

DESIGNER'S 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.

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

- 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 Wells 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.

- NOTES**
- All dimensions and levels are in metres unless otherwise noted
 - This drawing is to be read in conjunction with the relevant Architect's/Engineer's drawings, specifications and CDM documentation
 - 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.
 - This drawing contains coloured lines / information that may not be clear if reproduced in black and white.
 - Digital copies of this plan can only be considered accurate if supplied directly by Infrastuct CS Ltd.

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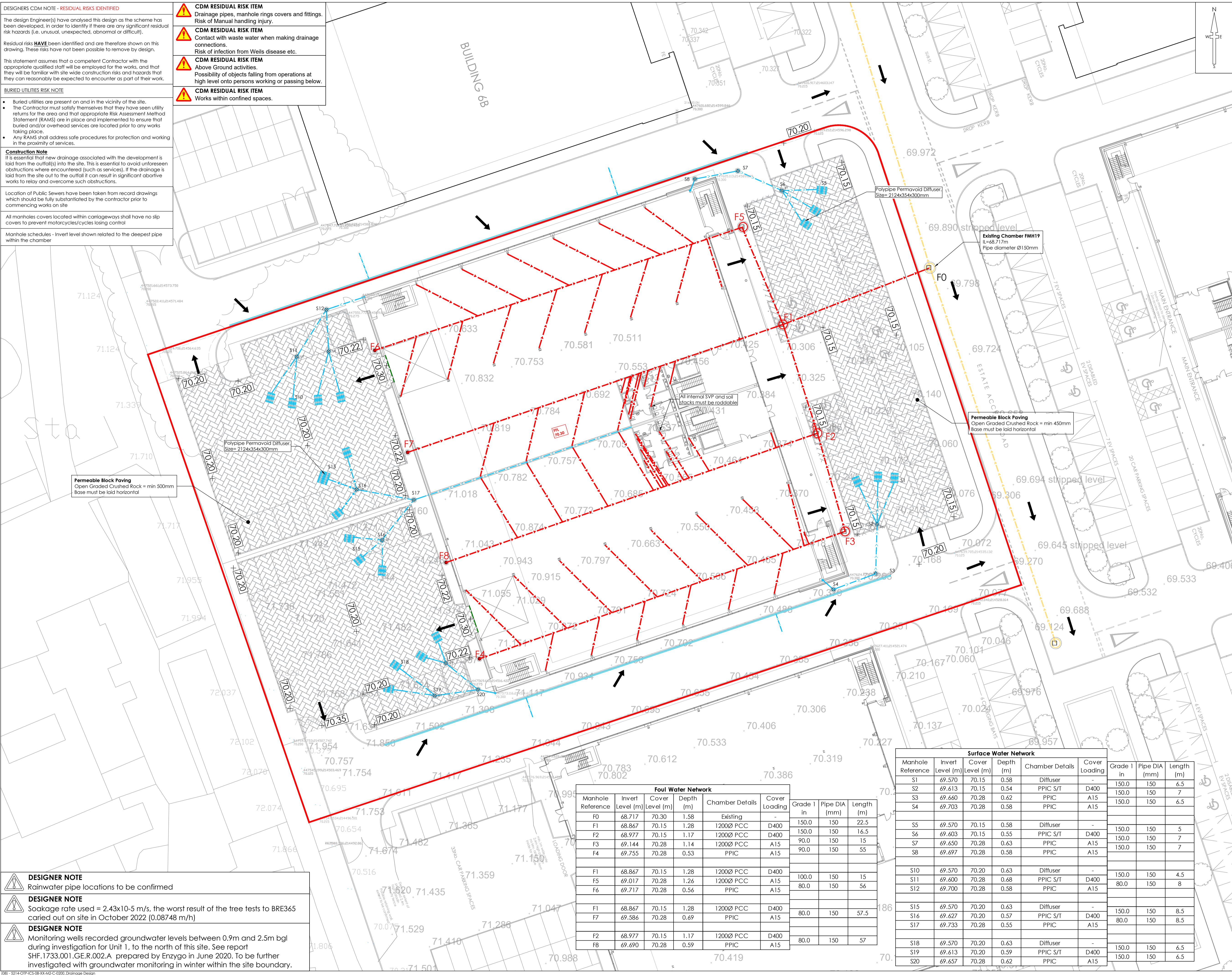
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- Drainage Key**
- Sewers**
- Foul water drain (private/non adoptable)
 - Surface water drain (private/non adoptable)
 - Existing foul water sewer (Adopted)
- Chamber Key**
- PW/SW**
- Mini access chamber (mac) - 300mmØ
 - PPIC - 475mmØ*
 - P.C.C. 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)
 - Finished Floor Level (FFL) (Permavoid or similar)
 - Block paving - permeable
 - Flood exceedance routing
 - Impermeable barrier to stop lateral movement of water



