

THE OFF SITE SEWER CONNECTION(S) HAVE BEEN DESIGNED IN ACCORDANCE WITH INFORMATION FROM UNITED UTILITIES RECORDS AND TOPOGRAPHICAL SURVEY

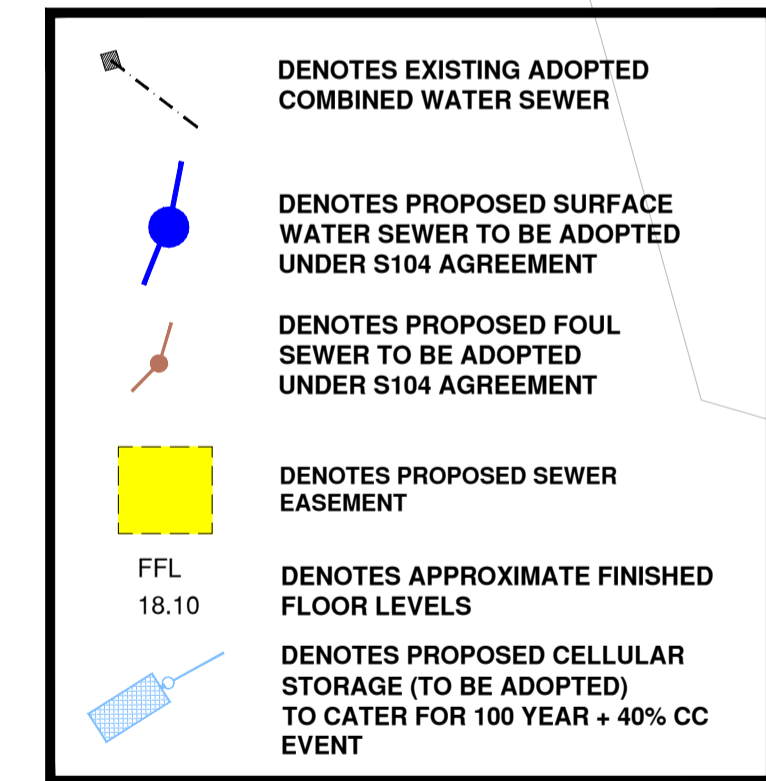
REFA WOULD ADVISE THE CLIENT TO EMPLOY A SUITABLY EXPERIENCED COMPANY TO UNDERTAKE TRIAL HOLES TO ASCERTAIN THE EXACT LOCATION OF EXISTING SERVICES AND THE PROXIMITY OF THE SAME TO THE PROPOSED SEWERS AND THEN TO ADVISE REFA OF ANY POTENTIAL CLASHES TO ENABLE DESIGN CHANGES TO BE MADE WHERE FEASIBLE

DUE TO THE NEED FOR OFF SITE SEWER WORKS IT IS STRONGLY ADVISED THAT THESE INVESTIGATIONS ARE UNDERTAKEN PRIOR TO ANY CONSTRUCTION ON SITE TO ALLOW DESIGN CHANGES TO BE MADE.

