KEY

- PROPOSED SURFACE WATER DRAIN
- PROPOSED FOUL WATER DRAIN
- PROPOSED LAND DRAINAGE & CATCHPIT
- PROPOSED ROOF DRAIN
- PROPOSED COMBINED DRAIN
- PROPOSED LAND DRAINAGE
- EXISTING COMBINED SEWER
- EXISTING COMBINED SEWER TO BE DIVERTED
- EXISTING SURFACE WATER SEWER
- EXISTING BECK/CULVERT
- ROAD GULLY
- WP WASTE PIPE
- SVP SOIL VENT PIPE
- FG FLOOR GULLY
- SS STUB STACK
- SG SHOWER GULLY
- INSPECTION CHAMBER
- SRWP SYPHONIC RAIN WATER PIPE
- CO DRAINAGE CHANNEL WITH OUTLET
- SITE BOUNDARY
- PERMEABLE PAVING
- IMPERMEABLE AREAS
- PROPOSED BUILDING
- PROPOSED GRASSED PITCHES
- PROPOSED PERMEABLE MUGA
- PROPOSED SWALE
- PROPOSED RETAINING WALL

DRAINAGE STRATEGY SUBJECT TO APPROVAL FROM UNITED UTILITIES AND THE ENVIRONMENT AGENCY

NUMBER AND LOCATIONS OF RAINWATER PIPES AND SOIL VENT PIPES/WASTE PIPES SUBJECT TO CHANGE DURING DESIGN DEVELOPMENT

GULLY POSITIONS ARE SHOWN INDICATIVELY TO SUIT LANDSCAPE PLAN

100Ø PERFORATED LAND DRAINAGE AT 10m - 15m CENTRES TO PITCHES TO BE AGREED WITH SPORTS ENGLAND REQUIREMENTS

PIPE SIZES SHOWN MAY CHANGE DURING DETAILED DESIGN DEVELOPMENT

REFER TO CCTV SURVEY REPORT FOR STRUCTURAL & SERVICE DEFECTS ON EXISTING COMBINED SEWER

RWP DOWNPIPES SHOWN TO BE SYPHONIC AS PER FULFLOW TENDER PROPOSALS. SYPHONIC ACTION TO BE BROKEN AT BELOW GROUND/ABOVE GROUND INTERFACE WITH THE PROVISION OF OVERSIZED PIPES. VENTED MANHOLE COVERS REQUIRED AT THE POINT OF CONNECTION TO EXTERNAL DRAINAGE SYSTEM.

COVER LEVELS TO BE CONFIRMED BY AWP

DISCHARGE TO BE AGREED WITH BARNSLEY LAND DRAINAGE

EX OUTLET

DISCHARGE VIA FLOW CONTROL TO 40l/s TO NATURAL WATER COURSE

OUTFALL INTO SWALE

APPROX. AREA 5000m²

1000 PERFORATED FILTERS

AVERAGE SWALE DEPTH 0.7m BELOW GROUND LEVEL TOTAL 350m³ STORAGE VOLUME PROVIDED

EXS3 TO BE CAPPED OFF, NOT ACCESSIBLE

APPROX. AREA 7000m²

SPORTS PITCHES TO BE DRAINED ON-SITE DRAINAGE NETWORK IN DISCUSSION

PROPOSED MANHOLE BETWEEN PITCHES ACCESSIBLE

EXS2 TO BE CAPPED OFF, NOT ACCESSIBLE

APPROX. AREA 5000m²

APPROX. AREA 4300m²

APPROX. AREA 3300m²

APPROX. AREA 6706m²

BELOW SLAB DRAINAGE TBC.

HYDROBRAKE TO BE INSTALLED IN THIS MANHOLE TO LIMIT DISCHARGE FLOW TO 10l/s

PROPOSED SURFACE WATER CONNECTION LIMITING WATER TO 55l/s TO NATURAL WATER COURSE

DISCHARGE TO BE AGREED WITH BARNSLEY LAND DRAINAGE

HEADWALL

600Ø PIPE AS ATTENUATION SYSTEM

BACKDROP MANHOLE

HYDROBRAKE TO BE INSTALLED IN THIS MANHOLE TO LIMIT DISCHARGE FLOW TO 10l/s

THE ABANDONED SEWER TO BE GROUTED OR EXCAVATED DEPENDING ON THE EXISTING DEPTH

PROPOSED RETAINING WALL

GROUND LEVEL 62.000

FRACTURE IN PIPE (54m FROM EXC7)

MASS ROOTS IN PIPE

ADDITIONAL CCTV DRAINAGE SURVEY TO BE REQUIRED TO DETERMINE EXC6 INVERT LEVEL.

