

TABLE 1

| DN | Minimum trench width (OD + x) | | |
|--------------|-------------------------------|--------------------|----------|
| | Supported trench | Unsupported trench | |
| | | # > 60° | # < 60° |
| less 225 | 600 | 600 | 600 |
| 225 to 350 | 800 | 800 | 800 |
| 350 to 700 | OD + 700 | OD + 700 | OD + 400 |
| 700 to 1200 | OD + 850 | OD + 850 | |
| greater 1200 | OD + 1000 | OD + 1000 | OD + 400 |

In the values OD + x, x/2 equals the minimum working space between the pipe and the trench wall or support, where:
OD is external diameter.
is angle of unsupported trench side measured to the horizontal.

MINIMUM TRENCH WIDTH IN RELATION TO NORMAL SIZE DN

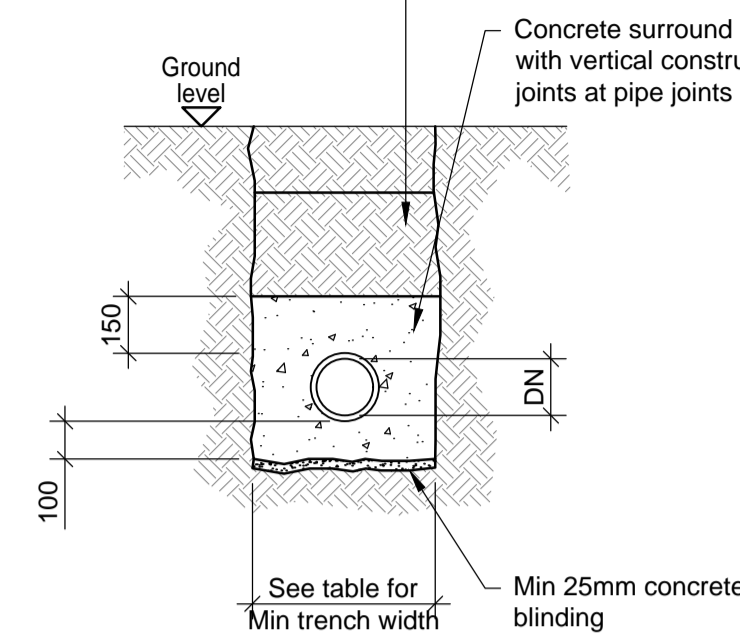
TABLE 2

| Trench depth | Minimum trench width |
|--------------|----------------------|
| less 1000 | As Table 1 |
| 1000 to 1750 | 800 |
| 1750 to 4000 | 900 |
| greater 4000 | 1000 |

