

RIDGE

LAND AT WELLCROSS FARM, BROADBRIDGE HEATH

PHASE 1 DRAINAGE TECHNICAL NOTE ADDRESSING LLFA COMMENTS

MAY 2024

Document Control Sheet

Project No: 5016747

Project Title: Land at Wellcross Farm, Broadbridge Heath

Report Title: Phases 1 Drainage Technical Note Addressing LLFA Comments

Report Reference: 5016747-RDG-00-ZZ-RP-C-0008

Issue: 1

Status: Final

Date: 17.05.24

Record of Issue

Issue	Status	Author	Approved	Date
1	Final	Adam Matadar	Philip Barrett	17.05.24

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1.0 Introduction

In August 2022 a planning application was submitted to Horsham District Council for the provision of Phase 1 of Land at Wellcross Farm to provide a Continuing Care Retirement Community with 47 units of accommodation (C2), communal facilities and new ancillary buildings with access, infrastructure, open space, landscaping and associated works including an onsite borehole water supply. (ref: DC/19/1897). Planning conditions have been proposed by Horsham District Council.

This Phases 1 Drainage Technical Note has been prepared to address comments made by the LLFA in relation to the planning application – DISC/24/0059.

2.0 Drainage Related Planning Condition and Ridge Response

3.1 Detailed below in **Table 1** is each planning condition with the Ridge response.

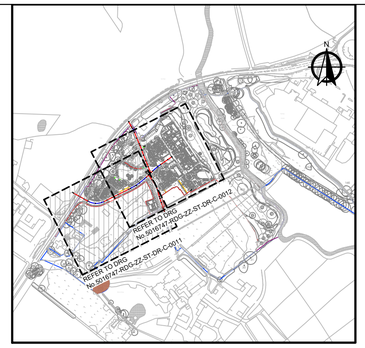
West Sussex LLFA Drainage Strategy comments	Ridge Response
1. Evidence of permission and agreed access to discharge surface water into the River Arun.	Proposed SW flows from Phases 1 are to discharge into River Arun via a new headwall. A Flood Risk Activity 12 permit has been submitted to the Environment Agency. The reference for this EA application is 'EXFRA013511'. Please see **Appendix C** for this application. The confirmation of the approval is to be provided within 10 working days.
2. Drainage calculations should use a CV value of 1	Hydraulic model Cv value has been updated to 1. Please see the updated Hydraulic calculation attached in **Appendix B**.
3. Flood resistance and resilience measures should be demonstrated on a layout drawing. A minimum of 300mm must be provided between any design flood event and the finished ground floor level. A minimum of 150mm above external ground levels and show that they are sloping away from vulnerable areas such as doorways.	A full Flood Risk Assessment (ref: IVH-BWB-ZZ-XX-RP-YE-000X_FRA) was completed by BWB to support the approved outline planning application. The assessment completed as part of this report confirmed that the site is located within Flood Zones 1, 2 and 3 with all proposed development plots to be located within low-risk Flood Zone 1. To ensure further flood resistance, a minimum finished floor level for all plots was set at 30.220mAOD, equivalent to the 1 in 1000 year + 150mm modelled flood levels. See the Proposed Levels drawing for Phase 1 attached within **Appendix A.** This drawing confirms the minimum plot FFL's is 30.600mAOD. This is a further 380mm higher than the minimum FFL noted within the FRA (30.220mAOD). Additional measures also include the proposed plot FFL's being a minimum 150mm above than the surrounding external levels.

4. Further details should be provided within the maintenance and management plan to indicate who will be adopting these features for the lifetime of the development, the lifetime of each of the drainage features and any plan for the replacement of the drainage features at the end of their design life.	The proposed drainage features are to be kept private. The long term maintenance of the drainage infrastructure will be the responsibility of a private management company. The private management company is to carry out annual inspections and undertake clearing of private drainage channels. There will be a site management health and safety document prepared in respect of the final development. This will include the required maintenance regime for the on-site private drains and drainage facilities such as the channels, pipes, chambers, permeable paving and the geocellular storage tank.

Appendices

Appendix A – Ridge Drawings

CONTENTS	
Identifier	**Name**
5016747-RDG-ZZ-ST-DR-C-0101	Existing Site Constraints
5016747-RDG-ZZ-ST-DR-C-0500	Phase 1 Greenfield Areas
5016747-RDG-ZZ-ST-DR-C-0511_0513	Phase 1 Drainage GA
5016747-RDG-ZZ-XX-DR-C-0517_0518	Phase 1 Manhole Schedules
5016747-RDG-ZZ-ST-DR-C-0541_0542	Phase 1 Impermeable Area Plan
5016747-RDG-ZZ-ST-DR-C-0543_0544	Phase 1 Flood Exceedance Plan
5016747-RDG-ZZ-ST-DR-C-0011_0012	Phase 1 Proposed Levels GA
Drainage Maintenance Schedule	



KEY PLAN

SCALE 1:5000

ROAD 1

FOR S278 WORKS LEVELS REFER TO DHA TRANSPORT SETTING OUT PLAN

NOTE, NO INCREASE IN EXISTING GROUND LEVELS ALLOWABLE WITHIN THE EXTENT OF THE FLOOD ZONES

ROAD 2A
ROAD 2B

FFL:30.600m
FFL:30.900m
FFL:30.150m
FFL:31.100m

Kerwin Court

Unable To Access At Time of Survey

SCALE 1:250

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DRAWING NOTES:

CDM REGULATIONS 2015

SIGNIFICANT OR NON-OBVIOUS RISKS AND RISKS WHICH ARE DIFFICULT TO MANAGE ARE IDENTIFIED ON THIS DRAWING USING THE FOLLOWING SYMBOL IDENTIFIED TO THE RIGHT WITH BRIEF ACCOMPANYING TEXT. FOR FURTHER DETAILS OF THE RISKS IDENTIFIED BY DESIGNERS, REFERENCE SHOULD BE MADE TO CDM HAZARD REGISTER.

KEY

- PROPOSED SURFACE MAJOR CONTOUR (0.5m)
- PROPOSED SURFACE MINOR CONTOUR (0.1m)
- SLOPE GRADIENT (FALL) 1:34
- SLOPE GRADIENT (RISE) 1:34
- EXISTING SPOT LEVEL 135.200m
- PROPOSED SPOT LEVEL 135.200m
- PROPOSED RETAINING HEIGHT 0.9m
- PROPOSED UNDERBUILD
- PROPOSED SMALL RETAINING
- FLOOD ZONE 3 + 105%CC FLOOD ZONE EXTENT
- EASEMENTS FOR BELOW GROUND SERVICES, TBC ON M&E CONFIRMATION OF DIVERSION WORKS.

REV	DESCRIPTION	DATE	BY	CHKD
P02	ISSUED FOR TENDER	16.12.22	AS	KC
P01	PRELIMINARY ISSUE	15.07.22	AS	EJD

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CLIENT:

SENIOR LIVING
(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:

URBAN EDGE

PROJECT:

BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:

PHASE 1
PROPOSED LEVELS GA
SHEET 1 OF 2

ENG/TECH:	CSE:	ICSE:	SCALE:	1:250 @ A1
AS	EDM	KC	STATUS ISSUE:	16.12.22

STATUS: TENDER

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
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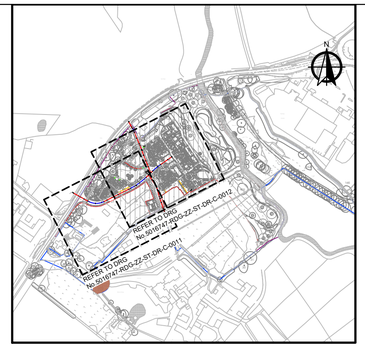

KEY PLAN
SCALE 1:5000

NOTE, NO INCREASE IN EXISTING GROUND LEVELS ALLOWABLE WITHIN THE EXTENT OF THE FLOOD ZONES

ROAD 1
ROAD 2A
ROAD 2B

FFL:30.600m
FFL:30.150m
FFL:30.900m
FFL:31.000m
FFL:31.150m
FFL:31.060m
FFL:31.100m
FFL:31.450m
FFL:30.950m

SCALE 1:250

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P01	PRELIMINARY ISSUE	15.07.22	AS	EJD

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RETIREMENT VILLAGE

TITLE:
PHASE 1
PROPOSED LEVELS GA
SHEET 2 OF 2

ENG/TECH:	CSE:	ICSE:	SCALE:	1:250	@ A1
AS	EJD	KC	STATUS ISSUE:	16.12.22	

STATUS: TENDER

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SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0012	P02

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ABSTRACTION BOREHOLE
UNDERGROUND SEWER, HV & BT
PRESSURISED MAIN
ABSTRACTION BOREHOLE
JAPANESE KNOTWEED PRESENT
UNDERGROUND SEWER, HV & BT
GAS MAIN & WATER FEEDS
HV CABLES
HV CABLE
POWER MAIN
Dense Vegetation
Dense Vegetation
Dense Vegetation
Dense Vegetation
Wellcross Farm Cottage
Kenwin Court
Newbridge
Nurseries
Brookside
Pond
LB
Pond
House
Mole Place
Acorns
Garage
El Sub Sta
Wellcross Grange
Pond
Home Cottage
Cherry Apple Cottage
Home Barn Cottage
Garden Cottage
Barn Cottage
Lower Barn
Drain
Drain
path
28.5m
SCALE 1:500
5 0 5 10 15 20 25 m

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CONSTRAINTS KEY

- TITLE BOUNDARIES
- FLOOD ZONE 3 BOUNDARY
- FLOOD ZONE 3 + 45% CC BOUNDARY
- FLOOD ZONE 3 + 105% CC BOUNDARY

FLOOD ZONE BOUNDARIES EXTENT DERIVED FROM EXISTING GROUND MODEL & MODELED FLOOD LEVEL NODE INFORMATION FROM BWB FLOOD RISK SCOPING STUDY IVH-BWB-ZZ-XX-RP-YE-0001_FRSS-S2-P01

- GAS(MP) — EXISTING MEDIUM PRESSURE GAS MAIN
- LV — EXISTING LV CABLE
- HV — EXISTING HV CABLE
- EXISTING OVERHEAD HV CABLE
- BT — EXISTING UNDERGROUND BT CABLE
- BT(OH) — EXISTING OVERHEAD BT CABLE
- EXISTING FW RISING MAIN
- EXISTING FW SEWER
- W(A-R) — EXISTING COLD WATER FEED
- HISTORIC BUILDING TO REMAIN
- EXISTING STRUCTURE TO BE DEMOLISHED
- EASEMENTS FOR EXISTING SERVICES
- NO BUILD ZONE
- ACCESS WAYLEAVE
- EXISTING WATERCOURSE / STANDING WATER
- PROPOSED BUILDING TO FORM PART OF DEVELOPMENT
- RISK HIGHLIGHTED IN CDM DOCUMENTS
- BH102 — BOREHOLE WITH STANDPIPE - TO BE RETAINED FOR ONGOING MONITORING
- ABSTRACTION BOREHOLE

TREES SUITABLE FOR RETENTION:

- TREE CATEGORY A 1,2 OR 3 - TREES OF HIGH QUALITY
- TREE CATEGORY B 1,2 OR 3 - TREES OF MODERATE QUALITY
- TREE CATEGORY C 1,2 OR 3 - TREES OF LOW QUALITY

TREES UNSUITABLE FOR RETENTION:

- TREE CATEGORY U - TREES THAT CANNOT REALISTICALLY BE RETAINED DUE TO THEIR CONDITION
- TREES FOR REMOVAL

PROTECTED AREAS:

- ROOT PROTECTION AREA (RPA)

REV	DESCRIPTION	DATE	BY	CHKD
P07	UPDATED SITE PLAN	30.01.24	AP	AM
P06	UPDATED HV DIVERSION ROUTE	18.01.24	AP	KC
P05	ABSTRACTION BH & HV DIVERSION ALIGNMENT UPDATED	02.05.23	AS	EDM
P04	CONSTRAINTS UPDATED	28.03.23	AS	EDM
P03	CONSTRAINTS & BLOCK LOCATIONS UPDATED	24.02.23	AS	KC
P02	CONSTRAINTS & BLOCK LOCATIONS UPDATED	16.02.22	AS	KC
P01	FIRST ISSUE	26.10.21	AS	KC

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CLIENT:
INSPIRED VILLAGES

IN ASSOCIATION WITH:
URBAN EDGE ARCHITECTS

PROJECT:
BROADBRIDGE HEATH, HORSHAM

TITLE:
EXISTING SITE CONSTRAINTS

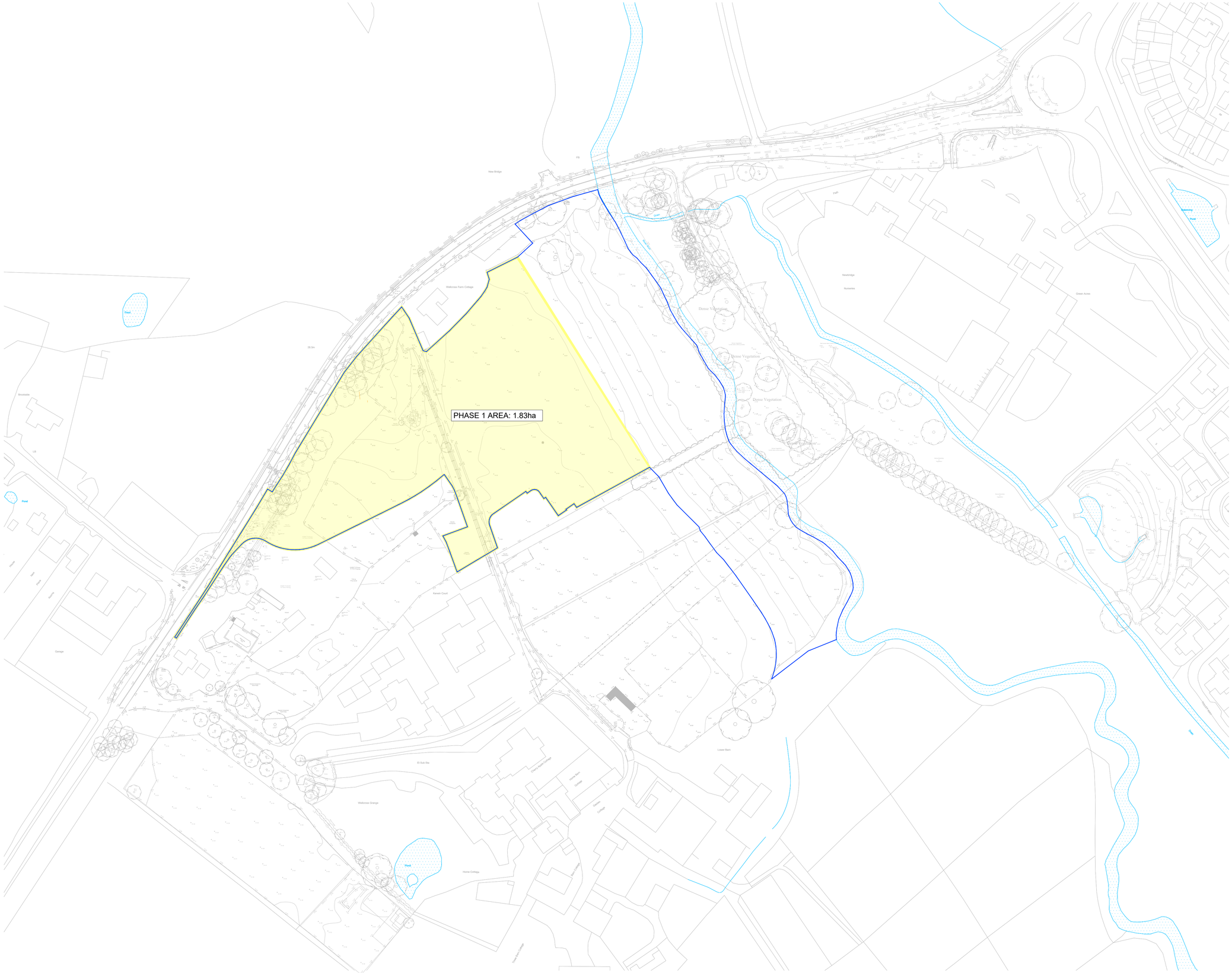
ENG/TECH:	CSE:	ICSE:	SCALE:	@
AS	EJD	KC	1:500	A0
			STATUS ISSUE: 26.10.21	

STATUS: PRELIMINARY

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S0 - Initial Status or WIP

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0101	P07



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KEY

PHASE 1 BOUNDARY

PHASE 1 DEVELOPABLE AREA

5 0 5 10 15 20 25
SCALE 1:500 m

REV	DESCRIPTION	DATE	BY	CHKD
P01	FIRST ISSUE	06.02.24	AM	AM

ORIGINATOR:

RIDGE

5TH FLOOR
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(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
GREENFIELD AREA PLAN

ENG/TECH:	CSE:	ICSE:	SCALE:	1:500	@ A1
TB	AM	PB	STATUS ISSUE:	S0	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S0 - Initial Status or WIP

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0500	P01

DRAINAGE KEY

- EXISTING FW SEWER
- EXISTING FW RISING MAIN
- EXISTING FW MANHOLE
- PROPOSED FW DRAIN
- PROPOSED FW MANHOLE
- PROPOSED WASTE POINT CONNECTION
- FG — PROPOSED FOUL FLOOR GULLEY
- PROPOSED SW DRAIN
- PROPOSED SW MANHOLE
- PROPOSED DEEP SW DRAIN
- PROPOSED SW PPIC
- PROPOSED RAINWATER PIPE
- PROPOSED PERMAVOID DIFFUSER UNIT
- PROPOSED ROAD GULLEY
- PROPOSED SW HEADWALL
- PROPOSED PERMEABLE PAVING (CONNECT TO DRAINAGE)
- PROPOSED GEOCELLULAR ATTENUATION TANK
- SITE BOUNDARY
- SOUTHERN WATER SEWER EASEMENT

OFFLINE GEO-CELLULAR ATTENUATION TANK 3
STORAGE VOLUME: 252m³
IL: 27.140m
DEPTH: 0.8m
MIN COVER DEPTH: 740mm
Ø375mm PIPE IN & OUT

OFFLINE GEO-CELLULAR ATTENUATION TANK 1
STORAGE VOLUME: 62m³
IL: 28.600m
DEPTH: 0.8m
MIN COVER DEPTH: 800mm
Ø225mm PIPE IN & OUT

OFFLINE GEO-CELLULAR ATTENUATION TANK 2
STORAGE VOLUME: 168m³
IL: 28.390m
DEPTH: 1.6m
MIN COVER DEPTH: 800mm
Ø225mm PIPE IN & OUT

RAINWATER HARVESTING TANK 4
FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

NEW MANHOLE TO BE CONSTRUCTED ON EXISTING SOUTHERN WATER FOUL SEWER.
IL=27.156 (ASSUMED) TBC ON SITE.
CONTRACTOR TO OBTAIN S106 APPROVAL FROM SOUTHERN WATER

ORIFICE PLATE TO BE INSTALLED ON OUTGOING PIPE IN MANHOLE.
ORIFICE DIAMETER = 180mm

PIPES TO PASS THROUGH FOOTINGS

FOUL WATER STUB FROM PHASE 3
Phase 3 FW Stub ∅ 28.505

SURFACE WATER STUB FROM PHASE 3
P1 - S2.000 ∅ 28.545

FOUL DRAINAGE TO BE CONNECTED TO EXISTING SOUTHERN WATER FOUL MANHOLE.
IL=27.255 (ASSUMED) TBC ON SITE. CONTRACTOR TO OBTAIN S106 APPROVAL FROM SOUTHERN WATER

FOUL WATER STUB FROM PHASE 2
Phase 2 FW Stub ∅ 28.409

SURFACE WATER STUB FROM PHASE 2

SCALE 1:250 (2 0 2 4 6 8 10 m)

KEY PLAN
SCALE 1:5000

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GEOCELLULAR ATTENUATION TANKS
ALL OFFLINE GEOCELLULAR ATTENUATION TANKS TO BE DESIGNED BY SUPPLIER TO SUIT LOADINGS AND GROUND CONDITIONS FOR BOTH PRE AND POST CONSTRUCTION PHASES. ALLOWANCE TO BE MADE FOR 150mm THICK CONCRETE SLAB WITH 1 LAYER OF A393 MESH TO BE INSTALLED ABOVE AND BELOW TANK. SUPPLIER TO CONFIRM FINAL DESIGN DETAILS

RAINWATER HARVESTING TANKS
DETAILS OF ALL RAINWATER HARVESTING TANK SIZES, OVERFLOW PIPE SIZES AND PUMPS TO BIN STORE TBC BY M&E ENGINEER

GENERAL

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- IN INSTANCES WHERE SOFT LANDSCAPING FALLS TOWARDS BUILDINGS A GRAVEL STRIP WITH FILTER DRAIN IS REQUIRED.

