



1. THIS DRAWING TO READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL WORKS TO BE CARRIED OUT IN STRICT ACCORDANCE WITH THE ENGINEER'S SPECIFICATIONS, RELEVANT BRITISH STANDARDS AND WHERE APPLICABLE LOCAL AUTHORITIES REQUIREMENTS.

3. ALL MAIN SEWERS TO BE CONSTRUCTED IN ACCORDANCE WITH THE 'DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS OFFERED FOR ADOPTION' AND UNITED UTILITIES STANDARD DETAILS.
4. ALL MATERIALS TO BE MARKED WITH BSI KITE MARK WHERE APPLICABLE.
5. ALL DRAINAGE UNDER VERGES WITH LESS THAN 900MM OF COVER AND DRAINAGE UNDER THE HIGHWAY WITH LESS THAN 1200mm OF COVER WILL REQUIRE 150mm THICK CONCRETE BED AND PIPES.
6. ALL PIPES TO HAVE CLASS 'S' GRANULAR SURROUND WITH BEDDING FACTOR OF 2.2 UNLESS STATED OTHERWISE ON THE LONGITUDINAL SECTIONS AND TO BE CLASS 2 SULPHATE RESISTANT. GRANULAR MATERIAL FOR SURROUND TO BE EITHER 10, 14 OR 20mm NOMINAL SINGLE SIZED.
7. STONE BACKFILL IS REQUIRED TO ALL SEWER TRENCHES UNDER VEHICULAR AREAS. AS DUG MATERIAL MAY BE USED ON OTHER AREAS SUBJECT TO THE WRITTEN APPROVAL OF THE DRAINAGE AUTHORITY.
8. ALL CONCRETE PRODUCTS MANUFACTURED OR CAST IN-SITU TO BE SULPHATE RESISTANT UNLESS PROVIDED OTHERWISE BY SITE INVESTIGATION OR SUBSEQUENT TESTING.
9. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES, WHERE IT IS NOT POSSIBLE TO ACHIEVE THIS CLEARANCE CONCRETE BED AND SURROUND IS REQUIRED.
10. THE CHAMBER SIZE OF MANHOLES TO BE MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
11. MANHOLE COVERS MUST HAVE A MINIMUM CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS. SOME MANHOLES MAY REQUIRE DOUBLE COVER ACCESS, REFER TO MANHOLE SCHEDULES TO CONFIRM SIZES.
12. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF UNITED UTILITIES BEFORE ANY SEWER WORKS ARE CARRIED OUT.
13. ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS
14. ANY LAND DRAIN OR WATERCOURSE ON SITE TO BE DIVERTED SO AS NOT TO CROSS UNDER PROPOSED BUILDING.
15. DIVERSION TO BE INSPECTED ON SITE BY LOCAL AUTHORITY.
16. ALL GULLIES TO BE PROTECTED FROM SILT DURING THE CONSTRUCTION PROCESS WITH A LAYER OF HESSIAN SHEETING PLACED UNDER THE GULLY GRATING. THE HESSIAN SHALL BE CLEANED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD
17. ALL LIVE CONNECTIONS IDENTIFIED IN THE CCTV SURVEY, MUST BE RE-PIPED TO THE DIVERTED SEWER.
18. ALL ABANDONMENTS MUST BE WITNESSED BY A UU REPRESENTATIVE FOR THE STATUS OF THE PIPE TO BE CHANGED ON THE PUBLIC SEWER RECORDS. MINIMUM 72 HOURS NOTICE WILL BE PROVIDED.
19. METHOD OF SEWER ABANDONMENT SHALL BE BY GRUBBING UP AND REPLACING PIPE TRENCHES WITH APPROVED SUITABLY COMPACTED BACKFILL.
20. CONNECTIONS OF SEWERS TO BE ABANDONED TO THE LIVE SEWERS SHALL BE CAPPED TO THE APPROVAL OF THE UNITED UTILITIES REPRESENTATIVE.
21. PIPE MATERIALS INDICATED ON THIS DRAWING ARE AS REQUIRED BY UNITED UTILITIES. ALTERNATIVE MATERIALS TO THOSE LISTED ON THIS DRAWING MAY BE OFFERED TO UNITED UTILITIES FOR APPROVAL.

22. PRIOR TO CONSTRUCTION THE CONTRACTOR IS TO ENSURE THAT:
 - A) NO PROPOSED DRAINAGE CLASHES WITH ANY OF THE EXISTING SERVICES.
 - B) ANY NEW HIGHWAY WORKS DO NOT ADVERSELY AFFECT THE COVER TO EXISTING SERVICES BELOW THE RELEVANT MINIMUM COVER REQUIREMENTS.
23. THE CONTRACTOR IS TO ALLOW FOR THIS PROVISION WITHIN THE TENDER SUM.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ATTAINING ALL NECESSARY APPROVAL FOR ANY SERVICE DIVERSIONS REQUIRED TO FACILITATE THE PROPOSED WORKS.

 **Sutcliffe**

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