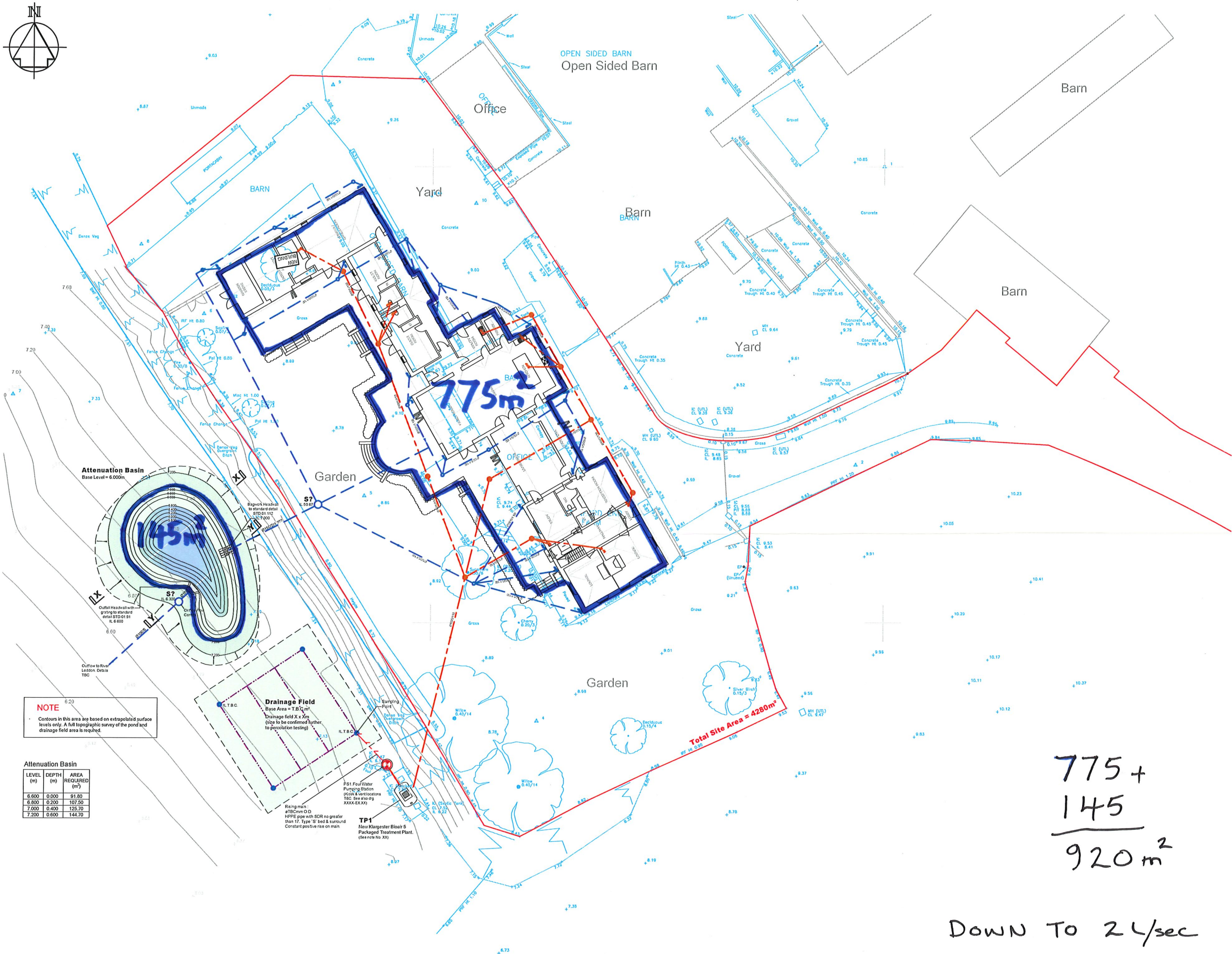
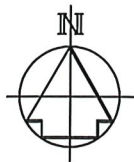




NOTE
Contours in this area are based on extrapolated surface levels only. A full topographic survey of the pond and drainage field area is required.

Attenuation Basin		
LEVEL (m)	DEPTH (m)	AREA REQUIRED (m ²)
6.600	0.000	91.80
6.800	0.200	107.50
7.000	0.400	125.70
7.200	0.600	144.70

Drainage Field
Base Area = 7.8 C_u m²
Drainage field X x Ym
(size to be confirmed further to percolation testing)

TP1
New Klugester Block 5
Packaged Treatment Plant.
(see note to 30)

