OGC	OVERHEAD CABLE	WB	WASTE BIN
ECP	ELECTRIC CABLE POST	OP	OVERHEAD PIPELINE	WL	WATER LEVEL/WATER LINE
EGP	ELECTRICITY GUARD POST	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRIC POWER	PB	PHONE BOX	WP	WOODEN POST
E	EARTHING ROD	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FOOTBRIDGE	PP	PARKING PAY	WW	WIRE WALL
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to CA survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
--		

Environment Agency

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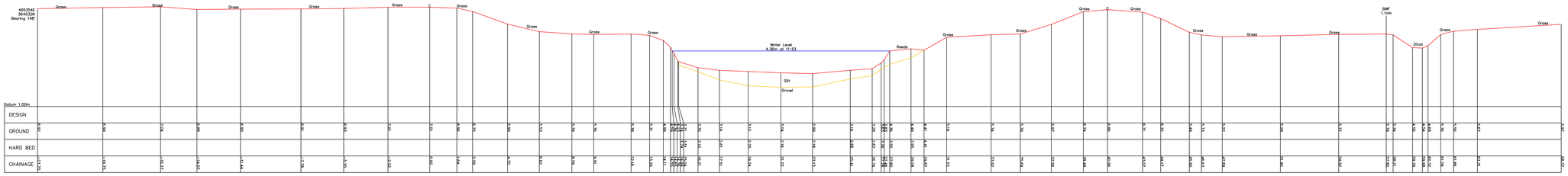
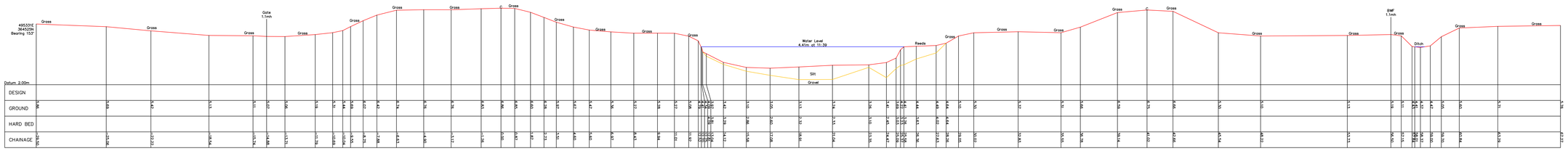
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW03878 to RW04222

SURVEYED BY: Malcolm Hughes
Ref: 5258M
SURVEY DATE: November 2018
SCALE: 1:00 | DRN: K.D.L. | CHKD: T.P.
DATUM: ODN | DATE: DEC 18 | DATE: DEC 18
GRID: National | DRAWING NO. X-J01434-10 | REV. --
CAD FILENAME: X-J01434.dwg



SECTION – RW04248
CHAINAGE – 4248
Date of Survey – 24/11/18



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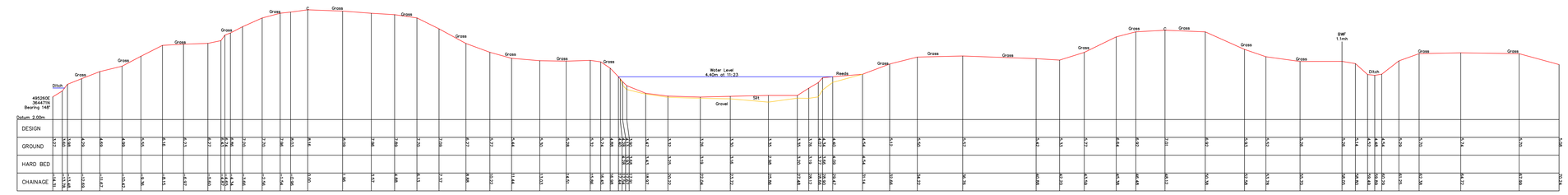
CHAINAGE – 4275
Date of Survey – 24/11/18



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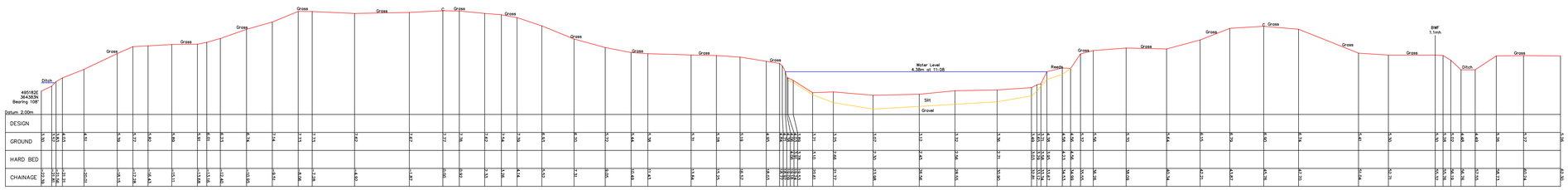
CHAINAGE – 4360
Date of Survey – 24/11/18



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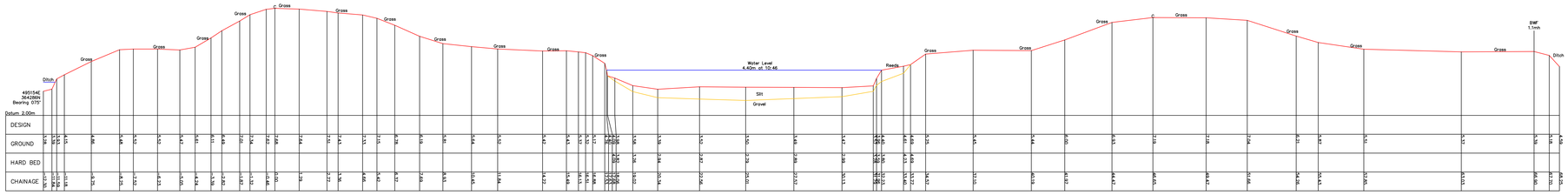
CHAINAGE – 4450
Date of Survey – 24/11/18



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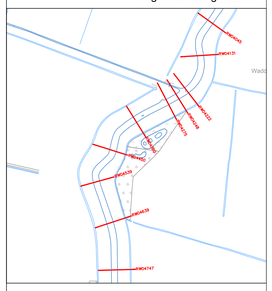
CHAINAGE – 4539
Date of Survey – 24/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BB	BUS BOARD	FL	FLOOD LEVEL	RE	RAIL ELEVATION
BR	BULLRIN BEACON	FO	FENCE POST	RG	ROAD GUARD
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BL	BLD LEVEL	GL	GRIDLINE LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GR	GRATED GULLY	SF	SOFFIT LEVEL
BW	BEACH WARP	GV	GAS VALVE	SL	SUPPLY LEVEL
BWM	BRICK WALL	HW	HEAD WALL	SMH	SURVEYS WATER MANHOLE
CBF	CLOSE BOARDED FENCE	I	INVERT LEVEL CHAMBER	SP	SIGN POST & PLANC
CHF	CLOSE BARBED FENCE	IL	INVERT LEVEL	SP	DOG POST
CF	CORRUGATED IRON FENCE	IRF	IRON RAILING FENCE	STN	STATION
CH	CHAIN LINK	JB	JUNCTION BOX	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JE	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KS	KERB SLAT SCALLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	L	LAMP	TBM	TEMPORARY BENCH MARK
CPF	CHESTNUT PALING FENCE	LTP	LITTERPOT	TCP/VW	TELEPHONE CALL BOX/POST
CR	CALLS BOX	LP	LAMPPOST	TC	TELECOM CABINET
CS	CABLE TV MANHOLE	MB	MARKER BOLLARD	TGL	THRESHOLD LEVEL
CUL	CULVERT	MF	MISCELLANEOUS FENCING	TKL	THRESHOLD LEVEL
D	DOWN PIPE	MH	MANHOLE	TP	TELEGRAPH POLE
DL	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DRAIN PIPE	MP	MILEPOST PILE	TR	TRAFFIC RADIO BOX
DPF	DOWN PITCH COURSE	MRF	METAL RAILING FENCE	TRP	TRAFFIC RUBBING STRIP
DRN	DRAIN	MS	MILE STONE	TS	TREE STUMP
DS	DOWN SPOUT BIN	NB	NOTICE BOARD	TSF	TIMBER SAFETY RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	UGLY PIPE
ED	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BIN
EF	ELECTRICITY BOUNDARY FENCE	OP	OPEN PITCH COURSE	WL	WATER LEVEL/WATER LINE
ELF	ELECTRICITY CABLE, PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POST	PB	PARKING BOX	WP	WATER PIPE
EX	EXATHING BOX	PM	PARKING METER	WPF	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIRE BOX	PR	POST & RAIL FENCE	WW	WOOD WALL
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to CS survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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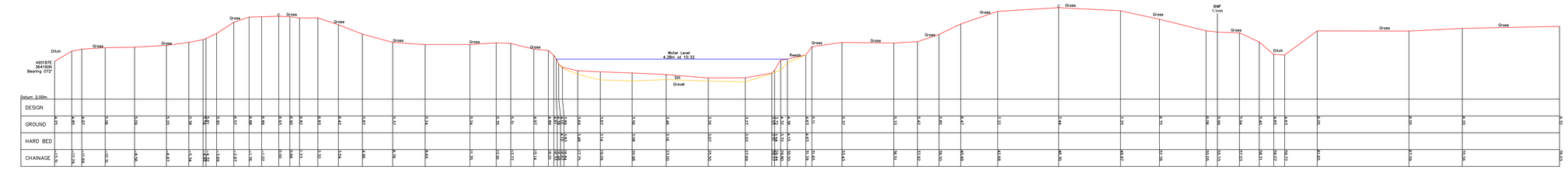
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW04248 to RW04539

SURVEYED BY: Malcolm Hughes — Ref: 5258M
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X–J01434–11 — REV. –
CAD FILENAME: F–01434.dwg



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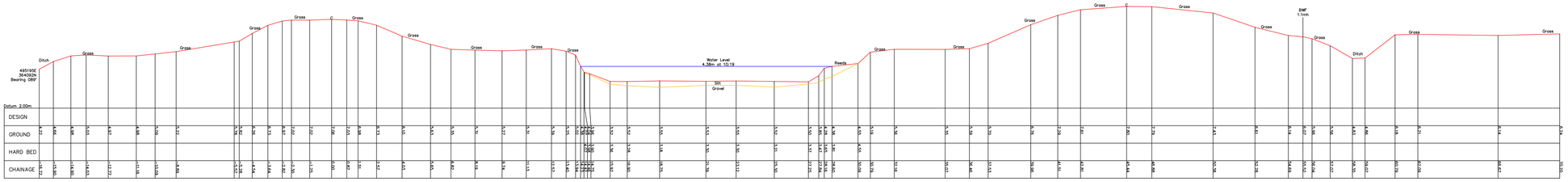
Date of Survey – 24/11/18



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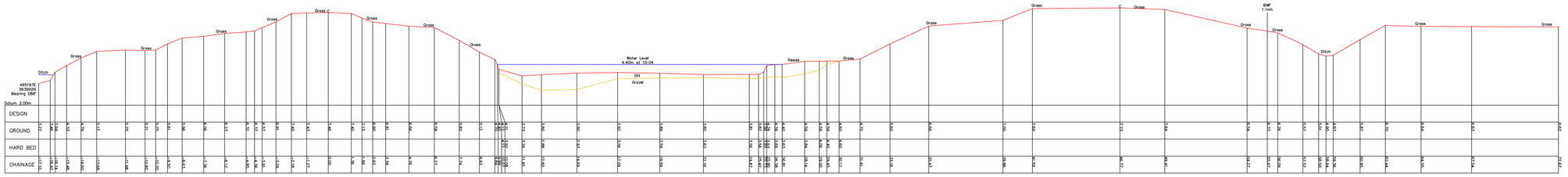
Date of Survey – 24/11/18



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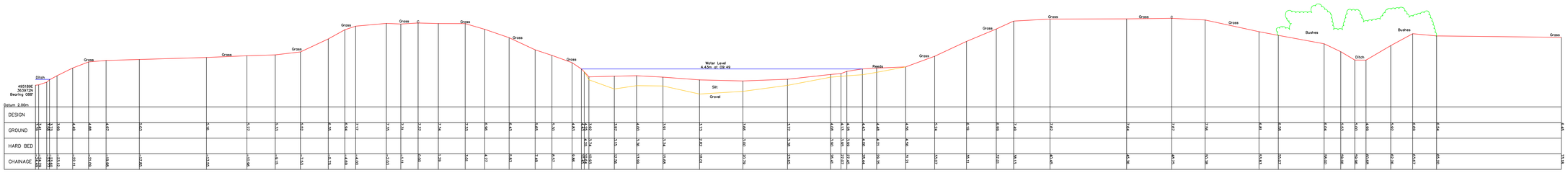
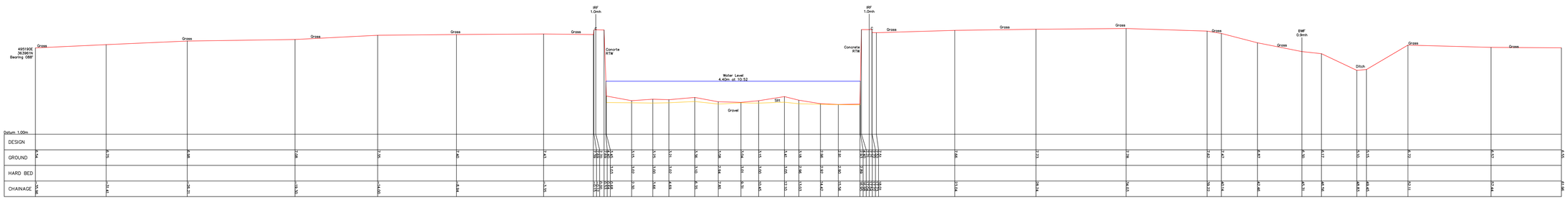
Date of Survey – 24/11/18

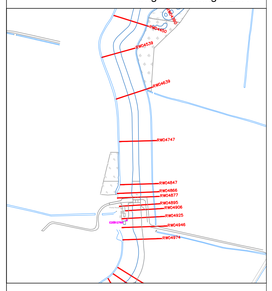


SECTION – RW04866
CHAINAGE – 4866
Date of Survey – 24/11/18



SECTION – RW04877
CHAINAGE – 04877
Date of Survey – 16/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BROK	Fo	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BF	BOREHOLE	FL	FLOOD LEVEL	RE	RODDING EYE
BL	BOLLARD BEACON	FG	FENCE (GEO)	RL	ROAD LEVEL
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RW	RAINWATER PIPE
BL	BOX (GAS)	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SDP	STAND PIPE
BS	BUS STOP	GR	GRATE (DRAIN)	SE	SOFFIT LEVEL
BV	BLOCK VALVE	GV	GAS VALVE	SG	SUPPLY (GAS)
BW	BRICK WALL	HW	HEAD WALL	SMH	SURVEYS WATER MANHOLE
CBF	CONCRETE BLOCK FENCE	IC	INSPECTION CHAMBER	SP	SIGN POST (PLAN)
CGF	CLOSE BOARDED FENCE	L	LADDER (GAS)	SP	GEN POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STA	STATION VALVE
CH	CHAINAGE	JB	JUNCTION BOX (GAS)	SV	SLUICE VALVE (WP)
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KEG	KERB (KILT) (GAS)	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	KG	KERB (GEO)	TBM	TEMPORARY BENCH MARK
CW	CHESTNUT PALING FENCE	LB	LETTERBOX	TD/TW	TELEPHONE CALL BOX/POST
CY	CYCLE RACK	LP	LAMP POST	TC	TELECOM CABINET
DM	DRAIN MANHOLE	LV	LOCKABLE VALVE	TEL	TELEPHONE (GEO)
CUL	CULVERT	MF	MISCELLANEOUS FENCING	TH	THRESHOLD (FHL)
DN	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
DP	DOWN PIPE	MK	MARKER POST	TP	TELEPHONE BOX
EP	EXPANSION	MP	MOORING PILE	TR	TELEGRAPH POLE
EPC	SMART PROOF COURSE	MS	MILE STONE	TS	TIMBER RUBBING STRIP
EW	EAVES	MT	METAL TRAPDOOR	TW	TRAFFIC WALL
FWB	FOUL WATER BH	NB	NOTICE BOARD	UW	TUBULAR STEEL RAILINGS
EB	ELECTRICITY BOX (GEO)	NG	NATIONAL GRID AUTHORITY	VP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BIN
ELF	ELECTRIC CHAIN FENCE	OP	OVERHEAD POWER LINE	WL	WATER LEVEL/WATER LINE
ELF	ELECTRIC CHAIN FENCE	OW	OPEN WIRE RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PHONE BOX	WP	WOODEN POST
E	EARTHING ROD	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIBRE BOX	PR	PADDOCK & RAIL FENCE	WL	WELL (GEO)
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to CS survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	–
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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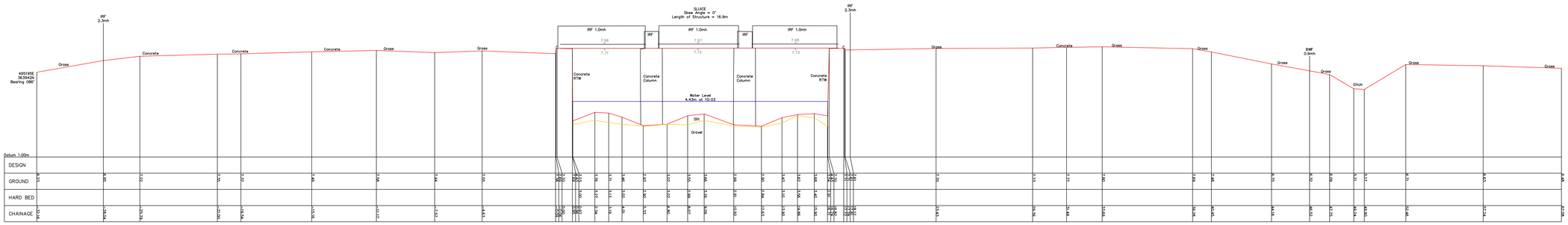
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