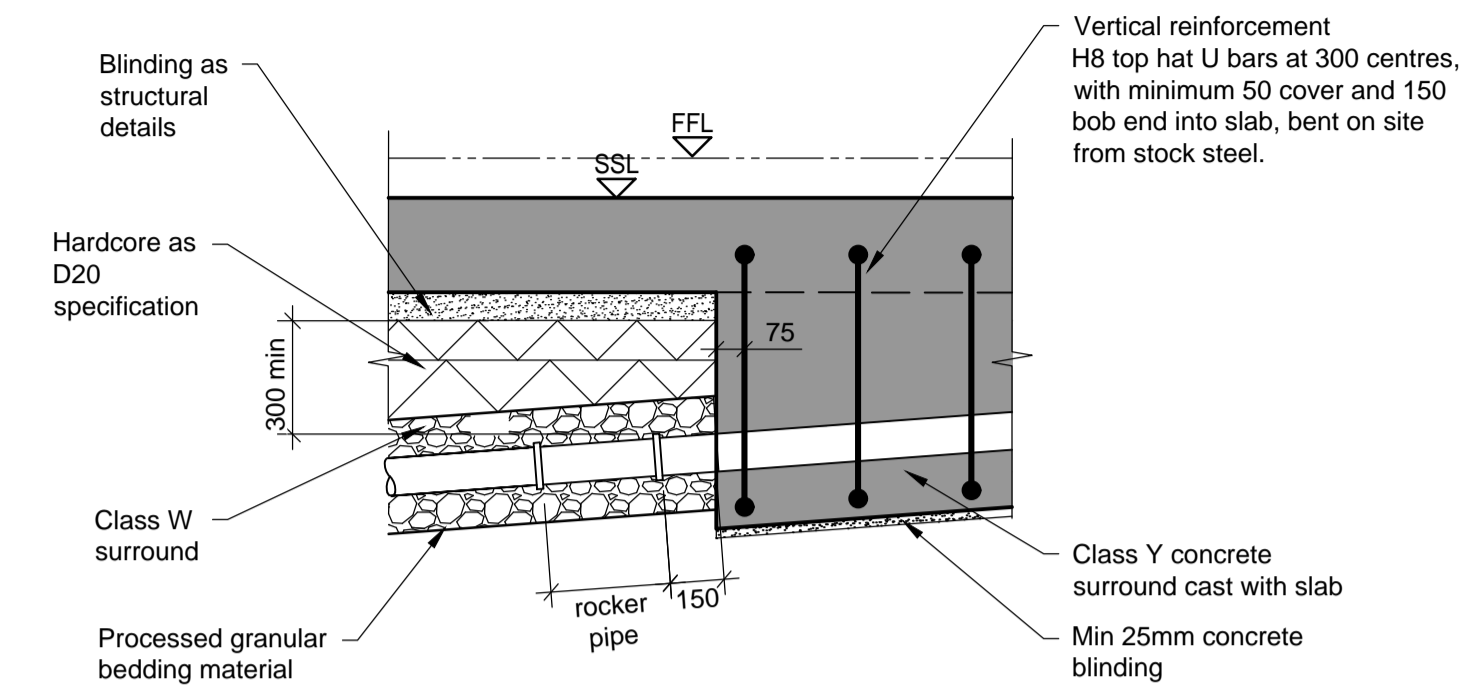
The minimum trench width shall be the greater of the values taken from tables 1 & 2.

MINIMUM TRENCH WIDTH IN RELATION TO TRENCH DEPTH

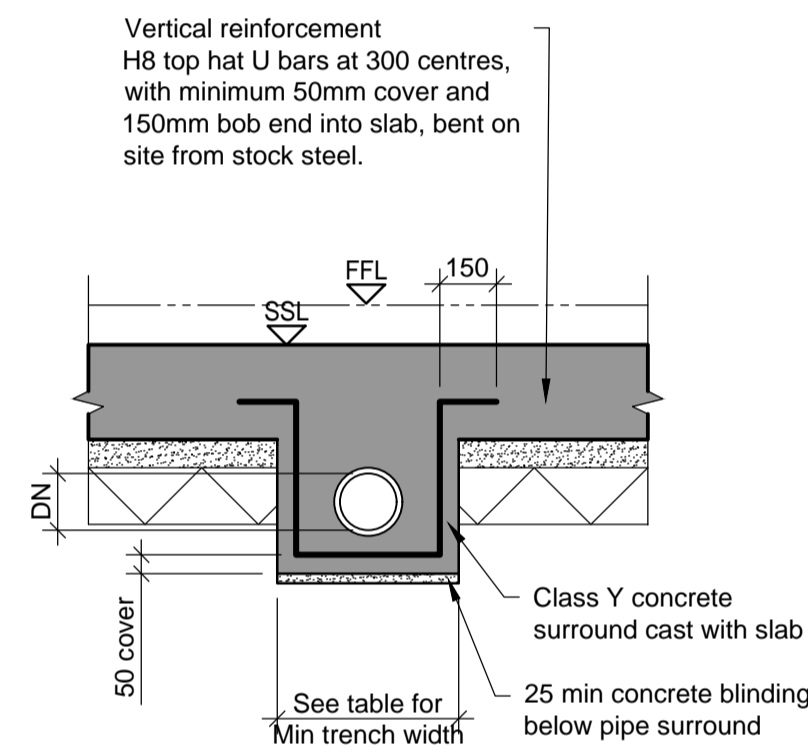
- Backfill:
- Under private roads and pavements; with Type 1 granular sub-base material
 - Under public roads and pavements; to Dept of Transport 'Specification for the Reinstatement of Openings in Highways'
 - Elsewhere; with material excavated from trench.



