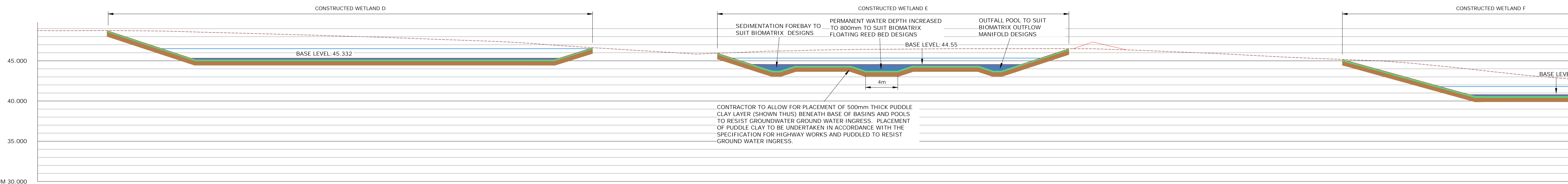
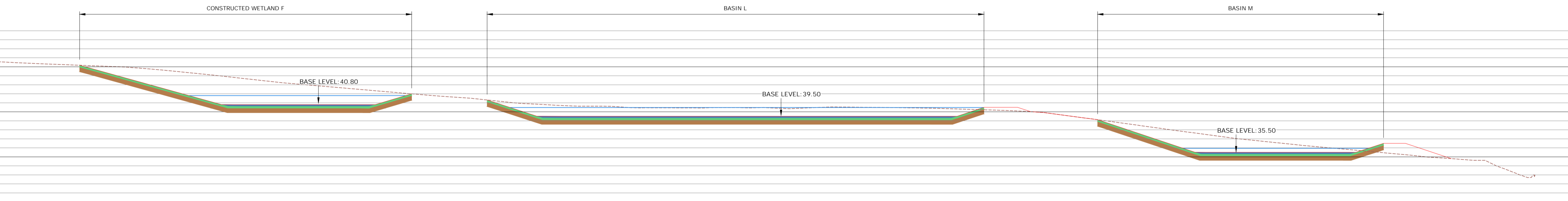


DO NOT SCALE



CONTRACTOR TO ALLOW FOR PLACEMENT OF 500mm THICK PUDDLE CLAY LAYER (SHOWN THUS) BENEATH BASE OF BASINS AND POOLS TO RESIST GROUNDWATER GROUND WATER INGRESS. PLACEMENT OF PUDDLE CLAY TO BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS AND PUDDLED TO RESIST GROUND WATER INGRESS.

CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000
EXISTING GROUND LEVEL	48.761	48.753	48.573	48.305	48.009	47.659	47.251	46.571	45.960	46.172	46.389	46.475	46.511	46.501	46.175	45.723	45.255	44.757	43.748	42.778
FINAL PROPOSED GROUND LEVEL	48.761	48.307	45.332	45.332	45.332	45.332	45.332	46.567	46.034	44.550	44.550	44.550	44.550	46.940	46.217	45.722	45.245	43.031	40.800	40.800



160.000	170.000	180.000	190.000	200.000	210.000	220.000	230.000	240.000	250.000	260.000	270.000	280.000	290.000	300.000	310.000	320.000	324.166	328.023	
45.255	44.757	43.748	42.778	41.926	41.058	40.622	40.434	40.399	40.498	40.312	39.851	38.504	37.155	36.118	35.212	33.941	32.985		
45.245	43.031	40.800	40.800	41.926	40.506	39.500	39.500	39.500	39.500	39.552	39.851	37.617	35.500	35.500	36.420	33.941	32.985		

REV	DATE	DESCRIPTION	DRAWN	CHKD
B	18.02.22	UPDATED TO SUIT REVISED DESIGN OF CONSTRUCTED WETLANDS. PUDDLE CLAY SPECIFICATION ADDED. TITLE & SCALE AMENDED	KRT	JJT
A	08.10.21	UPDATED SITELAYOUT ADDED. EXTENT OF TREATMENT REMOVED PENDING DESIGN BY BIOMATRIX	KRT	JJT

REVISIONS
 This drawing is to be read in conjunction with all other Engineer's drawings and all other project information. Any discrepancy between the Engineer's drawings and other project information is to be reported to the Engineer immediately.



