



PUR15469

25 March 2021

Dear Ark,

Project Union

I would like to update you following receipt of the 'Sewer Alignment and Condition Survey' from Infotec of the 2134mm diameter Thames Water Crane Valley Sewer.

Following a review of the report, videos and images, HDR would concur with the Infotech findings that the sewer appears to be in a serviceable condition with no visible defects.

The report shows the IL of the sewer to be between 16.65mAOD at the north east of the site to 16.33mAOD where it leaves the site at the south boundary and a constant 2.13m in height throughout.

The alignment of the sewer deviates minimally but is it within the approximate location based on our original assumptions and record information.

A summary from the report says the following:

- Structural defects: All inspected pipes are in an acceptable structural condition
- Service/Operational Condition: All inspected pipes are in an acceptable service condition
- Abandoned Surveys: All inspections complete, none were abandoned.

Please find enclosed the survey for your own information and records.

Yours sincerely
HDR | Hurley Palmer Flatt

David Huntley
Senior Civil Engineer

Enclosed

Infotec Sewer Alignment and Condition Survey



Project

Project Name: TWU _ HDR - CRANE VALLEY, MERCURY HOUSE, HAYES,
UB3 3LZ

Project Description: CCTV DRAINAGE SURVEY

Project Date: 15/10/2020

Inspection Standard: MSCC4 Sewers & Drainage GB (SRM4 Scoring)

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TWU _ HDR - CRANE VALLEY, MERCURY HOUSE, HAYES, UB3 3LZ		15/10/2020

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Section: 1; TQ10798701 > TQ10794101 (TQ10798701X)	1

Project Information

Project Name	Project Number	Project Date
TWU_HDR - CRANE VALLEY, MERCURY HOUSE, HAYES, UB3 3LZ		15/10/2020

Client

Company: THAMES WATER UTILITIES / HDR

Site

Company: THAMES WATER - CRANE VALLEY TRUNK SEWER
Street: CRANE VALLEY, MERCURY HOUSE
Town or City: HAYES
County: MIDDX
Post Code: UB3 3LZ

Contractor

Company: INFOTEC
Contact: ANDY ROSKAMS
Street: 22 BROOK ROAD INDUSTRIAL CENTRE
Town or City: RAYLEIGH
County: ESSEX
Post Code: SS6 7XL
Phone: 01702 410744
Email: andy.roskams@infotecsveys.co.uk

Scoring Summary

Project Name	Project Number	Project Date
TWU _ HDR - CRANE VALLEY, MERCURY HOUSE, HAYES, UB3 3LZ		15/10/2020

Structural Defects

Section	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

Service / Operational Condition

Section	PLR	Grade	Description
All inspected pipes are in an acceptable service condition (< grade 3).			

Abandoned Surveys

Section	PLR	Description
All inspections complete, none are abandoned.		

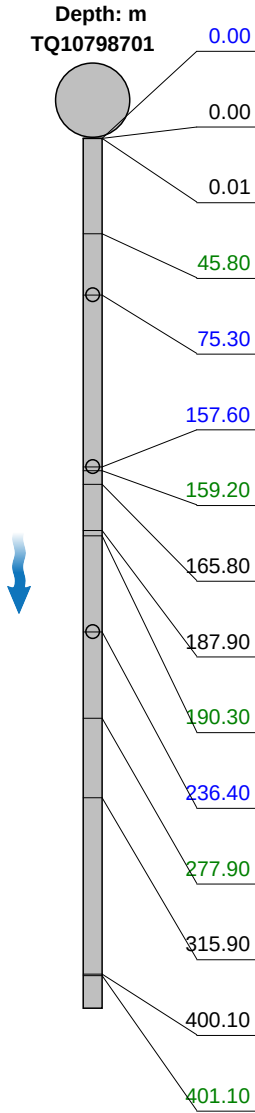
Information

These scoring summaries are based on the SRM grading from the WRc.

