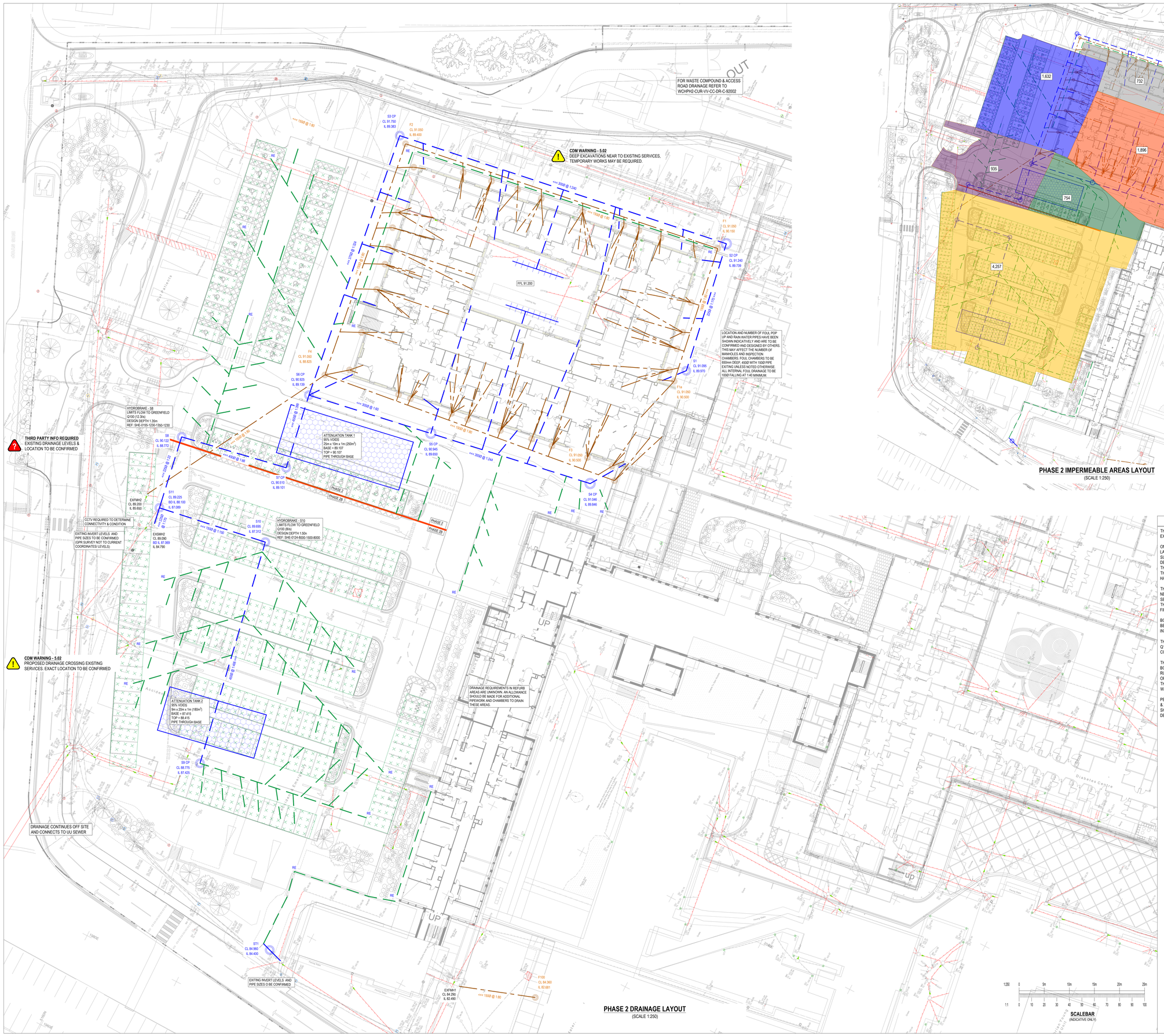

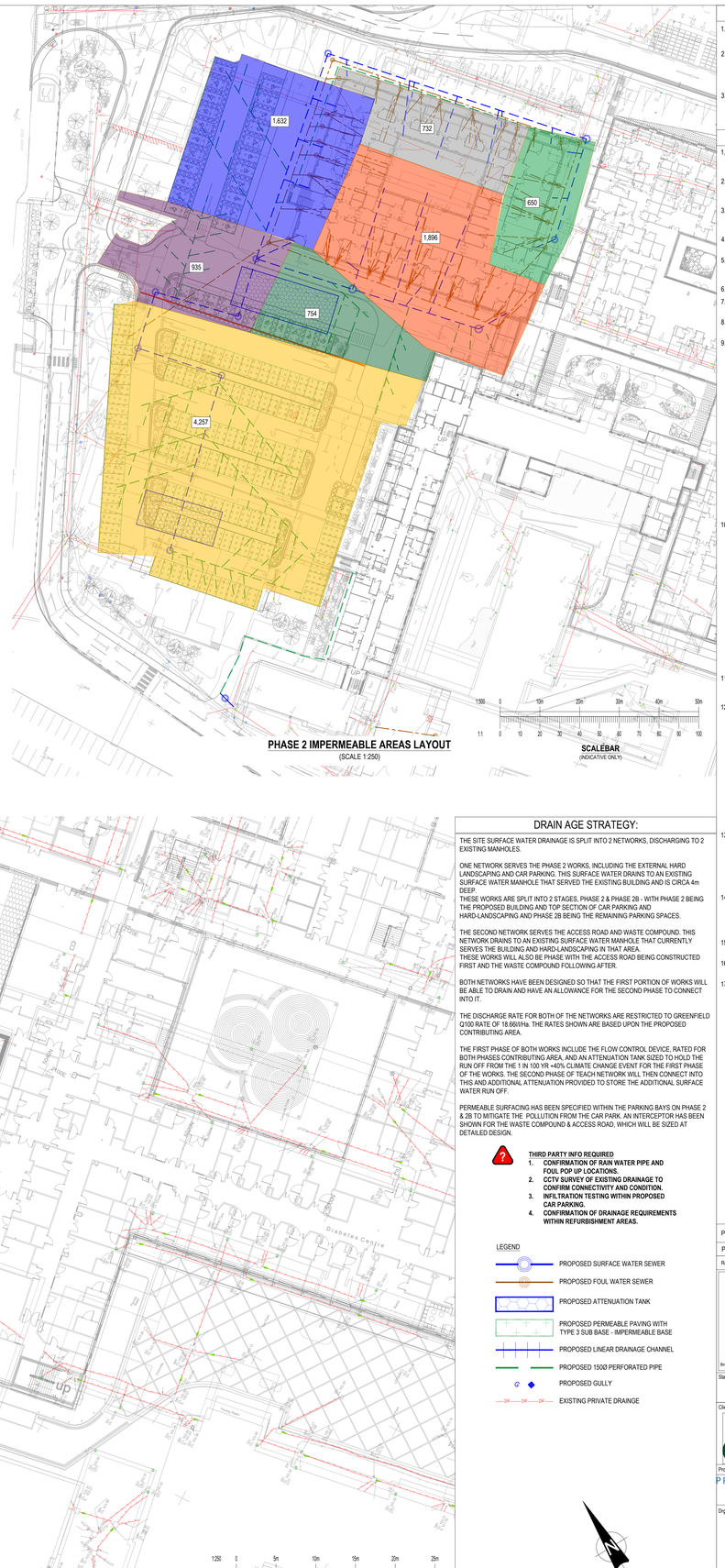

DRAIN AGE STRATEGY:

THE SITE SURFACE WATER DRAINAGE IS SPLIT INTO 2 NETWORKS, DISCHARGING TO 2 EXISTING MANHOLES.

ONE NETWORK SERVES THE PHASE 2 WORKS, INCLUDING THE EXTERNAL HARD LANDSCAPING AND CAR PARKING. THIS SURFACE WATER DRAINS TO AN EXISTING SURFACE WATER MANHOLE THAT SERVED THE EXISTING BUILDING AND IS CIRCA 4m DEEP.
THESE WORKS ARE SPLIT INTO 2 STAGES, PHASE 2 & PHASE 2B - WITH PHASE 2 BEING THE PROPOSED BUILDING AND TOP SECTION OF CAR PARKING AND HARD-LANDSCAPING AND PHASE 2B BEING THE REMAINING PARKING SPACES.

THE SECOND NETWORK SERVES THE ACCESS ROAD AND WASTE COMPOUND. THIS NETWORK DRAINS TO AN EXISTING SURFACE WATER MANHOLE THAT CURRENTLY SERVES THE BUILDING AND HARD-LANDSCAPING IN THAT AREA.
THESE WORKS WILL ALSO BE PHASE WITH THE ACCESS ROAD BEING CONSTRUCTED FIRST AND THE WASTE COMPOUND FOLLOWING AFTER.

BOTH NETWORKS HAVE BEEN DESIGNED SO THAT THE FIRST PORTION OF WORKS WILL BE ABLE TO DRAIN AND HAVE AN ALLOWANCE FOR THE SECOND PHASE TO CONNECT INTO IT.

THE DISCHARGE RATE FOR BOTH OF THE NETWORKS ARE RESTRICTED TO GREENFIELD Q100 RATE OF 18.66l/l/ha. THE RATES SHOWN ARE BASED UPON THE PROPOSED CONTRIBUTING AREA.