P06	SW ATTENUATION UPDATED TO MATCH THE HYDRAULIC CALCULATIONS	20.05.24	AP	AM
P05	UPDATED SW MANHOLE I.D'S, AMENDED ATTENUATION TANK SPECS	08.02.24	AP	AM
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P03	SEWER EASEMENT ADDED.	19.04.23	AB	EDM
P02	ISSUED FOR TENDER	16.12.22	AB	EDM
P01	PRELIMINARY ISSUE	15.07.22	AB	EJD
REV	DESCRIPTION	DATE	BY	CHKD

ORIGINATOR:

RIDGE

5TH FLOOR
BELVEDERE HOUSE
12 BOOTH STREET
MANCHESTER, M2 4AW
TEL: 0161 833 9579
WWW.RIDGE.CO.UK

CLIENT:
SENIOR LIVING
(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
PROPOSED DRAINAGE GA
SHEET 1 OF 3

ENG/TECH:	CSE:	ICSE:	SCALE:	1:250	@ A1
AB	EJD	KC	STATUS ISSUE:	15.07.22	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0511	P06

OFFLINE GEO-CELLULAR ATTENUATION TANK 3
STORAGE VOLUME: 252m³
IL: 27.140m
DEPTH: 0.8m
MIN COVER DEPTH: 740mm
Ø375mm PIPE IN & OUT

OFFLINE GEO-CELLULAR ATTENUATION TANK 4
STORAGE VOLUME: 366m³
IL: 27.450m
DEPTH: 1.2m
MIN COVER DEPTH: 800mm
Ø375mm PIPE IN & OUT

DEEP EXCAVATION. CONTRACTOR TO ALLOW FOR TEMPORARY WORKS FOR TANK

BUILDING. REFER TO ENERGY CENTRE STRUCTURAL DRAWING FOR FURTHER DETAILS

HYDROBRAKE TO BE INSTALLED IN MANHOLE TO RESTRICT FLOW TO 10.3L/S WITH DESIGN HEAD 1.7m. HYDROBRAKE SPECIFICATION MD-SHE-0137-1030-1700-1030

DEEP EXCAVATION. CONTRACTOR TO ALLOW FOR TEMPORARY WORKS

OFFLINE GEO-CELLULAR ATTENUATION TANK 2
STORAGE VOLUME: 168m³
IL: 28.390m
DEPTH: 1.6m
MIN COVER DEPTH: 800mm
Ø225mm PIPE IN & OUT

OFFLINE GEO-CELLULAR ATTENUATION TANK 1
STORAGE VOLUME: 62m³
IL: 28.600m
DEPTH: 0.8m
MIN COVER DEPTH: 800mm
Ø225mm PIPE IN & OUT

RAINWATER HARVESTING TANK 4
FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

NEW MANHOLE TO BE CONSTRUCTED ON EXISTING SOUTHERN WATER FOUL SEWER.
IL=27.156 (ASSUMED) TBC ON SITE.
CONTRACTOR TO OBTAIN S106 APPROVAL FROM SOUTHERN WATER

ORIFICE PLATE TO BE INSTALLED ON OUTGOING PIPE IN MANHOLE.
ORIFICE DIAMETER = 180mm

PIPE TO PASS THROUGH FOOTINGS

PIPES TO PASS THROUGH FOOTINGS

PIPES TO PASS THROUGH FOOTINGS

PIPES TO PASS THROUGH FOOTINGS

RAINWATER HARVESTING TANK 3
FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

RAINWATER HARVESTING TANK 2
FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

RAINWATER HARVESTING TANK 1
FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

STAINLESS STEEL GREASE TRAPS TO BE PROVIDED ABOVE GROUND, BELOW SINK UNITS WITHIN THE KITCHEN, SUITABLE ACCESS FOR MAINTENANCE SHOULD BE PROVIDED.

FOUL DRAINAGE TO BE CONNECTED TO EXISTING SOUTHERN WATER FOUL MANHOLE.
IL=27.255 (ASSUMED) TBC ON SITE. CONTRACTOR TO OBTAIN S106 APPROVAL FROM SOUTHERN WATER

FOUL WATER STUB FROM PHASE 2
Phase 2 FW Stub ∅ 28.409

SURFACE WATER STUB FROM PHASE 2

DRAINAGE KEY

- EXISTING FW SEWER
- EXISTING FW RISING MAIN
- EXISTING FW MANHOLE
- PROPOSED FW DRAIN
- PROPOSED FW MANHOLE
- PROPOSED WASTE POINT CONNECTION
- PROPOSED FOUL FLOOR GULLEY
- PROPOSED SW DRAIN
- PROPOSED SW MANHOLE
- PROPOSED DEEP SW DRAIN
- PROPOSED SW PPIC
- PROPOSED RAINWATER PIPE
- PROPOSED PERMAVOID DIFFUSER UNIT
- PROPOSED ROAD GULLEY
- PROPOSED SW HEADWALL
- PROPOSED PERMEABLE PAVING (CONNECT TO DRAINAGE)
- PROPOSED GEOCELLULAR ATTENUATION TANK
- SITE BOUNDARY
- SOUTHERN WATER SEWER EASEMENT

SCALE 1:250

KEY PLAN
SCALE 1:5000

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P07	SW ATTENUATION UPDATED TO MATCH THE HYDRAULIC CALCULATIONS	20.05.24	AP	AM
P06	UPDATED SW MANHOLE I.D'S, AMENDED ATTENUATION TANK SPECS	08.02.24	AP	AM
P05	UPDATED SW MANHOLE I.D'S, AMENDED ATTENUATION TANK SPECS	24.01.24	AP	PB
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REV	DESCRIPTION	DATE	BY	CHKD

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IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
PROPOSED DRAINAGE GA
SHEET 2 OF 3

ENG/TECH:	CSE:	ICSE:	SCALE:	@ A1
AB	EJD	KC	STATUS ISSUE: 15.07.22	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0512	P07

DRAINAGE KEY

- EXISTING FW SEWER
- EXISTING FW RISING MAIN
- EXISTING FW MANHOLE
- PROPOSED FW DRAIN
- PROPOSED FW MANHOLE
- PROPOSED WASTE POINT CONNECTION
- FG PROPOSED FOUL FLOOR GULLEY
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DEPTH: 1.2m
MIN COVER DEPTH: 800mm
Ø375mm PIPE IN & OUT

DEEP EXCAVATION. CONTRACTOR TO ALLOW FOR TEMPORARY WORKS FOR TANK

PIPE UNDER ENERGY CENTRE TO BE ENCASED IN CONCRETE. CONCRETE ENCASEMENT TO EXTEND A MINIMUM OF 2.5m FROM THE PERIMETER OF THE BUILDING. REFER TO ENERGY CENTRE STRUCTURAL DRAWING FOR FURTHER DETAILS

HYDROBRAKE TO BE INSTALLED IN MANHOLE TO RESTRICT FLOW TO 10.3L/S WITH DESIGN HEAD 1.7m. HYDROBRAKE SPECIFICATION MD-SHE-0137-1030-1700-1030

DEEP EXCAVATION. CONTRACTOR TO ALLOW FOR TEMPORARY WORKS

SURFACE WATER OUTFALL TO RIVER ARUN. HEADWALL WITH FLAP VALVE TO BE CONSTRUCTED WITHIN RIVER BANK. EXACT DETAILS TO BE AGREED WITH THE EA. CONTACTOR TO OBTAIN APPROVAL FROM EA. IL 26.439m.

PIPE LOCATED IN FLOOD PLAIN. AREA LIABLE TO FLOODING. CONTRACTOR TO PLAN TIMING OF WORKS ACCORDINGLY

PIPE TO PASS THROUGH FOOTINGS

OFFLINE GEO-CELLULAR ATTENUATION TANK 2
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IL: 28.390m
DEPTH: 1.6m
MIN COVER DEPTH: 800mm
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ORIFICE PLATE TO BE INSTALLED ON OUTGOING PIPE IN MANHOLE. ORIFICE DIAMETER = 180mm

RAINWATER HARVESTING TANK 3 FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

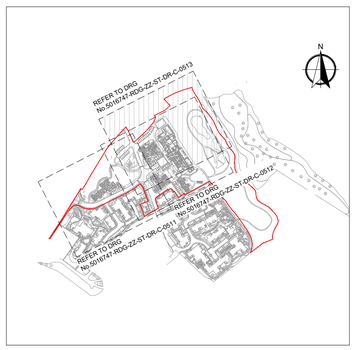
RAINWATER HARVESTING TANK 2 FOR DETAILS REFER TO ESD & MANUFACTURER DRAWINGS

STAINLESS STEEL GREASE TRAPS TO BE PROVIDED ABOVE GROUND, BELOW SINK UNITS WITHIN THE KITCHEN, SUITABLE ACCESS FOR MAINTENANCE SHOULD BE PROVIDED.

PIPES TO PASS THROUGH

RIVER ARUN

Wellcross Farm Cottage



KEY PLAN
SCALE 1:5000

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REV	DESCRIPTION	DATE	BY	CHKD
P06	SW ATTENUATION UPDATED TO MATCH THE HYDRAULIC CALCULATIONS	20.05.24	AP	AM
P05	UPDATED SW MANHOLE I.D'S, AMENDED ATTENUATION TANK SPECS	08.02.24	AP	PB
P04	UPDATED SW MANHOLE I.D'S, AMENDED ATTENUATION TANK SPECS	24.01.24	AP	PB
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RIDGE
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TEL: 0161 833 9579
WWW.RIDGE.CO.UK

CLIENT:
SENIOR LIVING (BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH RETIREMENT VILLAGE

TITLE:
PHASE 1
PROPOSED DRAINAGE GA
SHEET 3 OF 3

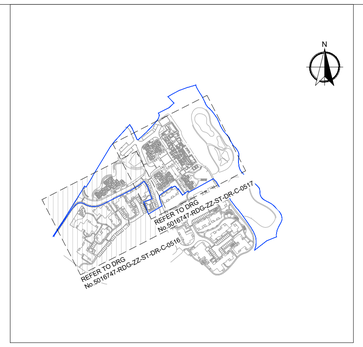
ENG/TECH:	CSE:	ICSE:	SCALE:	1:250	@ A1
AB	EDM	KC	STATUS ISSUE:	16.12.22	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0513	P06



KEY PLAN

SCALE 1:5000

PHASE 1 ESTIMATED IMPERMEABLE AREA: 0.873ha

2 0 2 4 6 8 10 m

SCALE 1:250

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KEY

PHASE 1 BOUNDARY

PHASE 2 CONTRIBUTING IMPERMEABLE AREAS

REV	DESCRIPTION	DATE	BY	CHKD
P02	UPDATED TO SUIT THE LATEST DRAINAGE GA	07.02.24	AM	PB
P01	PRELIMINARY ISSUE	15.07.22	AB	EJD

ORIGINATOR:

RIDGE

5TH FLOOR
BELVEDERE HOUSE
12 BOOTH STREET
MANCHESTER, M2 4AW

TEL: 0161 833 9579

WWW.RIDGE.CO.UK

CLIENT:

SENIOR LIVING
(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:

URBAN EDGE

PROJECT:

BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:

PHASE 1
DRAINAGE CATCHMENT AREAS
SHEET 1 OF 2

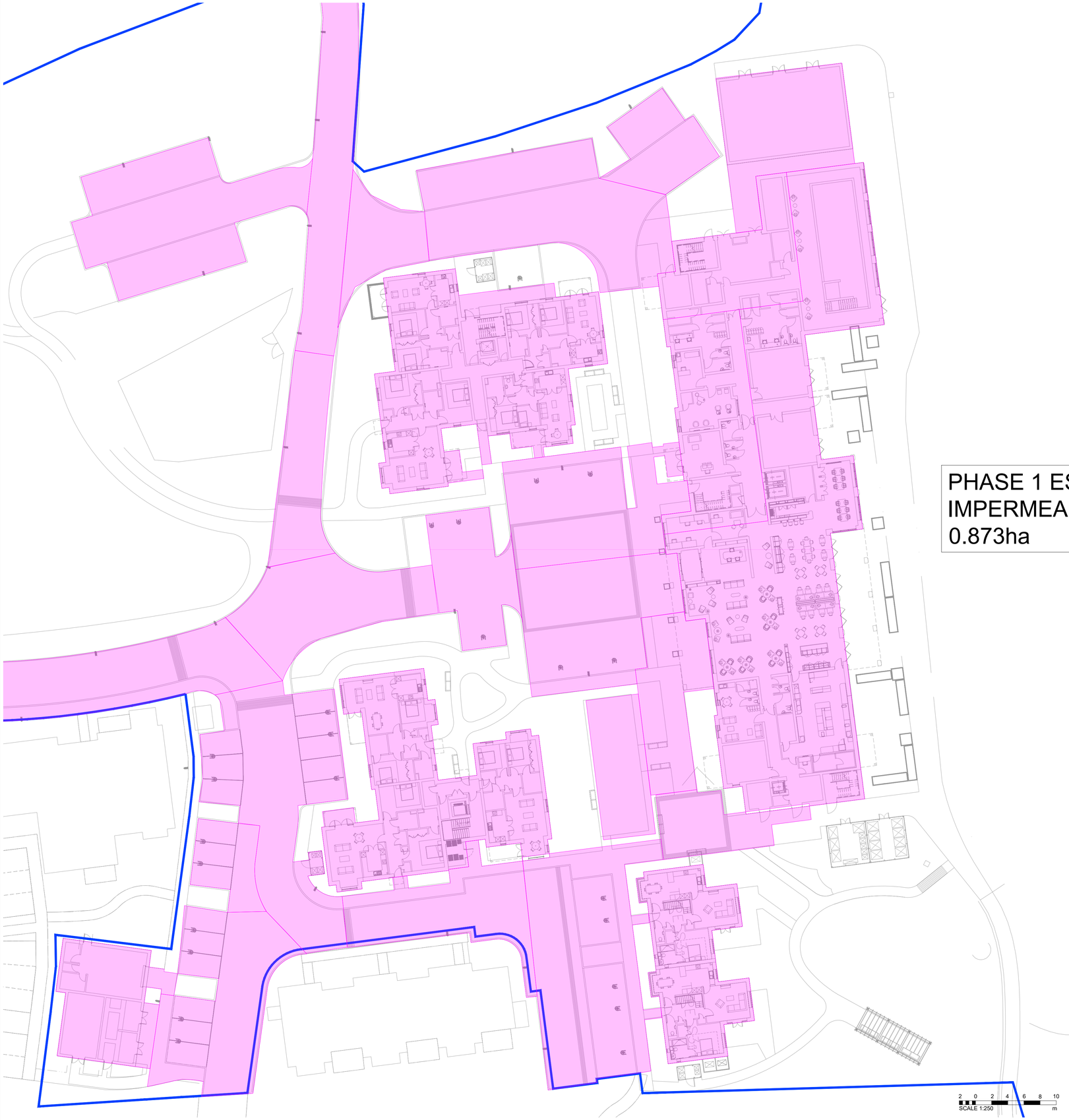
ENG/TECH:	CSE:	ICSE:	SCALE: 1:250 @ A1
AB	EJD	KC	STATUS ISSUE: 15.07.22

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

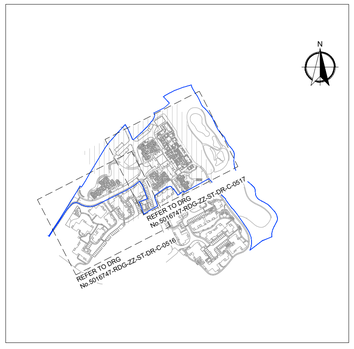
SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0541	P02



PHASE 1 ESTIMATED IMPERMEABLE AREA: 0.873ha





KEY PLAN
SCALE 1:5000

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KEY

PHASE 1 BOUNDARY

PHASE 2 CONTRIBUTING IMPERMEABLE AREAS

REV	DESCRIPTION	DATE	BY	CHKD
P02	UPDATED TO SUIT THE LATEST DRAINAGE GA	07.02.24	AM	PB
P01	PRELIMINARY ISSUE	15.07.22	AB	EJD

ORIGINATOR:

RIDGE

5TH FLOOR
BELVEDERE HOUSE
12 BOOTH STREET
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TEL: 0161 833 9579
WWW.RIDGE.CO.UK

CLIENT:
SENIOR LIVING
(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
DRAINAGE CATCHMENT AREAS
SHEET 2 OF 2

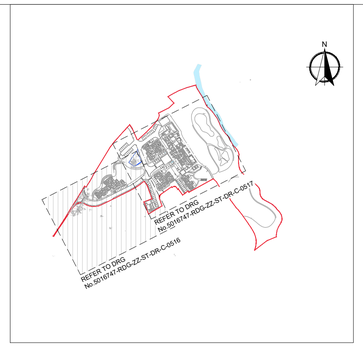
ENG/TECH:	CSE:	ICSE:	SCALE:	1:250	@ A1
AB	EJD	KC	STATUS ISSUE:	15.07.22	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0542	P02



KEY PLAN

SCALE 1:5000

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DRAINAGE KEY

- EXISTING FW SEWER
- EXISTING FW RISING MAIN
- EXISTING FW MANHOLE
- PROPOSED FW DRAIN
- PROPOSED FW MANHOLE
- PROPOSED WASTE POINT CONNECTION (FG)
- PROPOSED FOUL FLOOR GULLEY
- PROPOSED SW DRAIN
- PROPOSED SW MANHOLE
- PROPOSED SW PPIC
- PROPOSED RAINWATER PIPE
- PROPOSED PERMAVOID DIFFUSER UNIT
- PROPOSED ROAD GULLEY
- PROPOSED SW HEADWALL
- PROPOSED GEOCELLULAR ATTENUATION TANK
- SOUTHERN WATER SEWER EASEMENT
- EXCEEDANCE FLOOD ROUTE ABOVE THE 1 IN 100 YEAR + 45% CC FLOOD EVENT
- 0.090m — PROPOSED SW FLOODING DEPTH FOR FLOWS ABOVE THE 1 IN 30 YEAR + 40% CC FLOOD EVENT
- PHASE 1 BOUNDARY

REV	DESCRIPTION	DATE	BY	CHKD
P03	UPDATED TO SUIT THE SW HYDRAULIC CALCULATIONS	20.05.24	AM	PB
P02	UPDATED TO SUIT THE LATEST DRAINAGE GA	19.02.24	AM	PB
P01	PRELIMINARY ISSUE	15.07.22	AB	EJD

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URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
FLOOD FLOW ROUTE
SHEET 1 OF 2

ENG/TECH:	CSE:	ICSE:	SCALE:	1:250	@ A1
AB	EJD	KC	STATUS ISSUE:	15.07.22	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0517	P03

GROUND LEVELS SLOPE AWAY FROM BUILDING ENTRANCES TO ENSURE POTENTIAL FLOOD FLOWS DO NOT IMPACT THE BUILDING

3.5m³ FLOODING TO BE CONTAINED WITHIN THE CAR PARKING AREA. PROPOSED KERBING TO MAKE SURE FLOODING DOES NOT AFFECT THE PROPERTIES.

GROUND LEVELS SLOPE AWAY FROM BUILDING ENTRANCES TO ENSURE POTENTIAL FLOOD FLOWS DO NOT IMPACT THE BUILDING

0.5m³ FLOODING TO BE CONTAINED WITHIN THE CAR PARKING AREA. PROPOSED KERBING TO MAKE SURE FLOODING DOES NOT AFFECT THE PROPERTIES.

