

DRAINAGE STRATEGY
SURFACE WATER
 A SURFACE WATER STRATEGY WAS PREVIOUSLY DEVELOPED FOR THE SITE IN QUESTION PREVIOUSLY SAB APPLICATION REF: SAB/00410, WITH APPROVAL DATED 24/05/2023. THE APPROVED APPLICATION COVERED THAT OF A 13 RESIDENTIAL UNIT DEVELOPMENT, WITH FLOWS TO BE TREATED AND ATTENUATED ON SITE PRIOR TO DISCHARGE TO AN EXISTING CHAMBER THAT SERVED THE ORIGINAL FARM. FLOWS FROM THIS CHAMBER ARE SUBSEQUENTLY DIRECTED TO AN EXISTING WATERCOURSE DIRECTLY SOUTH EAST OF THE DEVELOPMENT.
 THIS PROPOSED DRAINAGE STRATEGY LOOKS TO CLOSELY REPLICATE THE PRINCIPALS OF THE APPROVED SAB APPLICATION WITH FLOWS TO BE TREATED AND ATTENUATED ON SITE PRIOR TO DISCHARGE INTO THE SAME NETWORK, RESTRICTED TO THE GREENFIELD RUNOFF RATE FOR THE SITE.

IN ACCORDANCE WITH THE SAB STANDARDS

STANDARD 1

- REUSE - WATER RE-USE VIA THE HYDRATION OF PLANTING WITH RAINWATER BUTTS TO BE PROVIDED PER PLOT.
- INFILTRATION - ASSUMED TO NOT PROVIDE A VIABLE PRIMARY SOURCE OF DISCHARGE FOR THE SITE, FURTHER INFILTRATION REQUIRED TO CONFIRM.
- WATER BODY - PROPOSED DISCHARGE TO ON SITE CHAMBER THAT ULTIMATELY DISCHARGES TO AN EXISTING WATERCOURSE LOCATED SOUTH EAST OF THE DEVELOPMENT SITE.
- SURFACE WATER NETWORK - AS ABOVE DISCHARGE PROPOSED TO ON SITE SURFACE WATER DRAINAGE SYSTEM THAT ULTIMATELY OUTFALL TO A LOCAL WATERCOURSE.
- PRIVATE COMBINED SEWER - NOT REQUIRED FOR THIS DEVELOPMENT.

STANDARD 2

- FIRST 5mm OF RAINFALL FROM ALL IMPERMEABLE IS TO BE CATERED FOR BY VARIOUS APPROPRIATELY SIZED ON PLOT RAINGARDENS AND PERMEABLE SURFACING ACROSS THE DEVELOPMENT.
- FLOWS ARE TO BE ATTENUATED ON SITE WITHIN A PROPOSED DETENTION BASIN, WITH FLOWS RESTRICTED TO THE GREENFIELD Q1 RUNOFF RATE FOR THE SITE (6.4L/s/1ha) BASED UPON A WRAP SOIL TYPE OF 3. THE RESULTANT PROPOSED DISCHARGE RATE IS 3L/s.
- SURFACE WATER SYSTEM TO BE DESIGNED FOR A RETURN PERIOD OF 100 YEARS +30% CLIMATE CHANGE.
- ANY EXCESSANCE FROM SITE IS TO BE DIRECTED SOUTH-WEST OF THE DEVELOPMENT TOWARDS THE ON SITE DETENTION BASIN. IN THE UNLIKELY EVENT OF AN EXTREME STORM EVENT OR SYSTEM FAILURE ANY EXCESSANCE THAT OVERTOPS THE ON SITE BASIN WILL DISCHARGE TO THE ADJACENT HIGHWAY AND AWAY FROM ANY PEDESTRIAN AREAS OR PROPERTIES.

STANDARD 3

- WATER QUALITY WILL BE ACHIEVED THROUGH THE USE OF VARIOUS SUDS TECHNIQUES INCLUDING RAINGARDENS, POROUS SURFACING AND A DETENTION BASIN.