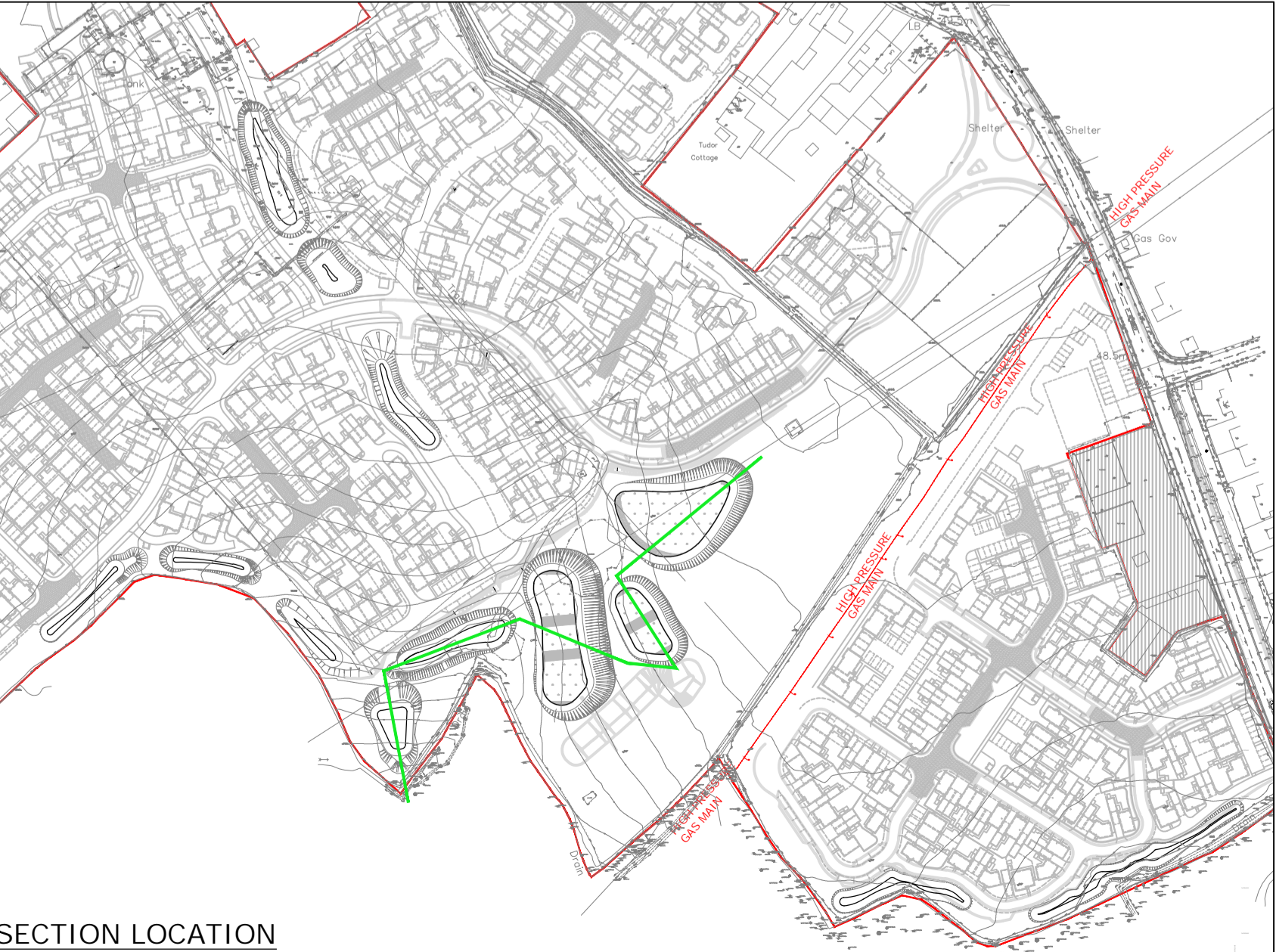
Project
**BROAD OAK FARM
 STURRY
 CANTERBURY**