Section Inspection - 15/10/2020 - TQ10798701X

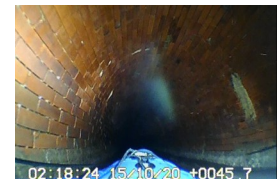
Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	15/10/20	22:47	Not Specified	No Rain Or Snow	No	TQ10798701X
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID		
AR	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified		

Town or Village:	Hayes, Middx, Ub3 3LZ	Inspection Direction:	Downstream	Upstream Node:	TQ10798701
Road:	Crane Valley, Mercury House	Inspected Length:	704.70 m	Upstream Pipe Depth:	
Location:	Fields	Total Length:	704.70 m	Downstream Node:	TQ10794101
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	2,134 mm		
Year Constructed:		Pipe Material:	Brick		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Sample survey to determine asset condition	Lining Material:	No Lining		
Comments:	SURVEY CARRIED OUT USING FLOATATION DEVICE				
Recommendations:					

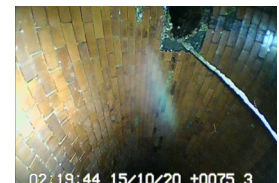
Scale: 1:3624	Position [m]	Code	Observation	Grade
	Depth: m TQ10798701 0.00	MH	Start node type, manhole, reference number: TQ10798701	
	0.00	WL	Water level, 35% of the vertical dimension: FAST/STRONG FLOW	
	0.01	REM	General remark: FLOAT SURVEY	
	45.80	DEE	Attached deposits, encrustation from 2 o'clock to 4 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2
	75.30	CN	Connection other than junction at 12 o'clock, diameter: 300mm: LAMPHOLE (RAG HANGING)	
	157.60	CN	Connection other than junction at 12 o'clock, diameter: 300mm: LAMPHOLE	
	159.20	DEE	Attached deposits, encrustation from 8 o'clock to 10 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2
	165.80	REM	General remark: RAG HANGING AT 10 O'C	
	187.90	GP	General photograph taken at this point	
	190.30	DEE	Attached deposits, encrustation from 3 o'clock to 5 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2
	236.40	CN	Connection other than junction at 12 o'clock, diameter: 300mm: LAMPHOLE	
	277.90	DEE	Attached deposits, encrustation from 7 o'clock to 9 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2
	315.90	REM	General remark: MH TQ1079641T (SURVEY CONTINUES THROUGH MH)	
	400.10	REM	General remark: END OF VIDEO CLIP 1 (SURVEY CONTINUES ON VIDEO CLIP 2)	
	401.10	DEE	Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2



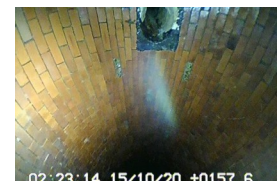
REM @ 0.01 m



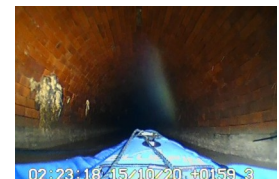
DEE @ 45.80 m



CN @ 75.30 m



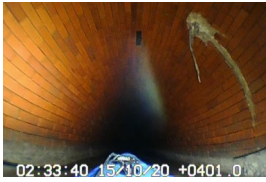
CN @ 157.60 m



DEE @ 159.20 m

Section Inspection - 15/10/2020 - TQ10798701X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	15/10/20	22:47	Not Specified	No Rain Or Snow	No	TQ10798701X
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID		
AR	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified		

Scale: 1:3624	Position [m]	Code	Observation	Grade	
	432.20	DEE	Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2	
	510.00	DEE	Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2	REM @ 165.80 m
	510.00	DEE	Attached deposits, encrustation from 8 o'clock to 11 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2	
	518.10	DEE	Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5% cross-sectional area loss: SUGGESTS SLIGHT INFILTRATION	2	GP @ 187.90 m
	592.80	CN	Connection other than junction at 9 o'clock, diameter: 225mm: RUNNING		
	621.30	CN	Connection other than junction at 12 o'clock, diameter: 300mm: LAMPHOLE		CN @ 236.40 m
	704.70	MHF	Finish node type, manhole, reference number: TQ10794101		
					
