Appendix L

CCTV Survey

HEYNE TILLETT STEEL

60-89 ROYAL COLLEGE STREET
CAMDEN
LONDON
NW1 0TH

REPORT ON THE IDENTIFICATION, TRACING MAPPING & CCTV SURVEY OF THE DRAINAGE OUTFALL FROM SITE

BY

SPAfLOW
LIMITED

WATMOUGH HOUSE
THE PARADE
WROTHAM ROAD
MEOPHAM
KENT
DA13 0JL

PHONE 01474 814700
FAX: 01474 815800
E-MAIL: Spaflow@aol.com

FOR

HEYNE TILLETT STEEL
4 PEAR TREE COURT
LONDON
EC1R 0DS

NOVEMBER 2019

INDEX

1.0 DESCRIPTION OF THE PREMISES

The premises comprise a motor garage and MOT centre, formerly a petrol station, and associated outbuilding.

The building faces Royal College Street to the west, 'The Golden Lion' Public House to the north, and an adjacent premises, currently occupied by Parcel Force to the east and south.

The area of interest for this survey is limited to the final manhole on site and its connection to the public sewer.

At the time of survey, the premises were unoccupied.

2.0 EXTENT AND METHOD OF THE SURVEY

The extent and method of the survey was as requested by Ms. Katrina Wylie of Heyne Tillett Steel by an email dated 15/10/2019 and as shown in the Spaflow Limited proposal dated 18/10/2019.

Confirmation to proceed with the survey was given by email from Mr. Gustaf Grandstrom of Heyne Tillett Steel on 01/11/2019.

The purpose of the survey is to record the installation in its current form, to provide information to the Consulting Engineers, to assist them with their proposals for the redevelopment of the existing property.

The survey comprised the following;

To locate, trace, map and CCTV survey, the final outfall manhole on site and its connection to the public sewer.

The survey was carried out on the 11/11/2019.

3.0 LIMITATIONS OF THE SURVEY

The scope of the survey was limited to that shown in section 2.0 or otherwise referred to in the text.

No drain cleaning was done, no level checks, flow checks, [apart from route checking tests], leakage tests or other tests were carried out.

Some parts of the system could not be surveyed either due to lack of access or due to debris.

The work was carried out on a day of dry weather.

No responsibility can be accepted for any deficiencies, events or circumstances which may occur and which due to the foregoing circumstances were not identified during the survey.

4.0 HEALTH AND SAFETY

The work was carried out in accordance with the requirements of the Spaflow Method Statement and Health and Safety Procedures Document, RAMS, and in accordance with the requirements of the client.

No events or incidents occurred during the survey.

No particular findings, which could have an immediate or reasonably foreseeable effect on health and safety were noted.

5.0 INFORMATION UTILISED

The following drawing by 'MSA Survey' were provided in digital form.

DRAWING NO:	5177-G	GROUND FLOOR – (SHEETS 1 & 2 OF 2)
	5177-T	TOPOGRAPHIC SURVEY – (SHEETS 1, 2 & 3 OF 3)

A number of original drainage drawings were also provided as prints.

DRAWING NO:	225/5.0	PROPOSED DRAINAGE PLAN
	86/7	DRAINAGE LAYOUT

Thames Water Sewer Maps and Data were provided.

6.0 RECORD DRAWINGS PRODUCED

The following survey record drawings was produced on CAD based on the survey drawings referred to above.

DRAWING NO:	PH01	Record of Tracing, Mapping & CCTV Survey of Drainage Outfall

7.0 DESCRIPTION OF THE SYSTEM

The system commences at a manhole, MH1 which is located externally at ground level, close to the northern vehicle entrance. MH1 receives a number of branch connections from other manholes and a Petrol/Oil interceptor (PI) also located on site; MH2, MH3, MH4 and the PI. We have lifted the covers to check no further outfall connections exist but have not fully surveyed these internally or the manholes located internally within the building as they remain outside the current survey limit.

