Park Street

Shaw Str

N 385529.69mm
E 360450.0mm

N 385529.69mm
E 360450.0mm

DRAWING LEGEND

- PLANNING BOUNDARY
- PROPOSED SURFACE WATER DRAINAGE (150mm DIAMETER UNO)
- PROPOSED FOUL WATER DRAINAGE (150mm DIAMETER UNO)
- PROPOSED COMBINED SEWER
- EXISTING UNITED UTILITIES COMBINED SEWER
- GULLY
- CHANNEL DRAIN TO LANDSCAPE ARCHITECTS SPECIFICATION UNO
- SVP / RWP — RAINWATER PIPE/ SOIL VENT PIPE
- PROPOSED BACKDROP MANHOLE
- PROPOSED INLINE NON-RETURN VALVE
- POLYPIPE ATTENUATION TANK TO CONTRACTORS DESIGN
- BIO RETENTION AREA REFER TO DRAWING BRW-REN-ZZ-FN-DR-C-03105 FOR DETAILS
- INDICATES EASEMENT ON DRAINAGE PASSING THROUGH ADJACENT PRIVATE LAND AS AGREED WITH LAND OWNER - EMAIL DATED 03/07/2023

FLOOR LEVELS

- INDICATES GROUND FLOOR LEVEL
- INDICATES BASEMENT LEVEL 01
- INDICATES BASEMENT LEVEL 02

CONNECTION INTO EXISTING COMBINED MANHOLE WITHIN DUTTON STREET. CONNECTION TO BE FORMED TO SUIT UU TYPICAL DETAILS AND REQUIREMENTS. INVERT LEVEL TBC ON SITE MIN IL: 37.031
CONNECTION AGREED AS PART OF S106 PART 1 APPLICATION (REF: 05709938)

PILES TO BE SUITABLY CROPPED BELOW E.G.L. TO ALLOW INSTALLATION OF DRAINAGE AND EXTERNAL FINISHES

UU MH008
CL: 38.730
IL: 35.370

UU MH 8302
CL: 39.845
IL: 36.145

CD1.00
1200 DIA
CL: 39.963
IL: 37.064

SD1.04-FC
1500 DIA
CL: 40.046
IL: 37.547
HYDROBRAKE
DESIGN HEAD = 1.587m
DESIGN FLOW = 6.6l/s
SCL-0106-6600-1587-6600

UU MH 005
CL: 39.90
IL: 37.460

TOWER CRANE FOUNDATION. TEMPORARY RC RETAINING TO BE FULLY BROKEN OUT TO TOF

WHERE PIPE BARREL IS WITHIN 300mm OF THE UNDERSIDE OF SLAB DRAINAGE IS TO BE CONCRETE ENCASED. REFER TO TYPICAL DETAILS

RED LINE DENOTES STEP IN SLAB LEVEL TO ACCOMMODATE SWIMMING POOL

REFER TO PORTRAIT DRAWINGS AND NOVO DRAWING 'P1981-NOV-BC-B1-DR-M-5201-C04' FOR POOL DRAINAGE AND CONNECTIVITY TO BELOW GROUND NETWORK

DRAINAGE TO CANTILEVERED SLAB IN ABEYANCE. SUBJECT TO REVIEW OF FINISHED EXTERNAL LEVELS AND BUILD UPS

BLOCK A ABOVE GROUND DRAINAGE TO TRACK BENEATH LEVEL 00 CANTILEVERED SLAB BEFORE CONNECTING TO BELOW GROUND DRAINAGE AT LOCATIONS SHOWN

EXISTING DRAINAGE AND LANDSCAPING TO COLLEGE ENTRANCE BY OTHERS TO REMAIN

PROPOSED Y-JUNCTION CONNECTION INTO UNITED UTILITIES SEWER WITHIN TRINITY WAY. CONNECTION TO BE FORMED TO SUIT UU TYPICAL DETAILS AND REQUIREMENTS. INVERT LEVEL TBC ON SITE. MIN IL: 32.845
CONNECTION AGREED AS PART OF S106 PART 1 APPLICATION (REF: 05710794)

UU MH REF
CL: 36.240
IL: 32.540

CONNECTION INTO EXISTING UNITED UTILITIES COMBINED SEWER WITHIN FRANCIS STREET VIA EXISTING MANHOLE. CONNECTION AGREED AS PART OF S106 PART 1 APPLICATION (REF: 05706579)