GROUND LEVELS SLOPE AWAY FROM BUILDING ENTRANCES TO ENSURE POTENTIAL FLOOD FLOWS DO NOT IMPACT THE BUILDING

Phase 2 FW Stub ∅ 28.409

SCALE 1:250

KEY PLAN

SCALE 1:5000

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- PHASE 1 BOUNDARY

REV	DESCRIPTION	DATE	BY	CHKD
P03	UPDATED TO SUIT THE SW HYDRAULIC CALCULATIONS	20.05.24	AM	PB
P02	UPDATED TO THE LATEST DRAINAGE GA	09.02.24	AM	PB
P01	PRELIMINARY ISSUE	15.07.22	AB	EJD

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BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
FLOOD FLOW ROUTE
SHEET 2 OF 2

ENG/TECH:	CSE:	ICSE:	SCALE:	@ A1
AB	EJD	KC	STATUS ISSUE: 15.07.22	

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	ST	DR	C	0519	P03

MANHOLE SCHEDULE

MANHOLE NO.	MANHOLE CO-ORDINATES	COVER LEVEL (m)	DEPTH TO INVERT (m)	MANHOLE SIZE	MANHOLE TYPE	PIPE IN NAME, INVERT LEVEL (m) & DIA	PIPE OUT NAME, INVERT LEVEL (m) & DIA	COVER SIZE (mm) & GRADE	COMMENTS
P1 - SW01	E:513766.331 N:130718.585	31.153	1.551	1,200	TYPE 4	From RG1, IL=29.652, 100mmØ	To P1 - SW02, IL=29.602, 150mmØ	600x600 D400	
P1 - SW02	E:513782.208 N:130721.593	30.957	1.463	1,200	TYPE 4	From P1 - SW01, IL=29.494, 150mmØ From RG2, IL=29.494, 150mmØ	To P1 - SW03, IL=29.494, 150mmØ	600x600 D400	
P1 - SW03	E:513798.052 N:130728.880	30.783	2.356	1,200	TYPE 1	From P1 - SW02, IL=28.502, 150mmØ From Phase 3 SW Stub, IL=28.502, 150mmØ From P1 - SW05, IL=29.505, 100mmØ	To P1 - SW06, IL=28.427, 225mmØ	600x600 D400	PIPE FROM S05 VIA BACKDROP RECESSED COVER
P1 - SW05	E:513797.070 N:130730.708	30.813	1.287	450	IC	From S03, IL=29.526, 100mmØ From RWP5, IL=29.526, 100mmØ From S04, IL=29.526, 100mmØ	To P1 - SW03, IL=29.526, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
P1 - SW06	E:513824.551 N:130741.931	30.482	2.231	1,200	TYPE 1	From P1 - SW03, IL=28.251, 225mmØ From Tank 1, IL=28.251, 225mmØ From RG3, IL=28.326, 150mmØ	To P1 - SW07, IL=28.251, 225mmØ	600x600 D400	
P1 - SW07	E:513830.423 N:130744.783	30.417	2.207	1,200	TYPE 1	From P1 - SW06, IL=28.210, 225mmØ From RWHT 4, IL=28.285, 150mmØ	To P1 - SW08, IL=28.210, 225mmØ	600x600 D400	
P1 - SW08	E:513857.545 N:130764.306	30.734	2.798	1,200	TYPE 1	From P1 - SW07, IL=28.011, 225mmØ From RG4, IL=28.086, 150mmØ	To P1 - SW09, IL=27.936, 300mmØ	600x600 D400	
P1 - SW09	E:513864.650 N:130775.294	30.957	3.418	1,200	TYPE 2	From P1 - SW08, IL=27.539, 300mmØ From P1 - SW12, IL=27.614, 225mmØ From P1 - SW16, IL=27.614, 225mmØ	To P1 - SW18, IL=27.539, 300mmØ	600x600 D400	180mm ORIFICE PLATE TO BE INSTALLED
P1 - SW11	E:513882.328 N:130717.068	31.254	3.186	1,200	TYPE 4	From , IL=28.311, 150mmØ From S30, IL=29.854, 100mmØ	To P1 - SW12, IL=28.068, 150mmØ	600x600 D400	PIPE FROM S30 VIA BACKDROP
P1 - SW12	E:513875.627 N:130739.311	30.971	3.133	1,200	TYPE 1	From P1 - SW14, IL=29.021, 300mmØ From P1 - SW11, IL=27.913, 150mmØ From S34, IL=29.569, 100mmØ	To P1 - SW09, IL=27.838, 300mmØ	600x600 D400	PIPE FROM S26 and S30 CONNECTION VIA BACKDROP
P1 - SW13	E:513907.260 N:130751.397	31.101	1.851	1,200	TYPE 1	From RWHT 1, IL=29.325, 150mmØ From DIFF4, IL=29.325, 150mmØ From RG5, IL=29.325, 150mmØ From DIFF3, IL=29.325, 150mmØ	To P1 - SW14, IL=29.250, 300mmØ	600x600 D400	
P1 - SW14	E:513882.699 N:130736.456	31.140	2.074	1,200	TYPE 1	From P1 - SW13, IL=29.066, 300mmØ	To P1 - SW12, IL=29.066, 300mmØ	600x600 D400	
P1 - SW15	E:513893.439 N:130791.476	30.869	2.242	1,200	TYPE 1	From S49, IL=28.702, 150mmØ From S43, IL=28.627, 225mmØ	To P1 - SW16, IL=28.627, 300mmØ	600x600 D400	
P1 - SW16	E:513878.054 N:130781.049	31.128	2.763	1,200	TYPE 1	From P1 - SW15, IL=28.365, 300mmØ From TANK 2, IL=28.365, 225mmØ	To P1 - SW09, IL=28.365, 300mmØ	600x600 D400	
P1 - SW17	E:513838.080 N:130817.160	29.669	2.560	1,500	TYPE 1	From TANK 3, IL=27.109, 375mmØ From DIFF6, IL=28.060, 150mmØ From S53, IL=27.334, 150mmØ	To P1 - SW18, IL=27.109, 375mmØ	600x600 D400	PIPE FROM PERMEABLE PAVING DIFFUSER VIA BACKDROP
P1 - SW18	E:513849.566 N:130812.585	30.098	3.026	1,500	TYPE 1	From P1 - SW09, IL=27.147, 300mmØ From P1 - SW17, IL=27.072, 375mmØ	To P1 - SW19, IL=27.072, 375mmØ	600x600 D400	
P1 - SW19	E:513877.502 N:130832.289	30.675	3.708	1,500	TYPE 2	From P1 - SW18, IL=26.967, 375mmØ From TANK 4, IL=27.430, 375mmØ From S58, IL=29.220, 100mmØ	To P1 - SW20, IL=26.967, 375mmØ	600x600 D400	PIPE CONNECTION FROM TANK AND S58 VIA BACKDROPS
P1 - SW20	E:513883.626 N:130837.761	30.841	3.899	1,200	TYPE 2	From P1 - SW19, IL=26.942, 375mmØ From S61, IL=29.541, 100mmØ	To P1 - SW21, IL=26.942, 375mmØ	600x600 D400	PIPE FROM S61 VIA BACKDROP
P1 - SW21	E:513880.363 N:130843.189	30.643	3.720	1,500	TYPE 2	From P1 - SW20, IL=26.923, 375mmØ	To P1 - SW22, IL=26.923, 375mmØ	600x600 D400	
P1 - SW22	E:513899.080 N:130856.179	30.453	3.600	1,200	Flow Control	From P1 - SW21, IL=26.853, 375mmØ From S64, IL=29.466, 100mmØ From S66, IL=29.466, 100mmØ	To P1 - SW24, IL=26.853, 225mmØ	600x600 D400	RECESSED COVER HYDROBRAKE CHAMBER PIPES FROM S64 AND S62 VIA BACKDROPS
P1 - SW24	E:513957.984 N:130862.007	27.680	1.180	1,200	TYPE 4	From P1 - SW22, IL=26.500, 225mmØ	To , IL=26.500, 225mmØ	600x600 D400	
S03	E:513785.854 N:130725.515	30.948	0.748	450	IC	From RE1, IL=30.200, 100mmØ From RWP1, IL=30.200, 100mmØ	To P1 - SW05, IL=30.200, 100mmØ	450 B125	
S04	E:513795.490 N:130734.938	30.553	0.982	450	IC	From RWP4, IL=29.571, 100mmØ From RWP2, IL=29.571, 100mmØ From RWP3, IL=29.571, 100mmØ	To P1 - SW05, IL=29.571, 100mmØ	450 B125	

MANHOLE SCHEDULE

MANHOLE NO.	MANHOLE CO-ORDINATES	COVER LEVEL (m)	DEPTH TO INVERT (m)	MANHOLE SIZE	MANHOLE TYPE	PIPE IN NAME, INVERT LEVEL (m) & DIA	PIPE OUT NAME, INVERT LEVEL (m) & DIA	COVER SIZE (mm) & GRADE	COMMENTS
S08	E:513791.353 N:130747.777	30.450	1.110	450	IC	From RE2, IL=29.340, 100mmØ From RWP6, IL=29.340, 100mmØ	To S09, IL=29.340, 100mmØ	450 B125	
S09	E:513786.401 N:130753.874	30.444	1.183	450	IC	From S08, IL=29.261, 100mmØ	To S10, IL=29.261, 100mmØ	600x600 B125	
S10	E:513800.213 N:130764.062	29.959	0.870	450	IC	From S09, IL=29.089, 100mmØ	To S11, IL=29.089, 100mmØ	600x600 B125	
S11	E:513810.894 N:130758.536	30.166	1.198	450	IC	From S10, IL=28.969, 100mmØ From RWP7, IL=28.969, 100mmØ	To S12, IL=28.969, 100mmØ	450 B125	
S12	E:513819.112 N:130747.866	30.282	1.448	450	IC	From S11, IL=28.834, 100mmØ From RE3, IL=28.834, 100mmØ	To S13, IL=28.834, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S13	E:513826.694 N:130751.633	30.075	1.376	450	IC	From S12, IL=28.749, 100mmØ	To RWHT4, IL=28.699, 150mmØ	450 B125	REDUCED ACCESS TO 350mm
S16	E:513939.022 N:130748.066	31.341	0.753	450	IC	From RE4, IL=30.588, 100mmØ	To S17, IL=30.588, 100mmØ	600x600 B125	
S17	E:513926.122 N:130739.280	31.357	1.257	450	IC	From S16, IL=30.100, 100mmØ	To S24, IL=30.100, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S18	E:513886.690 N:130742.436	31.117	0.742	450	IC	From RWP11, IL=30.375, 100mmØ	To S22, IL=30.375, 100mmØ	600x600 B125	
S19	E:513879.950 N:130772.358	31.025	0.730	450	IC	From RE6, IL=30.296, 100mmØ	To S20, IL=30.296, 100mmØ	450 B125	
S20	E:513886.478 N:130765.318	31.071	0.871	450	IC	From S19, IL=30.200, 100mmØ From RWP9, IL=30.200, 100mmØ From RWP10, IL=30.200, 100mmØ	To S21, IL=30.200, 100mmØ	600x600 B125	
S21	E:513896.254 N:130772.293	31.044	0.968	450	IC	From S20, IL=30.076, 100mmØ	To S22, IL=30.076, 100mmØ	450 B125	
S22	E:513906.574 N:130756.252	31.037	1.537	450	IC	From S21, IL=29.500, 100mmØ From S18, IL=29.500, 100mmØ	To S23, IL=29.500, 100mmØ	600x600 D400	REDUCED ACCESS TO 350mm
S23	E:513912.298 N:130759.638	31.233	1.799	450	IC	From RE5, IL=29.434, 100mmØ From S22, IL=29.434, 100mmØ	To S24, IL=29.434, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S24	E:513914.507 N:130756.353	31.308	1.964	450	IC	From S17, IL=29.394, 100mmØ From S23, IL=29.394, 100mmØ	To RWHT1, IL=29.344, 150mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S27	E:513866.436 N:130725.745	31.093	0.685	450	IC	From RE18, IL=30.408, 100mmØ	To S30, IL=30.408, 100mmØ	450 B125	
S28	E:513859.716 N:130705.819	31.101	0.718	450	IC	From RE19, IL=30.383, 100mmØ	To S29, IL=30.383, 100mmØ	450 B125	
S30	E:513871.109 N:130712.579	31.156	0.928	450	IC	From S27, IL=30.228, 100mmØ From S29, IL=30.228, 100mmØ	To P1 - SW11, IL=30.228, 100mmØ	450 B125	
S32	E:513878.784 N:130752.858	31.086	0.638	450	IC	From RE7, IL=30.448, 100mmØ From RWP13, IL=30.448, 100mmØ From RWP12, IL=30.448, 100mmØ	To S33, IL=30.448, 100mmØ	450 B125	
S33	E:513874.929 N:130749.357	31.118	0.854	450	IC	From S32, IL=30.264, 100mmØ	To S34, IL=30.264, 100mmØ	600x600 B125	
S34	E:513878.712 N:130740.643	31.098	1.470	450	IC	From S33, IL=29.628, 100mmØ From RWP14, IL=29.628, 100mmØ	To P1 - SW12, IL=29.628, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S36	E:513919.701 N:130813.418	30.886	0.793	450	IC	From RE8, IL=30.093, 100mmØ	To S37, IL=30.093, 100mmØ	600x600 B125	
S37	E:513939.888 N:130783.410	30.927	1.196	450	IC	From S36, IL=29.731, 100mmØ	To S38, IL=29.731, 100mmØ	600x600 B125	

MANHOLE SCHEDULE

MANHOLE NO.	MANHOLE CO-ORDINATES	COVER LEVEL (m)	DEPTH TO INVERT (m)	MANHOLE SIZE	MANHOLE TYPE	PIPE IN NAME, INVERT LEVEL (m) & DIA	PIPE OUT NAME, INVERT LEVEL (m) & DIA	COVER SIZE (mm) & GRADE	COMMENTS
S38	E:513922.554 N:130771.294	30.993	1.473	450	IC	From S37, IL=29.520, 100mmØ	To S39, IL=29.520, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S39	E:513914.977 N:130772.387	31.061	1.618	450	IC	From S38, IL=29.443, 100mmØ	To S40, IL=29.443, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S40	E:513907.323 N:130783.431	30.957	1.648	450	IC	From S39, IL=29.309, 100mmØ	To S41, IL=29.309, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S41	E:513910.040 N:130786.452	30.972	1.704	450	IC	From S40, IL=29.268, 100mmØ	To S42, IL=29.268, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S42	E:513907.139 N:130790.751	31.000	1.834	450	IC	From S41, IL=29.216, 100mmØ From RWP15, IL=29.216, 100mmØ	To RWHT 2, IL=29.166, 150mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S43	E:513898.381 N:130784.651	30.970	1.947	1,200	TYPE 1	From RWHT2, IL=29.098, 150mmØ	To P1 - SW15, IL=29.023, 225mmØ	600x600 D400	
S44	E:513863.409 N:130786.441	30.746	1.389	450	IC	From RE12, IL=29.357, 100mmØ	To S45, IL=29.357, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
S45	E:513876.363 N:130794.741	30.825	1.622	450	IC	From S44, IL=29.203, 100mmØ	To S46, IL=29.203, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S46	E:513875.062 N:130796.918	30.780	1.702	450	IC	From S45, IL=29.178, 100mmØ From RWP18, IL=29.178, 100mmØ From RWP19, IL=29.178, 100mmØ	To S47, IL=29.078, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S47	E:513890.828 N:130807.380	30.837	1.948	450	IC	From RE9, IL=28.889, 100mmØ From MH547, IL=28.889, 100mmØ From S46, IL=28.889, 100mmØ	To S48, IL=28.889, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S48	E:513893.156 N:130804.194	30.900	2.100	450	IC	From S47, IL=28.850, 100mmØ From RWP16, IL=28.850, 100mmØ From RWP17, IL=28.850, 100mmØ	To RWHT 3, IL=28.800, 150mmØ	600x600 B125	REDUCED ACCESS TO 350mm
S49	E:513887.713 N:130800.443	30.753	1.980	1,200	TYPE 1	From RWHT3, IL=28.773, 150mmØ From DIFF2, IL=28.773, 150mmØ	To P1 - SW15, IL=28.773, 150mmØ	600x600 D400	
S53	E:513829.073 N:130835.572	29.107	1.400	1,200	TYPE 4	From RG7, IL=27.707, 150mmØ	To P1 - SW17, IL=27.707, 150mmØ	600x600 D400	
S56	E:513860.666 N:130817.491	30.699	1.048	450	IC	From RE13, IL=29.652, 100mmØ	To S57, IL=29.652, 100mmØ	450 B125	
S57	E:513863.184 N:130814.103	30.848	1.388	450	IC	From S56, IL=29.460, 100mmØ	To S58, IL=29.460, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
S58	E:513871.084 N:130819.317	30.785	1.420	450	IC	From S57, IL=29.365, 100mmØ	To P1 - SW19, IL=29.365, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
S60	E:513880.598 N:130832.278	30.793	0.441	450	IC	From RE14, IL=30.352, 100mmØ	To S61, IL=30.352, 100mmØ	600x600 B125	
S61	E:513885.182 N:130835.544	30.947	0.750	450	IC	From S60, IL=30.197, 100mmØ From RE15, IL=30.197, 100mmØ	To P1 - SW20, IL=30.197, 100mmØ	600x600 B125	
S64	E:513892.169 N:130862.736	30.883	0.843	450	IC	From RE16, IL=30.040, 100mmØ	To P1 - SW22, IL=30.040, 100mmØ	600x600 B125	
S65	E:513885.822 N:130843.395	30.890	1.005	450	IC	From MH672, IL=29.885, 100mmØ	To S66, IL=30.290, 100mmØ	600x600 B125	
S66	E:513899.040 N:130852.556	30.865	1.055	450	IC	From S65, IL=29.811, 100mmØ	To P1 - SW22, IL=29.811, 100mmØ	600x600 B125	

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REV	DESCRIPTION	DATE	BY	CHKD
P05	UPDATED TO SUIT DRAINAGE GA	20.05.24	AP	AM
P04	UPDATED MANHOLE I.D'S	09.02.24	AP	AM
P03	UPDATED MANHOLE I.D'S	24.01.24	AP	PB
P02	ISSUED FOR TENDER	09.01.23	AS	EDM
P01	ISSUED FOR TENDER	16.12.22	AB	EDM

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CLIENT:
SENIOR LIVING
(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
MANHOLE SCHEDULES
SHEET 1 OF 2

ENG/TECH:	CSE:	ICSE:	SCALE: NTS @ A1
AB	EJD	KC	STATUS ISSUE: 15.07.22

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	XX	DR	C	0517	P05

MANHOLE SCHEDULE

MANHOLE NO.	MANHOLE CO-ORDINATES	COVER LEVEL (m)	DEPTH TO INVERT (m)	MANHOLE SIZE	MANHOLE TYPE	PIPE IN NAME, INVERT LEVEL (m) & DIA	PIPE OUT NAME, INVERT LEVEL (m) & DIA	COVER SIZE (mm) & GRADE	COMMENTS
P1 - FW01	E:513926.185 N:130740.451	31.373	0.964	450	IC	From FG1, IL=30.409, 100mmØ	To P1 - FW02, IL=30.409, 100mmØ	600x600 B125	
P1 - FW02	E:513923.662 N:130743.967	31.381	1.044	450	IC	From P1 - FW01, IL=30.337, 100mmØ From SVP2, IL=30.337, 100mmØ From SVP1, IL=30.337, 100mmØ	To P1 - FW03, IL=30.337, 100mmØ	600x600 B125	
P1 - FW03	E:513918.670 N:130751.519	31.327	1.103	450	IC	From P1 - FW02, IL=30.224, 100mmØ From SVP4, IL=30.224, 100mmØ From SVP3, IL=30.224, 100mmØ	To P1 - FW04, IL=30.224, 100mmØ	600x600 B125	
P1 - FW04	E:513914.135 N:130758.108	31.283	1.159	450	IC	From P1 - FW03, IL=30.124, 100mmØ From SVP5, IL=30.124, 100mmØ From SVP6, IL=30.124, 100mmØ	To P1 - FW05, IL=30.124, 100mmØ	600x600 B125	
P1 - FW05	E:513902.709 N:130750.519	31.075	1.461	1,200	TYPE 4	From P1 - FW06, IL=29.745, 100mmØ From P1 - FW04, IL=29.745, 100mmØ	To P1 - FW09, IL=29.695, 150mmØ	600x600 D400	
P1 - FW06	E:513901.129 N:130753.295	31.002	0.968	450	IC	From SVP7, IL=30.034, 100mmØ From P1 - FW07, IL=30.034, 100mmØ From SVP8, IL=30.034, 100mmØ	To P1 - FW05, IL=30.034, 100mmØ	600x600 B125	
P1 - FW07	E:513895.723 N:130749.269	31.012	0.735	450	IC	From P1 - FW08, IL=30.277, 100mmØ From SVP9, IL=30.277, 100mmØ From FG2, IL=30.277, 100mmØ	To P1 - FW06, IL=30.277, 100mmØ	600x600 B125	
P1 - FW08	E:513888.749 N:130744.568	31.131	0.644	450	IC	From SVP10, IL=30.487, 100mmØ	To P1 - FW07, IL=30.487, 100mmØ	600x600 B125	
P1 - FW09	E:513878.637 N:130736.469	31.057	2.700	1,200	TYPE 1	From P1 - FW05, IL=29.509, 150mmØ From PHASE 2 FW STUB, IL=28.357, 150mmØ From P1 - FW09A, IL=28.407, 100mmØ	To P1 - FW43, IL=28.357, 150mmØ	600x600 D400	PIPE FROM F05 VIA BACKDROP
P1 - FW09A	E:513868.686 N:130723.609	31.119	1.086	450	IC	From SVP59, IL=30.033, 100mmØ	To P1 - FW09, IL=30.033, 100mmØ	450 B125	
P1 - FW10	E:513875.875 N:130748.695	31.067	0.947	450	IC	From FG3, IL=30.120, 100mmØ	To P1 - FW11, IL=30.120, 100mmØ	450 B125	
P1 - FW11	E:513877.926 N:130755.553	31.071	1.041	450	IC	From P1 - FW10, IL=30.031, 100mmØ From SVP13, IL=30.031, 100mmØ From SVP14, IL=30.031, 100mmØ	To P1 - FW12, IL=30.031, 100mmØ	450 B125	
P1 - FW12	E:513872.670 N:130760.033	30.945	1.151	450	IC	From SVP11, IL=29.794, 100mmØ From P1 - FW11, IL=29.794, 100mmØ From SVP12, IL=29.794, 100mmØ	To P1 - FW43, IL=29.794, 100mmØ	600x600 D400	
P1 - FW13	E:513929.742 N:130776.970	30.989	0.755	450	IC	From SVP20, IL=30.234, 100mmØ From FG4, IL=30.234, 100mmØ From FG5, IL=30.234, 100mmØ	To P1 - FW14, IL=30.234, 100mmØ	600x600 B125	
P1 - FW14	E:513922.707 N:130771.915	30.995	0.869	450	IC	From P1 - FW13, IL=30.126, 100mmØ	To P1 - FW15, IL=30.126, 100mmØ	600x600 B125	
P1 - FW15	E:513915.247 N:130773.287	31.052	1.025	450	IC	From P1 - FW14, IL=30.027, 100mmØ	To P1 - FW18, IL=30.027, 100mmØ	600x600 B125	
P1 - FW16	E:513914.123 N:130775.758	31.018	0.945	450	IC	From SVP23, IL=30.073, 100mmØ From SVP22, IL=30.073, 100mmØ	To , IL=30.073, 100mmØ	600x600 B125	
P1 - FW17	E:513911.357 N:130779.735	30.972	0.904	450	IC	From SVP24, IL=30.068, 100mmØ From SVP21, IL=30.068, 100mmØ	To P1 - FW18, IL=30.068, 100mmØ	600x600 B125	
P1 - FW18	E:513909.413 N:130779.199	31.012	1.295	450	IC	From P1 - FW15, IL=29.755, 100mmØ From P1 - FW17, IL=29.717, 100mmØ	To P1 - FW23, IL=29.755, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
P1 - FW19	E:513894.003 N:130800.236	30.845	0.874	450	IC	From SVP15, IL=29.971, 100mmØ From SVP16, IL=30.027, 100mmØ	To P1 - FW22, IL=29.971, 100mmØ	600x600 B125	