					
					
					
					
					
					
					
					
					
					

Construction Features

Structural Defects

Miscellaneous Features

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	9	2.0	0.0	9.0	3.0

Section Pictures - 15/10/2020 - TQ10798701X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	TQ10798701X		



1, 0.01 m
General remark, FLOAT SURVEY



2, 45.80 m
Attached deposits, encrustation from 2 o'clock to 4 o'clock, 5% cross-sectional area loss, SUGGESTS SLIGHT INFILTRATION



3, 75.30 m
Connection other than junction at 12 o'clock, diameter: 300mm, LAMP HOLE (RAG HANGING)



4, 157.60 m
Connection other than junction at 12 o'clock, diameter: 300mm, LAMP HOLE

Section Pictures - 15/10/2020 - TQ10798701X

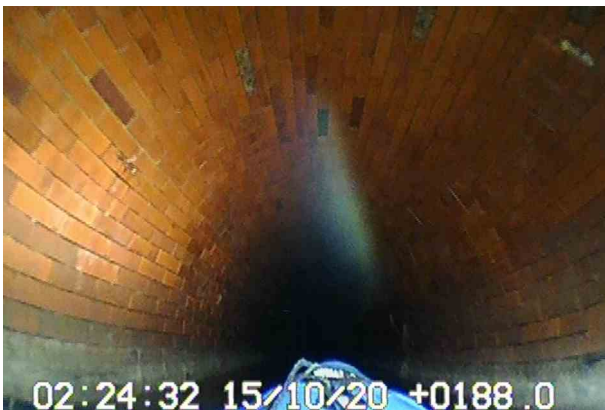
Section 1	Inspection Direction Downstream	PLR TQ10798701X	Client's Job Ref	Contractor's Job Ref
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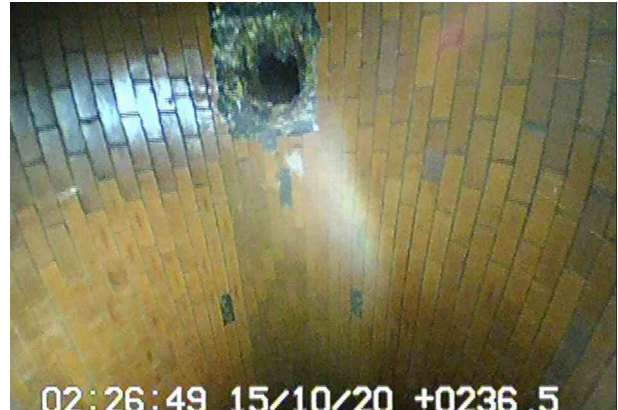
5, 159.20 m
Attached deposits, encrustation from 8 o'clock to 10 o'clock,
5% cross-sectional area loss, SUGGESTS SLIGHT
INFILTRATION



6, 165.80 m
General remark, RAG HANGING AT 10 O'C



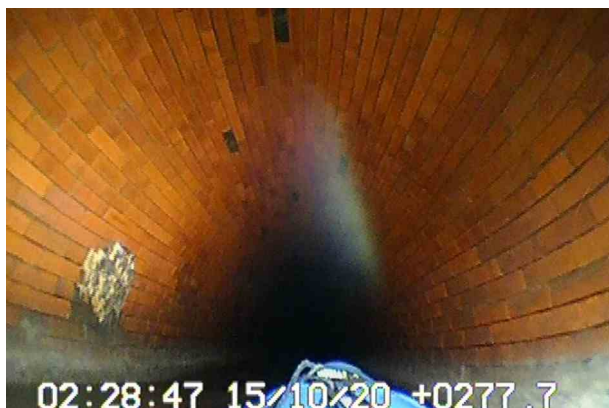
7, 187.90 m
General photograph taken at this point



