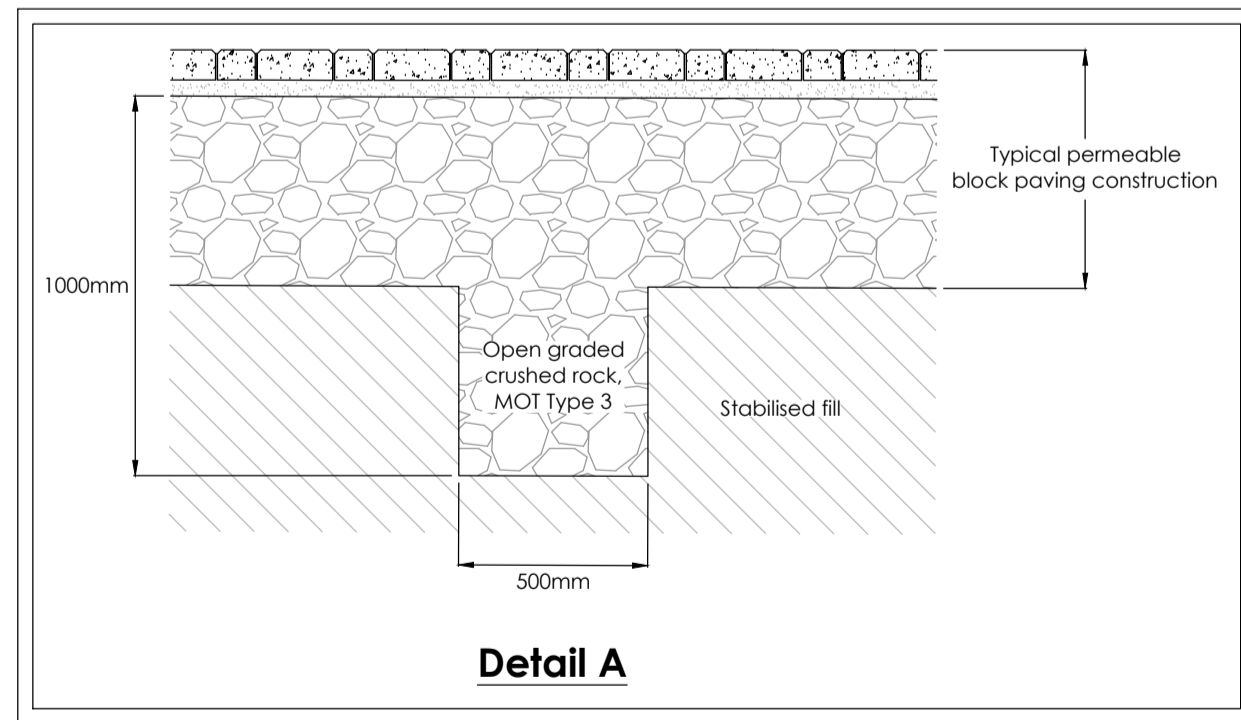
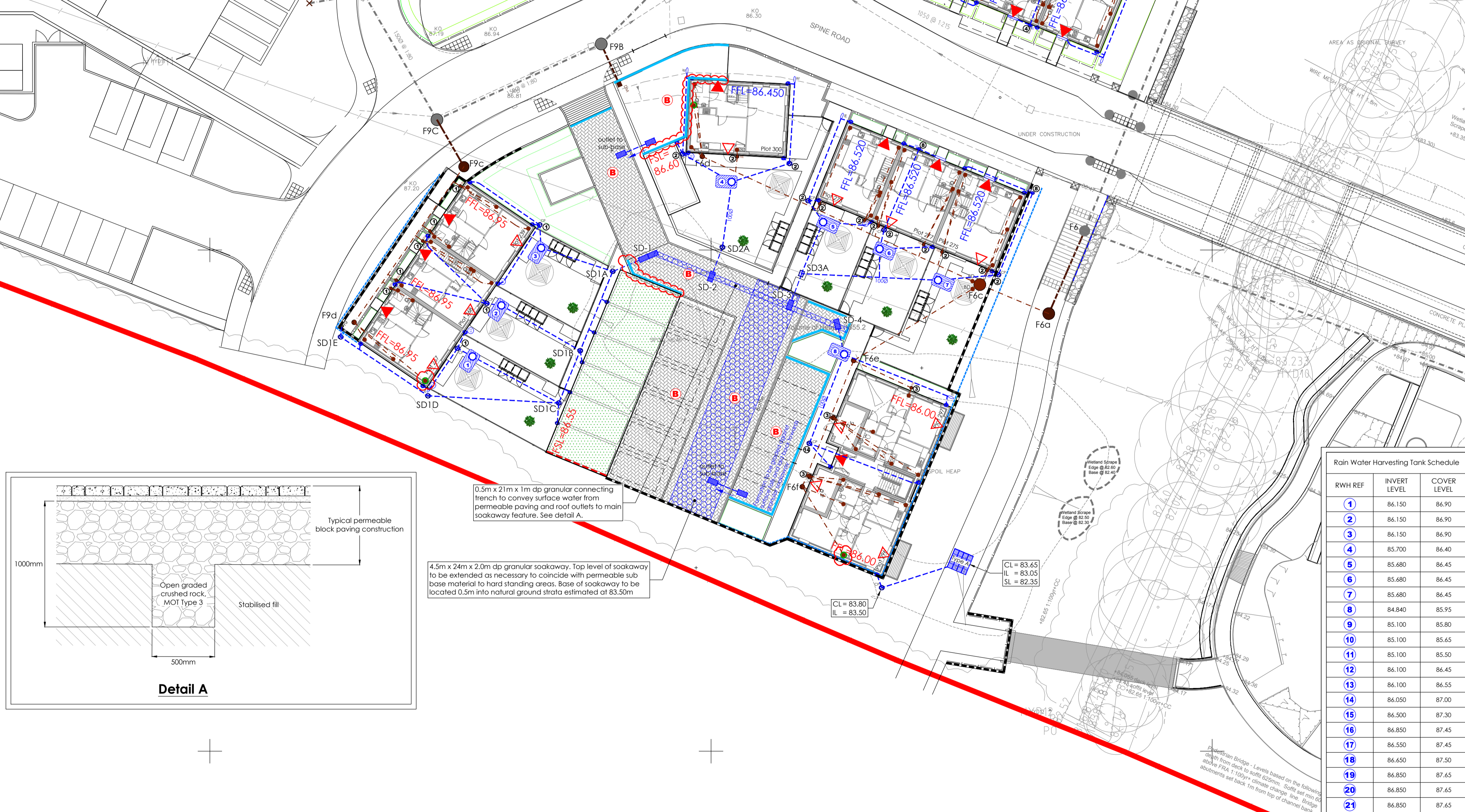




