

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Catchment Area

Type : Catchment Area

Area (ha)	0.005
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.005	0.750	100

Weighted Averages

Area (ha)	0.005
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (1)

Type : Catchment Area

Area (ha)	0.018
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.018	0.750	100

Weighted Averages

Area (ha)	0.018
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (2)

Type : Catchment Area

Area (ha)	0.018
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.018	0.750	100

Weighted Averages

Area (ha)	0.018
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (3)

Type : Catchment Area

Area (ha)	0.009
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.009	0.750	100

Weighted Averages

Area (ha)	0.009
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (4)

Type : Catchment Area

Area (ha)	0.005
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.005	0.750	100

Weighted Averages

Area (ha)	0.005
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (5)

Type : Catchment Area

Area (ha)	0.018
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.018	0.750	100

Weighted Averages

Area (ha)	0.018
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (6)

Type : Catchment Area

Area (ha)	0.018
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.018	0.750	100

Weighted Averages

Area (ha)	0.018
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (7)

Type : Catchment Area

Area (ha)	0.009
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.009	0.750	100

Weighted Averages

Area (ha)	0.009
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (8)

Type : Catchment Area

Area (ha)	0.022
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.022	0.750	100

Weighted Averages

Area (ha)	0.022
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (9)

Type : Catchment Area

Area (ha)	0.024
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.024	0.750	100

Weighted Averages

Area (ha)	0.024
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (10)

Type : Catchment Area

Area (ha)	0.014
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.014	0.750	100

Weighted Averages

Area (ha)	0.014
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (11)

Type : Catchment Area

Area (ha)	0.013
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.013	0.750	100

Weighted Averages

Area (ha)	0.013
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (12)

Type : Catchment Area

Area (ha)	0.022
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.022	0.750	100

Weighted Averages

Area (ha)	0.022
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (13)

Type : Catchment Area

Area (ha)	0.012
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.012	0.750	100

Weighted Averages

Area (ha)	0.012
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (14)

Type : Catchment Area

Area (ha)	0.036
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.036	0.750	100

Weighted Averages

Area (ha)	0.036
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (15)

Type : Catchment Area

Area (ha)	0.019
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.019	0.750	100

Weighted Averages

Area (ha)	0.019
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (16)

Type : Catchment Area

Area (ha)	0.013
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.013	0.750	100

Weighted Averages

Area (ha)	0.013
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (17)

Type : Catchment Area

Area (ha)	0.011
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.011	0.750	100

Weighted Averages

Area (ha)	0.011
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (18)

Type : Catchment Area

Area (ha)	0.028
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.028	0.750	100

Weighted Averages

Area (ha)	0.028
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (19)

Type : Catchment Area

Area (ha)	0.012
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.012	0.750	100

Weighted Averages

Area (ha)	0.012
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (20)

Type : Catchment Area

Area (ha)	0.03
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.03	0.750	100

Weighted Averages

Area (ha)	0.03
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (21)

Type : Catchment Area

Area (ha)	0.008
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.008	0.750	100

Weighted Averages

Area (ha)	0.008
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (22)

Type : Catchment Area

Area (ha)	0.009
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.009	0.750	100

Weighted Averages

Area (ha)	0.009
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (23)

Type : Catchment Area

Area (ha)	0.022
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.022	0.750	100

Weighted Averages

Area (ha)	0.022
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (24)

Type : Catchment Area

Area (ha)	0.01
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.01	0.750	100

Weighted Averages

Area (ha)	0.01
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (25)

Type : Catchment Area

Area (ha)	0.025
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.025	0.750	100

Weighted Averages

Area (ha)	0.025
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (26)

Type : Catchment Area

Area (ha)	0.027
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.027	0.750	100

Weighted Averages

Area (ha)	0.027
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (27)

Type : Catchment Area

Area (ha)	0.007
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.007	0.750	100

Weighted Averages

Area (ha)	0.007
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

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Catchment Area (28)

Type : Catchment Area

Area (ha)	0.003
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Preliminary Sizing

Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100
Time of Concentration (mins)	5

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Land Use/Soil Type

Land Use Properties

Name	Area (ha)	Volumetric Runoff Coefficient	Percentage Impervious (%)
Default	0.003	0.750	100

Weighted Averages

Area (ha)	0.003
Volumetric Runoff Coefficient	0.750
Percentage Impervious (%)	100

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
S23	Manhole	343600.437	397167.202	41.360	1.204	40.156	Circular	0.600
S24	Manhole	343643.900	397159.597	42.120	2.222	39.898	Circular	0.600
S25	Manhole	343682.030	397153.321	42.870	3.128	39.742	Circular	0.600
S22	Manhole	343678.979	397134.793	42.590	2.944	39.646	Circular	0.600
S19	Manhole	343677.983	397128.817	42.590	2.972	39.618	Circular	0.600
S16	Manhole	343675.211	397112.195	42.230	2.696	39.534	Circular	1.200
SFC	Manhole	343673.914	397108.914	41.960	2.465	39.495	Circular	2.100
Manhole S08	Manhole	343720.670	397076.960	41.690	3.232	38.458	Circular	1.200
Manhole S09	Manhole	343734.551	397062.949	41.690	4.190	37.500	Circular	1.200
S20	Manhole	343620.677	397144.290	41.670	0.975	40.695	Circular	0.600
S21	Manhole	343649.681	397139.600	42.260	1.765	40.495	Circular	0.600
S17	Manhole	343619.356	397138.318	41.700	0.975	40.725	Circular	0.600
S18	Manhole	343648.791	397133.686	42.250	1.711	40.539	Circular	0.600
S00	Manhole	343558.306	397170.741	41.490	1.050	40.440	Circular	0.600
S01	Manhole	343587.587	397165.818	41.400	1.158	40.242	Circular	0.600
S02	Manhole	343592.987	397161.598	41.350	1.204	40.146	Circular	0.450
S03	Manhole	343590.254	397146.840	41.390	1.344	40.046	Circular	0.600
S06	Manhole	343610.802	397116.324	41.570	0.600	40.970	Circular	0.600
S23a	Manhole	343614.346	397164.755	41.583	1.505	40.078	Circular	0.600
S07	Manhole	343672.084	397106.237	41.760	1.151	40.609	Circular	1.200
S26	Manhole	343672.707	397137.084	42.560	1.060	41.500	Circular	0.600
S27	Manhole	343653.009	397140.327	42.330	0.963	41.367	Circular	0.600
S28	Manhole	343632.350	397143.727	41.910	0.683	41.227	Circular	0.600
S29	Manhole	343620.120	397145.740	41.670	0.670	41.000	Circular	0.600
S30	Manhole	343614.675	397136.333	41.730	1.200	40.530	Circular	0.600
S32	Manhole	343611.930	397120.780	41.750	1.850	39.900	Circular	0.600
S11	Manhole	343604.312	397148.416	41.570	0.950	40.620	Circular	0.450
S04	Manhole	343609.445	397118.339	41.558	1.684	39.875	Circular	1.200
S23b	Manhole	343612.874	397156.910	41.550	0.606	40.944	Circular	0.450
S03a	Manhole	343602.404	397128.817	41.512	1.568	39.944	Circular	0.600
S03b	Manhole	343605.865	397131.352	41.790	0.600	41.190	Circular	0.450

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Name	Lock
S23	None
S24	None
S25	None
S22	None
S19	None
S16	None
SFC	None
Manhole S08	None
Manhole S09	None
S20	None
S21	None
S17	None
S18	None
S00	None
S01	None
S02	None
S03	None
S06	None
S23a	None
S07	None
S26	None
S27	None
S28	None
S29	None
S30	None
S32	None
S11	None
S04	None
S23b	None
S03a	None
S03b	None

