

# Drainage Report



Prepared For  
**Mr Jones**  
**South Drive**  
**Derby**  
**Derbyshire**  
**DE3 9AN**

Site  
**Mr Jones**  
**South Drive**  
**Derby**  
**Derbyshire**  
**DE3 9AN**



**CSC SERVICES**

**Surveyor:**

**info@cscservices.uk**

**0800 1583746**

Total Defects for Project



Total DRB Grades for Project





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**South Drive DE3 9AN - CCTV Survey Report : 31/01/20**

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Name :	CSC SERVICES
Contact :	
Location :	39 Willowside Green
Town :	Derby
Region :	
Postcode :	DE21 7SP
Email :	info@cscservices.uk
Contact Number :	0800 1583746
Surveyor :	
Valid Certification No :	

**Client Information**

Name :	Mr Jones
Contact :	Mr Jones
Location :	South Drive
Town :	Derby
Region :	Derbyshire
Postcode :	DE3 9AN
Tel :	
Mobile :	07903 000000
Email :	jonesmith@live.co.uk
Fax :	

**Site Information**

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## Report interpretation.

### Overview:

Each section of the drainage system is allocated a score indicating areas that require attention. These areas are detailed in the Overview section on the following page and also at the bottom right of the first few pages. We use colour coding as an indicator of severity. Additional information concerning rehabilitation options/recommendations is included in the Overview page, which can also be used as an, "at a glance" indication of system condition. More in depth information for each section, including images can be found later in the report. Grade indicators are as follows:

**Grade A:** Drain is serviceable no recommendations required

**Grade B:** There is an issue that might require remedial works

**Grade C:** There is a defect that requires remedial works, the drain is not serviceable.

### Observations:

Each section of drainage reported on (manhole to manhole for example), contains detailed information about that drain and any observations made concerning condition are detailed below the header section. The observations are colour coded and given a severity score, with more significant defects being given a higher score, using a scale from 1 to 5 as detailed below:

**Severity 1 to 2:** These defects may require remedial monitoring

**Severity 3:** These defects probably require some form of remedial works

**Severity 4 to 5:** Defects that will require remedial repair or replacement

### General:

The information provided is relevant at the time of survey. The coding system in this report is based on the Manual of Sewer Condition Classification, 5th edition (MSCC5) domestic codes ( BS EN 13508-1:2003 ). This is the official standard for the water industry.

The severity system is based on significant experience in general practice and the 1 -5 grades represent the severity of individual defects: 5 representing a more serious defect.

Please feel free to contact us for further explanation or pricing for remedial works required.

Total Defects for Project



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### Overview

<b>Section: 1</b> From: MH/1 To: MH/2	Grade B	<b>DRB Grade: B</b> <b>Pipe Size: 100</b> <b>Material: Vitrified Clay (i.e. all clayware)</b> <b>Use: Combined</b>
<b>Section: 2</b> From: MH/2 To: MH/3	Grade C	<b>DRB Grade: C</b> <b>Pipe Size: 100</b> <b>Material: Vitrified Clay (i.e. all clayware)</b> <b>Use: Foul</b>

Total Defects for Project



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Site: South Drive, Derby

Section 1

Client: Mr Jones	Location (Street Name): South Drive	City/Town/Village Derby	Cust Job Ref.	Surveyors Name: CSC Services.	Date: 31/01/2020
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Start Node Ref: MH/1	Finish Node Ref: MH/2	Direction: U	Height/Dia: 100
Start Node Depth: 740.00	Finish Node Depth: 0.00	Use: C	Shape: C
Start Node Coordinate:	Finish Node Coordinate:	Material: VC	Cleaned: Y

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Good <span style="color: green;">✔</span>	Poor <span style="color: red;">✘</span>	Poor <span style="color: red;">✘</span>	General wea and tear

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	8.28	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.07m	JN	Junction 12 : 100mm Diameter			
00.30m	JDM	Joint displaced medium			
00.83m	CR	S1 Crack, radiates from	S1		
01.44m	JDM	Joint displaced medium			
01.90m	JN	Junction 10 : 100mm Diameter			
02.12m	CR	Crack, radiates from			
02.73m	JDM	Joint displaced medium			
04.02m	CR	Crack, radiates from			
04.02m	JDM	Joint displaced medium			
04.71m	JDM	Joint displaced medium			
05.32m	REM	General remark			
05.70m	CR	Crack, radiates from			
06.23m	JDM	Joint displaced medium			
06.84m	JDM	Joint displaced medium			
07.44m	CR	Crack, radiates from			
07.44m	JDM	Joint displaced medium			
07.44m	OJM	Open joint medium			
07.98m	JDM	Joint displaced medium			
08.28m	REM	General remark			
08.28m	MHF	Finish node type, manhole			