The 150 Ø clay outfall from MH1 runs via a clay intercepting trap to connect to the public sewer in Royal College Street at 11.78metres. Note: there is a sewer flap fitted at the connection with the public sewer.

8.0 FINDINGS OF THE SURVEY

8.1 General

We have lifted the 6No. covers located at the front of the property to check outfall connections exist but have not fully surveyed these internally or the manholes located internally within the building as they remain outside the current survey limit. However, we do make comment on reference to various installed elements below.

The system is 'combined' as it receives connections from foul and surface water drainage.

The interceptor trap within MH1 was found to be blocked, this was cleared manually to allow continuation of survey.

The manhole has been constructed as follows;

MH1	Rendered Brick

MH1 has open channels of clay and benching of concrete.

Manhole cover was as follows;

MH1	CI single seal

The structural condition of the manholes was visually as follows;

MH1	Reasonable

There were defects at manholes including the following;

MH1	The rodding eye access cover to the intercepting trap rodding arm is missing.

Open top gullies were of clay with gratings of CI. Their condition was reasonable where visible above the water level.

Channels were formed in the paving of proprietary pro-formed channels of assumed clay. Their condition was reasonable.

Channel covers/gratings were of pre-cast galvanised mild steel. Their condition was reasonable.

Rodding eyes to buried drainage were of clay with sealed covers of metal/aluminium with securing screws. Their condition was reasonable, although the chamber contained debris.

Petrol/oil interceptors were single chamber, constructed of in-situ cast concrete.

Petrol/oil interceptor cover was of CI.

The structural condition of the petrol/oil interceptors was visually reasonable, where visible above top water level.

8.2 The findings of the CCTV Survey

The findings of the CCTV survey are shown in detail for each surveyed pipe run in the CCTV report sheets in Appendix 10.2.

Only general comments or comments on specific defects are repeated in the following text;

Where pipe runs have several defects of a similar nature in general only the most significant will be repeated here.

Note: At the time of the CCTV survey, the source or destination of a pipe may be unknown. In this case it will be shown on the CCTV report sheets as 'Unknown'.

Where the source or destination of such a pipe is subsequently identified, it will be shown in the following tables in brackets.

There was scale;

MH1	-	SEWER	-	Light scale from 7 o'clock to 4 o'clock [in 2No. places]

There was a cracked/fractured pipe;

MH1	-	SEWER	-	Circumferential crack from 7 o'clock to 12 o'clock

9.0 RECOMMENDATIONS

These recommendations are given as though the system is to be retained as now existing, without taking into account any future re-development of which we are not aware. Therefore, some recommendations may be superfluous.

The system should be fully cleaned and de-scaled and blockages removed.

Any runs which could not be surveyed or fully traced for any reason should be surveyed by CCTV for completion of the survey.

After cleaning, previously un-surveyed runs should be re-CCTV surveyed to verify their condition and any identified defects should be remedied.

Manholes should be fully cleaned by high pressure jetting and re-inspected.

All manhole covers and frames which are to be retained should be cleaned, de-rusted, re-painted and re-bedded with new seals or grease as necessary.

Where manhole covers are to be replaced on manholes with open channels, these covers should be double seal and lockable.

All visible defects to manholes, walls, top slabs, benching or channels should be repaired [if any are found after cleaning].

There were defects at manholes including the following;

MH1	The rodding eye access cover to the intercepting trap rodding arm is missing.

All rodding eye covers should be cleaned, rust removed, repainted and refitted with new seals, gaskets or grease.

All gully gratings should be cleaned, checked, rust removed, repainted and reinstalled.

All drainage channels should be cleaned and inspected, channel covers, and gratings should be cleaned, rust removed, repainted [where appropriate] and re-fitted, including securing fixtures or screws

All defects identified by CCTV on pipework during the survey or subsequent cleaning, should be repaired.

Including the following;

There was a cracked/fractured pipe;

MH1	-	SEWER	-	Circumferential crack from 7 o'clock to 12 o'clock

The defects and repairs should be reconsidered after the system has been cleaned. Some repairs may require excavation and reinstatement; others may be repaired by re-lining.