THE FIRST PHASE OF BOTH WORKS INCLUDE THE FLOW CONTROL DEVICE, RATED FOR BOTH PHASES CONTRIBUTING AREA, AND AN ATTENUATION TANK SIZED TO HOLD THE RUN OFF FROM THE 1 IN 100 YR +40% CLIMATE CHANGE EVENT FOR THE FIRST PHASE OF THE WORKS. THE SECOND PHASE OF TEACH NETWORK WILL THEN CONNECT INTO THIS AND ADDITIONAL ATTENUATION PROVIDED TO STORE THE ADDITIONAL SURFACE WATER RUN OFF.

PERMEABLE SURFACING HAS BEEN SPECIFIED WITHIN THE PARKING BAYS ON PHASE 2 & 2B TO MITIGATE THE POLLUTION FROM THE CAR PARK. AN INTERCEPTOR HAS BEEN SHOWN FOR THE WASTE COMPOUND & ACCESS ROAD, WHICH WILL BE SIZED AT DETAILED DESIGN.

THIRD PARTY INFO REQUIRED
1. **CONFIRMATION OF RAIN WATER PIPE AND FOUL POP UP LOCATIONS.**
2. **CCTV SURVEY OF EXISTING DRAINAGE TO CONFIRM CONNECTIVITY AND CONDITION.**
3. **INFILTRATION TESTING WITHIN PROPOSED CAR PARKING.**
4. **CONFIRMATION OF DRAINAGE REQUIREMENTS WITHIN REFURBISHMENT AREAS.**

LEGEND

- PROPOSED SURFACE WATER SEWER
- PROPOSED FOUL WATER SEWER
- PROPOSED ATTENUATION TANK
- PROPOSED PERMEABLE PAVING WITH TYPE 3 SUB BASE - IMPERMEABLE BASE
- PROPOSED LINEAR DRAINAGE CHANNEL
- PROPOSED 150Ø PERFORATED PIPE
- PROPOSED GULLY
- EXISTING PRIVATE DRAINGE

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

PRIVATE DRAINAGE NOTES:

1. ALL DRAINAGE WORK TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS, BS EN 752 AND TO THE SATISFACTION OF THE BUILDING INSPECTOR.
2. ALL PROPRIETARY ITEMS ARE TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURERS DETAILS, INSTRUCTIONS & SPECIFICATIONS.
3. ALL EXISTING DRAINS AND SERVICES (LINE AND LEVELS) TO BE CHECKED BY THE CONTRACTOR ON SITE PRIOR TO FINALISING NEW DRAINAGE LINES AND LEVELS.
4. ALL COVER LEVELS ARE APPROXIMATE. EXACT LEVELS TO BE DETERMINED FROM THE EXTERNAL WORKS LAYOUT.
5. INVERT LEVELS QUOTED AT MANHOLES AND INSPECTION CHAMBERS ARE THOSE OF THE LARGEST CONNECTED PIPE DIAMETER. PIPES AT CHAMBERS TO BE LAID WITH SOFFITS LEVEL UNLESS NOTED OTHERWISE.
6. PIPE GRADIENTS WHERE STATED ARE APPROXIMATE.
7. REFER TO ARCHITECT'S DRAWINGS FOR PRECISE LOCATION OF ALL RAINWATER PIPES, INTERNAL CONNECTIONS ETC.
8. ALL INTERNAL CONNECTIONS ARE TO HAVE AN ABOVE-FLOOR ACCESS POINT TO ENABLE FUTURE ACCESS FOR MAINTENANCE.
9. PIPES AND FITTINGS TO BE:
   - CONCRETE PIPES AND ANCILLARY PRODUCTS TO BS 5911-1:2002+A2:2010 AND BS EN 1916:2002.
   - VITRIFIED CLAY PIPES AND FITTINGS TO BS EN 295:2013 (ALL PARTS).
   - DUCTILE IRON TO BS EN 598:2007 & BS ISO 4179:2005.
   - PLASTIC PIPES FOR LAND DRAINAGE TO BS 4962:1982.
   - PLASTIC PIPING SYSTEMS FOR NON-PRESSURE UNDERGROUND DRAINAGE AND SEWAGE TO BS EN 1401 & BS 4660 – SOLID WALL ONLY, STRUCTURED WALL PIPES ARE NOT ACCEPTABLE FOR USE IN DRAINAGE SYSTEMS UNLESS AGREED.
   - PRECAST CONCRETE MANHOLE UNITS TO BS EN 1917:2002.
   - PLASTIC INSPECTION CHAMBERS FOR DRAINS AND SEWERS TO BS EN 13598-1:2010.
   - GULLY AND MANHOLE TOPS FOR VEHICULAR AND PEDESTRIAN AREAS TO BS EN 124:1994.
   - DRAINAGE CHANNELS FOR VEHICULAR AND PEDESTRIAN AREAS TO BS EN 1433:2002.
10. ALL MANHOLE COVERS, ROAD GULLY COVERS AND FRAMES TO COMPLY WITH BS EN124 NON ROCKING TYPE.

