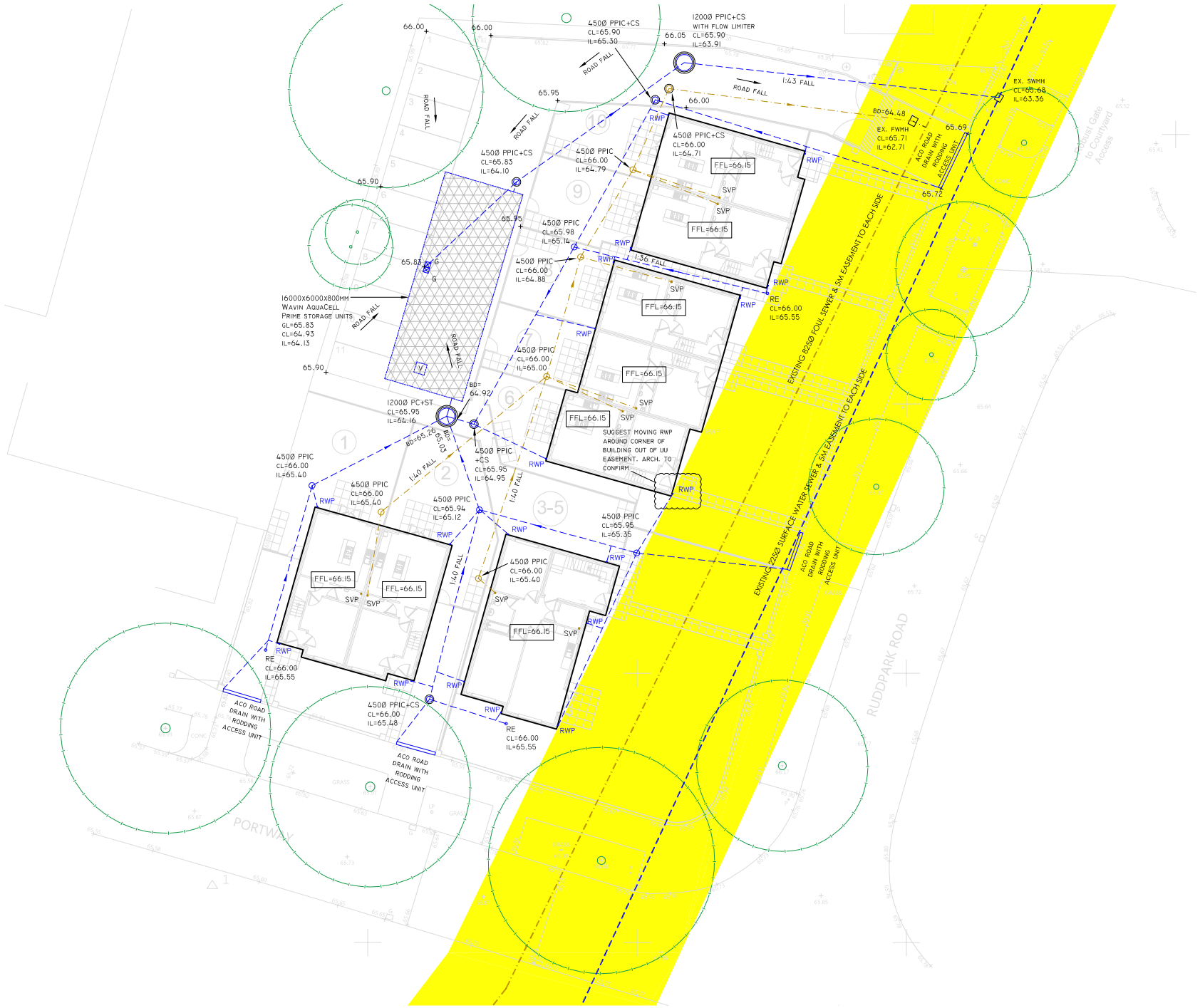


Site Plan
Showing Proposed Drainage Layout
1:200 @ A1, 1:400 @ A3

KEY

- NEW 100Ø (U.N.O.) SURFACE WATER DRAINAGE PIPE. 1:80 FALL MIN. (U.N.O.)
- NEW 100Ø (U.N.O.) FOUL WATER DRAINAGE PIPE. 1:80 FALL MIN (U.N.O.)
- DENOTES TREE ROOT PROTECTION ZONE. CONSULT ARBORICULTURAL REPORT FOR FURTHER INFO.
- NEW POLYPROPELENE MANHOLE
- NEW POLYPROPELENE MANHOLE WITH 150MM CONCRETE SURROUND
- NEW PRE-CAST CONCRETE MANHOLE WITH 150MM CONCRETE SURROUND
- NEW RAIN WATER PIPE
- NEW SVP
- RE NEW RODDING EYE
- G NEW ROAD GULLY
- V STORAGE TANK VENT

DESIGN SUBJECT TO APPROVAL BY UNITED UTILITIES AND LOCAL PLANNING AUTHORITY

SCHEME DESIGNED FOR THE FOLLOWING CRITERIA:
1:1 YEAR STORM - NO FLOODING
1:30 YEAR STORM - NO FLOODING
1:100 YEAR + 40% ALLOWANCE FOR CLIMATE CHANGE - NO FLOODING

PRE-DEVELOPMENT VS POST-DEVELOPMENT SURFACE WATER RUN-OFF RATES

STORM EVENT	PRE-DEV (L/S)	POST-DEV (L/S)
1:1	1.0	0.4
1:30	1.9	0.6
1:100+40%	2.4	0.9

MAX SURFACE WATER VOLUME IN 1:100 + 40% EVENT = 73.5M³

ATTENUATION STORAGE VOLUME PROVIDED = 76.8M³

PRE-CAST CONCRETE MANHOLE TO BE FITTED WITH HYDROBRAKE BY HYDRO INTERNATIONAL OR SIMILAR APPROVED. ALL FIXINGS AND CONCRETE HAUNCHING ETC. TO MANUFACTURER'S DETAILS.