MANHOLE SCHEDULE

MANHOLE NO.	MANHOLE CO-ORDINATES	COVER LEVEL (m)	DEPTH TO INVERT (m)	MANHOLE SIZE	MANHOLE TYPE	PIPE IN NAME, INVERT LEVEL (m) & DIA	PIPE OUT NAME, INVERT LEVEL (m) & DIA	COVER SIZE (mm) & GRADE	COMMENTS
P1 - FW20	E:513900.632 N:130796.591	31.000	0.938	450	IC	From SVP17, IL=30.062, 100mmØ From SVP19, IL=30.062, 100mmØ From SVP18, IL=30.062, 100mmØ	To , IL=30.062, 100mmØ	600x600 B125	
P1 - FW21	E:513911.064 N:130785.335	30.976	0.835	450	IC	From SVP27, IL=30.141, 100mmØ From SVP28, IL=30.141, 100mmØ From SVP26, IL=30.141, 100mmØ	To P1 - FW22, IL=30.141, 100mmØ	600x600 B125	
P1 - FW22	E:513903.202 N:130784.208	30.954	1.435	450	IC	From P1 - FW22A, IL=29.519, 100mmØ From P1 - FW19, IL=29.519, 100mmØ From P1 - FW21, IL=29.519, 100mmØ	To P1 - FW23, IL=29.519, 100mmØ	600x600 B125	
P1 - FW22A	E:513906.944 N:130789.431	31.002	0.899	450	IC	From SVP30, IL=30.103, 100mmØ From SVP29, IL=30.103, 100mmØ	To P1 - FW22, IL=30.103, 100mmØ	600x600 B125	
P1 - FW23	E:513898.943 N:130781.464	30.990	2.026	1,200	TYPE 1	From P1 - FW22, IL=29.012, 100mmØ From P1 - FW18, IL=29.012, 100mmØ	To P1 - FW41, IL=28.962, 150mmØ	600x600 D400	
P1 - FW24	E:513882.461 N:130820.843	30.812	0.772	450	IC	From SVP31, IL=30.040, 100mmØ From SVP32, IL=30.040, 100mmØ	To P1 - FW25, IL=30.040, 100mmØ	600x600 B125	
P1 - FW25	E:513884.960 N:130817.285	30.863	0.878	450	IC	From P1 - FW24, IL=29.986, 100mmØ From SVP34, IL=29.986, 100mmØ	To P1 - FW26, IL=29.986, 100mmØ	600x600 B125	
P1 - FW26	E:513887.543 N:130813.749	30.865	0.934	450	IC	From P1 - FW25, IL=29.931, 100mmØ From SVP33, IL=29.931, 100mmØ From SVP35, IL=29.931, 100mmØ	To P1 - FW27, IL=29.931, 100mmØ	600x600 B125	
P1 - FW27	E:513890.777 N:130809.004	30.860	1.001	450	IC	From P1 - FW26, IL=29.859, 100mmØ From SVP37, IL=29.859, 100mmØ From SVP36, IL=29.859, 100mmØ	To P1 - FW28, IL=29.859, 100mmØ	600x600 B125	
P1 - FW28	E:513891.710 N:130807.632	30.867	1.029	450	IC	From P1 - FW27, IL=29.838, 100mmØ From SVP38, IL=29.838, 100mmØ	To P1 - FW40, IL=29.838, 100mmØ	600x600 B125	
P1 - FW30	E:513864.147 N:130813.893	30.860	0.727	450	IC	From SVP39, IL=30.133, 100mmØ From SVP40, IL=30.133, 100mmØ From SVP41, IL=30.133, 100mmØ	To P1 - FW31, IL=30.133, 100mmØ	600x600 B125	
P1 - FW31	E:513869.965 N:130817.905	30.852	1.283	450	IC	From P1 - FW30, IL=29.569, 100mmØ From SVP42, IL=29.569, 100mmØ From FG6, IL=29.693, 100mmØ	To P1 - FW32, IL=29.569, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
P1 - FW32	E:513877.642 N:130823.219	30.743	1.291	450	IC	From P1 - FW31, IL=29.452, 100mmØ	To P1 - FW33, IL=29.452, 100mmØ	600x600 D400	REDUCED ACCESS TO 350mm
P1 - FW33	E:513884.700 N:130815.117	30.817	1.499	450	IC	From P1 - FW32, IL=29.318, 100mmØ	To P1 - FW35, IL=29.318, 100mmØ	600x600 B125	
P1 - FW34	E:513880.708 N:130811.545	30.760	0.610	450	IC	From SVP44, IL=30.150, 100mmØ From SVP43, IL=30.150, 100mmØ From SVP45, IL=30.150, 100mmØ	To , IL=30.150, 100mmØ	600x600 B125	
P1 - FW35	E:513885.236 N:130804.944	30.834	1.643	450	IC	From P1 - FW33, IL=29.191, 100mmØ	To P1 - FW39, IL=29.191, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm
P1 - FW36	E:513869.149 N:130797.809	30.900	0.795	450	IC	From SVP46, IL=30.105, 100mmØ From SVP47, IL=30.105, 100mmØ From SVP48, IL=30.105, 100mmØ	To P1 - FW38, IL=30.105, 100mmØ	450 B125	
P1 - FW37	E:513871.116 N:130799.890	30.900	0.773	450	IC	From SVP49, IL=30.127, 100mmØ From SVP50, IL=30.127, 100mmØ	To , IL=30.127, 100mmØ	450 B125	
P1 - FW38	E:513876.538 N:130799.859	30.884	0.875	450	IC	From P1 - FW36, IL=30.009, 100mmØ From SVP51, IL=30.009, 100mmØ	To P1 - FW39, IL=30.009, 100mmØ	450 B125	
P1 - FW39	E:513884.054 N:130802.348	30.824	1.669	450	IC	From P1 - FW35, IL=29.155, 100mmØ From P1 - FW38, IL=29.155, 100mmØ	To P1 - FW40, IL=29.155, 100mmØ	600x600 B125	REDUCED ACCESS TO 350mm

MANHOLE SCHEDULE

MANHOLE NO.	MANHOLE CO-ORDINATES	COVER LEVEL (m)	DEPTH TO INVERT (m)	MANHOLE SIZE	MANHOLE TYPE	PIPE IN NAME, INVERT LEVEL (m) & DIA	PIPE OUT NAME, INVERT LEVEL (m) & DIA	COVER SIZE (mm) & GRADE	COMMENTS
P1 - FW40	E:513885.657 N:130800.238	30.755	1.894	1,200	TYPE 1	From P1 - FW39, IL=28.908, 100mmØ From P1 - FW28, IL=28.908, 100mmØ	To P1 - FW41, IL=28.858, 150mmØ	600x600 D400	
P1 - FW41	E:513892.950 N:130789.184	30.898	2.286	1,200	TYPE 1	From P1 - FW40, IL=28.600, 150mmØ From P1 - FW23, IL=28.600, 150mmØ	To P1 - FW42, IL=28.600, 150mmØ	600x600 D400	
P1 - FW42	E:513867.812 N:130771.875	31.081	2.619	1,200	TYPE 1	From P1 - FW41, IL=28.397, 150mmØ	To P1 - FW43, IL=28.397, 150mmØ	600x600 D400	
P1 - FW43	E:513871.044 N:130758.765	30.988	2.788	1,200	TYPE 1	From P1 - FW09, IL=28.200, 150mmØ From P1 - FW42, IL=28.200, 150mmØ From P1 - FW12, IL=29.588, 100mmØ	To EX MH8701, IL=28.200, 150mmØ	600x600 D400	PIPE FROM F12 VIA BACKDROP
P1 - FW44	E:513789.747 N:130745.490	30.450	0.759	450	IC	From SVP52, IL=29.691, 100mmØ From SVP54, IL=29.691, 100mmØ From SVP53, IL=29.691, 100mmØ	To P1 - FW45, IL=29.691, 100mmØ	450 B125	
P1 - FW45	E:513780.855 N:130740.811	30.626	1.061	450	IC	From P1 - FW44, IL=29.565, 100mmØ From SVP55, IL=29.565, 100mmØ	To P1 - FW46, IL=29.565, 100mmØ	450 B125	
P1 - FW46	E:513773.082 N:130734.199	30.692	1.260	450	IC	From P1 - FW45, IL=29.432, 100mmØ	To P1 - FW47, IL=29.432, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
P1 - FW47	E:513775.895 N:130730.080	30.764	1.395	450	IC	From P1 - FW46, IL=29.370, 100mmØ From SVP56, IL=29.370, 100mmØ	To P1 - FW48, IL=29.370, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
P1 - FW48	E:513778.559 N:130726.851	30.784	1.466	450	IC	From P1 - FW47, IL=29.318, 100mmØ From SVP57, IL=29.318, 100mmØ	To P1 - FW49, IL=29.318, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
P1 - FW49	E:513781.196 N:130723.654	30.991	1.991	450	IC	From P1 - FW48, IL=29.000, 100mmØ	To P1 - FW52, IL=29.000, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
P1 - FW50	E:513804.946 N:130740.963	30.568	0.829	450	IC	From MINI IC1, IL=29.739, 100mmØ From SVP58, IL=29.739, 100mmØ From FG7, IL=29.739, 100mmØ	To P1 - FW51, IL=29.739, 100mmØ	600x600 B125	
P1 - FW51	E:513792.536 N:130731.305	30.618	1.882	450	IC	From P1 - FW50, IL=28.736, 100mmØ	To P1 - FW52, IL=28.736, 100mmØ	450 B125	REDUCED ACCESS TO 350mm
P1 - FW52	E:513795.869 N:130726.125	30.854	2.389	1,200	TYPE 1	From Phase 3 FW Stub, IL=28.450, 150mmØ From P1 - FW51, IL=28.500, 100mmØ From P1 - FW49, IL=28.500, 100mmØ	To P1 - FW54, IL=28.450, 150mmØ	600x600 D400	
P1 - FW53	E:513824.734 N:130752.376	30.045	0.845	450	IC	From FG8, IL=29.200, 100mmØ	To P1 - FW54, IL=29.200, 100mmØ	450 B125	
P1 - FW54	E:513829.871 N:130742.582	30.475	2.242	1,200	TYPE 1	From P1 - FW52, IL=28.198, 150mmØ From P1 - FW53, IL=29.062, 100mmØ	To P1 - FW55, IL=28.198, 150mmØ	600x600 D400	PIPE FROM F53 VIA BACKDROP RECESSED COVER
P1 - FW55	E:513855.767 N:130759.960	30.675	3.519	1,200	TYPE 2	From P1 - FW54, IL=27.990, 150mmØ		600x600 D400	NEW MANHOLE TO BE CONSTRUCTED ON EXISTING SEWER. NEW CONNECTION VIA BACKDROP RECESSED COVER

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REV	DESCRIPTION	DATE	BY	CHKD
P03	UPDATED TO SUIT DRAINAGE GA	20.05.24	AP	AM
P02	INCOMING IL OF MH F55 AMENDED	19.04.23	AB	EDM
P01	ISSUED FOR TENDER	16.12.22	AB	EDM

ORIGINATOR:

RIDGE

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CLIENT:
SENIOR LIVING
(BROADBRIDGE HEATH) LTD

IN ASSOCIATION WITH:
URBAN EDGE

PROJECT:
BROADBRIDGE HEATH
RETIREMENT VILLAGE

TITLE:
PHASE 1
MANHOLE SCHEDULES
SHEET 2 OF 2

ENG/TECH:	CSE:	ICSE:	SCALE:	NTS @ A1
AB	EDM	KC	STATUS ISSUE:	16.12.22

STATUS: PLANNING

UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK

SUITABILITY: S2 - Issued for Information

PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5016747	RDG	ZZ	XX	DR	C	0518	P03

LAND AT WELLCROSS FARM, BROADBRIDGE HEATH – PHASE 1
DRAINAGE MAINTENANCE SCHEDULE

Organisation responsible for maintenance: _____ Contact Details – Name: _____

Number:_____ Documents:

- Drainage Layout

SUDS have been specified for the site to promote sustainable management of surface water for both flow attenuation and water quality. This document outlines the maintenance schedules for each system in order to maintain the efficiency of the drainage network. The schedules have been created based on guidance from CIRIA C753.

Table 1: Pipes and Manholes Maintenance Schedule

Maintenance schedule	Required Action	Recommended Frequency
Occasional maintenance	Visual inspection of covers, gratings and manhole chambers.	Annually or as required.
	Cleaning out manholes.	Annually or as required.
	CCTV inspection of drainage pipes.	Annually or as required.
Remedial actions	Reactive cleaning of manholes and drains.	During flooding events.
	Cleaning out drains by water jetting.	As required.
	Replace damaged covers, grating and manhole components.	As required.
	Rehabilitation – repairs, relining or replacement.	As determined by inspections.

Table 2: Channel Drain

Maintenance schedule	Required Action	Recommended Frequency
Regular maintenance	Cleaning out Access Chamber.	Monthly or as required.
	Inspect outlet for operation/blockages	Six Monthly
	Remove access chamber covers as required to flush the channels clean of debris. Remove this debris from the sump and dispose of	Six Monthly
	Inspect components for any wear or breakages.	Six Monthly

Table 3: Pervious Paving

Maintenance schedule	Required Action	Recommended Frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphospate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation pf surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence or poor operation and/or weed growth – if required, take remedial actions	Three-monthly, 48hr after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspections chambers	Annually

Table 4: Geocellular Tank Maintenance Schedule

Maintenance Schedule	Required Action	Recommended Frequency
Regular Maintenance	Inspect and identify areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually or as required
	Remove debris from the catchment surface	Monthly
	Remove sediment from pre-treatment structures	Annually
Remedial Actions	Repair vents / rehabilitate and inlets / outlet	As required
Monitoring	Inspect inlets, outlets and vents to ensure they are in good condition and operating as designed.	Annually
	Survey Inside of tank for sediment build up and remove is necessary	Every 5 years or where concerned about operation

Table 5: Rainwater Harvesting Maintenance Schedule

Maintenance Schedule	Required Action	Recommended Frequency
Regular Maintenance	Inspection of the tank for debris and sediment build up, inlets / outlets / withdrawal devices, overflow areas, pumps, filters	Annually (and following poor performance)
	Cleaning of tank, inlets, outlets, gutters, withdrawal devices and roof drain filters of silts and other debris	Annually (and following poor performance)
Occasional Maintenance	Cleaning and / or replacement of any filters	Three Monthly (or as required)
Remedial actions	Repair overflow erosion damage or damage to tank	As required
	Pump repairs	As required

Appendix B – Hydraulic Calculations

Outputs from the Infodrainage software for the surface water drainage networks serving the development are provided. Pipe references from the hydraulic models can be located on the drainage layout plan.

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase (1)	Company Address:		

AREA - SW07-1 Type : Catchment Area

Area (ha)	0.004

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - SW13-3 Type : Catchment Area

Area (ha)	0.044

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - SW15-5 Type : Catchment Area

Area (ha)	0.054

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - SW14 Type : Catchment Area

Area (ha)	0.019

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase (1)	Company Address:		



AREA - SW13-1

Type : Catchment Area

Area (ha)	0.023

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW20

Type : Catchment Area

Area (ha)	0.018

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW22

Type : Catchment Area

Area (ha)	0.022

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - PP11

Type : Catchment Area

Area (ha)	0.039

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW15-1

Type : Catchment Area

Area (ha)	0.011

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW15-6

Type : Catchment Area

Area (ha)	0.01

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - PP01 - 2

Type : Catchment Area

Area (ha)	0.013

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW02

Type : Catchment Area

Area (ha)	0.033

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW06

Type : Catchment Area

Area (ha)	0.004

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW18-1

Type : Catchment Area

Area (ha)	0.024

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW15-2

Type : Catchment Area

Area (ha)	0.015

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW05-1

Type : Catchment Area

Area (ha)	0.038

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW07

Type : Catchment Area

Area (ha)	0.03

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW09

Type : Catchment Area

Area (ha)	0.022

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - PP07

Type : Catchment Area

Area (ha)	0.014

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - PP06

Type : Catchment Area

Area (ha)	0.043

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase (1)	Company Address:		



AREA - pp05

Type : Catchment Area

Area (ha)	0.012

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - PP04

Type : Catchment Area

Area (ha)	0.014

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW11 - 1

Type : Catchment Area

Area (ha)	0.018

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW11-2

Type : Catchment Area

Area (ha)	0.028

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW12

Type : Catchment Area

Area (ha)	0.007

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW12-2

Type : Catchment Area

Area (ha)	0.036

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW09-2

Type : Catchment Area

Area (ha)	0.015

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW18-2

Type : Catchment Area

Area (ha)	0.009

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW17

Type : Catchment Area

Area (ha)	0.025

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW15-3

Type : Catchment Area

Area (ha)	0.105

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW15-4

Type : Catchment Area

Area (ha)	0.025

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



AREA - SW01

Type : Catchment Area

Area (ha)	0.015

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - SW05 - 2

Type : Catchment Area

Area (ha)	0.017

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - PP02

Type : Catchment Area

Area (ha)	0.018

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - PP03

Type : Catchment Area

Area (ha)	0.017

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA SW13

Type : Catchment Area

Area (ha)	0.007

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - PP08

Type : Catchment Area

Area (ha)	0.008

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - PP10

Type : Catchment Area

Area (ha)	0.006

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

AREA - PP12

Type : Catchment Area

Area (ha)	0.011

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase (1)	Company Address:		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
P1 - SW01	Manhole	513766.391	130718.507	31.153	1.551	29.602	Circular	1.200
P1 - SW02	Manhole	513782.232	130721.346	30.957	1.463	29.494	Circular	1.200
P1 - SW03	Manhole	513798.089	130728.699	30.783	2.356	28.427	Circular	1.200
P1 - SW04	Manhole	513800.348	130722.455	30.917	2.372	28.545	Circular	1.200
P1 - SW05	Manhole	513797.022	130730.842	30.813	1.287	29.526	Circular	1.200
P1 - SW06	Manhole	513824.708	130742.009	30.482	2.231	28.251	Circular	1.200
P1 - SW07	Manhole	513830.254	130744.761	30.417	2.207	28.210	Circular	1.200
P1 - SW08	Manhole	513857.736	130764.274	30.734	2.798	27.936	Circular	1.200
P1 - SW09	Manhole	513864.802	130775.160	30.957	3.418	27.539	Circular	1.200
P1 - SW18	Manhole	513849.527	130812.400	30.098	3.026	27.072	Circular	1.200
P1 - SW19	Manhole	513877.412	130832.138	30.675	3.708	26.967	Circular	1.200
P1 - SW20	Manhole	513883.481	130837.661	30.841	3.899	26.942	Circular	1.200
P1 - SW21	Manhole	513880.255	130843.238	30.643	3.720	26.923	Circular	1.200
P1 - SW22	Manhole	513899.338	130855.977	30.453	3.600	26.853	Circular	1.200
P1 - SW24	Manhole	513958.115	130861.719	27.680	1.130	26.550	Circular	1.200
Simple Junction	Simple Junction	513965.004	130869.319					
P1 - SW10	Manhole	513884.019	130712.016	31.236	3.126	28.110	Circular	1.200
P1 - SW11	Manhole	513882.298	130717.078	31.254	3.186	28.068	Circular	1.200
P1 - SW12	Manhole	513875.554	130739.360	30.971	3.133	27.838	Circular	1.200
P1 - SW14	Manhole	513882.642	130736.242	31.140	2.074	29.066	Circular	1.200
P1 - SW13	Manhole	513907.104	130751.146	31.101	1.851	29.250	Circular	1.200
P1 - SW17	Manhole	513838.034	130816.998	29.669	2.560	27.109	Circular	1.200
P1 - SW15	Manhole	513893.762	130791.356	30.869	2.242	28.627	Circular	1.200
P1 - SW16	Manhole	513877.932	130780.728	31.128	2.763	28.365	Circular	1.200

