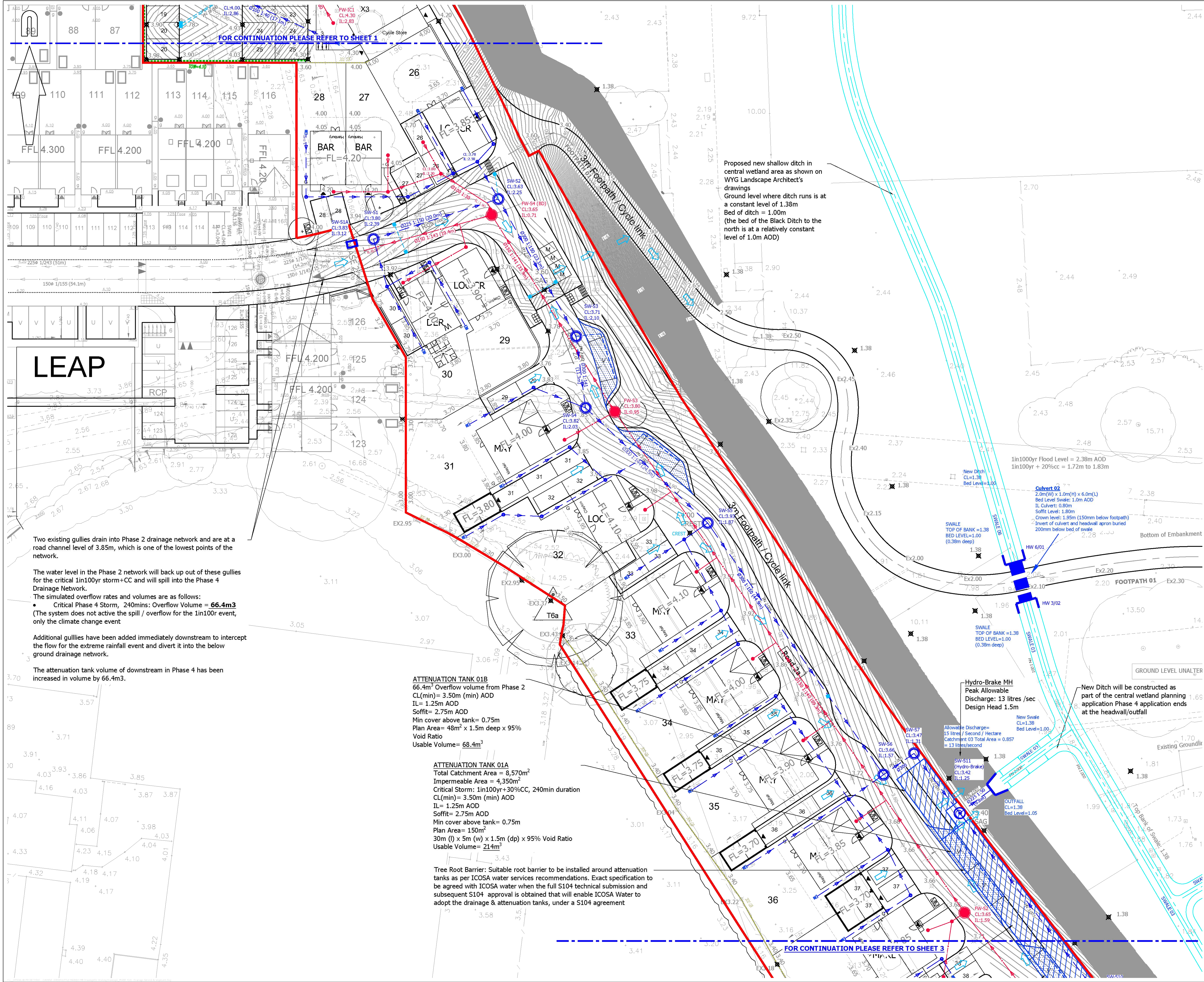




Two existing gullies drain into Phase 2 drainage network and are at a road channel level of 3.85m, which is one of the lowest points of the network.

The water level in the Phase 2 network will back up out of these gullies for the critical 1in100yr storm+CC and will spill into the Phase 4 Drainage Network.

