DINSDALE FIELD

DARLINGTON COURT

Generator

Transformer

N

ST

PH

GSHP

SS

RAMP

RAMP

RAMP

DRAINAGE CHANNEL

FOUL GULLY

PUMP POINT

NO ENTRY

SEPARATOR

LOADING BAY DRAINAGE OUTLET, ALLOW FOR WASHWATER SEPARATOR, KLARGESTER W1-4000 OR SIMILAR.

CONNECTION TO EXISTING FOUL MANHOLE. BENCHING REVISED TO SUIT. EX INVERT TBC

EXISTING 150ø FOUL SEWER TO BE RETAINED

CONNECTION TO EXISTING FOUL MANHOLE VIA NEW BACKDROP. EX INVERT TBC

CONNECTION TO EXISTING FOUL MANHOLE VIA NEW BACKDROP. EX INVERT TBC

FINAL GULLY ARRANGEMENT FOR CONDENSERS TO SUIT M/E DETAILS

LOCATION OF RWHT AND ASSOCIATED MANHOLES AND PIPEWORK. ALL DETAILS TBC BY M/E CONSULTANT

PETROL BY-PASS INTERCEPTOR AS "CONDER CNSBM/1" WITH SILT OPTION OR SIMILAR WITH ALARM AND VENTS, ETC. ALL INSTALLED TO MANUFACTURES RECOMMENDATIONS

PETROL BY-PASS INTERCEPTOR AS "CONDER CNSBM.5/1" WITH SILT OPTION OR SIMILAR WITH ALARM AND VENTS, ETC. ALL INSTALLED TO MANUFACTURES RECOMMENDATIONS

CELLULAR STORAGE UNDERGROUND ATTENUATION SHOWN HATCHED – 100 YEAR+30% CC. 54x16x1.25m DEEP (1080m3) CELLS AS SDS OR SIMILAR. ALL TO BE INSTALLED TO MANUFACTURES RECOMMENDATIONS. NOTE: UNDERSIDE UNITS = 48.250, TOP UNITS = 49.500.

CONNECTION INTO EXISTING MANHOLE. REFORM BENCHING TO SUIT. ALL DETAILS AGREED WITH ARUN DISTRICT COUNCIL. REFER DETAIL ON 5149-204-P4. LAND DRAINAGE CONSENT WILL BE REQUIRED.

HYDROBRAKE IN MANHOLE LIMITING DISCHARGE TO 32 l/s AS AGREED WITH ARUN DISTRICT COUNCIL

EXISTING 150ø PUMPING MAIN TO BE CAPPED OFF AND ABANDONED

EXISTING 975ø CONCRETE SURFACE WATER PIPE

Recycling Area

225ø ACO Q-MAX DRAINAGE CHANNEL

ACO MI100D DRAINAGE CHANNEL

225ø ACO Q-MAX DRAINAGE CHANNEL

300ø ACO Q-MAX DRAINAGE CHANNEL

600ø FEED PIPE

A259 BY-PASS

NEW ROAD

footpath level +52.40

+51.33

NOTE: DRAINAGE CHANNELS AT ENTRANCES AND RAMPS TO BE AS ACO M100D OR SIMILAR WITH SUMP UNITS AND 100ø OUTLETS.

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS
2. THIS DRAINAGE SCHEME HAS BEEN BASED ON INFORMATION RECEIVED UP TO THE DATE OF DRAWING ISSUE. THE CONTRACTOR IS TO SATISFY HIMSELF OF SIZES, DEPTHS AND LOCATIONS OF ALL EXISTING SERVICES ON SITE BEFORE COMMENCING OF ANY WORKS AND FINAL DESIGN. ANY DISCREPANCIES, ERRORS OR OMISSIONS ARE TO BE CLARIFIED WITH THE RELEVANT ENGINEER AT THE EARLIEST OPPORTUNITY.
3. FOUL AND SURFACE WATER CONNECTIONS INTO THE EXISTING PUBLIC SEWERS IS ASSUMED ONLY. FINAL CONNECTIONS LEVELS AND DETAILS TO BE AGREED WITH THE APPROPRIATE LOCAL AUTHORITY AND CONTRACTOR.
4. MANHOLE COVERS AND FRAMES TO BS EN 124
SERVICE YARDS AND HIGHWAYS (CLASS D400)
CAR PARKING AREAS (CLASS B125)
SOFT LANDSCAPING AND FOOTWAYS (CLASS A15)
INTERNAL MANHOLES TO HAVE DOUBLE SEALED, SCREWED DOWN COVERS AND FRAMES AS HOWE GREEN OR SIMILAR APPROVED.
5. MANHOLE DETAILS – (MINIMUM REQUIREMENTS ONLY)