STANDARD 4

- VARIOUS SUDS FEATURES ACROSS THE SITE WILL HELP TO PROVIDE VALUABLE AMENITY CONTRIBUTION AND WILL FORM A KEY PART OF LANDSCAPING PROPOSALS FOR THE SITE. THE PROPOSED RAINGARDENS AND DETENTION BASIN WILL AID IN PROVIDING VISUAL AMENITY ACROSS THE SITE IN THE FORM OF PLANTED SOFT LANDSCAPED AREAS.

STANDARD 5

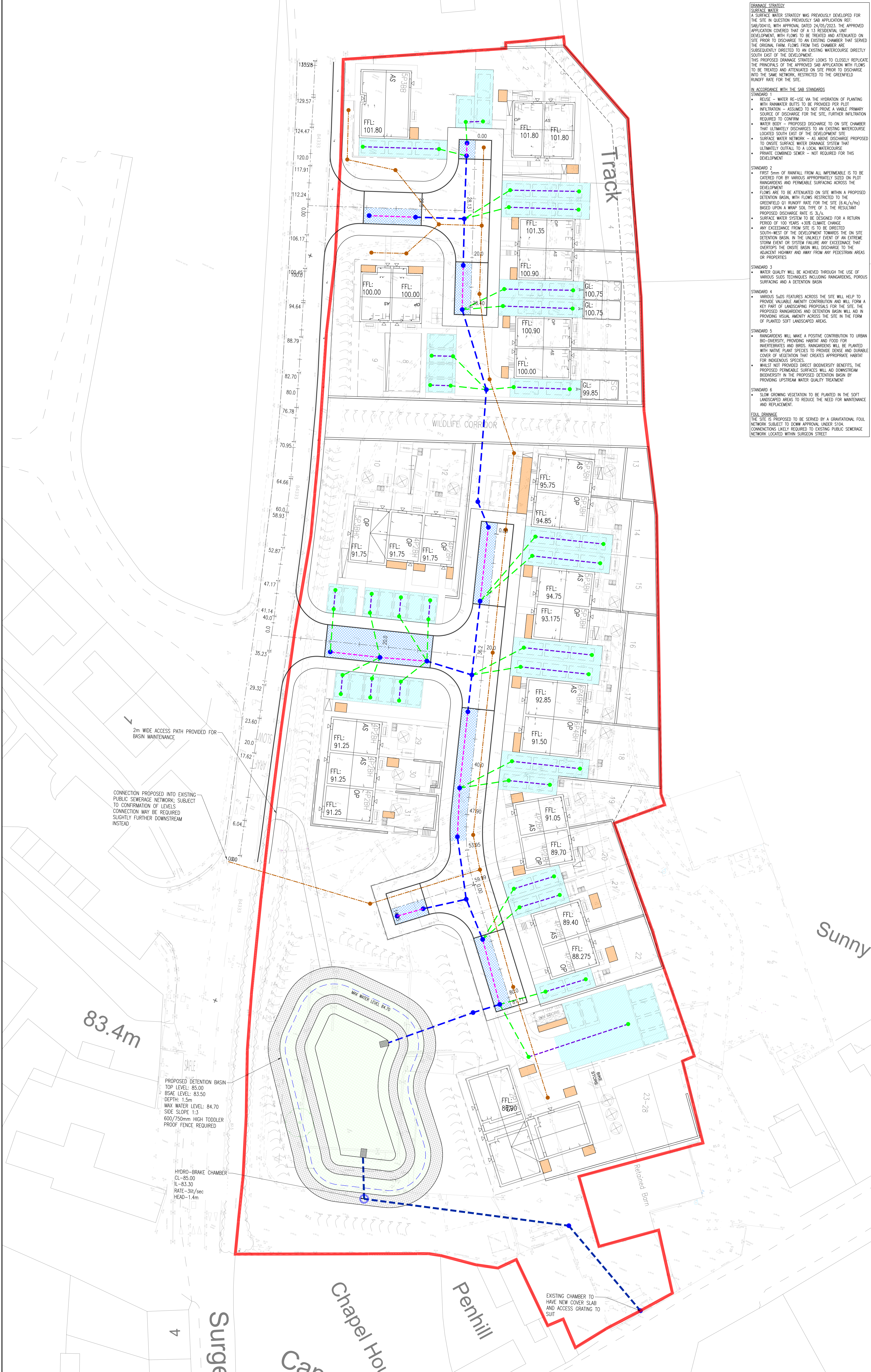
- RAINGARDENS WILL MAKE A POSITIVE CONTRIBUTION TO URBAN BI-DIVERSITY, PROVIDING HABITAT AND FOOD FOR INVERTEBRATES AND BIRDS. RAINGARDENS WILL BE PLANTED WITH NATIVE PLANT SPECIES TO PROVIDE DENSE AND DURABLE COVER OF VEGETATION THAT CREATES APPROPRIATE HABITAT FOR INDIGENOUS SPECIES.
- WHILE NOT PROVIDED DIRECT BI-DIVERSITY BENEFITS, THE PROPOSED PERMEABLE SURFACES WILL AID DOWNSTREAM BI-DIVERSITY IN THE PROPOSED DETENTION BASIN BY PROVIDING UPSTREAM WATER QUALITY TREATMENT.