Sheet Arrangement (1:2500)



0.5m x 21m x 1m dp granular connecting trench to convey surface water from permeable paving and roof outlets to main soakaway feature. See detail A

4.5m x 24m x 2.0m dp granular soakaway. Top level of soakaway to be extended as necessary to coincide with permeable sub base material to hard standing areas. Base of soakaway to be located 0.5m into natural ground strata estimated at 83.50m

Area Key	Depth of Permeable Paving Sub-base	Soakaway Table		
A	Refer to S38 drawing	Key	Type	Dimension
B	350mm	[Symbol]	Type A	2m x 2m x 0.8m deep
C	450mm	[Symbol]	Type B	2m x 4m x 0.8m deep
		[Symbol]	Type C	2m x 3m x 0.8m deep
		[Symbol]	Type D	1.5m x 2m x 0.8m deep

Base of soakaways to puncture brush layer

**DESIGNER'S CDM NOTE - RESIDUAL RISKS NOT IDENTIFIED**

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

No residual risks have been identified for this scheme and therefore no entries were added to the risk register.

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.

- 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 drawings have been produced electronically and may have been photo reduced or enlarged when copied. Work to figured dimensions only (DO NOT SCALE). 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.

**Drainage Key**

**Sewers**

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

**Chamber Key**

- Mini access chamber (mac) - 300mm<sup>2</sup>
- PPIC - 475mm<sup>2</sup> - CP = Catchpit
- P.C.C. units/brick \*
- Adoptable demarcation manhole within 1m of boundary \*
- Manhole Depth 1.25 to 1.5m \* Depth 1.55 to 3.0m \*

**Surface Manhole Drainage Schedule**

MANHOLE REF	INVERT LEVEL	COVER LEVEL	GRADE	PIPE Ø (mm)	LENGTH
SD-1	85.738	86.43	100	150	3.0
SD1A	85.748	86.55	100	150	8.5
SD1B	85.853	86.55	100	150	5.5
SD1C	85.908(150)	86.55	60	100	13.0
SD1D	86.175	86.90	60	100	10.5
SD1E	86.350	87.70			
SD-2	85.461	86.33	60	100	3.0
SD2A	85.511	86.40			
SD-3	85.400	86.22	60	100	3.0
SD3A	85.450	86.30			
SD-4	84.700	86.15			
SD-5	84.508	85.05	20	100	4.0
SD5A	84.708	85.10			
SD5B	85.100	85.80			