DEPTH m	TYPE	SIZE mm	PIPE DIA. mm	ACCESS mm
1.0–1.50	P.C.	1050 DIA.	< 375	600 CLEAR
< 3.0	P.C.	1200 DIA.	< 375	600 CLEAR
< 3.0	P.C.	1500 DIA.	375–700	600 CLEAR
< 3.0	P.C.	1800 DIA	750–900	600 CLEAR
3.0–6.0	P.C.	AS < 3.0 DEPTH BUT WITH 900 DIA. ACCESS SHAFT		
< 1.0	BRICK	900x675	< 225	600 CLEAR
1.0–1.50	BRICK	1240x675	< 225	1200x600
1.50–3.0	BRICK	1240x750	< 225	600 CLEAR
< 1.2	PPIC	475 DIA.	< 150/160	475 CLEAR
1.2–3.0	PPIC	475 DIA.	< 150/160	340 CLEAR

FOR FURTHER DETAILS REFER TO MANHOLE AND PIPELINE SCHEDULES AND DETAIL DRAWINGS

6. EXCEVATE PIPE BEDDING – UNLESS NOTED OTHERWISE – SEE SCHEDULE
CLASS F: 100mm MINIMUM GRANULAR BED WITH SELECTED BACKFILL TO 300mm ABOVE CROWN OF PIPE
CLASS B: 100mm MINIMUM GRANULAR BED & HAUNCH TO HALF PIPE HEIGHT WITH SELECTED BACKFILL TO 300mm ABOVE CROWN OF PIPE
7. INTERNAL PIPE RUNS UNDER BUILDINGS, ETC. TO HAVE 100mm MINIMUM GRANULAR BED AND SURROUND WITH SELECTED BACKFILL. WHERE PIPE IS WITHIN 300 OF THE UNDERSIDE OF SLAB 150 MINIMUM CONCRETE SURROUND TO BE PROVIDED
8. ALL RAINWATER PIPES TO HAVE ACCESSIBLE RODDING POINTS OR INCORPORATED GULLIES WHERE REQUIRED.
9. ALL ROAD GULLIES TO BE TRAPPED & HAVE 150mm DIA. OUTLETS
10. WHERE COVER TO PIPES IS LESS THAN 900mm IN ROADS AND 600mm ELSEWHERE PROVIDE CONCRETE SURROUND OR PROTECTION SLAB UNLESS NOTED OTHERWISE. ALL TO BE IN ACCORDANCE WITH MANUFACTURES DEPTH/LOADING REQUIREMENTS.
11. CLAY PIPEWORK UP TO & INCLUDING 300mm DIA. TO BE CLAY (EXTRA STRENGTH) TO BS EN 295 ON CLASS F BEDDING. ABOVE 300mm DIA. PIPES TO BE CONCRETE (CLASS H) TO BS 5911 ON CLASS B BEDDING UNLESS NOTED OTHERWISE.
12. FOUL DRAINAGE TO BE AS 'WAVIN OSMA SOLID WALL / ULTRARIB' TO BS 4660 & EN1401 ON CLASS S BEDDING OR SIMILAR APPROVED, ALL INSTALLED TO MANUFACTURES RECOMMENDATIONS, UNLESS NOTED OTHERWISE.
13. SURFACE WATER DRAINAGE PIPEWORK TO BE AS 'WAVIN OSMA TWIN WALL SYSTEM' TO BS 4660 & EN1401 ON CLASS S BEDDING OR SIMILAR APPROVED, ALL INSTALLED TO MANUFACTURES RECOMMENDATIONS, UNLESS NOTED OTHERWISE.
14. DRAINAGE CHANNELS TO BE AS "ACO" OR SIMILAR APPROVED AS FOLLOWS:
CAR PARKS : M100D CHANNELS WITH D.I. HEELGUARD GRATING (LOAD CLASS C250) UNLESS NOTED OTHERWISE.
SERVICE YARD, PFS, & GARDEN CENTRE AREAS : M100D CHANNELS WITH D.I. GRATING CLOAD CLASS D400) UNLESS NOTED OTHERWISE.
ALL OUTLETS TO HAVE 150 DIA. TRAPPED GULLYS OR SUMP UNITS WITH TRASH BUCKETS TO SUIT UNLESS NOTED OTHERWISE.
THE CONTRACTOR TO LIASE WITH CHANNEL MANUFACTURER (ACO) WITH REGARD TO DEPTH, DETAILS AND PART COMPONENT ARRANGEMENT, ETC.
15. ARCHITECT TO ADVISE ON FINAL POSITIONS OF RAINWATER PIPES AND FOULWATER OUTLETS IN GROUND FLOOR SLABS.
16. EXISTING SEWERS WHICH ARE OR WILL BE DISUSED ARE TO BE TRACED, AND ANY DRAIN WHICH SHOWS SIGNS OF FLOW SHOULD BE INVESTIGATED TO ESTABLISH ITS ORIGIN AND AUTHENTICITY, AND REPORTED TO THE ENGINEER.
17. NO SEWER SHALL BE ABANDONED UNTIL THE CONTRACTOR HAS CONFIRMED THAT THERE ARE NO CONNECTIONS REMAINING.
18. ALL ADOPTABLE DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 6th EDITION AND THE APPROPRIATE LOCAL AUTHORITIES ADDENDUM.
19. UPON COMPLETION OF THE WORKS A FULL SET OF TEST RECORDS FOR WATER TIGHTNESS AND INTEGRITY OF THE WHOLE UNDERGROUND DRAINAGE SYSTEM SHALL BE ISSUED TO THE EMPLOYERS AGENT.
20. FIVE DAYS PRIOR TO PRACTICAL COMPLETION THE CONTRACTOR SHALL ALSO INCLUDE FOR ARRANGING AND PROVIDING A FULL CLOSED CIRCUIT TELEVISION (CCTV) VIDEO RECORD ON CD SHOWING THE CONDITION OF THE ENTIRE BELOW GROUND DRAINAGE SYSTEM, AS INSTALLED. A COPY OF THE CD SHALL BE HANDED TO THE EMPLOYERS AGENT. THIS SHALL BE PRESENTED AS A SEPARATE COST ITEM, ALL TO BE AGREED WITH THE CLIENT.

