

CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	53.209
EXISTING TOPOGRAPHY (GREEN)	44.736	44.480	44.457	44.716	44.979	45.128	45.219
PROPOSED MODEL (RED)	44.739	44.892	45.000	44.786	43.255	44.334	45.219

LANDSCAPING

LANDSCAPING SLOPE 1:3

PN8,000 BASIN SLOPE 1:3

PN8,000 BASIN BASE 43.365m

LANDSCAPING SLOPE 1:3

LANDSCAPING

TOP OF BANK 45.110m

TOP OF BANK 45.97m

3m x 3m x 0.3m deep gabion mattress for erosion protection and silt control

INLET

OUTLET

1.982m Max Water Depth

BASIN BASE 43.365m

Sand Binding 75mm Depth

Detention Basin to be lined with:

1. TECHMAT CB350 Erosion Control Mat.
2. TNW 3000 protection Geotextile
3. TECH-LINE 1.0mm LLDPE Impermeable Geomembrane
4. TNW 3000 protection Geotextile

By TCS Geotechnics or similar approved

200 year WL 44.325

100 year +45%cc WL 44.012

30 year WL 43.532

2 year WL 43.056

buyl/ liner or similar approved if suitable puddle clay is unavailable

300mm LOW FLOW CHANNEL AS SHOWN

ON PLAN VIA BLUE DASHED LINE

150mm topsoil Suitable for wet meadow mix

DATUM 40.000

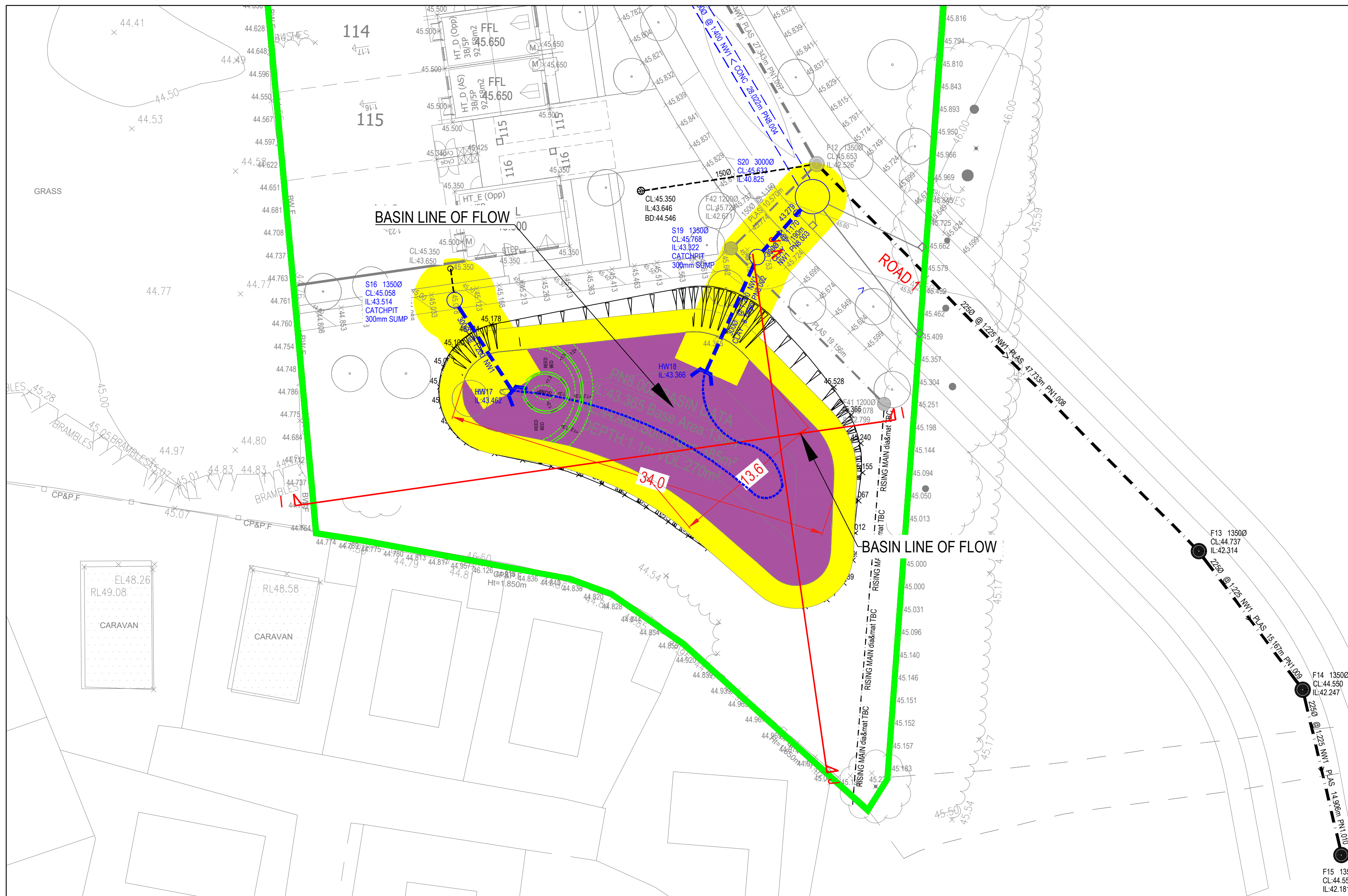
45.000

CHAINAGE	0.000	10.000	20.000	30.000	40.000	45.945
EXISTING TOPOGRAPHY (GREEN)	45.321	45.165	44.963	44.980	45.000	45.075
PROPOSED MODEL (RED)	45.797	43.587	43.255	44.998	45.054	45.144

The diagram illustrates a cross-section of a detention basin. Key features include:

- Topography:** The top of the bank is at 45.85m, and the datum is at 40.000m. The basin floor is at 43.365m.
- Water Levels:**
 - 200 year WL 44.325 (blue dashed line)
 - 100 year +45%acc WL 44.012 (blue solid line)
 - 30 year WL 43.532 (green solid line)
 - 5 year WL 43.056 (red solid line)
- Structural Layers:**
 - 3m x 3m x 0.3m deep gabion mattress for erosion protection and silt control.
 - 150mm topsoil suitable for well meadow mix, butyl liner or similar approved if suitable puddle clay is unavailable.
 - Basin base at 43.365m.
 - Detention basin to be lined with:
 - TECHMAT CB350 Erosion Control Mat.
 - TNW 3000 protection Geotextile
 - TECHLINE 1.0mm LLDP Impermeable Geomembrane
 - TNW 3000 protection Geotextile
 - Sand binding 75mm depth.
- Other Features:**
 - 300mm low flow channel as shown on plan via blue dashed line.
 - 2.500m Max Water Depth.
 - Inlet & Outlet.
 - Landscaping slope 1:3 on both sides.
 - PN8.000 basin on both sides.
 - Adoptable footway on the left.

By TCS Geotechnics or similar approved



1. SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
2. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 6TH EDITION AND UNIFORM UTILITIES DETAILS & GUIDELINES.
3. THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADAPTABLE HIGHWAYS SHALL BE 150mm
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARDS TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE FOR HAND DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES
5. THE OUTSIDES OF ALL SEWERS SHALL BE A MINIMUM OF 1.0m FROM KERB LINES AND THE OUTSIDE OF MANHOLES SHALL BE A MINIMUM OF 0.5m FROM KERB LINES
6. EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES
7. ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES
8. 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 TO WITHSTAND A CLASS
9. 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., N.H.C OR THE NETWORK OPERATOR AS APPROPRIATE
10. WHEN "ULTRA RIB" UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADAPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION.
11. A CLASS 5 BED AND SURROUND MUST BE USED FOR SUCH PIPES. TRENCH BACKFILL IN HIGHWAYS TO WITHIN 1m OF HIGHWAY SHALL AS DIRECTED BY THE HIGHWAY AUTHORITY BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL 4.3.4.
12. SLAB LEVELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE
13. DOMESTIC DRAINAGE SHALL BE TO BUILDING REGULATIONS APPROVED DOCUMENT H. 110mm U.P.V.C. PIPES LAID TO THE FOLLOWING MINIMUM FALLS UNDER OVERTHEIR OWN