Total Defects for section



DRB Grade for Section





**Descriptive Report with Remarks and Observation Images**

**Section 1**

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH/1	
00.07m		JN	Junction at 12 o'clock: 100mm Diameter	
00.30m		JDM	Joint displaced medium - Severity 3	
00.83m		S1 CR	Crack, radiates from 0.83m - 0m - Severity 1	
01.44m		JDM	Joint displaced medium - Severity 3	
01.90m		JN	Junction at 10 o'clock: 100mm Diameter unknown inlet which requires excavating before line is relined in case junction is active.	
02.12m		CR	Crack, radiates from - Severity 1	
02.73m		JDM	Joint displaced medium - Severity 3	
04.02m		CR	Crack, radiates from - Severity 1	
04.02m		JDM	Joint displaced medium - Severity 3	
04.71m		JDM	Joint displaced medium - Severity 3	
05.32m		REM	General remark hidden chamber under front porchway	
05.70m		CR	Crack, radiates from - Severity 1	
06.23m		JDM	Joint displaced medium - Severity 3	
06.84m		JDM	Joint displaced medium - Severity 3	
07.44m		CR	Crack, radiates from - Severity 1	

Total Defects for section



DRB Grade for Section





Pos	Video Ref	Code	Description	Image
07.44m		JDM	Joint displaced medium - Severity 3	
07.44m		OJM	Open joint medium - Severity 3	
07.98m		JDM	Joint displaced medium - Severity 3	
08.28m		REM	General remark MH/2 Chamber	
08.28m		MHF	Finish node type, manhole MH/2 Chamber	

Total Defects for section



DRB Grade for Section





Site: South Drive, Derby

Section 2

Client: Mr Jones	Location (Street Name): South Drive	City/Town/Village Derby	Cust Job Ref.	Surveyors Name: CSC Services	Date: 31/01/2020
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Start Node Ref: MH/2	Finish Node Ref: MH/3	Direction: U	Height/Dia: 100
Start Node Depth: 500.00	Finish Node Depth: 0.00	Use: F	Shape: C
Start Node Coordinate:	Finish Node Coordinate:	Material: VC	Cleaned: Y

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Inadequate <b>X</b>	Good <b>✓</b>	Good <b>✓</b>	New cover required

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	2.28	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.07m	WL	Water level 60%			
00.07m	JDL	Joint displaced large			
00.07m	OJL	Open joint large			
01.36m	JDM	Joint displaced medium			
01.52m	CX	Defective connection : 0mm Diameter			
02.28m	REM	General remark			
02.28m	MHF	Finish node type, manhole			

Total Defects for section

DRB Grade for Section







**Descriptive Report with Remarks and Observation Images**

**Section 2**

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH/2	
00.07m		WL	Water level: 60% Height/Diameter Water holding approximately 60 percent next to property, suspected building damage to shallow drainage.	
00.07m		JDL	Joint displaced large - Severity 4	
00.07m		OJL	Open joint large - Severity 4	
01.36m		JDM	Joint displaced medium - Severity 3	
01.52m		CX	Defective connection: 0mm Diameter - Severity 3 Improper connection (suspected dead line)	
02.28m		REM	General remark MH/3 Chamber inside property.	
02.28m		MHF	Finish node type, manhole MH/3 Chamber	

Total Defects for section

DRB Grade for Section



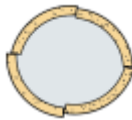


**A guide to defects and other observations in drainage systems**

More detailed information can be found in the National Standard (BS EN 13508-1:2003) and in the Manual of Sewer Condition Classification (MSCC) 5th Edition, written by the Water Research Centre (WRc).

Use	
Code	Description
C	Combined
F	Foul
S	Surface Water
T	Trade Effluent
W	Culverted Watercourse
Z	Other

Common Materials	
Code	Description
VC	Vitrified Clay
PVC	Polyvinyl Chloride
CO	Concrete
CI	Cast Iron
PF	Pitch Fibre
PE	Polyethylene
DI	Ductile Iron

Start Node	Description	Finish Node
MH	Manhole	MHF
IC	Inspection Chamber	ICF
GY	Gulley	GYF
RE	Rodding Eye	REF
SK	Soakaway	SKF
BN	Buchan Trap	BNF
BR	Major Connection without Ref	BRF
CP	Catch Pit	CPF
OC	Other Special Chamber	OCF
OF	Outfall	OFF
OS	Oil Separator	OSF
WR	Major Connection without mh	WRF
LH	Lamphole	LHF

Code	Observation	Description	Attributes	
<b>B</b>	Broken	Pieces pipe have visibly moved	Defined by clock references. Associated with deformity in rigid pipe	
<b>CC CL CM CR</b>	Cracks	Cracks are break lines that are not visibly open	Defined by clock reference position/s. Longitudinal and radiating cracks attract only one clock reference	
<b>CN</b>	Connection	Lateral pipe has been connected after original construction	Described by clock reference position and diameter	