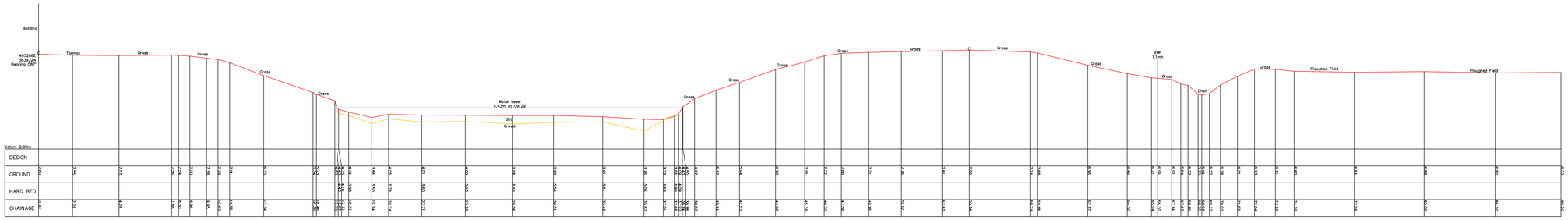
SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW04639 to RW04877

Ref: 5258M

SURVEYED BY: Malcolm Hughes
SURVEY DATE: November 2018
SCALE: 1:00 | DRN: K.D.L. | CHKD: T.P.
DATUM: ODN | DATE: DEC 18 | DATE: DEC 18
GRID: National | DRAWING NO. X-J01434-12 | REV. –
CAD FILENAME: X-J01434.dwg



SECTION – RW04895
CHAINAGE – 4895
Date of Survey – 16/11/18



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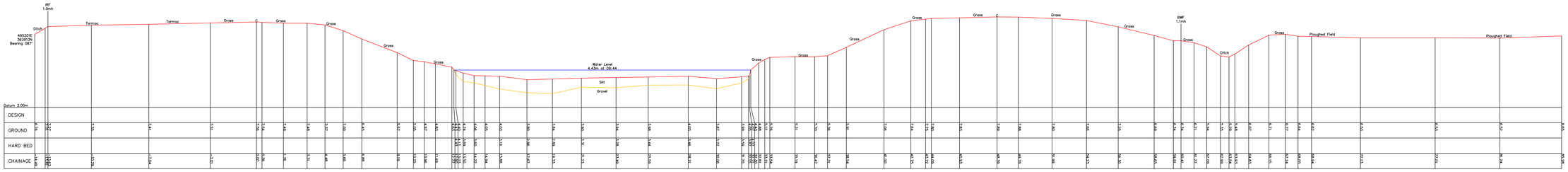
CHAINAGE – 4906
Date of Survey – 25/11/18



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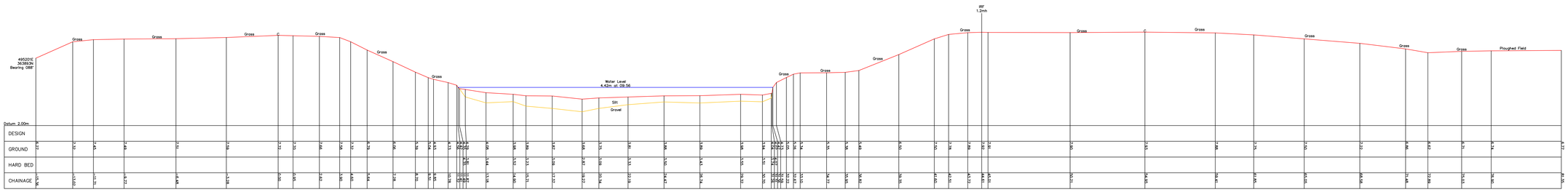
CHAINAGE – 4925
Date of Survey – 25/11/18



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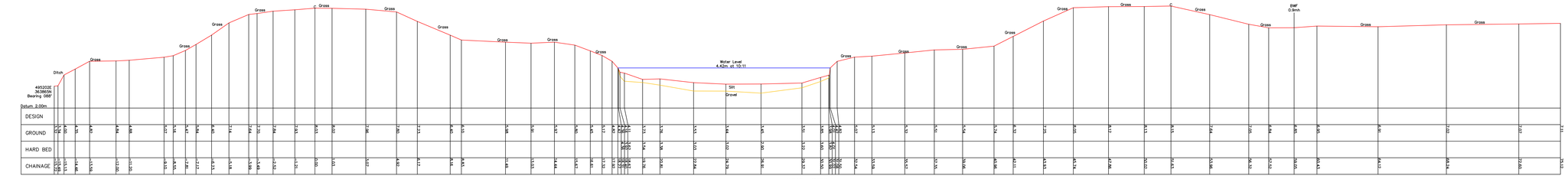
Date of Survey – 25/11/18



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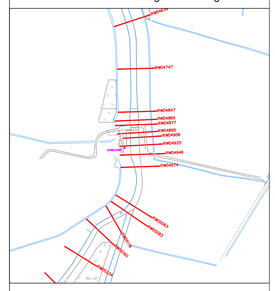
CHAINAGE – 4974
Date of Survey – 25/11/18

Original Drawing Size: A0



NOTES:
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2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BB	BILLBOARD	FL	FLOOD LEVEL	RE	RAILWAY LINE
BR	BOLLARD REACON	FO	FENCE POST	RL	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RP	RAILWAY SIGNAL PIPE
BL	BED LEVEL	GL	GRIDLAG LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SGP	STAND PIPE
BS	BUS STOP	GR	GRATED DRAIN	SP	SIGNAL POST
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURVEY WATER MANHOLE
CBF	CLOSE BOARDED FENCE	I	INSPECTION CHAMBER	SPF	SOLID PLASTIC FENCE
CHF	CLOSE HEARDED FENCE	L	MARKER LEVEL	SP	DOG POST
CF	CORRUGATED IRON FENCE	MF	IRON RAILING FENCE	STN	STANDS
CP	CONCRETE POST	MP	MILEPOST/MILESTONE	SV	SCOUR VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KS	KERB MUST SCALLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LC	LAMP COLUMN	TBM	TEMPORARY BENCH MARK
CPF	CHESTNUT PALING FENCE	LTB	LETTERBOX	TCB/PCB	TELEPHONE CALL BOX/POST
CS	CABLE TV	LP	LAMPPOST	TC	TELECOM CABINET
CM	CABLE TV MANHOLE	MB	MAGNETIC BOLLARD	TGM	TEMPORARY GAUGE MARK
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
D	DRAIN POINT	MH	MANHOLE	TK	TRACK KEY
DI	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MAINTENANCE PILE	TP	TELEGRAPH POLE
DPF	DOMESTIC PALISADE FENCE	MRF	METAL RAILING FENCE	TRS	TRUSS RUBBING STRIP
DRN	DRAIN	MS	MILE STONE	TS	TREE STUMP
DSB	DRAINAGE BIN	NB	NOTICE BOARD	TSF	TIMBER SHEETED RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BIN
EF	ELECTRICITY FENCE	OHL	OVERHEAD LINE	WC	WATER CONTROL/METER LINE
ELP	ELECTRICITY CABLE, PIT	OSP	OPEN STEEL RAILINGS	WL	WATER LEVEL
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
ER	ELECTRICITY POLE	PB	PHONE BOX	WP	WOODEN POST
EX	EXTENDS BELOW	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIRE BELL	PP	PHONE POLE	WW	WIRE WORK
FBR	FIBERGLASS	PTM	PARKING TICKET MACHINE	(Abbreviations apply to CS survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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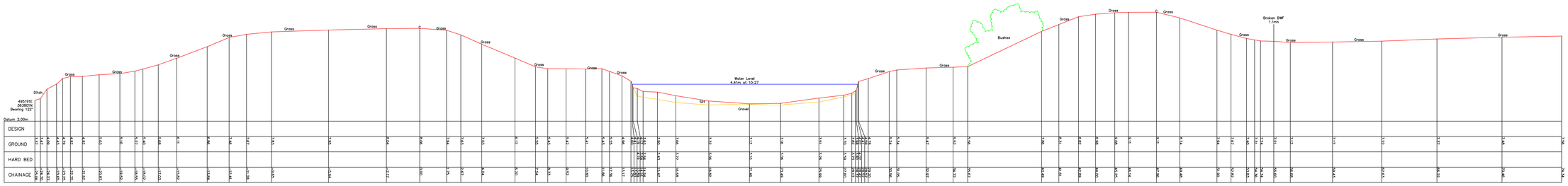
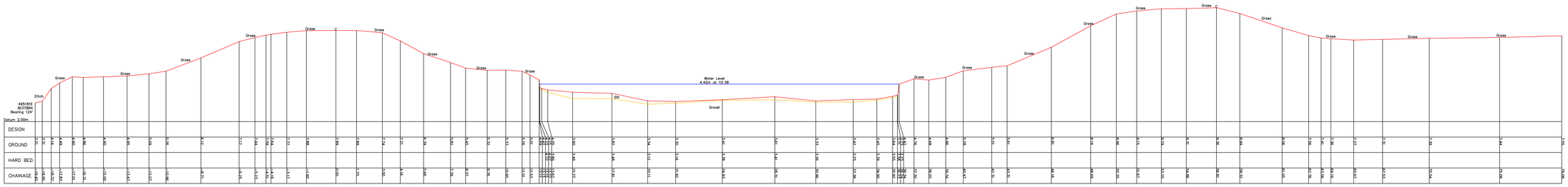
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW04895 to RW04974

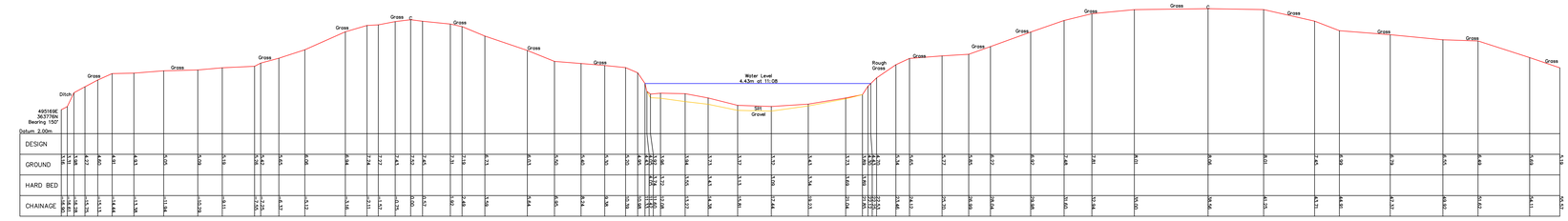
SURVEYED BY: Malcolm Hughes — Ref. 5258M
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X–J01434–13 — REV. –
CAD FILENAME: F–01434.dwg



SECTION – RW05063
CHAINAGE – 5063
Date of Survey – 25/10/18



SECTION – RW05083
CHAINAGE – 5083
Date of Survey – 25/10/18



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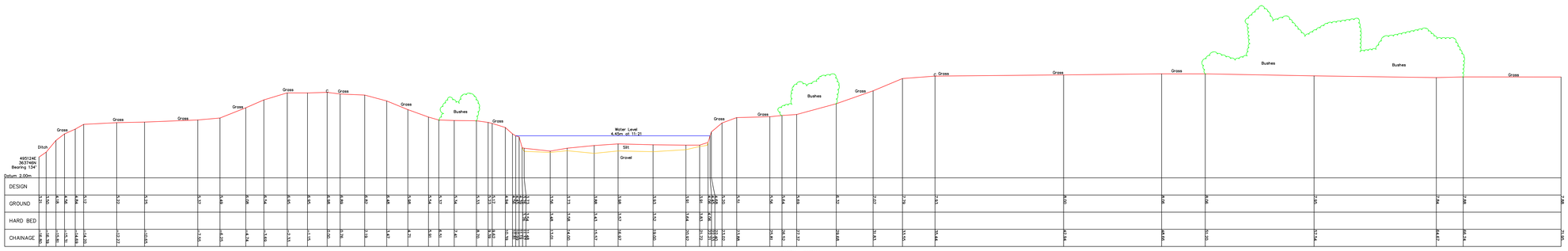
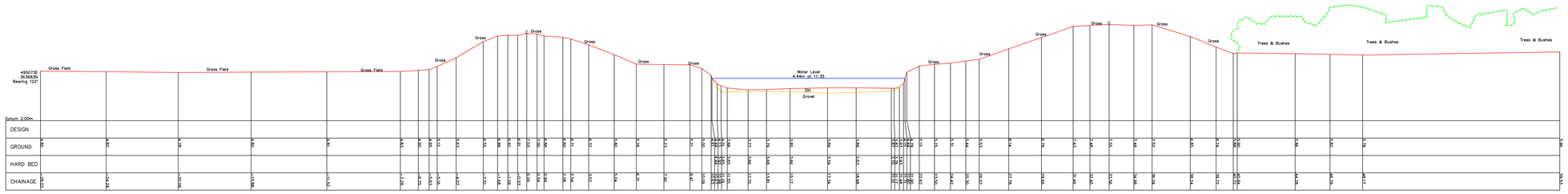
CHAINAGE – 5116
Date of Survey – 25/10/18

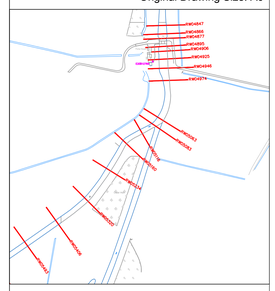


SECTION – RW05160
CHAINAGE – 5160
Date of Survey – 25/10/18



SECTION – RW05234
CHAINAGE – 5234
Date of Survey – 25/10/18

Original Drawing Size: A0



NOTES:
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3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	PH	POST	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RE	RIGHT EAVE
B	BOLLARD	FL	FLOOR LEVEL	RG	RODDING EYE
BC	BT CABLE BEACON	FP	FISHING PEG	RL	RAIL LEVEL
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BL	BT LINE BOX	GL	GROUND LEVEL	S	STAND PIPE
BRK	BRICKWORK	GP	GATE POST	SP	STAND PIPE
BS	BUS STOP	GM	GAS MARKER	SV	SCAFFOLD
BSP	BUS SHELTER	GV	GAS VALVE	SW	SURFACE WATER
BW	BRICK WALL	HW	HEAD WALL	SWM	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SWP	SHEET METAL PILING
CF	CHAIN LINK FENCE	IP	IRON PEG	TB	TELEGRAPH BOX
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	TN	STATION
CL	COVER LEV	WF	WITHMOWIN FENCE	TV	SLUICE VALVE
CLF	CHAIN LINK FENCE	KG	KERB GULLY	TWP	TELEPHONE PIPE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	COACHED POST	LG	LITT GRAV	TBM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LB	LITT BIN	TCP	TEMPORARY CONTROL WAYPOST
CV	CYCLE RACK	LP	LAMP POST	TC	TELECOM CABINET
CW	CABLE TV MANHOLE	LS	LANDSCAPED AREA	TG	TELEGRAPH POLE
DCL	DUCT LEV	MF	MISCELLANEOUS FENCING	TKL	TRACKSIDE LEVEL
DL	DROP LEVEL	MH	MANHOLE	TL	TRAFFIC LIGHT
DP	DROP KERB	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DUMPIER	MP	MOORING PILE	TP	TELEGRAPH POLE
DRN	DRAIN/WAY COURSE	MS	MOORING STAKE/FENCE	TPS	TEMPORARY PARKING STRIP
DPL	DRAIN	NG	NELL TONE	TS	TREE STUMP
DNB	DOG WASTE BIN	NB	NOTICE BOARD	TSB	TUBULAR STEEL RAILINGS
DS	DRAINAGE SERVICE AGENCY	OAK	DECIDUOUS TREE	TW	TRAFFIC WARDEN
ES	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
ESF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EW	ELECTRICITY WARNING	OSR	OFFICE STEEL RAILINGS	WM	WATER METER
EM	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ET	ELECTRIC TRAP	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FIBERGLASS	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CS survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.563
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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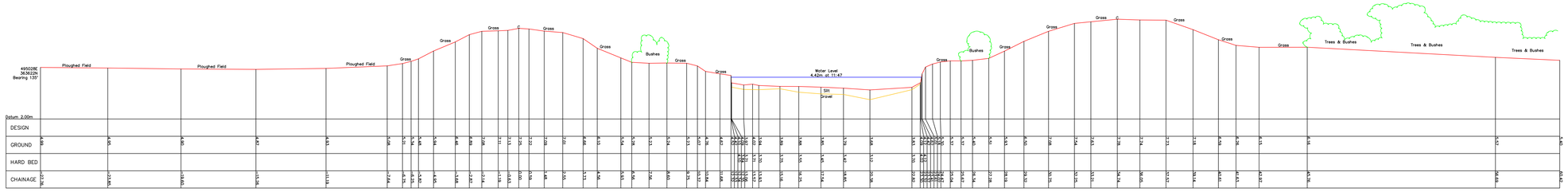
PROJECT/WATERCOURSE

