TAMERTON DRIVE

LINED FILTER DRAIN
1m WIDE. 300mm PERFORATED PIPE LAID TO INVERTS SHOWN

EXISTING 375mm PUBLIC COMBINED SEWER

FOOTPATHS WITHIN HABITAT AREA TO DRAIN ONTO LANDSCAPED AREAS. SET LANDSCAPE c.50mm LOWER THAN PAVING TO ALLOW FOR RUNOFF

REFER TO DRAINAGE DETAILS FOR MUGA SPECIFICATION.

S6 - CP
CL: 62.80
IL: 61.31

S5 - CP
CL: 63.15
IL: 61.63

S3
CL: 63.80
IL: 61.63

F4
CL: 63.90
IL: 62.35

F3
CL: 63.95
IL: 62.56

S2
63.00
IL: 61.90

Drain run from S2 to Aco switched sides

S2 & Interceptor moved into the turning head s2 CL 63.525

PPIC 6

PPIC 7

PPIC 5

F5
CL: 64.00
IL: 62.27

EXISTING 6m SEWER EASEMENT WIDTH. EXACT SEWER LOCATION TO BE DETERMINED BY CCTV AND SONDE SURVEY.

ASHP COMPOUND DRAIN TO MATCH SCHEME CHANNEL DRAINAGE SYSTEM.

S7 - CP
CL: 63.30
IL: 60.40

F7
CL: 63.95
IL: 61.69

F8
CL: 63.95
IL: 61.58

PPIC 2

PPIC 1

F6
CL: 64.00
IL: 62.05

S4
CL: 64.00
IL: 61.39

PPIC 3

RWPS TO BEND AT 63.700m AOD UNO
SVPS TO BEND AT 63.400m AOD UNO
FOUNDATION TOC = 63.375m AOD

F2
CL: 64.00
IL: 62.94

FFL: 64.05

F1 move north to avoid congestion outside the plant room - drain runs adjusted to suit

F1
CL: 64.00
IL: 63.05

S1
CL: 63.88
IL: 62.30

S9
CL: 64.00
IL: 62.45

F12
CL: 63.80
IL: 61.29

CELLULAR STORAGE

CL: 63.30, IL: 60.28
SIZE MAX c.310m³
(203.5m² x 1.6m)

RP: 1 IN 100 YEAR PLUS 45% CLIMATE CHANGE AND 10% URBAN CREEP.

11m

18.5m

FLOW CONTROL CHAMBER - MAX DR 5 l/s. (HYDRO-BRAKE OR SIMILAR APPROVED)

DESIGN HEAD 2.60m.

RP: 1 IN 100 YEAR PLUS 45% CLIMATE CHANGE AND 10% URBAN CREEP.

FCC
CL: 63.30
IL: 60.28

S11 - CP
CL: 63.50
IL: 60.40

S10
CL: 63.85
IL: 62.04

F11
CL: 64.00
IL: 62.15

F10
CL: 64.00
IL: 62.25

F13
CL: 63.70
IL: 61.24

F9
CL: 64.00
IL: 62.50

S8
CL: 64.00
IL: 62.50

PPIC 4

REVERSE ACTION INTERCEPTOR

C1
CL: 63.35
IL: 60.04

PROPOSED 150mm VC
(17.5m @ 1:16).

PIPE CAPACITY AT 75% FULL - 22 l/s AND 100% FULL = 45 l/s.

RWP omitted (no substation)

EXISTING 450mm PUBLIC COMBINED SEWER

450Ø IL: 58.66 (TBC ON SITE)
CON: 58.96m AOD

SURFACE WATER DISCHARGE RATE MAX 5l/s

FOUL FLOWS CALCULATED AT 5.5 l/s. TO BE CONFIRMED BY MEP ENGINEER.

150mmØ SADDLE CONNECTION AGREED WITH UNITED UTILITIES, SECTION 106 APPLICATION PART 1 APPROVED REF: 04458744. CONTRACTOR TO COMPLETE PART 2.