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		

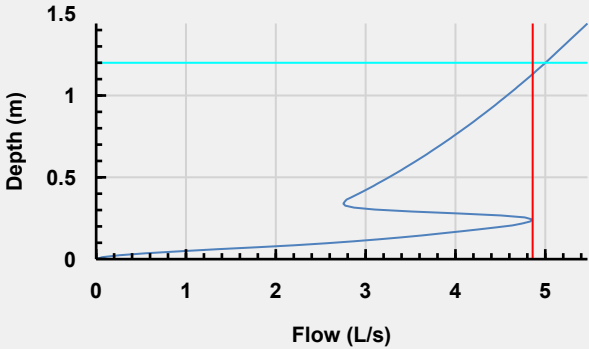


Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
S23	Inlet	Catchment Area (10)	(None)	No Restriction
S24	Inlet (1)	Catchment Area (24)	(None)	No Restriction
	Inlet (2)	Pipe 22a	(None)	No Restriction
S25	Inlet (3)	Catchment Area (22)	(None)	No Restriction
	Inlet	Pipe 23	(None)	No Restriction
S22	Inlet (1)	Catchment Area (27)	(None)	No Restriction
	Inlet	Pipe 24	(None)	No Restriction
S19	Inlet (1)	Pipe 20	(None)	No Restriction
	Inlet (2)	Catchment Area (26)	(None)	No Restriction
	Inlet	Pipe 21	(None)	No Restriction
	Inlet (1)	Pipe 17	(None)	No Restriction
S16	Inlet (2)	Catchment Area (19)	(None)	No Restriction
	Inlet (3)	Catchment Area (28)	(None)	No Restriction
SFC	Inlet	Pipe 18	(None)	No Restriction
	Inlet (1)	Catchment Area (21)	(None)	No Restriction
	Inlet	Pipe 15	(None)	No Restriction
Manhole S08	Inlet (1)	Pipe 7	(None)	No Restriction
	Inlet (2)	Pipe 25	(None)	No Restriction
Manhole S09	Inlet	Pipe 8	(None)	No Restriction
S20	Inlet	Pipe 39	(None)	No Restriction
S21	Inlet	Catchment Area (23)	(None)	No Restriction
	Inlet (1)	Pipe 19	(None)	No Restriction
S17	Inlet (1)	Catchment Area (25)	(None)	No Restriction
	Inlet	Catchment Area (16)	(None)	No Restriction
S18	Inlet	Pipe 16	(None)	No Restriction
	Inlet (1)	Catchment Area (17)	(None)	No Restriction
S00	Inlet	Catchment Area (8)	(None)	No Restriction
S01	Inlet	Pipe 0	(None)	No Restriction
	Inlet (1)	Catchment Area (9)	(None)	No Restriction
S03	S02	Pipe 1	(None)	No Restriction
	Inlet	Pipe 2	(None)	No Restriction
	Inlet (1)	Catchment Area (11)	(None)	No Restriction
S06	Inlet (2)	Pipe 10	(None)	No Restriction
	Inlet	Catchment Area (13)	(None)	No Restriction
	Inlet (1)	Catchment Area (14)	(None)	No Restriction
S23a	Inlet (2)	Catchment Area (15)	(None)	No Restriction
	Inlet	Pipe 22	(None)	No Restriction
	Inlet (1)	Pipe22b	(None)	No Restriction
S07	Inlet	Catchment Area (18)	(None)	No Restriction
	Inlet (1)	Pipe 6	(None)	No Restriction
S26	Inlet	Catchment Area (4)	(None)	No Restriction
S27	Inlet	Pipe 26	(None)	No Restriction
	Inlet (1)	Catchment Area (5)	(None)	No Restriction
S28	Inlet	Pipe 27	(None)	No Restriction
	Inlet (1)	Catchment Area (6)	(None)	No Restriction
S29	Inlet	Pipe 28	(None)	No Restriction
	Inlet (1)	Catchment Area (7)	(None)	No Restriction
S30	Inlet	Pipe 29	(None)	No Restriction
S32	Inlet	Pipe 30	(None)	No Restriction
S04	Inlet	Pipe 3a	(None)	No Restriction
S23b	Inlet	Catchment Area (12)	(None)	No Restriction
S03a	Inlet	Pipe 3	(None)	No Restriction
	Inlet (1)	Pipe 3b	(None)	No Restriction

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Junctions Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
S23	Outlet	Pipe 22	Free Discharge
S24	Outlet	Pipe 23	Free Discharge
S25	Outlet	Pipe 24	Free Discharge
S22	Outlet	Pipe 21	Free Discharge
S19	Outlet	Pipe 18	Free Discharge
S16	Outlet	Pipe 15	Free Discharge
SFC	Outlet	Pipe 8	Hydro-Brake®
	Invert Level (m)	39.495	
	Design Depth (m)	1.200	
	Design Flow (L/s)	5.0	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☐	
	Unit Reference	CHE-0098-5000-1200-5000	
			
Manhole S08	Outlet	Pipe 39	Free Discharge
S20	Outlet	Pipe 19	Free Discharge
S21	Outlet	Pipe 20	Free Discharge
S17	Outlet	Pipe 16	Free Discharge
S18	Outlet	Pipe 17	Free Discharge
S00	Outlet	Pipe 0	Free Discharge
S01	Outlet	Pipe 1	Free Discharge
S02	Outlet	Pipe 2	Free Discharge
S03	Outlet	Pipe 3	Free Discharge
S06	Outlet	Pipe 6	Free Discharge
S23a	Outlet	Pipe 22a	Free Discharge
S07	Outlet	Pipe 7	Free Discharge
S26	Outlet	Pipe 26	Free Discharge
S27	Outlet	Pipe 27	Free Discharge
S28	Outlet	Pipe 28	Free Discharge
S29	Outlet	Pipe 29	Free Discharge
S30	Outlet	Pipe 30	Free Discharge
S32	Outlet	Pipe 31	Free Discharge
S11	Outlet	Pipe 10	Free Discharge
S04	Outlet	Pipe 5	Free Discharge
S23b	Outlet	Pipe22b	Free Discharge
S03a	Outlet	Pipe 3a	Free Discharge
S03b	Outlet	Pipe 3b	Free Discharge

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Cellular Storage

Type : Cellular Storage

Dimensions	
Exceedance Level (m)	41.750
Depth (m)	1.600
Base Level (m)	39.495
Number of Crates Long	5
Number of Crates Wide	121
Number of Crates High	4
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m³)	460.455

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	Pipe 31
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Catchment Area
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Inlet Type	Point Inflow
Incoming Item(s)	Catchment Area (1)
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (3)

Inlet Type	Point Inflow
Incoming Item(s)	Catchment Area (2)
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (4)

Inlet Type	Point Inflow
Incoming Item(s)	Catchment Area (3)
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (5)

Inlet Type	Point Inflow
Incoming Item(s)	Catchment Area (20)
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (6)

Inlet Type	Point Inflow
Incoming Item(s)	Pipe 5
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	Pipe 25
Outlet Type	Free Discharge

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Connections Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
Pipe 23	38.643	Pipe	247.724		0.6	225	42.120	39.898
Pipe 24	18.778	Pipe	195.586		0.6	225	42.870	39.742
Pipe 21	6.058	Pipe	215.043		0.6	225	42.590	39.646
Pipe 18	16.851	Pipe	200.000		0.6	225	42.590	39.618
Pipe 15	3.528	Pipe	91.469		0.6	225	42.230	39.534
Pipe 8	56.632	Pipe	54.611		0.6	150	41.960	39.495
Pipe 39	19.723	Pipe	20.587		0.6	150	41.690	38.458
Pipe 19	29.381	Pipe	146.894		0.6	225	41.670	40.695
Pipe 20	29.689	Pipe	34.970		0.6	225	42.260	40.495
Pipe 16	29.797	Pipe	160.000		0.6	225	41.700	40.725
Pipe 17	29.596	Pipe	32.136		0.6	225	42.250	40.539
Pipe 0	29.692	Pipe	149.958		0.6	150	41.490	40.440
Pipe 1	6.853	Pipe	71.390		0.6	150	41.400	40.242
Pipe 2	15.009	Pipe	150.551		0.6	150	41.350	40.146
Pipe 22a	30.001	Pipe	166.671		0.6	225	41.583	40.078
Pipe 6	62.107	Pipe	172.042		0.6	225	41.570	40.970
Pipe 7	3.243	Pipe	2.911		0.6	225	41.760	40.609
Pipe 26	19.963	Pipe	150.000		0.6	150	42.560	41.500
Pipe 27	20.937	Pipe	150.000		0.6	150	42.330	41.367
Pipe 28	12.394	Pipe	54.520		0.6	225	41.910	41.227
Pipe 29	10.869	Pipe	23.126		0.6	225	41.670	41.000
Pipe 30	15.794	Pipe	25.070		0.6	225	41.730	40.530
Pipe 31	1.697	Pipe	339.421		0.6	225	41.750	39.900
Pipe 25	2.023	Pipe	0.000		0.6	525	41.750	39.495
Pipe 3	21.736	Pipe	212.467		0.6	225	41.390	40.046
Pipe 22	14.122	Pipe	181.431		0.6	225	41.360	40.156
Pipe 10	14.146	Pipe	24.658		0.6	150	41.570	40.620
Pipe 5	2.946	Pipe	7.762		0.6	225	41.558	39.875
Pipe22b	7.982	Pipe	9.217		0.6	150	41.550	40.944
Pipe 3a	12.623	Pipe	181.647		0.6	225	41.512	39.944
Pipe 3b	4.290	Pipe	3.443		0.6	150	41.790	41.190

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Connections Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance	Wall Thickness (mm)
Pipe 23	42.870	39.742		None		(None)	(None)	0
Pipe 24	42.590	39.646		None		(None)	(None)	0
Pipe 21	42.590	39.618		None		(None)	(None)	0
Pipe 18	42.230	39.534		None		(None)	(None)	0
Pipe 15	41.960	39.495		None		(None)	(None)	0
Pipe 8	41.690	38.458		None	5.5	(None)	(None)	0
Pipe 39	41.690	37.500		None		(None)	(None)	0
Pipe 19	42.260	40.495		None		(None)	(None)	0
Pipe 20	42.590	39.646		None		(None)	(None)	0
Pipe 16	42.250	40.539		None		(None)	(None)	0
Pipe 17	42.590	39.618		None		(None)	(None)	0
Pipe 0	41.400	40.242		None		(None)	(None)	0
Pipe 1	41.350	40.146		None		(None)	(None)	0
Pipe 2	41.390	40.046		None		(None)	(None)	0
Pipe 22a	42.120	39.898		None		(None)	(None)	0
Pipe 6	41.760	40.609		None		(None)	(None)	0
Pipe 7	41.960	39.495		None		(None)	(None)	0
Pipe 26	42.330	41.367		None		(None)	(None)	0
Pipe 27	41.910	41.227		None		(None)	(None)	0
Pipe 28	41.670	41.000		None		(None)	(None)	0
Pipe 29	41.730	40.530		None		(None)	(None)	0
Pipe 30	41.750	39.900		None		(None)	(None)	0
Pipe 31	41.750	39.895		All		(None)	(None)	0
Pipe 25	41.960	39.495		None		(None)	(None)	0
Pipe 3	41.512	39.944		None		(None)	(None)	0
Pipe 22	41.583	40.078		None		(None)	(None)	0
Pipe 10	41.390	40.046		None		(None)	(None)	0
Pipe 5	41.750	39.495		None		(None)	(None)	0
Pipe22b	41.583	40.078		None		(None)	(None)	0
Pipe 3a	41.558	39.875		None		(None)	(None)	0
Pipe 3b	41.512	39.944		None		(None)	(None)	0