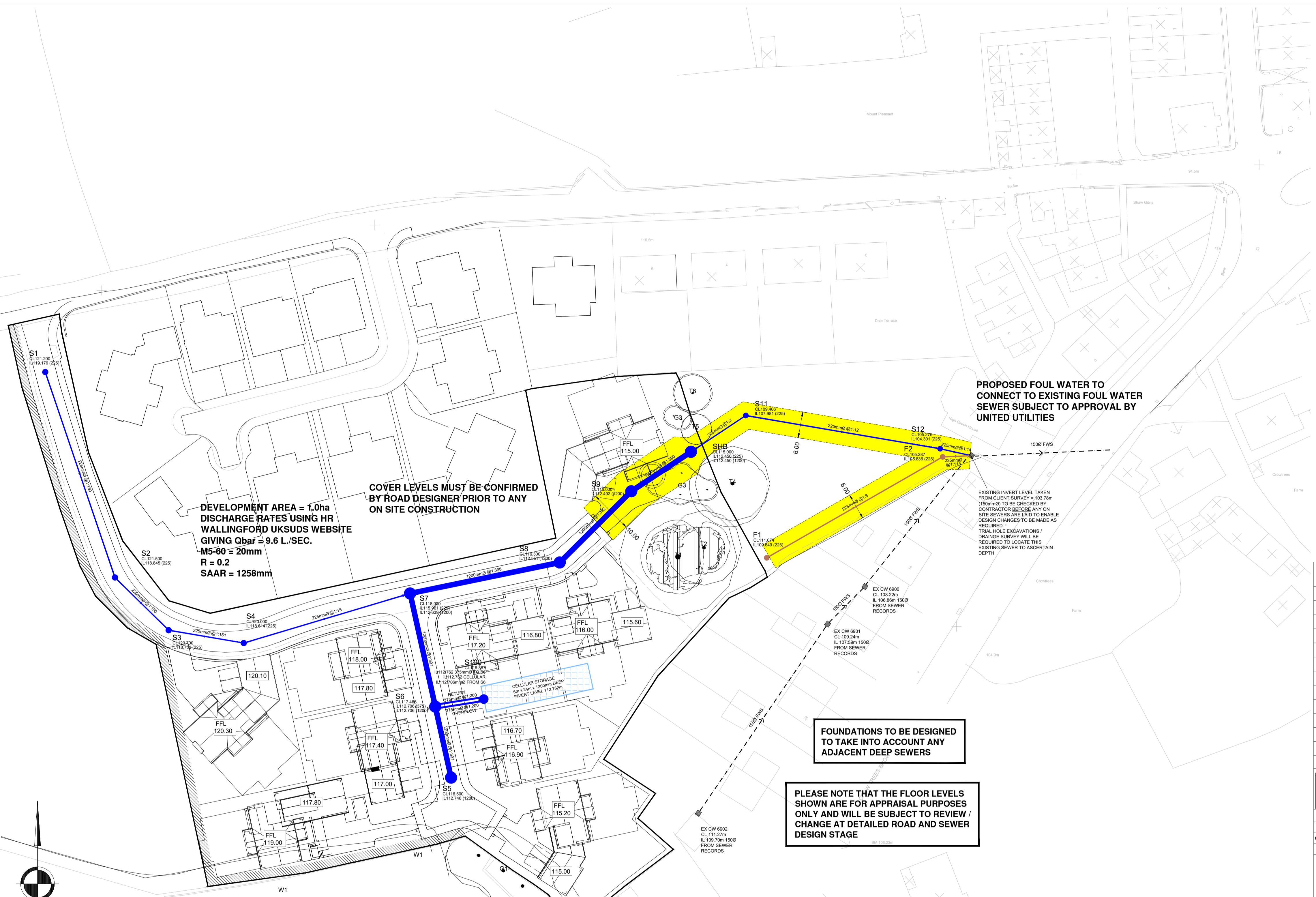
REFA WILL NOT BE HELD RESPONSIBLE FOR ANY ABORTIVE WORKS IF THIS PROCEDURE IS NOT FOLLOWED

THE FOUL AND SURFACE WATER DRAINAGE SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE DESIGN & CONSTRUCTION GUIDANCE AND SC030219 AND ARE SUBJECT TO S106 CONNECTION APPROVAL BY UNITED UTILITIES IN RESPECT OF COMBINED SEWER CONNECTION INFILTRATION HAS INITIALLY BEEN DISCOUNTED AS A SUITABLE MEANS OF SURFACE WATER DISPOSAL DUE TO GROUND CONDITIONS. SURFACE & FOUL WATER IS TO DISCHARGE TO EXISTING COMBINED SEWERS, WITH RATE OF RUN OFF FOR SURFACE WATER TO RESTRICTED TO USING HR WALLINGFORD UKSDS WEBSITE GIVING Q_{bar} 9.6 LITRES/SECOND MAXIMUM. DISCHARGE RATE TO APPLY TO ALL EVENTS UP TO AND INCLUDING 1%AEP + 40% CC.