UU MH 2805
IL: 59.66 TBC

Haywood Street

64.1m

KEY:

- DEVELOPMENT BOUNDARY
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED SURFACE WATER DRAINAGE
- PROPOSED FOUL WATER DRAINAGE
- PROPOSED COMBINED WATER DRAINAGE
- PROPOSED PERMEABLE MUGA
- PROPOSED CELLULAR STORAGE
- PROPOSED LINED FILTER DRAIN WITH PERFORATED PIPE
- PROPOSED FULL RETENTION INTERCEPTOR. KLARGESTER NSFA020 OR SIMILAR APPROVED.

ACO MULTIDRAIN MD. SIZE SHOWN ON DRAWING. REFER TO CALCULATIONS. SIZES TBC WITH MANUFACTURER. OUTLET PIPE SIZED TO SUIT.

PROPOSED LINEAR CHANNEL. MULTIDRAIN TYPE AS REQUESTED BY CONTRACTOR. SIZE 100mm. ACCESS AND OUTLET BOXES REQUIRED TO EACH END. OUTLET PIPE SIZED TO SUIT.

PROPOSED RAIN WATER PIPE AND 100mm CONNECTION. UNO. RWP

PROPOSED SOIL VENT PIPE AND 100mm CONNECTION. UNO. SVP

PROPOSED WASH DOWN GULLY AND 150mm CONNECTION. WG

PROPOSED FLOOR/SHOWER GULLY AND 100mm CONNECTION. ARCHITECT TO SPECIFY. FG SG

PASS ABOVE, PASS BELOW OR PASS THROUGH FOUNDATION — PA PB PT

PROPOSED FOUNDATIONS. SEE CCL FOUNDATION DRAWINGS FOR DETAILS.

MANHOLE SCHEDULE

MH REF	CL (mAOD)	IL (mAOD)	DEPTH TO SOFFIT (m)	DS PIPE DIA (m)	MH DIA (mm)	MH TYPE	COVER SIZE (mm)	COVER CLASS	RECESSED	RESTRICTED ACCESS	BACK DROP	COMMENTS	EASTING	NORTHING
SURFACE WATER														
S1	63.880	62.300	1.28	0.300	1500	PCC	1200X600	D400	N	N	N		384174.748	400840.304
S2	63.800	61.900	1.60	0.300	1500	PCC	1200X600	D400	N	N	N		384135.267	400843.826
S3	63.800	61.630	1.87	0.300	1200	PCC	600X600	D400	N	N	N		384133.507	400819.253
S4	64.000	61.390	2.31	0.300	1200	PCC	600X600	D400	N	N	N		384156.553	400817.197
S5	63.150	61.630	1.22	0.300	1500	PCC	1200X600	C250	Y	N	N	CATCHPIT TYPE	384110.026	400800.400
S6	62.800	61.310	1.19	0.300	1500	PCC	1200X600	C250	Y	N	N	CATCHPIT TYPE	384110.026	400770.347
S7	63.300	60.400	2.60	0.300	1200	PCC	600X600	C250	N	N	N	CATCHPIT TYPE	384151.831	400764.272
S8	64.000	62.500	1.20	0.300	1500	PCC	1200X600	D400	Y	N	N		384181.993	400817.124
S9	64.000	62.450	1.40	0.150	600	PPIC	600X600	D400	N	Y	N	NON ENTRY	384169.767	400779.001
S10	63.850	62.040	1.51	0.300	1500	PCC	1200X600	C250	N	N	N		384178.602	400776.954
S11	63.500	61.240	1.96	0.300	1200	PCC	600X600	C250	N	N	N	CATCHPIT TYPE	384177.626	400768.183
FCC	63.300	60.280	2.72	0.300	1200	PCC	600X600	C250	N	N	N	FLOW CONTROL CHAMBER	384182.148	400761.567
FOUL & COMBINED WATER														
F1	64.000	63.050	0.80	0.15	450	PPIC	450X450	D400	N	N	N	NON ENTRY	384171.567	400833.918
F2	63.950	62.940	0.86	0.15	450	PPIC	450X450	D400	N	N	N	NON ENTRY	384165.927	400834.422
F3	63.950	62.560	1.24	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384136.002	400837.092
F4	63.900	62.350	1.40	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384134.537	400820.667
F5	64.000	62.270	1.58	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384141.196	400819.525
F6	64.000	62.050	1.80	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384157.760	400813.852
F7	63.950	61.690	2.11	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384155.203	400785.191
F8	63.950	61.580	2.22	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384154.421	400776.424
F9	64.000	62.500	1.35	0.15	450	PPIC	450X450	D400	Y	Y	N	NON ENTRY	384181.013	400814.883
F10	64.000	62.250	1.60	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384179.250	400795.120
F11	64.000	62.150	1.70	0.15	450	PPIC	450X450	D400	N	Y	N	NON ENTRY	384178.550	400787.273
F12	63.800	61.290	2.36	0.15	450	PPIC	450X450	C250	N	Y	Y	NON ENTRY	384177.399	400774.374
F13	63.700	61.240	2.31	0.15	450	PPIC	450X450	C250	N	Y	N	NON ENTRY	384181.247	400774.031
C1	63.300	60.040	3.04	0.225	1200	PCC	600X600	C250	N	N	Y		384185.842	400764.076

