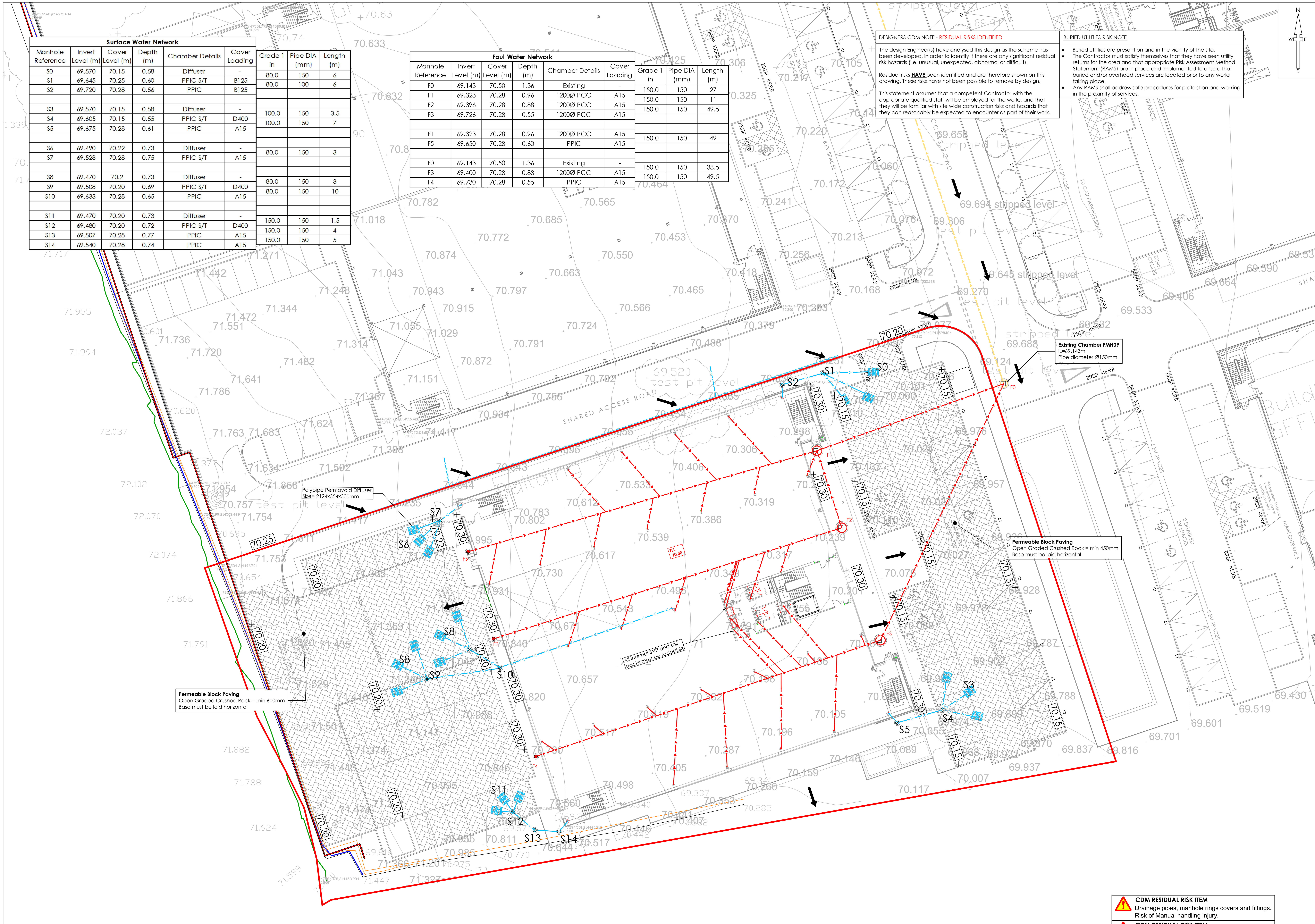

Surface Water Network

Manhole Reference	Invert Level (m)	Cover Level (m)	Depth (m)	Chamber Details	Cover Loading	Grade 1 in	Pipe DIA (mm)	Length (m)
S0	69.570	70.15	0.58	Diffuser	-	80.0	150	6
S1	69.645	70.25	0.60	PPIC S/T	B125	80.0	100	6
S2	69.720	70.28	0.56	PPIC	B125			
S3	69.570	70.15	0.58	Diffuser	-	100.0	150	3.5
S4	69.605	70.15	0.55	PPIC S/T	D400	100.0	150	7
S5	69.675	70.28	0.61	PPIC	A15			
S6	69.490	70.22	0.73	Diffuser	-	80.0	150	3
S7	69.528	70.28	0.75	PPIC S/T	A15			
S8	69.470	70.2	0.73	Diffuser	-	80.0	150	3
S9	69.508	70.20	0.69	PPIC S/T	D400	80.0	150	10
S10	69.633	70.28	0.65	PPIC	A15			
S11	69.470	70.20	0.73	Diffuser	-	150.0	150	1.5
S12	69.480	70.20	0.72	PPIC S/T	D400	150.0	150	4
S13	69.507	70.28	0.77	PPIC	A15	150.0	150	5
S14	69.540	70.28	0.74	PPIC	A15			

Foul Water Network

Manhole Reference	Invert Level (m)	Cover Level (m)	Depth (m)	Chamber Details	Cover Loading	Grade 1 in	Pipe DIA (mm)	Length (m)
F0	69.143	70.50	1.36	Existing	-	150.0	150	27
F1	69.323	70.28	0.96	1200Ø PCC	A15	150.0	150	11
F2	69.396	70.28	0.88	1200Ø PCC	A15	150.0	150	49.5
F3	69.726	70.28	0.55	1200Ø PCC	A15			
F1	69.323	70.28	0.96	1200Ø PCC	A15	150.0	150	49
F5	69.650	70.28	0.63	PPIC	A15			
F0	69.143	70.50	1.36	Existing	-	150.0	150	38.5
F3	69.400	70.28	0.88	1200Ø PCC	A15	150.0	150	49.5
F4	69.730	70.28	0.55	PPIC	A15			

DESIGNERS CDM NOTE - RESIDUAL RISKS IDENTIFIED

The design Engineer(s) have analysed this design as the scheme has been developed, in order to identify if there are any significant residual risk hazards (i.e. unusual, unexpected, abnormal or difficult).