STANDARD 6

- SLOW GROWING VEGETATION TO BE PLANTED IN THE SOFT LANDSCAPED AREAS TO REDUCE THE NEED FOR MAINTENANCE AND REPLACEMENT.

FOUL DRAINAGE
 THE SITE IS PROPOSED TO BE SERVED BY A GRAVITATIONAL FOUL NETWORK SUBJECT TO DOW APPROVAL UNDER S104. CONNECTIONS LIKELY REQUIRED TO EXISTING PUBLIC SEWERAGE NETWORK LOCATED WITHIN SURGEON STREET

- GENERAL NOTES**
1. DO NOT SCALE THIS DRAWING.
 2. CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
 3. ANY DISCREPANCY TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
 4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, STRUCTURAL AND SERVICES DRAWINGS AND SPECIFICATIONS.
- KEY**
- DOWN ADAPTABLE FOUL DRAINAGE SYSTEM
 - SAB ADAPTABLE STORM DRAINAGE
 - SAB ADAPTABLE PERFORATED STORM DRAINAGE
 - PRIVATE STORM DRAINAGE
 - PRIVATE PERFORATED STORM DRAINAGE
 - LA ADAPTABLE POROUS ASPHALT ROAD SURFACE WITH PERFORATED PIPE UNDERDRAIN
 - PRIVATE POROUS ASPHALT PARKING BAY WITH PERFORATED PIPE UNDERDRAIN
 - SAB ADAPTABLE DETENTION BASIN
 - SAB ADAPTABLE DETENTION BASIN MAINTENANCE PATH
 - PRIVATE RAINGARDENS



Rev.	Date	By	Check
A	05.06.23		

Revisions

Reinforcement schedules nos.

CB3 CONSULT
 Structural & Civil Engineering Consultants

First Floor
 73/75 James Crescent
 Swansea
 SA1 1EP

Telephone: +44 1792 473 182
 Email: info@cb3consult.co.uk
 Web: www.cb3consult.co.uk

Client: **OBSDIAN HOMES**
 Project: **LLEINE, CYNWYL ELFYD, CAMARTHEN**

Drawing Title: **DRAINAGE STRATEGY**

PRELIMINARY

Project No: **C2220** Drawing No: **C-SK02**
 Scale: 1:200 Date: 05.06.23
 Drawn: [Name] Checked: [Name] Sheet Size: A4