Name	Lock
P1 - SW01	None
P1 - SW02	None
P1 - SW03	None
P1 - SW04	None
P1 - SW05	None
P1 - SW06	None
P1 - SW07	None
P1 - SW08	None
P1 - SW09	None
P1 - SW18	None
P1 - SW19	None
P1 - SW20	None
P1 - SW21	None
P1 - SW22	None
P1 - SW24	None
Simple Junction	
P1 - SW10	None
P1 - SW11	None
P1 - SW12	None
P1 - SW14	None
P1 - SW13	None
P1 - SW17	None
P1 - SW15	None
P1 - SW16	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
P1 - SW01	Inlet	AREA - SW01	(None)	No Restriction
P1 - SW02	Inlet	P1 - 1.000	(None)	No Restriction
	Inlet (1)	AREA - SW02	(None)	No Restriction

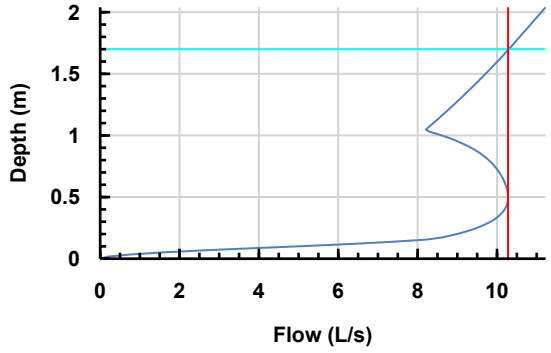
Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase (1)	Company Address:		

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
P1 - SW03	Inlet	P1 - 1.001 P1 - 2.000 P1 - 3.000	(None)	No Restriction
P1 - SW05	Inlet	AREA - SW05 - 2 AREA - SW05-1	(None)	No Restriction
P1 - SW06	Inlet	P1 - 1.002	(None)	No Restriction
	Inlet (1)	AREA - SW06 PP1 - OUT AT01-OUT	(None)	No Restriction
P1 - SW07	Inlet	P1 - 1.003 AREA - SW07-1	(None)	No Restriction
	Inlet (1)	AREA - SW07 PP2 - OUT	(None)	No Restriction
P1 - SW08	Inlet	P1 - 1.004	(None)	No Restriction
P1 - SW09	Inlet	P1 - 1.005 P1 - 6.001 P1 - 4.002 AREA - SW09	(None)	No Restriction
P1 - SW18	Inlet	P1 - 1.006 P1 - 7.000 PP11 - OUT	(None)	No Restriction
	Inlet (1)	AREA - SW18-2 AREA - SW18-1 AREA - SW09-2	(None)	No Restriction
P1 - SW19	Inlet	P1 - 1.007	(None)	No Restriction
	Inlet (1)	PP10 - OUT AT04	(None)	No Restriction
P1 - SW20	Inlet	P1 - 1.008 AREA - SW20 PP12 - OUT	(None)	No Restriction
P1 - SW21	Inlet	P1 - 1.009	(None)	No Restriction
P1 - SW22	Inlet	P1 - 1.010 AREA - SW22	(None)	No Restriction
P1 - SW24	Inlet	P1 - 1.011	(None)	No Restriction
Simple Junction	Inlet	P1 - 1.012	(None)	No Restriction
P1 - SW11	Inlet	P1 - 4.000 AREA - SW11 - 1	(None)	No Restriction
	Inlet (1)	AREA - SW11-2	(None)	No Restriction
P1 - SW12	Inlet	P1 - 5.001 P1 - 4.001	(None)	No Restriction
	Inlet (1)	AREA - SW12-2 AREA - SW12	(None)	No Restriction
P1 - SW14	Inlet	P1 - 5.000	(None)	No Restriction
	Inlet (1)	AREA - SW14	(None)	No Restriction
P1 - SW13	Inlet	PP3 - OUT PP4 - OUT AREA - SW13-1 AREA - SW13-3 AREA SW13	(None)	No Restriction
P1 - SW17	Inlet	PP8 - OUT PP9 - OUT	(None)	No Restriction
	Inlet (1)	AT03 - OUT	(None)	No Restriction

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase (1)	Company Address:		

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
P1 - SW15	Inlet	AREA - SW15-3 AREA - SW15-4 AREA - SW15-5 PP5 - OUT PP6 - OUT AREA - SW15-1 AREA - SW15-2 AREA - SW15-6 PP7 - OUT	(None)	No Restriction
P1 - SW16	Inlet	P1 - 6.000	(None)	No Restriction
	Inlet (1)	AT02 - OUT	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
P1 - SW01	Outlet	P1 - 1.000	Free Discharge
P1 - SW02	Outlet	P1 - 1.001	Free Discharge
P1 - SW03	Outlet	P1 - 1.002	Free Discharge
P1 - SW04	Outlet	P1 - 2.000	Free Discharge
P1 - SW05	Outlet	P1 - 3.000	Free Discharge
P1 - SW06	Outlet	P1 - 1.003	Free Discharge
P1 - SW07	Outlet	P1 - 1.004	Free Discharge
P1 - SW08	Outlet	P1 - 1.005	Free Discharge
P1 - SW09	Outlet	P1 - 1.006	Orifice
	Diameter (m)	0.180	
	Coefficient of Discharge	0.600	
	Invert Level (m)	27.539	
P1 - SW18	Outlet	P1 - 1.007	Free Discharge
P1 - SW19	Outlet	P1 - 1.008	Free Discharge
P1 - SW20	Outlet	P1 - 1.009	Free Discharge
P1 - SW21	Outlet	P1 - 1.010	Free Discharge
P1 - SW22	Outlet	P1 - 1.011	Hydro-Brake®
	Invert Level (m)	26.853	
	Design Depth (m)	1.700	
	Design Flow (L/s)	10.3	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☑	
	Unit Reference	SHE-0137-1030-1700-1030	
			
P1 - SW24	Outlet	P1 - 1.012	Free Discharge
P1 - SW10	Outlet	P1 - 4.000	Free Discharge
P1 - SW11	Outlet	P1 - 4.001	Free Discharge
P1 - SW12	Outlet	P1 - 4.002	Free Discharge
P1 - SW14	Outlet	P1 - 5.001	Free Discharge
P1 - SW13	Outlet	P1 - 5.000	Free Discharge
P1 - SW17	Outlet	P1 - 7.000	Free Discharge
P1 - SW15	Outlet	P1 - 6.000	Free Discharge
P1 - SW16	Outlet	P1 - 6.001	Free Discharge

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP1

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.350
Depth (m)	0.380
Base Level (m)	29.970
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	9.393
Long. Slope (1:X)	500.00
Width (m)	4.251
Total Volume (m^3)	3.294

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP01 - 2
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP1 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP4

Type : Porous Paving

Dimensions

Exceedance Level (m)	31.085
Depth (m)	0.380
Base Level (m)	30.705
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	9.573
Long. Slope (1:X)	80.00
Width (m)	5.000
Total Volume (m^3)	3.949

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP04
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP4 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP3

Type : Porous Paving

Dimensions

Exceedance Level (m)	31.208
Depth (m)	0.380
Base Level (m)	30.828
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	14.582
Long. Slope (1:X)	100.00
Width (m)	5.000
Total Volume (m³)	6.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP03
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP3 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP2

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.350
Depth (m)	0.480
Base Level (m)	29.870
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	9.393
Long. Slope (1:X)	100.00
Width (m)	4.238
Total Volume (m^3)	4.598

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP02
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP2 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP6

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.800
Depth (m)	0.480
Base Level (m)	30.320
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	16.000
Long. Slope (1:X)	500.00
Width (m)	6.200
Total Volume (m³)	11.458

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP06
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP6 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP5

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.957
Depth (m)	0.380
Base Level (m)	30.577
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	16.000
Long. Slope (1:X)	500.00
Width (m)	6.000
Total Volume (m^3)	7.920

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - pp05
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP5 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP9

Type : Porous Paving

Dimensions

Exceedance Level (m)	28.950
Depth (m)	0.380
Base Level (m)	28.570
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	17.000
Long. Slope (1:X)	80.00
Width (m)	5.000
Total Volume (m^3)	7.012

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - SW17
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP9 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0



PP8

Type : Porous Paving

Dimensions

Exceedance Level (m)	28.950
Depth (m)	0.380
Base Level (m)	28.570
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	17.248
Long. Slope (1:X)	60.00
Width (m)	4.784
Total Volume (m^3)	6.808

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP08
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP8 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP11

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.161
Depth (m)	0.380
Base Level (m)	29.781
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	22.000
Long. Slope (1:X)	80.00
Width (m)	5.000
Total Volume (m^3)	9.075

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP11
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP11 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP12

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.419
Depth (m)	0.380
Base Level (m)	30.039
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	8.266
Long. Slope (1:X)	500.00
Width (m)	4.986
Total Volume (m^3)	3.400

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP12
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP12 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP10

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.547
Depth (m)	0.380
Base Level (m)	30.167
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	5.362
Long. Slope (1:X)	100.00
Width (m)	5.135
Total Volume (m^3)	2.271

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP10
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP10 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



PP7

Type : Porous Paving

Dimensions

Exceedance Level (m)	30.825
Depth (m)	0.380
Base Level (m)	30.445
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	33
Length (m)	10.000
Long. Slope (1:X)	50.00
Width (m)	5.000
Total Volume (m^3)	4.125

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	AREA - PP07
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP7 - OUT
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	10000.0

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



AT01

Type : Cellular Storage

Dimensions

Exceedance Level (m)	30.420
Depth (m)	0.800
Base Level (m)	28.600
Number of Crates Long	16
Number of Crates Wide	5
Number of Crates High	1
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	1
Crate Height (m)	0.8
Total Volume (m³)	61.820

Outlets

Outlet

Outgoing Connection	AT01-OUT
Outlet Type	Free Discharge



AT03

Type : Cellular Storage

Dimensions

Exceedance Level (m)	28.950
Depth (m)	0.800
Base Level (m)	27.140
Number of Crates Long	22
Number of Crates Wide	15
Number of Crates High	1
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	1
Crate Height (m)	0.8
Total Volume (m³)	251.810

Outlets

Outlet

Outgoing Connection	AT03 - OUT
Outlet Type	Free Discharge

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase (1)	Company Address:		



AT04

Type : Cellular Storage

Dimensions

Exceedance Level (m)	30.161
Depth (m)	1.200
Base Level (m)	27.450
Number of Crates Long	40
Number of Crates Wide	8
Number of Crates High	1
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	1
Crate Height (m)	1.2
Total Volume (m³)	366.311

Outlets

Outlet

Outgoing Connection	AT04
Outlet Type	Free Discharge



AT02

Type : Cellular Storage

Dimensions

Exceedance Level (m)	30.813
Depth (m)	1.600
Base Level (m)	28.390
Number of Crates Long	11
Number of Crates Wide	10
Number of Crates High	1
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	1
Crate Height (m)	1.6
Total Volume (m³)	168.023

Outlets

Outlet

Outgoing Connection	AT02 - OUT
Outlet Type	Free Discharge

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase (1)	Company Address:		

Name	From	To	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)
P1 - 1.000	P1 - SW01	P1 - SW02	16.094	Pipe	149.018		0.6	150
P1 - 1.001	P1 - SW02	P1 - SW03	17.479	Pipe	17.620		0.6	150
P1 - 2.000	P1 - SW04	P1 - SW03	6.640	Pipe	154.425		0.6	150
P1 - 1.002	P1 - SW03	P1 - SW06	29.761	Pipe	169.099		0.6	225
P1 - 1.003	P1 - SW06	P1 - SW07	6.191	Pipe	151.004		0.6	225
P1 - 1.004	P1 - SW07	P1 - SW08	33.705	Pipe	169.371		0.6	225
P1 - 1.005	P1 - SW08	P1 - SW09	12.978	Pipe	32.690		0.6	300
P1 - 1.006	P1 - SW09	P1 - SW18	40.251	Pipe	102.682		0.6	300
P1 - 1.007	P1 - SW18	P1 - SW19	34.164	Pipe	325.372		0.6	375
P1 - 1.008	P1 - SW19	P1 - SW20	8.206	Pipe	328.221		0.6	375
P1 - 1.009	P1 - SW20	P1 - SW21	6.443	Pipe	339.095		0.6	375
P1 - 1.010	P1 - SW21	P1 - SW22	22.944	Pipe	327.772		0.6	375
P1 - 1.011	P1 - SW22	P1 - SW24	59.057	Pipe	194.908		0.6	225
P1 - 1.012	P1 - SW24	Simple Junction	10.258	Pipe	92.413		0.6	225
P1 - 7.000	P1 - SW17	P1 - SW18	12.378	Pipe	334.549		0.6	375
P1 - 6.000	P1 - SW15	P1 - SW16	19.067	Pipe	72.774		0.6	300
P1 - 6.001	P1 - SW16	P1 - SW09	14.262	Pipe	17.267		0.6	300
P1 - 5.000	P1 - SW13	P1 - SW14	28.645	Pipe	155.679		0.6	300
P1 - 5.001	P1 - SW14	P1 - SW12	7.743	Pipe	172.074		0.6	300
P1 - 4.002	P1 - SW12	P1 - SW09	37.379	Pipe	166.872		0.6	300
P1 - 4.000	P1 - SW10	P1 - SW11	5.347	Pipe	127.313		0.6	150
P1 - 4.001	P1 - SW11	P1 - SW12	23.280	Pipe	150.194		0.6	150
PP1 - OUT	PP1	P1 - SW06	10.578	Pipe	6.153		0.6	150
PP2 - OUT	PP2	P1 - SW07	7.235	Pipe	4.111		0.6	150
PP3 - OUT	PP3	P1 - SW13	8.611	Pipe	5.729		0.6	150
PP4 - OUT	PP4	P1 - SW13	5.082	Pipe	3.683		0.6	150
PP5 - OUT	PP5	P1 - SW15	9.470	Pipe	4.856		0.6	150
PP6 - OUT	PP6	P1 - SW15	14.024	Pipe	7.218		0.6	150
PP10 - OUT	PP10	P1 - SW19	17.476	Pipe	5.461		0.6	150
PP11 - OUT	PP11	P1 - SW18	12.934	Pipe	4.774		0.6	150
AT01-OUT	AT01	P1 - SW06	2.678	Pipe	7.673		0.6	225
P1 - 3.000	P1 - SW05	P1 - SW03	2.394	Pipe	2.178		0.6	150
AT02 - OUT	AT02	P1 - SW16	4.779	Pipe	191.178		0.6	225
PP8 - OUT	PP8	P1 - SW17	24.295	Pipe	16.629		0.6	150
PP9 - OUT	PP9	P1 - SW17	25.776	Pipe	20.854		0.6	150
AT03 - OUT	AT03	P1 - SW17	9.007	Pipe	290.554		0.6	375
PP12 - OUT	PP12	P1 - SW20	13.799	Pipe	4.456		0.6	150
AT04	AT04	P1 - SW19	3.775	Pipe	7.816		0.6	375
PP7 - OUT	PP7	P1 - SW15	17.310	Pipe	9.521		0.6	150

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase (1)	Company Address:		

Name	Upstream Cover Level (m)	Upstream Invert Level (m)	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock	Flow Restriction (L/s)	Velocity (m/s)
P1 - 1.000	31.153	29.602	30.957	29.494	Levels		
P1 - 1.001	30.957	29.494	30.783	28.502	Levels		
P1 - 2.000	30.917	28.545	30.783	28.502	Levels		
P1 - 1.002	30.783	28.427	30.482	28.251	Levels		
P1 - 1.003	30.482	28.251	30.417	28.210	Levels		
P1 - 1.004	30.417	28.210	30.734	28.011	Levels		
P1 - 1.005	30.734	27.936	30.957	27.539	Levels		
P1 - 1.006	30.957	27.539	30.098	27.147	Levels	123.4	
P1 - 1.007	30.098	27.072	30.675	26.967	Levels		
P1 - 1.008	30.675	26.967	30.841	26.942	Levels		
P1 - 1.009	30.841	26.942	30.643	26.923	Levels		
P1 - 1.010	30.643	26.923	30.453	26.853	Levels		
P1 - 1.011	30.453	26.853	27.680	26.550	Levels	11.2	
P1 - 1.012	27.680	26.550	26.172	26.439	Levels		
P1 - 7.000	29.669	27.109	30.098	27.072	Levels		
P1 - 6.000	30.869	28.627	31.128	28.365	Levels		
P1 - 6.001	31.128	28.365	30.957	27.539	Levels		
P1 - 5.000	31.101	29.250	31.140	29.066	Levels		
P1 - 5.001	31.140	29.066	30.971	29.021	Levels		
P1 - 4.002	30.971	27.838	30.957	27.614	Levels		
P1 - 4.000	31.236	28.110	31.254	28.068	Levels		
P1 - 4.001	31.254	28.068	30.971	27.913	Levels		
PP1 - OUT	30.360	29.970	30.482	28.251	Levels		
PP2 - OUT	30.220	29.970	30.417	28.210	Levels		
PP3 - OUT	31.208	30.828	31.101	29.325	Levels		
PP4 - OUT	31.085	30.705	31.101	29.325	Levels		
PP5 - OUT	30.957	30.577	30.869	28.627	Levels		
PP6 - OUT	30.750	30.570	30.869	28.627	Levels		
PP10 - OUT	30.547	30.167	30.675	26.967	Levels		
PP11 - OUT	30.161	29.781	30.098	27.072	None		
AT01-OUT	30.420	28.600	30.482	28.251	None		
P1 - 3.000	30.813	29.526	30.783	28.427	None		
AT02 - OUT	30.813	28.390	31.128	28.365	None		
PP8 - OUT	28.804	28.570	29.669	27.109	Levels		
PP9 - OUT	28.717	28.570	29.669	27.334	Levels		
AT03 - OUT	29.232	27.140	29.669	27.109	Levels		
PP12 - OUT	30.419	30.039	30.841	26.942	Levels		
AT04	30.161	27.450	30.675	26.967	None		
PP7 - OUT	30.825	30.445	30.869	28.627	Levels		

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)	Company Address:		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
P1 - SW01	31.153 29.602	Diameter / Length: 1.200					Manhole
E:513766.391 N:130718.507	1.551						
			{a} P1 - 1.000	Pipe	29.602	Diam/Width:150	Not Applicable
P1 - SW02	30.957 29.494	Diameter / Length: 1.200	{1} P1 - 1.000	Pipe	29.494	Diam/Width:150	Manhole
E:513782.232 N:130721.346	1.463						
			{a} P1 - 1.001	Pipe	29.494	Diam/Width:150	Not Applicable
P1 - SW03	30.783 28.427	Diameter / Length: 1.200	{1} P1 - 1.001 {2} P1 - 2.000 {3} P1 - 3.000	Pipe Pipe Pipe	28.502 28.502 28.427	Diam/Width:150 Diam/Width:150 Diam/Width:150	Manhole
E:513798.089 N:130728.699	2.356						
			{a} P1 - 1.002	Pipe	28.427	Diam/Width:225	Not Applicable
P1 - SW04	30.917 28.545	Diameter / Length: 1.200					Manhole
E:513800.348 N:130722.455	2.372						
			{a} P1 - 2.000	Pipe	28.545	Diam/Width:150	Not Applicable

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)	Company Address:		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
P1 - SW05	30.813 29.526	Diameter / Length: 1.200					Manhole
E:513797.022 N:130730.842	1.287						
			{a} P1 - 3.000	Pipe	29.526	Diam/Width:150	Not Applicable
P1 - SW06	30.482 28.251	Diameter / Length: 1.200	{1} P1 - 1.002 {2} PP1 - OUT {3} AT01-OUT	Pipe Pipe Pipe	28.251 28.251 28.251	Diam/Width:225 Diam/Width:150 Diam/Width:225	Manhole
E:513824.708 N:130742.009	2.231						
			{a} P1 - 1.003	Pipe	28.251	Diam/Width:225	Not Applicable
P1 - SW07	30.417 28.210	Diameter / Length: 1.200	{1} P1 - 1.003 {2} PP2 - OUT	Pipe Pipe	28.210 28.210	Diam/Width:225 Diam/Width:150	Manhole
E:513830.254 N:130744.761	2.207						
			{a} P1 - 1.004	Pipe	28.210	Diam/Width:225	Not Applicable
P1 - SW08	30.734 27.936	Diameter / Length: 1.200	{1} P1 - 1.004	Pipe	28.011	Diam/Width:225	Manhole
E:513857.736 N:130764.274	2.798						
			{a} P1 - 1.005	Pipe	27.936	Diam/Width:300	Not Applicable

