0 1.5 3 4.5 6 7.5 9 12 15 m

SCALE 1:150 @ A1
SCALE 1:300 @ A3

OVER FLOW INTO ADJACENT INSPECTION CHAMBER

SW8
CL: 59.854m
IL: 57.930m
Ø: 600mm

20mmØ ORIFICE

3.0

3.0

EXISTING CHANNELS RUN OFF REDIRECTED INTO PROPOSED RAINGARDEN VIA RAINWATER DIFFUSER SYSTEM
CONTRACTOR TO MANAGE TEMPORARY FLOWS

CONNECTION TO EXISTING PUBLIC 375MM COMBINED SEWER VIA PROPOSED COMBINED MANHOLE SUBJECT TO S106 APPROVAL FROM UNITED UTILITIES

SURFACE WATER DISCHARGE RATE OF 4.2l/s TO BE AGREED WITH UNITED UTILITIES AND LLFA

APPROXIMATE CONNECTION IL: 56.864m
SLIT TRENCH OR FURTHER CCTV REQUIRED TO CONFIRM ACCURATE DEPTH

ALLOWANCE FOR FUTURE CONNECTIONS AND FLOW RATE: STORAGE CAPACITY AND REPLACEABLE FLOW CONTROL DEVICE CONSIDERED FOR INCREASE RATES AND STORAGE REQUIREMENTS WHEN BIRTLES PLAY COMES ONLINE

EXISTING 375mm COMBINED SEWER EASEMENT EITHER SIDE OF SEWER TO BE CONFIRMED BY UNITED UTILITIES

SW9
CL: 59.478m
IL: 57.868m
Ø: 600mm

CW1
CL: 59.880m
IL: 56.864m
Ø: 1200mm

150Ø @ 1:100

FW25
CL: 59.874m
IL: 57.234m
Ø: 600mm

NON-RETURN VALVE TO BE INSTALLED ON DRAIN CONNECTION INTO COMBINED SEWER

SW14
CL: 60.267m
IL: 57.829m
Ø: 600mm

150Ø @ 1:87

SW13
CL: 60.270m
IL: 56.935m
Dp: 3.335m
Ø: 1500mm

FW23
CL: 59.716m
IL: 57.273m
Ø: 450mm

PROPOSED GEO-CELLULAR ATTENUATION TANK

COVER LEVEL (m): 59.950
PLAN AREA (m²): 31.50
DEPTH (m): 1.600
INVERT LEVEL (m): 56.941

48m³ ATTENUATION VOLUME

SW12
CL: 60.120m
IL: 56.950m
Dp: 3.170m
Ø: 600mm

300mm SUMP

BDIL:58.600m

SW11
CL: 60.500m
IL: 59.300m
Dp: 1.200m
Ø: 600mm

SW7
CL: 60.213m
IL: 57.565m
Ø: 600mm

FW21
CL: 59.764m
IL: 57.458m
Ø: 450mm

150Ø @ 1:11

150Ø @ 1:13

225Ø @ 1:148

RE1
CL: 59.370m
IL: 58.176m
Ø: 225mm

TEMPORARY RE-SURFACING REQUIRED

TEMPORARY RE-SURFACING REQUIRED

TEMPORARY RE-SURFACING REQUIRED

RAIN GARDEN WITH MODULAR CELLULAR STORAGE UNITS TO PROVIDE 159m³OF ATTENUATION

DIFFUSER UNIT WITHIN RAIN GARDEN

RAIN GARDEN IN ABEYANCE.
NOTE: POTENTIAL SOLUTION TO MANAGE FLOWS FROM BIRTLES PLAY, DETAILS TO BE REFINED IN CONJUNCTION WITH BIRTLES PLAY DEVELOPMENT