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. ALL ADOPTABLE DRAINAGE WORKS INCLUDING WORKS TO EXISTING PUBLIC SEWERS TO BE UNDERTAKEN IN ACCORDANCE WITH "SEWERS FOR ADOPTION 7th EDITION" AND "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION" AND CONSTRUCTED TO THE RELEVANT STATUTORY UNDERTAKERS DETAILS.
3. ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION", BS EN 752 2017 'DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS' AND THE BUILDING REGULATIONS APPROVED 'DOCUMENT H'.
4. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
5. DESIGN BASED ON TOPOGRAPHICAL SURVEY AND INFORMATION AVAILABLE AT THE TIME OF THE DESIGN.
6. OUTFALL CONNECTION(S) SUBJECT TO AGREEMENT WITH THE APPROVING AUTHORITY.
7. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
8. COVER LEVELS, GULLY POSITIONS, AND BUILDINGS LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT/ LANDSCAPE ARCHITECT. CONTRACTOR TO ALLOW FOR ADJUSTMENT TO SUIT AGREED POSITIONS AND FINISHED LEVELS, AND CONFIRM ALL COVER LEVELS ON SITE.
9. ALL BELOW SLAB DRAINAGE CONNECTIONS SHOWN TO THE PENETRATION POSITIONS ARE INDICATIVE ONLY. REFER TO DIMENSIONED LOCATIONS AND DIAMETERS ON ARCHITECT'S GROUND FLOOR SETTING-OUT PLANS.
10. ALL UNDERGROUND FOUL DRAINAGE SHOULD BE SUITABLY VENTED AT OR NEAR TO THE HEAD OF RUNS.
11. ALL ACCESS FITTINGS, STACKS, RWP'S AND GULLIES TO BE RODDABLE. ALL TO HAVE LOW LEVEL RODDING ACCESS PLATES UNLESS AN ALTERNATIVE MEANS OF ACCESS IS AGREED. ACCESS POINT TO BE ABOVE ANY GROUND FLOOR CONNECTED APPLIANCE SPILL LEVEL.
12. LARGE ACCESS FITTING REQUIRED ABOVE GROUND WHERE GREATER THAN 12M UP TO 22M TO A JUNCTION. SMALL ACCESS FITTING REQUIRED UP TO 12M TO A JUNCTION.
13. ALL GULLY AND CHANNEL DRAIN OUTLETS AND TERMINATION POINTS TO BE TRAPPED AND RODDABLE. INTERNAL GULLIES AND CHANNEL DRAINS TO BE SPECIFIED BY OTHERS.
14. WHERE NO WC'S ARE CONNECTED UPSTREAM, UNDERSLAB FW DRAINAGE TO BE LAID AT 1:40 MIN. AFTER THE CONNECTION OF AT LEAST 1NO WC, A MIN. FALL OF 1:80 APPLIES.
15. ALL CONNECTIONS FROM POP-UPS TO BE LAID AT A CONSTANT GRADIENT TO JUNCTION/ INSPECTION CHAMBER/ MANHOLE UNLESS NOTED OTHERWISE. ANY ISSUES RELATING TO CLASHES WITH FOUNDATIONS ARE TO BE FORWARDED TO THE ENGINEER, ALLOWING SUFFICIENT TIME FOR AN ALTERNATIVE SOLUTION TO BE PROPOSED.
16. INVERT LEVELS AT MANHOLES/ INSPECTION CHAMBERS TO BE USED TO SET OUT PIPEWORK. PIPE GRADIENTS ARE SHOWN INDICATIVELY ONLY.
17. ALL PIPE DIAMETERS GIVEN ARE NOMINAL INTERNAL PIPE DIAMETERS.
18. ALL SEWERS, UNLESS AGREED OTHERWISE STATED, SHALL BE:
    - 100mm to 300mm DIA TO BE VITRIFIED CLAY.
    - 375mm DIA AND GREATER TO BE CLASS 120 CONCRETE PIPES.
19. AS AN ALTERNATIVE THE CONTRACTOR MAY USE AN APPROVED UNPLASTICISED POLYVINYL CHLORIDE (PVCU) WITH APPROVAL FROM THE ENGINEER.
20. SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.