CLASS Z SURROUND COMPLETE CONCRETE SURROUND

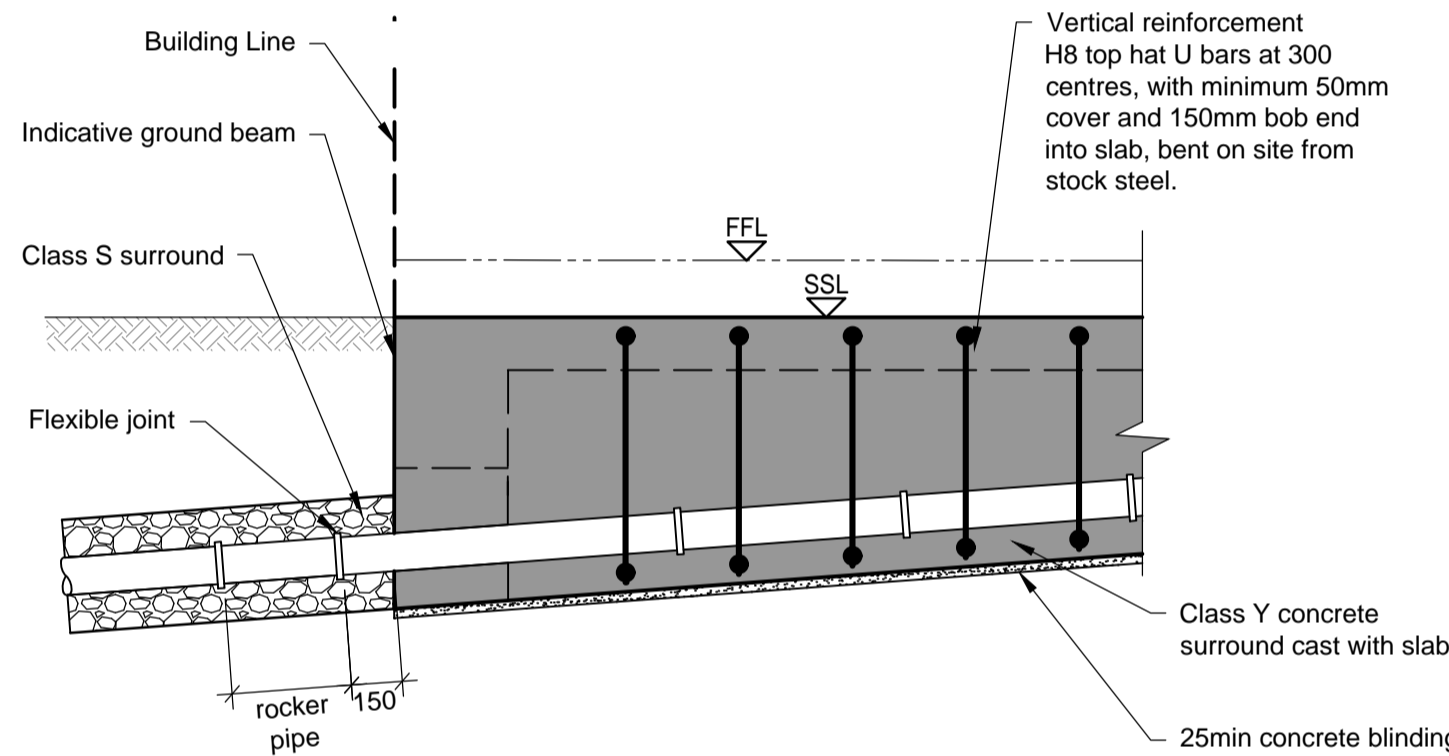


TYPICAL DETAIL FOR PIPELINES UNDER SLABS: CLASS Y AND W SURROUND

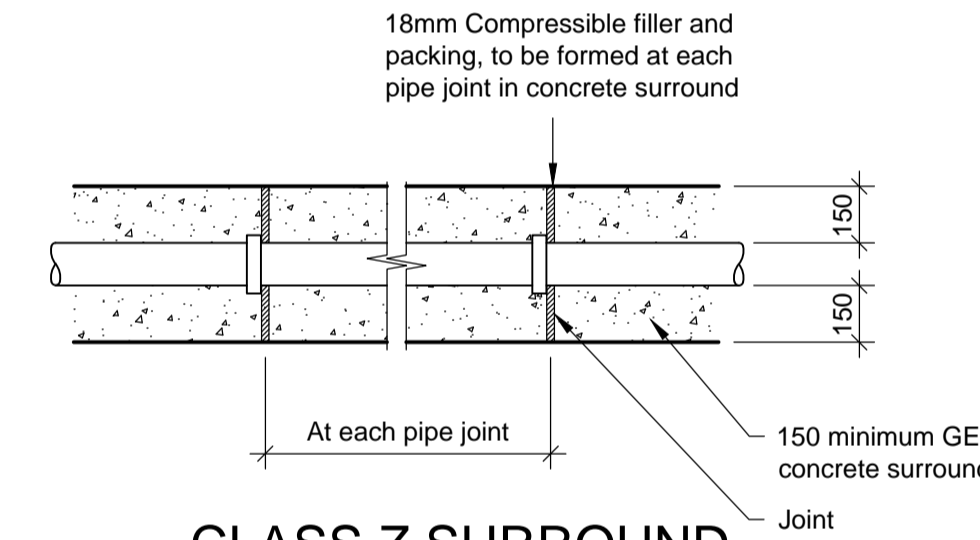


