

RELOCATED AMBER VALLEY RUGBY CLUB, RIDDINGS

SEVERN TRENT DEVELOPMENT ENQUIRY RESPONSE REFERENCE: 8469222

FOUL WATER
FOUL FLOWS CAN DISCHARGE WITHOUT RESTRICTION INTO THE EXISTING 150mm DIA. FOUL PUBLIC SEWER WITHIN CHARITY ROAD VIA A NEW MANHOLE ON THE EXISTING LINE UPSTREAM OF MANHOLE REFERENCED 9205. EXISTING INVERT LEVELS TO BE CONFIRMED.

SURFACE WATER
THERE ARE TWO POTENTIAL OFFSITE SEWER ROUTES WHICH BOTH ALLOW CONNECTIONS INTO THE MORE SUSTAINABLE OPTION OF AN EXISTING WATERCOURSE.
OPTION 1 WOULD ALLOW AN INDIRECT CONNECTION TO THE WATERCOURSE VIA EXISTING SEVERN TRENT INFRASTRUCTURE.
OPTION 2 WOULD ALLOW A DIRECT CONNECTION TO BE MADE INTO THE WATERCURSE ALTHOUGH WOULD HAVE A DETRIMENTAL IMPACT ON EXISTING TREES AND LANDSCAPING. PLEASE REFER TO BECKWITH AND HANLON DRAWING REFERENCE 21-014 (00) 901 FOR THE SECOND OFFSITE SEWER ROUTE OPTION.

THE PREFERRED DISCHARGE LOCATION IS TO BE CONFIRMED BY THE LLFA.

SURFACE WATER FLOWS WILL BE RESTRICTED TO A FLOW OF 41L/S. THIS RATE HAS BEEN CALCULATED BASED ON THE QBAR RATE FOR THE TOTAL DEVELOPABLE SITE AREA AND IS TO BE CONFIRMED BY DERBYSHIRE COUNTY COUNCIL LLFA.

SURFACE WATER DRAINAGE STRATEGY
THROUGH MICRODRAINAGE MODELING IT HAS BEEN DEMONSTRATED THAT THE FLOW RATES FROM THE DEVELOPMENT AREA FOR A 360 MINUTE STORM DURATION ARE AS FOLLOWS;

1 IN 2 YEAR:	41L/S
1 IN 30 YEAR:	41L/S
1 IN 100 YEAR*:	41L/S

* INCLUDING 40% CLIMATE CHANGE & 10% URBAN CREEP

THESE RATES ARE DERIVED FROM THE CAUSEWAY FLOW SOFTWARE MODEL. SUMMER & WINTER VOLUMETRIC RUN-OFF COEFFICIENTS HAVE BEEN SET AT 0.75 AND 0.84 RESPECTIVELY AS STANDARD ALTHOUGH THERE IS POTENTIAL FOR THIS TO BE INCREASED AT REQUEST OF THE LLFA.

SURFACE WATER ATTENUATION
SURFACE WATER ATTENUATION FOR UP TO AND INCLUDING THE 1 IN 100 YEAR STORM EVENT (+40% CLIMATE CHANGE AND 10% URBAN CREEP) IS PROVIDED VIA AN ONLINE TANK AND AN OFFLINE CRATED SYSTEM. ADDITIONAL ATTENUATION IS ALSO PROVIDED VIA THE SUB-BASE OF THE PERMEABLE ROAD AND PARKING AREAS WHICH HAS BEEN MODELLED AT A 300mm DEPTH WITH A VOID RATIO OF 33%.

ADOPTABLE DRAINAGE
ALL BELOW GROUND SURFACE WATER AND FOUL WATER DRAINAGE WILL BE OFFERED UP TO SEVERN TRENT FOR ADOPTION.

ATTENUATION TANKS
THE PROPOSED ATTENUATION TANKS ARE TO BE OFFERED UP TO SEVERN TRENT FOR ADOPTION. SHOULD SEVERN TRENT NOT ADOPT THE TANKS THEY WILL BE PRIVATELY MAINTAINED BY EITHER THE CLIENT OR A THIRD PARTY APPOINTED MANAGEMENT COMPANY.

PRIVATE POROUS PARKING AND ACCESS ROAD

POROUS PAVING IS TO BE INCLUDED WITHIN PARKING BAYS TO PROVIDE AT SOURCE WATER TREATMENT. THEY WILL BE PRIVATELY MAINTAINED BY EITHER THE CLIENT OR A THIRD PARTY APPOINTED MANAGEMENT COMPANY. TOTAL AREA OF PERMEABLE CONSTRUCTION TO BE APPROXIMATELY 5,357m²

NOTE

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REV	AMENDMENT	BY	CKD	DATE
P2	PROPOSED LAYOUT UPDATED AND COMMENTS FROM LLFA ADDRESSED	DR	NB	14.06.23
P1	FIRST ISSUE	DR	NB	02.06.21

CLIENT
DAVID ASHLEY DEVELOPMENTS LTD

PROJECT
RELOCATED AMBER VALLEY R.C,
RIDDINGS

DRAWING TITLE
PRELIMINARY DRAINAGE STRATEGY
SHEET 2

Beckwith & Hanlon Consulting Engineers Limited
2 Riverside Studios, Amethyst Road,
Newcastle Business Park,
Newcastle upon Tyne , NE4 7YL
tel: 0191 273 7582

SCALE	BY	CHECKED	DATE
1:500	DR	NB	JUNE '21

DRAWING NO.
21-014 901

STATUS	REV	
PRELIMINARY	SIZE	A1