

**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 rely 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

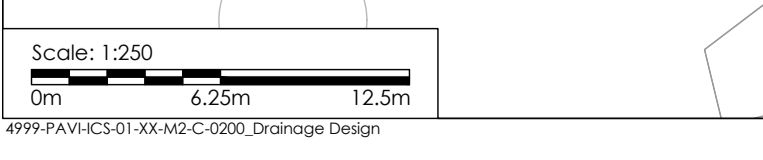
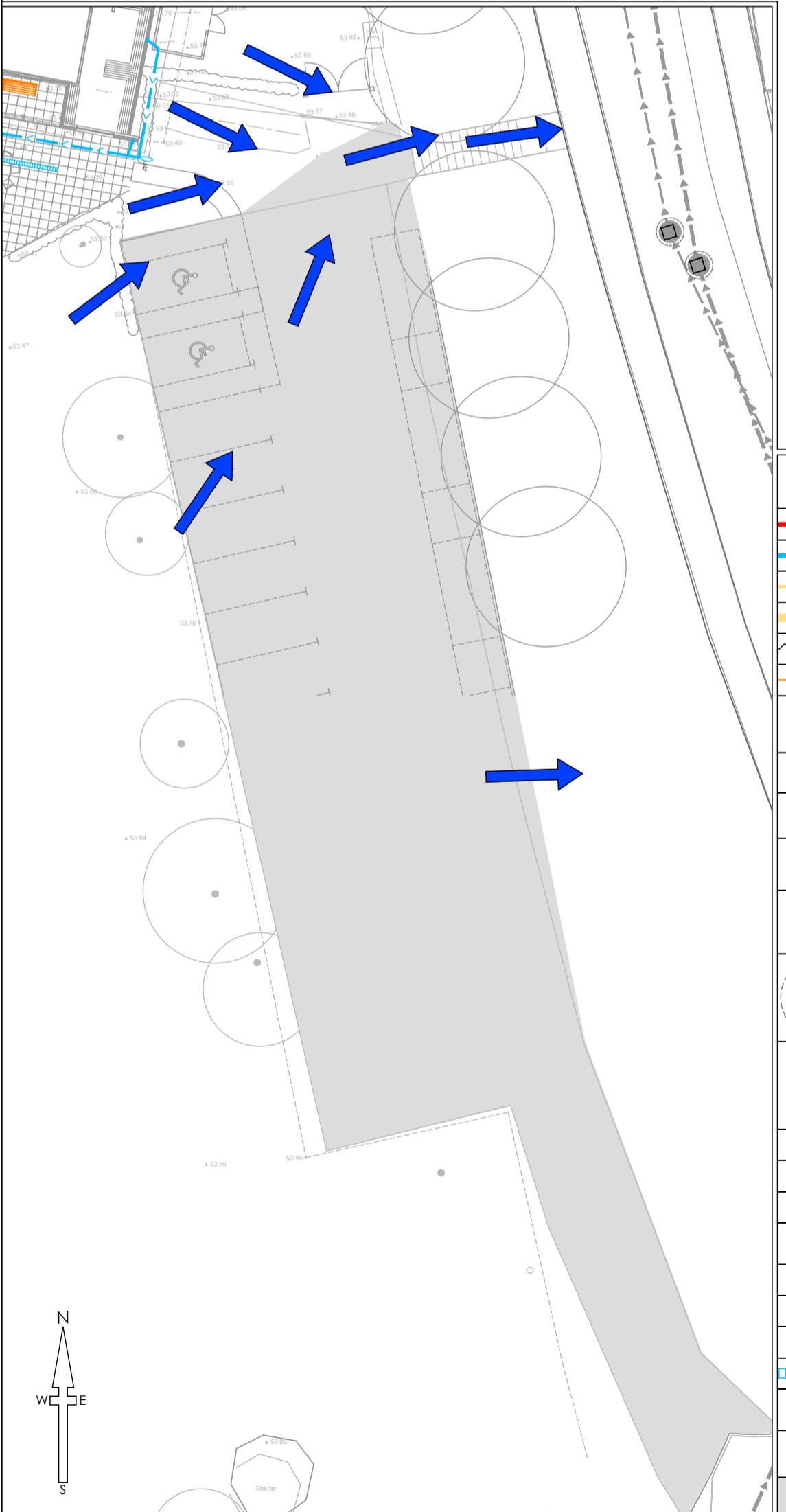
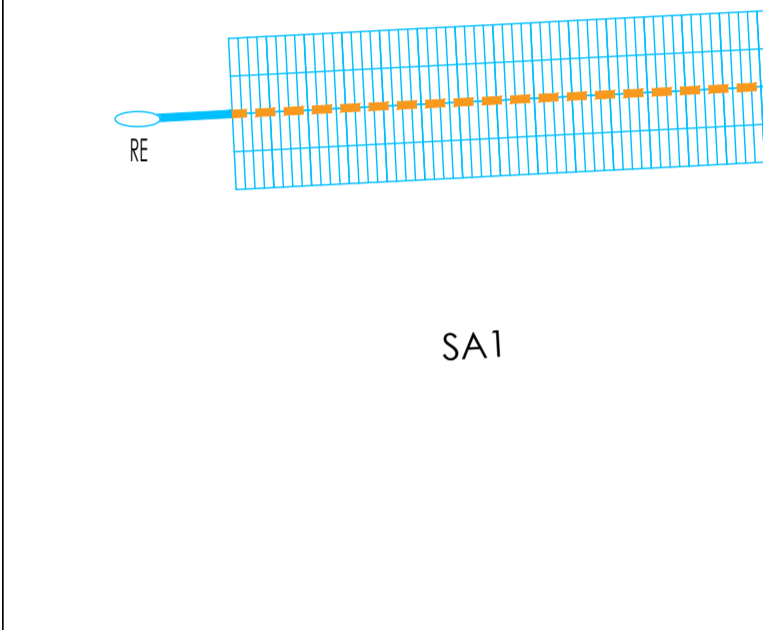
Manhole schedules - Invert level shown related to the deepest pipe within the chamber