Obsolete or unused drain connections [if not required for future use] should be fully sealed at each end including at their connection to a manhole, to prevent their use as a rat refuge.

The petrol/oil interceptor (PI) should be drained, washed down and cleaned out, with the waste removed for disposal by a certified waste handler. The interceptor vent pipes should be checked to ensure they have a clear bore.

All pipework which is to be retained should be tested by air or water for leaks.

All assumed connections from pipes from above should be confirmed for purpose [foul or rainwater], including, where necessary, opening wall ducts to expose them.

The CAD drawings should be updated once the system has been fully surveyed by CCTV to verify any unknown data.

The record drawings should be updated, preferably on CAD to record any changes due to refurbishment or from further investigations.

END OF TEXT

SPAFLOW LIMITED

CCTV REPORT SHEET

SURVEYOR: K. WAKELIN				**DVD NO/COMMENTS:**	
CLIENT: HEYNE TILLETT STEEL 4 PEAR TREE COURT, LONDON, EC1R 0DS				**LOCATION:** 60-89 ROYAL COLLEGE STREET CAMDEN, LONDON, NW1 0TH	
START LOCATION: MH1				**FINISH LOCATION:** SEWER	
DIRECTION: D		**MATERIAL:** VC		**SIZE:** 150	
USE: COMBINED				**SHAPE:** C	
TOTAL LENGTH: 11.78				**SURVEYED LENGTH:** 11.78	
DVD FILE REF: FILE 1				**WEATHER:** DRY	
DATE: 11.11.2019				**TIME:** 08.30	

METRES	CD	CODE	OTHER DETAILS
00.00			START OF SURVEY
00.20		I	INTERCEPTOR OUTLET
00.97	ST1	LD	LINE OF SEWER RAMPS DOWN
01.06		CC	CIRCUMFERENTIAL CRACK FROM 7 O'CLOCK TO 12 O'CLOCK
01.78	FH1	LD	LINE OF SEWER RAMPS DOWN
01.78	ST2	LD	LINE OF SEWER DEVIATES DOWN
02.72	FH2	LD	LINE OF SEWER DEVIATES DOWN
02.72	ST3	LD	LINE OF SEWER RAMPS DOWN
04.19		ESL	LIGHT SCALE FROM 7 O'CLOCK TO 4 O'CLOCK
04.71		ESL	LIGHT SCALE FROM 7 O'CLOCK TO 4 O'CLOCK
05.11	FH3	LD	LINE OF SEWER DEVIATES DOWN
11.00	ST4	LD	LINE OF SEWER RAMPS DOWN
11.76	FH4	LD	LINE OF SEWER RAMPS DOWN
11.78		FH	FINISH OF SURVEY AT SEWER
		NOTE	ANTI-FLOOD FLAP VISIBLE


VIEW OF CRACK IN PIPE
MH1 TO SEWER
0.89m

1.


VIEW OF SCALE IN PIPE
MH1 TO SEWER
3.68m

2.

3.