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Connections Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Material	Trench Width (mm)	Bedding Material	Surrounding Material
Pipe 23		0		
Pipe 24		0		
Pipe 21		0		
Pipe 18		0		
Pipe 15		0		
Pipe 8		0		
Pipe 39		0		
Pipe 19		0		
Pipe 20		0		
Pipe 16		0		
Pipe 17		0		
Pipe 0		0		
Pipe 1		0		
Pipe 2		0		
Pipe 22a		0		
Pipe 6		0		
Pipe 7		0		
Pipe 26		0		
Pipe 27		0		
Pipe 28		0		
Pipe 29		0		
Pipe 30		0		
Pipe 31		0		
Pipe 25		0		
Pipe 3		0		
Pipe 22		0		
Pipe 10		0		
Pipe 5		0		
Pipe22b		0		
Pipe 3a		0		
Pipe 3b		0		

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S23	41.360 40.156	Diameter / Length: 0.600					Manhole
E:343600.437 N:397167.202	1.204						
			{a} Pipe 22	Pipe	40.156	Diam/Width:225	Not Applicable
S24	42.120 39.898	Diameter / Length: 0.600	{1} Pipe 22a	Pipe	39.898	Diam/Width:225	Manhole
E:343643.900 N:397159.597	2.222						
			{a} Pipe 23	Pipe	39.898	Diam/Width:225	Not Applicable
S25	42.870 39.742	Diameter / Length: 0.600	{1} Pipe 23	Pipe	39.742	Diam/Width:225	Manhole
E:343682.030 N:397153.321	3.128						
			{a} Pipe 24	Pipe	39.742	Diam/Width:225	Not Applicable
S22	42.590 39.646	Diameter / Length: 0.600	{1} Pipe 24	Pipe	39.646	Diam/Width:225	Manhole
E:343678.979 N:397134.793	2.944		{2} Pipe 20	Pipe	39.646	Diam/Width:225	
			{a} Pipe 21	Pipe	39.646	Diam/Width:225	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S19	42.590 39.618	Diameter / Length: 0.600	{1} Pipe 21	Pipe	39.618	Diam/Width:225	Manhole
E:343677.983 N:397128.817	2.972		{2} Pipe 17	Pipe	39.618	Diam/Width:225	
			{a} Pipe 18	Pipe	39.618	Diam/Width:225	Not Applicable
S16	42.230 39.534	Diameter / Length: 1.200	{1} Pipe 18	Pipe	39.534	Diam/Width:225	Manhole
E:343675.211 N:397112.195	2.696						
			{a} Pipe 15	Pipe	39.534	Diam/Width:225	Not Applicable
SFC	41.960 39.495	Diameter / Length: 2.100	{1} Pipe 15	Pipe	39.495	Diam/Width:225	Manhole
E:343673.914 N:397108.914	2.465		{2} Pipe 7	Pipe	39.495	Diam/Width:225	
			{3} Pipe 25	Pipe	39.495	Diam/Width:525	
			{a} Pipe 8	Pipe	39.495	Diam/Width:150	Not Applicable
Manhole S08	41.690 38.458	Diameter / Length: 1.200	{1} Pipe 8	Pipe	38.458	Diam/Width:150	Manhole
E:343720.670 N:397076.960	3.232						
			{a} Pipe 39	Pipe	38.458	Diam/Width:150	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Manhole S09	41.690 37.500	Diameter / Length: 1.200	{1} Pipe 39	Pipe	37.500	Diam/Width:150	Manhole
E:343734.551	4.190						
N:397062.949							Not Applicable
S20	41.670 40.695	Diameter / Length: 0.600					Manhole
E:343620.677	0.975						
N:397144.290			{a} Pipe 19	Pipe	40.695	Diam/Width:225	Not Applicable
S21	42.260 40.495	Diameter / Length: 0.600	{1} Pipe 19	Pipe	40.495	Diam/Width:225	Manhole
E:343649.681	1.765						
N:397139.600			{a} Pipe 20	Pipe	40.495	Diam/Width:225	Not Applicable
S17	41.700 40.725	Diameter / Length: 0.600					Manhole
E:343619.356	0.975						
N:397138.318			{a} Pipe 16	Pipe	40.725	Diam/Width:225	Not Applicable
S18	42.250 40.539	Diameter / Length: 0.600	{1} Pipe 16	Pipe	40.539	Diam/Width:225	Manhole
E:343648.791	1.711						
N:397133.686			{a} Pipe 17	Pipe	40.539	Diam/Width:225	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S00	41.490 40.440	Diameter / Length: 0.600					Manhole
E:343558.306 N:397170.741	1.050						
			{a} Pipe 0	Pipe	40.440	Diam/Width:150	Not Applicable
S01	41.400 40.242	Diameter / Length: 0.600	{1} Pipe 0	Pipe	40.242	Diam/Width:150	Manhole
E:343587.587 N:397165.818	1.158						
			{a} Pipe 1	Pipe	40.242	Diam/Width:150	Not Applicable
S02	41.350 40.146	Diameter / Length: 0.450	{1} Pipe 1	Pipe	40.146	Diam/Width:150	Manhole
E:343592.987 N:397161.598	1.204						
			{a} Pipe 2	Pipe	40.146	Diam/Width:150	Not Applicable
S03	41.390 40.046	Diameter / Length: 0.600	{1} Pipe 2	Pipe	40.046	Diam/Width:150	Manhole
E:343590.254 N:397146.840	1.344		{2} Pipe 10	Pipe	40.046	Diam/Width:150	
			{a} Pipe 3	Pipe	40.046	Diam/Width:225	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S06	41.570 40.970	Diameter / Length: 0.600					Manhole
E:343610.802 N:397116.324	0.600						
			{a} Pipe 6	Pipe	40.970	Diam/Width:225	Not Applicable
S23a	41.583 40.078	Diameter / Length: 0.600	{1} Pipe 22	Pipe	40.078	Diam/Width:225	Manhole
E:343614.346 N:397164.755	1.505		{2} Pipe22b	Pipe	40.078	Diam/Width:150	
			{a} Pipe 22a	Pipe	40.078	Diam/Width:225	Not Applicable
S07	41.760 40.609	Diameter / Length: 1.200	{1} Pipe 6	Pipe	40.609	Diam/Width:225	Manhole
E:343672.084 N:397106.237	1.151						
			{a} Pipe 7	Pipe	40.609	Diam/Width:225	Not Applicable
S26	42.560 41.500	Diameter / Length: 0.600					Manhole
E:343672.707 N:397137.084	1.060						
			{a} Pipe 26	Pipe	41.500	Diam/Width:150	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S27	42.330 41.367	Diameter / Length: 0.600	{1} Pipe 26	Pipe	41.367	Diam/Width:150	Manhole
E:343653.009 N:397140.327	0.963						
			{a} Pipe 27	Pipe	41.367	Diam/Width:150	Not Applicable
S28	41.910 41.227	Diameter / Length: 0.600	{1} Pipe 27	Pipe	41.227	Diam/Width:150	Manhole
E:343632.350 N:397143.727	0.683						
			{a} Pipe 28	Pipe	41.227	Diam/Width:225	Not Applicable
S29	41.670 41.000	Diameter / Length: 0.600	{1} Pipe 28	Pipe	41.000	Diam/Width:225	Manhole
E:343620.120 N:397145.740	0.670						
			{a} Pipe 29	Pipe	41.000	Diam/Width:225	Not Applicable
S30	41.730 40.530	Diameter / Length: 0.600	{1} Pipe 29	Pipe	40.530	Diam/Width:225	Manhole
E:343614.675 N:397136.333	1.200						
			{a} Pipe 30	Pipe	40.530	Diam/Width:225	Not Applicable
S32	41.750 39.900	Diameter / Length: 0.600	{1} Pipe 30	Pipe	39.900	Diam/Width:225	Manhole
E:343611.930 N:397120.780	1.850						
			{a} Pipe 31	Pipe	39.900	Diam/Width:225	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S11	41.570 40.620	Diameter / Length: 0.450					Manhole
E:343604.312 N:397148.416	0.950						
			{a} Pipe 10	Pipe	40.620	Diam/Width:150	Not Applicable
S04	41.558 39.875	Diameter / Length: 1.200	{1} Pipe 3a	Pipe	39.875	Diam/Width:225	Manhole
E:343609.445 N:397118.339	1.684						
			{a} Pipe 5	Pipe	39.875	Diam/Width:225	Not Applicable
S23b	41.550 40.944	Diameter / Length: 0.450					Manhole
E:343612.874 N:397156.910	0.606						
			{a} Pipe22b	Pipe	40.944	Diam/Width:150	Not Applicable
S03a	41.512 39.944	Diameter / Length: 0.600	{1} Pipe 3	Pipe	39.944	Diam/Width:225	Manhole
E:343602.404 N:397128.817	1.568		{2} Pipe 3b	Pipe	39.944	Diam/Width:150	
			{a} Pipe 3a	Pipe	39.944	Diam/Width:225	Not Applicable

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S03b	41.790 41.190	Diameter / Length: 0.450					Manhole
E:343605.865 N:397131.352	0.600						
			{a} Pipe 3b	Pipe	41.190	Diam/Width:150	Not Applicable