NEW CONNECTION PIPE INVERT LEVEL TBC

MUGA AREA ASSUMING 60% OF THE SURFACE WATER RUN-OFF CONTRIBUTING TO THE DRAINAGE NETWORK TO BE DRAINED. LAND DRAINAGE TO BE PROVIDED TO DRAIN OFF SURFACE WATER FROM THE ALL WEATHER PITCH SURFACE

EXISTING COMBINED RUN NOT BASED ON CCTV. RUN SHOWN BASED ON ASSUMPTION

X X X - LINE FROM FARM HOUSE HAS BEEN TAKEN OUT (FARMHOUSE CONNECTS TO SEPTIC TANK)

Existing Farm

THIS SECTION OF YORKSHIRE WATER 300Ø PIPE TO BE RETAINED

PROPOSED RETAINING WALL

SYPHONIC RAINWATER SYSTEM ABOVE GROUND, SEE NOTES

SRWP - PROVIDED BY M&E ENGINEER, TBC BY FULL FLOW.

SYPHONIC RAINWATER SYSTEM ABOVE GROUND TBC BY FULL FLOW, SEE NOTES

THIS SECTION OF YORKSHIRE WATER 300Ø PIPE TO BE REMAINED

EXISTING PUBLIC COMBINED SEWER 300mm DIA PASSING THROUGH PROPOSED SITE

APPROX 200m LONG EXISTING PUBLIC COMBINED SEWER TO BE DIVERTED, PROPOSED PUBLIC COMBINED SEWER DIVERSION ROUTE, SUBJECT TO YORKSHIRE WATER APPROVAL, SEWER EASEMENT 3.0m EACH SIDE OF PUBLIC SEWER

SIZE AND LOCATION OF RAINWATER HARVESTING TANK TO BE CONFIRMED BY M&E ENGINEERS

RAINWATER HARVESTING TANK TO BE INSTALLED TO CATER FOR THE RUN OFF FROM AT LEAST 50% OF THE PROPOSED BUILDING ROOF (PROPOSED BUILDING 5500m²), OVERFLOW TO CAR PARK

RAINWATER HARVESTING OVER FLOW TO SUB-BASE OF CAR PARK

DRAINAGE CHANNEL RESERVED FOR FUTURE SPRINKLER TANK & PLANTING ROOM, LOCATION TO BE CONFIRMED BY M&E

APPROX. AREA 6800m²

TANK TOP CELL LEVEL: 66.50m

MANHOLE SCHEDULES

MH No.	COVER LEVEL	INVERT LEVEL	DEPTH (m)
PROPOSED FOUL SEWER MANHOLES			
F1	69.000	67.530	1.470
F2	69.000	67.530	1.470
F3	69.000	67.380	1.620
F4	69.000	67.530	1.470
F5	64.850	64.150	0.700
F6	64.850	63.660	1.190
F7	64.850	63.465	1.385
F8	64.850	63.305	1.750
F9	64.850	63.000	2.050
PROPOSED SURFACE WATER MANHOLES			
S1	69.000	68.025	0.975
S2	68.800	67.575	1.225
S3	68.700	67.300	1.400
S4	68.600	67.000	1.600
S5	65.000	64.100	0.900
S6	65.000	63.850	1.150
S7	65.000	63.195	1.805
S8	65.000	64.025	0.975
S9	65.000	62.890	2.110
S10	66.800	65.700	1.100
S11	62.000	61.025	0.975
S12	61.000	60.000	1.000
S13	61.000	59.850	1.150
PITCH DRAINAGE RELATED MANHOLES TO BE CONFIRMED PENDING PITCH DRAINAGE INFORMATION BY OTHERS.			