CLASS Y SURROUND FOR PIPES WITH CROWN < 300 UNDER BUILDING

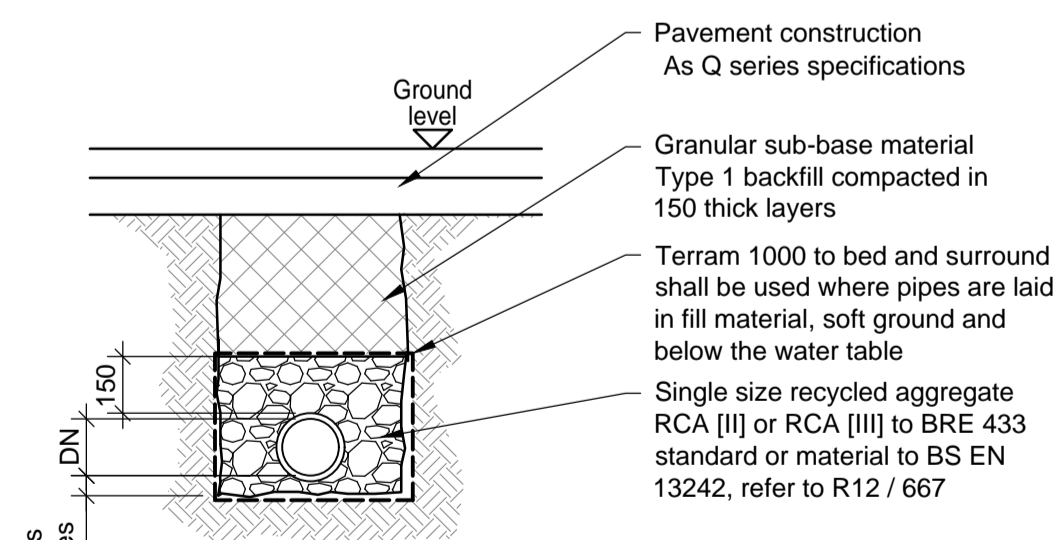
For plastic pipes care is to be taken in placing concrete to avoid deformation or displacement of pipe.