Total Defects for section



DRB Grade for Section





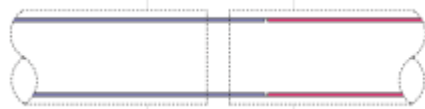

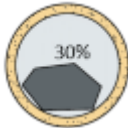





<b>CX(I)</b>	Defective Connection (Intruding)	Defective by intrusion or damage due to factors including: cracks, fractures, obstruction, position etc	Described by clock reference position and diameter (+ % intrusion)	
<b>CU</b>	Loss of Vision	Lens of camera is obscured by debris, water etc. Operator is unable to see drain clearly	'W' can be added if loss of vision is due to water	
<b>D</b>	Deformed	Pipe has lost its structure	Described by percentage loss of height or width. Recorded in 5% increments	
<b>DEE</b>	Deposits Encrustation	Eg. Attached scale deposits evident	Described by clock referenced position and percentage loss of cross-sectional area (5% increments)	
<b>DEG</b>	Deposits Grease	Attached grease deposits evident	Described by clock referenced position and percentage loss of cross-sectional area (5% increments)	
<b>DER DES</b>	Deposits Coarse/Fine	Settled deposits on the invert of the pipe.	Described by percentage loss of height or diameter. Recorded in 5% increments.	
<b>FC FL FM FR</b>	Fractures	Fractures are visibly open. Pieces of pipe have not moved	Defined by clock reference position/s. Longitudinal and radiating fractures attract only one clock reference	
<b>H</b>	Holes	Section of pipe fabric is missing	Defined by clock reference location. Normally two clock references	
<b>I</b>	Infiltration	Water is infiltrating the pipe, normally via a joint but could be via another defect	Can be described in Remarks using terms such as Seeper, Dripper and Runner	
<b>JDL</b>	Joint Displaced Large	Pipe has moved at joint, perpendicular to axis of pipe	More than 1.5 times the pipe wall thickness must be visible	

Total Defects for section

DRB Grade for Section



<b>JDM</b>	Joint Displaced Medium	Pipe has moved at joint, perpendicular to axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
<b>JN</b>	Junction	Lateral pipe was installed at construction	Described by clock reference position and diameter	
<b>JX</b>	Defective Junction	Lateral pipe was installed at construction but is defective in some way	Joint can be defective due to factors including: cracks, fractures, obstruction, position etc	
<b>LD LU LL LR</b>	Line Deviation	LD = Line Down, LU = Line Up, LL = Line Left, LR = Line Right. Not related to CIPP lining.	Additional modifiers are added: Q = Quarter (22.5), H = Half (45), F = Full (90). In degrees.	
<b>LC</b>	Lining Changes	If the drain is lined, the lining material has changed	Position of lining material change	
<b>MC</b>	Material Change	The pipe material has changed	Position of change is noted. Type of material change can be defined	
<b>OB</b>	Obstruction/Obstacle	An obstruction or obstacle is affecting the flow through the pipe	Described in percentage loss of cross-sectional area	
<b>OJL</b>	Open Joint Large	Pipe has moved at joint, along the axis of pipe	More than 1.5 times the pipe wall thickness must be visible	
<b>OJM</b>	Open Joint Medium	Pipe has moved at joint, along the axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
<b>PC</b>	Pipe Length Changes	Length of individual pipe changes	New length described at this position	

Total Defects for section

DRB Grade for Section



<b>R</b>	Roots	Evidence of root ingress	Roots will normally infiltrate via bad joints, cracks, fractures, breaks etc	
<b>REM</b>	Remark	General remark	Used for additional information	
<b>S</b>	Surface Damage	This might include corrosion, spalling and chemical attack	Position only. Additional information can be added in Remarks	
<b>SA</b>	Survey Abandoned	Used when a survey cannot continue for any reason	The reason for abandoning a survey should be noted in the remarks area	
<b>SC</b>	Shape Changes	Dimension of drain changes	Diameter dimension change recorded. Second dimension is recorded for no circular pipe changes	
<b>SR</b>	Sealing Ring	Sealing ring intrudes into pipe at joint	Described by clock reference position	
<b>V</b>	Vermin	Evidence of Vermin in pipe	Can also be used for evidence within manhole etc	
<b>WL</b>	Water Level	Used to record changes in water level. Always shown at the beginning of every survey, if dry noted as 00.	Described by percentage of height or diameter. Recorded in 5% increments	
<b>XP</b>	Collapsed	Drain is suffering from complete loss of structural integrity. Always followed by SA - Survey Abandoned	Percentage loss of cross-sectional area is recorded. Other related structural defects are not recorded	