8, 236.40 m
Connection other than junction at 12 o'clock, diameter:
300mm, LAMP HOLE

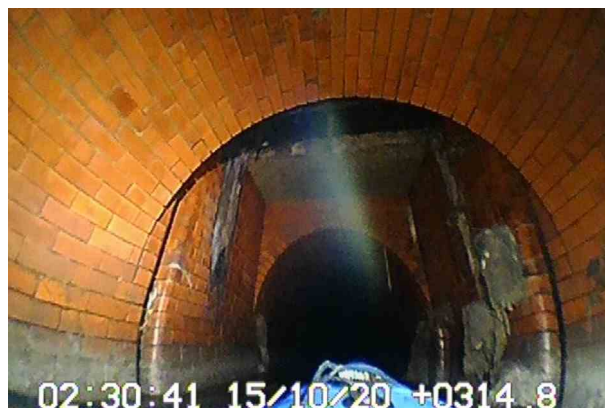
Section Pictures - 15/10/2020 - TQ10798701X

Section 1	Inspection Direction Downstream	PLR TQ10798701X	Client's Job Ref	Contractor's Job Ref
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9, 277.90 m

Attached deposits, encrustation from 7 o'clock to 9 o'clock, 5% cross-sectional area loss, SUGGESTS SLIGHT INFILTRATION



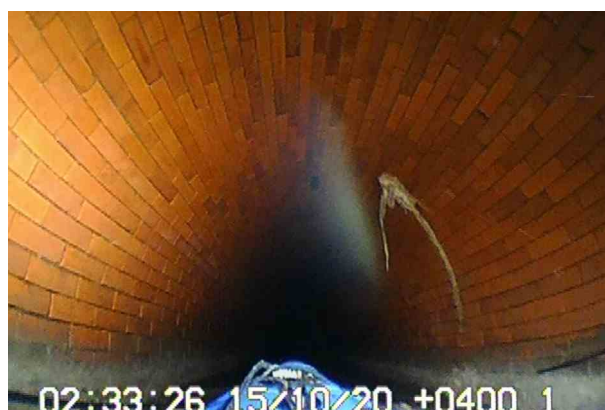
10, 315.90 m

General remark, MH TQ1079641T (SURVEY CONTINUES THROUGH MH)



11, 315.90 m

General remark, MH TQ1079641T (SURVEY CONTINUES THROUGH MH)

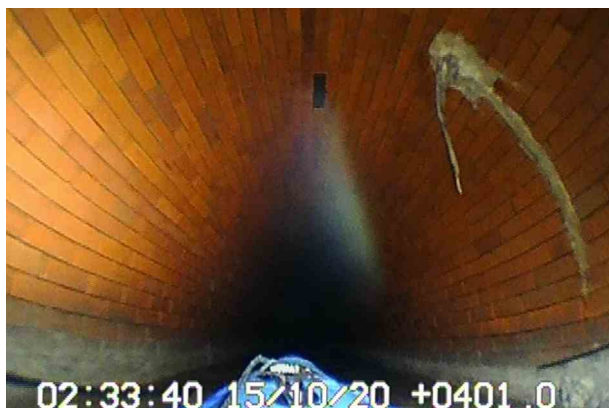


12, 400.10 m

General remark, END OF VIDEO CLIP 1 (SURVEY CONTINUES ON VIDEO CLIP 2)