RWP's TO CONNECT TO MODULAR CELLULAR STORAGE UNITS

RWP's TO CONNECT TO MODULAR CELLULAR STORAGE UNITS

FW24
CL: 59.413m
IL: 58.592m
Ø: 450mm

FW20
CL: 59.550m
IL: 58.610m
Ø: 450mm

FFL: 59.550m

225Ø @ 1:200

150Ø @ 1:80

SW10
CL: 59.399m
IL: 57.751m
Ø: 600mm

FW22
CL: 59.523m
IL: 57.361m
Ø: 450mm

150Ø @ 1:80

150Ø @ 1:80

150Ø @ 1:80

FW19
CL: 59.523m
IL: 57.562m
Ø: 450mm

150Ø @ 1:10

FW18
CL: 59.534m
IL: 57.920m
Ø: 450mm

FW17
CL: 59.533m
IL: 57.920m
Ø: 450mm

FW17
CL: 59.533m
IL: 57.920m
Ø: 450mm

FW13
CL: 59.546m
IL: 58.200m
Ø: 450mm

RE2
CL: 59.449m
IL: 58.232m
Ø: 225mm

FW11
CL: 59.550m
IL: 58.671m
Ø: 450mm

FW12
CL: 59.537m
IL: 58.150m
Ø: 600mm

FW16
CL: 59.550m
IL: 58.519m
Ø: 450mm

FFL: 59.550m

RE3
CL: 59.460m
IL: 58.183m
Ø: 225mm

IL: 58.920

150Ø @ 1:61

150Ø @ 1:61

225Ø @ 1:200

FW14
CL: 59.546m
IL: 57.920m
Ø: 450mm

150Ø @ 1:19

150Ø @ 1:43

FW15
CL: 59.550m
IL: 58.681m
Ø: 450mm

IL: 58.920

59.550m

FW10
CL: 59.537m
IL: 57.944m
Ø: 600mm

FW8
CL: 59.550m
IL: 58.685m
Ø: 450mm

FW7
CL: 59.550m
IL: 58.573m
Ø: 450mm

150Ø @ 1:40

FW9
CL: 59.550m
IL: 58.429m
Ø: 600mm

150Ø @ 1:26

150Ø @ 1:60

FW6
CL: 59.512m
IL: 57.985m
Ø: 450mm

FW18
CL: 59.534m
IL: 57.920m
Ø: 450mm

SW6
CL: 59.526m
IL: 57.683m
Ø: 600mm

SW3
CL: 59.542m
IL: 57.725m
Ø: 600mm

BDIL:58.667m

225Ø @ 1:150

225Ø @ 1:23

150Ø @ 1:100

150Ø @ 1:100

SW5
CL: 59.526m
IL: 58.075m
Ø: 600mm

150Ø @ 1:60

150Ø @ 1:14

150Ø @ 1:35

FFL: 59.550m

FW4
CL: 59.550m
IL: 58.671m
Ø: 450mm

FW5
CL: 59.550m
IL: 58.631m
Ø: 450mm

SW1
CL: 60.317m
IL: 58.967m
Dp: 1.350m
Ø: 600mm

SW2
CL: 59.640m
IL: 58.753m
Ø: 600mm

SW4
CL: 59.488m
IL: 58.210m
Ø: 600mm

FW2
CL: 59.512m
IL: 58.209m
Dp: 1.303m
Ø: 600mm

150Ø @ 1:38

150Ø @ 1:39

FW3
CL: 59.550m
IL: 58.465m
Ø: 450mm

PIPE TO BE CAST THROUGH GROUND BEAM

FW1
CL: 59.550m
IL: 58.465m
Ø: 450mm

The Birtles

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

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NOTES

1. THE OS BASE MAP PRESENTED IS PROVIDED BY FCB, RECEIVED 12.02.25. DETAILS ON THE EXISTING OS BASE MAP SHOULD BE SOUGHT FROM FCB.
2. PROPOSED LAYOUT PROVIDED BY PLANIT, DRAWING NUMBER '18702-PLA-XX-XX-D-L-3000' REVISION P04, RECEIVED 26.08.26.
3. TOPOGRAPHICAL SURVEY IS TAKEN FROM N D OLIVER & CO DRAWING NUMBER 13162/001/C/1 REV C DATED 09.06.25
4. POP UP POSITIONS BASED ON PDF MARK-UPS PROVIDED BY TACE, ON 15.05.26 REFERENCE 18702-TAC-AB-GF-D-P-5201 AND DRAWING PROVIDED BY FCB ON 06.08.26 REFERENCE 18702-FCB-AB-GF-D-A-2911.

KEY

- SITE BOUNDARY (TAKEN FROM PLANIT DRAWING NUMBER 3475a-PLA-XX-XX-DR-L-0001 RECEIVED 21.10.25)
- PROPOSED SW / FW / CW MANHOLE
- PROPOSED SW INSPECTION CHAMBER
- PROPOSED SW FLOW CONTROL MANHOLE
- PROPOSED SW RODDING EYE
- PROPOSED SW SOLID WALL DRAIN
- PROPOSED SW PERFORATED DRAIN
- PROPOSED FW DRAIN
- PROPOSED COMBINED SEWER
- EXISTING COMBINED SEWER
- PROPOSED PERMEABLE PAVING REFER TO STANDARD DETAILS 17510-CIV-XX-XX-D-C-2101, 2102, 2103 FOR BUILD UP INFORMATION
- PROPOSED CELLULAR ATTENUATION TANK
- PROPOSED RAIN GARDEN WITH MODULAR CELLULAR STORAGE UNITS
- INDICATIVE RAINWATER DOWNPIPE POSITION
- INDICATIVE SVP POSITION
- INDICATIVE SS POSITION
- PROPOSED ROAD GULLY
- PROPOSED CHANNEL DRAIN & SUMP UNIT
- INDICATIVE 6M UU EASEMENT
- TEMPORARY HARDSTANDING PROVIDED TO DEMOLISHED EXISTING BUILDING - EXTENT TO BE CONFIRMED POST DEMOLITION