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Cellular Storage		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (1)	Cellular Storage		Time of Concentration	0.018	100	0	100	0.018
Catchment Area (2)	Cellular Storage		Time of Concentration	0.018	100	0	100	0.018
Catchment Area (3)	Cellular Storage		Time of Concentration	0.009	100	0	100	0.009
Catchment Area (4)	S26		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (5)	S27		Time of Concentration	0.018	100	0	100	0.018
Catchment Area (6)	S28		Time of Concentration	0.018	100	0	100	0.018
Catchment Area (7)	S29		Time of Concentration	0.009	100	0	100	0.009
Catchment Area (8)	S00		Time of Concentration	0.022	100	0	100	0.022
Catchment Area (9)	S01		Time of Concentration	0.024	100	0	100	0.024
Catchment Area (10)	S23		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (11)	S03		Time of Concentration	0.013	100	0	100	0.013
Catchment Area (12)	S23b		Time of Concentration	0.022	100	0	100	0.022
Catchment Area (13)	S06		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (14)	S06		Time of Concentration	0.036	100	0	100	0.036
Catchment Area (15)	S06		Time of Concentration	0.019	100	0	100	0.019
Catchment Area (16)	S17		Time of Concentration	0.013	100	0	100	0.013
Catchment Area (17)	S18		Time of Concentration	0.011	100	0	100	0.011
Catchment Area (18)	S07		Time of Concentration	0.028	100	0	100	0.028
Catchment Area (19)	S19		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (20)	Cellular Storage		Time of Concentration	0.030	100	0	100	0.030

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Catchment Area (21)	S16		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (22)	S24		Time of Concentration	0.009	100	0	100	0.009
Catchment Area (23)	S20		Time of Concentration	0.022	100	0	100	0.022
Catchment Area (24)	S24		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (25)	S21		Time of Concentration	0.025	100	0	100	0.025
Catchment Area (26)	S22		Time of Concentration	0.027	100	0	100	0.027
Catchment Area (27)	S25		Time of Concentration	0.007	100	0	100	0.007
Catchment Area (28)	S19		Time of Concentration	0.003	100	0	100	0.003
TOTAL		0.0		0.467				0.467

Project: Kirkby BESS L33 7TT	Date: 03/02/2026			
	Designed by: NS	Checked by:		Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG			

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

FSR

Type: FSR

Return Period (years)	1.0
Region	England And Wales
M5-60 (mm)	19.4
Ratio R	0.390

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	0.750
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



Manhole Options

Apply Offset ☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project: Kirkby BESS L33 7TT	Date: 03/02/2026			
	Designed by: NS	Checked by:	Approved By:	
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
Manhole S09	Free Discharge			

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Rainfall Analysis Criteria	Company Address: Barnsley Marshall Limited B60 4FG		



Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FSR	Type: FSR
-----	-----------

Region	England And Wales
M5-60 (mm)	19.4
Ratio R	0.390
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
1.0	0.000
2.0	0.000
30.0	40.000
100.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
240	480
360	720
480	960
960	1920
1440	2880

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Inflows Summary Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 1 years: +0 %: 15 mins: Summer	0.01	0.7	0.294
Catchment Area (1)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.3	0.999
Catchment Area (2)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.3	1.011
Catchment Area (3)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.2	0.507
Catchment Area (4)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	0.7	0.294
Catchment Area (5)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.3	1.011
Catchment Area (6)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.3	1.011
Catchment Area (7)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.2	0.507
Catchment Area (8)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.8	1.230
Catchment Area (9)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	3.1	1.362
Catchment Area (10)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.8	0.786
Catchment Area (11)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.7	0.741
Catchment Area (12)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.8	1.233
Catchment Area (13)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.5	0.663

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Catchment Area (14)	FSR: 1 years: +0 %: 15 mins: Summer	0.04	4.6	1.988
Catchment Area (15)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.4	1.050
Catchment Area (16)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.6	0.699
Catchment Area (17)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.4	0.588
Catchment Area (18)	FSR: 1 years: +0 %: 15 mins: Summer	0.03	3.6	1.547
Catchment Area (19)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.6	0.684
Catchment Area (20)	FSR: 1 years: +0 %: 15 mins: Summer	0.03	3.8	1.661
Catchment Area (21)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.0	0.447
Catchment Area (22)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.2	0.513
Catchment Area (23)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	2.9	1.248
Catchment Area (24)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	1.3	0.570
Catchment Area (25)	FSR: 1 years: +0 %: 15 mins: Summer	0.02	3.2	1.383
Catchment Area (26)	FSR: 1 years: +0 %: 15 mins: Summer	0.03	3.5	1.502
Catchment Area (27)	FSR: 1 years: +0 %: 15 mins: Summer	0.01	0.9	0.375
Catchment Area (28)	FSR: 1 years: +0 %: 15 mins: Summer	0.00	0.3	0.153

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG	



FSR: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 2 years: +0 %: 15 mins: Summer	0.01	0.9	0.375
Catchment Area (1)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.0	1.293
Catchment Area (2)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.0	1.305
Catchment Area (3)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.5	0.660
Catchment Area (4)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	0.9	0.375
Catchment Area (5)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.0	1.305
Catchment Area (6)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.0	1.305
Catchment Area (7)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.5	0.660
Catchment Area (8)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.7	1.595
Catchment Area (9)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	4.1	1.757
Catchment Area (10)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	2.4	1.020
Catchment Area (11)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	2.2	0.957
Catchment Area (12)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.7	1.598
Catchment Area (13)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	2.0	0.858

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Catchment Area (14)	FSR: 2 years: +0 %: 15 mins: Summer	0.04	5.9	2.573
Catchment Area (15)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.1	1.353
Catchment Area (16)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	2.1	0.903
Catchment Area (17)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.8	0.762
Catchment Area (18)	FSR: 2 years: +0 %: 15 mins: Summer	0.03	4.6	2.006
Catchment Area (19)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	2.0	0.882
Catchment Area (20)	FSR: 2 years: +0 %: 15 mins: Summer	0.03	5.0	2.150
Catchment Area (21)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.3	0.573
Catchment Area (22)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.5	0.666
Catchment Area (23)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	3.7	1.613
Catchment Area (24)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.7	0.741
Catchment Area (25)	FSR: 2 years: +0 %: 15 mins: Summer	0.02	4.1	1.790
Catchment Area (26)	FSR: 2 years: +0 %: 15 mins: Summer	0.03	4.5	1.946
Catchment Area (27)	FSR: 2 years: +0 %: 15 mins: Summer	0.01	1.1	0.486
Catchment Area (28)	FSR: 2 years: +0 %: 15 mins: Summer	0.00	0.4	0.195

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 30 years: +40 %: 15 mins: Summer	0.01	2.3	1.002
Catchment Area (1)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	7.9	3.434
Catchment Area (2)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	8.0	3.455
Catchment Area (3)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	4.0	1.743
Catchment Area (4)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	2.3	1.002
Catchment Area (5)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	8.0	3.455
Catchment Area (6)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	8.0	3.455
Catchment Area (7)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	4.0	1.743
Catchment Area (8)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	9.7	4.229
Catchment Area (9)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	10.8	4.670
Catchment Area (10)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	6.3	2.711
Catchment Area (11)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	5.9	2.540
Catchment Area (12)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	9.8	4.238
Catchment Area (13)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	5.3	2.280

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Catchment Area (14)	FSR: 30 years: +40 %: 15 mins: Summer	0.04	15.7	6.827
Catchment Area (15)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	8.3	3.596
Catchment Area (16)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	5.5	2.399
Catchment Area (17)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	4.7	2.028
Catchment Area (18)	FSR: 30 years: +40 %: 15 mins: Summer	0.03	12.3	5.321
Catchment Area (19)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	5.4	2.345
Catchment Area (20)	FSR: 30 years: +40 %: 15 mins: Summer	0.03	13.2	5.714
Catchment Area (21)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	3.5	1.524
Catchment Area (22)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	4.1	1.770
Catchment Area (23)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	9.9	4.277
Catchment Area (24)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	4.5	1.968
Catchment Area (25)	FSR: 30 years: +40 %: 15 mins: Summer	0.02	10.9	4.745
Catchment Area (26)	FSR: 30 years: +40 %: 15 mins: Summer	0.03	11.9	5.156
Catchment Area (27)	FSR: 30 years: +40 %: 15 mins: Summer	0.01	3.0	1.287
Catchment Area (28)	FSR: 30 years: +40 %: 15 mins: Summer	0.00	1.2	0.522

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		



FSR: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 100 years: +40 %: 15 mins: Summer	0.01	3.0	1.305
Catchment Area (1)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	10.3	4.448
Catchment Area (2)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	10.3	4.481
Catchment Area (3)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	5.2	2.261
Catchment Area (4)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	3.0	1.305
Catchment Area (5)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	10.3	4.481
Catchment Area (6)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	10.3	4.481
Catchment Area (7)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	5.2	2.261
Catchment Area (8)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	12.6	5.477
Catchment Area (9)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	14.0	6.053
Catchment Area (10)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	8.1	3.512
Catchment Area (11)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	7.6	3.296
Catchment Area (12)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	12.7	5.498
Catchment Area (13)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	6.8	2.951

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Catchment Area (14)	FSR: 100 years: +40 %: 15 mins: Summer	0.04	20.4	8.845
Catchment Area (15)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	10.8	4.664
Catchment Area (16)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	7.2	3.104
Catchment Area (17)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	6.1	2.630
Catchment Area (18)	FSR: 100 years: +40 %: 15 mins: Summer	0.03	15.9	6.892
Catchment Area (19)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	7.0	3.044
Catchment Area (20)	FSR: 100 years: +40 %: 15 mins: Summer	0.03	17.1	7.402
Catchment Area (21)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	4.6	1.977
Catchment Area (22)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	5.3	2.288
Catchment Area (23)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	12.8	5.543
Catchment Area (24)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	5.9	2.543
Catchment Area (25)	FSR: 100 years: +40 %: 15 mins: Summer	0.02	14.2	6.149
Catchment Area (26)	FSR: 100 years: +40 %: 15 mins: Summer	0.03	15.4	6.688
Catchment Area (27)	FSR: 100 years: +40 %: 15 mins: Summer	0.01	3.8	1.671
Catchment Area (28)	FSR: 100 years: +40 %: 15 mins: Summer	0.00	1.6	0.678

