DRAINAGE NOTES

1. ALL PRIVATE DRAINAGE WORKS SHALL BE IN ACCORDANCE WITH 'THE BUILDING REGULATIONS APPROVED DOCUMENT H (LATEST EDITION)' AND BS EN 752.

Engineering Layout Key

OIL XX.XX

FFL xx.xxx

xx.xx +

1:xx

xxx Ø @ 1:xx

100Ø@1:80

Proposed Finished Floor Level

Proposed Finished Level

Private Surface Water Drain

Foul Water Connection Point

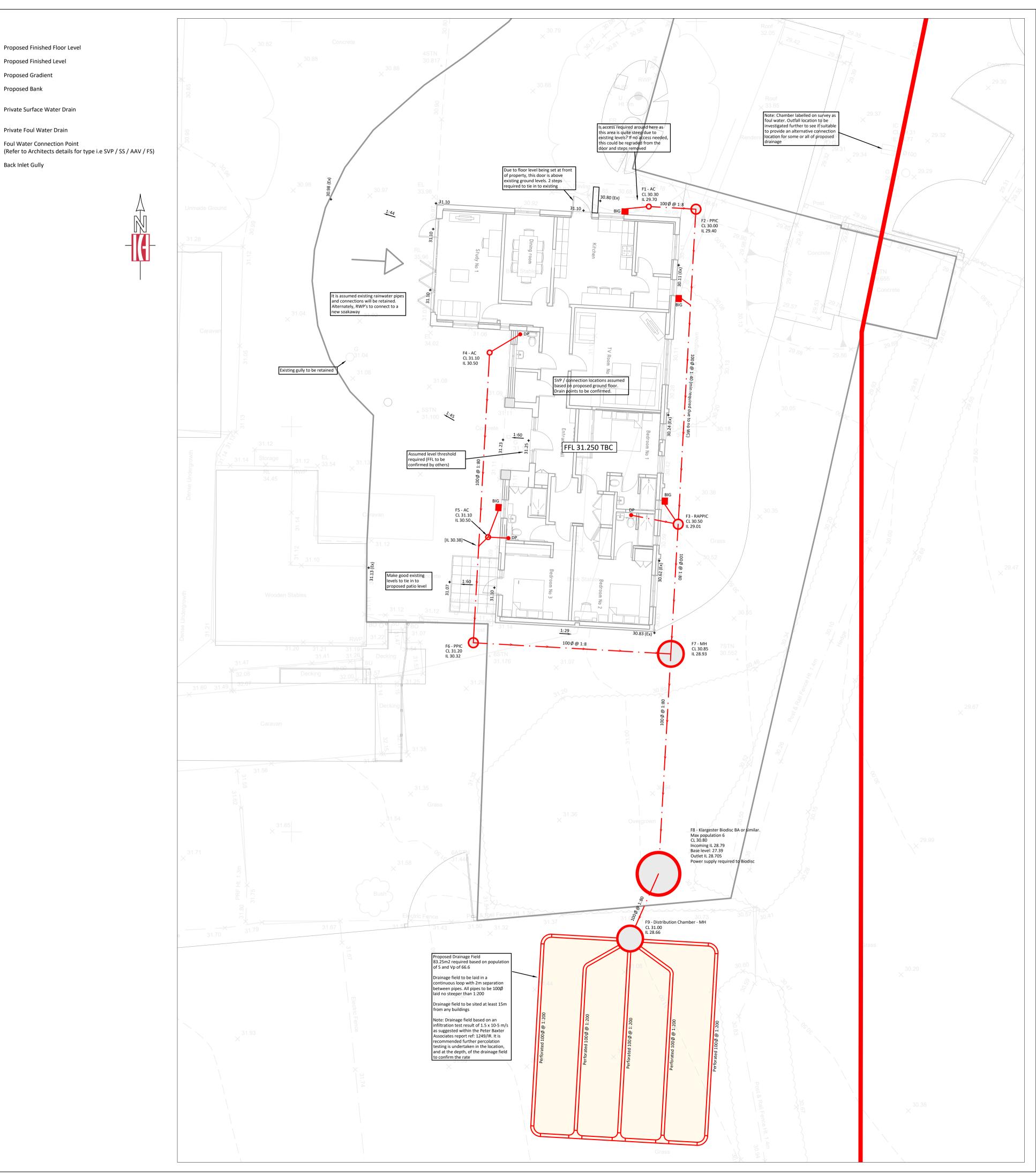
Private Foul Water Drain

Proposed Gradient

Proposed Bank

Back Inlet Gully

- 2. PRIOR TO COMMENCEMENT OF THE WORKS THE CONTRACTOR SHALL LIAISE WITH ALL RELEVANT AUTHORITIES TO OBTAIN THEIR REQUIREMENTS, WORK METHOD APPROVAL AND WHERE APPROPRIATE THE INTENDED CHOICE OF MATERIALS.
- 3. REFER TO SITE SURVEY FOR DETAILS OF EXISTING SITE CONDITIONS AND BENCH MARKS.
- 4. PRIOR TO COMMENCEMENT OF THE WORKS THE CONTRACTOR SHALL LIAISE WITH ALL RELEVANT AUTHORITIES TO LOCATE, PROTECT AND WHERE NECESSARY DIVERT ALL EXISTING SERVICES AFFECTED BY THE WORKS.
- 5. ALL EXCAVATIONS SHALL BE KEPT FREE OF STANDING WATER.
- 6. THE CONTRACTOR SHALL ENSURE THE STABILITY OF ALL EXCAVATIONS IS MAINTAINED AT ALL
- 7. ALL WORKS IN, OR ADJACENT TO, THE PUBLIC HIGHWAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE HIGHWAY AUTHORITY. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY LICENSES REQUIRED TO CARRY OUT THE WORKS WITHIN THE PUBLIC HIGHWAY.
- 8. ALL WORKS TO NEW OR EXISTING PUBLIC SEWERS SHALL BE TO THE APPROVAL OF THE WATER AUTHORITY AND IN ACCORDANCE WITH 'SEWERS FOR ADOPTION'-LATEST EDITION.
- 9. PRIOR TO COMMENCEMENT OF THE WORKS ALL DRAINAGE OUTFALL POINTS, WHETHER EXISTING SEWER, DRAIN OR WATERCOURSE, SHALL BE VERIFIED ON SITE BY THE CONTRACTOR. IF THE OUTFALL POINT IS FOUND TO BE HIGHER OR SIGNIFICANTLY LOWER THAN SHOWN ON THE DRAWINGS THEN THE DESIGN ENGINEER SHALL BE NOTIFIED IMMEDIATELY (SIGNIFICANT REDESIGN OF DRAINAGE AND LEVELS MAY BE NECESSARY). PRIOR TO COMMENCEMENT OF CONSTRUCTION ON-SITE THE CONTRACTOR SHALL INSTALL ALL OFF-SITE DRAINAGE CONNECTIONS, OR SATISFY HIMSELF THAT THERE ARE NO OBSTRUCTIONS OR OTHER REASONS WHY THE DRAIN CONNECTIONS CAN NOT BE MADE.
