DRAWING No.
PB8301-RHD-DE-H1-DR-D-0500

DO NOT SCALE

Outfall	Land use	Pollution hazard index	Total Suspended Solid (TSS)	Metals	Hydro-carbons	SuDS Index: SuDS Treatment (1 to n)	TSS	Metals	Hydro-carbons
1	Individual property driveways,residential car parks, low traffic roads and non residential car parking with infrequent change	Low	0.5	0.4	0.4	Swale (1) Pond (2) Swale (3)	1.1	1.15	1.15
2	Commercial yard and delivery areas, non-residential car parking with frequent change, all roads except low traffic roads and trunk roads/motorways	Medium	0.7	0.6	0.7	Swale (1) Detention Basin (2)	0.75	0.85	1.15
3	Individual property driveways,residential car parks, low traffic roads and non residential car parking with infrequent change	Low	0.5	0.4	0.4	Swale (1) Pond (2)	0.85	0.95	0.85
4	Commercial yard and delivery areas, non-residential car parking with frequent change, all roads except low traffic roads and trunk roads/motorways	Medium	0.7	0.6	0.7	Detention Basin (1) Swale (2)	0.75	0.8	0.8
5	Commercial yard and delivery areas, non-residential car parking with frequent change, all roads except low traffic roads and trunk roads/motorways	Medium	0.7	0.6	0.7	Detention Basin (1) Swale (2)	0.75	0.8	0.8

SuDS treatment (treatment train position 1 to n)		TSS	Metals	Hydro-carbons
Swale		0.5	0.6	0.6
Ponds		0.7	0.7	0.5
Detention Basin		0.5	0.5	0.5

TABLE 2.
SuDS WATER TREATMENT

Catchment	Site Area (ha)	Open space area (ha)	Area Positively drain(APD)		Impermeable Area (IA) Ratio	Value	Total		Discharge Rates(IH124) Qbar = Qnet/APD; Qbar=86.28/37.35; Qbar=2.31 l/s.ha 1 in 1 Q (l/s.ha) = 2.00	1 in 30 Q (l/s.ha) = 5.31	1 in 100 Q (l/s.ha) = 7.37	Storage Required: Attenuation (IH124) (m³/ha) 18.343/22.53) =814.16	LTS(IH124) (m³/ha) (2649/22.53) = 117.58	Interception Volume (m³) generated for the first 5mm of rainfall (5mm x IA)	Storage Provided on SuDS: Total Volume available (m³)	LTS Available (m³)	Interception available (m³)
Outfall 1			Area 1.1	2.57	0.55	1.41			5.14	13.65	18.95	2094	302	129	2290	450	152
			Area 1.2	1.93	0.60	1.16	2.57										
Outfall 2			Area 2.1	1.02	0.60	0.61											80
			Area 2.2	5.27	0.60	3.16											
			Area 2.3 (Local Center)	1.27	0.80	1.02			14.57	38.69	53.70	5932	857	364	6429	1350	102
			Area 2.4 (School)	2.46	0.60	1.48											
			Area 2.5 (Care Home)	1.70	0.60	1.02	7.29										120
Outfall 3			Area 3	8.14	0.60	4.88	4.88		9.77	25.93	36.00	3976	574	244	5463		5463
Outfall 4			Area 4.1	2.15	0.60	1.29	1.29					1050	152	65	4030	506	4030
			Area 4.2	4.78	0.60	2.87	2.87		9.78	25.97	36.04	2335	337	143	4031	1283	4031
			Area 4.3	1.22	0.60	0.73	0.73	4.89				596	86	37	4032	480	4032
Outfall 5			Area 5	3.64	0.60	2.18	2.18		4.37	11.60	16.10	1778	257	109	1820	312	76
Outfall 6			Area 6	1.20	0.60	0.72	0.72		1.44	3.82	5.31	586	85	36	528	66	16
TOTAL	73.25	35.90		37.35			22.53					18347	2650	1127	28623	4447	18102

TABLE 1.
CATCHMENT AREAS,FLOWS AND STORAGE ASSESSMENT

EXISTING WATERCOURSE DIVERTED INTO GREEN CORRIDOR
AREA 1.2 (1.93Ha)
1.5 m AQUATIC BENCH @ 95.750m (MAX WATER LEVEL= 96.400m)
AREA 1.1 (2.57Ha)
3 m MAINTENANCE ZONE ACCESS & BANKS STABILITY
AREA 1-OUTFALL1
AREA 2.1 (1.02Ha)
AREA 2.2 (5.27Ha)
AREA 2.3 (1.27Ha)
AREA 2.4 (2.46Ha)
AREA 2.5 (1.70Ha)
Substation
FOOTBRIDGE (TO LANDSCAPE ARCHITECT DRAWING)
AREA 4.1 (2.20Ha)
AREA 2- OUTFALL 1
AREA 4 - OUTFALL 1
EXISTING PIPE DIVERSION. ORIENTATION MAY BE AMENDED TO SUIT RESIDENTIAL RMA APPLICATION
SECTION OF FOUL DRAINAGE TO BE DIRECTIONAL DRILLED UNDER WATERCOURSE
AREA 4 - OUTFALL 2
FUTURE FOUL WATER CONNECTION FROM AREA A4 AND A5 TO PUMPING STATION
AREA 4 - OUTFALL 3
AREA 4.2 (4.76Ha)
AREA 5 (3.64Ha)
AREA 4.3 (1.22Ha)
FOUL WATER PUMPING STATION
EXISTING PIPED SW DRAINAGE RUN TO BE DIVERTED FROM INLET
AREA 6 - OUTFALL 1
AREA 6 (1.20Ha)
Chalkstonewell