MH 09
CL: 29.066
IL: 24.866

MH XX
CL: 28.816
IL: 24.476

Francis Street

Telephone Exchange

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RENAISSANCE, ARCHITECTS, LANDSCAPE ARCHITECTS AND BUILDING SERVICES ENGINEERS DRAWINGS.
2. REFER TO DRAWING BRW-REN-ZZ-FN-DR-C-01101 FOR BELOW GROUND FOUL WATER DRAINAGE DETAILS.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE BELOW GROUND DRAINAGE SPECIFICATION SP-C-00050 AND DETAILS SHOWN ON DRAWINGS C-03101, C-03102, C-03103, C-03104 & C-03105.
4. FOR ALL ABOVE GROUND DRAINAGE AND ASSOCIATED PUMPS REFER TO BUILDING SERVICES AND ARCHITECT'S DRAWINGS.
5. ALL BELOW GROUND DRAINAGE WORKS TO BE IN ACCORDANCE WITH RELEVANT BUILDING REGULATIONS AND SEWER SECTOR GUIDANCE APPENDIX C- DESIGN AND CONSTRUCTION GUIDANCE. IF DISCREPANCIES ARE NOTED BETWEEN SSG AND DRAWINGS THESE SHOULD BE BROUGHT TO THE ATTENTION OF RENAISSANCE FOR REVIEW.
6. RWPs, SVPs, SSs AND FLOOR GULLEYS ARE TO HAVE RODDABLE ACCESS POINTS ABOVE GROUND FLOOR TO BUILDING SERVICES DETAILS.
7. THE CONTRACTOR IS TO UNDERTAKE A FULL CCTV SURVEY AT COMPLETION OF THE PROJECT TO DEMONSTRATE THAT THE DRAINAGE IS CLEAN. ANY DEFECTS ARE TO BE CORRECTED BY THE CONTRACTOR PRIOR TO HANDOVER OF THE SYSTEM TO THE CLIENT.
8. THE CONTRACTOR IS TO KEEP A RECORD SET OF THE AS INSTALLED DRAINAGE ON SITE AND PROVIDE THIS TO RENAISSANCE UPON COMPLETION OF THE WORKS TO ALLOW FOR PRODUCTION OF A 'FINAL CONSTRUCTION' ISSUE DRAWING.
9. DURING THE WORKS ALTERATIONS TO THE DRAINAGE LAYOUT ARE TO BE MARKED UP BY THE CONTRACTOR AND AGREED WITH RENAISSANCE IN WRITING.
10. THE CHAMBER SIZE OF PCC MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
11. MANHOLE COVERS ARE TO BE ACCORDANCE WITH BS EN 124 FOR THE RATING INDICATED IN THE MANHOLE SCHEDULE. THE CONTRACTOR IS TO SUBMIT DETAILS FOR THE PROPOSED MANHOLE COVERS TO THE ENGINEER AND LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
12. ALL INTERNAL COVERS TO BE RECESSED AND TRIPLE SEALED
13. COVER SLABS MUST CARRY THE BSI KITEMARK. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING REDUCING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO REQUIRED SIZE.
14. ALL SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01)
15. ALL CONCRETE PIPES TO BE TO ES EN 1916 CLASS 120 (54kN/m).
16. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2).
17. IF PLASTIC PIPES ARE TO BE USED THEN THE FOLLOWING MUST APPLY;
    A. BSI KITEMARK (CERTIFIED TO BS EN 13476-1 AND WIS 4-35-01)
    B. PIPES LESS THAN OR EQUAL TO 500mm DIA
    C. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2)
17. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m.
18. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/BS5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
19. SULPHATE RESISTANT CEMENT (C20/OC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVIDING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
20. SEWER PIPES TO BE LAID IN MAXIMUM 3 METER LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER PIPES, AND THIS IS AGREED BY THE CONTRACTOR WITH THE PIPE MANUFACTURER.
21. ALL FOUL AND SURFACE WATER BELOW GROUND SYSTEMS ARE TO BE VENTED WITHIN THE ABOVE GROUND DRAINAGE TO THE BUILDING SERVICES ENGINEERS DETAILS.

CDM NOTES

IN ADDITION TO THE NORMAL HAZARDS AND RISK NORMALLY ASSOCIATED WITH WORKS OF THIS NATURE, NOTE THE FOLLOWING ABNORMAL RISKS:

SOIL CONTAMINATION
HEAVY METAL, PAH AND ASBESTOS CONTAMINATION IDENTIFIED WITHIN THE MADE GROUND. MINOR HEAVY METAL AND NON-METAL CONTAMINATION IDENTIFIED WITHIN PERCHED GROUNDWATER.

STRIKING UXO OR BURIED SERVICES
SITE ENABLING WORKS PACKAGE REQUIRED TO CLEAR LIVE SERVICES AND UXO RISK

PERCHED WATER TABLE
ALLOW FOR LOCALISED DEWATERING DURING ALL SUBSTRUCTURE WORKS.

REFERENCE SHOULD BE MADE TO BROMSFIELD SOLUTIONS LTD SITE INVESTIGATION FOR GROUND CONDITIONS AND PERCHED GROUND WATER TABLES. CONTRACTOR SHOULD MAKE ALLOWANCE FOR TEMPORARY DEWATERING TRENCH SUPPORT WORKS PRIOR TO CONSTRUCTION.