SCHEDULE OF PHOTOGRAPHS

60-69 Royal College Street

	LOCATION:	Comments:
1.	GROUND LEVEL, NORTHERN FORECOURT AREA	General view of site looking south Note: MH1 with cover removed
2.	GROUND LEVEL, NORTHERN FORECOURT AREA	General view of site looking north Note: MH1 with cover removed
3.	GROUND LEVEL, NORTHERN FORECOURT AREA	Internal view of MH1 – looking upstream Note: interceptor trap is blocked, with flow via rodding eye
4.	GROUND LEVEL, NORTHERN FORECOURT AREA	Internal view of MH1 – looking downstream Note: interceptor trap is blocked, with flow via rodding eye
5.	GROUND LEVEL, NORTHERN FORECOURT AREA	Internal view of MH1 with interceptor trap unblocked
6.	GROUND LEVEL, NORTHERN FORECOURT AREA	Internal view of MH1 with interceptor trap unblocked
7.	GROUND LEVEL, SOUTHERN FORECOURT AREA	Location view of MH2
8.	GROUND LEVEL, SOUTHERN FORECOURT AREA	Internal view of MH2 note; debris in channel
9.	GROUND LEVEL, NORTHERN FORECOURT AREA	Internal view of MH4 note; debris in channel
10.	GROUND LEVEL, NORTHERN FORECOURT AREA	View of Petrol/Oil interceptor
11.	GROUND LEVEL, NORTHERN FORECOURT AREA	Internal view of Petrol/Oil interceptor
12.	GROUND LEVEL, FOOTPATH	Location view of rodding eye No.1 (RE1)
13.	GROUND LEVEL, CLOSE TO NORTHERN VEHICLE ACCESS	Location view of rodding eye No.1 (RE2)
14.	GROUND LEVEL, SOUTHERN VEHICLUAR ACCESS	Location view of assumed incoming water main access cover
15.	GROUND LEVEL, SOUTHERN VEHICLUAR ACCESS	Internal view of assumed incoming water main

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

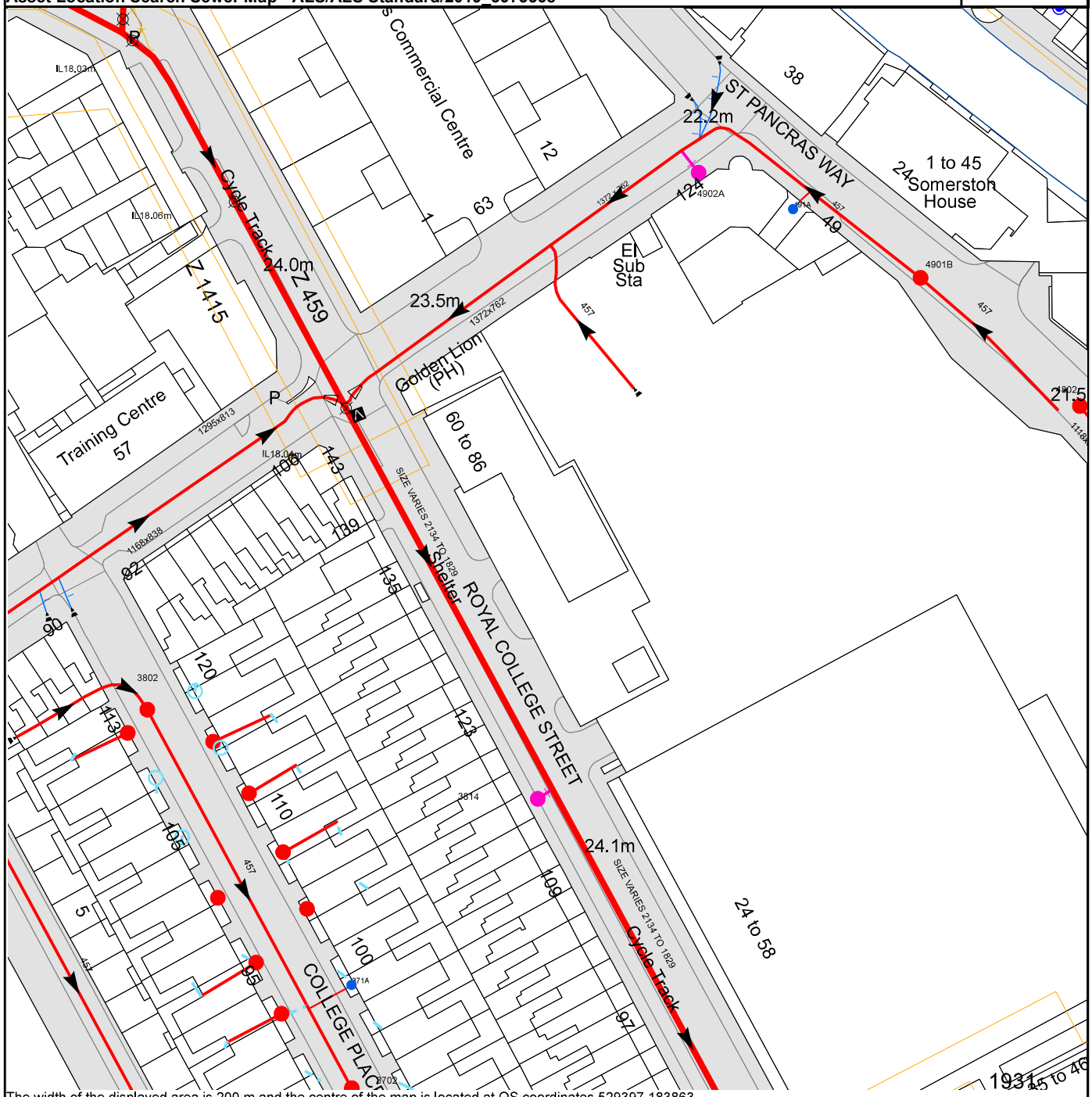
12.