    UNLESS NOTED OTHERWISE USE:

    CLASS A15 AREAS INACCESSIBLE TO VEHICLES, ACCESSED ONLY BY PEDESTRIANS AND PEDAL CYCLISTS.

    CLASS B125 FOOTPATHS, FOOTWAYS, PEDESTRIAN AREAS WITH ONLY OCCASIONAL LIGHT VEHICULAR ACCESS INCLUDING DOMESTIC DRIVEWAYS & SMALL CAR PARKS.

    CLASS C250 GULLY TOPS IN CARRIAGEWAY WITHIN 500mm OF KERB AND UP TO 200mm INTO THE FOOTWAY.

    CLASS D400 CARRIAGEWAYS, HARD SHOULDERS, PARKING AREAS AND PEDESTRIAN AREAS ACCESSED BY ALL TYPES OF VEHICLES.

    CLASS E600 AREAS IMPOSING HIGH WHEEL LOADS SUCH AS INDUSTRIAL ESTATES AND SERVICE YARDS.
11. MANHOLES IN INTERNAL AREAS REQUIRE DOUBLE SEALED COVERS WITH LOCKING SCREWS, RECESSED WHERE REQUIRED TO ACCOMMODATE FLOOR FINISHES TO ARCHITECT'S SPECIFICATION.
12. PIPE BEDDING

    USE CLASS S BEDDING UNLESS NOTED OTHERWISE. NB PROTECT AGAINST CONSTRUCTION TRAFFIC AS NECESSARY.

    USE CLASS Z CONCRETE BED & SURROUND OR CONCRETE SLAB PROTECTION AS FOLLOWS:
    - 100 - 600Ø PIPES (CLASS 120 CLAYWARE OR CLASS M CONCRETE)

      FIELDS AND GARDENS - LESS THAN 600mm COVER TO CROWN.

      ROADS - LESS THAN 1200mm COVER TO CROWN
    - 100 - 300Ø PIPES (PLASTIC)

      FIELDS AND GARDENS - LESS THAN 600mm COVER TO CROWN.

      ROADS - LESS THAN 900mm COVER TO CROWN
13. PIPES BELOW CONCRETE GROUND FLOOR SLABS

    WHERE THE CROWN OF THE PIPE IS WITHIN 300mm OF THE UNDERSIDE OF SLAB, SPECIAL PROTECTION TO BE PROVIDED IN ACCORDANCE WITH BUILDING REGULATIONS H1 2.44 OR 150mm GEN3 CONCRETE BED AND SURROUND CAST INTEGRALLY WITH SLAB.

    OTHERWISE USE CLASS S BEDDING
14. MAIN BACKFILL TO BE WELL COMPACTED IN 150mm LAYERS OF:

    SELECTED BACKFILL MATERIAL IN ALL SOFT LANDSCAPED AREAS

    TYPE 1 GRANULAR MATERIAL IN ALL HARDSTANDING AREAS & PUBLIC HIGHWAYS
15. BACKFILL TO DRAINS NEAR FOUNDATIONS IS TO BE IN ACCORDANCE WITH BUILDING REGULATIONS H1 DIAGRAMS 8 & 12.
16. SURFACE WATER MANHOLE SIZE TO BE MAXIMUM PIPE SIZE +900mm (ASSUME 1350Ø).
17. ALL CHAMBERS DOWNSTREAM OF PERFORATED PIPES TO BE A SILT TRAP

Rev:	Description:	Date:	By:	Chkd:
P02	LAYOUT AND PHASING ALLOWANCES UPDATED, IMPERMEABLE AREAS ADDED	18/06/21	DM	PT
P01	FIRST ISSUE	28/05/21	DM	PT

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Status: ISSUED FOR INFORMATION — S2

Client: GRAHAM

Project: PROCURE 23 — WEST CUMBERLAND HOSPITAL PHASE 2 DEVELOPMENT

Drg Title: DRAINAGE LAYOUT

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
072419	A0	MAY 21	DM	DM	PT
	Scale: 1:250				

Project Code:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
WCHPH2	CUR -	VV -	XX -	DR -	C -	92001	- P02

WCHPH2-CUR-VV-XX-DR-C-92001-S2-P02-Drainage Layout.dwg