WITHAM CHANNEL SURVEY

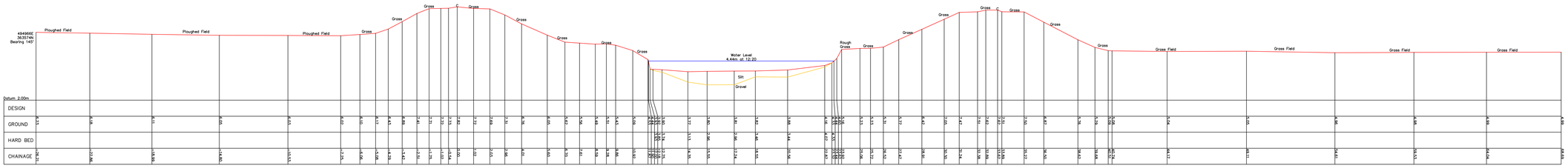
SITE/LIMITS

SK96616819 to SK91286252
Cross Sections
RW05063 to RW05234

SURVEYED BY: Malcolm Hughes		Ref: 52584
SURVEY DATE: November 2018		
SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO.	REV.
CAD FILENAME: X-J01434.dwg	X-J01434-14	–



SECTION – RW05320
CHAINAGE – 5320
Date of Survey – 25/10/18



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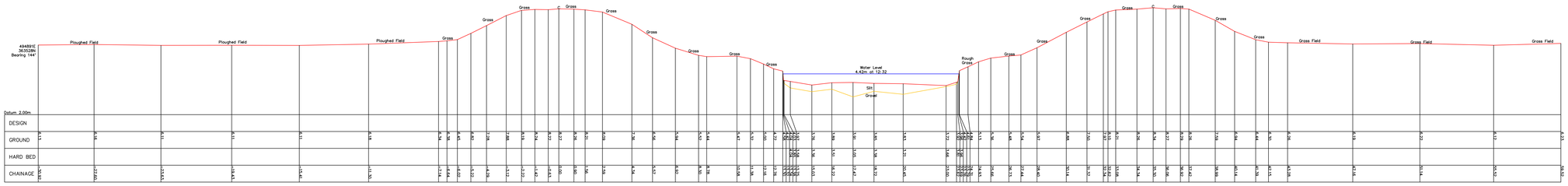
Date of Survey – 25/10/18



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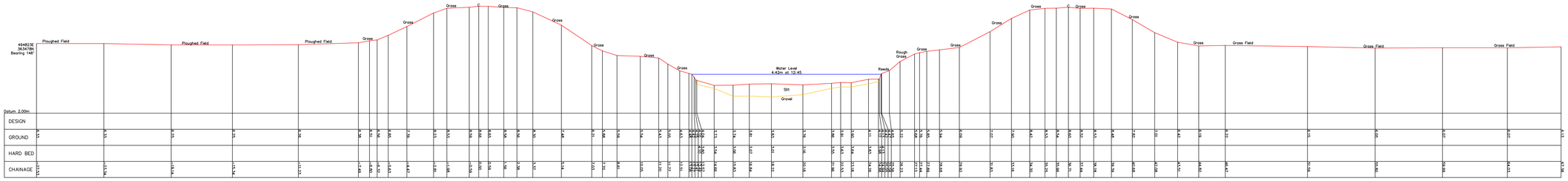
Date of Survey – 25/10/18



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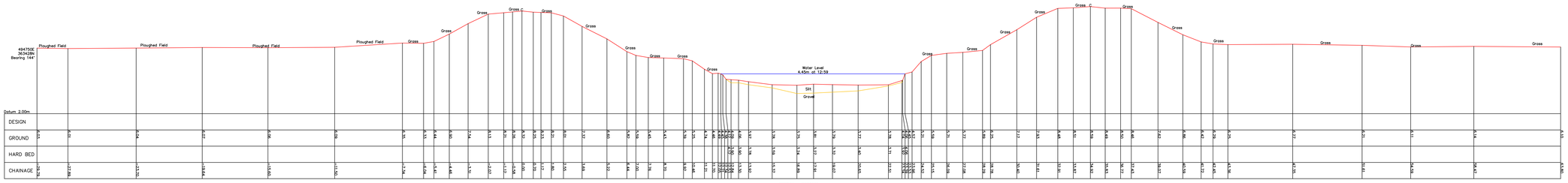
CHAINAGE – 5579
Date of Survey – 25/10/18



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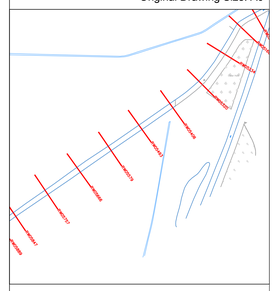
CHAINAGE – 5666
Date of Survey – 25/10/18

Original Drawing Size: A0



NOTES:
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2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMP	POST & WIRE FENCE
B	BOLLARD	FM	FLOOD MONITOR MARKER	PO	PUMPING OIL
B	BOLLARD	FL	FLOOR LEVEL	RE	RODDING EYE
BB	BELISHA BEACON	FF	FENCE FORK	RG	ROAD GRID
BH	BOREHOLE	FWM	FOUL WATER MANHOLE	RW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BM	BENCHMARK	GL	GROUND LEVEL	S	SIGNPOST
BWM	BRIDGE WATER	GP	GATE POST	SGP	STAND PIPE
BS	BUS STOP	GV	GAS VALVE	SL	SOAKAWAY
BS	BUS STOP	GM	GAS MAKER	SP	SUPPORT
BW	BRICK WALL	HW	HEAD WALL	SMH	SURFACE WATER MANHOLE
CBF	CLOSE BOARDED FENCE	HC	HOT DIP GALV. CHAMBER	SP	SOIL PIPE / PLUMB
CBF	CLOSE BOARDED FENCE	K	KNOTS LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	RIF	IRON RAILING FENCE	STN	STATION
CL	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CLJ	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KGI	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	L	LAMP POST	TBM	TEMPORARY BENCH MARK
CP	CHESTNUT PALING FENCE	LTB	LETTERBOX	TCP/CP	TELEPHONE CALL BOX/POST
CV	CYCLE SHED	LP	LAMP POST	TC	TELECOM CABINET
CW	CAT WALK / MANHOLE	LP	LOAD BEARING BOLLARD	TCL	TELEPHONE CABLE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
DN	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
DP	DOWN PIPE	MBS	MAIL BOX	TLB	TRAFFIC LIGHT BOX
D	DOMESTIC	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DW	DOOR	NG	NATIONAL GRID	TS	TRAFFIC SIGNAL
DWB	DOG WASTE BIN	NS	NOTICE BOARD	TSP	TUBULAR STEEL RAILINGS
EA	ENVIRONMENT AGENCY	NBC	NATIONAL RIVERS AUTHORITY	VP	VENT PIPE
EBF	ELECTRIC BARBED	OB	OBSERVATION BOX	VP	VENT PIPE
ECF	ELECTRIC CABLE FENCE	OL	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
ECP	ELECTRICITY CABLE FIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EP	ELECTRICITY PROTECTOR	P	PIPE	WP	WOODEN POST
EP	ELECTRICITY POLE	PR	PILLAR BOX	WPF	WOODEN POST
ETL	ELECTRICITY TOWER	PF	PALING WOODEN	WR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PP	POSTS	WV	WATER VALVE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to EA survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
--		

Environment Agency

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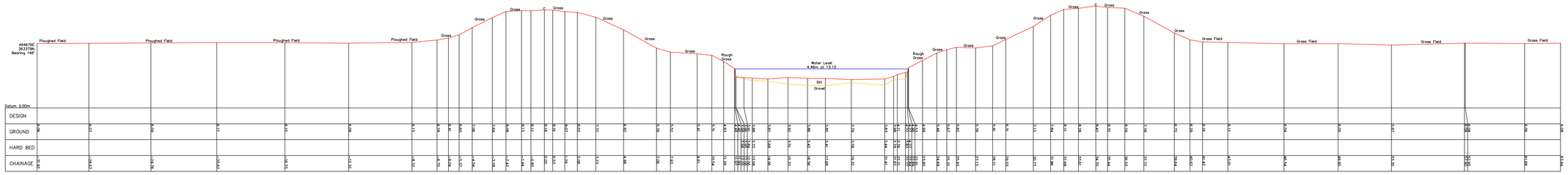
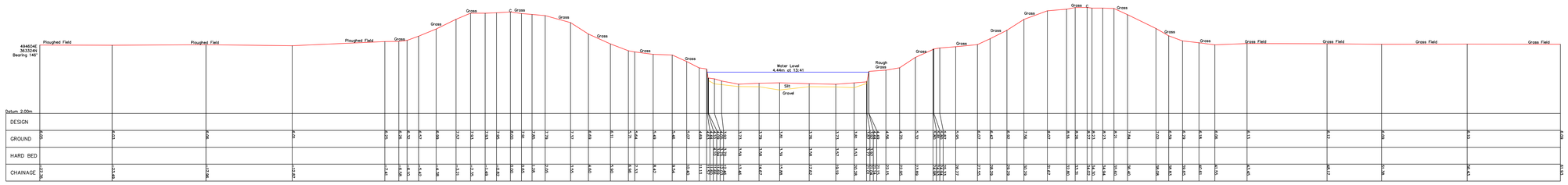
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW05320 to RW05666

SURVEYED BY: Malcolm Hughes — Ref: 5258M
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X-J01434-15 — REV. --
CAD FILENAME: X-J01434.dwg

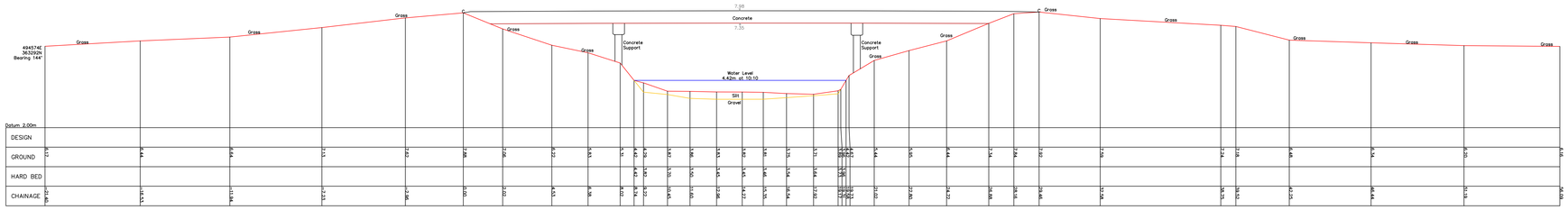


SECTION – RW05757
CHAINAGE – 5757
Date of Survey – 25/10/18

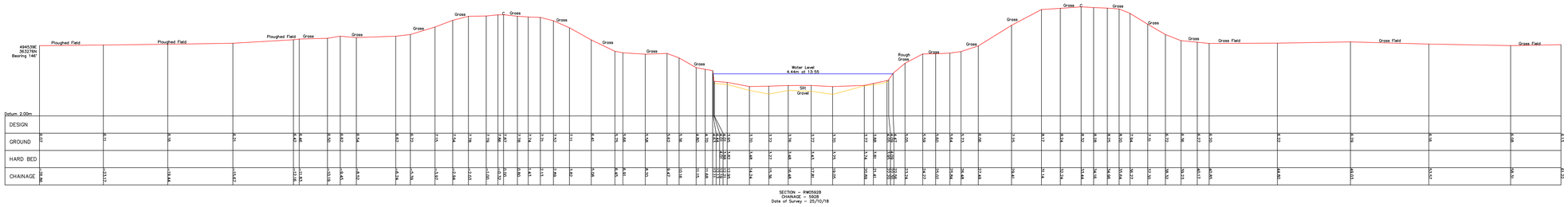


SECTION – RW05847
CHAINAGE – 5847
Date of Survey – 25/10/18

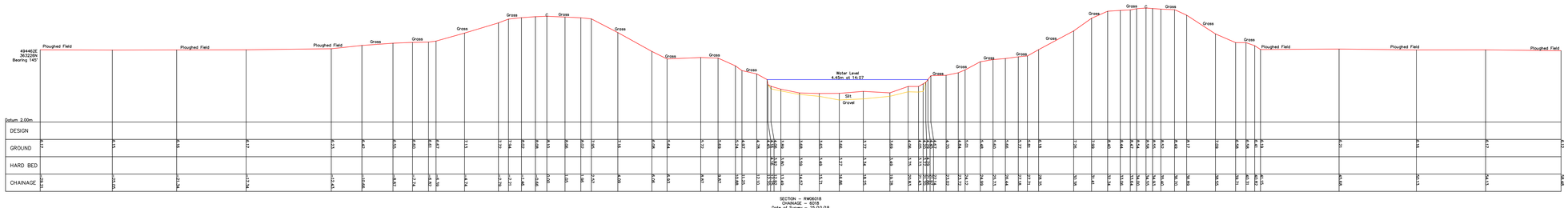
TRACK BRIDGE
Skew Angle = 0°
Length of Structure = 4.0m



SECTION – RW05889
CHAINAGE – 5889
Date of Survey – 20/11/18

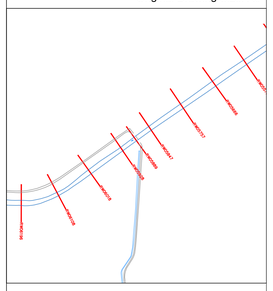


SECTION – RW05928
CHAINAGE – 5928
Date of Survey – 25/10/18



SECTION – RW06018
CHAINAGE – 6018
Date of Survey – 25/10/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIDGE BARK
B	BOLLARD	FL	FLOOR LEVEL	RE	RODDING EYE
BR	BUS SHELTER/ REACTOR	FM	FIELD MAPLE	RM	RODDING MH
BUV	BUVOLGANT	FMH	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RWP	RAINWATER PIPE
BM	BENCH MARK	GL	GROUND LEVEL	SA	SAMPLE POINT
BWL	BREAKWATER	GV	GATE POST	SGV	STAND VIEW
BV	BLIC STOP	GW	GAS MARKER	SK	SCAFFOLD
CB	CATCH BASIN	HF	HOOP & FOOT	SP	SIGN POST
BW	BRICK WALL	HW	HIGH WALL	SWMH	SURFACE WATER MANHOLE
BWP	BARBED WIRE FENCE	I	INSPECTION CHAMBER	SWP	SHEET METAL PILING
CBF	CONCRETE BLOCK FENCE	IC	INTERCEPTOR	TP	TELEGRAPH POLE
CF	CORRUGATED IRON FENCE	MF	HIGH RAILING FENCE	TTN	STATION
CH	CHAINAGE	JB	JUNCTION BOX	TW	TIMBER WALL
CLF	CHAIN LINK FENCE	JE	JUNCTION BOX	UVP	SOIL VENT PIPE
COPM	COPING	KG	KERB & GULLY GRATE	VBP	VALVE BOX (GAS)
CP	CONCRETE POST	LP	LIGHT POLE	VMP	VALVE BOX (STOPCK MRPH
CPF	CHESTNUT PALING FENCE	LTB	LITTERBOX	TOS/TOP	TELEPHONE CALL BOX/POST
CR	CATTLE RAMP	LV	LOW VOLTAGE	TP	TELEGRAPH POLE
CTV	CABLE T.V. MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
DB	DRAIN BOX	MH	MANHOLE	TL	TRAFFIC LIGHT
DL	DECK LEVEL	MKP	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DAMPER	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MPF	MOTOR PALING FENCE	TPS	TEMPORARY PROTECTING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DWB	DOG WASTE BIN	NB	NOTICE BOARD	TSR	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	NRA	NATIONAL RIVERS AUTHORITY	TW	TIMBER WALL
ES	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
ESF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EW	ELECTRIC WIRE FENCE	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ER	ELECTRIC RAILS	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WS	WATER VALVE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CD survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91842277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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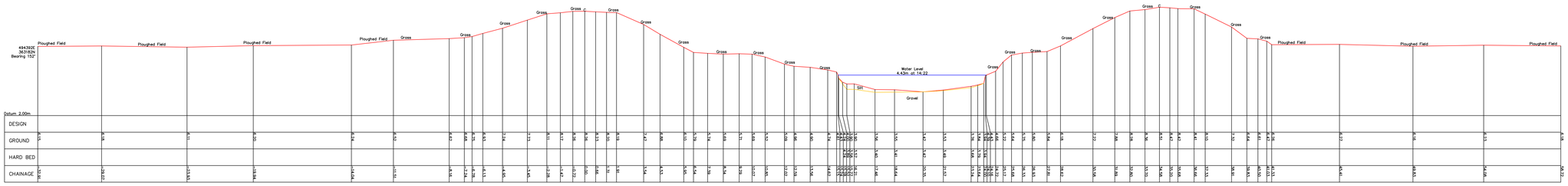
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