**Foul Manhole Drainage Schedule**

MANHOLE REF	INVERT LEVEL	COVER LEVEL	GRADE	PIPE Ø (mm)	LENGTH
F6	81.365(225)	81.495(100)	10.8	100	9.0
F6a	82.525	84.05	15.8	100	7.5
F6c	83.000(CUT)	84.937(IN)	40	100	30.5
F6d	85.700	86.45			
F6e	83.000(CUT)	84.843(IN)	80	100	14.5
F6e	85.025	86.00			
F6f	85.250	86.00			
F9C	83.610(150)	83.860(100)	2.95	100	5.5
F9c	85.725	87.15	40	100	19.0
F9d	86.200	86.95			
F8	81.924(225)	84.98	10	100	4.5
F8a	84.675	85.15	20	100	16.5
F8b	85.500	86.25			
F7	81.894(CUT)	82.959(IN)	40	100	9.0
F7a	83.184	84.77	40	100	29.0
F7b	83.909	84.70	24.5	100	12.0
F7c	84.398	85.15	16	100	9.5
F7d	84.992	85.550	25	100	21.5
F7e	85.850	86.700			
F10A	85.422	87.100	9.4	100	3.0
F10a	85.741	87.050	60	100	15.5
F10b	86.000	86.700			
F10A	85.422(CUT)	86.408(IN)	60.0	100	20.5
F10c	86.750	87.500			
F11c	86.258	87.500	16.3	100	3.0
F11a	86.441	87.550	60	100	21.5
F11b	86.800	87.550			
F11D	86.500	87.580			
F11e	86.900	87.550	43.75	100	17.5

**Rain Water Harvesting Tank Schedule**

RWH REF	INVERT LEVEL	COVER LEVEL
1	86.150	86.90
2	86.150	86.90
3	86.150	86.90
4	85.700	86.40
5	85.680	86.45
6	85.680	86.45
7	85.680	86.45
8	84.840	85.95
9	85.100	85.80
10	85.100	85.85
11	85.100	85.50
12	86.100	86.45
13	86.100	86.55
14	86.050	87.00
15	86.500	87.30
16	86.850	87.45
17	86.550	87.45
18	86.650	87.50
19	86.850	87.65
20	86.850	87.65
21	86.850	87.65
22	86.550	87.30
23	86.550	87.30
24	86.550	87.60
25	86.850	87.53
26	86.850	87.45
27	84.150	85.00
28	84.050	84.40
29	84.900	85.75
30	85.400	86.55

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

- Surface water rodding eye
- Manhole reference number
- Rain water down pipe (roddable access)
- Soil vent pipe/soil stack
- Vented soil vent pipe/soil stack (minimum)
- RWP cellular discharge/collection unit
- Retaining wall
- Finished Floor Level (FFL)
- Block paving - Permeable
- Impermeable barrier
- Permeable paving baffle
- Service baffle
- Proposed filter drain (To cater for extreme storm events)
- Indicative location of fruit tree/bush
- Land drain adjacent to retaining wall
- Rainwater Harvesting Tank
- Areas of proposed green roof

**NOTE: ALL UNREFERENCED SURFACE WATER PIPEWORK TO BE 100mmØ UNLESS SHOWN OTHERWISE**

**PPIC Invert Levels**

NO	IL
1	84.20
2	85.77
3	85.25
4	85.50
5	84.35
6	83.90
7	84.70
8	86.00
9	86.15
10	86.30
11	86.60
12	86.75
13	86.90
14	85.00
15	87.00

P03	NJ	TST	Vented soil stacks added and impermeable barrier updated. Refer to revision clouds.	20/04/16
P02	NJ	TST	Updated in-line with revised architect and landscape information	29/04/16
P01	NJ	TST	Initial issue	08/01/16

**PROPOSED DRAINAGE PLAN**  
Sheet 4/4

**PROJECT**  
Phase 2  
Bicester Eco Village  
Bicester  
Oxon

DESIGNED BY: TST | DRAFTED BY: NJ | APPROVED BY: DJ

DATE: 08/01/2016 | STATUS: **SUBJECT TO TECHNICAL APPROVAL**

SCALE: 1:250 @ A1 | Scale bar: 0m, 4.25m, 12.5m

CLIENT: **Hill** | **Infrastruct CS Ltd**

JOB NUMBER: 15-1859 | DRAWING NUMBER: 03-4 | REVISION: P03