13.

14.

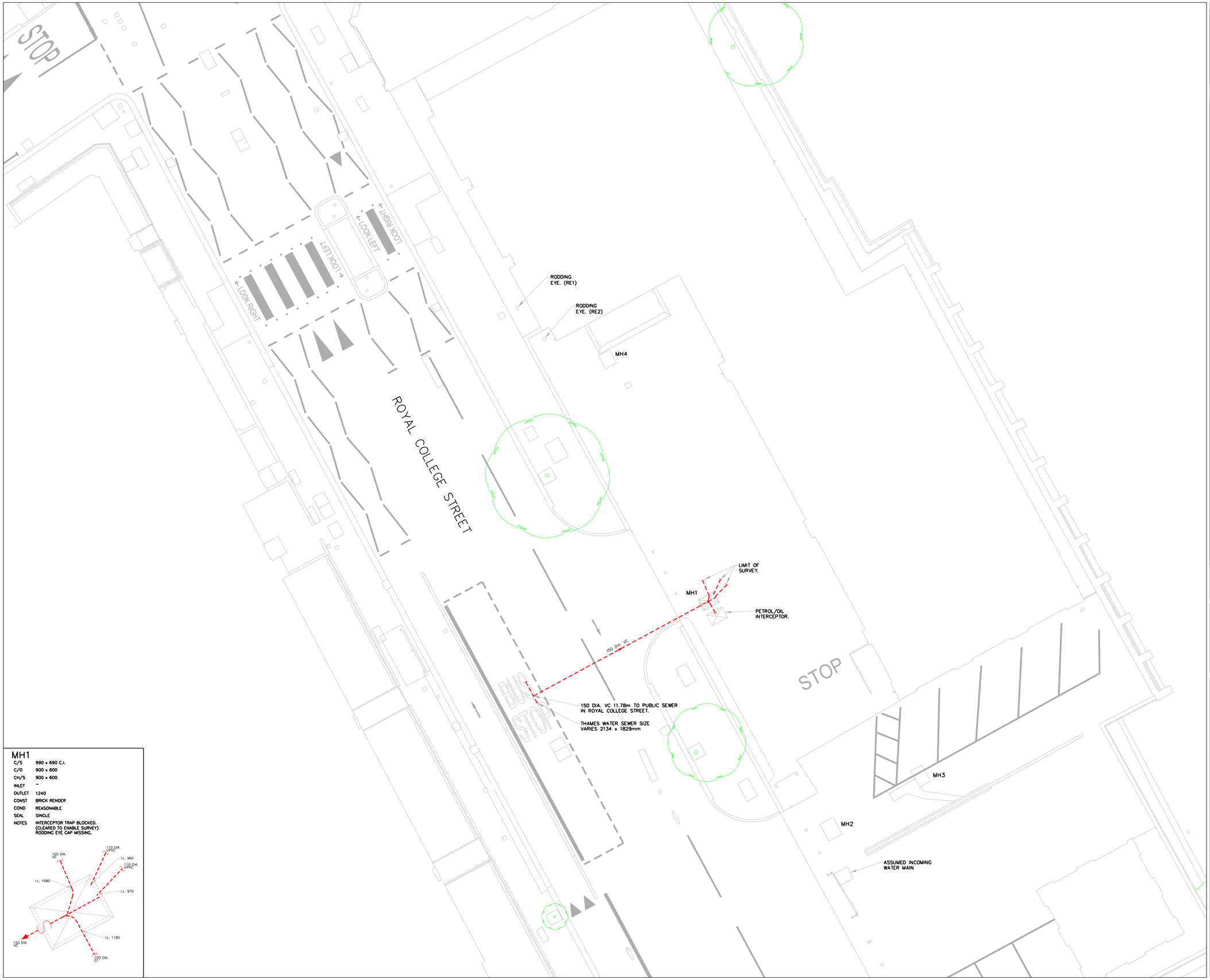
15.