REFERENCE

- EXISTING FOUL PIPES
- EXISTING SW PIPES
- EXISTING CONDENSATE PIPES
- NEW FOUL WATER PIPES
- NEW SURFACE WATER PIPES
- EXISTING SEWERS ABANDONED (TBC)

0 50m

LAYOUT PLAN
SCALE 1:250

REF.	COVER LEVEL	INVERT LEVEL	DEPTH M	MANHOLE DETAILS	COVER DETAILS	PIPE DIA.MM	SLOPE 1 in	DIST. M	BEDDING DETAILS
S1	50.000	49.040	0.960	1200 PC	B125				
S2	50.000	48.850	1.050	1200 PC	B125	225 uPVC	167	15	CLASS Z
S3	50.000	48.780	1.220	1500 PC	B125	225 uPVC	170	29	CLASS S
S4	50.000	48.650	1.350	1500 PC	B125	375 uPVC	300	39	CLASS S
S5	50.000	48.450	1.550	1500 PC	B125	450 uPVC	385	77	CLASS S
S6ø	50.110	48.360	1.750	1500 PC	B125	450 uPVC	388	35	CLASS S
S7ø	50.110	48.225	1.885	1500 PC	B125	600 RTD	429	58	CLASS S
EX.MH.*	50.170	48.200	1.970	–	–	300 uPVC	280	7	CLASS S
S19	50.060	48.800	1.260	1200 PC	B125				
RWHT	50.075	48.575 48.575	1.500 1.500	–	B125	300 uPVC	100	2.5	CLASS S
S6	50.110	48.360	1.750	–	–	300 uPVC	92	6	CLASS S
S8	51.0 int	49.800	1.200	1200 PC	B125				
S9	50.000	49.100	0.900	1200 PC	B125	150 uPVC	44	31	CLASS S
S11	50.000	48.850	1.150	1500 PC	B125	300 uPVC	92	23	CLASS Z
S12	50.000	48.745	1.225	1500 PC	B125	375 uPVC	152	16	CLASS S/Z
S13	50.000	48.595	1.405	1500 PC	B125	450 uPVC	300	45	CLASS S
S14ø	50.000	48.385	1.615	1500 PC	B125	525 uPVC	385	81	CLASS S
ATT.TK.	50.060	48.360	1.700	–	–	525 uPVC	120	3	CLASS S
S10	50.000	49.100	0.900	1200 PC	B125				
S11	50.000	48.850	1.150	–	–	225 uPVC	80	20	CLASS S/Z
S17	49.900	48.850	1.050	1200 PC	B125				
PI	50.100	48.600 48.600	1.500 1.500	–	B125	225 uPVC	80	20	CLASS S
S18	50.150	48.500	1.650	1200 PC	B125	225 uPVC	80	4	CLASS S
S6	50.110	48.360	1.750	–	–	300 uPVC	135	19	CLASS S
S15	50.000	48.800	1.200	1200 PC	B125				
S16	50.000	48.450	1.550	1200 PC	B125	300 uPVC	108	38	CLASS S
PI	50.050	48.750 48.750	1.300 1.300	–	B125	300 uPVC	175	2	CLASS S
S6	50.110	48.360	1.750	–	–	300 uPVC	175	5	CLASS S
S12A	50.000	49.160	0.840	475 PPIC	A15				
S12	50.000	48.745 48.745	1.255 1.255	–	–	150 uPVC	150	17	CLASS S
S13A	50.000	49.100	0.900	475 PPIC	A15				
S13	50.000	48.595 48.595	1.405 1.405	–	–	150 uPVC	150	19	CLASS S