Section Pictures - 15/10/2020 - TQ10798701X

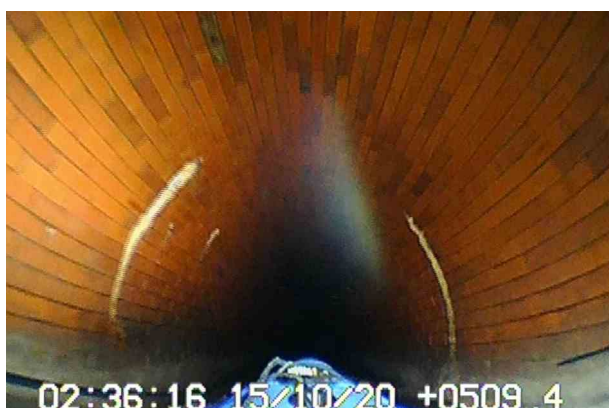
Section 1	Inspection Direction Downstream	PLR TQ10798701X	Client's Job Ref	Contractor's Job Ref
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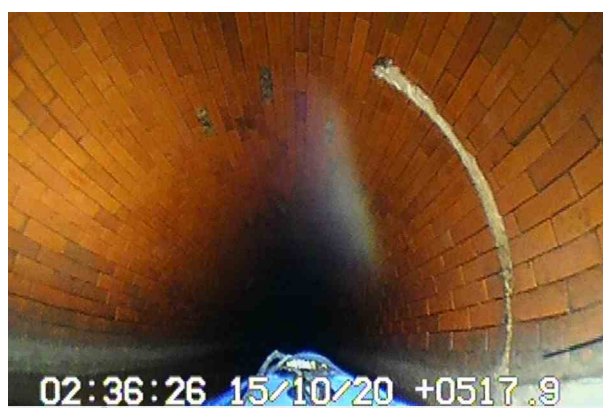
13, 401.10 m
Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5%
cross-sectional area loss, SUGGESTS SLIGHT
INFILTRATION



14, 432.20 m
Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5%
cross-sectional area loss, SUGGESTS SLIGHT
INFILTRATION



15, 510.00 m
Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5%
cross-sectional area loss, SUGGESTS SLIGHT
INFILTRATION



16, 518.10 m
Attached deposits, encrustation from 1 o'clock to 4 o'clock, 5%
cross-sectional area loss, SUGGESTS SLIGHT
INFILTRATION

Section Pictures - 15/10/2020 - TQ10798701X

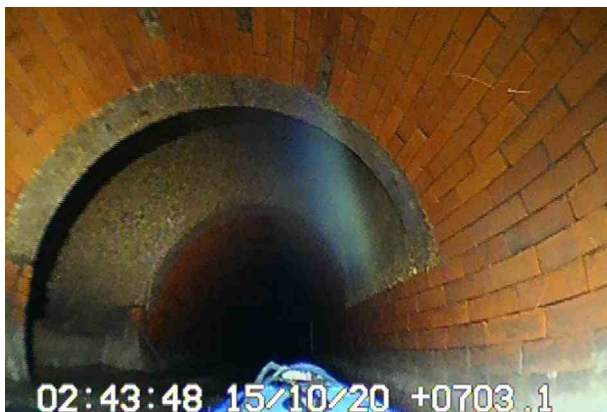
Section 1	Inspection Direction Downstream	PLR TQ10798701X	Client's Job Ref	Contractor's Job Ref
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17, 592.80 m
Connection other than junction at 9 o'clock, diameter: 225mm,
RUNNING



