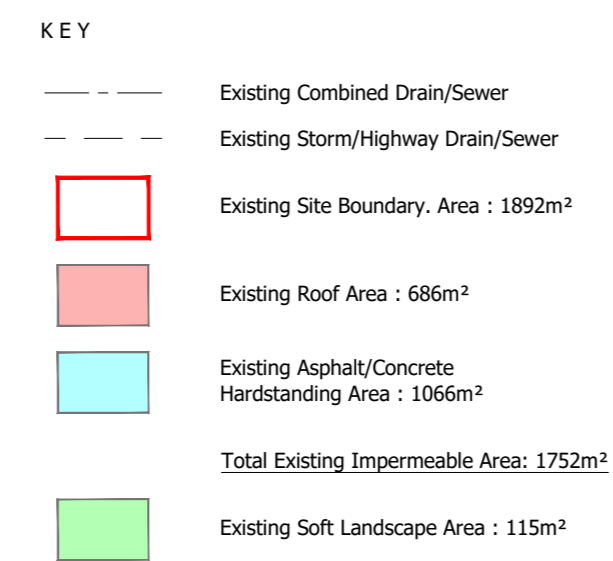
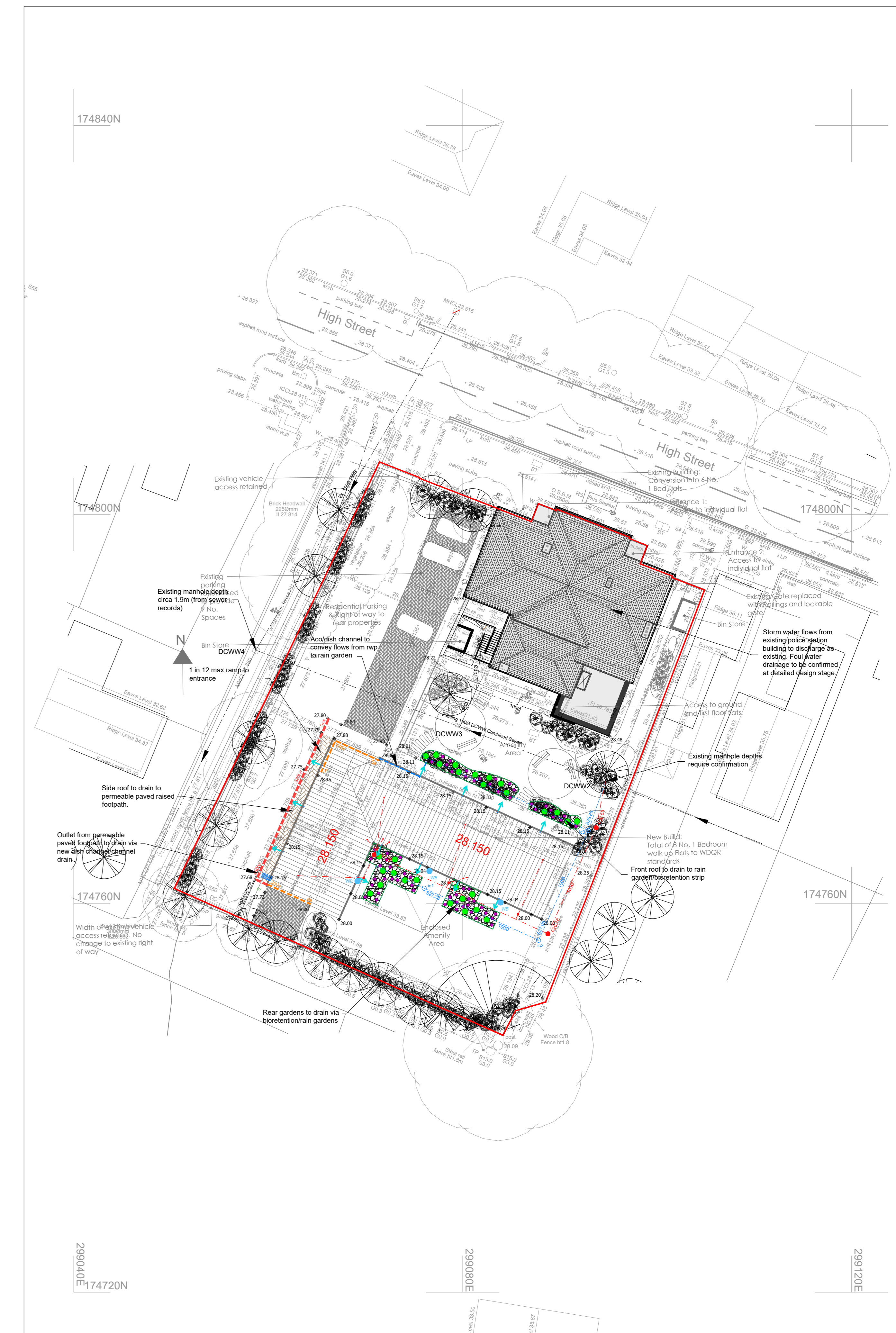
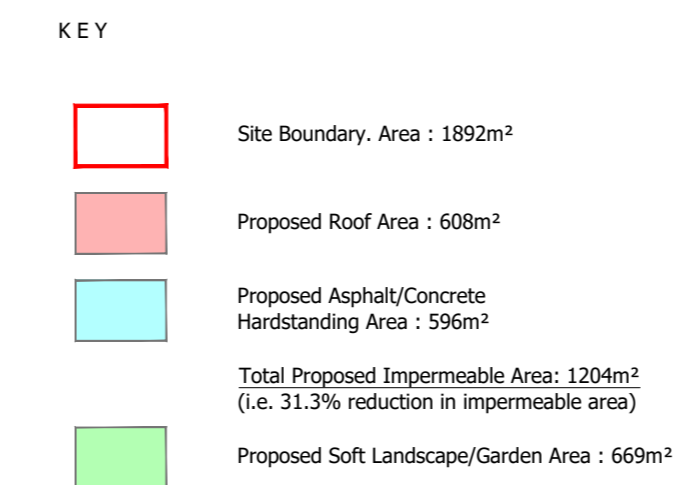