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		





FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S23	FSR: 1 years: +0 %: 15 mins: Summer	41.36 0	40.15 6	40.188	0.033	1.8	0.009	0.000	1.8	0.784	OK
S24	FSR: 1 years: +0 %: 15 mins: Summer	42.12 0	39.89 8	39.965	0.067	6.7	0.019	0.000	5.9	3.091	OK
S25	FSR: 1 years: +0 %: 15 mins: Summer	42.87 0	39.74 2	39.802	0.060	6.7	0.017	0.000	6.0	3.446	OK
S22	FSR: 1 years: +0 %: 15 mins: Summer	42.59 0	39.64 6	39.759	0.113	15.1	0.032	0.000	13.2	7.560	OK
S19	FSR: 1 years: +0 %: 15 mins: Summer	42.59 0	39.61 8	39.733	0.115	17.8	0.033	0.000	15.7	9.664	OK
S16	FSR: 1 years: +0 %: 15 mins: Summer	42.23 0	39.53 4	39.701	0.168	16.7	0.190	0.000	16.5	10.014	OK
SFC	FSR: 1 years: +0 %: 15 mins: Summer	41.96 0	39.49 5	39.694	0.199	27.6	0.690	0.000	3.8	15.260	Surcharge d
Manhole S08	FSR: 1 years: +0 %: 15 mins: Summer	41.69 0	38.45 8	38.490	0.032	3.8	0.036	0.000	3.7	2.595	OK
Manhole S09	FSR: 1 years: +0 %: 15 mins: Summer	41.69 0	37.50 0	37.531	0.031	3.7	0.000	0.000	3.7	2.595	OK
S20	FSR: 1 years: +0 %: 15 mins: Summer	41.67 0	40.69 5	40.734	0.039	2.9	0.011	0.000	2.7	1.246	OK
S21	FSR: 1 years: +0 %: 15 mins: Summer	42.26 0	40.49 5	40.532	0.037	5.9	0.011	0.000	5.6	2.633	OK
S17	FSR: 1 years: +0 %: 15 mins: Summer	41.70 0	40.72 5	40.756	0.031	1.6	0.009	0.000	1.5	0.698	OK
S18	FSR: 1 years: +0 %: 15 mins: Summer	42.25 0	40.53 9	40.564	0.025	2.9	0.007	0.000	2.7	1.288	OK
S00	FSR: 1 years: +0 %: 15 mins: Summer	41.49 0	40.44 0	40.484	0.044	2.8	0.012	0.000	2.7	1.227	OK
S01	FSR: 1 years: +0 %: 15 mins: Summer	41.40 0	40.24 2	40.299	0.057	5.8	0.016	0.000	5.5	2.587	OK
S02	FSR: 1 years: +0 %: 15 mins: Summer	41.35 0	40.14 6	40.212	0.066	5.5	0.011	0.000	5.3	2.583	OK
S03	FSR: 1 years: +0 %: 15 mins: Summer	41.39 0	40.04 6	40.114	0.068	7.0	0.019	0.000	6.5	3.323	OK
S06	FSR: 1 years: +0 %: 15 mins: Summer	41.57 0	40.97 0	41.046	0.076	8.5	0.022	0.000	7.8	3.696	OK
S23a	FSR: 1 years: +0 %: 15 mins: Summer	41.58 3	40.07 8	40.127	0.049	4.6	0.014	0.000	4.2	2.013	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026					
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: NS	Checked by:	Approved By:			
		Company Address: Barnsley Marshall Limited B60 4FG					

S07	FSR: 1 years: +0 %: 15 mins: Summer	41.76 0	40.60 9	40.636	0.027	11.4	0.030	0.000	11.1	5.242	OK
S26	FSR: 1 years: +0 %: 15 mins: Summer	42.56 0	41.50 0	41.521	0.021	0.7	0.006	0.000	0.6	0.292	OK
S27	FSR: 1 years: +0 %: 15 mins: Summer	42.33 0	41.36 7	41.413	0.046	3.0	0.013	0.000	2.8	1.299	OK
S28	FSR: 1 years: +0 %: 15 mins: Summer	41.91 0	41.22 7	41.269	0.042	5.1	0.012	0.000	4.9	2.308	OK
S29	FSR: 1 years: +0 %: 15 mins: Summer	41.67 0	41.00 0	41.037	0.037	6.1	0.010	0.000	6.0	2.814	OK
S30	FSR: 1 years: +0 %: 15 mins: Summer	41.73 0	40.53 0	40.566	0.036	6.0	0.010	0.000	5.8	2.813	OK
S32	FSR: 1 years: +0 %: 15 mins: Summer	41.75 0	39.90 0	39.970	0.070	5.8	0.020	0.000	5.6	2.807	OK
S11	FSR: 1 years: +0 %: 15 mins: Summer	41.57 0	40.62 0	40.620	0.000	0.0	0.000	0.000	0.0	0.000	OK
S04	FSR: 1 years: +0 %: 15 mins: Summer	41.55 8	39.87 5	39.905	0.030	6.1	0.034	0.000	6.0	3.310	OK
S23b	FSR: 1 years: +0 %: 15 mins: Summer	41.55 0	40.94 4	40.966	0.022	2.8	0.004	0.000	2.8	1.232	OK
S03a	FSR: 1 years: +0 %: 15 mins: Summer	41.51 2	39.94 4	40.007	0.063	6.5	0.018	0.000	6.1	3.312	OK
S03b	FSR: 1 years: +0 %: 15 mins: Summer	41.79 0	41.19 0	41.190	0.000	0.0	0.000	0.000	0.0	0.000	OK

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		





FSR: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S23	FSR: 2 years: +0 %: 15 mins: Summer	41.36 0	40.15 6	40.193	0.037	2.4	0.010	0.000	2.3	1.018	OK
S24	FSR: 2 years: +0 %: 15 mins: Summer	42.12 0	39.89 8	39.975	0.077	8.7	0.022	0.000	7.7	4.015	OK
S25	FSR: 2 years: +0 %: 15 mins: Summer	42.87 0	39.74 2	39.812	0.070	8.8	0.020	0.000	8.0	4.479	OK
S22	FSR: 2 years: +0 %: 15 mins: Summer	42.59 0	39.64 6	39.785	0.139	19.8	0.039	0.000	17.3	9.810	OK
S19	FSR: 2 years: +0 %: 15 mins: Summer	42.59 0	39.61 8	39.762	0.144	23.3	0.041	0.000	21.1	12.537	OK
S16	FSR: 2 years: +0 %: 15 mins: Summer	42.23 0	39.53 4	39.710	0.176	22.5	0.199	0.000	23.1	12.939	OK
SFC	FSR: 2 years: +0 %: 15 mins: Summer	41.96 0	39.49 5	39.696	0.201	37.5	0.695	0.000	3.8	19.900	Surcharged
Manhole S08	FSR: 2 years: +0 %: 15 mins: Summer	41.69 0	38.45 8	38.491	0.033	4.0	0.037	0.000	4.0	3.337	OK
Manhole S09	FSR: 2 years: +0 %: 15 mins: Summer	41.69 0	37.50 0	37.532	0.032	4.0	0.000	0.000	4.0	3.337	OK
S20	FSR: 2 years: +0 %: 15 mins: Summer	41.67 0	40.69 5	40.740	0.045	3.7	0.013	0.000	3.5	1.612	OK
S21	FSR: 2 years: +0 %: 15 mins: Summer	42.26 0	40.49 5	40.537	0.042	7.7	0.012	0.000	7.3	3.408	OK
S17	FSR: 2 years: +0 %: 15 mins: Summer	41.70 0	40.72 5	40.760	0.035	2.1	0.010	0.000	2.0	0.902	OK
S18	FSR: 2 years: +0 %: 15 mins: Summer	42.25 0	40.53 9	40.567	0.028	3.7	0.008	0.000	3.5	1.666	OK
S00	FSR: 2 years: +0 %: 15 mins: Summer	41.49 0	40.44 0	40.490	0.050	3.7	0.014	0.000	3.5	1.593	OK
S01	FSR: 2 years: +0 %: 15 mins: Summer	41.40 0	40.24 2	40.309	0.067	7.5	0.019	0.000	7.2	3.348	OK
S02	FSR: 2 years: +0 %: 15 mins: Summer	41.35 0	40.14 6	40.224	0.078	7.2	0.012	0.000	6.9	3.345	OK
S03	FSR: 2 years: +0 %: 15 mins: Summer	41.39 0	40.04 6	40.125	0.079	9.1	0.022	0.000	8.5	4.301	OK
S06	FSR: 2 years: +0 %: 15 mins: Summer	41.57 0	40.97 0	41.058	0.088	11.0	0.025	0.000	10.1	4.778	OK
S23a	FSR: 2 years: +0 %: 15 mins: Summer	41.58 3	40.07 8	40.134	0.056	5.9	0.016	0.000	5.5	2.613	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026					
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: NS	Checked by:	Approved By:			
		Company Address: Barnsley Marshall Limited B60 4FG					

