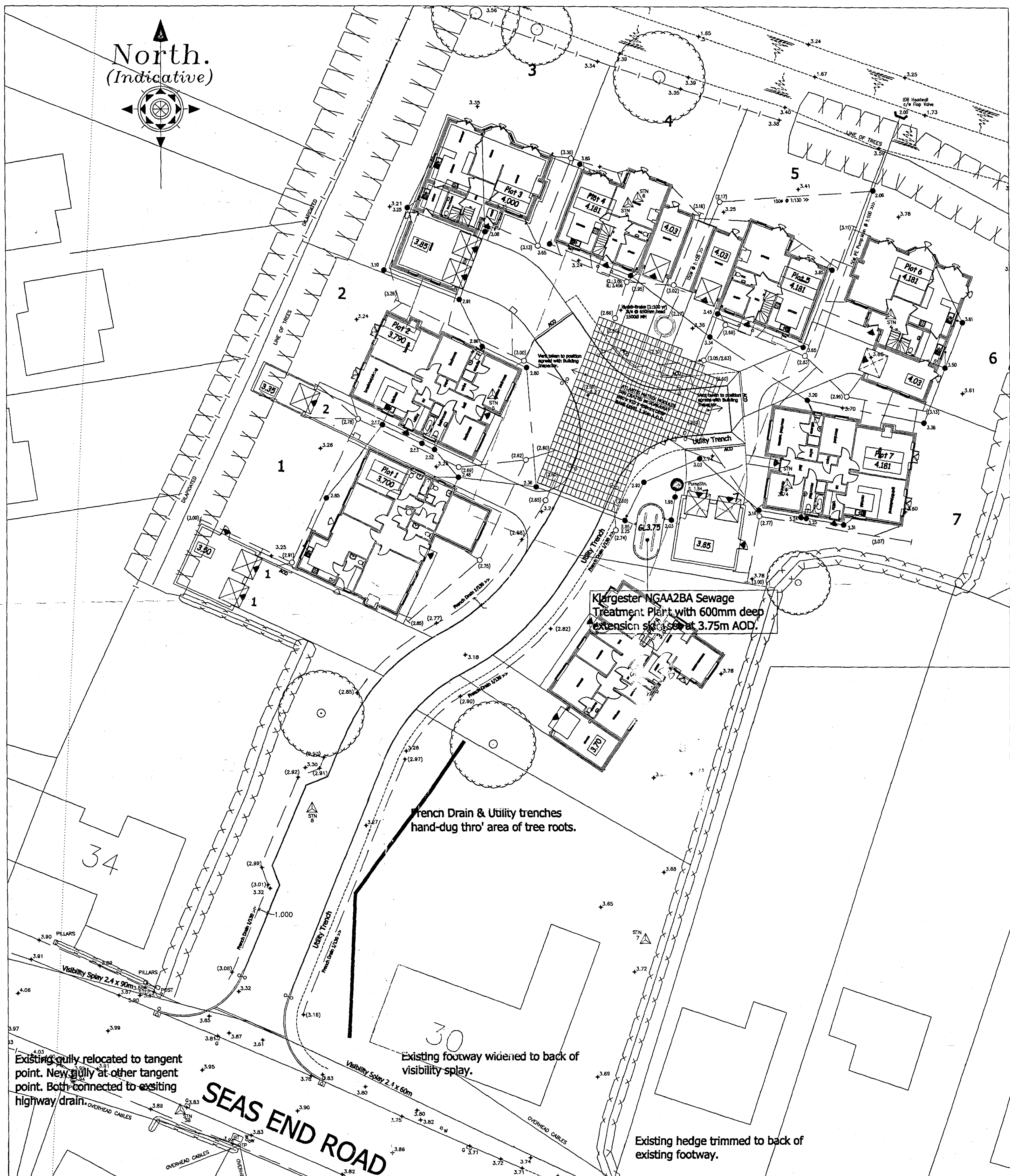




1. ALL EXTERNAL DRAINAGE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 3RD EDITION, B.S. EN 1225 & SEWERS FOR ADOPTION 6th EDITION FOR ADOPTABLE DRAINAGE, AND TO THE RELEVANT PROJECT SPECIFICATION AS DIRECTED BY THE ENGINEER FOR PRIVATE DRAINAGE.
2. PIPE MATERIAL SHALL BE AS FOLLOWS:
1000 TO 2250 - CLAYWARE TO BS EN 205 3000 AND ABOVE - CONCRETE TO BS EN 5911.
NB. PVCU PIPES TO BS EN 1401-1:1998 MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. CLAY AND CONCRETE PIPES SHALL BE BEDDED ON CLASS 5 BEDDING UNLESS COVER IS LESS THAN 1.2m IN TRAFFICKED AREAS, THEN CLASS A BEDDING.
4. UPVC PIPES SHALL BE BEDDED ON CLASS 5 BEDDING UNLESS COVER IS LESS THAN 1.2m IN TRAFFICKED AREAS, THEN CLASS Q BEDDING.
5. BACKFILL TO TRENCHES MAY BE SUITABLE EXCAVATED MATERIAL IN LANDSCAPED AREAS. TYPE 1 GRANULAR MATERIAL TO BE USED UNDER HARDSTANDINGS AND ROADS.
6. GULLY CONNECTIONS SHALL BE 150mm DIAMETER AND WITH CLASS 2 BEDDING.
7. GULLIES SHALL BE TRAPPED 450mm DIAMETER x 900mm DEEP WITH CLASS D400 FRAME AND GRATING TO BS EN 124 UNLESS OTHERWISE STATED.
8. DESIGN OF THE DRAINAGE CHANNELS WHERE SHOWN IS INDICATIVE ONLY. DETAILED DESIGN SHALL BE UNDERTAKEN BY THE CHANNEL MANUFACTURER/SUPPLIER. DESIGN & SUPPORTING CALCULATIONS SHALL BE SUPPLIED TO THE ENGINEER FOR APPROVAL.
9. ALL MANHOLE AND DRAINAGE CHANNEL COVERS SHALL COMPLY WITH BS EN 124. MANHOLE COVERS WITHIN BLOCK PAVED AREAS & BUILDINGS SHALL BE RECESSED. COVER STRENGTHS TO BE:
CLASS E600 IN AREAS SUBJECT TO HIGH POINT LOADS (E.G. FORKLIFTS)
CLASS D400 IN HEAVY TRAFFICKED AREAS (ACCESS ROADS, SERVICE YARDS ETC.).
CLASS C250 IN LIGHTLY TRAFFICKED AREAS (CAR PARKS ETC.)
CLASS B125 (WITH MIN. 100mm DEEP FRAME) IN LANDSCAPE & NON-TRAFFICKED AREAS (PLANTING, PEDESTRIAN AREAS ETC.).
10. VENTILATION SHALL BE PROVIDED AT THE HEAD OF FOUL DRAINAGE RUNS.
11. ACCESS FOR RODDING/GETTING SHALL BE PROVIDED TO ALL SOIL AND RAINWATER DOWNPIPES ABOVE FINISHED FLOOR LEVEL.
12. FOR DETAILS OF MANHOLE TYPES AND PIPE BEDDING ETC., SEE STANDARD DETAIL DRAWING(S).
13. COVER LEVELS SHOWN ARE APPROXIMATE. COVER LEVELS FOR MANHOLES WITHIN LANDSCAPED AREAS SHOULD BE CHECKED WITH THE LANDSCAPE ARCHITECTS. COVERS SHOULD BE ADJUSTED TO MATCH SURROUNDING FINISH LEVELS.
14. THE CONTRACTOR IS TO PROTECT EXISTING BURIED PIPES (PARTICULARLY SHALLOW PIPES) AND TREE ROOTS FROM DAMAGE CAUSED BY LOADS IMPOSED BY CONSTRUCTION PLANT.
15. FRENCH DRAINS PASSING UNDER ROADS/DRIVES SHALL USE SOLID PIPE WITHIN 500mm OF EDGE OF CARRIAGEWAY.

Please Note:
Please refer to Atlantis Water Management Ltd.