TYPICAL DETAIL FOR PIPELINES UNDER SLABS: CLASS Y AND W SURROUND

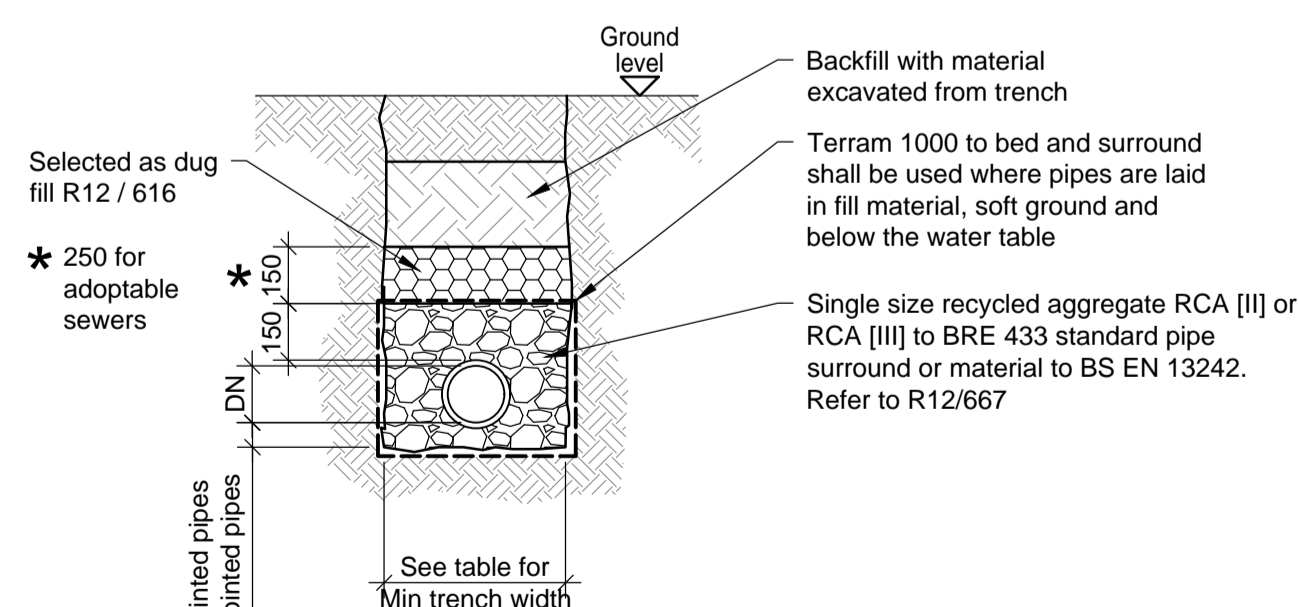


CLASS Z SURROUND FLEXIBLE JOINTS IN CONCRETE SURROUND



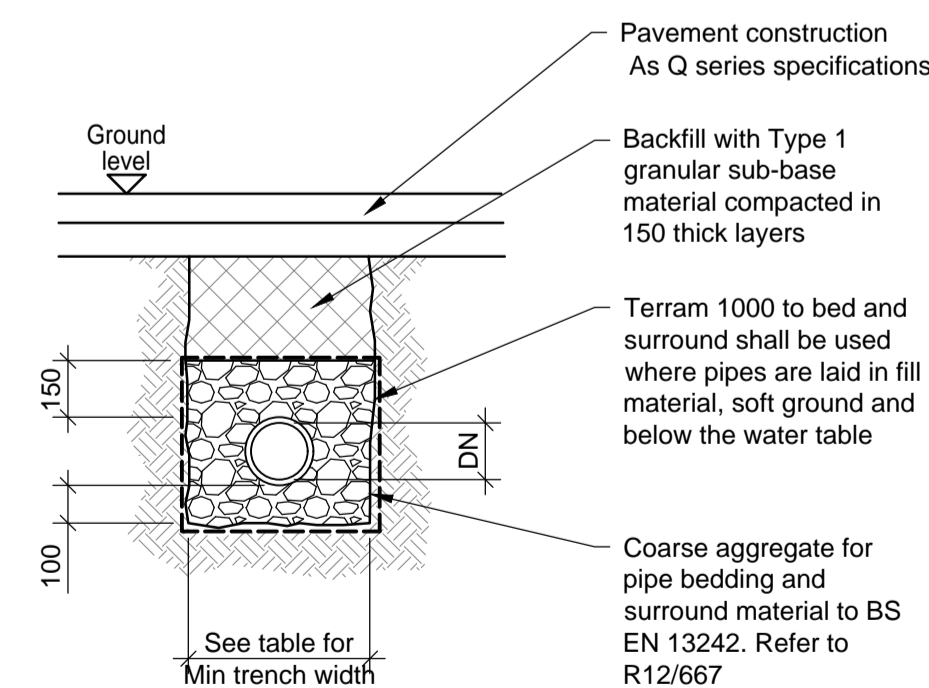
CLASS S SURROUND RECYCLED AGGREGATE GRANULAR SURROUND & BACKFILL FOR AREAS SUBJECT TO VEHICLE LOADING