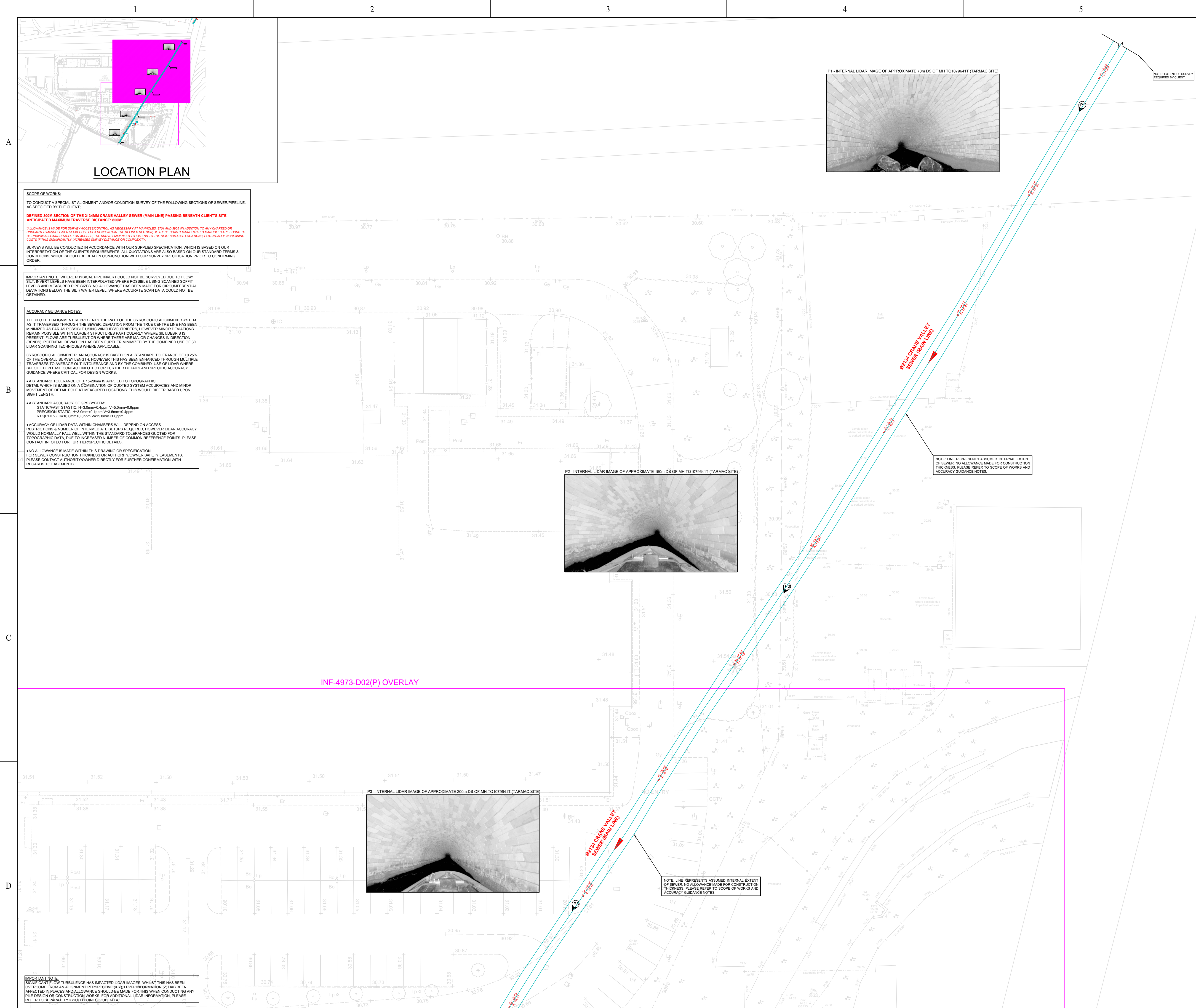
18, 621.30 m
Connection other than junction at 12 o'clock, diameter:
300mm, LAMPHOLE



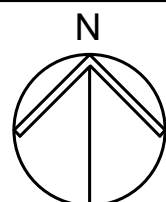
19, 704.70 m
Finish node type, manhole, reference number: TQ10794101



20, 704.70 m
Finish node type, manhole, reference number: TQ10794101



DO NOT SCALE - IF IN DOUBT ASK



THE BASE PLAN DETAIL USED WAS SUPPLIED BY ORDINANCE SURVEY AND NO RESPONSIBILITY IS TAKEN FOR INACCURACIES OR OMISSIONS. AS ALL SERVICES ARE POSITIONED RELATIVE TO THE FEATURES SHOWN ON THIS DRAWING, UNDER NO CIRCUMSTANCES SHOULD ANY INFORMATION BE SCALED OR POSITIONED FROM THE DATA SHOWN. WHERE SITE MARKINGS ARE PROVIDED THESE SHOULD BE PROTECTED BY THE CLIENT DURING CONSTRUCTION WORK. FOR FURTHER INFORMATION CONTACT INFOTEC.