**DESIGN NOTE**

Soakaway testing by AVZ(ref SKZ\_1887) shows soakage rates of between 1.11 x 10<sup>-5</sup> m/s and 2.27 x 10<sup>-5</sup> m/s

**Cellular Soakaway**

CL = 53.80m  
 IC = 53.00m  
 IL = 52.80m  
 9.0m L x 2.5m W x 1.2m Dp  
 Soakaway sized to contain 1in100 year storm, with an additional allowance of 40% for climate change from an area of 290m<sup>2</sup> (includes 10% urban creep). Based on worst case infiltration rate of 1.0x10<sup>-5</sup> m/s for underlying gravel/sand strata



Drainage Key	
	Foul water drain (private/non adoptable)
	Surface water drain (private/non adoptable)
	Existing foul water drain (private/non adopted)
	Existing foul water sewer (Adopted)
	Redundant sewer
	Drainage by M&E engineers
Chamber Key	
	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)	
	Surface water rodding eye
	Rain water down pipe (roddable access)
	Soil vent pipe/soil stack
	Silt Trap (ST) with removable silt bucket
	Manhole reference number
	Floor gully (trapped)
	Surface water sump unit
	Linear drainage channel
	Cellular storage (refer to drawing for sizes)
	Finished Floor Level (FFL)
	Existing car parking resurfaced. Permeable granular car park construction
	Flood exceedance routing

Foul Water Network					
Manhole Reference	Invert Level (m)	Cover Level (m)	Depth (m)	Chamber Details	Cover Loading
F0	52.190	53.70	1.51	Existing	A15
F1	52.798	53.40	0.60	PPIC	A15

Surface Water Network					
Manhole Reference	Invert Level (m)	Cover Level (m)	Depth (m)	Chamber Details	Cover Loading
SA1	52.850	53.80	0.95	Special	-
S1	52.863	53.80	0.94	PPIC S/T	A15
S2	52.930	53.60	0.67	PPIC	A15
S3	53.070	53.60	0.53	MAC	A15
S4	53.140	53.60	0.46	Rod. Eye	A15
S1	52.863	53.80	0.94	PPIC S/T	A15
S5	53.348	53.80	0.45	Rod. Eye	A15

Grade in	Pipe DIA (mm)	Length (m)
37.0	100	22.5

Grade in	Pipe DIA (mm)	Length (m)
150.0	150	2.0
150.0	150	10.0
150.0	150	21.0
150.0	150	10.5
65.0	150	31.5

**DESIGN RISK ITEM**

POSITION, COVER & INLET LEVEL OF MANHOLE(S) UNKNOWN

**DESIGN RISK ITEM**

CONDITION OF EXISTING CONNECTION UNKNOWN.

**DESIGN RISK ITEM**

CONSIDERATION TO BE MADE TO HAVE CCTV SURVEY OF EXISTING CONNECTION AND MANHOLE(S)

New drainage to connect into existing inspection chamber. Subject to Section 106 Indirect Connection Consent approval with Thames Water. Cover & inlet level to be approved

Existing Foul Water Chamber  
 Cl = 53.70m  
 IL = 52.19m\*  
 (Invert Level to be confirmed)

TW FW Manhole  
 Ref: 9102  
 CL = 51.04  
 IL = 49.64

TW FW Manhole  
 Ref: 9101  
 CL = 51.03  
 IL = 48.98

**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.
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**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.

P03	NJ	RJW	Drainage updated in line with revised floor plan	
P02	NJ	RJW	Revised site layout updated, drainage design revised accordingly	03/05/24
P01	NJ	RJW	Initial issue	13/09/22
REV	DRAWN	CHECK	REVISION COMMENTS	ISSUE DATE
DRAWING TITLE Drainage Design				SHEET NO. 1/1
PROJECT Sports Pavilion Sonning Sports Club Pound Lane, Sonning, RG4 6XE				
CLIENT Enza Architects				
SCALE @ A1 1:100		ENGINEER RJW		
PROJECT NUMBER 4999	STATUS S2	ISSUE PURPOSE INFORMATION	DRAFT NJ APPROVED AJG	
PROJECT PAVI	ORIGIN ICS	PHASE 01	LEVEL XX	REVISION P03