Foul Water Network				
Manhole Reference	Invert Level (m)	Cover Level (m)	Depth (m)	Chamber Details
F0	68.717	70.30	1.58	Existing
F1	68.867	70.15	1.28	1200Ø PCC
F2	68.977	70.15	1.17	1200Ø PCC
F3	69.144	70.28	1.14	1200Ø PCC
F4	69.755	70.28	0.53	PPIC
F5	68.867	70.15	1.28	1200Ø PCC
F6	69.017	70.28	1.26	1200Ø PCC
F7	69.717	70.28	0.56	PPIC
F8	68.867	70.15	1.28	1200Ø PCC
F9	69.586	70.28	0.69	PPIC
F10	68.977	70.15	1.17	1200Ø PCC
F11	69.690	70.28	0.59	PPIC

Surface Water Network						
Manhole Reference	Invert Level (m)	Cover Level (m)	Depth (m)	Chamber Details	Cover Loading	Grade 1
S1	69.570	70.15	0.58	Diffuser	-	150.0
S2	69.613	70.15	0.54	PPIC S/T	D400	150.0
S3	69.660	70.28	0.62	PPIC	A15	150.0
S4	69.703	70.28	0.58	PPIC	A15	150.0
S5	69.570	70.15	0.58	Diffuser	-	150.0
S6	69.603	70.15	0.55	PPIC S/T	D400	150.0
S7	69.650	70.28	0.63	PPIC	A15	150.0
S8	69.697	70.28	0.58	PPIC	A15	150.0
S9	69.570	70.20	0.63	Diffuser	-	150.0
S10	69.600	70.28	0.68	PPIC S/T	D400	80.0
S11	69.700	70.28	0.58	PPIC	A15	150.0
S12	69.700	70.28	0.58	PPIC	A15	150.0
S13	69.570	70.20	0.63	Diffuser	-	150.0
S14	69.627	70.20	0.57	PPIC S/T	D400	80.0
S15	69.733	70.28	0.55	PPIC	A15	150.0
S16	69.570	70.20	0.63	Diffuser	-	150.0
S17	69.613	70.20	0.59	PPIC S/T	D400	150.0
S18	69.657	70.28	0.62	PPIC	A15	150.0
S19	69.657	70.28	0.62	PPIC	A15	150.0
S20	69.657	70.28	0.62	PPIC	A15	150.0

- DESIGNER NOTE**
Rainwater pipe locations to be confirmed
- DESIGNER NOTE**
Soakage rate used = 2.43x10-5 m/s, the worst result of the tree tests to BRE365 carried out on site in October 2022 (0.08748 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.

P02	SNN	APL	New Site Layout	19/04/23
P01	RSI	MBD	Initial Issue	16/11/22
REV	DRAWN	CHECK	REVISION COMMENTS	ISSUE DATE
DRAWING TITLE				SHEET NO.
Drainage Design				1/1
PROJECT				
Building 8 Oxford Technology Park Killington, Oxon				
CLIENT				
HILL STREET HOLDINGS		Infrastuct CS Ltd		
SCALE @ A1 1:250				
PROJECT NUMBER 5214				
STATUS S2				
ISSUE PURPOSE INFORMATION				
PROJECT	ORIGIN	PHASE	LEVEL	TYPE
OTF	ICS	08	XX	DR
ROLE	NO.	REVISION		
C	0200	P02		