For clay pipes only



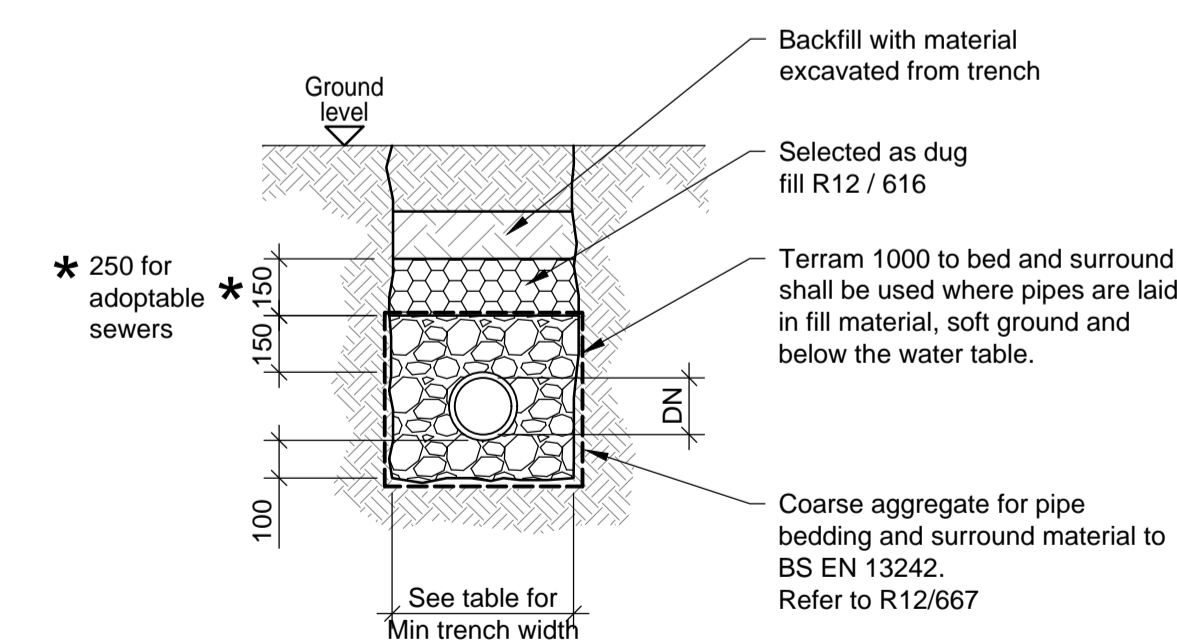
CLASS S SURROUND RECYCLED AGGREGATE GRANULAR SURROUND & BACKFILL FOR SOFT OR HARD LANDSCAPING AREAS NOT SUBJECT TO VEHICLE LOADING

For clay pipes only



CLASS S SURROUND GRANULAR SURROUND & BACKFILL FOR AREAS SUBJECT TO VEHICLE LOADING

Suitable for all pipes



CLASS S SURROUND GRANULAR SURROUND & BACKFILL FOR SOFT OR HARD LANDSCAPING AREAS NOT SUBJECT TO VEHICLE LOADING

Suitable for all pipes

NOTES :

- This drawing is to be read in conjunction with all relevant Architect's, Engineer's and specialists' drawings and specifications.
- Do not scale from this drawing in either paper or digital form. Use written dimensions only. To check that this drawing has been printed to the intended scale this bar should be 50mm long @ A1 or 25mm long @ A3.
- Health & Safety : All specific drawing notes are to be read in conjunction with the project "Information Pack" and "Site Rules".
- For general notes refer to Drawing No. 29100 / 0002.

| Rev | Date | Drawn | Eng | Amendment |
|-----|----------|-------|-----|------------------------|
| P03 | 29.10.21 | TP | KB | Issued for Stage 3 |
| P02 | 22.10.21 | TP | KB | Contract Issue |
| P01 | 16.02.21 | AC | KB | Issued for Information |

LIDDELL ROAD - PHASE 2 BELOW GROUND DRAINAGE DETAILS SHEET 4

Status
STAGE 3 ISSUE
NOT FOR CONSTRUCTION

| | | | |
|------------|---------------------------|------------|----|
| Drawn | AH | Eng | KB |
| Scales | 1:20 at A1 | 1:40 at A3 | |
| Drawing No | Rev | | |
| | 29100 / 6104 | P03 | |
| Doc Ref. | 29100-PAM-ZZ-XX-DR-C-6104 | | |

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