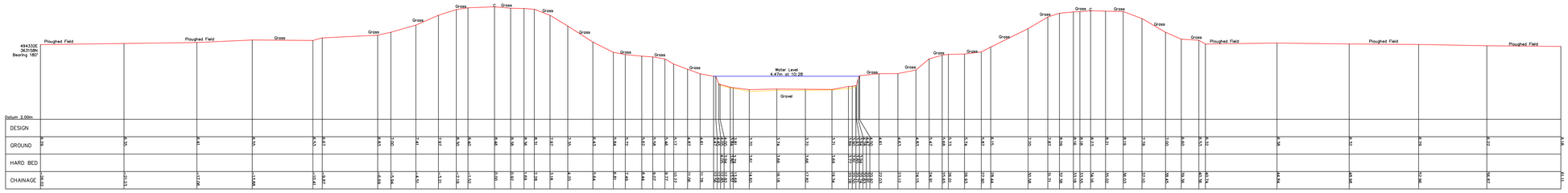
SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW05757 to RW06018

SURVEYED BY: Malcolm Hughes		Ref: 52564
SURVEY DATE: November 2018		
SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO.	REV.
CAD FILENAME: X-J01434.dwg	X-J01434-16	–

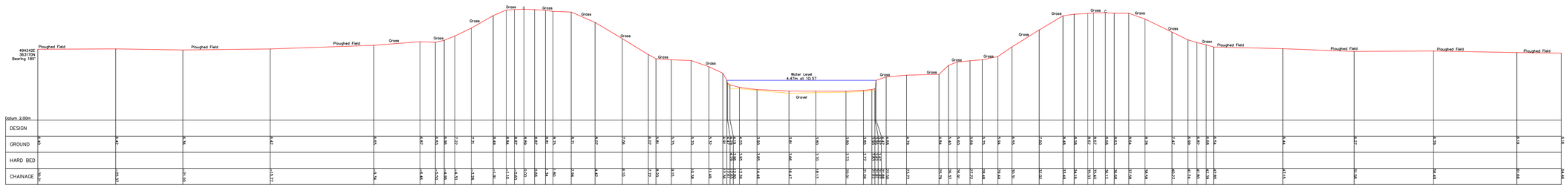
Original Drawing Size: A0



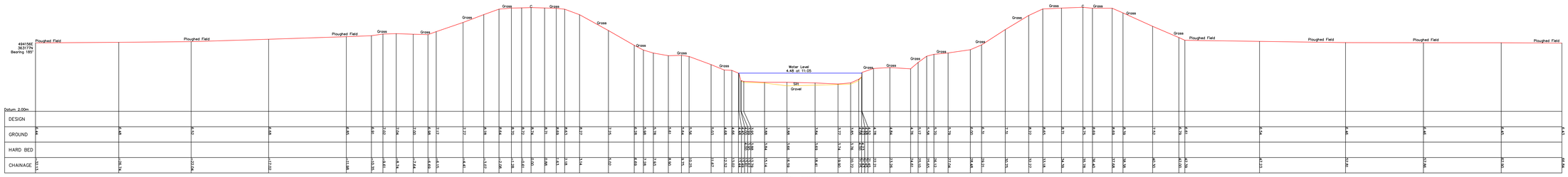
SECTION – RW06108
CHAINAGE – 6108
Date of Survey – 25/10/18



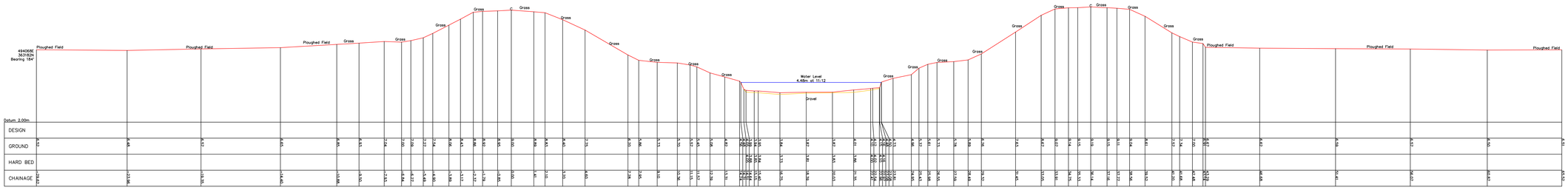
SECTION – RW06196
CHAINAGE – 6196
Date of Survey – 06/11/18



SECTION – RW06290
CHAINAGE – 06290
Date of Survey – 06/11/18



SECTION – RW06377
CHAINAGE – 6377
Date of Survey – 06/11/18



SECTION – RW06464
CHAINAGE – 6464
Date of Survey – 06/11/18

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BH	BOREHOLE	FP	FENCE POST	RC	RECTANGULAR CULVERT
BR	BULLRIN BEACON	FS	FENCE STILE	RD	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BL	BOLLARD	G	GULLY	RWP	RAINWATER PIPE
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SCP	STAND PIPE
BS	BUS STOP	GR	GRATED GULLY	SF	SIGN FINGER
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURVEYS WATER MANHOLE
CBF	CLOSE BOARDED FENCE	I	INVERT LEVEL	SP	SIGN POST & PLANC
CHF	CLOSE BARBED FENCE	IL	INVERT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	IRF	IRON RAILING FENCE	STN	STANDS
CH	CHAINAGE	JB	JUNCTION BOX	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JE	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KS	KERB STAT GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	L	LAMP POST	TBM	TEMPORARY BENCH MARK
CPF	CHESTNUT PALING FENCE	LTP	LITTERBOX	TCB/VB	TELEPHONE CALL BOX/POST
CR	CYCLE RACK	LP	LAMP POST	TC	TELECOM CABINET
CS	CABLE TV MANHOLE	MB	MARKER BOLLARD	TGL	THRESHOLD LEVEL
CUL	CULVERT	MF	MISCELLANEOUS FENCING	TKL	THRESHOLD LEVEL
D	DOWN PIPE	MH	MANHOLE	TP	TRAFFIC POST
DI	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MILEPOST PILE	TR	TRAFFIC RADIO
DPF	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DRB	DRAINAGE BIN	NB	NATIVE BRICK	TW	TIMBER WALL RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	UPVC PIPE
ES	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY BOX FENCE	OP	OPEN PIPE/WATER LINE	WC	WATER COURSE
ELF	ELECTRICITY CABLE FIT	OSF	OPEN STEEL RAILINGS	WL	WATER LEVEL
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POST	PB	PADDLE BOX	WP	WATER POST
EX	EXTENDED BOX	PF	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FOOTBRIDGE	PP	PARKING PAY	WW	WIRE WALL
FBB	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to CS survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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PROJECT/WATERCOURSE

WITHAM CHANNEL SURVEY

SITE/LIMITS

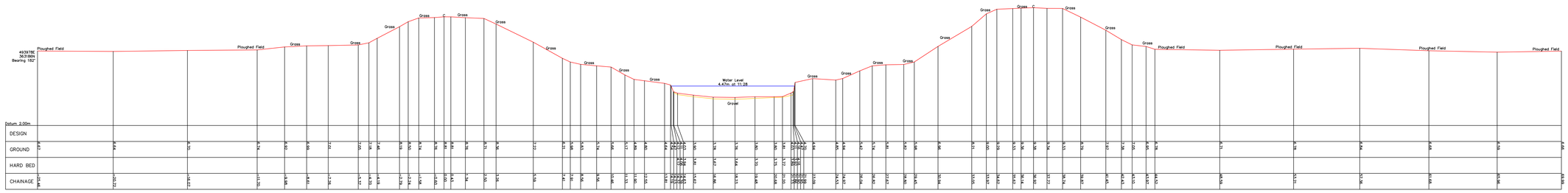
SK96616819 to SK91286252
Cross Sections
RW06108 to RW06464

SURVEYED BY: Malcolm Hughes — Ref. 5258M

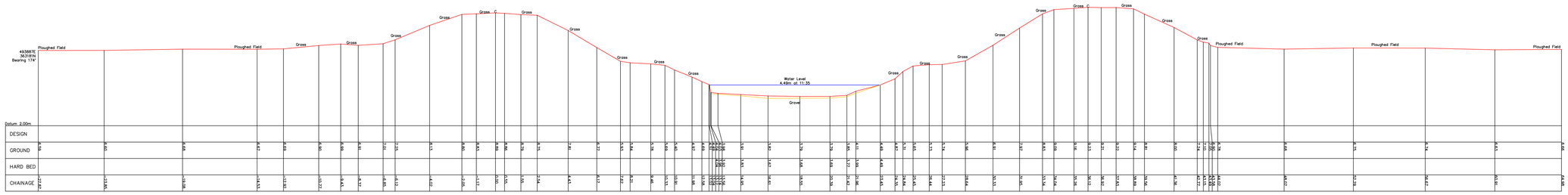
SURVEY DATE: November 2018

SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. X–J01434–17	REV. –

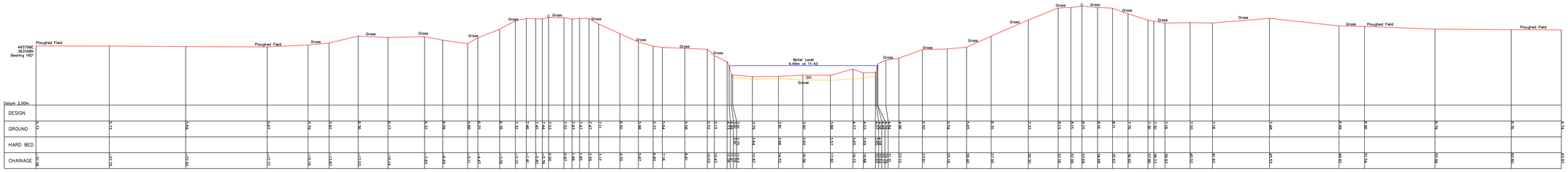
CAD FILENAME: F–01434.dwg



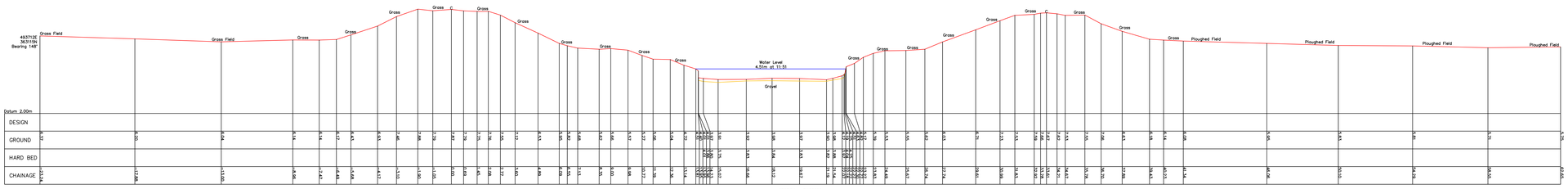
SECTION – RW06553
CHAINAGE – 6553
Date of Survey – 06/11/18



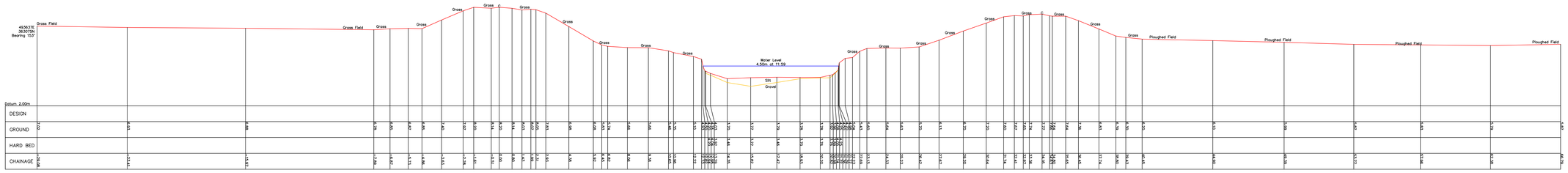
SECTION – RW06638
CHAINAGE – 6638
Date of Survey – 06/11/18



SECTION – RW06717
CHAINAGE – 6717
Date of Survey – 06/11/18

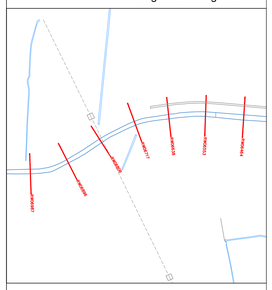


SECTION – RW06806
CHAINAGE – 6806
Date of Survey – 06/11/18



SECTION – RW06896
CHAINAGE – 6896
Date of Survey – 06/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
B	BOLLARD	FL	FLOOR LEVEL	RE	RODDING EYE
BCN	BELISHA BEACON	FP	FIELD POND	RG	RAIL GATE
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RCW	RETAINING WALL
BH	BOREHOLE	G	GULLY	RNP	RAINWATER PIPE
BL	BOLLARD LIGHT	GL	GROUND LEVEL	RS	RAIL SIGNAL
BRK	BRICKWORK	GP	GATE POST	SAP	STAND APPE
BS	BUS STOP	GM	GAS MARKER	SK	SOAKAWAY
BSP	BUS SHELTER	GV	GAS VALVE	SL	SIGN LIGHT
BW	BRICK WALL	HW	HEAD WALL	SMH	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
CAT	CATTLE GRID/WASHER	IL	INVERT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	IRF	IRON RAILING FENCE	STN	STATION
CL	COVER LEVEL	IRF	INTERMEDIATE FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	KG	KERB GRATE	TBM	TEMPORARY BENCH MARK
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CPP	COATED POST	LB	LETTER BOX	TBM	TEMPORARY BENCH MARK
CRF	CORRUGATED IRON FENCE	LC	LIGHT CABLE	TCP	TELEPHONE CABLE/POST
CV	CYCLE VALVE	LP	LAMP POST	TL	TELEGRAM CABINET
CW	CATTLE WALK, MANHOLE	LS	LIGHTING STANDARD	TP	TELEPHONE POLE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	TRL	TRAFFIC SIGNAL
DK	DECK LEVEL	MH	MANHOLE	TS	TRAFFIC SIGNAL
DP	DROP KERB	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DUMPERTE	MP	MOORING PILE	TP	TELEGRAPH POLE
DR	DRAIN, TRACK COURSE	MPF	MESH PERIMETER FENCE	TS	TRAFFIC SIGNALLING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE SUMP
DNB	DOG WASTE BIN	NB	NOTICE BOARD	TSB	TUBULAR STEEL RAILINGS
DNB	DOG WASTE BIN, DEFRA AGENCY	NRA	NATIONAL RIVERS AUTHORITY	TW	TIDE WALL
ES	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
ESF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
EM	ELECTRICITY MANHOLE	OSR	OVERSIDE STEEL RAILINGS	WM	WATER METER
EMP	ELECTRICITY MARKER POST	P	PILE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WPF	WOODEN POST
ET	ELECTRIC TRAP	PM	PREPAYMENT METER	WPR	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FIBERGLASS	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CA survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK93216390	7.563
E20512429	Destroyed	
E60512814	SK91840277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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PROJECT/WATERCOURSE

WITHAM CHANNEL SURVEY

SITE/LIMITS

SK96616819 to SK91286252
Cross Sections
RW06553 to RW06896

SURVEYED BY: Malcolm Hughes — Ref: 52584

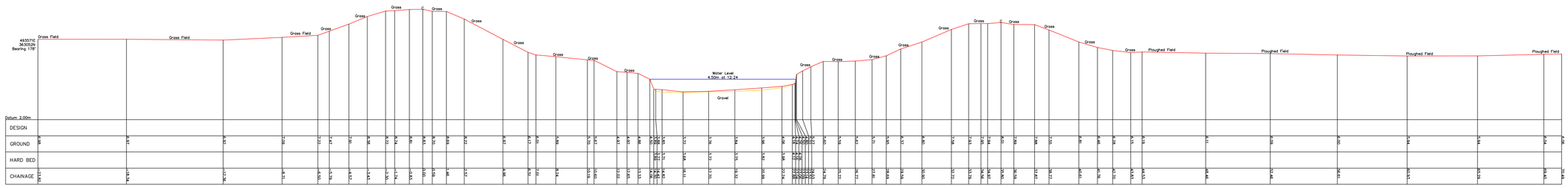
SURVEY DATE: November 2018

SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.

