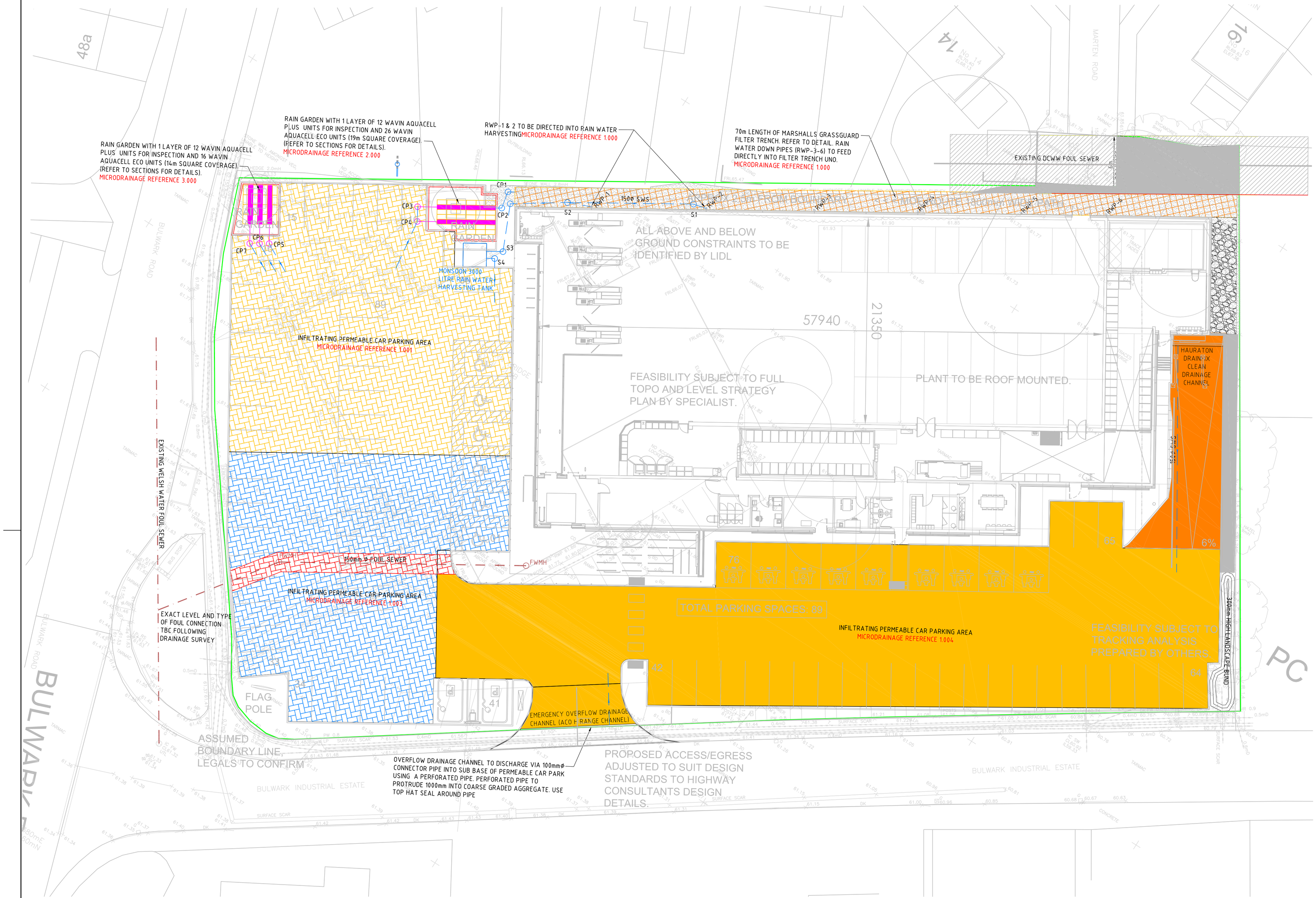

NOTES

1. THIS DRAWING IS COPYRIGHT
2. DO NOT SCALE THIS DRAWING
3. ALL DIMENSIONS ARE IN MILLIMETERS UNO

LEGEND

- DENOTES MARSHALLS GRASS GUARD INFILTRATION TRENCH SYSTEM
- DENOTES MARSHALLS PRIORA INFILTRATING PERMEABLE PAVING SYSTEM. ZONE 1
- DENOTES MARSHALLS PRIORA INFILTRATING PERMEABLE PAVING SYSTEM. ZONE 2
- DENOTES INFILTRATING OPEN GRADED PERMEABLE TARMAC SURFACE AND CGA SUBGRADE SYSTEM ENCAPSULATED IN MARSHALLS MT120 FILTRATION TEXTILE. (REFER TO DETAILS)
- DENOTES NON PERMEABLE PAVED SERVICE STRIP FOR FOUL SEWER
- DENOTES NON PERMEABLE FINISH TO ACCESS RAMP
- DENOTES FREE DRAINING DECORATVE STONE FINISH
- DENOTES WAVIN AQUACELL 'ECO' AND 'PLUS' ATTENUATION CELL ARRANGEMENT (1m LONG x 0.5m WIDE x 0.4m HIGH). CELLS ARE LOCATED BENEATH THE NORTHERN RAIN GARDEN. FIG B21 TYPE 4 INSPECTION CHAMBERS TO AQUACELL 'PLUS' ATTENUATION CELLS FOR INSPECTION AND MAINTENANCE OF SYSTEM.
- DENOTES WAVIN AQUACELL 'PLUS' TYPE CELLS. PROVIDED SPECIFICALLY FOR ACCESS AND MAINTENANCE OF SYSTEM
- DENOTES WAVIN AQUACELL 'ECO' ATTENUATION CELLS TO BE PLACED EITHER SIDE OF 'PLUS' CELLS

