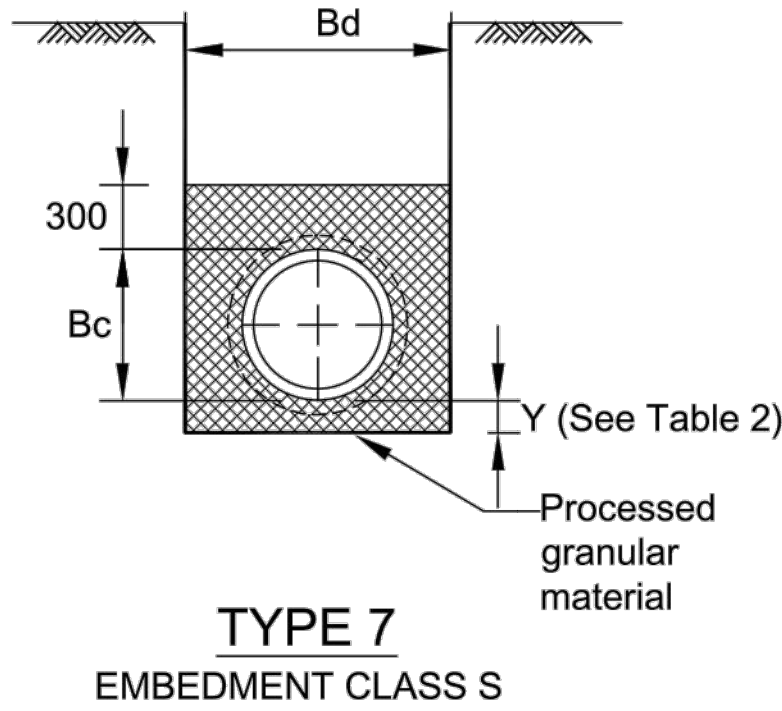
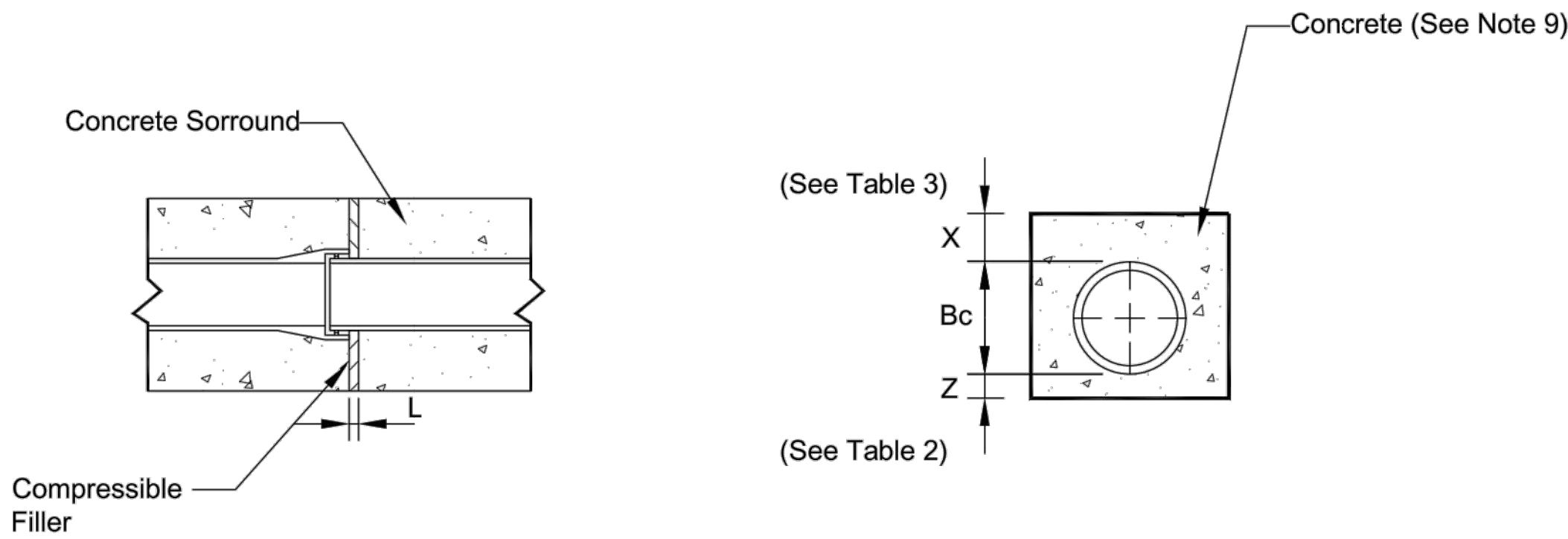