775 +
145

920 m²

DOWN TO 2 L/sec

- Notes**
- This drawing to be read in conjunction with all relevant Architects and Engineers drawings and specifications.
 - Dimensions are in millimetres unless noted otherwise.
 - Original topographic survey undertaken by The Survey House in May 2022. For full topographic survey information see Survey House drawing ref. 2022-1134-001. All co-ordinates & levels based on a local grid and datum.
 - Existing levels shown thus: +6.775
 - Before excavation commences, the Contractor shall ascertain the depths, sizes and locations of all services to be crossed. Any conflicts in levels between new works and existing services shall be notified to the Engineer.
 - All drainage shall be in accordance with Building Regulations 2015: Part H & W.S.A. Sewers for Adoption 7th edition.
 - Details of existing sewers & drains shall be confirmed by the contractor on site prior to the commencement of works.
 - Sewers of different diameters shall be laid soffit to soffit in manholes, unless backdrops are detailed.
 - Private drains passing through walls and footings are to be sleeved and a 600mm length of roker pipe shall be laid on each side of the wall or footing. Runs under building shall have a type 'S' bed and surround, unless depth below underside of slab is less than 300mm where a 150mm bed and surround of concrete is to be used. Where pipes pass beneath foundations 600mm length roker pipes shall be laid on each side. Below is shown a typical detail of a pipe sleeved through a foundation.
-
- Manhole (M.H.) covers and inspection chamber (I.C.) shall be adjusted to suit final surface levels.
 - Where trench foundation levels lie above original levels, levels shall be made up with either well compacted layers of D.O.T type 1 or mix ST2 concrete.
 - For positions of SVPs stub stacks and rainwater pipes see detailed Architects layouts.
 - Minimum gradients for pipes where no gradient is shown shall be 1:80.
 - Dimensions of M.H. on private drains and sewers to be in accordance with requirements of the Building Regulations.
 - Drainage trenches lower than foundations:
 - Where drainage trench is within 1.0 distance of a building the trench is to be filled with concrete mix ST2 up to the level of the foundation, in accordance with Building Regulation 2002: Part H, diagram 8.
 - Where drainage trench is distance 'A' from footing and the depth of trench below foundation level is greater than 'A' the lower trench shall be filled with concrete mix ST2 such that the top level of concrete infill is no less than (A' - 150mm) below foundation level. Notes a) and b) are represented diagrammatically below:
-
- Pipe materials shall be:
 - For external private drain runs:
 - Clay pipes, extra strength or super strength in accordance with BS EN 295: 1991
 - UPVC pipes in accordance with BS 4660 & BS 5481: 1969 (flexible pipes)
 - Ductile iron pipe work in accordance with BS EN 598, as Stanton Integral with high performance joints or equivalent.
 - For adoptable sewers/highway drains, see longitudinal sections.
 - Definition of 'rigid' and 'flexible' pipes shall be as Building Regulations Part H, table 7.
 - Flexible pipes - Where private flexible pipes have more than 900mm cover under vehicular areas and more than 600mm cover under gardens, bedding and backfill shall be Type S as shown on drawing STD.01.85. For special protection where pipes are laid with less cover see notes below.
 - Where private flexible pipes have less than 900mm cover under vehicular areas, a reinforced concrete bedding slab shall be used (as Type 'Y' drawing STD.01.85) Reference Building Regulations 2002: Part H.
 - Where private flexible pipes have less than 600mm cover under gardens, concrete paving slabs laid as bedding slab shall be used (as Type 'X' drawing STD.01.85) Reference Building Regulations 2002: Part H.
 - Rigid pipes - Bedding and backfill shall be Type 'S' as shown on drawing STD.01.85, except on lengths where special protection is required (see notes below).
 - Where 100mm private rigid pipes have less than 400mm cover under vehicular areas, a Type 'Z' concrete surround shall be used (see drawing STD.01.85) Reference Building Regulations 2002: Part H.
 - Where 100mm private rigid pipes have less than 300mm cover under garden areas, a Type 'Z' concrete surround shall be used (see drawing STD.01.85) Reference Building Regulations 2002: Part H.
 - Where 150mm private rigid pipes have less than 600mm cover under any areas, a Type 'Z' concrete surround shall be used (see drawing STD.01.85) Reference Building Regulations 2002: Part H.
 - Private storm and foul drainage connections shall be detailed by the Architect.
 - Flexible and rigid pipe lengths shall not exceed 3m.
 - All external rainwater down pipes shall discharge through a proprietary bottle gully as shown on drawing STD.01.12.
 - Trenches below existing carriageways and parking areas shall be reinstated with D.O.E Type 1 material in accordance with standard detail STD.02.05.
 - Channel drains shall be Aco Multidrain MD150 with 0.5% in built gradient, or equivalent. They shall discharge via a sump by Aco or equivalent. Grating shall be Heelguard Class D400. To be installed in accordance with manufacturers instructions.
 - All utility covers & frames within the extent of the works shall be adjusted as necessary. The Contractor shall ensure that all services within vehicular areas have appropriate grade covers & frames as shown below:

Vehicular areas:	D400	Pedestrian areas:	B125
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 - Where drains are to be abandoned they shall be removed or infilled by grouting in accordance with The Civil Engineering Specification for the Water Industry - 6th Edition, clause 5.23. Drainage runs shall be CCTV Surveyed prior to being abandoned to ascertain whether any "blind" junctions exist.
 - Redundant / abandoned gullies, soakaways and manholes shall be broken out to a depth of 600mm then infilled with well compacted Type 6F/4F5 capping material.

AREAS CONTRIBUTING

P3	SCHEME REDRAWN		P4	
P2	PRELIMINARY ISSUE	IS		18-01-03-24
REV	DESCRIPTION	CHECKED	DATE	

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CLIENT
Wellington Estates

PROJECT
Stanford End Farm
Swallowfield
Drainage General Arrangement

DRAWN BY PF	CHECKED BY IS	DESIGNED BY PF
SCALE @ A1 Plan 1:200	DATE Nov. 2023	STATUS Preliminary
JOB NO. 38486	DRAWING NO. EX.01	REVISION P3