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)	Company Address:		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
P1 - SW09	30.957 27.539	Diameter / Length: 1.200	{1} P1 - 1.005 {2} P1 - 6.001 {3} P1 - 4.002	Pipe Pipe Pipe	27.539 27.539 27.614	Diam/Width:300 Diam/Width:300 Diam/Width:300	Manhole
E:513864.802 N:130775.160	3.418		{a} P1 - 1.006	Pipe	27.539	Diam/Width:300	Not Applicable
P1 - SW18	30.098 27.072	Diameter / Length: 1.200	{1} P1 - 1.006 {2} P1 - 7.000 {3} PP11 - OUT	Pipe Pipe Pipe	27.147 27.072 27.072	Diam/Width:300 Diam/Width:375 Diam/Width:150	Manhole
E:513849.527 N:130812.400	3.026		{a} P1 - 1.007	Pipe	27.072	Diam/Width:375	Not Applicable
P1 - SW19	30.675 26.967	Diameter / Length: 1.200	{1} P1 - 1.007 {2} PP10 - OUT {3} AT04	Pipe Pipe Pipe	26.967 26.967 26.967	Diam/Width:375 Diam/Width:150 Diam/Width:375	Manhole
E:513877.412 N:130832.138	3.708		{a} P1 - 1.008	Pipe	26.967	Diam/Width:375	Not Applicable

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)	Company Address:		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
P1 - SW20	30.841 26.942	Diameter / Length: 1.200	{1} P1 - 1.008 {2} PP12 - OUT	Pipe Pipe	26.942 26.942	Diam/Width:375 Diam/Width:150	Manhole
E:513883.481 N:130837.661	3.899		{a} P1 - 1.009	Pipe	26.942	Diam/Width:375	Not Applicable
P1 - SW21	30.643 26.923	Diameter / Length: 1.200	{1} P1 - 1.009	Pipe	26.923	Diam/Width:375	Manhole
E:513880.255 N:130843.238	3.720		{a} P1 - 1.010	Pipe	26.923	Diam/Width:375	Not Applicable
P1 - SW22	30.453 26.853	Diameter / Length: 1.200	{1} P1 - 1.010	Pipe	26.853	Diam/Width:375	Manhole
E:513899.338 N:130855.977	3.600		{a} P1 - 1.011	Pipe	26.853	Diam/Width:225	Not Applicable
P1 - SW24	27.680 26.550	Diameter / Length: 1.200	{1} P1 - 1.011	Pipe	26.550	Diam/Width:225	Manhole
E:513958.115 N:130861.719	1.130		{a} P1 - 1.012	Pipe	26.550	Diam/Width:225	Not Applicable
Simple Junction		Diameter / Length: 1.200	{1} P1 - 1.012	Pipe	26.439	Diam/Width:225	Simple Junction
E:513965.004 N:130869.319							Not Applicable

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)	Company Address:		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
P1 - SW10	31.236 28.110	Diameter / Length: 1.200					Manhole
E:513884.019 N:130712.016	3.126		{a} P1 - 4.000	Pipe	28.110	Diam/Width:150	Not Applicable
P1 - SW11	31.254 28.068	Diameter / Length: 1.200	{1} P1 - 4.000	Pipe	28.068	Diam/Width:150	Manhole
E:513882.298 N:130717.078	3.186		{a} P1 - 4.001	Pipe	28.068	Diam/Width:150	Not Applicable
P1 - SW12	30.971 27.838	Diameter / Length: 1.200	{1} P1 - 5.001 {2} P1 - 4.001	Pipe Pipe	29.021 27.913	Diam/Width:300 Diam/Width:150	Manhole
E:513875.554 N:130739.360	3.133		{a} P1 - 4.002	Pipe	27.838	Diam/Width:300	Not Applicable
P1 - SW14	31.140 29.066	Diameter / Length: 1.200	{1} P1 - 5.000	Pipe	29.066	Diam/Width:300	Manhole
E:513882.642 N:130736.242	2.074		{a} P1 - 5.001	Pipe	29.066	Diam/Width:300	Not Applicable
P1 - SW13	31.101 29.250	Diameter / Length: 1.200	{1} PP3 - OUT {2} PP4 - OUT	Pipe Pipe	29.325 29.325	Diam/Width:150 Diam/Width:150	Manhole
E:513907.104 N:130751.146	1.851		{a} P1 - 5.000	Pipe	29.250	Diam/Width:300	Not Applicable

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)	Company Address:		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
P1 - SW17	29.669 27.109	Diameter / Length: 1.200	{1} PP8 - OUT {2} PP9 - OUT {3} AT03 - OUT	Pipe Pipe Pipe	27.109 27.334 27.109	Diam/Width:150 Diam/Width:150 Diam/Width:375	Manhole
E:513838.034 N:130816.998	2.560		{a} P1 - 7.000	Pipe	27.109	Diam/Width:375	Not Applicable
P1 - SW15	30.869 28.627	Diameter / Length: 1.200	{1} PP5 - OUT {2} PP6 - OUT {3} PP7 - OUT	Pipe Pipe Pipe	28.627 28.627 28.627	Diam/Width:150 Diam/Width:150 Diam/Width:150	Manhole
E:513893.762 N:130791.356	2.242		{a} P1 - 6.000	Pipe	28.627	Diam/Width:300	Not Applicable
P1 - SW16	31.128 28.365	Diameter / Length: 1.200	{1} P1 - 6.000 {2} AT02 - OUT	Pipe Pipe	28.365 28.365	Diam/Width:300 Diam/Width:225	Manhole
E:513877.932 N:130780.728	2.763		{a} P1 - 6.001	Pipe	28.365	Diam/Width:300	Not Applicable

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase (1)	Company Address:		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
AREA - pp05	PP5		Time of Concentration	0.012	100	10	110	0.013
AREA - PP01 - 2	PP1		Time of Concentration	0.013	100	10	110	0.014
AREA - PP02	PP2		Time of Concentration	0.018	100	10	110	0.020
AREA - PP03	PP3		Time of Concentration	0.017	100	10	110	0.019
AREA - PP04	PP4		Time of Concentration	0.014	100	10	110	0.015
AREA - PP06	PP6		Time of Concentration	0.043	100	10	110	0.047
AREA - PP07	PP7		Time of Concentration	0.014	100	10	110	0.016
AREA - PP08	PP8		Time of Concentration	0.008	100	10	110	0.009
AREA - PP10	PP10		Time of Concentration	0.006	100	10	110	0.007
AREA - PP11	PP11		Time of Concentration	0.039	100	10	110	0.042
AREA - PP12	PP12		Time of Concentration	0.011	100	10	110	0.012
AREA - SW01	P1 - SW01		Time of Concentration	0.015	100	10	110	0.017
AREA - SW02	P1 - SW02		Time of Concentration	0.033	100	10	110	0.036
AREA - SW05-1	P1 - SW05		Time of Concentration	0.038	100	10	110	0.042
AREA - SW05 - 2	P1 - SW05		Time of Concentration	0.017	100	10	110	0.019
AREA - SW06	P1 - SW06		Time of Concentration	0.004	100	10	110	0.004
AREA - SW07	P1 - SW07		Time of Concentration	0.030	100	10	110	0.033
AREA - SW07-1	P1 - SW07		Time of Concentration	0.004	100	10	110	0.004
AREA - SW09	P1 - SW09		Time of Concentration	0.022	100	10	110	0.024
AREA - SW09-2	P1 - SW18		Time of Concentration	0.015	100	10	110	0.016
AREA - SW11-2	P1 - SW11		Time of Concentration	0.028	100	10	110	0.031
AREA - SW11 - 1	P1 - SW11		Time of Concentration	0.018	100	10	110	0.020
AREA - SW12	P1 - SW12		Time of Concentration	0.007	100	10	110	0.008
AREA - SW12-2	P1 - SW12		Time of Concentration	0.036	100	10	110	0.040
AREA - SW13-1	P1 - SW13		Time of Concentration	0.023	100	10	110	0.025
AREA - SW13-3	P1 - SW13		Time of Concentration	0.044	100	10	110	0.049
AREA - SW14	P1 - SW14		Time of Concentration	0.019	100	10	110	0.021
AREA - SW15-1	P1 - SW15		Time of Concentration	0.011	100	10	110	0.012
AREA - SW15-2	P1 - SW15		Time of Concentration	0.015	100	10	110	0.016
AREA - SW15-3	P1 - SW15		Time of Concentration	0.105	100	10	110	0.115
AREA - SW15-4	P1 - SW15		Time of Concentration	0.025	100	10	110	0.028
AREA - SW15-5	P1 - SW15		Time of Concentration	0.054	100	10	110	0.060
AREA - SW15-6	P1 - SW15		Time of Concentration	0.010	100	10	110	0.011

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase (1)	Company Address:		

AREA - SW17	PP9		Time of Concentration	0.025	100	10	110	0.028
AREA - SW18-1	P1 - SW18		Time of Concentration	0.024	100	10	110	0.026
AREA - SW18-2	P1 - SW18		Time of Concentration	0.009	100	10	110	0.010
AREA - SW20	P1 - SW20		Time of Concentration	0.018	100	10	110	0.020
AREA - SW22	P1 - SW22		Time of Concentration	0.022	100	10	110	0.024
AREA SW13	P1 - SW13		Time of Concentration	0.007	100	10	110	0.008
TOTAL		**0.0**		**0.873**				**0.960**

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase (1)	Company Address:		

Flow Options

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

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
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	☐

Manhole Options

Apply Offset	☐

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase (1)	Company Address:		

Outfalls

Outfall	Outfall Type	Fixed Surcharged Level (m)	Level Curve
Simple Junction	Free Discharge		

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Shortest
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	10
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FEH

Type: FEH

Site Location	GB 513912 130787 TQ 13912 30787
Rainfall Version	2022
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0.000
30.0	40.000
100.0	45.000

Storm Durations

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

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase (1)	Company Address:		



FEH: 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)
AREA - SW07-1	FEH: 2 years: +0 %: 15 mins: Summer	0.00	0.9	0.372
AREA - SW13-3	FEH: 2 years: +0 %: 15 mins: Summer	0.04	10.3	4.475
AREA - SW15-5	FEH: 2 years: +0 %: 15 mins: Summer	0.05	12.7	5.498
AREA - SW14	FEH: 2 years: +0 %: 15 mins: Summer	0.02	4.4	1.914
AREA - SW13-1	FEH: 2 years: +0 %: 15 mins: Summer	0.02	5.3	2.283
AREA - SW20	FEH: 2 years: +0 %: 15 mins: Summer	0.02	4.2	1.839
AREA - SW22	FEH: 2 years: +0 %: 15 mins: Summer	0.02	5.1	2.223
AREA - PP11	FEH: 2 years: +0 %: 15 mins: Summer	0.04	9.0	3.905
AREA - SW15-1	FEH: 2 years: +0 %: 15 mins: Summer	0.01	2.6	1.146
AREA - SW15-6	FEH: 2 years: +0 %: 15 mins: Summer	0.01	2.3	1.014
AREA - PP01 - 2	FEH: 2 years: +0 %: 15 mins: Summer	0.01	3.0	1.284
AREA - SW02	FEH: 2 years: +0 %: 15 mins: Summer	0.03	7.7	3.350
AREA - SW06	FEH: 2 years: +0 %: 15 mins: Summer	0.00	0.8	0.369
AREA - SW18-1	FEH: 2 years: +0 %: 15 mins: Summer	0.02	5.6	2.414
AREA - SW15-2	FEH: 2 years: +0 %: 15 mins: Summer	0.01	3.5	1.506
AREA - SW05-1	FEH: 2 years: +0 %: 15 mins: Summer	0.04	8.8	3.839
AREA - SW07	FEH: 2 years: +0 %: 15 mins: Summer	0.03	6.9	3.002
AREA - SW09	FEH: 2 years: +0 %: 15 mins: Summer	0.02	5.1	2.223
AREA - PP07	FEH: 2 years: +0 %: 15 mins: Summer	0.01	3.3	1.428
AREA - PP06	FEH: 2 years: +0 %: 15 mins: Summer	0.04	10.1	4.370

AREA - pp05	FEH: 2 years: +0 %: 15 mins: Summer	0.01	2.7	1.170
AREA - PP04	FEH: 2 years: +0 %: 15 mins: Summer	0.01	3.2	1.404
AREA - SW11 - 1	FEH: 2 years: +0 %: 15 mins: Summer	0.02	4.3	1.869
AREA - SW11-2	FEH: 2 years: +0 %: 15 mins: Summer	0.03	6.5	2.828
AREA - SW12	FEH: 2 years: +0 %: 15 mins: Summer	0.01	1.7	0.729
AREA - SW12-2	FEH: 2 years: +0 %: 15 mins: Summer	0.04	8.4	3.647
AREA - SW09-2	FEH: 2 years: +0 %: 15 mins: Summer	0.01	3.4	1.488
AREA - SW18-2	FEH: 2 years: +0 %: 15 mins: Summer	0.01	2.2	0.960
AREA - SW17	FEH: 2 years: +0 %: 15 mins: Summer	0.03	5.8	2.534
AREA - SW15-3	FEH: 2 years: +0 %: 15 mins: Summer	0.10	24.4	10.597
AREA - SW15-4	FEH: 2 years: +0 %: 15 mins: Summer	0.03	5.9	2.573
AREA - SW01	FEH: 2 years: +0 %: 15 mins: Summer	0.02	3.5	1.539
AREA - SW05 - 2	FEH: 2 years: +0 %: 15 mins: Summer	0.02	4.1	1.758
AREA - PP02	FEH: 2 years: +0 %: 15 mins: Summer	0.02	4.2	1.833
AREA - PP03	FEH: 2 years: +0 %: 15 mins: Summer	0.02	4.1	1.758
AREA SW13	FEH: 2 years: +0 %: 15 mins: Summer	0.01	1.6	0.708
AREA - PP08	FEH: 2 years: +0 %: 15 mins: Summer	0.01	1.9	0.840
AREA - PP10	FEH: 2 years: +0 %: 15 mins: Summer	0.01	1.4	0.606
AREA - PP12	FEH: 2 years: +0 %: 15 mins: Summer	0.01	2.5	1.074

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase (1)	Company Address:		



FEH: 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 (m^3)
AREA - SW07-1	FEH: 30 years: +40 %: 15 mins: Summer	0.00	2.7	1.173
AREA - SW13-3	FEH: 30 years: +40 %: 15 mins: Summer	0.04	32.7	14.189
AREA - SW15-5	FEH: 30 years: +40 %: 15 mins: Summer	0.05	40.1	17.408
AREA - SW14	FEH: 30 years: +40 %: 15 mins: Summer	0.02	14.0	6.069
AREA - SW13-1	FEH: 30 years: +40 %: 15 mins: Summer	0.02	16.7	7.239
AREA - SW20	FEH: 30 years: +40 %: 15 mins: Summer	0.02	13.4	5.829
AREA - SW22	FEH: 30 years: +40 %: 15 mins: Summer	0.02	16.2	7.041
AREA - PP11	FEH: 30 years: +40 %: 15 mins: Summer	0.04	28.5	12.381
AREA - SW15-1	FEH: 30 years: +40 %: 15 mins: Summer	0.01	8.3	3.627
AREA - SW15-6	FEH: 30 years: +40 %: 15 mins: Summer	0.01	7.4	3.204
AREA - PP01 - 2	FEH: 30 years: +40 %: 15 mins: Summer	0.01	9.3	4.059
AREA - SW02	FEH: 30 years: +40 %: 15 mins: Summer	0.03	24.4	10.602
AREA - SW06	FEH: 30 years: +40 %: 15 mins: Summer	0.00	2.7	1.158
AREA - SW18-1	FEH: 30 years: +40 %: 15 mins: Summer	0.02	17.6	7.638
AREA - SW15-2	FEH: 30 years: +40 %: 15 mins: Summer	0.01	11.0	4.767

AREA - SW05-1	FEH: 30 years: +40 %: 15 mins: Summer	0.04	28.0	12.159
AREA - SW07	FEH: 30 years: +40 %: 15 mins: Summer	0.03	21.9	9.507
AREA - SW09	FEH: 30 years: +40 %: 15 mins: Summer	0.02	16.2	7.032
AREA - PP07	FEH: 30 years: +40 %: 15 mins: Summer	0.01	10.4	4.524
AREA - PP06	FEH: 30 years: +40 %: 15 mins: Summer	0.04	31.9	13.838
AREA - pp05	FEH: 30 years: +40 %: 15 mins: Summer	0.01	8.5	3.708
AREA - PP04	FEH: 30 years: +40 %: 15 mins: Summer	0.01	10.2	4.443
AREA - SW11 - 1	FEH: 30 years: +40 %: 15 mins: Summer	0.02	13.6	5.910
AREA - SW11-2	FEH: 30 years: +40 %: 15 mins: Summer	0.03	20.6	8.955
AREA - SW12	FEH: 30 years: +40 %: 15 mins: Summer	0.01	5.3	2.319
AREA - SW12-2	FEH: 30 years: +40 %: 15 mins: Summer	0.04	26.6	11.556
AREA - SW09-2	FEH: 30 years: +40 %: 15 mins: Summer	0.01	10.9	4.725
AREA - SW18-2	FEH: 30 years: +40 %: 15 mins: Summer	0.01	7.0	3.042
AREA - SW17	FEH: 30 years: +40 %: 15 mins: Summer	0.03	18.5	8.025
AREA - SW15-3	FEH: 30 years: +40 %: 15 mins: Summer	0.10	77.3	33.578
AREA - SW15-4	FEH: 30 years: +40 %: 15 mins: Summer	0.03	18.8	8.142
AREA - SW01	FEH: 30 years: +40 %: 15 mins: Summer	0.02	11.2	4.866

AREA - SW05 - 2	FEH: 30 years: +40 %: 15 mins: Summer	0.02	12.8	5.577
AREA - PP02	FEH: 30 years: +40 %: 15 mins: Summer	0.02	13.4	5.811
AREA - PP03	FEH: 30 years: +40 %: 15 mins: Summer	0.02	12.8	5.565
AREA SW13	FEH: 30 years: +40 %: 15 mins: Summer	0.01	5.2	2.247
AREA - PP08	FEH: 30 years: +40 %: 15 mins: Summer	0.01	6.1	2.658
AREA - PP10	FEH: 30 years: +40 %: 15 mins: Summer	0.01	4.4	1.914
AREA - PP12	FEH: 30 years: +40 %: 15 mins: Summer	0.01	7.8	3.399

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
AREA - SW07-1	FEH: 100 years: +45 %: 15 mins: Summer	0.00	3.5	1.536
AREA - SW13-3	FEH: 100 years: +45 %: 15 mins: Summer	0.04	42.6	18.519
AREA - SW15-5	FEH: 100 years: +45 %: 15 mins: Summer	0.05	52.3	22.719
AREA - SW14	FEH: 100 years: +45 %: 15 mins: Summer	0.02	18.2	7.919
AREA - SW13-1	FEH: 100 years: +45 %: 15 mins: Summer	0.02	21.8	9.446
AREA - SW20	FEH: 100 years: +45 %: 15 mins: Summer	0.02	17.5	7.607
AREA - SW22	FEH: 100 years: +45 %: 15 mins: Summer	0.02	21.2	9.188
AREA - PP11	FEH: 100 years: +45 %: 15 mins: Summer	0.04	37.2	16.162
AREA - SW15-1	FEH: 100 years: +45 %: 15 mins: Summer	0.01	10.9	4.736
AREA - SW15-6	FEH: 100 years: +45 %: 15 mins: Summer	0.01	9.6	4.181
AREA - PP01 - 2	FEH: 100 years: +45 %: 15 mins: Summer	0.01	12.2	5.294
AREA - SW02	FEH: 100 years: +45 %: 15 mins: Summer	0.03	31.9	13.840
AREA - SW06	FEH: 100 years: +45 %: 15 mins: Summer	0.00	3.5	1.518
AREA - SW18-1	FEH: 100 years: +45 %: 15 mins: Summer	0.02	23.0	9.974
AREA - SW15-2	FEH: 100 years: +45 %: 15 mins: Summer	0.01	14.3	6.227