Existing Site Layout, Drainage & Impermeable Area Plan
Scale 1:250



Proposed Site Layout & Impermeable Area Plan
Scale 1:250



Proposed Engineering & Drainage Strategy Plan
Scale 1:250

DISCHARGE RATES TO DCWW SEWER

Pre-development Brownfield Catchment Area* = 0.101ha
*Based on pre-development impermeable area draining to sewer

Pre-development Brownfield Runoff Rates (0.101ha)

1 in 1yr = 14.8 l/s
1 in 30yr = 24.0 l/s
1 in 100yr = 27.1 l/s

Pre-Development volume discharge (0.101ha)

1 in 100yr (360mins) = 58.7m³

Post-Development
Approx. Impermeable Area = 0.051ha

Post-Development peak flow rate

1 in 1yr = 7.4 l/s (-7.4 l/s)
1 in 30yr = 17.9 (-6.1 l/s)
1 in 100yr = 20.8 (-6.3 l/s)
1 in 100yr +40% = 24.7 l/s

Discharge Volume (100yr 360mins)

Post-Dev - 1 in 100yr (360mins) = 29.6m³

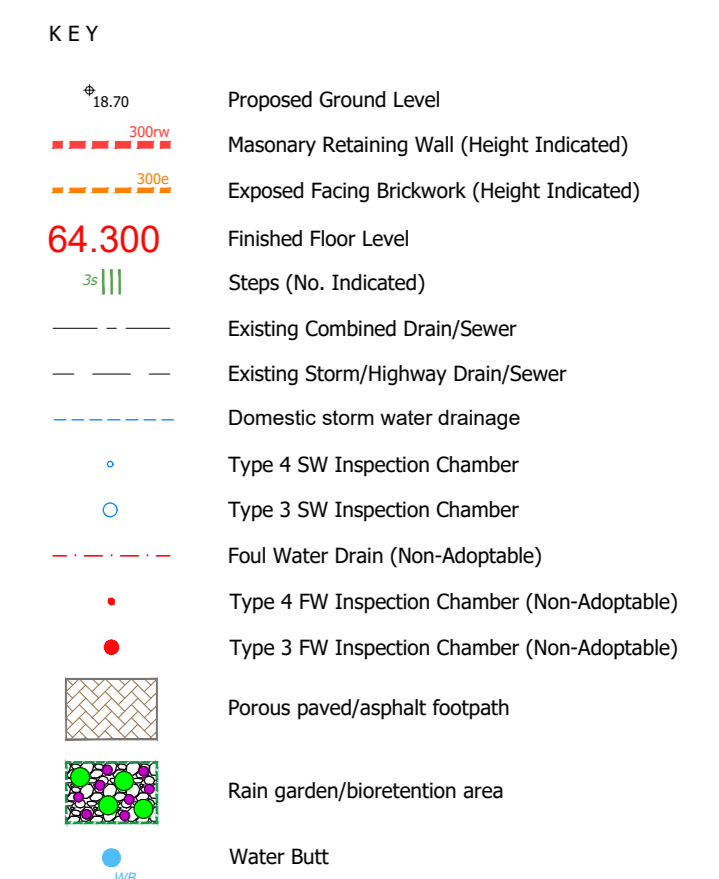
Total Volume +/- = -29.1m³**

SuDS Measures

**The above post-development flow rates and discharge volume are based on a traditional piped system with a 5 minute concentration time.

However, all runoff from the new-build apartments is to be conveyed to pass through a SuDS feature which will further reduce the above discharge rates and volume.

The SuDS components will effectively increase concentration time, reduce flow velocities and rates, and providing significant volume losses through evaporation and evapotranspiration.



rev	date	description	by
A	March 2024	Minor updates to site layout	RMJ

Status:
PRELIMINARY

Drawn:	RMJ	Client:	Bluefield Land
Checked:	RMJ	Project:	Former Police Station, Cowbridge
Date:	Dec 2023	Title:	Engineering & Drainage Strategy Plan
Scale:	1:250	Ref:	2728-505
		Rev:	A