SURFACE WATER DRAINAGE STRATEGY

RAINWATER HARVESTING WILL BE UTILISED FOR COLLECTION AND RE-USED IN THE CUSTOMER TOILET.

INFILTRATION TESTING HAS BEEN UNDERTAKEN IN ACCORDANCE WITH BRE 365 AND IT HAS BEEN PROVEN INFILTRATION IS VIABLE. SURFACE WATER WILL BE ATTENUATED ON SITE USING INFILTRATING SYSTEMS TO 1 IN 100 YEAR PLUS 30% RAINFALL EVENT

IN ACCORDANCE WITH STANDARD S1 HIERARCHY, LEVEL 1 & 2 CAN BE ACHIEVED.

RUN OFF FROM PART LIDL SUPERMARKET ROOF WILL BE COLLECTED IN AN INDIVIDUAL STORM SAVER MONSOON SHALLOW DIG RWH TANK, 3000 L RAIN WATER HARVESTING SYSTEM. THE CUSTOMER TOILET WILL BE FED BY THIS TANK

THE TANK IS SIZED PURELY FOR HARVESTING AND GREY WATER USE. IN ACCORDANCE WITH BS 8515 APPENDIX A (2009, REVISION 2013) FOR MANAGEMENT OF LARGE STORM EVENTS. THE OVERFLOW FROM THE HARVESTING SYSTEM WILL BE DIRECTED INTO THE SUB BASE OF THE INFILTRATING PERMEABLE CAR PARK WHERE THE OVERALL SUDS SYSTEM WILL MANAGE THE 1 IN 100 YEAR PLUS 30% CLIMATE CHANGE RAINFALL EVENT.

REMAINING ROOF RUN OFF WILL BE FED INTO A MARSHALLS GRASS GUARD FILTER TRENCH SYSTEM WHICH IS LINKED TO THE RAIN GARDENS AND INFILTRATING PERMEABLE CAR PARKING SYSTEM.

RUN OFF FROM PATHS AROUND THE SUPERMARKET WILL FALL TOWARDS THE PERMEABLE CAR PARK SURFACE WHERE WATER WILL PERMEATE INTO THE SUB BASE OF THE SYSTEM AND TO GROUND.

CATCHMENT OF THE CAR PARK WILL BE COLLECTED AND TREATED USING AN INFILTRATING PERMEABLE PAVING/TARMAC SYSTEM. FLOWS WILL BE TREATED BY MEANS OF THE JOINTS/VOIDS AND STONE SUBGRADE SYSTEM. DURING RAINFALL EVENTS THE SYSTEM WILL FILL AND UTILISE THE SUB BASE STORAGE WHILST BEING INFILTRATED TO GROUND.

CATCHMENT OF THE RAIN GARDEN WILL BE TREATED BY ENHANCED SOILS, MEMBRANES AND STONE SURROND.

THE SURFACE WATER SYSTEMS ARE LINKED IN ORDER TO MAXIMISE STORAGE AND HAVE BEEN DESIGNED TO ATTENUATE FOR ALL 1 IN 30 & 1 IN 100 YEAR RAIN FALL EVENTS PLUS 30% CLIMATE CHANGE ALLOWANCE. 10% URBAN CREEP ALLOWANCE HAS ALSO BEEN APPLIED.

10% URBAN CREEP ALLOWANCE HAS BEEN APPLIED WITHIN THESE CALCULATIONS.

FOUL FLOWS WILL BE DISPOSED OF BY MEANS OF THE EXISTING FOUL CONNECTION TO THE EXISTING DWR CYMRU WELSH WATER SYSTEM.

DRAINAGE SUBJECT TO SAB APPROVAL

NOT TO BE USED FOR CONSTUCTION, FOR PRICING PURPOSES ONLY

SMART ASSOCIATES
Consulting Civil & Structural Engineers
32 Lambourne Crescent
Cardiff Business Park
Llanishen, Cardiff
CF14 5GG
TEL: 029 20754321

Project Title	Drawing Title
LIDL DEVELOPMENT AT BULWARK ROAD, CHEPSTOW	PROPOSED DRAINAGE LAYOUT

Scales	1:200 (A1 ORIGINAL SIZE)		
Drawn	MA	Checked	Date 24.10.20
Client	LIDL		
Architect	One Design Architects		

Drawing Number: S.7844-304 — REV: A

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REVISIONS