HYDROBRAKE REFERENCE:
MD-SHE-0046-1200-1640-1200

DESIGN FOUL DISCHARGE RATE = 0.463 L/S BASED UPON 4000 LITRES PER DWELLING PER DAY IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION

SVP, RWP AND GULLEY LOCATIONS TO BE CONFIRMED BY ARCHITECT/CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.

ALL LEVELS TO BE CONFIRMED BY ARCHITECT/LANDSCAPE ARCHITECT

FOR SETTING OUT DIMENSIONS REFER TO ARCHITECT'S DRAWINGS

ALL EXISTING & PROPOSED COVER LEVELS & INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCING WORKS

ALL EXTERNAL SVPS AND BIGS TO HAVE RODDING ACCESS POINT AT BASE

PLANNING

NOTES:

1. THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF BELL MUNRO CONSULTING LTD. THE DRAWING MUST NOT BE REPRODUCED IN PART OR IN WHOLE WITHOUT PRIOR WRITTEN AUTHORITY.

2. THIS DRAWING MUST NOT BE SCALED BY EITHER CONTRACTORS OR OTHER CONSULTANTS ANY DIMENSIONAL OR SETTING - OUT DISCREPENCIES ARE TO BE REPORTED TO BELL MUNRO CONSULTING PRIOR TO CONSTRUCTION / FABRICATION COMMENCING.

3. THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE RELEVANT BMC SPECIFICATIONS TOGETHER WITH THE APPROPRIATE ARCHITECTS AND SERVICES CONSULTANTS DRAWINGS AND SPECIFICATIONS.

4. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE

5. ALL EXISTING DRAINAGE TO BE CONFIRMED PRIOR TO CONSTRUCTION COMMENCING.

6. ALL NEW PIPEWORK TO BE WAVIN OSMADRAIN OR WAVIN ULTRARIB UPVC UNLESS NOTED OTHERWISE.

7. ALL PIPEWORK AT COVER LEVELS LESS THAN 900MM IN TRAFFICKED AREAS AND 400MM IN OTHER AREAS SHALL BE ENCASED IN CONCRETE (CLASS Z BEDDING).

8. ALL OTHER PIPEWORK TO BE IN CLASS S BEDDING.

9. PIPEWORK PASSING THROUGH BUILDING WALLS SHALL BE FITTED WITH ROCKER PIPES

10. ALL EXTERNAL MANHOLE COVERS TO BE TO EN124:1994 - TRAFFICKED AREAS GRADE D400 AND OTHER AREAS GRADE A14.

11. ANY UNLABELLED FOUL BRANCH PIPEWORK TO BE 100Ø PIPEWORK AT MINIMUM 1:80 FALL.

12. ANY UNLABELLED SURFACE WATER BRANCH PIPEWORK TO BE 100Ø AT MINIMUM 1:80 FALL.

13. ALL RWP LOCATIONS AND NUMBERS ARE TO BE CONFIRMED BY ARCHITECT PRIOR TO COMMENCING CONSTRUCTION.

14. EXACT SVP AND GULLEY LOCATIONS TO BE CONFIRMED FROM SERVICES ENGINEERS' DRAWINGS AND DETAILS.

15. ALL GULLIES AND RAINWATER PIPES TO BE TRAPPED

16. CONCRETE TO MANHOLE BASES AND SURROUND TO BE GRADE C20/25

17. OUTSIDE EDGE OF MANHOLES TO BE A MINIMUM 500MM FROM THE KERB AND THE OUTSIDE EDGE OF ALL SEWER PIPES TO BE A MINIMUM OF 1000MM FROM KERB LINES

18. MANHOLE REFERENCES:-

GL - GROUND LEVEL
CL - COVER LEVEL
IL - INVERT LEVEL
BD - BACK DROP LEVEL
PPIC - DENOTES PROPRIETARY POLYPROPELENE
PPIC+CS - DENOTES PROPRIETARY POLYPROPELENE WITH CONCRETE SURROUND
PC - DENOTES PRE-CAST CONCRETE RING
ST - DENOTES SILT TRAP

REV	COMMENTS	DATE	BY
A	DRIVEWAY ACOS ADDED	30.09.19	SMB
--	INITIAL ISSUE	27.09.19	SMB

BMC

BELL MUNRO CONSULTING LTD

CONSULTING CIVIL & STRUCTURAL ENGINEERS
TURNING HOUSE
5 ARCHWAY
MANCHESTER
M15 5RL
TEL: 0161 2098032
FAX: 0161 2098033
EMAIL: CONSULTING@BELLMUNRO.CO.UK
WWW.BELLMUNRO.CO.UK

CLIENT: KINGSTONE CONSTRUCTION

PROJECT: PORTWAY, WYTHENSHAWE

TITLE: DRAINAGE LAYOUT

DESIGNED	CHECKED	SCALE	DATE
SMB	AM	AS SHOWN	09/19

DRAWING NUMBER: J6497/D01

REVISION: A