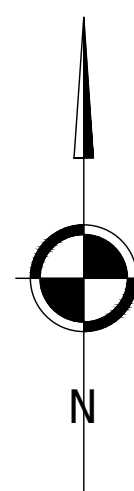


PRELIMINARY SUBJECT TO CONFIRMATION OF
UNITED UTILITIES AND BURY METROPOLITAN
BOROUGH COUNCIL ACCEPTANCE OF DISCHARGE
CONNECTION LOCATIONS AND FLOW RATES



GENERAL NOTES

- SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
- ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS AND UNITED UTILITIES DETAILS & GUIDELINES.
- THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADOPTABLE HIGHWAYS SHALL BE 150mm.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARD TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE FOR HAND DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES.
- THE OUTSIDES OF ALL SEWERS SHALL BE A MINIMUM OF 1.0m FROM KERB LINES AND THE OUTSIDE OF MANHOLES SHALL BE A MINIMUM OF 0.5m FROM KERB LINES.
- EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES.
- ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES.
- ALL MATERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR TO WITHSTAND A CLASS.
- ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A. NHBC OR THE NETWORK OPERATOR AS APPLICABLE.
- WHERE 'ULTRA RIB' UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADOPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION.
- A CLASS 5 BED AND SURROUND MUST BE USED FOR SUCH PIPES. TRENCH BACKFILL IN HIGHWAYS TO WITHIN 1M OF HIGHWAY SHALL AS DIRECTED BY THE HIGHWAY AUTHORITY BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL 4.3.4.
- SLAB LEVELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE.
- ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED CLAY UNLESS NOTED OTHERWISE.
- MANHOLE POSITIONS AND ACCESS COVERS TO BE ACCURATELY SET-OUT BY LANDSCAPE ARCHITECT TO SUIT EXTERNAL FINISHES.
- ALL DRAINS CAST THROUGH FOUNDATIONS TO HAVE ROCKER PIPES ON BOTH SIDES OF FOUNDATION.
- ALL POP UP POSITIONS TO BE CONFIRMED SET OUT DIMENSIONS TO BE AGREED & PROVIDED BY OTHERS.
- ALL FV DISCHARGE RATES TO BE CONFIRMED BY M&E DESIGNER.
- EXISTING SEWER DEPTHS HAVE BEEN APPROXIMATED FROM LIMITED INFORMATION. NEW CONNECTIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION OF ANY DRAINAGE WORKS.
- CCTV SURVEY OF EXISTING SITE DRAINAGE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORKS STARTING ON SITE.
- MINIMUM COVER TO DRAINAGE SOFFIT LEVEL & ACCESS CHAMBERS:
LANDSCAPING 0.90m
TRAFFICKED AREAS 1.20m
HIGHWAYS 1.20m
CLASS 'B' BEDDING AND SURROUND TO BE USED WHERE MINIMUM COVER IS ACHIEVED. WHERE MINIMUM COVER IS NOT ACHIEVED CLASS 'Z' BEDDING AND SURROUND (CONCRETE ENCASEMENT) IS TO BE USED.

DRAINAGE NOTES

- FOUL AND SURFACE WATER CONNECTIONS ARE TO BE CONFIRMED
- ALL FOUL WATER CONNECTIONS TO CLUB HOUSE ARE TO HAVE RADDABLE ACCESS FROM ABOVE GROUND
- ALL POP-UP SETTING OUT IS TO BE PROVIDED BY THE ARCHITECT
- ANY PPIC'S DEEPER THAN 1.2m WILL REQUIRE A REDUCED ACCESS SHAFT

LEGEND

- PROPOSED FOUL WATER MANHOLE
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED HYDROBRAKE CHAMBER
- PROPOSED FOUL WATER PPIC (6000) & DRAINAGE
- PROPOSED SURFACE WATER PPIC (6000) & DRAINAGE
- PROPOSED PERFORATED PIPES
- PROPOSED ROAD GULLY
- POROUS PARKING BAYS WITH MINIMUM 350mm THICK TYPE 3 POROUS SUB-BASE MATERIAL (MIN 30% POROSITY)
- PROPOSED GRASSCRETTE
- PROPOSED IMPERMEABLE BARRIER
- PROPOSED ATTENUATION BASIN
- PROPOSED RISING MAIN
- EXISTING PUBLIC COMBINED WATER DRAINAGE
- EXISTING WATERCOURSE DRAINAGE
- PROPOSED SITE FALLS
- PROPOSED SITE LEVELS
- SITE BOUNDARY