	FOUL	S.W.
HEAD RUN	1 IN 40	1 IN 60
ELSEWHERE	1 IN 80	1 IN 100

14. ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED CLAY UNLESS NOTED OTHERWISE

15. MINIMUM COVER TO DRAINAGE SLOFF LEVEL:

TRAFFICKED AREAS	HIGHWAYS	LANDSCAPING
0.900m	1.200m	0.600m

- CLASS 'S' BEDDING AND SURROUND TO BE USED WHERE MINIMUM COVER IS ACHIEVED.
- WHERE MINIMUM COVER IS NOT ACHIEVED CLASS '2' BEDDING AND SURROUND (CONCRETE ENCASEMENT) IS TO BE USED.

16. FOR SUBMITTAL FOREBAY DRAWING PLEASE CHECK DRAWING
HGV-A/R-XX-00-DR-C-1751 SECTION 104 SUBMITTAL FOREBAY DETAIL 8.002

- STND/19/001 - TYPE 1 MANHOLE
- STND/19/002 - TYPE 2 MANHOLE & INVERT ACCESS DETAIL
- STND/19/003 - SHALLOW MANHOLE DETAIL FOR SMALL DIAMETER PIPES
- STND/19/004 - SHALLOW SW MANHOLE DETAIL
- STND/19/007 - EXTERNAL AND INTERNAL BACKDROPS
- STND//19/008 - PIPE EMBEDMENT DETAILS
- STND/19/010 - VARIABLE MANHOLE GUIDANCE NOTES

PNO	DATE	DESCRIPTION	BY	CHK	APP
P10	11/12/2004	300mm FLATTOP ADDED ONTO BASIN	JL	KOB	KOB
P17	11/10/2004	VALUE ENGINEERING EXERCISE UNDERTAKEN	JL	KOB	KOB
P18	30/03/2004	LOW A TERTATIONS DONE TO JJJ COMMENTS	JL	KOB	KOB
P17	10/02/2004	LOCATION & SHAPE OF BASIN HAS BEEN AMENDED	JL	KOB	KOB
P16	06/09/2004	MINOR CHANNEL ADDED ONTO BASIN SECTIONS	JL	KOB	KOB
P15	17/07/2004	OUTFALL HEADWALL & MANHOLE REVERTED BACK TO OLD DESIGN TO AVOID CLASH & SEDIMENT FORMATION & HEADWALLS ADDED TO BASIN IN SECTIONS	JL	KOB	KOB
P14	01/01/2004	DRAWING AMENDED TO INCLUDE DROSSON PROTECTION ALL QUESTERS	JL	KOB	KOB
P13	21/09/2004	DRAWING AMENDED TO CORRECT CAPACITY AND ADD MANHOLE FLUM ON BASIN	JL	KOB	KOB
P12	13/06/2004	DRAWING AMENDED TO LATEST DRAWING PROJECT A SHOW LINE OF FLUM THROUGH BASIN	JL	KOB	KOB
P11	15/06/2004	PRELIMINARY ISSUE	JL	KOB	KOB
REV		DESCRIPTION	BY	CHK	APP

DRAWING STATUS:									
PRELIMINARY									
CLIENT:									
YOUR HOUSING GROUP									
ARCHITECT:									
BARTON WILLMORE									
PROJECT:									
HALSNEAD GARDEN VILLAGE LICKERS LANE WHISTON									
TITLE:									
S104 ATTENUATION BASIN SECTIONS									
SHEET 4									
STATUS:	PROJECT NO.	PROJECT	ORIENTATION	WGS84	LEVEL	TYPE	ROLE	DRAWING NO.	REV.
S2	220-275	HGV	A-JP	X-X	00	-DR	C	1033	P10
SCALE & NO.	DESIGNED	DRAWN	JD	CHECKED	APPROVED	DATE			
1:100 & 1:250	JJ	JOHN	JJ	KOB	KOB	KOB	MAY 2004		