DATUM: ODN — DATE: DEC 18 — DATE: DEC 18

GRID: National — DRAWING NO. X-J01434-18 — REV. –

CAD FILENAME: X-J01434.dwg



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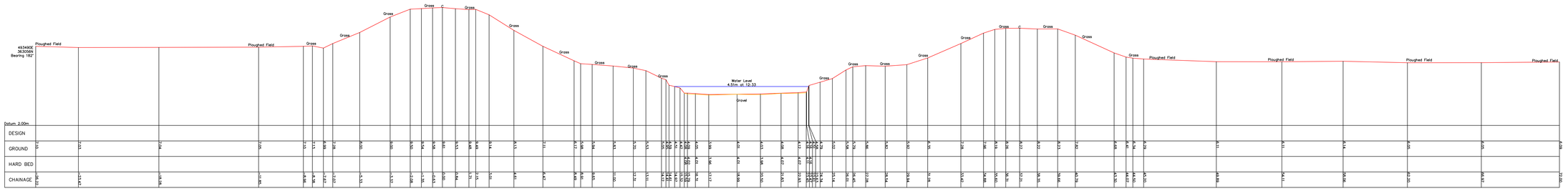
CHAINAGE = 6987
Date of Survey – 06/11/18



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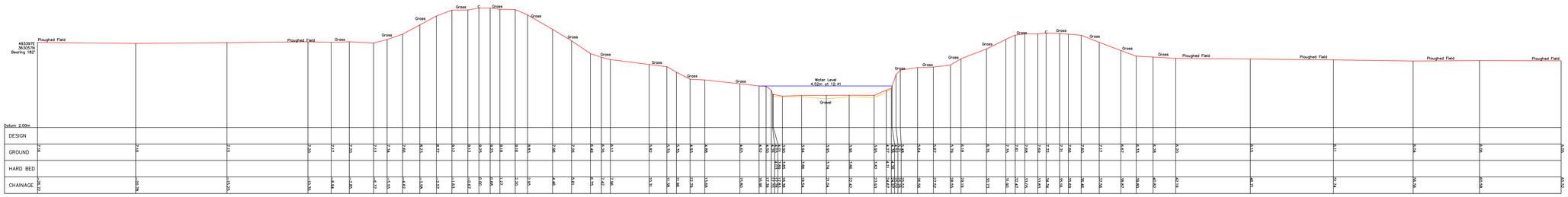
Date of Survey – 06/11/18



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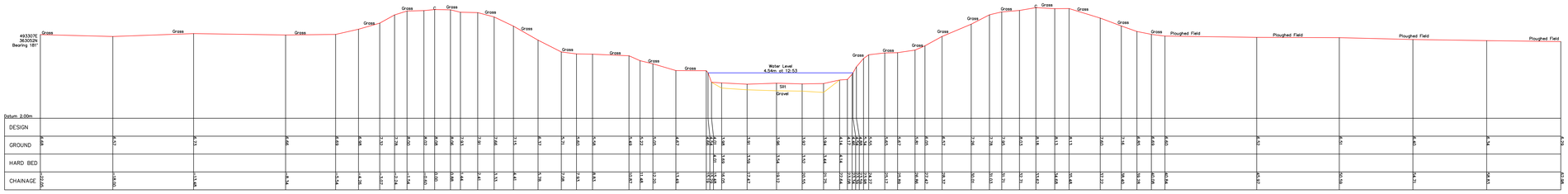
Date of Survey – 06/11/18



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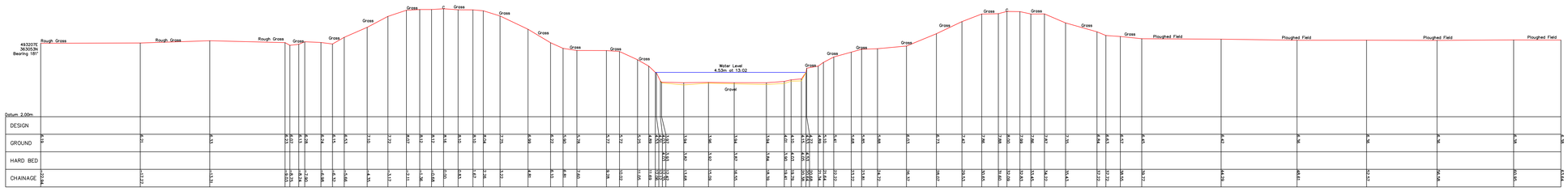
Date of Survey – 06/11/18



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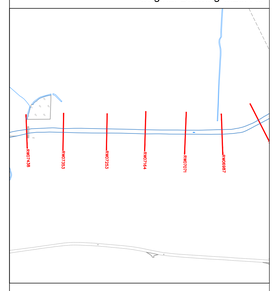
Date of Survey – 06/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FHI	FIRE HYDRANT MARKER	PNF	POST & WIRE FENCE
AV	AIR VALVE	FM	FIRE MARKER	RB	RODDI BARR
B	BOLLARD	FL	FLOOR LEVEL	RE	RODDING EYE
BE	BENCH MARK/EACH	FP	FIELD POND	RG	RAIL GATE
BH	BUOYANT	FWM	FOUL WATER MANHOLE	RW	RETAINING WALL
BH	BOREHOLE	G	GULLY	SMP	RAINWATER PIPE
BL	BILLARD	GL	GROUND LEVEL	SP	SIGN POST
BRK	BRICKWORK	GP	GATE POST	CGP	CONC GATE
BS	BUS STOP	GM	GAS MARKER	SG	SEAWARRT
BT	BENCH MARK	GV	GAS VALVE	SL	SLIDING GATE
BW	BRICK WALL	HW	HOUR WALL	SMW	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PLING
CB	CATCH BASIN/MANHOLE	IL	INVERT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	CYN	COVENANT
CL	COVER LEVEL	WF	WIREMESH FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	MF	MESH FENCE	SWP	SOIL VENT PIPE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LB	LETT BARR	TBM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LG	LOCKING GATE	TC	TELEPHONE CABINET/POST
CX	CYCLE RACK	LP	LAMP POST	TO	TELECOM CABINET
CTM	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
D	DOWN PIPE	MF	MESH/PALISADE FENCING	TP	TELEGRAPH POLE
DK	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
DL	DOOR LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	METAL PALING FILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TSJ	TIMBER SLEEPER STRIP
DS	DOG SPIKE	NB	NOTICE BOARD	TW	TIMBER WALL
DWB	DOG WASTE BIN	NB	NOTICE BOARD	TSR	TUBULAR STEEL RAILINGS
E	ELECTRICITY AGENCY	OAA	OVERHEAD ARMED AUTHORITY	VA	AIR VALVE
EL	EXCHANGE BOX	OHL	OVERHEAD CABLE	WB	WATER BOX
ELF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
ELP	ELECTRICITY POLE/PILLAR	PR	PRIVATE STEEL RAILINGS	WM	WATER METER
EMP	ELECTRICITY MARKER PT	PT	PIPE	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WP	WOODEN POST
ET	ELECTRICITY TOWER	PM	PREPAYMENT METER	WPR	WOODEN POST & RAIL FENCE
EL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBI	FIGTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to the survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK92216390	7.583
E20512429	Destroyed	
E60512814	SK91840277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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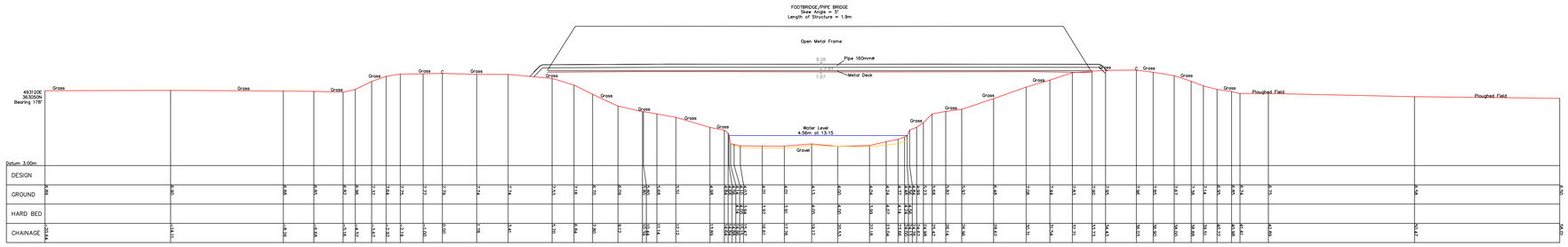
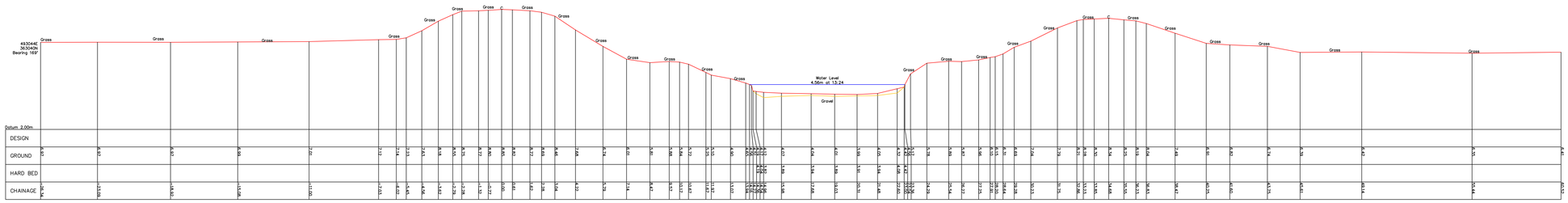
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

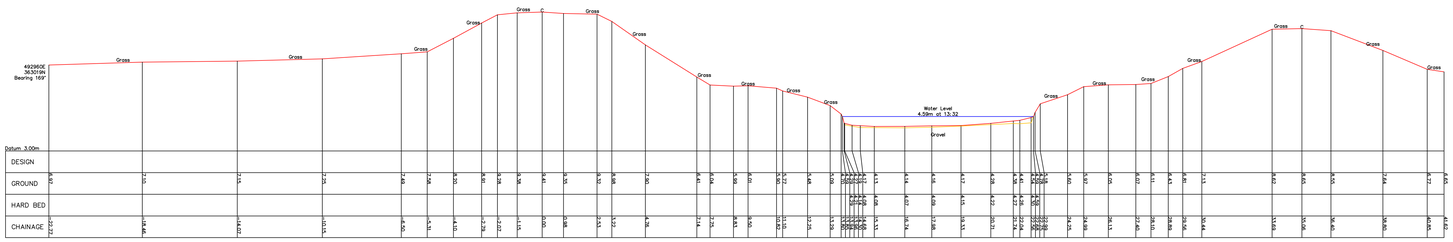
SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW06987 to RW07353

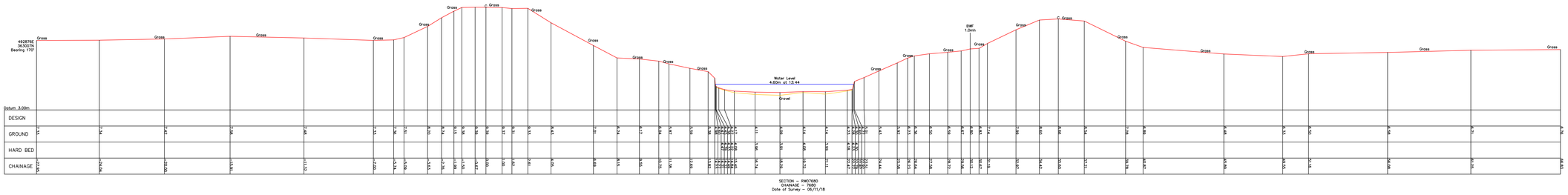
SURVEYED BY: Malcolm Hughes — Ref: 52584
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X–J01434–19 — REV. –
CAD FILENAME: X–J01434.dwg

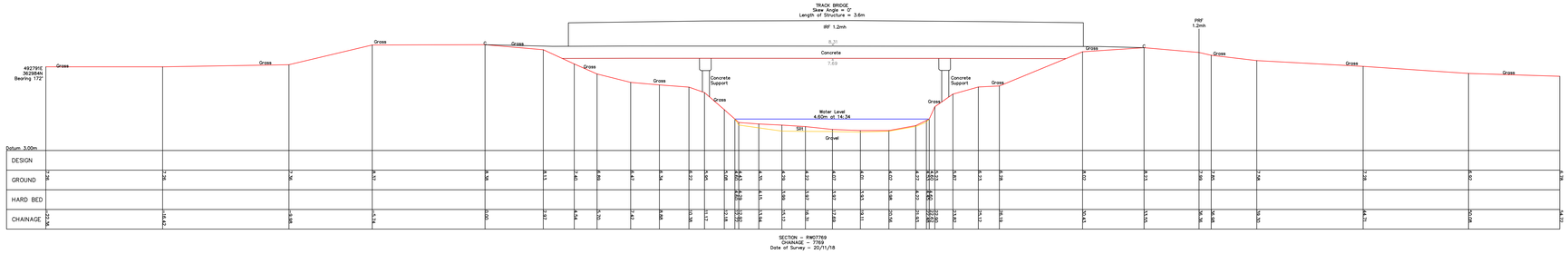
Original Drawing Size: A0

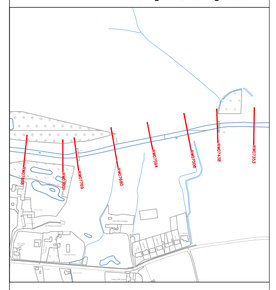












NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BH	BOREHOLE	FP	FENCE POST	RE	RAILWAY EDGE
BR	BELISHA BEACON	FR	FENCE ROOT	RS	ROAD SIGN
BDY	BOUNDARY	FRM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BL	BOLLARD	G	GULLY	SA	SOAKAWAY PITS
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SGP	STAND PIPE
BS	BUS STOP	GV	GAS VALVE	SL	SOFFIT LEVEL
BM	BENCH MARK	GV	GAS VALVE	CL	CUSTOM LEVEL
BW	BRICK WALL	HR	HEAD WALL	SMH	SURFACE WATER MANHOLE
CBF	CLOSE BOARDED FENCE	HC	HOT WATER CHAMBER	SP	SIGN POST (PLAIN)
CBF	CLOSE BOARDED FENCE	L	MARKT LEVEL	SP	SIGN POST
CF	CORRUGATED IRON FENCE	MF	MESH/RAILING FENCE	STV	STOPCOCK
CH	CHAINAGE	MH	MANHOLE COVER	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CP	CONCRETE POST	JC	JUNCTION CHAMBER	TF	TRIPLE STRAND FENCE
CP	CONCRETE POST	LB	LEFT BANK	TBM	TEMPORARY BENCH MARK
CW	ELECTRIC/BALING FENCE	LP	LAMP POST	TCL/TCP	TELECOM CABLE/ POLE/POST
CW	CATTLE WATER	LV	LEVEL VALVE	TC	TELECOM CABINET
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
DA	DRAIN ARROW	MF	MESH/RAILING FENCING	TL	TRAFFIC LIGHT
DH	DROP HYDR	MH	MANHOLE	TS	TRAFFIC LIGHT BOX
DI	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DW	DOG WASTE BIN	NB	NOTICE BOARD	TW	TIMBER/WIRE/ RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY/BALING FENCE	OP	OBSERVATION POST	WL	WATER LEVEL/WATER LINE
ELP	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
ES	ELECTRICITY SUPPLY	PB	PARKING BOX	WP	WOODEN POST
E	EARTHING BLOCK	PB	PARKING METER	WP	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FIBRE BOX	PRF	PARKING & RAIL FENCE	WW	WIRE FENCE
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to GA survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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PROJECT/WATERCOURSE

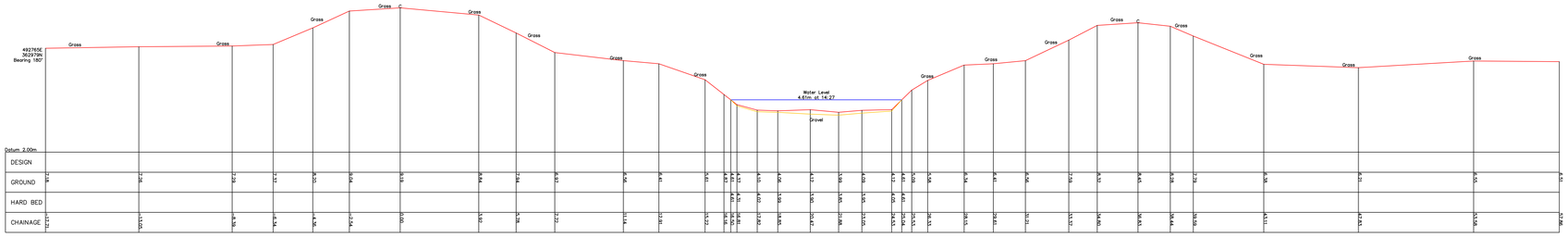
WITHAM CHANNEL SURVEY

SITE/LIMITS

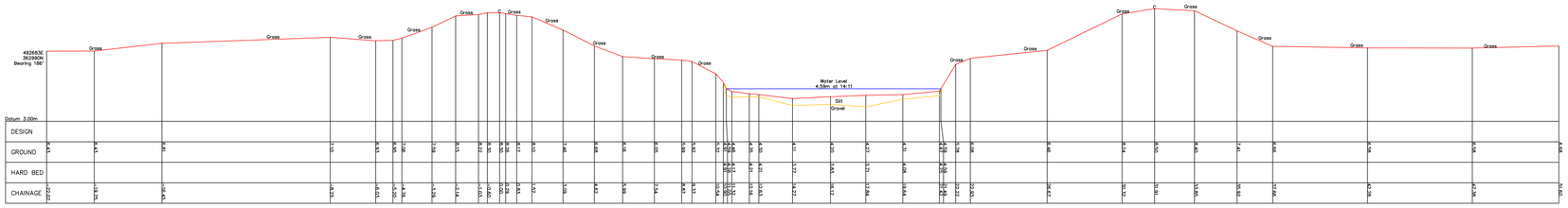
SK96616819 to SK91286252
Cross Sections
RW07438 to RW07769