AREA - SW05-1	FEH: 100 years: +45 %: 15 mins: Summer	0.04	36.5	15.868
AREA - SW07	FEH: 100 years: +45 %: 15 mins: Summer	0.03	28.6	12.409
AREA - SW09	FEH: 100 years: +45 %: 15 mins: Summer	0.02	21.1	9.179
AREA - PP07	FEH: 100 years: +45 %: 15 mins: Summer	0.01	13.6	5.900
AREA - PP06	FEH: 100 years: +45 %: 15 mins: Summer	0.04	41.6	18.066
AREA - pp05	FEH: 100 years: +45 %: 15 mins: Summer	0.01	11.1	4.838
AREA - PP04	FEH: 100 years: +45 %: 15 mins: Summer	0.01	13.3	5.795
AREA - SW11 - 1	FEH: 100 years: +45 %: 15 mins: Summer	0.02	17.8	7.709
AREA - SW11-2	FEH: 100 years: +45 %: 15 mins: Summer	0.03	26.9	11.689
AREA - SW12	FEH: 100 years: +45 %: 15 mins: Summer	0.01	7.0	3.024
AREA - SW12-2	FEH: 100 years: +45 %: 15 mins: Summer	0.04	34.7	15.082
AREA - SW09-2	FEH: 100 years: +45 %: 15 mins: Summer	0.01	14.2	6.167
AREA - SW18-2	FEH: 100 years: +45 %: 15 mins: Summer	0.01	9.1	3.965
AREA - SW17	FEH: 100 years: +45 %: 15 mins: Summer	0.03	24.1	10.478
AREA - SW15-3	FEH: 100 years: +45 %: 15 mins: Summer	0.10	100.9	43.827
AREA - SW15-4	FEH: 100 years: +45 %: 15 mins: Summer	0.03	24.5	10.630
AREA - SW01	FEH: 100 years: +45 %: 15 mins: Summer	0.02	14.6	6.350

AREA - SW05 - 2	FEH: 100 years: +45 %: 15 mins: Summer	0.02	16.8	7.277
AREA - PP02	FEH: 100 years: +45 %: 15 mins: Summer	0.02	17.5	7.577
AREA - PP03	FEH: 100 years: +45 %: 15 mins: Summer	0.02	16.7	7.262
AREA SW13	FEH: 100 years: +45 %: 15 mins: Summer	0.01	6.8	2.931
AREA - PP08	FEH: 100 years: +45 %: 15 mins: Summer	0.01	8.0	3.471
AREA - PP10	FEH: 100 years: +45 %: 15 mins: Summer	0.01	5.8	2.499
AREA - PP12	FEH: 100 years: +45 %: 15 mins: Summer	0.01	10.2	4.436

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

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

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
P1 - SW01	FEH: 2 years: +0 %: 15 mins: Summer	31.153	29.602	29.653	0.051	3.5	0.058	0.000	3.4	1.536	OK
P1 - SW02	FEH: 2 years: +0 %: 15 mins: Summer	30.957	29.494	29.546	0.052	11.1	0.059	0.000	11.2	4.842	OK
P1 - SW03	FEH: 2 years: +0 %: 30 mins: Summer	30.783	28.427	28.797	0.370	16.7	0.418	0.000	17.5	14.103	Surcharged
P1 - SW04	FEH: 2 years: +0 %: 30 mins: Summer	30.917	28.545	28.798	0.253	0.0	0.287	0.000	0.9	0.372	Surcharged
P1 - SW05	FEH: 2 years: +0 %: 15 mins: Summer	30.813	29.526	29.558	0.032	12.9	0.036	0.000	12.8	5.596	OK
P1 - SW06	FEH: 2 years: +0 %: 30 mins: Summer	30.482	28.251	28.757	0.506	19.7	0.573	0.000	19.1	17.754	Surcharged
P1 - SW07	FEH: 2 years: +0 %: 30 mins: Summer	30.417	28.210	28.756	0.546	21.8	0.617	0.000	23.0	21.399	Surcharged
P1 - SW08	FEH: 2 years: +0 %: 30 mins: Summer	30.734	27.936	28.718	0.782	23.0	0.885	0.000	23.6	21.569	Surcharged
P1 - SW09	FEH: 2 years: +0 %: 30 mins: Summer	30.957	27.539	28.714	1.175	66.5	1.329	0.000	67.1	82.619	Surcharged
P1 - SW18	FEH: 2 years: +0 %: 60 mins: Summer	30.098	27.072	27.612	0.540	75.7	0.610	0.000	15.2	146.372	Surcharged
P1 - SW19	FEH: 2 years: +0 %: 60 mins: Summer	30.675	26.967	27.614	0.647	15.5	0.731	0.000	12.4	66.074	Surcharged
P1 - SW20	FEH: 2 years: +0 %: 60 mins: Summer	30.841	26.942	27.614	0.672	13.2	0.760	0.000	12.0	66.575	Surcharged
P1 - SW21	FEH: 2 years: +0 %: 60 mins: Summer	30.643	26.923	27.613	0.690	12.0	0.781	0.000	10.3	64.522	Surcharged
P1 - SW22	FEH: 2 years: +0 %: 60 mins: Summer	30.453	26.853	27.613	0.760	11.1	0.859	0.000	10.3	66.317	Surcharged
P1 - SW24	FEH: 2 years: +0 %: 120 mins: Summer	27.680	26.550	26.621	0.071	10.3	0.080	0.000	10.3	135.298	OK
Simple Junction	FEH: 2 years: +0 %: 120 mins: Summer		26.439	26.505	0.066	10.3			10.3	135.298	OK
P1 - SW10	FEH: 2 years: +0 %: 30 mins: Summer	31.236	28.110	28.797	0.687	5.4	0.777	0.000	1.5	0.842	Surcharged
P1 - SW11	FEH: 2 years: +0 %: 30 mins: Summer	31.254	28.068	28.797	0.729	9.5	0.824	0.000	7.1	7.263	Surcharged
P1 - SW12	FEH: 2 years: +0 %: 30 mins: Summer	30.971	27.838	28.754	0.916	32.1	1.036	0.000	32.8	28.511	Surcharged
P1 - SW14	FEH: 2 years: +0 %: 15 mins: Summer	31.140	29.066	29.186	0.120	25.4	0.136	0.000	23.9	12.453	OK
P1 - SW13	FEH: 2 years: +0 %: 15 mins: Summer	31.101	29.250	29.354	0.104	22.0	0.118	0.000	21.0	10.574	OK
P1 - SW17	FEH: 2 years: +0 %: 60 mins: Summer	29.669	27.109	27.597	0.488	79.0	0.552	0.000	9.0	111.006	Surcharged
P1 - SW15	FEH: 2 years: +0 %: 15 mins: Summer	30.869	28.627	28.775	0.148	55.0	0.168	0.000	52.4	24.530	OK
P1 - SW16	FEH: 2 years: +0 %: 30 mins: Summer	31.128	28.365	28.716	0.351	38.9	0.397	0.000	34.0	38.161	Surcharged

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

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

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
P1 - SW01	FEH: 30 years: +40 %: 15 mins: Summer	31.153	29.602	30.315	0.713	11.2	0.807	0.000	9.2	4.922	Surcharged
P1 - SW02	FEH: 30 years: +40 %: 15 mins: Summer	30.957	29.494	30.305	0.811	28.3	0.917	0.000	21.8	15.426	Surcharged
P1 - SW03	FEH: 30 years: +40 %: 15 mins: Summer	30.783	28.427	30.035	1.608	57.4	1.819	0.000	49.6	33.148	Surcharged
P1 - SW04	FEH: 30 years: +40 %: 15 mins: Summer	30.917	28.545	30.034	1.489	4.0	1.684	0.000	4.6	1.372	Surcharged
P1 - SW05	FEH: 30 years: +40 %: 15 mins: Summer	30.813	29.526	30.210	0.684	40.8	0.773	0.000	35.6	17.733	Surcharged
P1 - SW06	FEH: 30 years: +40 %: 15 mins: Summer	30.482	28.251	29.738	1.487	133.0	1.682	0.000	30.6	76.747	Surcharged
P1 - SW07	FEH: 30 years: +40 %: 15 mins: Summer	30.417	28.210	29.927	1.717	74.8	1.942	0.000	31.7	52.197	Surcharged
P1 - SW08	FEH: 30 years: +40 %: 15 mins: Summer	30.734	27.936	30.125	2.189	41.5	2.476	0.000	32.5	40.369	Surcharged
P1 - SW09	FEH: 30 years: +40 %: 15 mins: Summer	30.957	27.539	30.147	2.608	125.7	2.950	0.000	82.4	139.399	Surcharged
P1 - SW18	FEH: 30 years: +40 %: 15 mins: Summer	30.098	27.072	28.373	1.301	139.4	1.472	0.000	36.9	141.499	Surcharged
P1 - SW19	FEH: 30 years: +40 %: 15 mins: Summer	30.675	26.967	28.366	1.399	77.3	1.582	0.000	27.0	40.395	Surcharged
P1 - SW20	FEH: 30 years: +40 %: 15 mins: Summer	30.841	26.942	28.379	1.437	41.5	1.625	0.000	25.3	25.106	Surcharged
P1 - SW21	FEH: 30 years: +40 %: 15 mins: Summer	30.643	26.923	28.383	1.460	25.3	1.651	0.000	14.3	15.719	Surcharged
P1 - SW22	FEH: 30 years: +40 %: 15 mins: Summer	30.453	26.853	28.389	1.536	17.9	1.737	0.000	10.2	17.478	Surcharged
P1 - SW24	FEH: 30 years: +40 %: 960 mins: Winter	27.680	26.550	26.621	0.071	10.3	0.080	0.000	10.3	869.498	OK
Simple Junction	FEH: 30 years: +40 %: 960 mins: Winter		26.439	26.505	0.066	10.3			10.3	869.498	OK
P1 - SW10	FEH: 30 years: +40 %: 15 mins: Summer	31.236	28.110	30.642	2.532	9.9	2.864	0.000	8.3	2.533	Surcharged
P1 - SW11	FEH: 30 years: +40 %: 15 mins: Summer	31.254	28.068	30.659	2.591	34.2	2.931	0.000	24.2	16.940	Surcharged
P1 - SW12	FEH: 30 years: +40 %: 15 mins: Summer	30.971	27.838	30.523	2.685	114.4	3.037	0.000	107.5	64.601	Surcharged
P1 - SW14	FEH: 30 years: +40 %: 15 mins: Summer	31.140	29.066	30.575	1.509	75.4	1.707	0.000	67.9	39.635	Surcharged

P1 - SW13	FEH: 30 years: +40 %: 15 mins: Summer	31.101	29.250	30.685	1.435	70.8	1.623	0.000	61.4	33.723	Surcharged
P1 - SW17	FEH: 30 years: +40 %: 15 mins: Summer	29.669	27.109	28.293	1.184	138.2	1.339	0.000	0.0	120.357	Surcharged
P1 - SW15	FEH: 30 years: +40 %: 15 mins: Summer	30.869	28.627	30.576	1.949	166.5	2.205	0.000	156.7	83.290	Flood Risk
P1 - SW16	FEH: 30 years: +40 %: 15 mins: Summer	31.128	28.365	30.132	1.767	156.7	1.998	0.000	38.0	111.898	Surcharged

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth

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
P1 - SW01	FEH: 100 years: +45 %: 15 mins: Summer	31.153	29.602	30.838	1.236	14.6	1.398	0.000	9.8	6.413	Surcharged
P1 - SW02	FEH: 100 years: +45 %: 15 mins: Summer	30.957	29.494	30.811	1.317	38.3	1.490	0.000	30.7	20.195	Flood Risk
P1 - SW03	FEH: 100 years: +45 %: 60 mins: Summer	30.783	28.427	30.348	1.921	54.2	2.173	0.000	50.5	76.166	Surcharged
P1 - SW04	FEH: 100 years: +45 %: 60 mins: Summer	30.917	28.545	30.349	1.804	2.5	2.040	0.000	1.3	2.208	Surcharged
P1 - SW05	FEH: 100 years: +45 %: 15 mins: Summer	30.813	29.526	30.626	1.100	53.3	1.245	0.000	48.7	23.145	Flood Risk
P1 - SW06	FEH: 100 years: +45 %: 60 mins: Summer	30.482	28.251	30.235	1.984	118.8	2.244	0.000	32.0	173.447	Flood Risk
P1 - SW07	FEH: 100 years: +45 %: 60 mins: Summer	30.417	28.210	30.209	1.999	60.7	2.261	0.000	46.3	157.715	Flood Risk
P1 - SW08	FEH: 100 years: +45 %: 15 mins: Summer	30.734	27.936	30.225	2.289	41.7	2.589	0.000	31.7	46.330	Surcharged
P1 - SW09	FEH: 100 years: +45 %: 15 mins: Summer	30.957	27.539	30.248	2.709	158.3	3.064	0.000	96.0	164.305	Surcharged
P1 - SW18	FEH: 100 years: +45 %: 360 mins: Winter	30.098	27.072	28.775	1.703	70.3	1.926	0.000	67.2	830.936	Surcharged
P1 - SW19	FEH: 100 years: +45 %: 360 mins: Winter	30.675	26.967	28.774	1.807	67.8	2.043	0.000	10.9	734.459	Surcharged
P1 - SW20	FEH: 100 years: +45 %: 360 mins: Winter	30.841	26.942	28.773	1.831	11.5	2.071	0.000	10.8	397.754	Surcharged
P1 - SW21	FEH: 100 years: +45 %: 360 mins: Winter	30.643	26.923	28.773	1.850	10.8	2.092	0.000	10.6	394.557	Surcharged
P1 - SW22	FEH: 100 years: +45 %: 360 mins: Winter	30.453	26.853	28.772	1.919	10.7	2.170	0.000	10.7	415.166	Surcharged
P1 - SW24	FEH: 100 years: +45 %: 360 mins: Winter	27.680	26.550	26.622	0.072	10.7	0.081	0.000	10.7	414.397	OK
Simple Junction	FEH: 100 years: +45 %: 360 mins: Winter		26.439	26.506	0.067	10.7			10.7	414.397	OK
P1 - SW10	FEH: 100 years: +45 %: 15 mins: Summer	31.236	28.110	31.236	3.126	11.4	3.567	0.032	9.8	3.643	Flood
P1 - SW11	FEH: 100 years: +45 %: 15 mins: Summer	31.254	28.068	31.254	3.186	44.7	3.622	0.019	29.6	22.379	Flood
P1 - SW12	FEH: 100 years: +45 %: 15 mins: Summer	30.971	27.838	30.812	2.974	138.4	3.364	0.000	137.1	84.673	Flood Risk
P1 - SW14	FEH: 100 years: +45 %: 15 mins: Summer	31.140	29.066	30.861	1.795	69.8	2.030	0.000	72.4	51.626	Flood Risk

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	Company Address:		

P1 - SW13	FEH: 100 years: +45 %: 15 mins: Summer	31.101	29.250	30.933	1.683	71.2	1.903	0.000	55.7	45.296	Flood Risk
P1 - SW17	FEH: 100 years: +45 %: 360 mins: Winter	29.669	27.109	28.775	1.666	46.9	1.884	0.000	2.9	268.968	Surcharged
P1 - SW15	FEH: 100 years: +45 %: 15 mins: Summer	30.869	28.627	30.774	2.147	212.6	2.428	0.000	173.2	114.482	Flood Risk
P1 - SW16	FEH: 100 years: +45 %: 15 mins: Summer	31.128	28.365	30.227	1.862	204.1	2.106	0.000	47.0	147.786	Surcharged

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

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)	Company Address:		

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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
PP1	FEH: 2 years: +0 %: 30 mins: Summer	30.039	29.985	0.050	0.015	1.9	0.424	0.000	0.000	1.7	1.631	87.116	OK
PP4	FEH: 2 years: +0 %: 15 mins: Summer	30.843	30.722	0.018	0.017	3.2	0.271	0.000	0.000	2.4	1.391	93.138	OK
PP3	FEH: 2 years: +0 %: 30 mins: Summer	30.989	30.847	0.015	0.019	2.7	0.552	0.000	0.000	2.4	2.289	90.831	OK
PP2	FEH: 2 years: +0 %: 30 mins: Summer	30.016	29.986	0.052	0.116	2.8	1.105	0.000	0.000	2.4	1.678	75.968	OK
PP6	FEH: 2 years: +0 %: 360 mins: Summer	30.595	30.586	0.243	0.266	2.4	8.336	0.000	0.000	1.6	6.138	27.247	OK
PP5	FEH: 2 years: +0 %: 60 mins: Summer	30.637	30.587	0.028	0.010	1.6	0.739	0.000	0.000	0.9	1.888	90.670	OK
PP9	FEH: 2 years: +0 %: 30 mins: Summer	28.799	28.599	0.016	0.029	3.8	0.806	0.000	0.000	3.5	3.300	88.502	OK
PP8	FEH: 2 years: +0 %: 30 mins: Summer	28.863	28.586	0.006	0.016	1.3	0.267	0.000	0.000	1.2	1.089	96.073	OK
AT01	FEH: 2 years: +0 %: 15 mins: Summer	28.644	28.644	0.044	0.044	2.0	3.333	0.000	0.000	11.5	2.872	94.609	OK
AT03	FEH: 2 years: +0 %: 240 mins: Summer	27.473	27.473	0.333	0.333	46.5	104.288	0.000	0.000	9.1	97.195	58.585	OK
AT04	FEH: 2 years: +0 %: 15 mins: Summer	27.469	27.469	0.019	0.019	14.2	5.724	0.000	0.000	3.4	2.457	98.437	OK
AT02	FEH: 2 years: +0 %: 30 mins: Summer	28.468	28.468	0.078	0.078	27.5	8.161	0.000	0.000	5.5	5.838	95.143	OK
PP11	FEH: 2 years: +0 %: 30 mins: Summer	30.077	29.805	0.021	0.024	5.9	1.397	0.000	0.000	5.0	5.104	84.609	OK
PP12	FEH: 2 years: +0 %: 30 mins: Summer	30.095	30.051	0.039	0.012	1.6	0.350	0.000	0.000	1.4	1.368	89.702	OK
PP10	FEH: 2 years: +0 %: 15 mins: Summer	30.231	30.179	0.010	0.012	1.4	0.099	0.000	0.000	1.1	0.598	95.635	OK
PP7	FEH: 2 years: +0 %: 15 mins: Summer	30.654	30.465	0.009	0.020	3.3	0.238	0.000	0.000	2.6	1.418	94.236	OK

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

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)	Company Address:		

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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
PP1	FEH: 30 years: +40 %: 30 mins: Summer	30.100	29.998	0.111	0.028	6.2	0.914	0.000	0.000	6.0	5.332	72.250	OK
PP4	FEH: 30 years: +40 %: 15 mins: Summer	30.887	30.733	0.063	0.028	10.2	0.715	0.000	0.000	8.1	4.424	81.882	OK
PP3	FEH: 30 years: +40 %: 30 mins: Summer	31.041	30.859	0.067	0.031	8.5	1.506	0.000	0.000	7.8	7.397	74.959	OK
PP2	FEH: 30 years: +40 %: 15 mins: Summer	30.085	30.003	0.121	0.133	13.4	1.670	0.000	0.000	10.6	5.032	63.688	OK
PP6	FEH: 30 years: +40 %: 60 mins: Summer	30.689	30.620	0.337	0.300	18.7	10.572	0.000	0.000	16.6	15.627	7.731	OK
PP5	FEH: 30 years: +40 %: 60 mins: Summer	30.688	30.598	0.079	0.021	5.0	1.800	0.000	0.000	3.8	6.151	77.275	OK
PP9	FEH: 30 years: +40 %: 30 mins: Summer	28.858	28.625	0.076	0.055	12.3	2.258	0.000	0.000	11.3	10.645	67.800	OK
PP8	FEH: 30 years: +40 %: 30 mins: Summer	28.869	28.599	0.012	0.029	4.1	0.713	0.000	0.000	3.9	3.522	89.520	OK
AT01	FEH: 30 years: +40 %: 30 mins: Summer	29.332	29.332	0.732	0.732	95.8	55.752	0.000	0.000	26.9	45.545	9.815	OK
AT03	FEH: 30 years: +40 %: 240 mins: Winter	28.242	28.242	1.102	1.102	59.6	251.079	0.000	0.000	5.9	10.633	0.290	OK
AT04	FEH: 30 years: +40 %: 240 mins: Winter	28.242	28.242	0.792	0.792	58.3	240.834	0.000	0.000	8.0	101.801	34.254	OK
AT02	FEH: 30 years: +40 %: 60 mins: Summer	29.243	29.243	0.853	0.853	112.4	88.713	0.000	0.000	35.0	85.367	47.202	OK
PP11	FEH: 30 years: +40 %: 30 mins: Summer	30.158	29.825	0.102	0.044	19.0	3.988	0.000	0.000	16.5	16.450	56.059	OK
PP12	FEH: 30 years: +40 %: 30 mins: Summer	30.143	30.062	0.087	0.023	5.2	0.752	0.000	0.000	5.1	4.472	77.888	OK
PP10	FEH: 30 years: +40 %: 15 mins: Summer	30.256	30.188	0.035	0.021	4.4	0.257	0.000	0.000	3.7	1.905	88.679	OK
PP7	FEH: 30 years: +40 %: 15 mins: Summer	30.687	30.515	0.042	0.070	17.3	0.924	0.000	0.000	4.1	4.775	77.593	OK

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Avg. Depth

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)	Company Address:		