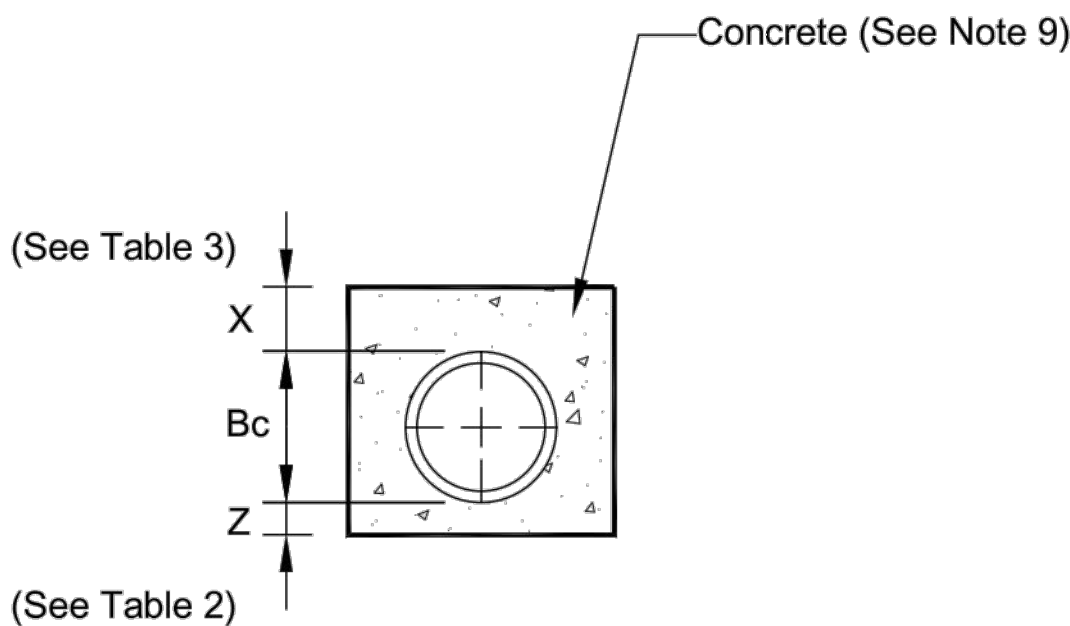
BEDDING FACTOR (See note 5)	
2.2	Narrow Trench
2.2 or 2.5	Wide Trench
2.2	Enbankment

TABLE 2 Embedment Dimensions for Rigid Pipes					
NOMINAL INT PIPE DIA	DIMENSION Y1 EVEN TRENCH BOTTOM (MIN)	DIMENSION Y2 ROCK OR UNEVEN TRENCH BOTTOM (MIN)	PROCESSED GRANULAR MATERIAL	DIMENSION Z (MIN)	MAX PERMITTED TRENCH WIDTH
150	100	200	10mm single sized or 14mm to 5mm graded	100	750
225	100	200		100	825
300	100	200		100	925
375	100	200		100	1050
450	150	200	14mm single sized or 14mm to 5mm graded	150	1150
525	150	250		150	1200
600	150	250		150	1350
675	150	250		225	1450
750	225	300	20mm single sized or 20mm to 5mm graded	225	1500
825	225	300		225	1600
900	225	300		225	1900
975	225	300		300	2000
1050	225	300	40mm single sized or 40mm to 5mm graded	300	2100
1125	225	300		300	2200
1200	250	350		300	2300
1350	375	450		375	2500
1500	375	450	40mm single sized or 40mm to 5mm graded	375	2700
1650	375	450		450	2800
1800	375	500		450	3100
1950	400	500		525	3200
2100	425	650	40mm single sized or 40mm to 5mm graded	525	3400
2400	450	675		600	3700

Note:
Bc = Outside Diameter of pipe
Bd = Effective trench width
measured 300mm above
crown of pipe



FLEXIBLE JOINT DETAIL FOR
CONCRETE BED AND CONCRETE SURROUND
SPIGOT AND SOCKET PIPES



CONCRETE SURROUND
(CLASS Z)

TABLE 3 Thickness of Compressible Fill (L)		
Nominal Internal Pipe Dia	Dim. X mm	Compressible Filler L mm
<400	160	18
400-700	200	36
725-1200	300	36
>1200	300	54

GENERAL NOTES

- All dimensions in millimetres
- The pipe embedments indicate the minimum trench dimensions which should be assumed for initial design purposes; the minimum trench widths shown will usually be sufficient to allow adequate compaction of the embedment material
All pipework should be designed in accordance with BS EN 1295-1
- For narrow trenching techniques the minimum trench width may be reduced, providing that the design indicates that the reduced embedment width is sufficient to support the pipework
- Where selected excavated material may migrate into the native soil or vice versa, geotextile membrane shall be provided around the embedment material
- Bedding factors are derived from "A guide to design loadings for buried rigid pipes" and IGN 4-11-02 "Revised bedding factor for Vitrified Clay drains and sewers"
- Embedment dimensions shall be in accordance with Table 2
PROCESSED GRANULAR MATERIAL:
- Processed granular material shall comply with WIS 4-08-02. The grading of processed granular material shall be as specified
- Limestone material shall not be used where the native ground or ground water is acidic, ie pH of 6 or less
CONCRETE EMBEDMENTS & SURROUND:
- Gen 3 concrete shall be used in non aggressive ground. Elsewhere the cement type and mix design should be selected to suit the sulphate content and pH of the ground and groundwater
- Concrete surround details shall be adopted where cover to pipework is less than 1.2M and where it is necessary to protect the pipework from traffic loading
- Pipes to be bedded/surrounded with concrete shall be supported on precast concrete setting blocks, the top face of of each block being covered with two layers of compressible packing
- PVC and PE pipes shall be wrapped with a layer of plastic sheeting complying with UU CESWI 6 class 2.95
- GRP pipes shall be wrapped with compressible filler material 100mm wide at the end of the end of the concrete surround
- Compressible filler shall comply with UU CESWI 6 class 2.19

CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing.
Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.