* TO ARUN DISTRICT COUNCIL CONNECTION DETAILS.
ø CATCH PIT MANHOLE. BASE APPROX 300mm DEEPER THAN INVERT.
† HYDROBRAKE MANHOLE. REFER MANHOLE DETAILS FROM HYDRO OR SIMILAR

SURFACE WATER MANHOLE & PIPELINE SCHEDULE

REF.	COVER LEVEL	INVERT LEVEL	DEPTH M	MANHOLE DETAILS	COVER DETAILS	PIPE DIA.MM	SLOPE 1 in	DIST. M	BEDDING DETAILS
F1	50.000	49.150	0.850	475 PPIC	B125				
SYPHONIC RWP	50.000	48.250 48.250	1.500 1.500	475 PPIC	B125	150 uPVC	100	5	CLASS S
F2	50.000	49.000	1.000	475 PPIC	B125	150 uPVC	100	5	CLASS S
F3	50.000	48.285	1.715	475 PPIC	B125	150 uPVC	25	18	CLASS S
F4	50.000	47.980	2.020	475 PPIC	B125	150 uPVC	125	38	CLASS S
EX.MH.	50.000	47.94 Int.	2.060	–	–	150 uPVC	100	4	CLASS S
F5	50.100	49.800	1.200	475 PPIC	B125				
F6	50.000	49.100	0.900	475 PPIC	B125	150 uPVC	23	16	CLASS S
F7	50.000	48.975	1.025	475 PPIC	B125	150 uPVC	114	14	CLASS S
F8	50.000	48.710	1.290	475 PPIC	B125	150 uPVC	114	30	CLASS S
F9	50.000	48.360	1.640	475 PPIC	B125	150 uPVC	114	40	CLASS S
F3	50.000	48.285	1.715	–	–	150 uPVC	120	9	CLASS S
F10	50.000	49.250	0.750	475 PPIC	B125				
F11	50.000	48.940	1.060	475 PPIC	B125	150 uPVC	100	31	CLASS S
F12	50.000	48.790	1.210	475 PPIC	B125	150 uPVC	100	15	CLASS S
F4	50.000	47.980	2.020	–	–	150 uPVC	8	6	CLASS S
F13	50.000	49.250	0.750	475 PPIC	B125				
F12	50.000	48.790	1.210	–	–	150 uPVC	35	16	CLASS S
F14	50.000	49.250	0.750	475 PPIC	B125				
F15	50.000	49.070	0.980	475 PPIC	B125	150 uPVC	67	12	CLASS S
F16	50.000	48.910	1.090	475 PPIC	B125	150 uPVC	100	16	CLASS S
EX.MH.	50.000	48.360 48.360	1.640 1.640	–	–	150 uPVC	100	12	CLASS S
F17	50.000	48.900	1.100	475 PPIC	B125				
F18	50.100	48.350	1.750	475 PPIC	B125	150 uPVC	62	34	CLASS S
EX.MH.	50.150	48.200 48.200	1.950 1.950	–	–	150 uPVC	70	14	CLASS S
F19	50.000	49.250	0.750	475 PPIC	B125				
F8	50.000	48.710	1.290	–	–	150 uPVC	46	25	CLASS S
F20	50.000	49.450	0.550	475 PPIC	B125				
F8	50.000	48.710	1.290	–	–	150 uPVC	47/22	20	CLASS S/Z
F21	50.000	49.200	0.800	475 PPIC	B125				
F16	50.000	48.910	1.090	–	–	150 uPVC	52	15	CLASS S

