ALL SVP AND RWP LOCATIONS ARE TO BE CONFIRMED BY ARCHITECT AND BUILDING SERVICES CONSULTANT

ALL SVP AND RWP PIPES ARE TO BE ACCESSIBLE WITH RODDABLE ACCESS ABOVE GROUND TO ARCHITECTS AND BUILDING SERVICES CONSULTANT DETAILS

COMMERCIAL UNITS DRAINAGE
ANY FOOD AND BEVERAGE USE TO THE COMMERCIAL UNITS IS TO INCORPORATE GREASE INTECEPTORS WITHIN THE ABOVE GROUND DRAINAGE TO REDUCE THE RISK OF BLOCKAGES TO THE BELOW GROUND DRAINAGE SYSTEM

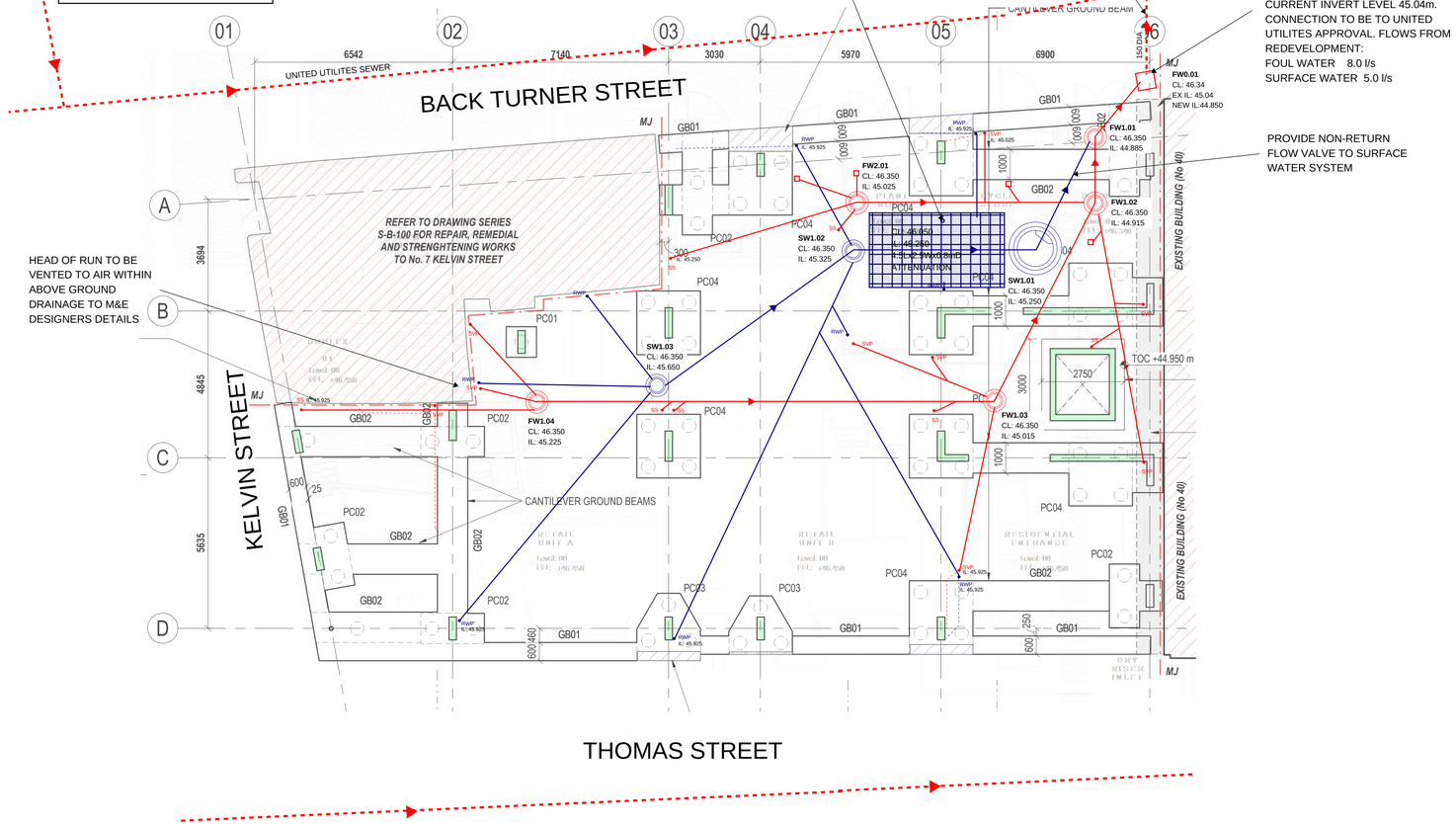
VENT PIPE TO ATTENUATION TANK TO SUPPLIER REQUIREMENTS AND TO BE LOCATED BY ARCHITECT

EXISTING 150 DIA PIPE ASSUMED TO DROP TO SEWER. APPROXIMATE INVERT LEVEL 41.30m. MANHOLE AND PIPES TO BE JETTED AND FULLY SURVEYED UP TO CONNECTION TO MAIN SEWER TO ALLOW MANHOLE DETAIL TO BE CONFIRMED