21. THE FIRST PIPE OUT OF MANHOLES TO BE AS SHORT AS PRACTICABLE SO AS TO PROVIDE A FLEXIBLE JOINT AS CLOSE AS POSSIBLE TO THE OUTSIDE FACE OF THE CONCRETE SURROUND AND CONNECTED TO A LENGTH OF ROCKER PIPE.
22. ALL NEW CONNECTIONS INTO EXISTING MANHOLES (OR INTO EXISTING SEWERS) TO BE 'SOFFITS LEVEL' UNLESS OTHERWISE NOTED.
23. ALL ADOPTABLE DRAINAGE PIPES WILL REQUIRE A MINIMUM OF 1200mm COVER, IN ACCORDANCE WITH SEWERAGE UNDERTAKERS REQUIREMENTS. WHERE THIS IS NOT ACHIEVED, IT WILL BE NECESSARY TO AGREE THE BED AND SURROUND DETAIL.
24. ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 600mm IN NON-TRAFFICKED AREAS AND LESS THAN 1200mm IN TRAFFICKED AREAS TO BE BEDDED AND SURROUNDED IN CONCRETE (CLASS Z). COMPRESSIBLE MATERIAL SHALL BE PROVIDED AT EVERY PIPE JOINT. WHERE COVER EXCEEDS THIS DEPTH, PIPES ARE TYPICALLY BEDDED AND SURROUNDED IN CLASS S. REFER TO PIPE EMBEDMENT DETAILS DRAWING FOR SPECIFIC TYPES.
25. WHERE DRAINAGE PIPES ARE LESS THAN 300mm BELOW THE UNDERSIDE OF THE GROUND FLOOR SLAB, CONCRETE ENCASEMENT IS REQUIRED (CLASS Z). COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE.
26. WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS S BEDDING IS ACCEPTABLE.
27. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED TO PROVE THAT SUCH PRECAUTIONS ARE NOT REQUIRED.
28. WHERE FOUL SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSOVERS TO PREVENT ANY POTENTIAL CONTAMINATION.
29. ALL CONNECTIONS PASSING THROUGH BASES OR EDGE BEAMS TO BE IN SEALED SLEEVES. ALTERNATIVELY CONNECTIONS MAY BE CAST-IN WITH FLEXIBLE JOINTS NOT GREATER THAN 150mm FROM FACE OF CONCRETE.
30. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED TO ACCOMMODATE THE CONNECTIONS AND BENDS.
31. ALL MANHOLE COVERS IN BLOCK/SLAB AND EXTERNAL PAVING AREAS TO HAVE RECESSED COVERS OF THE APPROPRIATE GRADE TO ACCEPT ARCHITECT'S PAVING PROPOSAL.
32. UNLESS NOTED OTHERWISE IN THE MANHOLE SCHEDULE, ALL MANHOLE, GULLY AND CHANNEL COVERS (IRONWORK) SHOULD BE THE FOLLOWING SPECIFICATION:
    - B125 LOAD CLASS IN PEDESTRIAN AREAS
    - D400 LOAD CLASS IN VEHICULAR AREAS.
33. ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, INSTRUCTIONS AND RECOMMENDATIONS.
34. GREASE TRAPS SHOULD BE PROVIDED ABOVE GROUND WITHIN AN ENZYME TREATMENT SYSTEM, BY APPROPRIATE SPECIALIST DESIGNER. WHERE A BELOW GROUND GREASE TREATMENT SYSTEM IS REQUIRED - ADDITIONAL NOTES REQUIRED AND DESIGN ADJUSTED TO SUIT.
35. DILUTION TRAPS TO BE PROVIDED WITHIN ABOVE GROUND DESIGNS TBC BY MEP.
36. CONNECTIONS OUT OF LINEAR DRAINS TO MATCH SIZE OF CHANNEL UNO. LINEAR CHANNEL SIZES TBC.
37. PIPE NUMBERS REFERENCE ON SURFACE WATER PIPE RUNS TO BE READ IN CONJUNCTION WITH THE SURFACE WATER HYDRAULIC CALCULATIONS.
38. CONTRACTOR SELECTED MANUFACTURER FOR ATTENUATION SYSTEM IS ALDERBURGH POLYSTORM PSMA1. REFER TO MANUFACTURER DRAWING FOR DESIGN.