FOUL WATER MANHOLE & PIPELINE SCHEDULE

SITE SPECIFIC NOTES:

THE PROPOSED NEW LAYOUT HAS BEEN BASED ON CHQ DRAWING 13–10001–400–A DATED 04.02.13

THE EXISTING LOCATIONS FOR THE FOUL AND SURFACE WATER PIPEWORK HAVE BEEN BASED ON CHARLES SMITH ASSOCIATES DRAWING No. 1238–89–1 and 2 DATED 1990. PLEASE NOTE THAT OTHER PIPEWORK AND SERVICES, NOT SHOWN ON THIS DRAWING WILL ALMOST CERTAINLY EXIST

THE TOPOGRAPHIC SURVEY INFORMATION HAS BEEN BASED ON CHQ DRAWING 13–10201–406, CADPLAN OVERLAY DATED 22.02.13

ANY EXISTING MANHOLES OR ACCESS POINTS TO BE RETAINED TO NEW EXTERNAL AREAS TO BE RAISED AND HAVE NEW COVERS TO SUIT.

IF ANY FOUL, SURFACE WATER OR CONDENSATE PIPES PROVE TO BE REDUNDANT THEN PIPEWORK CAN BE ABANDONED, FILLED, PLUGGED OR GRUBBED OUT. ALL LIVE PIPEWORK TO BE RETAINED OR DIVERTED TO SUIT. ALL TO BE CONFIRMED ON SITE

SHOULD IT BECOME APPARENT THAT A MORE PRACTICABLE OR ECONOMIC DRAINAGE SOLUTION TO THAT SHOWN ON THIS DRAWING IS POSSIBLE THEN THE ALTERNATIVE DETAILS AGREED ON SITE ARE TO BE SUBMITTED IMMEDIATELY TO THE ENGINEER FOR APPROVAL

EXISTING RETAINED FOUL PIPE TO BE CHECKED, CLEARED, REPAIRED AND MADE GOOD AS NECESSARY. CCTV SURVEY RECOMMENDED.

THE SYPHONIC RWP LOCATIONS HAVE BEEN BASED ON WEST SIPHONICS DRAWING S–154–01–P1 DATED 09.10.12. AWAITING FURTHER FINAL DETAILS.

THE FOUL DOWNPIPE LOCATIONS HAVE BEEN BASED ON A REVISED SKETCH FROM ESG RECEIVED 15.03.13. NOTE THAT THESE MAY BE REVISED OR ADDITIONAL FDP's ADDED ONCE DESIGN FINALISED.

Rev.	Description	Drn.	Chk.	Date
P.C	REVISED TO FINAL COMPLETED STATUS.	DJB	DAP	07.10.13
P.B	MANHOLES F20 AND F21 ADDED. ISSUED FOR CONSTRUCTION.	DJB	DAP	26.04.13
P.B	PIPE NETWORK REFERENCES ADDED.	DJB	DAP	16.04.13
P.S	ATTENUATION TANK AND SURFACE WATER DRAINAGE LAYOUT REVISED TO SUIT CONNECTION INTO EX. PUBLIC SEWER. FOUL PIPE F4 ADDED.	DJB	DAP	21.03.13
P.R	LEVELS EASTERN CAR PARK REVISED. ATTENUATION TANK AND DISCHARGE DETAILS IN ASSTANCE. FOUL PIPE F8 TO F19 ADDED.	DJB	DAP	21.03.13
P.Q	UPDATED TO LATEST INFORMATION AVAILABLE	DJB	DAP	06.03.13
P.P	UPDATED TO LATEST ARCHITECTS LAYOUTS.	DJB	DAP	27.02.13
P.1	PRELIMINARY ISSUE	DAP	DJB	18.01.13

Status: FINAL COMPLETED

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Architect: CHQ PARTNERSHIP

Project: SAINSBURY'S SUPERMARKETS Ltd RUSTINGTON – LITTLEHAMPTON

Drawing title: BELOW GROUND DRAINAGE & LEVELS – LAYOUT PLAN

THIS IS A FINAL WORKING DRAWING INCORPORATING CHANGES OF DIMENSION, MATERIAL, FORM AND METHOD OF CONSTRUCTION WHERE REPORTED BY THE CONTRACTOR

Drawn:	Chkd/Appd:	Date:	Sheet size:	Scale/s:
DAP	DJB	18.01.13	A0	1:250

Drawing Number: 5149–201 Revision: PC1

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ARUN DISTRICT COUNCIL 16 SEP 2013