KEY:

- PROPOSED SURFACE WATER SEWER, MANHOLE AND LATERAL
- PROPOSED FOUL WATER SEWER, MANHOLE AND LATERAL
- PROPOSED SURFACE WATER LATERAL DRAIN CONNECTIONS (LOCATION TO BE CONFIRMED
- PROPOSED FOUL WATER LATERAL DRAIN CONNECTIONS (LOCATION TO BE CONFIRMED
- PROPOSED SW/FW SPURS
- EXTERNAL SURFACE WATER TO BE DIVERTED
- OUTLINE APPLICATION BOUNDARY
- PROPOSED DRY SWALE
- PROPOSED CULVERT (REFER TO STANDARD DETAILS DRAWING PB8301-RHD-DE-TE-DR-D-0532)
- PROPOSED RISING MAIN
- PROPOSED ROAD GULLY (REFER TO STANDARD DETAILS DRAWING PB8301-RHD-DE-TE-DR-D-0532)
- PROPOSED FLOW CONTROL MANHOLE (REFER TO STANDARD DETAILS DRAWING PB8301-RHD-DE-TE-DR-D-0530)

LIST OF FLOW CONTROL DEVICES
(REFER TO TABLE 1 ON DETENTION BASINS AND SWALE PB8301-RHD-DE-TE-DR-D-0563)

AREA 1. OUTFALL 1.
FC01-01 Hydrobrake @ 5l/s 150mm Above invert
FC01-02 Ø225mm pipe 930mm Above invert

AREA 2. OUTFALL 1.
FC02-01 Ø80mm plate 0mm Above invert
FC02-02 Ø180mm plate 1200mm Above invert

AREA 4. OUTFALL 1.
FC04-01 Hydrobrake @ 2l/s 0mm Above invert
FC04-02 Ø100mm pipe 750mm Above invert

AREA 4. OUTFALL 2.
FC04-03 Hydrobrake @ 5l/s 0mm Above invert
FC04-04 Ø100mm pipe 1000mm Above invert

AREA 4. OUTFALL 3.
FC04-05 Hydrobrake @ 2l/s 0mm Above invert
FC04-06 Ø100mm pipe 900mm Above invert

AREA 5. OUTFALL 1.
FC05-01 Ø60mm plate 150mm Above invert
FC05-02 Ø60mm plate 700mm Above invert

AREA 6. OUTFALL 1.
FC06-01 Hydrobrake @ 1.2l/s 150mm Above invert
FC06-02 Ø55mm plate 800mm Above Invert

- PROPOSED LOG WALL WITH ORIFICE PLATE RESTRICTION REFER TO STANDARD DETAILS DRAWING PB8301-RHD-DE-TE-DR-D-0530)
- PROPOSED HEADWALL (REFER TO STANDARD DETAILS DRAWING PB8301-RHD-DE-TE-DR-D-0531)
- SECTION OF FOUL SEWER TO BE DIRECTIONAL DRILLED UNDER WATERCOURSE
- OVERFLOW WEIR (REFER TO STANDARD DETAILS DRAWING PB8301-RHD-DE-TE-DR-D-0532)
- EXISTING WATER COURSES
- INTERCEPTION HATCH

25m 0 25 50 75 100m
SCALE IN METRES
1:1250

GENERAL NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
3. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN UNLESS NOTED OTHERWISE.
4. THIS DRAWING HAS BEEN BASED UPON SURVEY / OS INFORMATION SUPPLIED BY INTERLOCKS SURVEYS LIMITED, ROYAL HASKONING DHV SHALL NOT BE LIABLE FOR ANY INACCURACY OR DEFICIENCIES ARISING FROM IT.
5. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
6. ALL MATERIALS AND WORKMANSHIP WILL BE AS SPECIFIED IN THE SPECIFICATION UNLESS NOTED OTHERWISE.
7. ALL LEVELS, DIMENSIONS AND LOCATIONS ARE TO BE CHECKED BY THE MAIN CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK ON SITE.

REV	DATE	DESCRIPTION	BY	CHK	APP
I10	09/12/19	REVISED AS PER LLFA COMMENTS	RMV	PV	DJ
I09	02/08/19	ISSUED FOR LAND OWNER COMMMENTS	RMV	PV	DJ
I08	02/07/19	EXISTING WATER COURSES ADDED	JBW	PV	DJ
I07	04/04/19	LATERAL DRAINS ADDED FOR LOCAL CENTRE	RMV	PV	DJ
I06	22/03/19	ISSUED FOR RESERVED MATTERS APPROVAL	RMV	PV	DJ
I05	15/03/19	ISSUED FOR LAND OWNER COMMMENTS	RMV	PV	DJ
I04	08/02/19	ISSUED FOR PRE APP MEETING	JBW	PV	DJ
I03	07/01/19	TABLE 2 ADDED. AREA 5 ADJUSTED	JBW	PV	DJ
I02	23/11/18	LAYOUT AMENDED	JBW	PV	DJ

REVISIONS

DRAWING STATUS: INFORMATION

CLIENT: REDROW

PROJECT: GREAT WILSEY PARK

TITLE: RESERVED MATTERS DRAINAGE STRATEGY

Royal HaskoningDHV
Enhancing Society Together
Portland Street,
Manchester One, 9th Floor
Manchester, M1 3LF
Tel +44(0)161 2361018
Email info.manchester@uk.rhdhv.com
Website www.royalhaskoning.com

DRAWN	CHECKED	APPROVED
RMV	PV	DJ
DATE	SCALE AT A0	PROJECT NUMBER
OCT-18	1:1250	PB8301

DRAWING No. PB8301-RHD-DE-H1-DR-D-0500
REVISION I10