SURVEYED BY: Malcolm Hughes		Ref: 5258f
SURVEY DATE: November 2018		
SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. X-J01434-20	REV. –

CAD FILENAME: X-J01434.dwg



SECTION – RW07801
CHAINAGE – 7801
Date of Survey – 07/11/18



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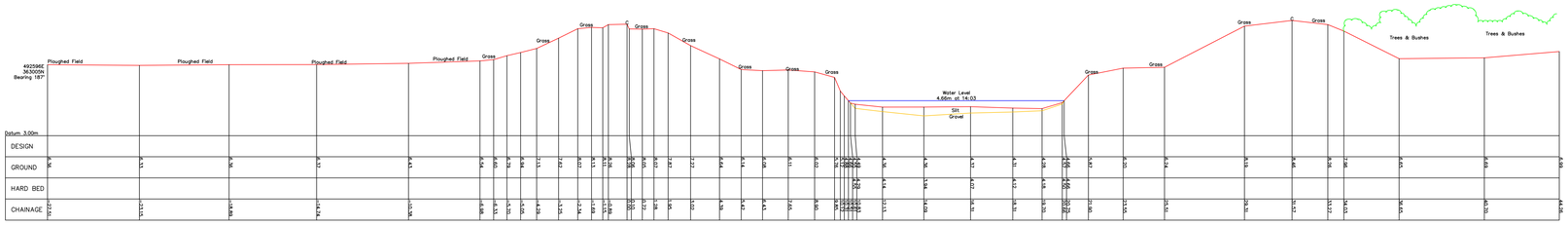
CHAINAGE – 7888
Date of Survey – 07/11/18



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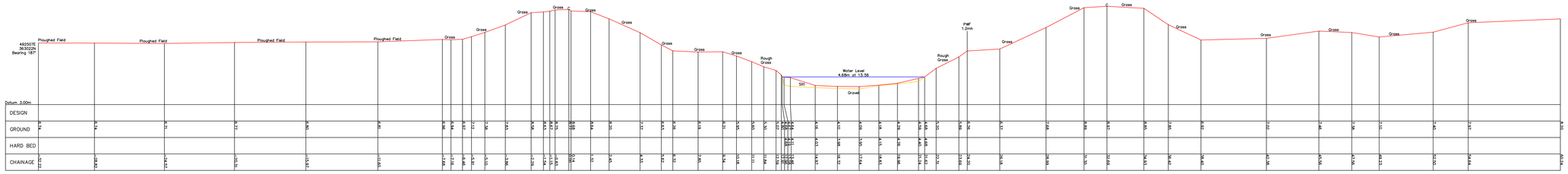
Date of Survey – 07/11/18



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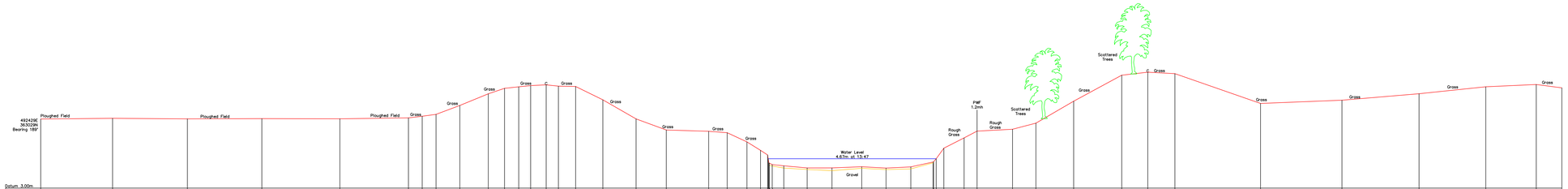
Date of Survey – 07/11/18



SECTION – RW08147
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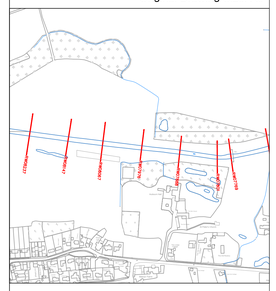
Date of Survey – 07/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PMF	POST & WIRE FENCE
B	BOLLARD	FM	FLOOD MONITORING MARKER	PO	PUMPING OIL
B	BOLLARD	FL	FLOOR LEVEL	RE	RODDING EYE
BB	BELISHA BEACON	FE	FENCE END	RG	ROAD GULLY
BH	BOREHOLE	FMH	FOUL WATER MANHOLE	RM	RAINWATER WELL
BH	BOREHOLE	G	GULLY	RMP	RAINWATER PIPE
BM	BENCHMARK	GL	GROUND LEVEL	S	SIGNPOST
BMH	BRO MANHOLE	GP	GATE POST	SGP	STAND PIPE
BO	BLIND OUTLET	GV	GAS VALVE	SL	SLUICE
BS	BUS STOP	GM	GAS MAIST	SL	SLUICE
BW	BRICK WALL	HW	HEAD WALL	SWL	SURFACE WATER MANHOLE
CAT	CATHODIC PROTECTION	HC	HOT WATER CHAMBER	TB	TELEGRAPH PLUNG
CBF	CLOSE BOARDED FENCE	K	INVERT LEVEL	TP	TIMB POST
CF	CORRUGATED IRON FENCE	RF	IRON RAILING FENCE	STN	STATION
CL	CHAIN LINK	JB	JUNCTION BOX	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	L	LAMP POST	TBM	TEMPORARY BENCH MARK
CPF	CHESTNUT PALING FENCE	LTB	LETTERBOX	TCP/CP	TELEPHONE CALL BOX/POST
CV	CYCLE SWCH	LV	LAMP POST	TC	TELECOM CABINET
DM	DRAIN MANHOLE	LP	LOCKABLE BOLLARD	TCL	TRANSFORMER CABIN
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
DN	DROP KERB	MH	MANHOLE	TL	TRAFFIC LIGHT
DP	DOWN PIPE	MO	MOORING	TLB	TELEGRAPH BOX
D	DOMESTIC	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DRAIN	NG	NATURAL GAS	TS	TRAFFIC SIGNAL
DWB	DOG WASTE BIN	NG	NOTICE BOARD	TSP	TUBULAR STEEL RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	VP	VENT PIPE
EB	ELECTRICITY BOX	OB	OBSERVATION BOX	WB	WATER BOX
ECF	ELECTRIC CABLE FENCE	OS	ORDNANCE SURVEY	WL	WATER LEVEL/WATER LINE
ECP	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EP	ELECTRICITY PANEL	P	PIPE	WMF	WOODEN MAIST FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WPF	WOODEN POST
ETL	ELECTRICITY TOWER	PC	POINT CLOSED	WPF	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PP	POSTERN	WS	WATER SHUT
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE	(Abbreviations apply to EA survey data only)	

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
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Environment Agency

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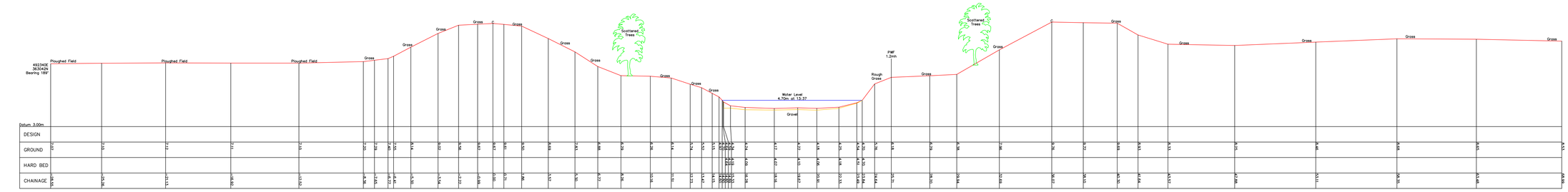
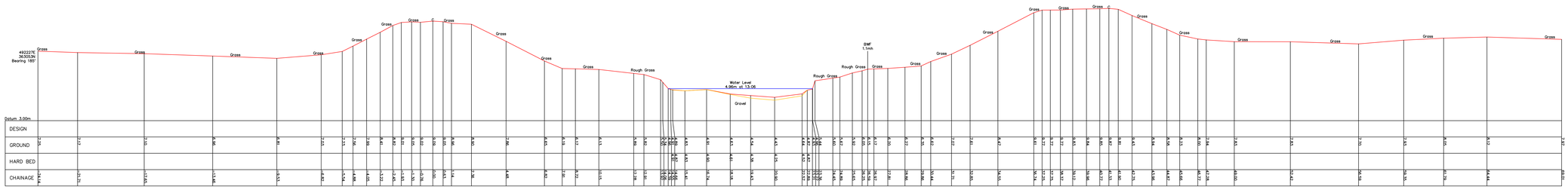
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW07801 to RW08147

SURVEYED BY: Malcolm Hughes — Ref: 5258M
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X-J01434-21 — REV. --
CAD FILENAME: X-J01434.dwg



SECTION – RW08237
CHAINAGE – 8237
Date of Survey – 07/11/18



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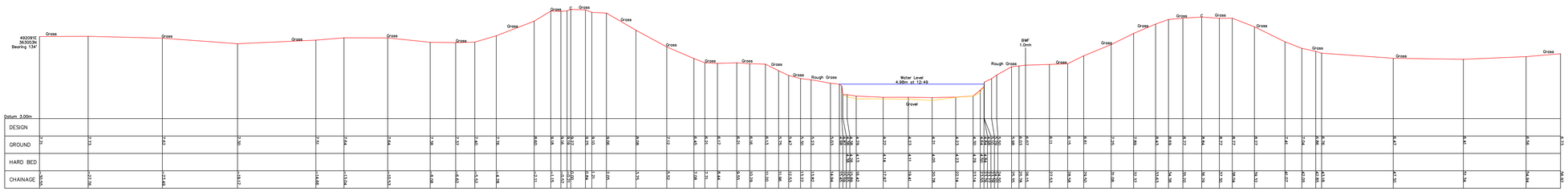
Date of Survey – 07/11/18



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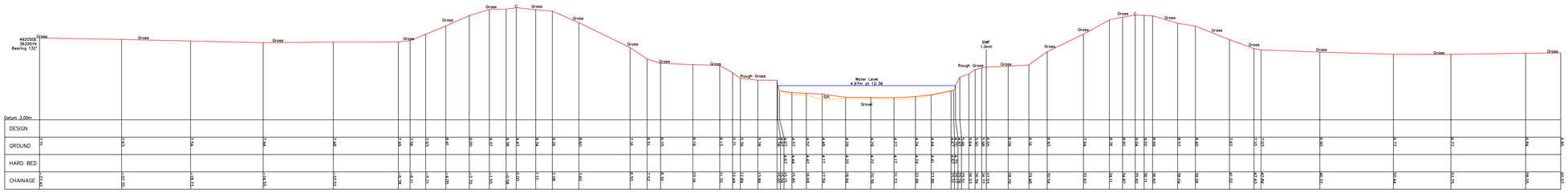
Date of Survey – 07/11/18



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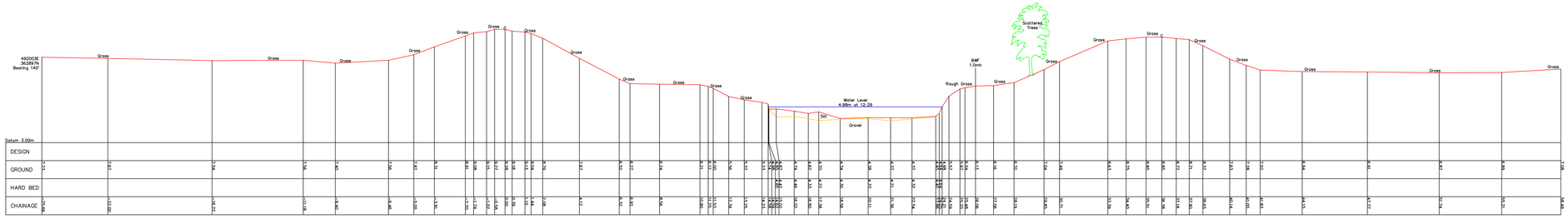
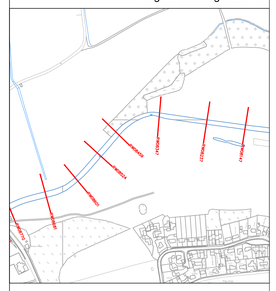
Date of Survey – 07/11/18



SECTION – RE08601
CHAINAGE – 8601
Date of Survey – 07/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BB	BUS BOARD	FL	FLOOD LEVEL	RE	RAIL ELEVATION
BE	BOLLARD BEACON	FO	FENCE POST	RL	ROAD NAIL
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	SA	SIGNAL ARM/PIPE
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SGP	STAND PIPE
BS	BUS STOP	GR	GRATED GULLY	SP	SIGN POST
BM	BENCH MARK	GV	GAS VALVE	SL	SUPPLY LEVEL
BW	BRICK WALL	HW	HEAD WALL	SMH	SURVEY WATER MANHOLE
CBF	CLOSE BOARDED FENCE	I	INVERT LEVEL	SPM	SOIL PIPE/VENT PIPE/MAST
CHF	CLOSE WIRELESS FENCE	IL	INVERT LEVEL	SP	DOG POST
CF	CORRUGATED IRON FENCE	IRF	IRON RAILING FENCE	STN	STAYSAIL
CH	CHAINAGE	JB	JUNCTION BOX/CHAMBER	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	JE	JUNCTION BOX	SVP	SOIL VENT PIPE
CONC	CONCRETE	KS	KERB SLAT SCALLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LP	LAMP POST	TBM	TEMPORARY BENCH MARK
CPF	CHESTNUT PALING FENCE	LTB	LITTERBIN	TCB/POB	TELEPHONE CALL BOX/POST
CS	CYCLE SIGN	LW	LAMP WALL	TC	TELECOM CABINET
CV	CABLE TV MANHOLE	MB	MARKER BOLLARD	TCM	TELECOM MANHOLE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	TFL	THREEPOLE LEVEL
DC	DOG COLLAR	MH	MANHOLE	TP	TELEGRAPH POLE
D	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MAINTENANCE PILE	TRP	TRAFFIC PEDESTAL
DPF	DOMESTIC PALISADE FENCE	MRF	METAL RAILING FENCE	TSR	TIMBER RUBBING STRIP
DRN	DRAIN	MS	MILE STONE	TS	TREE STUMP
DSB	DOG SHUTTE BIN	NB	NOTICE BOARD	TW	TIMBER WATTLE RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	VENT PIPE
ED	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BIN
EF	ELECTRICITY FENCE	OHL	OVERHEAD LINE	WBL	WATER BOUNDARY/WATER LINE
ELF	ELECTRICITY CABLE, FIT	OSP	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
ER	ELECTRICITY POLE	PB	PARKING BOX	WP	WOOD POST
EX	EXPANSION BOX	PM	PARKING METER	WPF	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PO	POST	WV	WATER VALVE
FB	FOOTBRIDGE	PP	PHONE POLE	WW	WIRE WALL
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CD survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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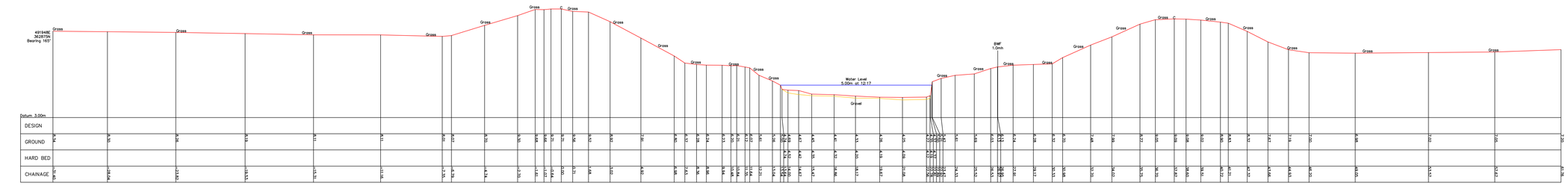
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW08237 to RW08601

SURVEYED BY: Malcolm Hughes — Ref. 5258M
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X-J01434-22 — REV. –
CAD FILENAME: F-01434.dwg