The simulated overflow rates and volumes are as follows:

- Critical Phase 4 Storm, 240mins: Overflow Volume = **66.4m³**

(The system does not active the spill / overflow for the 1in100r event, only the climate change event)

Additional gullies have been added immediately downstream to intercept the flow for the extreme rainfall event and divert it into the below ground drainage network.

The attenuation tank volume of downstream in Phase 4 has been increased in volume by 66.4m³.

ATTENUATION TANK 01B

66.4m³ Overflow volume from Phase 2
CL(min)= 3.50m (min) AOD
IL= 1.25m AOD
Soffit= 2.75m AOD
Min cover above tank= 0.75m
Plan Area= 48m² x 1.5m deep x 95%
Void Ratio
Usable Volume= **68.4m³**

ATTENUATION TANK 01A

Total Catchment Area = 8,570m²
Impermeable Area = 4,350m²
Critical Storm: 1in100yr+30%CC, 240min duration
CL(min)= 3.50m (min) AOD
IL= 1.25m AOD
Soffit= 2.75m AOD
Min cover above tank= 0.75m
Plan Area= 150m²
30m (l) x 5m (w) x 1.5m (dp) x 95% Void Ratio
Usable Volume= **214m³**

Tree Root Barrier: Suitable root barrier to be installed around attenuation tanks as per ICOSA water services recommendations. Exact specification to be agreed with ICOSA water when the full S104 technical submission and subsequent S104 approval is obtained that will enable ICOSA Water to adopt the drainage & attenuation tanks, under a S104 agreement

Proposed new shallow ditch in central wetland area as shown on WYG Landscape Architect's drawings
Ground level where ditch runs is at a constant level of 1.38m
Bed of ditch = 1.00m
(the bed of the Black Ditch to the north is at a relatively constant level of 1.0m AOD)

1in1000yr Flood Level = 2.38m AOD
1in100yr + 20%acc = 1.72m to 1.83m

Culvert 02
2.0m(W) x 1.0m(H) x 6.0m(L)
Bed Level Swale: 1.0m AOD
1:1 Culvert: 0.80m
Soffit Level: 1.80m
Crown level: 1.95m (150mm below footpath)
Invert of culvert and headwall apron buried 200mm below bed of swale

Hydro-Brake MH
Peak Allowable Discharge: 13 litres /sec
Design Head 1.5m

Allowable Discharge= 15 litres / Second / Hectare
Catchment 03 Total Area = 0.857
= 13 litres/second

New Ditch will be constructed as part of the central wetland planning application Phase 4 application ends at the headwall/outfall

A1 ORIGINAL

© Crown copyright and database rights 2020. Ordnance Survey 0100031673.

DRAINAGE KEY:

PROPOSED SURFACE WATER SEWER AND MANHOLE

PROPOSED FOUL WATER SEWER AND MANHOLE

PROPOSED FOUL WATER BACKDROP

PROPOSED SURFACE WATER SEWER AND INSPECTION CHAMBER

PROPOSED FOUL WATER SEWER AND INSPECTION CHAMBER

PROPOSED ROAD GULLY

PROPOSED RODDING EYE

PROPOSED SURFACE WATER OUTFALL

PROPOSED ATTENUATION TANK

PROPOSED PERMEABLE PAVING & FIN DRAIN

EXCEEDENCE FLOW ARROWS

PROPOSED CONTOURS

PROPOSED FOUL RISING MAIN

SITE BOUNDARY

LEVELS KEY:

FL=1.45

PROPOSED FLOOR LEVEL

1/200

PROPOSED GRADIENT

150 GR

PROPOSED GRAVEL BOARD RETENTION

TOW=3.05

PROPOSED RETAINING WALL

NOTES:

1. Drawing based on Persimmon Homes Thames Valley Architect's 'Site Layout' drawing reference 545_PL_AP2_101, received on 15/04/2021.

2. Based on topographic survey by WYG drawing numbered GGL/A044029/LAY/01.

FOR APPROVAL

NOT FOR CONSTRUCTION

rev.	amendment	checked	date

client

PERSIMMON HOMES THAMES VALLEY

project

PHASE 2B NMA Application
LITTLEHAMPTON

scale

1:250

drawn by

checked by

date

May 2021

cad file

title

DRAINAGE AND LEVELS
GENERAL ARRANGEMENT DRAWING
(SHEET 2 OF 3)

Mayer Brown Limited jobcode

suitability

revision

drawing number

545_PL_NMA_P4-20-2