



Do not scale from this drawing.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.

RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM.

CONSTRUCTION
EXISTING SERVICES
WORKING IN A LIVE HIGHWAY

DEMOLITION

FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

NOTES

1. This drawing is based on the following received information:
JWF LTD drawing "LAW-020-0011.dwg"
ALPHA DESIGN drawings "High Stile Gardens Site Plan.dwg"

2. This drawing is to be read in conjunction with the following FAIRHURST drawing:
104264/2036 - Monhole Schedule
104264/2038 - Construction Details Sheet 2
104264/2039 - construction Details Sheet 3

3. For details of ground conditions refer to Geo Environmental Engineering Report No.s. 2013-698 and 2013-890.

4. All drainage works shall be carried out in accordance with Sewers for Adoption (6th Edition) and Civil Engineering Specification for the Water Industry (5th Edition). All adoptable sewer works and materials to be in accordance with Sewers for Adoption, (6th edition) and the local water companies requirements regarding sewers for adoption.

5. All work is to be carried out in accordance with the current British and or European standards, BS codes of Practice & Building Regulations.

6. The position, line and diameter of all existing drainage apparatus should be confirmed on site prior to the commencement of the works. Any discrepancies should be reported to the Engineer in writing immediately.

7. The following pipe strengths shall be used unless stated otherwise.

Pipes up to and including 150mm diam to be 28kN/m min. crush strength to BS EN295 1.
Pipes between 225mm diam and 300mm diam to be class 160 to BS EN295 1.
Pipes above 300mm diam to be concrete pipe strength class 120.

8. Trenches to be backfilled with 'approved as dug' material compacted in layers not exceeding 150mm. Method to be determined on site by ground conditions and to the approval of the inspector. Material for Granular bedding & surround shall be single size and rounded.
All pipe runs to be laid with flexible joints.

9. All pipes entering and exiting manholes are to be connected with pipe soffits level unless noted otherwise.

Bedding and Surround to be as follows:

Location	Cover to Soffit	Bedding
Road	>1.2m	Class S Granular Bed & Surround
	<1.2m	Class S granular bed with RC protection slab
Non-Adoptable Sewers below Cor Parking	>0.9m	Class S Granular Bed & Surround
	<0.9m	Class A Concrete Surround
Hard & Soft Landscaping	>0.6m	Class S Granular Bed & Surround
	<0.6m	Class A Concrete Surround

10. The following concrete mixes are to be used (all in accordance with BS5328):-

Location	Mix Reference
Concrete surround to pipes	GEN3
Concrete base & surround to manholes	GEN3

11. All in situ concrete to be sulphate resisting.
All precast concrete products (ie pipes, manholes, etc) are to be sulphate resisting.

12. Granolithic concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the specification (min thk. 20mm).

Pre-formed channels are to be used in all manholes with 300mm dia pipes or less.
Pre-cast concrete seating rings shall NOT be used on Adoptable Manholes.

13. All connections to be turned in direction of flow using pipe bends.

14. Manhole covers & frames to be ductile iron to BS EN124 & as detailed on FAIRHURST drawing 104264/2036 - Manhole Schedules.

15. The Principal Contractor shall be responsible for checking the existing line and invert levels of any connection points for both the foul and surface water systems, prior to undertaking installation of any new drainage works. Any deviation to the levels and positions indicated on the drawing should be brought to the attention of the Project Engineer.

16. Road gully connections to be 150mm diameter laid at a minimum gradient of 1:150 unless noted otherwise.

17. All polypropylene inspection chambers shall be in accordance with BS7158.

18. All drains to be tested prior to backfilling, after backfilling and upon completion of hard landscaping, in addition all drains to be inspected by CCTV methods prior to hard landscaping.

19. Surface water Linear Drainage Channels, unless noted otherwise, are to be 400 MD 1000 0100 with BS EN124 0400 class ductile iron 'hedgehog' grating, or equivalent for the MD types. Linear channel sumps are to have a silt trap and roddable connection to main drainage unless specified otherwise.

20. All connections to foul and surface water plot manholes to be 100mm unless indicated otherwise.

21. Location of plot manholes is indicative only.

Rev.	Date	Description	Drawn	Checked	Approved
C	29/04/21	DRAWING REVISED TO SUIT UPDATED SITE LAYOUT.	JF	JM	MT
B	19/08/19	CAR PARK ADDED TO COMMERCIAL SITE. DRAINAGE AMENDED TO SUIT.	SL	AC	JM
A	22/11/16	NON-RETURN VALVE ADDED TO MH S102. HYDROBRAKE INFORMATION ADDED TO MH S112.	JH	RF	SB

KEY

Existing

6m Drainage easement

Surface water drainage with manhole

Foul water drainage with manhole

Combined drainage with manhole

Proposed

Surface water drainage with manhole

Surface water polypropylene inspection chamber (PPIC)

Surface water road gully and lead

Foul water drainage with manhole

Foul water polypropylene inspection chamber (PPIC)

Surface water gully to be connected through top of tank via top hat connector.

BD• Surface water backdrop

Surface water plot drainage

Foul water plot drainage

Non-return valve (NRV)

Client:

G & AM LAWSON

Project Title:

HIGH STILE GARDENS,
HENSLINGHAM

Drawing Title:

PROPOSED DRAINAGE

FAIRHURST

1 Armgrove Court, Barrack Road,
Newcastle-upon-Tyne, NE4 6QB
Tel: 0191 721 5505 Fax: 0844 381 4412

Scale at A1:
1:250

Status:
For Approval

Drawn:
JH

Checked:
JM

Approved:
SB

Date:
12/09/16

Date:
07/11/16

Date:
07/11/16

Drawing No.:
104264/2032

Revision:
C