Asset Location Search Sewer Map - ALS/ALS Standard/2019_3973568



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 529397,183863

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.



MH1

C/S	990 x 690 C.I.
C/O	900 x 600
CH/S	900 x 600
INLET	–
OUTLET	1240
CONST	BRICK RENDER
COND	REASONABLE
SEAL	SINGLE
NOTES	INTERCEPTOR TRAP BLOCKED. (CLEARED TO ENABLE SURVEY) RODDING EYE CAP MISSING.

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING Nos. PH02, PH03 & PH04 AND THE SPAFLOW LTD REPORT DATED NOVEMBER 2019.

LEGEND:

- BELOW GROUND (SURFACE WATER)
- BELOW GROUND (FOUL WATER)
- ABOVE GROUND (SURFACE WATER)
- ABOVE GROUND (FOUL WATER)

FH	FIRE HYDRANT	WVP	WASTE VENT PIPE
IV	ISOLATION VALVE	RWP	RAINWATER PIPE
WMT	WATER METER	SVP	SOIL VENT PIPE
GMT	GAS METER	VP	VENT PIPE
WM	RISING WATER MAIN	G	GULLY
GM	RISING GAS MAIN	RG	ROAD GULLY
GT	GREASE TRAP	OTG	OPEN TOP GULLY
CBP	CABLE PIT	STG	SEALED TOP GULLY
CP	CATCHPIT	BIG.	BACK INLET GULLY
MH	MANHOLE	C.I.	CAST IRON
WHB	WASH HAND BASIN	Cu	COPPER
SK	SINK	V.C.	VITRIFIED CLAY
WC	WATER CLOSET	UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UR	URINAL	PF	PITCH FIBRE
RE	RODDING EYE	F.A.	FROM ABOVE
RED.	REDUNDANT	T.A.	TO ABOVE
H/L	HIGH LEVEL	F.B.	FROM BELOW
M/L	MID LEVEL	T.B.	TO BELOW
L/L	LOW LEVEL		

REV.	DATE	DESCRIPTION	BY	APP.

SPAFLOW

Spaflow Limited
Watmough House
The Parade
Meopham
Kent DA13 0JL
Tel: 01474 814 700
Fax: 01474 815 800
Email: spaflow@aol.com
Website: www.spaflow.co.uk

CLIENT:

HEYNE TILLETT STEEL
4 PEAR TREE COURT
LONDON
EC1R 0DS

PROJECT:

60-89 ROYAL COLLEGE STREET
LONDON

TITLE:

RECORD OF TRACING, MAPPING AND CCTV SURVEY OF DRAINAGE OUTFALL

PROJECT REF:		REV:
DRAWN: SWW	DATE: NOV 19	SCALES: NTS
CHECKED: JWH	APPROVED: DWH	
CLIENT DRG. No:	CAD Q.A.:	PLOT SIZE:
MICROFILM REF:	SHEET:	DRG. No: PH01