PROPOSED FOUL WATER DRAINAGE CONNECTION TO EXISTING PUBLIC COMBINED WATER SEWER VIA A NEW PROPOSED MANHOLE. GRAVITY CONNECTION SUBJECT TO CONFIRMATION OF LEVELS OF EXISTING PUBLIC SEWER. PROPOSED CONNECTION IS ALSO SUBJECT TO DETAILED DRAINAGE DESIGN AND UNITED UTILITIES AND LFA APPROVALS. A SECTION 105 AGREEMENT WITH UNITED UTILITIES WILL BE REQUIRED TO CONFIRM UNITED UTILITIES ACCEPTANCE OF PROPOSED CONNECTION.

PUMP CHAMBER TO PROVIDE 24 HOUR STORAGE. PUMP SPECIALIST TO CONFIRM MANHOLE SIZE COVER LEVEL: 122.700 INLET LEVEL: 118.965 OUTLET LEVEL: 120.055 DESIGN HEAD: 1.09m FLOW: TBC

AREA AT BASE OF BASIN = 207m²
AREA AT TOP OF BASIN = 468m²
DEPTH = 1.35m
TOTAL ATTENUATION VOLUME = 443m³

LOW FLOW CHANNEL

HEADWALL 03
IL:119.940

HEADWALL 02
IL:120.010

HEADWALL 01
IL:120.055

HEADWALL 04
IL:120.055

HEADWALL 05
IL:120.055

HEADWALL 06
IL:120.055

HEADWALL 07
IL:120.055

HEADWALL 08
IL:120.055

HEADWALL 09
IL:120.055

HEADWALL 10
IL:120.055

HEADWALL 11
IL:120.055

HEADWALL 12
IL:120.055

HEADWALL 13
IL:120.055

HEADWALL 14
IL:120.055

HEADWALL 15
IL:120.055

PERMEABLE SURFACE TO LANDSCAPE
ARCHITECTS DETAIL (TBC)

GRASSCRETTE DETAILS
SUBJECT TO CONFIRMATION
OF PRODUCT SELECTION (TBC)

CARRIER PIPE/UNDERDRAIN PERFORATED WITHIN EXTENTS
OF POROUS SUB-BASE. PIPE TO BE WRAPPED IN LOTRACK
1800 WOVEN GEOTEXTILE (EQUAL OR SIMILAR APPROVED)
BASE AND SIDES OF STONE (DRAINAGE BLANKET) TO BE
WRAPPED IN IMPERMEABLE MEMBRANE WITH TAPED JOINTS

SHARP SAND BLINDING LAYER REQUIRED
F RISK OF PUNCTURING MEMBRANE
CAPING LAYER - 6% GRANULAR MATERIAL
DEPTH DEPENDENT UPON CBR RESULTS

MINIMUM 350mm OF MOT TYPE 3 AS
NOTED ON DRAINAGE LAYOUT DRAWING

NOMINAL FALL

NOMINAL FALL

RESIDUAL DESIGN HAZARDS

- LIVE TRAFFIC ADJACENT TO SITE
- EXISTING FLOWS TO BE MAINTAINED THROUGHOUT CONSTRUCTION
- DEEP EXCAVATION REQUIRED FOR DRAINAGE WORKS. CONTRACTOR TO UTILISE BANKSMEN AND EMPLOY APPROPRIATE CONSTRUCTION TECHNIQUES TO PROTECT ALL WORKERS WITHIN DEEP EXCAVATIONS.
- RISK OF OVERLAND FLOWS DURING CONSTRUCTION
- POTENTIAL CLASHES WITH EXISTING SERVICES

NO	DATE	DESCRIPTION	JLR	JP	KOB
REV	DATE	DESCRIPTION	BY	CHK	APP
DRAWING STATUS: PRELIMINARY					
CLIENT: WESTSHIELD					
ARCHITECT: PADDOCK JOHNSON					
PROJECT: STAND GOLF CLUB ASHBOURNE GROVE MANCHESTER					
TITLE: DRAINAGE LAYOUT SITE B					
STATUS	PROJECT NO.	PROJECT	ORIGINATOR	VOLU/NO.	LEVEL
S2	224-181	SGC - AJP - XX - 00 - DR - C - 0950	P01		
SCALE	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
1:200	JLR	JLR	JP	KOB	OCT 2025