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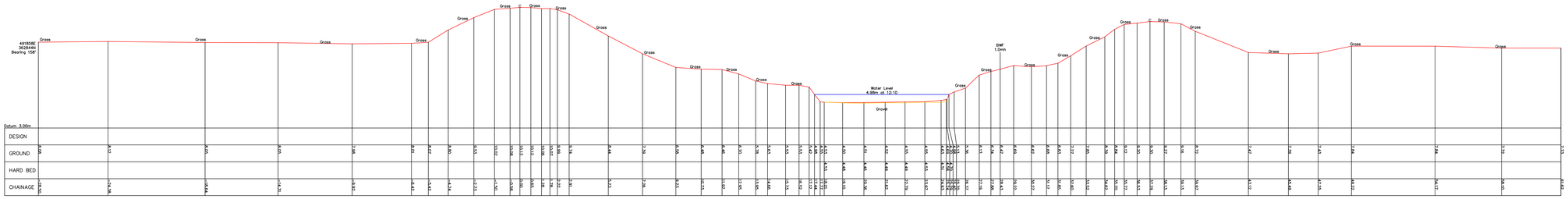
CHAINAGE – 8681
Date of Survey – 07/11/18



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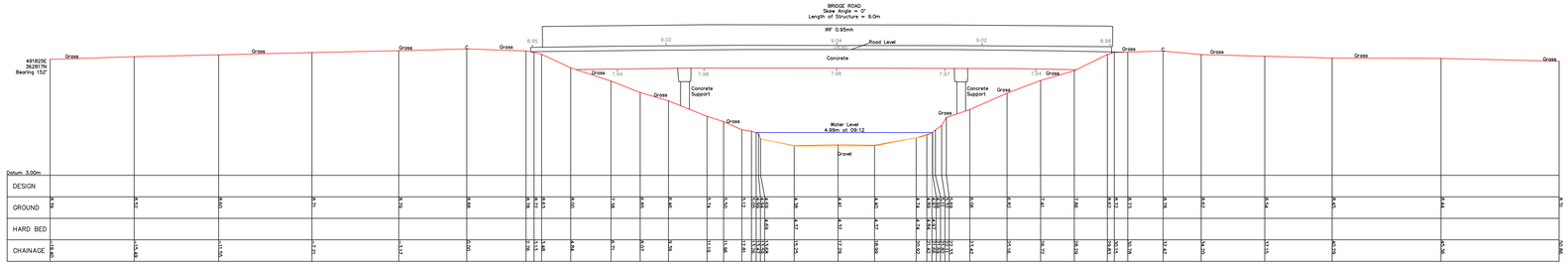
CHAINAGE – 8770
Date of Survey – 07/11/18



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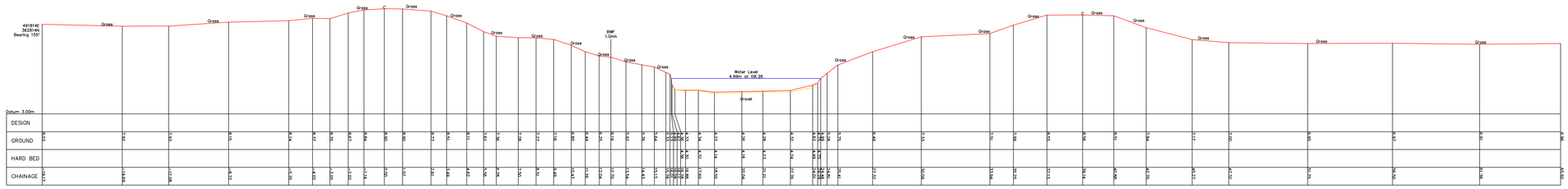
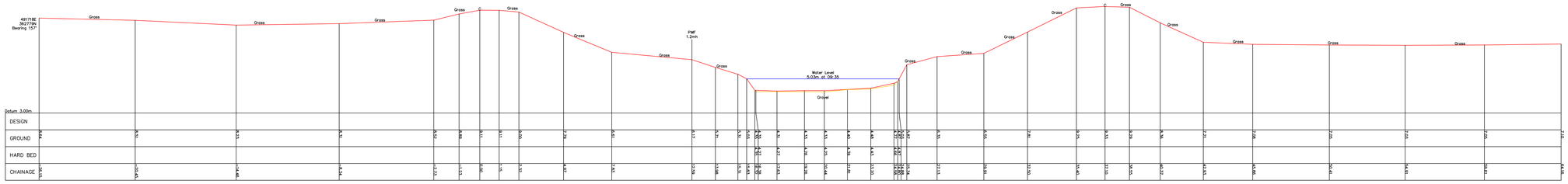
CHAINAGE – 8807
Date of Survey – 28/10/18

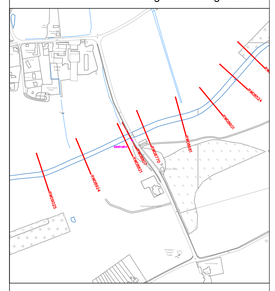


SECTION – RW08821
CHAINAGE – 8821
Date of Survey – 07/11/18



SECTION – RW08924
CHAINAGE – 8924
Date of Survey – 07/11/18

Original Drawing Size: A0



NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FH	FIRE HYDRANT	PNF	POST & WIRE FENCE
AV	AIR VALVE	FHM	FIRE HYDRANT MARKER	RB	RIGHT BANK
BA	BALLARD	FP	FENCE POST	RC	RECTANGULAR CUL
BB	BELGIAN BEACON	FS	FENCE POST	RL	ROAD SIGN
BDY	BOUNDARY	FWM	FOUL WATER MANHOLE	RTW	RETAINING WALL
BH	BOREHOLE	G	GULLY	SA	SOAKAWAY PITS
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BRK	BRICKWORK	GP	GATE POST	SG	SIGNAL POST
BS	BUS STOP	GV	GAS VALVE	SP	SOAKAWAY
BM	BENCH MARK	GW	GAS WATER	SL	SUPPLY LEVEL
CB	CATCH BASIN	HT	HEDGE TRIM	SWM	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SWF	SHEET METAL PILING
CHF	CHAIN LINK FENCE	IL	INVERT LEVEL	TP	TEST PIT
CIF	CLOSE BOARDED FENCE	IRF	IRON RAILING FENCE	TS	CONTROL POST
CL	COVER LEVEL	INF	INTERMEDIATE FENCE	SV	SLICE VALVE
CLF	CHESTNUT PALE FENCE	KB	KERB BLOCK	TW	TRAFFIC WATER
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEET WIRE FENCE
CP	CONCRETE POST	LG	LEFT BANK	TEM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LP	LAMP POST	TELVOP	TELEPHONE VOICE DATA/POST
CX	CYCLE BACKS	LV	LIGHT POST	TP	TELEGRAPH POLE
CTV	CABLE T.V. MANHOLE	MB	MOORING BOLLARD	TWM	TELECOM MANHOLE
DA	DRAIN ARROW	MCF	MESH CHAINLINK FENCING	TL	TRAFFIC LEVEL
DH	DROP KERB	MF	MANHOLE	TS	TRAFFIC LIGHT
DI	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DOWN PIPE	MP	MOORING PILE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DOG	MS	MILE STONE	TS	TREE STUMP
DW	DRY WATER BRK	NG	NATURAL GROUND	TSR	TIMBER STEEL RAILINGS
EA	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	UNDER PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WASTE BIN
EF	ELECTRICITY BOUND FENCE	OP	OUTFALL PIPE	WL	WATER LEVEL/WATER LINE
EGP	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMH	ELECTRICITY MANHOLE	P	PILE	WMF	WIRE MESH FENCE
ES	EARTHING STAY	PB	PARKING BAY BOX	WP	WATER POST
ET	EARTHING BLOCK	PM	PARKING METER	WS	WOODEN POST & RAIL FENCE
ETL	ELECTRICITY TRANSMISSION LINE	PNF	POST & WIRE FENCE	WV	WATER VALVE
FB	FIBRE BOX	PRF	POST & RAIL FENCE	YG	YARD GULLY
FOB	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to the survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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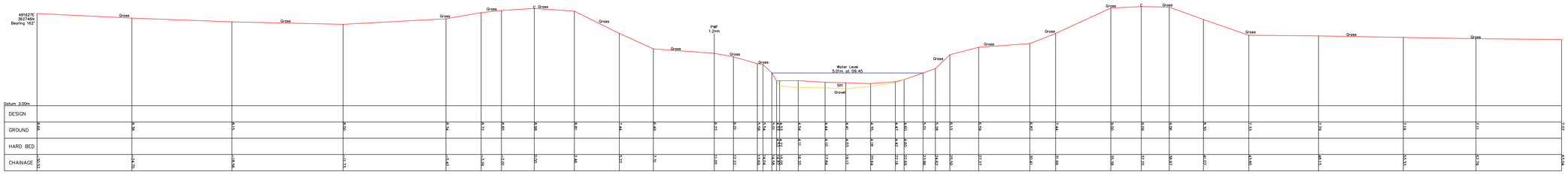
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

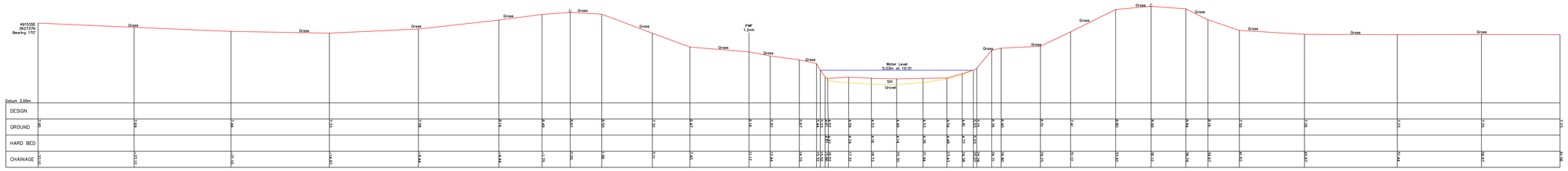
SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW08681 to RW08924

SURVEYED BY: Malcolm Hughes		Ref 3258M
SURVEY DATE: November 2018		
SCALE: 1:00	DRN: K.D.L.	CHKD: T.P.
DATUM: ODN	DATE: DEC 18	DATE: DEC 18
GRID: National	DRAWING NO. X-J01434-23	REV. –
CAD FILENAME: X-J01434.dwg		

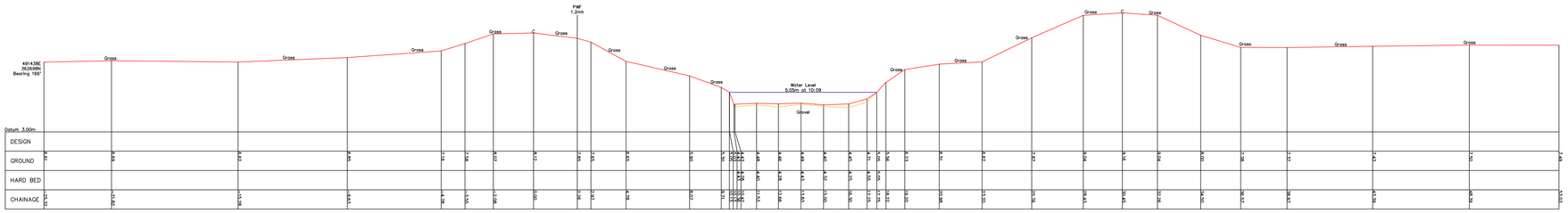
Original Drawing Size: A0



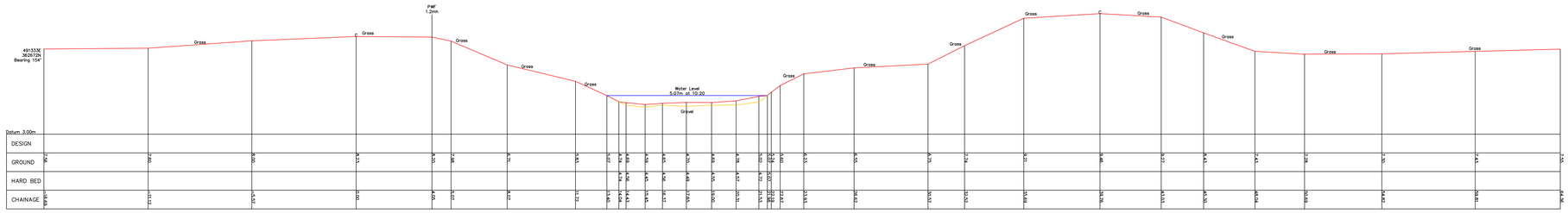
SECTION – RW09025
CHAINAGE – 9025
Date of Survey – 07/11/18



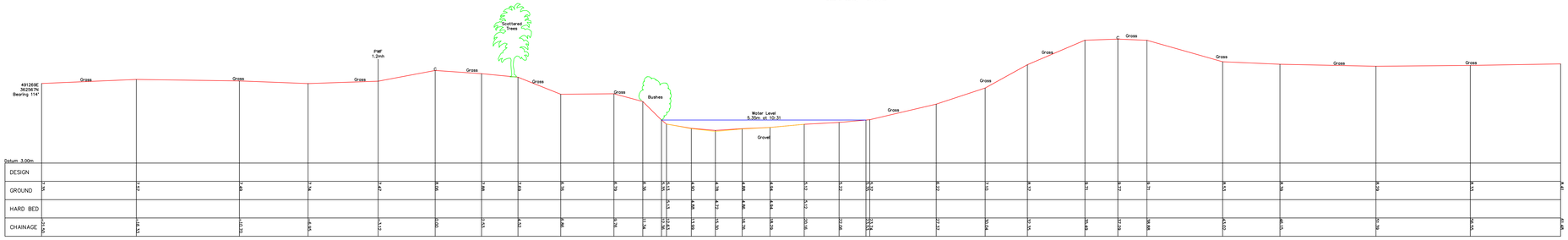
SECTION – RW09125
CHAINAGE – 9125
Date of Survey – 07/11/18



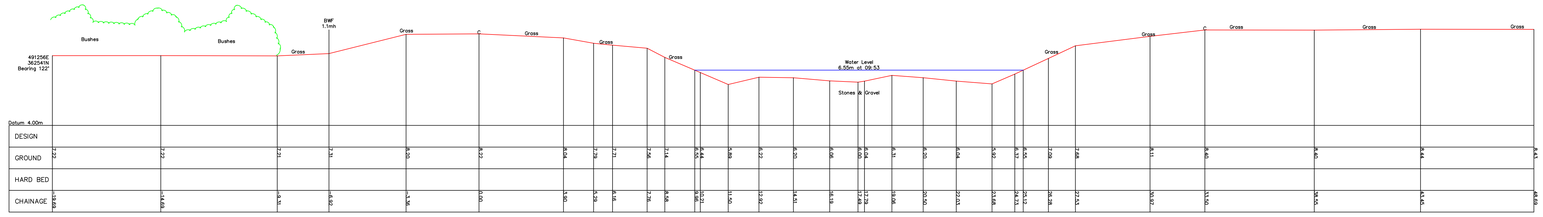
SECTION – RW09225
CHAINAGE – 9225
Date of Survey – 07/11/18



SECTION – RW09325
CHAINAGE – 9325
Date of Survey – 07/11/18



SECTION – RW09428
CHAINAGE – 9428
Date of Survey – 07/11/18



SECTION – RW09462
CHAINAGE – 9462
Date of Survey – 22/11/18

NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	PIL	FIRE HYDRANT	PMF	POST & WIRE FENCE
A	AIR VALVE	FM	FIRE HYDRANT MARKER	PB	POST BOX
BO	BOLLARD	FL	FLAG POLE	RE	RODDING EYE
BB	BELISHA BEACON	FP	FENCE POST	RS	ROAD SIGN
BH	BOREHOLE	FM	FOUL MANHOLE	RM	RODDING MANHOLE
BHV	BOREHOLE	G	GULLY	RMP	RAINWATER PIPE
BL	BED LEVEL	GL	GROUND LEVEL	RW	RAINWATER
BM	BED LEVEL	GV	GATE VALVE	SC	STAND CPM
BS	BUS STOP	GM	GAS MARKER	SV	SCRAWVALVE
BT	BUSINESS TURN	GP	GAS POST	SP	SIGN POST
BW	BRICK WALL	HW	HEDGE WALL	SMH	SURFACE WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SWP	SHEET METAL PILING
CB	CAST IRON BOLLARD	IP	IRON PIPE	SL	SOFT LEVEL
CF	CLOSE BOARD FENCE	RF	IRON RAILING FENCE	CON	COCKCOM
CL	COVER LEVEL	MF	KITCHEN FENCE	SV	SLUICE VALVE
CLF	CHAIN LINK FENCE	KG	KERB GULLY	SW	SOFT WATER PIPE
CONC	CONCRETE	KG	KERB INLET GULLY	SWF	SHEEP WIRE FENCE
CP	CONCRETE POST	LD	LEFT DRAIN	TBM	TEMPORARY BENCH MARK
CPF	CONCRETE PANEL FENCE	LB	LIGHT BULB	TCP	TELEPHONE CONCRETE POLE/POST
CY	CYCLE RACK	LP	LAMP POST	TC	TELECOM CABINET
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
DA	DRAIN ARM	MF	MOORING FLOATING FENCING	TL	TRAFFIC LIGHT (FIXED)
DP	DROP KERB	MT	MARKER	TL	TRAFFIC LIGHT
DL	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DLF	DOG LEGFENCE	MP	METAL PIPE	TP	TELEGRAPH POLE
DPC	DAMP PROOF COURSE	MRF	METAL RAILING FENCE	TRS	TIMBER RUBBING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE STUMP
DRN	DRAIN	NB	NATIONAL BIN	TW	TIMBER WALL RAILINGS
DL	ENVIRONMENT AGENCY	NRA	NATIONAL RIVERS AUTHORITY	UP	UNIT PIPE
ED	ELECTRICITY BOX	OC	OVERHEAD CABLE	WB	WATER BOX
EF	ELECTRICITY BOX FENCE	OH	OVERHEAD LINE SURVEY	WL	WATER LEVEL
EUP	ELECTRICITY CABLE PIT	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMP	ELECTRICITY MANHOLE	OT	OTTER	WMF	WIRE MESH FENCE
EP	ELECTRICITY POST	PB	PILLAR BOX	WP	WOODEN POST
ES	EARTHING STAY	PW	PARKING METER	WPR	WOODEN POST & RAIL FENCE
EW	ELECTRICITY TRANSMISSION LINE	PO	POST	WS	WOODEN STAY
FB	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FOB	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CS survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20515139	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK93216190	7.583
E20512429	Destroyed	
E60512814	SK91846277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
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Environment Agency