EXISTING ONSITE PRIVATE DRAINAGE
ALL EXISTING ONSITE PRIVATE DRAINAGE IS TO BE GRUBBED UP AND SUITABLY CAPPED AT THE SITE BOUNDARY, PRIOR TO DISCONNECT/ REMOVAL THE DRAINAGE SHOULD BE SURVEYED TO CONFIRMED IT IS REDUNDANT.

SVP & RWP SETTING OUT AND CALCULATIONS
SVP AND RWP LOCATIONS ARE INDICATIVE FOR DETAILED SETTING OUT REFER TO ARCHITECTS DRAWINGS. ALL UNDER SLAB DRAINAGE IS IN ABEYANCE UNTIL SETTING OUT OF ALL SVPs, STACKS AND RWPs IS CONFIRMED BY THE ARCHITECT AND M&E ENGINEERING. ALL CONNECTIONS BETWEEN ABOVE GROUND DRAINAGE TO BE SIZED TO SUIT ABOVE GROUND DRAINAGE. FOUL WATER DRAINAGE IS SUBJECT TO CHANGE UNTIL SVP DISCHARGE UNITS ARE CONFIRMED BY THE M&E ENGINEER.

ATTENUATION TANK
SUPPLIER TO UNDERTAKE DETAILED DESIGN OF ATTENUATION TANKS. ALLOW FOR VENT PIPES AND INSPECTION CHAMBERS TO SUIT SUPPLIERS DETAILS AND REQUIREMENTS.

COVER LEVELS
LANDSCAPE ARCHITECT TO VALIDATE COVER LEVELS IN ALL EXTERNAL AREAS. ARCHITECT TO VALIDATE COVER LEVELS IN ALL INTERNAL AREAS.

EXTERNAL WORKS AND DRAINAGE
ALL EXTERNAL LEVELS, CHANNEL DRAINS, GULLIES ETC ARE TO BE CONFIRMED AND SET OUT BY THE LANDSCAPE ARCHITECT.

ALL CHANNELS AND GULLIES ARE TO INCLUDE A SILT TRAPS.

COMMERCIAL UNIT DRAINAGE
ANY FOOD AND BEVERAGE USE TO THE COMMERCIAL UNITS IS TO INCORPORATE GREASE TRAPS WITHIN THE ABOVE GROUND DRAINAGE NETWORK TO REDUCE THE RISKS OF BLOCKAGE WITHIN THE BELOW GROUND DRAINAGE NETWORKS.

TREES
THE DESIGN OF LANDSCAPING SHOULD BE UNDERTAKEN AT THE SAME TIME AS THE DESIGN OF THE DRAINAGE SO THAT THE IMPACT OF TREE ROOTS ON THE DRAINAGE CAN BE CONSIDERED. A SEWER OR LATERAL DRAIN SHOULD NOT BE LOCATED CLOSER TO TREES/BUSHES/SHRUBS THAN THE CANOPY WIDTH AT MATURE HEIGHT, EXCEPT WHERE SPECIAL PROTECTION MEASURES ARE PROVIDED, IN ACCORDANCE WITH BT 6 OF THE SEWER SECTOR GUIDANCE APPENDIX C. A TREE SHOULD NOT BE PLANTED DIRECTLY OVER SEWERS OR WHERE EXCAVATION ONTO THE SEWER WOULD REQUIRE REMOVAL OF THE TREE

SWIMMING POOL
POOL SPECIALIST TO CONFIRM RISING MAIN LOCATIONS, POWER SUPPLIES AND ALARMS LOCATIONS WITH THE ARCHITECT AND BUILDING SERVICES ENGINEER.

APPROVAL
DRAINAGE DESIGN AND DRAWING IS PRELIMINARY, SUBJECT TO CONFIRMATION FROM UNITED UTILITIES AND MANCHESTER CITY COUNCIL ON ACCEPTANCE OF DISCHARGE RATES, CONNECTIONS AND SUDS.

Rev:	Description:	Date:	By:	Chkd:
C05	UPDATED TO SUIT TRINITY WAY LAY-BY	02.04.26	JB	BH
C04	STAGE 5 DRAWING UPDATE TO COORDINATE WITH LATEST ARCHITECT LATEST INFORMATION	17.06.25	SA	BH
C03	FRANCIS ST CONNECTION UPDATED	15.08.24	JB	BH
C02	SF18.007 PIPE Ø AMENDED	13.06.24	JB	BH
C01	STAGE 5 ISSUE	11.06.24	JB	BH

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Project:
BODDINGTONS BREWERY, MANCHESTER

Drawing Title:
BELOW GROUND SURFACE WATER DRAINAGE PLAN

Status:
STAGE 5

Size:	Date:	Drawn by:	Designed by:	Checked by:
A0	JUN 24	JB	JB	BH

Scale: 1:200 | Project No: 2211-11

Project – Originator – Volume – Level – Type – Role – Number | Revision:
BRW-REN-ZZ-FN-DR-C-01100 | C05

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