Title
**SECTIONS THROUGH SURFACE
 WATER BASINS AND
 CONSTRUCTED WETLANDS**

Client
DAVID WILSON HOMES
 WHERE QUALITY LIVES

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Scale	Drawn	Date			
1:250 @ A1	KRT	JULY 2021			
Project Manager	Checked	Approved			
K. TOSH	JJT	KRT			
Status	Suitability Description	RJL Project No :			
D2	FOR TENDER	61109			
project code	discipline	phase	client	number	revision
H8398	CIV	X	BDW	4181	B



SECTION LOCATION
 SCALE: 1:2500

NOTE: REFER TO DRAINAGE GENERAL ARRANGEMENT AND LONG SECTION DRAWINGS FOR DETAILS OF ALL PIPE WORK AND MANHOLES, ETC. WHICH HAVE BEEN OMITTED FROM THIS DRAWING

KEY	
	PROPOSED FINISHED GROUND PROFILE (BASE LEVEL GIVEN IS THE BOTTOM OF THE DESIGNED SURFACE WATER ATTENUATION STORAGE)
	EXISTING GROUND PROFILE
	DESIGN WATER LEVEL FOR 1:100 YEAR + 40% DESIGN RAINFALL EVENT
	0.2m DEPTH OF PERMANENT WATER WITH LEVEL CONTROL TO SUIT BIOMATRIX TREATMENT DESIGNS
	0.2m THICK PLANTING SUBSTRATE (BY OTHERS)
	0.5m THICK PUDDLE CLAY TO RESIST GROUND WATER INGRESS

PUDDLE CLAY SPECIFICATION

- General
 Material to be used as puddle clay shall be naturally occurring homogeneous plastic material. It shall be free from deleterious matter such as sand, stones and organic material. The use of lime-stabilised clays shall not be allowed.
- Properties
 - More than 65% of the natural material shall be finer than 0.06mm and more than 40% shall be finer than 0.002mm
 - The natural material shall be defined as firm clay in accordance with BS5930:1981 Table 8 (Cu 40-75 kPa).
 - The natural material shall be defined as clay of intermediate to extremely high plasticity in accordance with BS5930:1981, figure 31 and the liquid limit shall not be less than 35%.
 - The coefficient of permeability (k) of the remoulded material shall not be greater than 10⁻⁹ m/s.
 - The remoulded material shall be defined as Non-dispersive (ND1) in accordance with BS1377:Part 5:1990, Table 2.
- Identification
 An indication of a material's suitability may be obtained from the following empirical tests, at the moisture content agreed for placement.
 - Tenacity Test
 A 300mm long, 25mm diameter cylinder of clay is held vertically for 15 seconds so that at least 200mm is unsupported and in tension under its weight. If the cylinder breaks the clay will be rejected as unsuitable.
 - Pinch Test
 A 75mm diameter ball of remoulded clay is squeezed into a 25mm thick flat disc. If any cracks appear the clay may be rejected as unsuitable.
 - Slaking Test
 A 50mm diameter ball of remoulded clay is placed in a 600ml beaker and covered with water. If the ball disintegrates within 24 hours the clay may be rejected as unsuitable.
 - Permeability Test
 A sample of remoulded clay shall be formed into a tray to hold 20 litres of water and the loss measured after 24 hours. This shall be compared with the water loss from a metal tray of the same surface area holding the same quantity of water. If the difference is greater than 1% the clay may be rejected.