Guidance Note 4 – OSMA UltraRib Inspection Chambers 450mm dia.

Typical installation of a 450mm dia. Inspection Chamber

**NOTE:** The following is a summary of installation procedures.

Inspection Chambers may be installed in the same minimum trench width as required for standard 150mm drainage pipework. NO extension of trench width is required.

All elements are lightweight: may be handled/installed by a single person.

**Preparation**

- Prepare and compact 100mm regulating bed of ‘as dug’ or granular material in trench bottom.

**Positioning/connection**

- Position Base on regulating bed. Check outlet is facing in the correct direction.
- Ensure all inlets/outlet are free from dirt or grit.
- Use standard jointing sequence to connect 150mm Osma UltraRib and/or 110mm OsmaDrain pipes to inlets/outlet

**NOTE:** The main through channel MUST be used. Bends up to 45° may be used on any inlet or outlet.

- Push blank-off plugs externally into any unused outlet(s).

**Preparing shaft**

- Clean inside of Base socket and lubricate this entire area.
- Position first shaft section into Base socket. Vertically push home manually.
- Push-fit further shaft sections as required for invert depth. Ensure inside of each shaft section is pre-lubricated.
- Cut final shaft section to approximate required height, using a fine-toothed saw. (Use external rings as cutting guides).

**Backfill trench**

- Before starting backfill, cover top of shaft to prevent ingress of dirt or grit.
- Select suitable sidefill – use ‘as dug’. If not appropriate, use suitable granular material, similar to bedding material.
- Avoid knocking shaft during backfilling – and keep free of debris.
- Backfill to formation level. Then trim shaft to required height using fine-toothed saw.

**NOTE:** If finished ground level is not yet known, leave shaft proud of surface and keep open end covered until final completion.
**Guidance Note 4 – OSMA UltraRib Inspection Chambers 450mm dia.**

**Cover and frame: installation into 450mm dia. Inspection Chamber Shaft**

For green areas and pedestrian areas

NOT* subject to vehicle loading (See Figure. 18)

EXAMPLE: domestic gardens

- Trim shaft section at last stage of construction. Ensure unit is at correct height.
- Prepare selected Cover and Frame [4D920, 4D924 or 4D927] for installation into shaft.
- Position the cover and frame spigot into the shaft section.
- Fix frame to shaft using self-tapping screws.

*For A15 applications subject to occasional loading up to 15kN (1.5 tonnes) (See Figure. 19)

EXAMPLE: domestic paths/patios

- Leave top 150mm of shaft clear of backfill.
- Lay 150mm thick slab of pre-cast or in situ concrete around top of shaft chamber.
- Prepare selected Cover and Frame [4D920, 4D924 or 4D927] for installation into shaft.
- Position the cover and frame spigot into the shaft section.
- Fix frame to shaft using self-tapping screws.

For applications subject to occasional loading up to 25kN (2.5 tonnes)

EXAMPLE: domestic driveways

Square Recessed Covers and Frames [4D945] should also be installed with a concrete collar, as above (See Figure. 20).

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**Figure 18. Installation detail – green areas (non-loaded)**

**Figure 19. Installation detail A15 – areas subject to occasional vehicle loading up to 15kN (1.5 tonnes)**

**Figure 20. Installation detail B125 – areas subject to medium duty loading up to 125kN (12.5 tonnes)**
Cover and frame: installation into 450mm dia. Inspection Chamber Shaft

For B125 applications subject to medium duty loading up to 12.5kN (12.5 tonnes)

EXAMPLE: domestic driveways/small car parks

- Trim shaft section at last stage of construction. Ensure unit is at correct height.

- Protect shaft from traffic loading by shuttering its external ribs.

- Lay 150mm thick slab of pre-cast or in situ concrete around top of shaft chamber with minimum opening 500mm x 500mm – or 500mm diameter – to ensure that any loads are distributed away from the shaft.

- According to required loading application, position Ductile Iron B125 Cover and Frame or D400 Cover and Frame on top of slab.