drawing AST-1 for storm attenuation tank
Installation.

PRIVATE DRAINAGE NOTES:

Pipework to be 110mm dia. PVC-U Hapworth PlastDrain or similar approved, unless otherwise stated.

Generally laid to falls of 1:50 on the foul drain and 1:60 on the surface water drain, minimum 1:80 on both.

160mm dia. pipework to be laid at a min. fall of 1:130.

The Specification and Installation of the drainage systems are to comply with the Building Regulations Approved Document H & British Standard 8301 Building Drainage current at the time of construction and also the manufacturers recommendations. All connections are to be soffit to soffit.

ASG.3	House Type	FFL Level
12.30		

- Foul (Mini chamber <0.6m [1 side connection])
- Foul (PPVC chamber <1.2m [2 side connections])
- Foul (Telescopic PPVC Chamber 1.2-3.0m)
- Foul (RASS Chamber 1.65-5.0m)
- Surface (Mini chamber <0.6m [1 side connection])
- Surface (PPVC chamber <1.2m [2 side connections])
- Surface (Telescopic PPVC Chamber 1.2-3.0m)
- Surface (RASS Chamber 1.65-5.0m)
- Backdrop on 1200Ø concrete SW manhole
- Backdrop on 1200Ø concrete FW manhole
- FW MH with Invert level
- SW MH with Invert level
- Rodding eye with Invert Level
- Soil vent pipe [SVP]
- Rainwater outlet [RWP]

Trunk soakaway [ED=Effective Depth]
i.e. depth of trench below lowest invert.

Distal drainage channel with gully.

ACD channel or similar.

Cover levels generally to be 150mm below slab levels.

Private pipework under carports/porches to be laid at min. 150mm dia. Extra Strength Clayware at minimum fall of 1:130.

Pipework under drives and other areas likely to be trafficked shall be bedded with Type 2 material. Where depth of cover less than 900mm pipe to have 175mm thick reinforced (A393) concrete slab over. Both treatments to extend a minimum of 1m behind kerb-face.

Please Note: Where the bottom of a drainage trench is below foundation level, the trench should be filled with concrete as shown below.

UNDERBUILD and TANKING

TANKING

EXTRA COURSES OF BRICKWORK ON TOP OF THE STANDARD 3

15 FEB 2007

Ref. 0204107

F	18:01:07	Treatment plant changed, French drains amended.
E	11:01:07	Plot 8 changed as per clients plan.
D	31:10:06	Storm, foul and pumping main route amended.
A-C		Layout amended as requested by Architect.
	Date	Revisions

Design Team

Stafford

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Job Title

Seas End Road
Moulton Seas End
Spalding
Lincs

Drawing Title

Drainage Layout

DETERMINED PLAN

Date	Aug. '06	Scale	1:200	Drawn	TRS
Drw.No.	1439-06-20	Rev.			
	8383-107				F