Residual risks **HAVE** been identified and are therefore shown on this drawing. These risks have not been possible to remove by design.

This statement assumes that a competent Contractor with the appropriate qualified staff will be employed for the works, and that they will be familiar with site wide construction risks and hazards that they can reasonably be expected to encounter as part of their work.

BURIED UTILITIES RISK NOTE

- Buried utilities are present on and in the vicinity of the site.
- The Contractor must satisfy themselves that they have seen utility returns for the area and that appropriate Risk Assessment Method Statement (RAMS) are in place and implemented to ensure that buried and/or overhead services are located prior to any works taking place.
- Any RAMS shall address safe procedures for protection and working in the proximity of services.

N
W E
S

NOTES

1. All dimensions and levels are in metres unless otherwise noted
2. This drawing is to be read in conjunction with the relevant Architect's/Engineer's drawings, specifications and CDM documentation
3. This drawing has been produced electronically and may have been photo reduced or enlarged when copied. Work to figured dimensions only (DO NOT SCALE - EXCEPT FOR PLANNING PURPOSES). All dimensions to be checked on site. Any errors or omissions to be reported to the engineer immediately.
4. This drawing contains coloured lines / information that may not be clear if reproduced in black and white.
5. Digital copies of this plan can only be considered accurate if supplied directly by Infrastruct CS Ltd.

Construction Note
It is essential that new drainage associated with the development is laid from the outfall(s) into the site. This is essential to avoid unforeseen obstructions where encountered (such as services). If the drainage is laid from the site out to the outfall it can result in significant abortive works to relay and overcome such obstructions.

Location of Public Sewers have been taken from record drawings which should be fully substantiated by the contractor prior to commencing works on site

All manholes covers located within carriageways shall have no slip covers to prevent motorcycles/cycles losing control

Manhole schedules - Invert level shown related to the deepest pipe within the chamber

Drainage Key

Sewers

- Foul water drain (private/non adoptable)
- Surface water drain (private/non adoptable)
- Existing foul water sewer (Adopted)

Chamber Key

FW/SW

- Mini access chamber (mac) - 300mmØ
- PPIC - 475mmØ*
- P.C.C. units/brick*
- Adoptable demarcation manhole within 1m of boundary
- Manhole
  Depth: 1.25m to 1.5m*
  Depth: 1.55m to 3.0m*

* General note
(Refer to standard details & longitudinal sections for chamber sizes. Size may need to increase dependant on number of incoming pipes/size of incoming pipes)

- Rain water down pipe (roddable access)
- Soil vent pipe/soil stack
- Silt Trap (ST) with removable silt bucket
- S1/F1 — Manhole reference number
- Linear drainage channel
- RWP cellular discharge/collection unit (DU) (Permavoid or similar)
- FFL XX.XX — Finished Floor Level (FFL)
- Block paving - permeable
- Flood exceedance routing
- Impermeable barrier to stop lateral movement of water

DESIGNER NOTE
Rainwater pipe locations to be confirmed

DESIGNER NOTE
Soakage rate used = 4.37x10-5 m/s, the worst result of the tree tests to BRE365 caried out on site in October 2022 (0.15732 m/h)

DESIGNER NOTE
Monitoring wells recorded groundwater levels between 0.9m and 2.5m bgl during investigation for Unit 1, to the north of this site. See report SHF.1733.001.GE.R.002.A. prepared by Enzygo in June 2020. To be further investigated with groundwater monitoring in winter within the site boundary.

CDM RESIDUAL RISK ITEM
Drainage pipes, manhole rings covers and fittings.
Risk of Manual handling injury.

CDM RESIDUAL RISK ITEM
Contact with waste water when making drainage connections.
Risk of infection from Weils disease etc.

CDM RESIDUAL RISK ITEM
Above Ground activities.
Possibility of objects falling from operations at high level onto persons working or passing below.

CDM RESIDUAL RISK ITEM
Works within confined spaces.

REV	DRAWN	CHECK	REVISION COMMENTS	ISSUE DATE
P02	SNN	APL	New Site Layout	19/04/23
P01	RSI	MBD	Initial issue	16/11/22

DRAWING TITLE
Drainage Design

SHEET NO.
1/1

PROJECT
Building 10
Oxford Technology Park
Kidlington, Oxon

CLIENT
HILL STREET HOLDINGS

Infrastruct CS Ltd

The Stables, High Cogges Farm, High Cogges, Witney, OX29 6UN - Tel: 01993 709709: info@infrastructcs.co.uk

SCALE @ A1
1:250
0m 6.25m 12.5m

ENGINEER
MBD

DRAFT
SNN

APPROVED
RJW

PROJECT NUMBER	STATUS	ISSUE PURPOSE
5214	S2	INFORMATION

PROJECT	ORIGIN	PHASE	LEVEL	TYPE	ROLE	NO.	REVISION
OTP	ICS	10	XX	DR	C	0200	P02