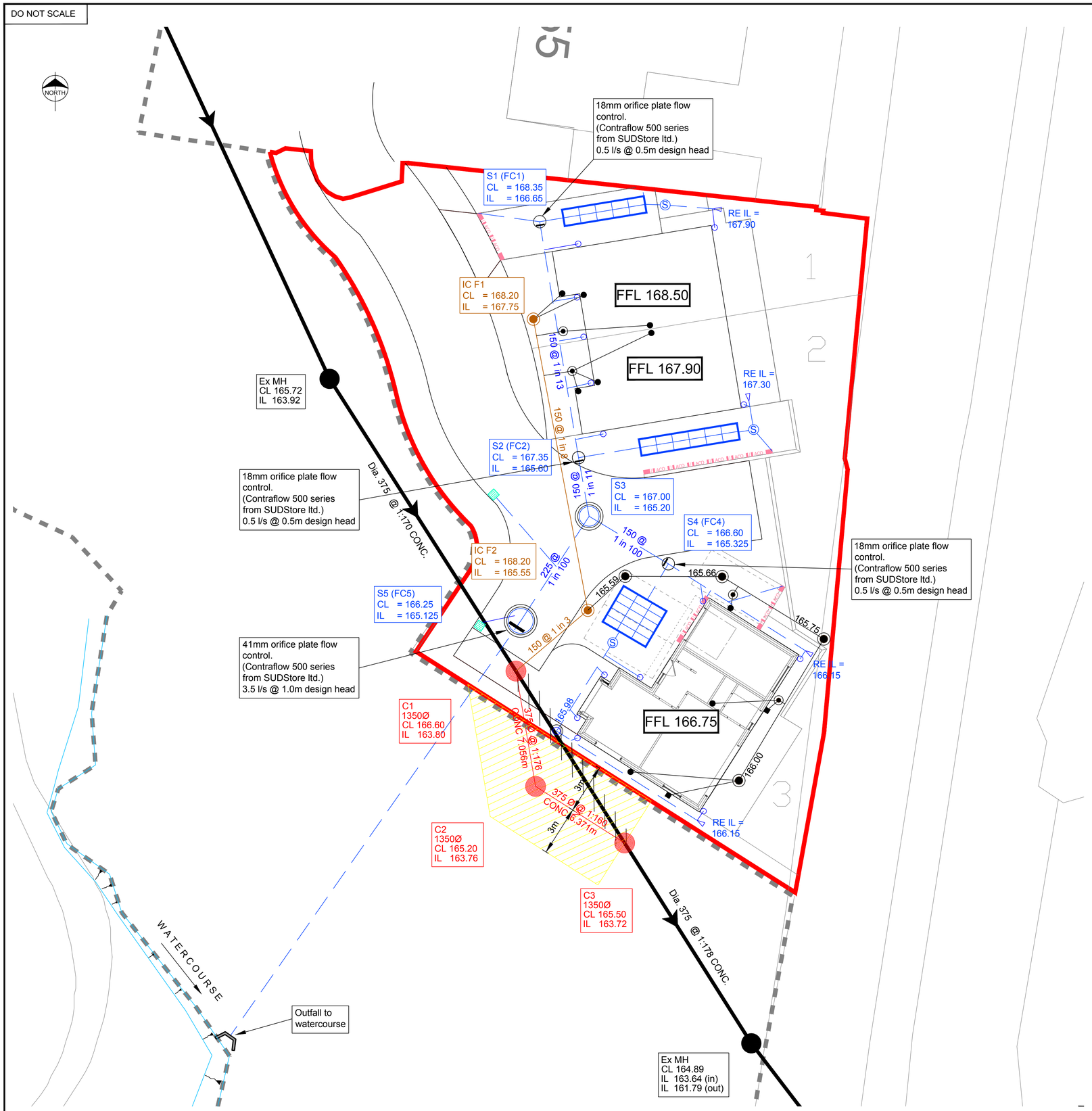
DO NOT SCALE



Surface Water Flow Rates

Developable Site Area = 230sq.m.

Existing Brownfield Run-off Rates
(Based on 230sq.m. existing impermeable area)

1yr	= 1.6 l/s	(24.90 mm/hr rainfall)
30yr	= 3.9 l/s	(60.80 mm/hr rainfall)
100yr	= 5.0 l/s	(78.20 mm/hr rainfall)

Proposed Run-off Rates
(30% betterment on existing flow rates)

1yr	= 1.1 l/s
30yr	= 2.7 l/s
100yr	= 3.5 l/s

Proposed impermeable areas = 510sq.m. (54% Imp)

100yr attenuation storage = approx 17cu.m
(+40% climate change)

Drainage Strategy

Existing Drainage

We have no information on the existing site drainage. External RWP's from the existing roof are taken below ground level and are assumed to combine with foul flows before discharging into the combined sewer. A drainage survey should be undertaken to establish how the existing building is currently drained.

Proposed Foul

Discharge to existing combined sewer crossing the site. This will require a diversion subject to Welsh Water approval

Proposed Surface Water

1. Collection for re-use
Water butts to be installed to rear RWPs on individual properties

2. Infiltration
Local geology maps and availabale BGS boreholes nearby indicate infiltration techniques for disposal of surface water from the development is unlikely. However, infiltration testing will be undertaken following the intrusive site investigation should ground conditions indicate presence of suitable strata (sands / gravels)

3. Watercourse
Discharge to existing un-named watercourse to the southwest of the development.

Note

1. This is a preliminary design demonstrating a drainage solution is achievable to discharge flows from the proposed development.
2. The specification in all respects shall be in accordance with the current Wrexham CBC Specification and Construction publication in force in the county at the time of construction.

Legend

Site Boundary

Existing

Existing Combined Sewer

Existing Combined Sewer to be abandoned

Proposed

C1 — Combined Sewer Diversion

Easement

FFL 100.00 — Plot Slab level

Private Surface Water Drain

Geocellular Tank

Orifice Plate Flow Control

Private Foul Drain

Adoptable Foul Drain

SVP

BIG

RWP

Rodding Eye

PLANNINIG

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Title
Drainage Layout

DRAWING NUMBER	SCALE at A1	1:125	
7429 / SK05	DATE	08/10/20	REVISION
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