DRAWING NOTES

1. ALL SVPS & SS INVERT LEVEL SET AT 58.725M AOD @ MINIMUM 1:40 GRADIENT TO PASS BENEATH GROUND BEAMS UNLESS NOTED OTHERWISE
2. ALL RWP INVERT LEVEL SET AT 58.420M AOD @ MINIMUM 1:60 GRADIENT TO PASS BENEATH GROUND BEAMS UNLESS NOTED OTHERWISE .
3. PROPOSED INTERNAL INSPECTION CHAMBERS TO BE FITTED WITH RECESSED DOUBLE LOCKDOWN COVERS TO ACCEPT FLOOR FINISHES. PROPOSED PLANT ROOM GULLEYS TO BE TRAPPED GULLEYS TO SUIT INTERNAL FLOOR FINISH.
4. PROPOSED DOWNPIPE CONNECTIONS TO RUN TO INSPECTION CHAMBER INVERT LEVEL AT A GRADIENT NO SHALLOWER THAN 1:40.
5. ALL PROPOSED DRAINAGE TO HAVE 100mmØ UNLESS OTHERWISE SPECIFIED.
6. ALL PIPES LAID TO SOFFIT UNLESS NOTED OTHERWISE.
7. REST BEND INVERT TO BE MINIMUM 450mm FROM FFL.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARDS TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE FOR HAND DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES.
9. EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES.
10. ALL MATERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS ALL CONCRETE & CONCRETE PRODUCTS MUST USE DS-1 ACEC CLASS AC-1. CONCRETE PRODUCES MUST USE DS-1 ACEC CLASS AC-1.
11. ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A, NHBC OR THE NETWORK OPERATOR AS APPLICABLE.
12. DOMESTIC DRAINAGE SHALL BE TO BUILDING REGULATIONS APPROVED DOCUMENT H. 110mm U.P.V.C. PIPES LAID TO THE FOLLOWING MINIMUM FALLS UNLESS OTHERWISE SHOWN:

| | FOUL | S.W. |
|---|---|---|
| HEAD RUN | 1 IN 40 | 1 IN 60 |
| ELSEWHERE | 1 IN 80 | 1 IN 100 |

13. WHERE NOTED, SLOW RADIUS BENDS TO BE USED MADE UP FROM 2No. 45 DEG BENDS.
14. ALL DRAINS CAST THROUGH FOUNDATIONS AND GROUND BEAMS TO HAVE ROCKER PIPES ON BOTH SIDES OF FOUNDATION.
15. ALL POP UP SET OUT DIMENSIONS TO BE PROVIDED BY MEP CONSULTANT.
16. CCTV SURVEY OF EXISTING SITE AND PUBLIC DRAINAGE PROPOSED FOR OUTFALLS REQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORKS STARTING ON SITE.
17. ALL SHOWER GULLIES TO BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOR SPECIFIC FLOOR FINISHES.
18. REDUCED ACCESS COVER 300x300mm FOR IC'S IN EXCESS OF 1.2m DEEP

## FLOW CONTROL SUMMARY

| MH NUMBER | FLOW CONTROL | DESIGN FLOW (l/s) | PRODUCT REFERENCE |
|---|---|---|---|
| SW13 | HYDROBRAKE (OR SIMILAR APPROVED) | 4.2 | SHE-0084-4200-2000-4200 |

| | | | | |
|---|---|---|---|---|
| 12.10.26 | P08 | ISSUED FOR INFORMATION | ZA | JDL |
| 14.08.26 | P07 | REFERENCE NUMBER UPDATED FOR VIEWPOINT | ZA | CK |
| 10.08.26 | P06 | DRAFT STAGE 4A ISSUE | ZA | CK |
| 20.03.26 | P05 | UPDATED FOR RAIN GARDEN AND POP UPS | AH | JDL |
| 06.02.26 | P04 | UPDATED FOR PLANNING COMMENTS | TPR | TC |
| 24.11.25 | P03 | UPDATED FOR PLANNING | TPR | JDL |
| 14.11.25 | P02 | SITE PLAN UPDATED, PLANNING ISSUE | TPR | JDL |
| 31.10.25 | P01 | DRAFT ISSUE | TPR | JDL |
| DATE | REV | DESCRIPTION | DRAWN | CHKD |

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PROJECT

C2 THE BIRTLES

TITLE

PROPOSED DRAINAGE STRATEGY GENERAL ARRANGEMENT

| DRAWING STATUS | STATUS CODE |
|---|---|
| PRELIMINARY WS4A ISSUE FOR REVIEW | S3 |

| CE PROJECT No. | SCALE @ A1 | DATE CREATED | DRAWN | CHECKED |
|---|---|---|---|---|
| 18702 | 1:150 | OCT' 25 | TPR | JDL |

DRAWING No.: 18702-CIV-XX-XX-D-C-3001

REV: P08

FILE LOCATION PATH: P:\PROJECTS HOT3323-02 MUSE - WYTHENSHAWE - PLOTS C2 AND 3.3\004 BIM\CIVIL\S\DRAWINGS\C2\18702-CIV-XX-XX-D-C-3001_PROPOSED DRAINAGE.DWG