THE PIPE DIAMETERS AND GRADIENTS SHOWN ARE FOR GUIDANCE ONLY AND MAY BE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE



THIS DRAWING IS BASED ON PLANNING LAYOUT PROVIDED BY CLIENT
 DRAWING NUMBER:- 1903.30 site220331
 REVISION:-
 CLIENT TO ENSURE THE ABOVE LAYOUT IS CURRENT BEFORE USING THIS DRAWING FOR CONSTRUCTION PURPOSES



SURFACE WATER TO BE RESTRICTED TO Q_{bar} GREENFIELD FIGURE OF 9.6 L./SEC. AS SHOWN ON UK SuDS CALCULATION ATTENUATION FOR ALL EVENTS UPTO AND INCLUDING 1 IN 100 YEAR + 40%cc EVENT IN CELLULAR STORAGE

REFA WOULD ADVISE THE CLIENT THAT A DETAILED OFF SITE SURVEY SHOULD BE UNDERTAKEN AT THE EARLIEST OPPORTUNITY TO ENABLE THE FEASIBILITY DRAWINGS TO BE UPDATED WITH ACCURATE INFORMATION OF PARTICULAR IMPORATNCE ARE :-

1. EXISTING MAINS SERVICES AND OTHER APPARATUS
2. EXISTING SEWER INVERT LEVELS
3. EXISTING WATERCOURSE LEVELS

ALL DESIGNS SHOWN ARE FOR APPRAISAL PURPOSES ONLY AND ARE SUBJECT TO DETAILED DESIGN AND APPROVAL BY THE RELEVANT REGULATORY AUTHORITIES AT THE APPROPRIATE TIME DRAWING IS THUS NOT ISSUED FOR CONSTRUCTION PURPOSES

- GENERAL
1. All adaptable sewers and associated works are to comply fully with "Design and Construction Guidance" & Local Practices
 2. All highway works to be to adaptable standards and to comply fully with the Local Authority specification.
 3. All private drainage works are to comply fully with part H of the Building Regulations
 4. All existing invert levels to be checked by the Contractor at the start of works and any discrepancies notified to REFA. All levels are based on topographical survey information provided by others.
 5. All materials to bear the relevant B.S.Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur)
 6. 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 Relevant Water Authority as applicable.

CD.M. REGULATIONS 2015

In line with the above regulations we are obliged to inform the Client of their responsibilities under section CDM 15/1, and residual risks that may be encountered in the construction of these works. All design work has been carried out with Health and Safety aspects given full consideration. Wherever possible risks have been eliminated from the design, however due to the very nature of this type of work it is not possible to remove all the risks from the design. We would also respectfully remind the Client of his obligations to take all reasonable steps in ensuring that only competent Contractors who have a valid safety policy are employed. They should also provide satisfactory responses of tender stage as to the manner in which they will deal with the elements of risk involved in this type of work and in particular those highlighted by REFA below:-

1. Support / treatment for ALL excavation work.
2. Guarding to edges of excavations to prevent people, materials and vehicles falling into excavation.
3. Guarding of excavations outside working hours to prevent unauthorised access.
4. Undermining to adjacent roads or structures.
5. Confined space operations.
6. Dealing with existing services.
7. Traffic management on existing highways.
8. Procedure to be followed in event of accident or emergency.
9. Method of working where contaminated ground is present on site.
10. Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.

The above list is by no means exhaustive but it does highlight operations that present a risk to contractors and the general public. For clarification on any item please contact REFA.

rev	Revision details	Rev/By	Date

Drawing Stage	Comments	Drawing Status

Client
RONALD JACKSON

Job title
CHATBURN OLD ROAD CHATBURN

Drawing title
DRAINAGE STRATEGY

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DRAWING No: 22033/100/1	Rev: AS	

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