ALLOW FOR REBUILDING AND LOWERING EXISTING MANHOLE. CURRENT INVERT LEVEL 45.04m. CONNECTION TO BE TO UNITED UTILITES APPROVAL. FLOWS FROM REDEVELOPMENT:
FOUL WATER 8.0 l/s
SURFACE WATER 5.0 l/s

PROVIDE NON-RETURN FLOW VALVE TO SURFACE WATER SYSTEM

HEAD OF RUN TO BE VENTED TO AIR WITHIN ABOVE GROUND DRAINAGE TO M&E DESIGNERS DETAILS



GENERAL NOTES

1. THIS DRAWING IS BASED UPON:
   - 5PLUS ARCHITECTS DRAWING SERIES ????? B_02_2300 'STRUCTURAL SETTING OUT PLAN' SHOWING ALL SVP AND RWP LOCATIONS
   - WATT ENERGY & CONSULTING ENGINEERING DRAWING WECE-157-M02

   ALL STACK LOCATIONS ARE INDICATIVE. FOR STACK LOCATION SETTING OUT REFER TO LATEST ARCHITECT DRAWINGS
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH WITH THE BELOW GROUND DRAINAGE SPECIFICATION AND DETAILS SHOWN ON DRAWING SERIES C-00-200.
3. THE FINAL CONNECTION TO THE SEWER IS SUBJECT TO UNITED UTILITES APPROVAL AND IS TO BE IN ACCORDANCE WITH THEIR AGREED DETAILS.
4. WORKS ARE TO GENERALLY COMPLY WITH THE SEWERS FOR ADOPTIONS, 8th EDITION. IF DISCREPANCIES ARE NOTED BETWEEN THE SfA AND DRAWINGS THESE SHOULD BE BROUGHT TO THE ATTENTION OF RENAISSANCE FOR REVIEW.
5. THE ATTENUATION TANK, FLOW CONTROL, AND FULL RETENTION SEPERATOR ARE TO BE TO THE SUPPLIERS DESIGN AND DETAILS. INSTALLATION IS TO BE IN ACCRODANCE WITH THE SUPPLIER REQUIREMENTS.
6. MANHOLE COVERS ARE TO BE IN ACCRODANCE WITH BS EN 124 FOR THE RATING INDICATED IN THE MANHOLE SCHEDULE. THE CONTRACTOR IS SUBMIT DETAILS FOR THE PROPOSED MANHOLE COVERS TO THE ENGINEER AND LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
7. 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.
8. SULPHATE RESISTANT CEMENT (C20-DC4z) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT REQUIRED.
9. SEWERS TO BE LAID IN CLASS 'S' BEDDING (150mm GRANULAR BED AND SURROUND). WHERE DEPTH OF COVER TO TOP OF SEWER IS LESS THAN 1.2m IN TRAFFICKED AREAS (INCLUDING EMERGENCY VEHICLES), AND LESS THAN 0.9m IN PEDETRIAN AREAS, THEN A 150mm CONCRETE PROTECTION SLAB SHOULD BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND.
10. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF WATER INDUSTRY SPECIFICAITON 4-0801 (TABLE A2).
11. ALL SEWERS ARE TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01).
12. ALL CONCRETE PIPES TO BE TO BS EN1916 CLASS 120 (54kN/m).
13. PLASTIC PIPES ARE PERMITTED TO BE USED PROVIDED THEY CONFIRM TO:
    A) BSI KITEMARK (CERTIFIED TO BE EN13476-1 AND WIS 4-35-01 AND BS EN 13476-1 OR BS EN 13476-3)
    B) PIPES LESS THAN OR EQUAL TO 500DIA. SHALL HAVE A NOMINAL SHORT-TERM RING STIFFNESS NOT LESS THAN 8kN/m2.
    C) BEDDING AND BACKFILL TO CONFORM TO THE REQUIREMENTS OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A 2)
14. 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.
15. 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.
16. DURING THE WORKS ALTERATIONS TO THE DRAINAGE LAYOUT ARE TO BE MARKED UP BY THE CONTRACTOR AND AGREED WITH RENAISSANCE IN WRITING.

KEY

- FLOOR GULLY TO ARCHITECT SPECIFICATION
- 450 DIA RESTRICTED ACCESS INSPECTION CHAMBER
- 150 DIA FOUL WATER PIPE (U.N.O. AT MINIMUM 1:80 FALL
- 450 DIA RESTRICTED ACCESS INSPECTION CHAMBER
- 150 DIA SURFACE WATER PIPE (U.N.O. AT MINIMUM 1:80 FALL
- 1.2m DIA MANHOLE WITH SILT TRAP AND FLOW CONTROL DEVICE TO LIMIT SURFACE WATER DISCHARGE TO 5l/s FOR A 1:100YR + 40% CLIMATE CHANGE EVENT. TO SUPPLIER DESIGN AND DETAIL
- CIRCA 2.5m x 4.5m x 0.8m ATTENUATION TANK TO SUPPLIERS DESIGN AND DETAIL TO PROVIDE CIRCA 11m3 OF SURFACE WATER STORAGE WITHIN SURFACE WATER SYSTEM

REV	DATE	PURPOSE	DRN	CHK
P01	28.06.18	STAGE 3	PC	KG

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PROJECT
THOMAS STREET, MANCHESTER

TITLE
BELOW GROUND DRAINAGE

PROJECT NO. 1601-09

DRAWING	REV	SCALE@A1
C-100	P01	1:100

STATUS
STAGE 3