

1. The contractor is to check and verify all buildings, site dimensions and levels, including sewer invert levels, before works start on site.
2. The contractor is to comply in all aspects with the current building legislation, British Standards, building regulations etc.
3. The contractor is to check the level of existing sewers which are to be used as an out-fall prior to commencement of any onsite drainage works. Any discrepancies are to be reported to the Engineer.
4. This drawing is to be read in conjunction with and checked against all other drawings, Engineering Details, specifications and any structural, geotechnical or other specialist document provided.
5. Any anomaly or contradiction between any of the above or difference between actual and drawn details is to be reported to Bellway Homes (Wessex)
6. Drainage to be adopted under Section 104 of the Water Industries Act 1991 shall be constructed and tested in accordance with Sewers for Adoption 6th Edition published by WRC plc and the combined addendum to SFA.
7. Roads, footpaths and parking areas which form part of the highway to be adopted under Section 278 or 38 of the Highways Act 1980 shall comply with the Hampshire County Council's Highway Specification and Standard Details.
8. All substrate structures and unconsolidated material within the road construction width to be removed
9. Formation preparation to be in accordance with Highways Agency Specification for Highway Works (SHW) cl. 616. No prepared formation to be continuously exposed to rain causing degradation below design CBR or to be left uncovered overnight.
10. Any soft, damaged or weak spots including peat contaminated material are to be excavated and replaced with SHW Type 1 in accordance with SHW cl 803 laid and compacted to 80,802, Table 8/4
11. Where ground conditions are deemed to be frost susceptible, refer to Ground Investigation report, carriageway thickness shall be 450mm minimum thickness. All material within 450mm of road construction to be non-frost susceptible.
12. Positions of existing services/statutory undertaker's apparatus adjacent to or crossing proposed sewers are to be checked by the contractor prior to starting work.

- All adoptable drainage and highway works to be installed in accordance with;
- S104 & S185 Sewers - Sewers for Adoption 6th edition, including all applicable local Southern Water addendums
 - S278 and S38 Highways - Hampshire County Council Specification and Standard Details.

The contractor shall refer to the existing and proposed services information, provided by Bellway Homes (Wessex).

It is the Contractor's responsibility to liaise with all relevant services companies to ensure that all existing services are accurately located and adequately protected during construction.

It is the Contractor's responsibility to liaise with the Developer and all relevant services companies to ensure that all new and diverted services are accurately located and adequately protected during construction.

All works to existing services to be undertaken as required by the Developer. Refer to Developer design.

	Indicative site application boundary
	Proposed highway drain and manhole to be adopted by HCC under S38. To be constructed in accordance with HCC standard details.
	Proposed S104 surface water sewer and manhole to be constructed in accordance with Sewers for adoption 6th Edition. To be adopted by Southern Water
	Proposed S104/S185 foul water sewer to be constructed in accordance with Sewers for adoption 6th Edition. To be adopted by Southern Water
	Proposed S104 adoptable foul water lateral and demarcation chamber. Refer to drawing no. C85850-D164 - D166 Private Drainage Layout
	Proposed S104 adoptable surface water lateral and demarcation chamber. Refer to drawing no. C85850-D164 - D166 Private Drainage Layout
	S38 Deep trapped road gully to be adopted by highways authority
	Existing Southern Water public foul water sewer
	Existing Southern Water public surface water sewer
	Sewer easement 3m either side of pipe centreline
	Proposed road contours
	Existing contours
	Proposed plot finished floor level
	Proposed private attenuation tank. Versavoid tank by ESS or similar approved. To be installed in strict accordance with ESS design and installation instructions

All existing drainage found on site during the works shall be investigated, its operational status confirmed, and the following applied:-

- a. Inoperative drainage shall be cut back and pipe runs filled with concrete grout.
- b. 'Live' drainage shall be temporarily re-routed to allow the new drainage to be constructed.

Any land drains serving offsite areas shall be referred to Bellway Homes. No land drains shall connect to the public water sewer network.

Surface Water - Connection to the public surface water sewer shown is indicative only and subject to capacity check and upgrade works to be confirmed by Southern Water. No construction works shall be undertaken prior to formal capacity, connection and S104 approval has been issued by Southern Water.