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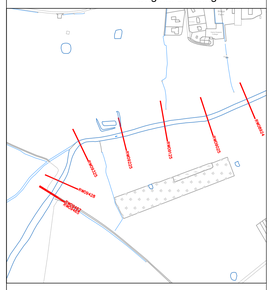
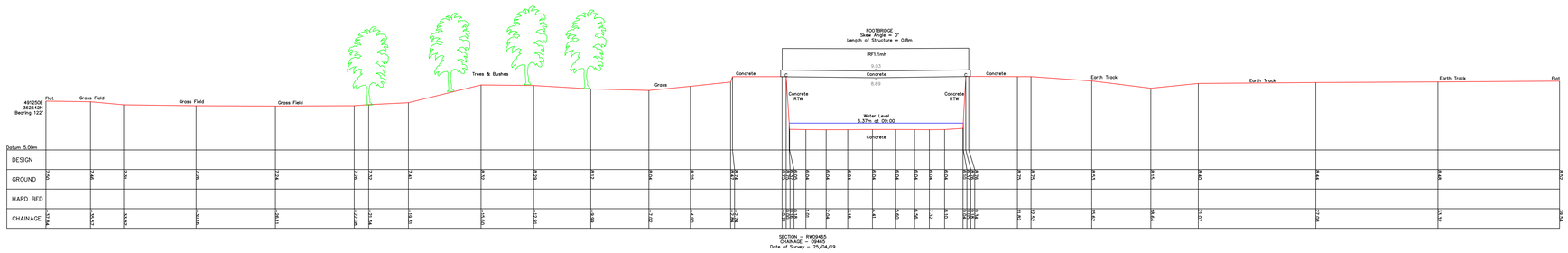
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW09025 to RW09462

SURVEYED BY: Malcolm Hughes — Ref: 52564
SURVEY DATE: November 2018
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: DEC 18 — DATE: DEC 18
GRID: National — DRAWING NO. X-J01434-24 — REV. –
CAD FILENAME: X-J01434.dwg

Original Drawing Size: A0





NOTES:
1. A REPORT HAS BEEN PRODUCED FOR THIS SURVEY.
2. SOME LEVELS MAY NOT BE SHOWN ON THIS PLOT DUE TO OVERWRITING. REFER TO AUTOCAD FILE (LAYER 'OVER').
3. ALL CROSS-SECTIONS ARE VIEWED LOOKING DOWNSTREAM.

SURVEY LEGEND

AB	AIR BRICK	FV	FIRE HYDRANT	PWF	POST & WIRE FENCE
AV	AIR VALVE	FVM	FIRE HYDRANT MARKER	RG	RODDING EYE
B	BOLLARD	FY	FENCE POST	RS	RIVER STAFF
BB	BELOW BEACON	FZ	FENCE POST	RZ	ROAD SIGN
BCV	BOREHOLE	FWM	FIELD WATER MANHOLE	SAP	SANITARY PIPE
BH	BORHOLE	G	GULLY	SDP	RAINWATER PIPE
BL	BED LEVEL	GL	GROUND LEVEL	SC	STOP COCK
BM	BENCH MARK	GP	GATE POST	SD	STORM DRAIN
BS	BUS STOP	GM	GAS MARKER	SK	SEAMARK
BW	BEACH WARN	GV	GAS VALVE	SL	SUPPLY LEVEL
CB	CATCH BASIN	H	HEDGE	SMH	SANITARY WATER MANHOLE
BWF	BARBED WIRE FENCE	IC	INSPECTION CHAMBER	SMP	SHEET METAL PILING
CBF	CLOSE BOARDED FENCE	IL	INVERT LEVEL	SP	SIGN POST
CC	CONCRETE BLOCK FENCE	KF	KICKING POST FENCE	SV	SLUICE VALVE
CL	COVER LEVEL	MF	MOTORWAY FENCE	SS	SLUICE VALVE
CLF	CHAIN LINK FENCE	JB	JUNCTION BOX	SVP	SOIL VENT PIPE
CP	CONCRETE POST	LG	LOCKED GATE/ GULLY	TBM	TEMPORARY BENCH MARK
CPP	CONCRETE POST	LP	LOFT HATCH	TBW	TEMPORARY BENCH MARK
CRF	CHESTNUT PALING FENCE	LTB	LITTERBOX	TCB/TCP	TELEPHONE CALL BOX/POST
CS	CLEAR SPAN	LV	LOCKED VALVE	TF	TRAFFIC FENCE
CTV	CABLE TV MANHOLE	MB	MOORING BOLLARD	TMH	TELECOM MANHOLE
CUL	CULVERT	MF	MISCELLANEOUS FENCING	THL	THRESHOLD LEVEL
CW	CATCH WATER	MH	MANHOLE	TL	TOP OF LADDER
D	DECK LEVEL	MKR	MARKER	TLB	TRAFFIC LIGHT BOX
DP	DUMPIER	MP	MOORING PILE	TP	TELEGRAPH POLE
DR	DRAIN/ ROOF COURSE	MPF	MOVABLE PALING FENCE	TPS	TEMPORARY PAINING STRIP
DR	DRAIN	MS	MILE STONE	TS	TREE SCRAP
DWB	DOG WASTE BIN	NB	NOTICE BOARD	UP	UNLAIR STEEL RAILINGS
E	ELECTRICITY AGENCY	NRA	NATIONAL RIVERS AUTHORITY	VP	VENT PIPE
EB	ELECTRICITY BOX	OHC	OVERHEAD CABLE	WB	WATER BOX
ECF	ELECTRICITY CABLE FENCE	OHL	OVERHEAD LINE	WC	WATER CONTROL/ WATER LINE
EGF	ELECTRICITY GUARD FENCE	OSR	OPEN STEEL RAILINGS	WM	WATER METER
EMF	ELECTRICITY MANHOLE	P	POST	WMF	WIRE MESH FENCE
EP	ELECTRICITY POLE	PB	PILLAR BOX	WMP	WATER MAIN PIPE
ER	EARTHING ROD	PM	PARKING METER	WPR	WOODEN POST & RAIL FENCE
ET	ELECTRICITY TRANSMISSION LINE	PMF	PALISADE	WS	WATER STOP
FL	FLOWER BED	PRF	POST & RAIL FENCE	YG	YARD GULLY
FBR	FOOTBRIDGE	PTM	PARKING TICKET MACHINE		(Abbreviations apply to CA survey data only)

REV.	AMENDMENT	DRN	CHKD	DATE

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
E20511517	SK96626817	7.044
E20511539	SK95576513	5.733
E20512456	SK94636285	6.978
E20512769	SK95216390	7.583
E20512429	Destroyed	
E60512814	SK91844277	8.962

CONTROL USED:

TYPE	DESCRIPTION	LEVEL
–		

Environment Agency

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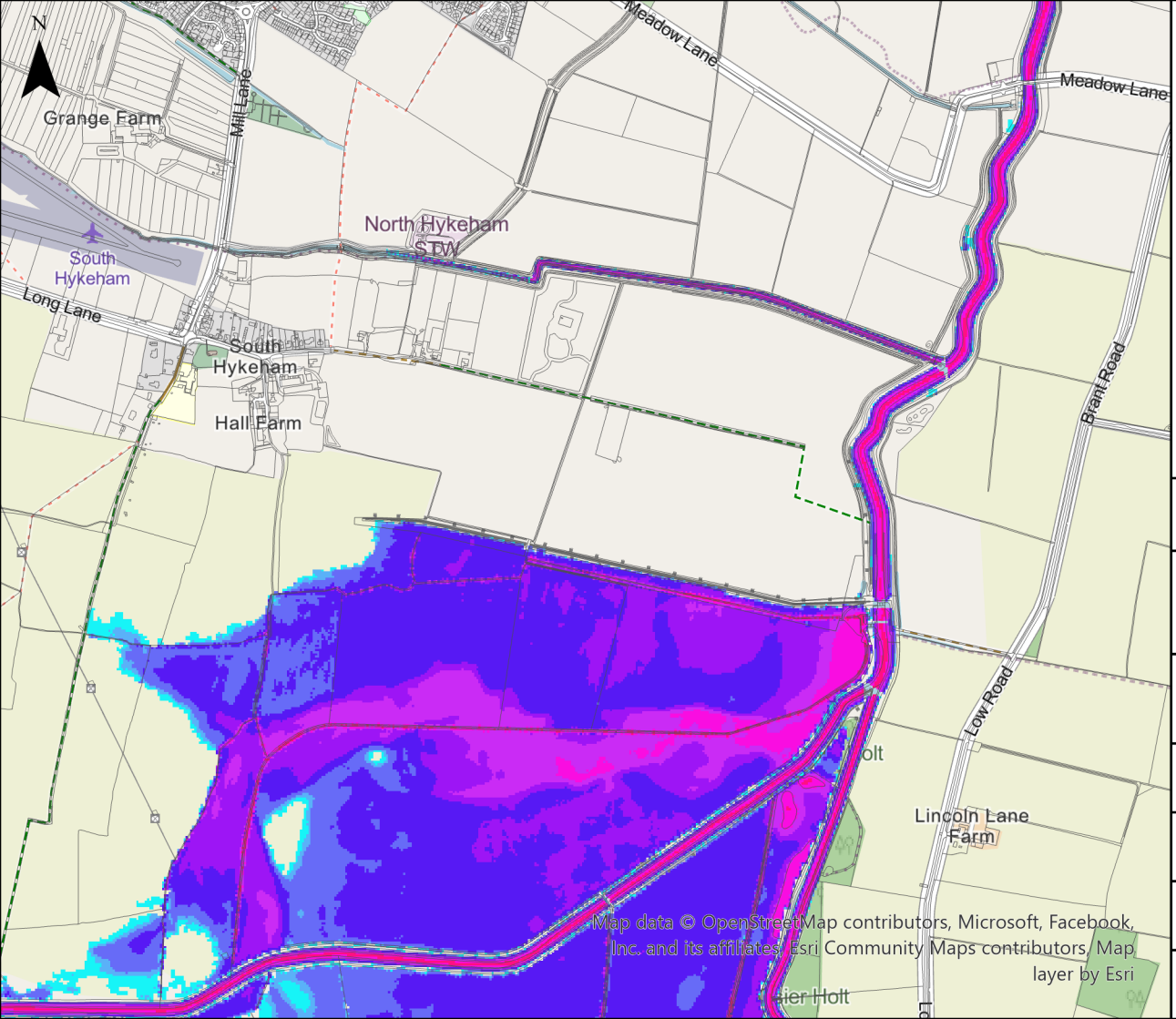
PROJECT/WATERCOURSE
WITHAM CHANNEL SURVEY

SITE/LIMITS
SK96616819 to SK91286252
Cross Sections
RW09465

SURVEYED BY: Malcolm Hughes — Ref: 52584
SURVEY DATE: April 2019
SCALE: 1:00 — DRN: K.D.L. — CHKD: T.P.
DATUM: ODN — DATE: APR 19 — DATE: APR 19
GRID: National — DRAWING NO. X–J01434–25 — REV. –
CAD FILENAME: X–J01434.dwg

APPENDIX 4
NHRR HYDRAULIC MODEL RESULTS MAPPING



Legend

Baseline 100-year

Depth (m)

- < 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 3.0
- 3.0 <

Scale

0 0.1 0.2 0.4 km

Figure Title

NHRR Hydraulic Modelling Flood Depths

Project Name

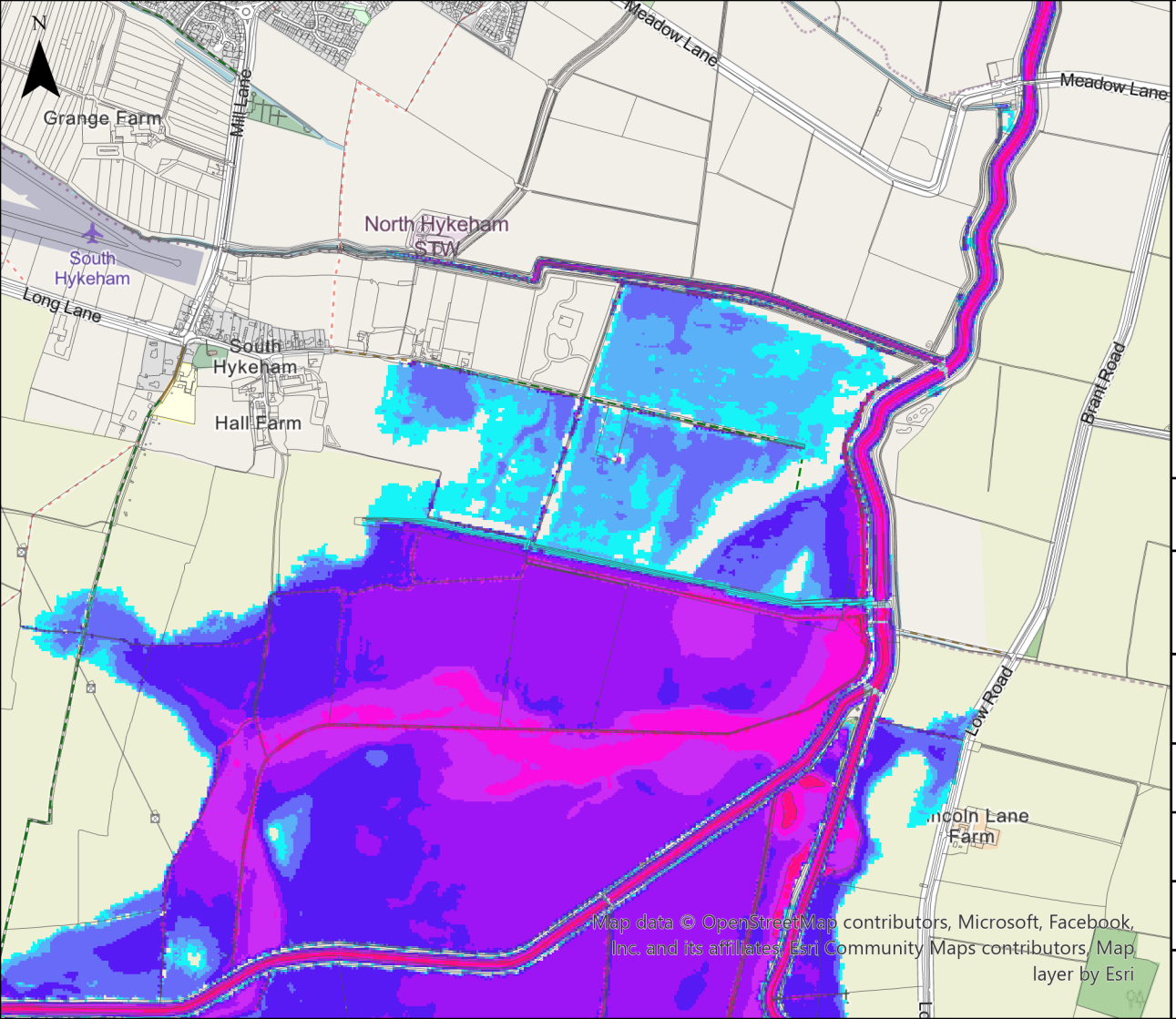
North Hykeham Relief Road

Project Number	Issue
1620013942	1
Date	**Prepared By**
June 2023	HN

Client

Balfour Beatty

RAMBOLL



Legend

Baseline 100-year Climate Change (2080 Higher)

Depth (m)

- < 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 3.0
- 3.0 <

Scale

0 0.1 0.2 0.4 km

Figure Title

NHRR Hydraulic Modelling Flood Depths

Project Name

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