MH No.	MH SIZE	COVER LEVEL	INVERT LEVEL	DEPTH (m)	COVER TYPE	COVER SIZE	COMMENTS	SETTING OUT (m)	
								EASTINGS	NORTHINGS
PROPOSED COMBINED SEWER DIVERSION MANHOLES									
CO1	1200	68.800	66.500	2.300	D400	600x600		439529.762	410241.320
CO2	1050	69.500	66.050	3.450	D400	600x600	MIN CLEAR SPACE BETWEEN STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROX. 900mm.	439573.173	410237.166
CO3	1200	68.000	65.330	2.670	D400	600x600		439643.973	410230.060
CO4	1200	66.500	64.315	2.185	D400	600x600		439655.831	410150.822
CO5	1200	64.930	62.000	2.930	D400	600x600		439668.017	410138.097
CO6	1050	65.200	61.662	3.538	D400	600x600	MIN CLEAR SPACE BETWEEN STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROX. 900mm.	439730.331	410138.107
CO7	1200	63.200	61.589	1.611	D400	600x600		439732.524	410124.801
CO8	1200	62.800	61.195	1.605	D400	600x600		439744.576	410053.093
CO9	TBC	62.5000 TBC	61.000 TBC	TBC	TBC	TBC		439770.742	410028.945

BUILDING DESIGN PARTNERSHIP SHALL HAVE NO RESPONSIBILITY FOR ANY USE MADE OF THIS DOCUMENT OTHER THAN FOR THAT WHICH IT WAS PREPARED AND ISSUED

ALL DIMENSIONS SHOULD BE CHECKED ON SITE.

DO NOT SCALE FROM THIS DRAWING.

ANY DRAWING ERRORS OR DIVERGENCES SHOULD BE BROUGHT TO THE ATTENTION OF BUILDING DESIGN PARTNERSHIP AT THE ADDRESS SHOWN.

REVISION / DESCRIPTION	DRAWN	CHECKED	DATE
C06 - PROVISIONAL REVISED BOUNDARY INDICATED, SEWER DIVERSION DETAILS ADDED.	JB	YZ	29.01.10
C05 - CONSTRUCTION ISSUE FOR PUBLIC SEWER DIVERSION ONLY LEVELS REVISED AS INDICATED	JB	YZ	22.01.10
P04 - NOTES ADDED CONCERNING THE ABANDONED SEWER	SHC	YZ	19.01.10
P03 - CONTRACTOR'S PROPOSALS ISSUE	JB	MD	08.01.10
UNDERSLAB DRAINAGE & LAND DRAINAGE ADDED BOX CULVERT DIVERSION ROUTE REVISED MH SCHEDULE UPDATED			
P02	SHC	YZ	25.11.09
DRAWING NUMBER AMENDED TO SUIT LOR PROTOCOL. BOX SEWER MHS & SEWER DIVERSION ROUTE REVISED.			
P01	SHC	YZ	12.11.09
EXISTING COMBINED SEWER DIVERSION EXTENT REVISED			
P06	SHC	MJD	02.11.09
SOUTHERN BOUNDARY LINE UPDATED & SWALE MOVED TO SUIT			
P05		CK	MJD 23.10.09
RAINWATER PIPE POSITIONS MOVED TO SUIT FULLFLOW SYPHONIC DRAINAGE DESIGN			
P04		CK	BDP 14.10.09
RAINWATER HARVESTING TANK REMOVED			
P03		JH	YZ 23.09.09
PROPOSED DIVERSION ROUTE REVISED & DRAINAGE AMENDED TO LATEST MASTER PLAN			
P02		AG	YZ 11.09.09
FIRST ISSUE		AG	YZ 17.06.09

Barnsley Partnership For Learning

LAING O'ROURKE

BDP.
11 Ducie Street
P.O. Box 85, Piccadilly Basin
Manchester M60 3JA
United Kingdom
T +44 (0)161 828 2200
F +44 (0)161 828 2235
www.bdp.com

PROJECT TITLE: Shafton Advanced Learning Centre

PROJECT NUMBER: P2003083

DRAWING TITLE: DRAINAGE STRATEGY

SCALE: @ A0 1:500

DATE: JUNE'09

DRAWING NO.: BP4L_SHA_BDP_DR_51_SW_LL_C001

REVISION: C06