Foul Water - The existing public foul water sewer crossing the site shall be diverted via S185 Sewer Diversion application with Southern Water. Refer to S185 drawing nos. C85850-D120-D121 Foul Sewer Diversion Layout. Proposed site connections to S185 subject to capacity check and upgrade proposals by Southern Water. No construction works shall be undertaken prior to formal capacity, S106 sewer connection application, S104 and S185 approval has been issued by Southern Water.

Twin Wall Attenuation Pipes by Weholite or similar approved. Refer to manufacturer design, TBC. To be installed in strict accordance with manufacturers requirements.

Attenuation Tank 2
11.55m W x 13.05m L x 1.55m H
Design Storm Event - 100yr + 30% Climate Change
CL 26.84 - 27.60
Max. Cover - 1.85m
Min. Cover - 0.89m
Laid at 1:30 to Outlet
Outlet Invert Level - 24.400
Net Volume - 220m³ (includes 95% porosity allowance)
p. AQST - 4.0 - 4.1 Attenuation Tank Details & Layout
in strict accordance with manufacturers requirements.

The Contractor is to confirm depth of the existing surface water sewer to ensure no clashing with the proposed surface water sewer at all crossings. Minimum cover to existing sewer to be 1.2m. Where cover is less than 1.2m, concrete bridge slab to be provided in accordance with detail on drawing no C85850-D107. Contractor to confirm following sewer investigation on site.

Min. Net Volume - 220m³ (includes 95% porosity allowance)
Refer to ESS drawing no. AQST - 4.0 - 4.1 Attenuation Tank Details & Layout
To be installed in strict accordance with manufacturers requirements.

types shown
ily and subject to
by manufacturer

Offline weir in manhole with crest level set at 1:30 year top water level. Overflow connection to Attenuation Tank1.

Attenuation Tank 1
9.05m W x 12.05m L x 1.30m H
Design Storm Event - 100yr + 30% Climate Change
CL 26.53 - 27.28
Max. Cover - 1.30m
Min. Cover - 0.60m
Laid at 1:300 to Outlet
Outlet Invert Level - 24.660
Min. Net Volume - 133m³ (includes 95% porosity allowance)
Refer to ESS drawing no. AQST-3.0 - 3.1 Attenuation Tank Details & Layout
To be installed in strict accordance with manufacturers requirements.

PHASE 2 PRIVATE DEVELOPMENT

Foul pipes 1.000 - 1.016 to be adopted under a S185 sewer diversion agreement.
For S185 foul water sewer diversion, refer to drawing no C85850-D120 - D121.
No S185 diversion works to be undertaken prior to Southern Water approval.

Phase 1
Adoptable
Phase 2
Private

Proposed connection to existing surface water sewer via new manhole. Refer to existing public sewer capacity and connection notes.

S117
CL 24.000 TBC
IL 23.380 (150Ø)
IL 23.155 (375Ø) TBC

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- 1 Contact with traffic
- 2 Deep excavations
- 3 Existing services
- 4 Contact with raw sewage

This drawing is based on the following information provided by others:

- Topographical Survey undertaken by Siteline Geomatic Surveyors, ref. 05HA01, dated January 2018.
- Site Layout plan by OSP Architecture, ref. 17300 - P101 Rev B, dated July 2018.
- Tree Survey by Bernie Harverson, ref. 0787 - BJH 01/02, dated October 2015.

E	22.10.18	Highway drainage colour revised to black.	CT	KM
D	12.10.18	Colours revised to Southern Water instruction.	CT	KM
C	28.09.18	Revised to suit Wehollite oversize pipe design. Sewer easement added.	CT	KM
B	13.09.18	Field access surface and notes added.	CT	KT
A	10.09.18	Box culverts revised to oversized twin wall pipework. Revised to construction issue.	CT	KT
Rev.	Date	Amendment	By	Chk

Status	Construction
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Bellway

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Client	Bellway Homes
Job	Bartons Road Havant, Hampshire
Title	Adoptable Drainage Layout

Scale 1:500	@ A1	Date July 2018
Drawn by CT	Checked by KT	Approved by KT



Drawing No.	Rev.
C85850-D101	E

CA Ref: QD019 Rev D