- 10. ALL COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE. EXACT LEVELS OF NEW COVERS AND FRAMES ARE TO BE DETERMINED ON SITE TO MATCH LEVEL AND PROFILE OF
- 11. THE CONSTRUCTION OF ALL EXISTING CHAMBERS, GULLIES AND THEIR COVERS, GRATINGS AND FRAMES TO BE IMPROVED, REPAIRED OR REPLACED AS NECESSARY TO SUIT THEIR LOCATION WITHIN THE FINISHED DEVELOPMENT.
- 12. ALL COVERS, GRATINGS AND FRAMES TO CHAMBERS, GULLIES, CHANNELS ETC, SHALL BE OF THE CORRECT LOAD CLASS TO SUIT THEIR LOCATION.
- PEDESTRIAN AREAS (NOT ACCESSIBLE BY VEHICLES) - LOAD CLASS A15 PRIVATE DRIVES
- LOAD CLASS B125 - LOAD CLASS C250 BASEMENTS / PARKING BAYS / LIGHTLY TRAFFICKED ROADS.
- GRATINGS IN PEDESTRIAN OR SHARED AREAS ARE TO BE DESIGNED FOR PEDESTRIAN USE (I.E PEDESTRIAN FRIENDLY).
- 13. ALL EXISTING CHAMBERS, GULLY CHANNELS, PIPES AND OTHER DRAINAGE APPARATUS SHALL BE PROTECTED FROM DAMAGE DURING THE WORKS. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE THAT NO MATERIAL ENTERS THE DRAINS (OTHER THAN THAT WHICH THEY ARE DESIGNED TO CARRY).
- 14. REFER TO SITE INVESTIGATION REPORT FOR EXISTING GROUND CONDITIONS AND ANY SPECIAL REQUIREMENTS FOR BURIED CONCRETE (SPECIAL REQUIREMENTS FOR BURIED CONCRETE SHALL INCLUDE ALL PRE-CAST AND IN-SITU CONCRETE AND MORTARS). WHERE APPROPRIATE REFER TO CONTAMINATION REPORTS FOR DETAILS OF CHEMICALS AFFECTING CHOICE OF MATERIALS AND OTHER ADDITIONAL REQUIREMENTS.
- 15. ALL PRE-CAST AND IN-SITU CONCRETE AND MORTARS USED IN THE CONSTRUCTION OF FOUL DRAINS AND SEWERS SHALL BE MADE FROM SULPHATE RESISTING CEMENT.
- 16. UNLESS NOTED OTHERWISE ALL PIPEWORK SHALL BE CONSTRUCTED FROM 'SUPER STRENGTH' VITRIFIED CLAY TO BS 65,BS EN 295 OR UPVC TO BS EN 1401 BEDDED AND BACKFILLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND THE ABOVE LISTED PUBLICATIONS.
- 17. THE CONTRACTORS ATTENTION IS DRAWN TO DIAGRAMS 7 AND 8 OF 'THE BUILDING REGULATIONS APPROVED DOCUMENT H' SHOWING DETAILS OF DRAINS LAID BELOW AND NEAR TO BUILDINGS. WHERE GROUND BEAMS ARE USED, THEIR LEVEL SHALL BE SET TO AVOID CLASHING WITH DRAIN CONNECTIONS.
- 18. EXACT LOCATION OF GULLIES TO BE DETERMINED ON SITE TO SUIT LOW POINTS. THE CONTRACTOR SHALL ENSURE THAT ALL FINISHED SURFACES ARE LAID TO FALLS THAT ARE SUFFICIENT FOR ALL SURFACE WATER TO DRAIN WITHOUT SURFACE PONDING.