S07	FSR: 2 years: +0 %: 15 mins: Summer	41.76 0	40.60 9	40.640	0.031	14.8	0.035	0.000	14.3	6.782	OK
S26	FSR: 2 years: +0 %: 15 mins: Summer	42.56 0	41.50 0	41.524	0.024	0.9	0.007	0.000	0.8	0.373	OK
S27	FSR: 2 years: +0 %: 15 mins: Summer	42.33 0	41.36 7	41.420	0.053	3.8	0.015	0.000	3.6	1.674	OK
S28	FSR: 2 years: +0 %: 15 mins: Summer	41.91 0	41.22 7	41.275	0.048	6.6	0.014	0.000	6.4	2.977	OK
S29	FSR: 2 years: +0 %: 15 mins: Summer	41.67 0	41.00 0	41.042	0.042	7.9	0.012	0.000	7.7	3.635	OK
S30	FSR: 2 years: +0 %: 15 mins: Summer	41.73 0	40.53 0	40.571	0.041	7.7	0.012	0.000	7.6	3.635	OK
S32	FSR: 2 years: +0 %: 15 mins: Summer	41.75 0	39.90 0	39.980	0.080	7.6	0.023	0.000	7.3	3.628	OK
S11	FSR: 2 years: +0 %: 15 mins: Summer	41.57 0	40.62 0	40.620	0.000	0.0	0.000	0.000	0.0	0.000	OK
S04	FSR: 2 years: +0 %: 15 mins: Summer	41.55 8	39.87 5	39.909	0.034	8.0	0.039	0.000	7.9	4.287	OK
S23b	FSR: 2 years: +0 %: 15 mins: Summer	41.55 0	40.94 4	40.969	0.025	3.7	0.004	0.000	3.6	1.598	OK
S03a	FSR: 2 years: +0 %: 15 mins: Summer	41.51 2	39.94 4	40.017	0.073	8.5	0.021	0.000	8.0	4.289	OK
S03b	FSR: 2 years: +0 %: 15 mins: Summer	41.79 0	41.19 0	41.190	0.000	0.0	0.000	0.000	0.0	0.000	OK

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		





FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Resident Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S23	FSR: 30 years: +40 %: 15 mins: Summer	41.360	40.156	40.216	0.060	6.3	0.017	0.000	6.1	2.711	OK
S24	FSR: 30 years: +40 %: 15 mins: Summer	42.120	39.898	40.170	0.272	22.3	0.077	0.000	18.3	10.735	Surcharged
S25	FSR: 30 years: +40 %: 15 mins: Summer	42.870	39.742	40.119	0.377	19.0	0.107	0.000	22.3	11.904	Surcharged
S22	FSR: 30 years: +40 %: 15 mins: Summer	42.590	39.646	40.102	0.456	41.6	0.129	0.000	39.0	25.456	Surcharged
S19	FSR: 30 years: +40 %: 360 mins: Summer	42.590	39.618	40.086	0.468	14.0	0.132	0.000	13.7	84.035	Surcharged
S16	FSR: 30 years: +40 %: 360 mins: Summer	42.230	39.534	40.085	0.551	14.4	0.624	0.000	14.2	86.758	Surcharged
SFC	FSR: 30 years: +40 %: 480 mins: Summer	41.960	39.495	40.085	0.590	18.5	2.043	0.000	4.9	238.155	Surcharged
Manhole S08	FSR: 30 years: +40 %: 1440 mins: Winter	41.690	38.458	38.494	0.036	4.9	0.041	0.000	4.9	312.110	OK
Manhole S09	FSR: 30 years: +40 %: 15 mins: Summer	41.690	37.500	37.535	0.035	4.8	0.000	0.000	4.8	6.909	OK
S20	FSR: 30 years: +40 %: 15 mins: Summer	41.670	40.695	40.770	0.075	9.9	0.021	0.000	9.5	4.276	OK
S21	FSR: 30 years: +40 %: 15 mins: Summer	42.260	40.495	40.566	0.071	20.4	0.020	0.000	19.9	9.006	OK
S17	FSR: 30 years: +40 %: 15 mins: Summer	41.700	40.725	40.782	0.057	5.5	0.016	0.000	5.3	2.399	OK
S18	FSR: 30 years: +40 %: 15 mins: Summer	42.250	40.539	40.586	0.047	10.0	0.013	0.000	9.6	4.420	OK
S00	FSR: 30 years: +40 %: 15 mins: Summer	41.490	40.440	40.528	0.088	9.7	0.025	0.000	9.4	4.219	OK
S01	FSR: 30 years: +40 %: 15 mins: Summer	41.400	40.242	40.436	0.194	20.1	0.055	0.000	18.1	8.890	Surcharged
S02	FSR: 30 years: +40 %: 15 mins: Summer	41.350	40.146	40.341	0.195	18.1	0.031	0.000	16.6	8.887	Surcharged
S03	FSR: 30 years: +40 %: 15 mins: Summer	41.390	40.046	40.180	0.134	22.5	0.038	0.000	21.4	11.427	OK
S06	FSR: 30 years: +40 %: 15 mins: Summer	41.570	40.970	41.124	0.154	29.3	0.044	0.000	27.4	12.695	OK
S23a	FSR: 30 years: +40 %: 15 mins: Summer	41.583	40.078	40.173	0.095	15.8	0.027	0.000	13.7	6.972	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026				
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: NS	Checked by:	Approved By:		
		Company Address: Barnsley Marshall Limited B60 4FG				

S07	FSR: 30 years: +40 %: 15 mins: Summer	41.76 0	40.60 9	40.665	0.056	39.6	0.063	0.000	38.8	18.015	OK
S26	FSR: 30 years: +40 %: 15 mins: Summer	42.56 0	41.50 0	41.539	0.039	2.3	0.011	0.000	2.2	1.000	OK
S27	FSR: 30 years: +40 %: 15 mins: Summer	42.33 0	41.36 7	41.461	0.094	10.2	0.027	0.000	9.6	4.451	OK
S28	FSR: 30 years: +40 %: 15 mins: Summer	41.91 0	41.22 7	41.309	0.081	17.6	0.023	0.000	17.2	7.905	OK
S29	FSR: 30 years: +40 %: 15 mins: Summer	41.67 0	41.00 0	41.072	0.072	21.2	0.020	0.000	20.9	9.646	OK
S30	FSR: 30 years: +40 %: 15 mins: Summer	41.73 0	40.53 0	40.598	0.068	20.9	0.019	0.000	20.6	9.646	OK
S32	FSR: 30 years: +40 %: 360 mins: Summer	41.75 0	39.90 0	40.085	0.185	4.4	0.052	0.000	4.4	25.116	OK
S11	FSR: 30 years: +40 %: 15 mins: Summer	41.57 0	40.62 0	40.620	0.000	0.0	0.000	0.000	0.0	0.000	OK
S04	FSR: 30 years: +40 %: 360 mins: Summer	41.55 8	39.87 5	40.085	0.211	5.3	0.238	0.000	5.3	29.703	OK
S23b	FSR: 30 years: +40 %: 15 mins: Summer	41.55 0	40.94 4	40.985	0.041	9.8	0.007	0.000	9.7	4.237	OK
S03a	FSR: 30 years: +40 %: 360 mins: Summer	41.51 2	39.94 4	40.086	0.142	5.3	0.040	0.000	5.3	29.725	OK
S03b	FSR: 30 years: +40 %: 15 mins: Summer	41.79 0	41.19 0	41.190	0.000	0.0	0.000	0.000	0.0	0.000	OK

Project: Kirkby BESS L33 7TT	Date: 03/02/2026		
	Designed by: NS	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG		





FSR: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Resident Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S23	FSR: 100 years: +40 %: 15 mins: Summer	41.360	40.156	40.421	0.266	8.2	0.075	0.000	5.3	3.546	Surcharged
S24	FSR: 100 years: +40 %: 15 mins: Summer	42.120	39.898	40.388	0.490	18.6	0.139	0.000	21.1	13.917	Surcharged
S25	FSR: 100 years: +40 %: 15 mins: Summer	42.870	39.742	40.352	0.610	22.0	0.173	0.000	24.9	15.004	Surcharged
S22	FSR: 100 years: +40 %: 15 mins: Summer	42.590	39.646	40.335	0.689	54.3	0.195	0.000	49.8	32.353	Surcharged
S19	FSR: 100 years: +40 %: 360 mins: Winter	42.590	39.618	40.281	0.663	12.3	0.188	0.000	12.0	107.729	Surcharged
S16	FSR: 100 years: +40 %: 360 mins: Winter	42.230	39.534	40.280	0.747	12.6	0.845	0.000	12.5	111.453	Surcharged
SFC	FSR: 100 years: +40 %: 360 mins: Winter	41.960	39.495	40.280	0.785	19.6	2.721	0.000	4.9	247.492	Surcharged
Manhole S08	FSR: 100 years: +40 %: 960 mins: Winter	41.690	38.458	38.494	0.036	4.9	0.041	0.000	4.9	350.261	OK
Manhole S09	FSR: 100 years: +40 %: 15 mins: Summer	41.690	37.500	37.535	0.035	4.6	0.000	0.000	4.6	5.492	OK
S20	FSR: 100 years: +40 %: 15 mins: Summer	41.670	40.695	40.781	0.086	12.8	0.024	0.000	12.3	5.542	OK
S21	FSR: 100 years: +40 %: 15 mins: Summer	42.260	40.495	40.578	0.083	26.5	0.023	0.000	25.9	11.659	OK
S17	FSR: 100 years: +40 %: 15 mins: Summer	41.700	40.725	40.790	0.065	7.2	0.018	0.000	6.9	3.104	OK
S18	FSR: 100 years: +40 %: 15 mins: Summer	42.250	40.539	40.593	0.055	12.9	0.015	0.000	12.6	5.714	OK
S00	FSR: 100 years: +40 %: 15 mins: Summer	41.490	40.440	40.665	0.225	12.6	0.064	0.000	9.8	5.465	Surcharged
S01	FSR: 100 years: +40 %: 15 mins: Summer	41.400	40.242	40.561	0.319	23.8	0.090	0.000	21.6	11.519	Surcharged
S02	FSR: 100 years: +40 %: 15 mins: Summer	41.350	40.146	40.423	0.277	21.6	0.044	0.000	20.2	11.516	Surcharged
S03	FSR: 100 years: +40 %: 360 mins: Winter	41.390	40.046	40.281	0.235	4.5	0.066	0.000	4.5	38.559	Surcharged
S06	FSR: 100 years: +40 %: 15 mins: Summer	41.570	40.970	41.156	0.186	38.0	0.053	0.000	35.3	16.452	OK
S23a	FSR: 100 years: +40 %: 15 mins: Summer	41.583	40.078	40.436	0.358	12.6	0.101	0.000	16.1	9.086	Surcharged