DRAWINGS BASED ON THE FOLLOWING INFORMATION

- TOPOGRAPHICAL SURVEY AND GPR REF 22L003/001
- UNITED UTILITIES SEWER RECORDS
- ARCH GF - FS0766-BSA-XX-00-D-A-2008-C01
- SITE LAYOUT - FS0766-SLD-XX-XX-D-LS-01 RVE F
- FOUNDATIONS - FS0766-CCL-XX-XX-DR-S-010-C01
- MEP - FS0766-CCL-XX-00-DR-M-5201&5202-C1

DRAINAGE DESIGN SUBJECT TO APPROVAL FROM THE LEAD LOCAL FLOOD AUTHORITY AND UNITED UTILITIES.

Rev	Date	Description	By	Check	App.
C03	19.01.24	ASHP COMOUND DRAIN ADDED	AA	CD	DS
C02	03.10.23	ATTENUATION TYPE/SIZE, HYDRO-BRAKE HEAD, COVER LEVELS & ACO DRAIN UPDATE.	CD	DS	DS
C01	24.08.23	CONSTRUCTION	CD	DS	DS
T03	11.05.23	CANOPY REMOVED. THRESHOLD DRAINAGE UPDATED.	CD	DS	DS
T02	29.02.23	UPDATED STAGE 4	CD	DS	DS
T01	22.02.23	TENDER	CD	DS	DS

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Client: CONLON CONSTRUCTION LTD

Project: OLIVE PRIMARY SCHOOL MANCHESTER

Office: ALTRINCHAM

Discipline: CIVIL AND STRUCTURAL

Title: DRAINAGE LAYOUT

Scale @ A1: 1:250

Status: CONSTRUCTION

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Job Number	Originator	Building/Zone	Level
FS0766	CCL	XX	XX
Type	**Discipline**	**Drawing No.**	**Revision**
DR	C	500	C03