- 19. FOR THE EXACT LOCATION OF SOIL PIPES, STUBSTACKS, W.C.'S AND OTHER DRAINAGE CONNECTIONS REFER TO THE LARGE SCALE ARCHITECTURAL BUILDING PLANS.
- 20. RAINWATER DOWNPIPES THAT DO NOT CONNECT DIRECTLY TO AN ACCESS POINT, SHALL BE
- 21. ALL DRAINAGE CHANNELS TO BE BY ACO OR SIMILAR AND TO BE OF A TYPE SIZE AND CAPACITY SUITABLE FOR THEIR LOCATION.
- 22. ACCESS FITTINGS, INSPECTION CHAMBERS AND MANHOLES SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN IN TABLES 11 AND 12 OF 'THE BUILDING REGULATIONS APPROVED DOCUMENT H' AND FROM THE MATERIALS LISTED IN TABLE 14. ACCESS POINTS, INSPECTION CHAMBERS AND MANHOLES SHALL BE CONSTRUCTED FROM PRODUCTS DESIGNED/RATED FOR THE LOCATION IN WHICH THEY ARE TO BE USED. THEY SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS/SUPPLIERS RECOMMENDATIONS.
- 23. PRIOR TO COMMENCEMENT OF ANY WORKS THE EXISTING DRAINAGE MUST BE TRACED TO ENSURE THAT NO 'LIVE' CONNECTIONS REMAIN. ANY SUCH CONNECTIONS MUST BE REPORTED TO THE CONTRACT ADMINISTRATOR, PRIOR TO DIVERSION INTO THE NEW DRAINS.
- 24. EXISTING PIPES TO BE ABANDONED SHALL BE BROKEN OUT OR FILLED WITH PFA GROUT. MANHOLES SHALL BE BROKEN OUT AND FILLED WITH COMPACTED GRANULAR MATERIAL.



Use figured dimensions only: Do not scale from drawing. All levels and dimensions are to be checked on site. This drawing is to be read in conjunction with all relevant documents Knapp Hicks & Partners Ltd CAD file formats, must not be used for setting out purposes.

KNAPP HICKS & PARTNERS LTD. (DATE AS TITLE)



CONSTRUCTION (DESIGN & MANAGEMENT) REGULATIONS 2015 DESIGNERS HAZARD INFORMATION FOR CONSTRUCTION

2. MANUAL LIFTING

3. HOT MATERIAL WORKING 4. CUTTING/DUST 5. CONCRETE, HANDIN

6. DEEP EXCAVATIONS, COLLAPSE/FALLING

7. SERVICE VOIDS/RISERS, FALLING

P2 15.09.21 TREATMENT PLANT RELOCATED P1 09.09.21 FIRST ISSUE DK LB By Chk Rev Date Revision

> **VIVIEN BERKIN** c/o L BROWN ASSOCIATES

OLD MILL EQUESTRIAN CENTRE

Drawing Title

ENGINEERING LAYOUT



SCALE 1:100 DATE Sept 21 CHECK LB

drawn **DK**

PRELIMINARY

36810/C/001 P2