Project: Kirkby BESS L33 7TT				Date: 03/02/2026							
Report Details: Type: Junctions Summary Storm Phase: Phase				Designed by:	Checked by:	Approved By:					
				NS							
				Company Address: Barnsley Marshall Limited B60 4FG							

S07	FSR: 100 years: +40 %: 15 mins: Summer	41.76 0	40.60 9	40.676	0.067	51.2	0.075	0.000	50.2	23.341	OK
S26	FSR: 100 years: +40 %: 15 mins: Summer	42.56 0	41.50 0	41.545	0.045	3.0	0.013	0.000	2.9	1.303	OK
S27	FSR: 100 years: +40 %: 15 mins: Summer	42.33 0	41.36 7	41.481	0.114	13.2	0.032	0.000	12.5	5.780	OK
S28	FSR: 100 years: +40 %: 15 mins: Summer	41.91 0	41.22 7	41.322	0.094	22.8	0.027	0.000	22.3	10.259	OK
S29	FSR: 100 years: +40 %: 15 mins: Summer	41.67 0	41.00 0	41.083	0.083	27.5	0.023	0.000	27.2	12.519	OK
S30	FSR: 100 years: +40 %: 15 mins: Summer	41.73 0	40.53 0	40.608	0.078	27.2	0.022	0.000	26.8	12.519	OK
S32	FSR: 100 years: +40 %: 360 mins: Winter	41.75 0	39.90 0	40.281	0.381	3.8	0.108	0.000	3.8	32.469	Surcharge d
S11	FSR: 100 years: +40 %: 15 mins: Summer	41.57 0	40.62 0	40.620	0.000	0.0	0.000	0.000	0.0	0.000	OK
S04	FSR: 100 years: +40 %: 360 mins: Winter	41.55 8	39.87 5	40.280	0.406	4.5	0.459	0.000	4.4	37.864	Surcharge d
S23b	FSR: 100 years: +40 %: 15 mins: Summer	41.55 0	40.94 4	40.990	0.046	12.7	0.007	0.000	12.6	5.497	OK
S03a	FSR: 100 years: +40 %: 360 mins: Winter	41.51 2	39.94 4	40.281	0.337	4.5	0.095	0.000	4.5	38.246	Surcharge d
S03b	FSR: 100 years: +40 %: 15 mins: Summer	41.79 0	41.19 0	41.190	0.000	0.0	0.000	0.000	0.0	0.000	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 1 years: +0 %: 480 mins: Summer	39.660	39.660	0.165	0.165	8.5	47.281	0.000	0.000	2.1	44.178	89.732	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 2 years: +0 %: 480 mins: Summer	39.693	39.693	0.198	0.198	10.3	56.785	0.000	0.000	2.5	54.202	87.668	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			



**FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By:
Max. Avg. Depth**

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 30 years: +40 %: 360 mins: Summer	40.086	40.086	0.591	0.591	35.6	169.725	0.000	0.000	6.6	60.608	63.140	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			



**FSR: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By:
Max. Avg. Depth**

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 100 years: +40 %: 360 mins: Winter	40.281	40.281	0.786	0.786	30.4	225.752	0.000	0.000	7.3	72.383	50.972	OK

Project: Kirkby BESS L33 7TT	Date: 03/02/2026			
	Designed by: NS	Checked by:	Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe 23	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S24	S25	42.120	39.965	0.064	3.091	0.6	0.18	5.9	OK
Pipe 24	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S25	S22	42.870	39.802	0.087	3.446	0.4	0.16	6.0	OK
Pipe 21	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S22	S19	42.590	39.759	0.114	7.560	0.7	0.37	13.2	OK
Pipe 18	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S19	S16	42.590	39.733	0.141	9.664	0.8	0.43	15.7	OK
Pipe 15	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S16	SFC	42.230	39.701	0.183	10.014	0.8	0.3	16.5	OK
Pipe 8	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	SFC	Manhole S08	41.960	39.694	0.037	2.667	1.1	0.16	3.8	Surcharged
Pipe 39	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	Manhole S08	Manhole S09	41.690	38.490	0.031	2.595	1.4	0.09	3.7	OK
Pipe 19	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S20	S21	41.670	40.734	0.038	1.246	0.6	0.06	2.7	OK
Pipe 20	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S21	S22	42.260	40.532	0.075	2.633	0.5	0.06	5.6	OK
Pipe 16	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S17	S18	41.700	40.756	0.028	0.698	0.5	0.04	1.5	OK
Pipe 17	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S18	S19	42.250	40.564	0.070	1.288	0.3	0.03	2.7	OK
Pipe 0	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S00	S01	41.490	40.484	0.050	1.227	0.5	0.19	2.7	OK
Pipe 1	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S01	S02	41.400	40.299	0.062	2.587	0.8	0.26	5.5	OK
Pipe 2	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S02	S03	41.350	40.212	0.067	2.583	0.7	0.37	5.3	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Pipe 22a	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S23a	S24	41.583	40.127	0.058	2.013	0.5	0.1	4.2	OK
Pipe 6	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S06	S07	41.570	41.046	0.052	3.696	1.1	0.2	7.8	OK
Pipe 7	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S07	SFC	41.760	40.636	0.113	5.242	0.6	0.04	11.1	OK
Pipe 26	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S26	S27	42.560	41.521	0.034	0.292	0.2	0.04	0.6	OK
Pipe 27	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S27	S28	42.330	41.413	0.044	1.299	0.6	0.19	2.8	OK
Pipe 28	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S28	S29	41.910	41.269	0.039	2.308	1.0	0.07	4.9	OK
Pipe 29	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S29	S30	41.670	41.037	0.036	2.814	1.4	0.05	6.0	OK
Pipe 30	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S30	S32	41.730	40.566	0.053	2.813	0.8	0.06	5.8	OK
Pipe 31	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S32	Cellular Storage	41.750	39.970	0.065	2.807	0.6	0.2	5.6	OK
Pipe 25	FSR: 1 years: +0 %: 240 mins: Winter	Pipe	Cellular Storage	SFC	41.750	39.652	0.157	8.320	0.1	0.02	2.6	OK
Pipe 3	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S03	S03a	41.390	40.114	0.066	3.323	0.7	0.18	6.5	OK
Pipe 22	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S23	S23a	41.360	40.188	0.041	0.784	0.4	0.05	1.8	OK
Pipe 10	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S11	S03	41.570	40.620	0.034	0.000	0.0	0	0.0	OK
Pipe 5	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S04	Cellular Storage	41.558	39.905	0.045	3.310	2.2	0.03	6.0	OK
Pipe22b	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S23b	S23a	41.550	40.966	0.036	1.232	0.9	0.05	2.8	OK
Pipe 3a	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S03a	S04	41.512	40.007	0.047	3.312	1.0	0.16	6.1	OK
Pipe 3b	FSR: 1 years: +0 %: 15 mins: Summer	Pipe	S03b	S03a	41.790	41.190	0.032	0.000	0.0	0	0.0	OK

Project: Kirkby BESS L33 7TT	Date: 03/02/2026			
	Designed by: NS	Checked by:	Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe 23	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S24	S25	42.120	39.975	0.074	4.015	0.7	0.24	7.7	OK
Pipe 24	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S25	S22	42.870	39.812	0.104	4.479	0.4	0.22	8.0	OK
Pipe 21	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S22	S19	42.590	39.785	0.142	9.810	0.7	0.49	17.3	OK
Pipe 18	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S19	S16	42.590	39.762	0.160	12.537	0.8	0.58	21.1	OK
Pipe 15	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S16	SFC	42.230	39.710	0.188	12.939	0.8	0.43	23.1	OK
Pipe 8	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	SFC	Manhole S08	41.960	39.696	0.038	3.431	1.1	0.16	4.0	Surcharged
Pipe 39	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	Manhole S08	Manhole S09	41.690	38.491	0.032	3.337	1.4	0.1	4.0	OK
Pipe 19	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S20	S21	41.670	40.740	0.044	1.612	0.7	0.08	3.5	OK
Pipe 20	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S21	S22	42.260	40.537	0.091	3.408	0.5	0.08	7.3	OK
Pipe 16	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S17	S18	41.700	40.760	0.032	0.902	0.6	0.05	2.0	OK
Pipe 17	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S18	S19	42.250	40.567	0.086	1.666	0.3	0.04	3.5	OK
Pipe 0	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S00	S01	41.490	40.490	0.059	1.593	0.5	0.24	3.5	OK
Pipe 1	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S01	S02	41.400	40.309	0.072	3.348	0.9	0.34	7.2	OK
Pipe 2	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S02	S03	41.350	40.224	0.078	3.345	0.7	0.48	6.9	OK

Project: Kirkby BESS L33 7TT			Date: 03/02/2026			
			Designed by: NS	Checked by:	Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase			Company Address: Barnsley Marshall Limited B60 4FG			