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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
PP1	FEH: 100 years: +45 %: 30 mins: Summer	30.399	30.410	0.411	0.440	8.2	5.105	1.810	0.000	13.6	10.031	-54.979	Flood
PP4	FEH: 100 years: +45 %: 15 mins: Summer	30.932	30.902	0.107	0.197	25.6	2.248	0.000	0.000	13.9	6.915	43.080	OK
PP3	FEH: 100 years: +45 %: 15 mins: Summer	31.063	30.914	0.090	0.086	21.3	2.143	0.000	0.000	8.7	7.347	64.379	OK
PP2	FEH: 100 years: +45 %: 30 mins: Summer	30.234	30.422	0.270	0.552	11.7	5.501	1.435	0.000	12.2	11.891	-19.643	Flood
PP6	FEH: 100 years: +45 %: 15 mins: Summer	30.853	30.847	0.501	0.527	54.8	14.385	3.324	0.000	25.3	11.451	-25.551	Flood
PP5	FEH: 100 years: +45 %: 15 mins: Summer	30.719	30.693	0.110	0.116	24.7	2.688	0.000	0.000	5.2	4.946	66.064	OK
PP9	FEH: 100 years: +45 %: 360 mins: Winter	28.793	28.775	0.011	0.205	3.1	2.859	0.000	0.000	3.1	27.843	59.228	OK
PP8	FEH: 100 years: +45 %: 360 mins: Winter	28.863	28.775	0.005	0.205	1.3	2.432	0.000	0.000	1.0	10.721	64.272	OK
AT01	FEH: 100 years: +45 %: 60 mins: Summer	30.235	30.235	1.635	1.635	116.9	61.742	0.000	0.000	22.3	60.036	0.126	OK
AT03	FEH: 100 years: +45 %: 360 mins: Winter	28.775	28.775	1.635	1.635	46.5	251.585	0.000	0.000	0.0	0.677	0.089	OK
AT04	FEH: 100 years: +45 %: 360 mins: Winter	28.774	28.774	1.324	1.324	63.6	365.040	0.000	0.000	8.4	134.644	0.347	OK
AT02	FEH: 100 years: +45 %: 60 mins: Winter	29.841	29.841	1.451	1.451	120.5	150.918	0.000	0.000	54.5	131.301	10.180	OK
PP11	FEH: 100 years: +45 %: 30 mins: Summer	30.198	29.833	0.142	0.052	25.1	5.052	0.000	0.000	22.2	21.672	44.329	OK
PP12	FEH: 100 years: +45 %: 15 mins: Summer	30.156	30.068	0.101	0.029	10.2	0.884	0.000	0.000	7.9	4.304	74.002	OK
PP10	FEH: 100 years: +45 %: 15 mins: Summer	30.266	30.191	0.045	0.024	5.8	0.316	0.000	0.000	5.0	2.490	86.083	OK
PP7	FEH: 100 years: +45 %: 15 mins: Summer	30.713	30.846	0.068	0.401	25.4	2.788	0.535	0.000	31.8	7.426	32.403	Flood

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase (1)	Company Address:		

FEH: 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
P1 - 1.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW01	P1 - SW02	31.153	29.653	0.052	1.536	0.6	0.23	3.4	OK
P1 - 1.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW02	P1 - SW03	30.957	29.546	0.078	4.842	1.5	0.26	11.2	OK
P1 - 2.000	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	P1 - SW04	P1 - SW03	30.917	28.798	0.150	0.000	0.2	0.06	0.9	Surcharged
P1 - 1.002	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	P1 - SW03	P1 - SW06	30.783	28.797	0.225	13.729	0.8	0.44	17.5	Surcharged
P1 - 1.003	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW06	P1 - SW07	30.482	28.632	0.225	11.300	0.6	0.51	21.5	Surcharged
P1 - 1.004	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW07	P1 - SW08	30.417	28.629	0.225	15.490	0.6	0.64	25.6	Surcharged
P1 - 1.005	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW08	P1 - SW09	30.734	28.597	0.300	15.593	0.4	0.14	27.0	Surcharged
P1 - 1.006	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	P1 - SW09	P1 - SW18	30.957	28.714	0.300	82.050	1.2	0.64	70.7	Surcharged
P1 - 1.007	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	P1 - SW18	P1 - SW19	30.098	27.540	0.375	34.759	0.7	0.22	24.4	Surcharged
P1 - 1.008	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	P1 - SW19	P1 - SW20	30.675	27.540	0.375	30.126	0.5	0.17	19.0	Surcharged
P1 - 1.009	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	P1 - SW20	P1 - SW21	30.841	27.540	0.375	32.460	0.4	0.16	16.8	Surcharged
P1 - 1.010	FEH: 2 years: +0 %: 30 mins: Winter	Pipe	P1 - SW21	P1 - SW22	30.643	27.540	0.375	30.388	0.2	0.1	11.5	Surcharged
P1 - 1.011	FEH: 2 years: +0 %: 120 mins: Summer	Pipe	P1 - SW22	P1 - SW24	30.453	27.461	0.077	135.751	0.9	0.28	10.3	Surcharged
P1 - 1.012	FEH: 2 years: +0 %: 120 mins: Summer	Pipe	P1 - SW24	Simple Junction	27.680	26.621	0.068	135.298	1.0	0.19	10.3	OK
P1 - 7.000	FEH: 2 years: +0 %: 240 mins: Winter	Pipe	P1 - SW17	P1 - SW18	29.669	27.470	0.375	2.512	0.5	0.09	9.4	OK
P1 - 6.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW15	P1 - SW16	30.869	28.775	0.179	24.530	1.4	0.4	52.4	OK
P1 - 6.001	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	P1 - SW16	P1 - SW09	31.128	28.716	0.300	29.965	0.5	0.13	34.0	Surcharged
P1 - 5.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW13	P1 - SW14	31.101	29.354	0.112	10.574	0.9	0.24	21.0	OK
P1 - 5.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW14	P1 - SW12	31.140	29.186	0.114	12.453	1.0	0.28	23.9	OK

P1 - 4.002	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW12	P1 - SW09	30.971	28.638	0.300	21.441	0.6	0.39	33.7	Surcharged
P1 - 4.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW10	P1 - SW11	31.236	28.649	0.150	0.000	0.2	0.21	3.2	Surcharged
P1 - 4.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW11	P1 - SW12	31.254	28.653	0.150	4.627	0.6	0.61	8.8	Surcharged
PP1 - OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	PP1	P1 - SW06	30.360	30.000	0.150	1.161	0.2	0.02	1.7	OK
PP2 - OUT	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	PP2	P1 - SW07	30.220	29.954	0.150	1.678	0.2	0.03	2.4	OK
PP3 - OUT	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	PP3	P1 - SW13	31.208	30.851	0.018	2.289	1.9	0.03	2.4	OK
PP4 - OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	PP4	P1 - SW13	31.085	30.722	0.023	1.391	1.9	0.03	2.4	OK
PP5 - OUT	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	PP5	P1 - SW15	30.957	30.600	0.062	1.318	0.7	0.01	1.0	OK
PP6 - OUT	FEH: 2 years: +0 %: 360 mins: Summer	Pipe	PP6	P1 - SW15	30.750	30.575	0.041	6.138	0.4	0.02	1.6	OK
PP10 - OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	PP10	P1 - SW19	30.547	30.178	0.150	0.598	0.1	0.01	1.1	OK
PP11 - OUT	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	PP11	P1 - SW18	30.161	29.819	0.150	5.104	0.3	0.06	5.0	OK
AT01-OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	AT01	P1 - SW06	30.420	28.644	0.213	0.000	0.5	0.06	11.5	OK
P1 - 3.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	P1 - SW05	P1 - SW03	30.813	29.558	0.109	5.596	1.1	0.11	12.8	OK
AT02 - OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	AT02	P1 - SW16	30.813	28.466	0.108	0.000	1.0	0.17	6.4	OK
PP8 - OUT	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	PP8	P1 - SW17	28.804	28.580	0.150	1.089	0.1	0.03	1.2	OK
PP9 - OUT	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	PP9	P1 - SW17	28.717	28.597	0.084	2.489	1.0	0.09	3.5	OK
AT03 - OUT	FEH: 2 years: +0 %: 240 mins: Winter	Pipe	AT03	P1 - SW17	29.232	27.470	0.345	0.000	0.5	0.08	9.2	OK
PP12 - OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	PP12	P1 - SW20	30.419	30.063	0.150	0.978	0.1	0.02	1.5	OK
AT04	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	AT04	P1 - SW19	30.161	27.467	0.302	0.000	0.0	0	3.5	OK
PP7 - OUT	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	PP7	P1 - SW15	30.825	30.459	0.084	1.418	0.3	0.05	2.6	OK

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase (1)	Company Address:		

FEH: 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
P1 - 1.000	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW01	P1 - SW02	31.153	30.315	0.150	4.881	0.6	0.63	9.2	Surcharged
P1 - 1.001	FEH: 30 years: +40 %: 30 mins: Summer	Pipe	P1 - SW02	P1 - SW03	30.957	29.852	0.150	20.508	1.7	0.52	22.3	Surcharged
P1 - 2.000	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW04	P1 - SW03	30.917	30.034	0.150	0.000	0.3	0.32	4.6	Surcharged
P1 - 1.002	FEH: 30 years: +40 %: 15 mins: Winter	Pipe	P1 - SW03	P1 - SW06	30.783	29.935	0.225	31.286	1.3	1.27	50.5	Surcharged
P1 - 1.003	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW06	P1 - SW07	30.482	29.738	0.225	6.342	0.8	0.72	30.6	Surcharged
P1 - 1.004	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW07	P1 - SW08	30.417	29.927	0.225	20.096	0.9	0.8	31.7	Surcharged
P1 - 1.005	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW08	P1 - SW09	30.734	30.125	0.300	18.244	0.5	0.17	32.5	Surcharged
P1 - 1.006	FEH: 30 years: +40 %: 15 mins: Winter	Pipe	P1 - SW09	P1 - SW18	30.957	30.017	0.300	117.554	1.4	0.81	89.0	Surcharged
P1 - 1.007	FEH: 30 years: +40 %: 240 mins: Winter	Pipe	P1 - SW18	P1 - SW19	30.098	28.242	0.375	360.686	0.6	0.6	66.0	Surcharged
P1 - 1.008	FEH: 30 years: +40 %: 15 mins: Winter	Pipe	P1 - SW19	P1 - SW20	30.675	28.207	0.375	5.718	0.7	0.29	31.6	Surcharged
P1 - 1.009	FEH: 30 years: +40 %: 15 mins: Winter	Pipe	P1 - SW20	P1 - SW21	30.841	28.218	0.375	13.098	0.6	0.27	29.5	Surcharged
P1 - 1.010	FEH: 30 years: +40 %: 15 mins: Winter	Pipe	P1 - SW21	P1 - SW22	30.643	28.221	0.375	10.712	0.3	0.15	16.8	Surcharged
P1 - 1.011	FEH: 30 years: +40 %: 120 mins: Summer	Pipe	P1 - SW22	P1 - SW24	30.453	28.076	0.077	126.186	0.9	0.28	10.3	Surcharged
P1 - 1.012	FEH: 30 years: +40 %: 960 mins: Winter	Pipe	P1 - SW24	Simple Junction	27.680	26.621	0.068	869.498	1.0	0.19	10.3	OK

P1 - 7.000	FEH: 30 years: +40 %: 960 mins: Summer	Pipe	P1 - SW17	P1 - SW18	29.669	27.983	0.375	31.210	0.5	0.09	9.3	Surcharged
P1 - 6.000	FEH: 30 years: +40 %: 15 mins: Winter	Pipe	P1 - SW15	P1 - SW16	30.869	30.478	0.300	83.033	2.2	1.22	158.7	Surcharged
P1 - 6.001	FEH: 30 years: +40 %: 30 mins: Winter	Pipe	P1 - SW16	P1 - SW09	31.128	29.349	0.300	87.112	0.6	0.15	41.2	Surcharged
P1 - 5.000	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW13	P1 - SW14	31.101	30.685	0.300	33.663	0.9	0.69	61.4	Surcharged
P1 - 5.001	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW14	P1 - SW12	31.140	30.575	0.300	39.567	1.0	0.8	67.9	Surcharged
P1 - 4.002	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW12	P1 - SW09	30.971	30.523	0.300	63.907	1.5	1.25	107.5	Surcharged
P1 - 4.000	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW10	P1 - SW11	31.236	30.642	0.150	0.000	0.5	0.53	8.3	Surcharged
P1 - 4.001	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW11	P1 - SW12	31.254	30.659	0.150	12.911	1.4	1.68	24.2	Surcharged
PP1 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP1	P1 - SW06	30.360	30.037	0.150	3.897	0.4	0.09	6.8	OK
PP2 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP2	P1 - SW07	30.220	29.997	0.150	5.032	0.6	0.12	10.6	OK
PP3 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP3	P1 - SW13	31.208	30.886	0.150	5.491	1.9	0.11	8.2	OK
PP4 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP4	P1 - SW13	31.085	30.750	0.150	4.424	2.0	0.09	8.1	OK
PP5 - OUT	FEH: 30 years: +40 %: 30 mins: Summer	Pipe	PP5	P1 - SW15	30.957	30.633	0.150	4.569	0.5	0.05	4.0	OK
PP6 - OUT	FEH: 30 years: +40 %: 60 mins: Summer	Pipe	PP6	P1 - SW15	30.750	30.643	0.150	15.627	0.9	0.25	16.6	OK
PP10 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP10	P1 - SW19	30.547	30.195	0.150	1.905	0.2	0.05	3.7	OK
PP11 - OUT	FEH: 30 years: +40 %: 30 mins: Summer	Pipe	PP11	P1 - SW18	30.161	29.891	0.150	16.450	0.9	0.2	16.5	OK
AT01-OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	AT01	P1 - SW06	30.420	29.222	0.225	0.000	0.7	0.15	28.8	Surcharged

P1 - 3.000	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	P1 - SW05	P1 - SW03	30.813	30.210	0.150	17.733	2.0	0.29	35.6	Surcharged
AT02 - OUT	FEH: 30 years: +40 %: 30 mins: Winter	Pipe	AT02	P1 - SW16	30.813	29.207	0.225	0.000	1.0	1.03	38.6	Surcharged
PP8 - OUT	FEH: 30 years: +40 %: 30 mins: Summer	Pipe	PP8	P1 - SW17	28.804	28.596	0.150	3.522	0.2	0.09	3.9	OK
PP9 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP9	P1 - SW17	28.717	28.645	0.150	7.942	1.1	0.29	11.5	OK
AT03 - OUT	FEH: 30 years: +40 %: 960 mins: Summer	Pipe	AT03	P1 - SW17	29.232	27.983	0.375	0.000	0.5	0.08	9.1	Surcharged
PP12 - OUT	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	PP12	P1 - SW20	30.419	30.093	0.150	3.273	0.3	0.07	5.8	OK
AT04	FEH: 30 years: +40 %: 15 mins: Summer	Pipe	AT04	P1 - SW19	30.161	27.518	0.375	0.000	0.1	0.02	12.2	OK
PP7 - OUT	FEH: 30 years: +40 %: 30 mins: Summer	Pipe	PP7	P1 - SW15	30.825	30.481	0.150	6.002	0.4	0.12	6.9	OK

Project:	Date: 08/01/2024		
	Designed by: adammatadar	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase (1)	Company Address:		

FEH: 100 years: Increase Rainfall (%): +45: 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
P1 - 1.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	P1 - SW01	P1 - SW02	31.153	30.838	0.150	6.356	0.6	0.67	9.8	Surcharged
P1 - 1.001	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	P1 - SW02	P1 - SW03	30.957	30.811	0.150	20.138	1.9	0.72	30.7	Flood Risk
P1 - 2.000	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW04	P1 - SW03	30.917	30.203	0.150	0.000	0.2	0.25	3.6	Surcharged
P1 - 1.002	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	P1 - SW03	P1 - SW06	30.783	30.319	0.225	40.834	1.9	1.89	75.2	Surcharged
P1 - 1.003	FEH: 100 years: +45 %: 30 mins: Winter	Pipe	P1 - SW06	P1 - SW07	30.482	30.219	0.225	28.417	0.8	0.76	32.1	Flood Risk
P1 - 1.004	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	P1 - SW07	P1 - SW08	30.417	30.182	0.225	54.655	1.2	1.22	48.7	Flood Risk
P1 - 1.005	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	P1 - SW08	P1 - SW09	30.734	30.006	0.300	52.594	0.7	0.26	50.8	Surcharged
P1 - 1.006	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	P1 - SW09	P1 - SW18	30.957	30.023	0.300	262.422	1.4	0.89	97.2	Surcharged
P1 - 1.007	FEH: 100 years: +45 %: 120 mins: Summer	Pipe	P1 - SW18	P1 - SW19	30.098	28.508	0.375	402.543	0.8	0.82	90.5	Surcharged
P1 - 1.008	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW19	P1 - SW20	30.675	28.041	0.375	2.781	0.7	0.39	42.5	Surcharged
P1 - 1.009	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW20	P1 - SW21	30.841	28.054	0.375	11.259	0.5	0.34	36.9	Surcharged
P1 - 1.010	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW21	P1 - SW22	30.643	28.057	0.375	8.819	0.2	0.18	19.5	Surcharged
P1 - 1.011	FEH: 100 years: +45 %: 360 mins: Winter	Pipe	P1 - SW22	P1 - SW24	30.453	28.772	0.079	414.819	0.9	0.29	10.7	Surcharged
P1 - 1.012	FEH: 100 years: +45 %: 360 mins: Winter	Pipe	P1 - SW24	Simple Junction	27.680	26.622	0.070	414.397	1.0	0.2	10.7	OK

P1 - 7.000	FEH: 100 years: +45 %: 60 mins: Winter	Pipe	P1 - SW17	P1 - SW18	29.669	28.266	0.375	0.000	0.1	0.1	11.0	Surcharged
P1 - 6.000	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW15	P1 - SW16	30.869	30.688	0.300	110.482	2.5	1.35	176.6	Flood Risk
P1 - 6.001	FEH: 100 years: +45 %: 30 mins: Winter	Pipe	P1 - SW16	P1 - SW09	31.128	29.936	0.300	89.234	0.9	0.23	61.0	Surcharged
P1 - 5.000	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	P1 - SW13	P1 - SW14	31.101	30.686	0.300	59.043	0.9	0.74	65.5	Surcharged
P1 - 5.001	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	P1 - SW14	P1 - SW12	31.140	30.574	0.300	69.508	1.1	0.9	76.1	Surcharged
P1 - 4.002	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW12	P1 - SW09	30.971	30.731	0.300	83.854	2.0	1.63	140.0	Flood Risk
P1 - 4.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	P1 - SW10	P1 - SW11	31.236	31.236	0.150	0.000	0.6	0.63	9.8	Flood
P1 - 4.001	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	P1 - SW11	P1 - SW12	31.254	31.155	0.150	16.855	1.7	2.05	29.6	Flood Risk
PP1 - OUT	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	PP1	P1 - SW06	30.360	30.395	0.150	7.040	0.8	0.19	13.6	Flood
PP2 - OUT	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	PP2	P1 - SW07	30.220	30.045	0.150	6.791	0.9	0.19	16.4	OK
PP3 - OUT	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	PP3	P1 - SW13	31.208	30.907	0.150	9.747	1.9	0.14	10.4	OK
PP4 - OUT	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	PP4	P1 - SW13	31.085	30.848	0.150	5.773	1.9	0.15	13.9	OK
PP5 - OUT	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	PP5	P1 - SW15	30.957	30.647	0.150	6.110	0.3	0.07	5.5	OK
PP6 - OUT	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	PP6	P1 - SW15	30.750	30.819	0.150	9.990	1.4	0.38	25.5	Flood
PP10 - OUT	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	PP10	P1 - SW19	30.547	30.202	0.150	2.490	0.3	0.06	5.0	OK
PP11 - OUT	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	PP11	P1 - SW18	30.161	29.920	0.150	21.672	1.3	0.27	22.2	OK
AT01-OUT	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	AT01	P1 - SW06	30.420	30.135	0.225	0.000	0.7	0.14	26.5	Surcharged

P1 - 3.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	P1 - SW05	P1 - SW03	30.813	30.626	0.150	23.145	2.8	0.4	48.7	Flood Risk
AT02 - OUT	FEH: 100 years: +45 %: 30 mins: Winter	Pipe	AT02	P1 - SW16	30.813	29.702	0.225	0.000	1.5	1.55	58.2	Surch arged
PP8 - OUT	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	PP8	P1 - SW17	28.804	28.603	0.150	4.651	0.3	0.12	5.1	OK
PP9 - OUT	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	PP9	P1 - SW17	28.717	28.665	0.150	10.372	1.2	0.41	16.0	OK
AT03 - OUT	FEH: 100 years: +45 %: 60 mins: Winter	Pipe	AT03	P1 - SW17	29.232	28.266	0.375	0.000	0.1	0.09	10.5	Surch arged
PP12 - OUT	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	PP12	P1 - SW20	30.419	30.104	0.150	4.304	0.4	0.09	7.9	OK
AT04	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	AT04	P1 - SW19	30.161	27.565	0.375	0.000	0.1	0.01	10.5	OK
PP7 - OUT	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	PP7	P1 - SW15	30.825	30.836	0.150	5.875	1.8	0.55	31.8	Flood

Appendix C – Environment Agency Application

Registration submitted

Please wait for us to confirm it

Your reference is:
EXFRA013511