



RWP, SS & SVP POSITIONS  
DEPICTED ARE SUBJECT TO  
CONFIRMATION BY THE  
ARCHITECT OR M&E CONSULTANT

SURFACE WATER GULLYS ARE  
INDICATIVE AND WILL NEED TO BE  
POSITIONED TO SUIT THE FINAL CAR  
PARK DESIGN UNDERTAKEN BY OTHERS

WIP

**KEY**

- FWS EXISTING FOUL WATER SEWER
- SWS EXISTING SURFACE WATER SEWER
- PROPOSED FOUL DRAIN
- PROPOSED SURFACE WATER DRAIN
- PROPOSED ATTENUATION CRATES
- RG PROPOSED FOUL OUTLET
- YG PROPOSED YARD GULLY
- RWP PROPOSED RAIN WATER DOWN PIPE
- RG PROPOSED TRAPPED ROAD GULLY
- LINEAR DRAINAGE CHANNEL (SU - UNIVERSAL SUMP UNIT WITH AIR TRAP)
- TREE PROTECTION ZONE

DRAINAGE SUBJECT TO SECTION  
106 AGREEMENT AND APPROVAL  
BY WELSH WATER

- DRAINAGE NOTES:**
- ALL WORKS TO BE CONDUCTED IN STRICT ACCORDANCE WITH SPECIFICATION OF THE LOCAL AUTHORITY, BS8301 1985 & BS8252-1.
  - ALL PIPE RUNS NEAR BUILDINGS TO COMPLY WITH THE BUILDING REGULATIONS 2002 PART H1. WHERE A PIPE IS WITHIN 1M OF A FOUNDATION THE TRENCH SHALL BE FILLED WITH CLASS GEN3 CONCRETE UP TO THE LOWEST LEVEL OF THE FOUNDATION. WHERE THE TRENCH IS FURTHER THAN 1M FROM THE FOUNDATION, THE TRENCH SHALL BE FILLED WITH CLASS GEN3 CONCRETE TO A LEVEL BELOW THE LOWEST LEVEL FOR THE FOUNDATION EQUAL TO THE DISTANCE FROM THE FOUNDATION LESS 150MM. IN BOTH CASES THE PIPE SHALL BE BEDDED AND SURROUNDED IN 150MM THICK CLASS GEN3 CONCRETE.
  - WHERE PIPES, EXTERNAL TO THE STRUCTURES, HAVE A DEPTH TO SOFFIT FROM GROUND LEVEL OF LESS THAN 600mm THEY SHALL HAVE A CLASS GEN3 CONCRETE ENCASEMENT (150mm THICK).
  - WHERE A PIPE, UNDER A CARRIAGEWAY, HAS A DEPTH OF COVER OF LESS THAN 1.2m THE PIPE SHALL BE LAID IN A CLASS Z BEDDING.
  - WHERE PIPES ARE BEDDED AND SURROUNDED IN CONCRETE, FLEXIBLE JOINTS SHOULD BE PROVIDED. COMPRESSIBLE BOARDS (FIBREBOARD OR POLYSTYRENE) SHALL BE PROVIDED AT A MAXIMUM OF 8M CENTRES (COINCIDING WITH PIPE JOINTS). THE BOARDS SHALL BE PRE-CUT TO PIPE DIAMETER AND TO A HEIGHT AND WIDTH EQUAL TO THE CONCRETE CROSS SECTION. A BOARD THICKNESS OF 18mm FOR PIPES UP TO 450MM NOMINAL DIAMETER AND 38mm FOR PIPES OVER 450MM NOMINAL DIAMETER.
  - ALL PRIVATE BUILDING DRAINAGE SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH BS8252-1.
  - UNLESS OTHERWISE SPECIFIED, BUILDING DRAINAGE TO BE 100mm INTERNAL DIAMETER.
  - MINIMUM GRADIENT FOR Ø100mm SURFACE DRAINAGE PIPES IS 1:80, AND Ø150mm IS 1:100.
  - MINIMUM GRADIENTS FOR FOUL DRAINAGE PIPES:  
Ø100mm: 1:40 WHERE FLOW IS LESS THAN 1L/S, OR WHERE NO WCS ARE CONNECTED.  
Ø100mm: 1:78 WHERE FLOW IS 1L/S OR GREATER, OR WHERE AT LEAST 1 NO. WC IS CONNECTED.  
Ø150mm: 1:135 WHERE FLOW IS LESS THAN 5L/S, OR WHERE UP TO 5NO. WCS ARE CONNECTED.  
Ø150mm: 1:150 WHERE FLOW IS 5L/S OR GREATER, OR WHERE 5NO. OR MORE WCS ARE CONNECTED
  - ALL GULLIES NOT CONNECTED TO INSPECTION CHAMBERS ARE TO BE RODDABLE.
  - ALL GULLY CONNECTIONS OTHER THAN THOSE AT MANHOLES TO BE MADE VIA 'Y' JUNCTIONS.
  - GULLIES COINCIDENT WITH PEDESTRIAN/DRIVE CROSSINGS TO HAVE PEDESTRIAN TYPE GULLY COVERS.
  - ALL ROAD GULLY CONNECTIONS TO BE 150mm DIAMETER AND ANY GULLY CONNECTIONS SUBJECT TO TRAFFIC LOADING TO HAVE CLASS Z BEDDING & SURROUND
  - ALL STUB STACKS TO BE FITTED WITH AIR ADMITTANCE VALVES WHERE BRANCH DRAIN EXCEEDS 12m EXCEPT AT THE HEAD OF THE RUN. SOIL VENT PIPES LOCATED AT THE HEAD OF A RUN TO BE INSTALLED WITH ROOF TILE VENT.
  - ALL CONNECTIONS TO BE MADE FROM SOFFIT TO SOFFIT UNLESS WERE NOTED OTHERWISE
  - TRENCH TEMPORARY FORMWORK IS REQUIRED TO ALL EXCAVATIONS EXCEEDING 1.2m DEPTH TO PROVIDE ADEQUATE SUPPORT AND STABILITY AT ALL TIMES
  - SEWERS ARE TO BE CONSTRUCTED IN SINGLE SECTIONS BETWEEN MANHOLES ONLY. TRENCHES TO BE BACKFILLED PRIOR TO EXCAVATING THE SUCCEEDING SEWER RUN.
  - ALL CONCRETE AND CONCRETE PRODUCTS TO BE IN ACCORDANCE WITH BRE 363 FOR SULPHATES.
  - WHERE SEWER OR DRAINS ARE TO BE ABANDONED THEY SHALL BE REMOVED OR INFILLED BY GROUTING IN ACCORDANCE WITH THE CIVIL ENGINEER SPECIFICATION FOR THE WATER INDUSTRY 7TH EDITION, CLAUSE S.23.
  - EXTERNAL RAIN WATER PIPES TO HAVE ACCESS POINTS 1m ABOVE GROUND LEVEL. (REFER TO DETAIL WITHIN CONSTRUCTION DETAILS)

