

DRAWING NUMBER	REVISION	DRAWING TITLE	STANDARD DETAIL
HCC11/D/010	–	FILTER DRAIN DETAILS	TYPE 1B
HCC11/D/015	–	GULLY TYPE 1	–
HCC11/D/040	–	CATCHPIT TYPE C1A&C1B, C2A&C2B AND C1C&C2C	–
HCC11/D/045	–	MANHOLE TYPES M2Z, M2Y, M2X & M2W (PRECAST CONCRETE, DEPTH EXCEEDING 1.5m BUT NOT 3.0m)	M2Z–M2Y
HCC11/D/060	–	MANHOLE TYPES M4A & M4B (BRICK, DEPTH LESS THAN 1.0m)	M4A
HCC11/D/065	–	MANHOLE TYPE M5 (PRECAST CONCRETE, DEPTH EXCEEDING 1.0m BUT NOT 1.5m)	M5
HCC11/D/085	–	HEADWALL TYPE 1	–
HCC11/D/095	–	HEADWALL TYPE 3	–
HCC11/D/115	–	DITCH TYPE 1,2 AND 3	–
HCC11/D/125	–	DRAINAGE GRIPS	CONCRETE LINED DRAINAGE GRIP WITH KERBS



Diagram illustrating the construction of a well, showing layers and dimensions:

- FINISH LEVEL**
- FORMATION LEVEL**
- 300mm MIN.** (Layer thickness)
- 1000 mm or greater** (Layer thickness)
- 300 mm or greater** (Layer thickness)
- Dimensions:** Bt, Bc, Dn, Y

Legend:

- [*] TO BE USED ONLY IN NON-ADAPTABLE AREAS**
- DOT TYPE 1 MATERIAL, COMPACTED IN LAYERS NOT EXCEEDING 250mm**
- DOT TYPE 1 MATERIAL, COMPACTED BY HAND**
- SELECTED FILL WELL COMPACTED (DOT TYPE 1 MAY BE USED)**
- GRANULAR BED WELL COMPACTED**

ADDITIONAL PROTECTION IS PROVIDED ON MAIN SITE TRAFFIC ROUTES

Figure 10 is a cross-sectional diagram of a 150mm diameter manhole. The diagram shows a circular manhole with a 150mm diameter, surrounded by a granular surround. The total height of the structure is 1200mm. The top layer is 150mm thick, and the bottom layer is 1200mm thick. The manhole is labeled "DOT TYPE 1 MATERIAL COMPACTED IN LAYERS NOT LESS THAN 100mm MIN. UNLESS ADDITIONAL PROTECTION REQUIRED". The granular surround is labeled "GRANULAR SURROUND IN CONTROLLED LAYERS".

Diagram illustrating the cross-section of a drainage system. The diagram shows a 150 mm diameter pipe surrounded by 300 mm of material (Bd), which is further surrounded by 375 mm of material (Bc). The total depth is 150 mm. The diagram also shows the formation level, finish level, and a note about the material being DOT Type 1 compacted. A table specifies dimensions for single crushed rock or graded material.

600 mm	10,14,20 OR 40 mm SINGLE CRUSHED ROCK OR 40-45 mm GRADED
--------	--

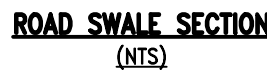
DOT TYPE 1 MATERIAL COMPACTED

900mm MIN. UNLESS ADDITIONAL PROTECTION IS PROVIDED ON MAIN SITE TRAFFIC ROUTES

150 mm SURROUNDED UP TO 300 mm Dia PIPE (*200mm SURROUND ON 375 mm AND ABOVE) OF STRAIGHT/GEN. SHARPED FORMERS OF 25 mm POLYSTYRENE OF PITCH IMPREGNATED FIBRE BOARD TO BE INSTALLED ON EACH JOINT ON ROCKER PIPES AT MANHOLES ETC. AND EVERY THIRD JOINT (NOT EXCEEDING 5 METRES) ON RUNS OF DRAIN

- 1) FOR PIPES EXCEEDING 600 mm DIA REFER TO ENGINEER
- 2) IN WET OR SOFT GROUND SEEK GUIDANCE FROM ENGINEER
- 3) THE BEDDINGS MAY BE MODIFIED FOR CERTAIN SUB-SOIL CONDITIONS AT THE ENGINEERS DISCRETION
- 4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL PROTECTION IN AREAS SUBJECT TO LOADS FROM SITE TRAFFIC. THE CONTRACTOR SHALL IDENTIFY THESE ZONES AND RESTRICT TRAFFIC ELSEWHERE
- 5) SEE ALSO EN752
- 6) FOR GREATER TRENCH WIDTHS SEEK GUIDANCE FROM ENGINEER

IN ROCK, CONCRETE OR MIXED SOILS CONTAINING ROCK BANDS, BOULDERS, LARGE FLINTS OR STONES OR OTHER IRREGULAR HARD SPOTS THAT RESULT IN UNEVEN TRENCH BOTTOM $Y=1/4 Bc$ OR 200 mm WHICH EVER IS THE GREATER, BUT NOT LESS THAN 50mm UNDER COLLARS



ALL WORKS TO BE CARRIED OUT BY A CONTRACTOR COMPETENT TO UNDERTAKE THE CONSTRUCTION OF WORKS AS INDICATED ON THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE JOB SPECIFIC RISK ASSESSMENT. THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

DESIGN PENDING
APPROVAL UNDER
S38

T1