ALL SURVEYS ARE UNDERTAKEN IN ACCORDANCE WITH OUR STANDARD TERMS AND CONDITIONS OF SURVEY AND THESE ARE AVAILABLE FOR INSPECTION.

STANDARD EXCLUSIONS

[illegible]

ABBREVIATIONS

B	BOLLARD	LL	LAMP HOUSE
BB	BELISHA BEACON	LL	LANDING LEVEL
BB	BELL	LP	LAMP POST
BR	BRICK	MP	MONITORING WELL
BS	BUS STOP	MW	MANHOLE
BT	BROADBAND TELECOM	OW	OVER FLOW PIPE
BTB	BT CONTROL BOX	OH	OVERHEAD
CB	CABLE	PO	POST
CC	CABLE TV CONTROL BOX	PT	PISTIL PIT
CI	CAST IRON	PL	PAVING LEVEL
CL	CURB	RF	RAIL FENCE
CO	CONCRETE	RL	ROOT LEVEL
CTV	CABLE TELEVISION	RS	ROAD SIGN
CP	DOWN PIPE	RS	RAIN WATER PIPE
DCB	ELECTRICITY CONTROL BOX	SW	STREET CLOSURE
ELEC	ELECTRIC	SL	SOFT LIMIT LEVEL
EI	END OF IMAGE	TCBU	TRAFFIC CONTROL
EP	END OF POST	TK	TAKEN FROM RECORD
EX	EXPOSED	TL	TRAFFIC LIGHT
FL	FL	TP	TELEPHONE POLE
FL	FLOOR LEVEL	UN	UNABLE TO REASURE
FL	FLENDER PILLAR	UTR	UNABLE TO SURVEY
GV	GV	VENT	VENT
GV	GAZE VALVE	VC	VETRIFIED CAST
GV	GRAVEL	VP	VENT PIPE
IC	INSPECTION CHAMBER	WL	WATER LEVEL
ID	INTERNAL DIMENSIONS	WM	WATER METER
IL	INTERNAL LIGHT	WW	WASH OUT VALVE
L	LIGHT	WW	WATER VALVE
			DIAMETER

LEGEND

	COMBINED WATER SEWER. INTERNAL LIDAR IMAGE. EXTERNAL LIDAR IMAGE. SURVEYED LEVEL. INTERPOLATED LEVEL (APPROXIMATE)
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PRELIMINARY ISSUE

(FINAL CONDOC DRAWINGS AVAILABLE UPON REQUEST ONCE FULL PAYMENT
HAS BEEN RECEIVED AND ALL RELEVANT PUBLIC UTILITY RECORDS HAVE BEEN SUPPLIED
TO SATISFY QADCC PROCEDURE)

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-	PRELIMINARY ISSUE	MJP	EB		24.03.2021
Iss	Description	Dsgnr	Chkd	Appd	Date



Sewer Surveying & 3D Mapping Specialists

Unit 22 Brook Road Industrial Estate, Brook Road, Rayleigh, Essex SS6 7XL
Tel:01702 410744 email: enquiries@infotecsveys.co.uk

Location/Town: HAYES, LONDON	OS Reference: TQ1079	Drawn By: INFOTEC
Sewer Name: CRANE VALLEY SEWER (MAIN LINE)		
Infotec Job Name: CRANE VALLEY SEWER, HAYES		
Client Name: HDR		
Drawing Title: SEWER ALIGNMENT & CONDITION SURVEY		
Drawing No.: INF-4973-D01(P)	Scale: 1:250	Sheet Size: A1
		Rev: -