REV	DESCRIPTION	BY	CHK	APR	DATE

PURPOSE OF ISSUE	INFORMATION		STATUS
PROJECT	FORMER LIBRARY NANT HALL ROAD PRESTATYN		P
TITLE	PROPOSED DRAINAGE LAYOUT		
CLIENT	DENBIGHSHIRE COUNTY COUNCIL		
DRAWN BY	CHECKED BY	APPROVED BY	
RAH	MM	JP	
DATE	SCALE (@ A1)	PROJECT NUMBER	
May 20	1:125	-	
DRAWING NUMBER	REV		PI
49005-JP-DR-C-502			

- NOTES**
- THE WORKS SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, NATIONAL BUILDING SPECIFICATION (NBS) AND SEWERS FOR ADOPTION, 7TH EDITION.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS, ARCHITECTS DRAWINGS, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
  - THE LOCATION, LINE & LEVEL OF ALL KNOWN EXISTING BURIED SERVICE MAINS AND DRAINAGE PIPEWORK INDICATED ON THE DRAWINGS ARE APPROXIMATE AND FOR GUIDANCE PURPOSES ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXACT LINE & LEVEL, BY WAY OF HAND EXCAVATED TRIAL PITS, PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS ON SITE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN THE STRUCTURAL INTEGRITY OF ALL ABOVE AND BELOW GROUND SERVICE MAINS / DRAINAGE INSTALLATIONS.
  - THE CONTRACTOR MUST COMPLY WITH ALL CURRENT LEGISLATION RELATING TO HEALTH & SAFETY.
  - THE MAIN CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL TEMPORARY WORKS, AND IS ALSO RESPONSIBLE FOR THE SAFE MAINTENANCE AND STABILITY OF EXISTING BUILDINGS AT ALL TIMES.
  - THE MAIN CONTRACTOR IS RESPONSIBLE FOR THE MITIGATION OF ALL OCCURRENCES OF GROUND WATER DURING THE CONSTRUCTION PERIOD.
  - THE CONTRACTOR SHALL MAKE ALLOWANCE FOR RAISING / LOWERING ALL EXISTING ACCESS COVERS & FRAMES TO SUIT NEW FINISHED LEVELS.
  - ALL SOFT / HARD PAVED AREAS AFFECTED BY THE WORKS SHALL BE FULLY REINSTATED UPON COMPLETION OF THE WORKS. ALL SURFACE MARKINGS DAMAGED BY THE WORKS SHALL BE FULLY REINSTATED.
  - ALL SURPLUS EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF SITE.
  - ALL LEVELS ARE TO ORDNANCE DATUM
- 34m³ OF ATTENUATION CONSISTING OF AQUA CELL 'PRIME' STORAGE BLOCKS - 9 UNITS x 10 UNITS X 2 UNIT (4.5m x 10m x 0.8m @ 95% VOID RATIO) TO BE BACKFILLED & VENTED IN ACCORDANCE WITH MANUFACTURERS GUIDANCE & RECOMMENDATIONS TO CATER FOR THE 100 YEAR STORM EVENT WITH A 30% ALLOWANCE FOR CLIMATIC CHANGE