Pipe 22a	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S23a	S24	41.583	40.134	0.067	2.613	0.6	0.14	5.5	OK
Pipe 6	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S06	S07	41.570	41.058	0.059	4.778	1.2	0.26	10.1	OK
Pipe 7	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S07	SFC	41.760	40.640	0.116	6.782	0.7	0.05	14.3	OK
Pipe 26	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S26	S27	42.560	41.524	0.038	0.373	0.2	0.06	0.8	OK
Pipe 27	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S27	S28	42.330	41.420	0.050	1.674	0.7	0.25	3.6	OK
Pipe 28	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S28	S29	41.910	41.275	0.045	2.977	1.1	0.09	6.4	OK
Pipe 29	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S29	S30	41.670	41.042	0.042	3.635	1.5	0.07	7.7	OK
Pipe 30	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S30	S32	41.730	40.571	0.061	3.635	0.9	0.07	7.6	OK
Pipe 31	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S32	Cellular Storage	41.750	39.980	0.075	3.628	0.6	0.26	7.3	OK
Pipe 25	FSR: 2 years: +0 %: 120 mins: Winter	Pipe	Cellular Storage	SFC	41.750	39.676	0.181	0.000	0.1	0.02	3.2	OK
Pipe 3	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S03	S03a	41.390	40.125	0.076	4.301	0.7	0.24	8.5	OK
Pipe 22	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S23	S23a	41.360	40.193	0.046	1.018	0.4	0.06	2.3	OK
Pipe 10	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S11	S03	41.570	40.620	0.039	0.000	0.0	0	0.0	OK
Pipe 5	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S04	Cellular Storage	41.558	39.909	0.057	4.287	2.2	0.04	7.9	OK
Pipe22b	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S23b	S23a	41.550	40.969	0.041	1.598	0.9	0.06	3.6	OK
Pipe 3a	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S03a	S04	41.512	40.017	0.053	4.289	1.1	0.21	8.0	OK
Pipe 3b	FSR: 2 years: +0 %: 15 mins: Summer	Pipe	S03b	S03a	41.790	41.190	0.036	0.000	0.0	0	0.0	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: NS	Checked by:		Approved By:
		Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe 23	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S24	S25	42.120	40.170	0.225	10.735	0.6	0.56	18.3	Surcharged
Pipe 24	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S25	S22	42.870	40.119	0.225	11.904	0.6	0.6	22.3	Surcharged
Pipe 21	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S22	S19	42.590	40.102	0.225	25.456	1.0	1.1	39.0	Surcharged
Pipe 18	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S19	S16	42.590	40.041	0.225	31.981	1.3	1.46	53.4	Surcharged
Pipe 15	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S16	SFC	42.230	39.820	0.225	32.815	1.4	1.04	56.5	Surcharged
Pipe 8	FSR: 30 years: +40 %: 960 mins: Winter	Pipe	SFC	Manhole S08	41.960	40.035	0.042	278.927	1.2	0.2	4.9	Surcharged
Pipe 39	FSR: 30 years: +40 %: 1440 mins: Winter	Pipe	Manhole S08	Manhole S09	41.690	38.494	0.036	312.110	1.5	0.12	4.9	OK
Pipe 19	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S20	S21	41.670	40.770	0.073	4.276	0.8	0.22	9.5	OK
Pipe 20	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S21	S22	42.260	40.566	0.225	9.006	0.5	0.23	19.9	OK
Pipe 16	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S17	S18	41.700	40.782	0.052	2.399	0.8	0.13	5.3	OK
Pipe 17	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S18	S19	42.250	40.586	0.225	4.420	0.3	0.1	9.6	OK
Pipe 0	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S00	S01	41.490	40.528	0.141	4.219	0.5	0.65	9.4	OK
Pipe 1	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S01	S02	41.400	40.436	0.150	8.890	1.0	0.86	18.1	Surcharged
Pipe 2	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S02	S03	41.350	40.341	0.150	8.887	0.9	1.15	16.6	Surcharged

Project: Kirkby BESS L33 7TT				Date: 03/02/2026								
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by:	Checked by:	Approved By:						
				NS								
				Company Address: Barnsley Marshall Limited B60 4FG								

Pipe 22a	FSR: 30 years: +40 %: 15 mins: Winter	Pipe	S23a	S24	41.583	40.169	0.147	6.955	0.5	0.35	14.3	OK
Pipe 6	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S06	S07	41.570	41.124	0.105	12.695	1.5	0.69	27.4	OK
Pipe 7	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S07	SFC	41.760	40.665	0.146	18.015	1.4	0.13	38.8	OK
Pipe 26	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S26	S27	42.560	41.539	0.067	1.000	0.3	0.15	2.2	OK
Pipe 27	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S27	S28	42.330	41.461	0.088	4.451	0.9	0.67	9.6	OK
Pipe 28	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S28	S29	41.910	41.309	0.076	7.905	1.4	0.24	17.2	OK
Pipe 29	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S29	S30	41.670	41.072	0.070	9.646	2.0	0.19	20.9	OK
Pipe 30	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S30	S32	41.730	40.598	0.103	9.646	1.2	0.2	20.6	OK
Pipe 31	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S32	Cellular Storage	41.750	40.039	0.128	9.638	0.9	0.72	20.0	OK
Pipe 25	FSR: 30 years: +40 %: 240 mins: Winter	Pipe	Cellular Storage	SFC	41.750	40.071	0.525	0.000	0.0	0.05	7.8	Surch arged
Pipe 3	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S03	S03a	41.390	40.180	0.126	11.427	0.9	0.6	21.4	OK
Pipe 22	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S23	S23a	41.360	40.216	0.077	2.711	0.5	0.16	6.1	OK
Pipe 10	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S11	S03	41.570	40.620	0.067	0.000	0.0	0	0.0	OK
Pipe 5	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S04	Cellular Storage	41.558	39.931	0.148	11.410	2.8	0.11	20.8	OK
Pipe22b	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S23b	S23a	41.550	40.985	0.068	4.237	1.2	0.16	9.7	OK
Pipe 3a	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S03a	S04	41.512	40.063	0.088	11.412	1.5	0.54	20.9	OK
Pipe 3b	FSR: 30 years: +40 %: 15 mins: Summer	Pipe	S03b	S03a	41.790	41.190	0.059	0.000	0.0	0	0.0	OK

Project: Kirkby BESS L33 7TT		Date: 03/02/2026			
		Designed by: NS	Checked by:		Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			



FSR: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe 23	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S24	S25	42.120	40.388	0.225	13.917	0.6	0.64	21.1	Surcharged
Pipe 24	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S25	S22	42.870	40.352	0.225	14.929	0.6	0.67	24.9	Surcharged
Pipe 21	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S22	S19	42.590	40.335	0.225	32.166	1.3	1.41	49.8	Surcharged
Pipe 18	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S19	S16	42.590	40.240	0.225	40.462	1.7	1.83	67.0	Surcharged
Pipe 15	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S16	SFC	42.230	39.888	0.225	41.619	1.8	1.3	70.5	Surcharged
Pipe 8	FSR: 100 years: +40 %: 1440 mins: Summer	Pipe	SFC	Manhole S08	41.960	40.197	0.042	404.589	1.2	0.2	4.9	Surcharged
Pipe 39	FSR: 100 years: +40 %: 960 mins: Winter	Pipe	Manhole S08	Manhole S09	41.690	38.494	0.036	350.261	1.5	0.12	4.9	OK
Pipe 19	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S20	S21	41.670	40.781	0.084	5.542	0.9	0.29	12.3	OK
Pipe 20	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S21	S22	42.260	40.578	0.225	11.659	0.7	0.29	25.9	OK
Pipe 16	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S17	S18	41.700	40.790	0.060	3.104	0.8	0.17	6.9	OK
Pipe 17	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S18	S19	42.250	40.593	0.225	5.714	0.3	0.14	12.6	OK
Pipe 0	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S00	S01	41.490	40.665	0.150	5.465	0.6	0.68	9.8	Surcharged
Pipe 1	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S01	S02	41.400	40.561	0.150	11.519	1.2	1.03	21.6	Surcharged
Pipe 2	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S02	S03	41.350	40.423	0.150	11.516	1.1	1.4	20.2	Surcharged

Project: Kirkby BESS L33 7TT	Date: 03/02/2026				
	Designed by: NS	Checked by:	Approved By:		
Report Details: Type: Connections Summary Storm Phase: Phase		Company Address: Barnsley Marshall Limited B60 4FG			

Pipe 22a	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S23a	S24	41.583	40.436	0.225	9.052	0.5	0.4	16.1	Surcharged
Pipe 6	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S06	S07	41.570	41.156	0.126	16.452	1.5	0.89	35.3	OK
Pipe 7	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S07	SFC	41.760	40.676	0.189	23.341	1.7	0.16	50.2	OK
Pipe 26	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S26	S27	42.560	41.545	0.079	1.303	0.3	0.2	2.9	OK
Pipe 27	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S27	S28	42.330	41.481	0.104	5.780	1.0	0.86	12.5	OK
Pipe 28	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S28	S29	41.910	41.322	0.089	10.259	1.5	0.32	22.3	OK
Pipe 29	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S29	S30	41.670	41.083	0.080	12.519	2.1	0.25	27.2	OK
Pipe 30	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S30	S32	41.730	40.608	0.120	12.519	1.2	0.26	26.8	OK
Pipe 31	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S32	Cellular Storage	41.750	40.062	0.148	12.510	0.9	0.93	26.1	OK
Pipe 25	FSR: 100 years: +40 %: 960 mins: Summer	Pipe	Cellular Storage	SFC	41.750	40.241	0.525	111.510	0.1	0.05	8.1	Surcharged
Pipe 3	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S03	S03a	41.390	40.203	0.146	14.812	1.0	0.76	26.9	OK
Pipe 22	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S23	S23a	41.360	40.421	0.225	3.512	0.4	0.14	5.3	Surcharged
Pipe 10	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S11	S03	41.570	40.620	0.079	0.000	0.0	0	0.0	OK
Pipe 5	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S04	Cellular Storage	41.558	39.940	0.192	14.792	2.9	0.14	25.8	OK
Pipe22b	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S23b	S23a	41.550	40.990	0.150	5.497	0.9	0.21	12.6	OK
Pipe 3a	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S03a	S04	41.512	40.079	0.100	14.796	1.5	0.69	26.3	OK
Pipe 3b	FSR: 100 years: +40 %: 15 mins: Summer	Pipe	S03b	S03a	41.790	41.190	0.068	0.000	0.0	0	0.0	OK