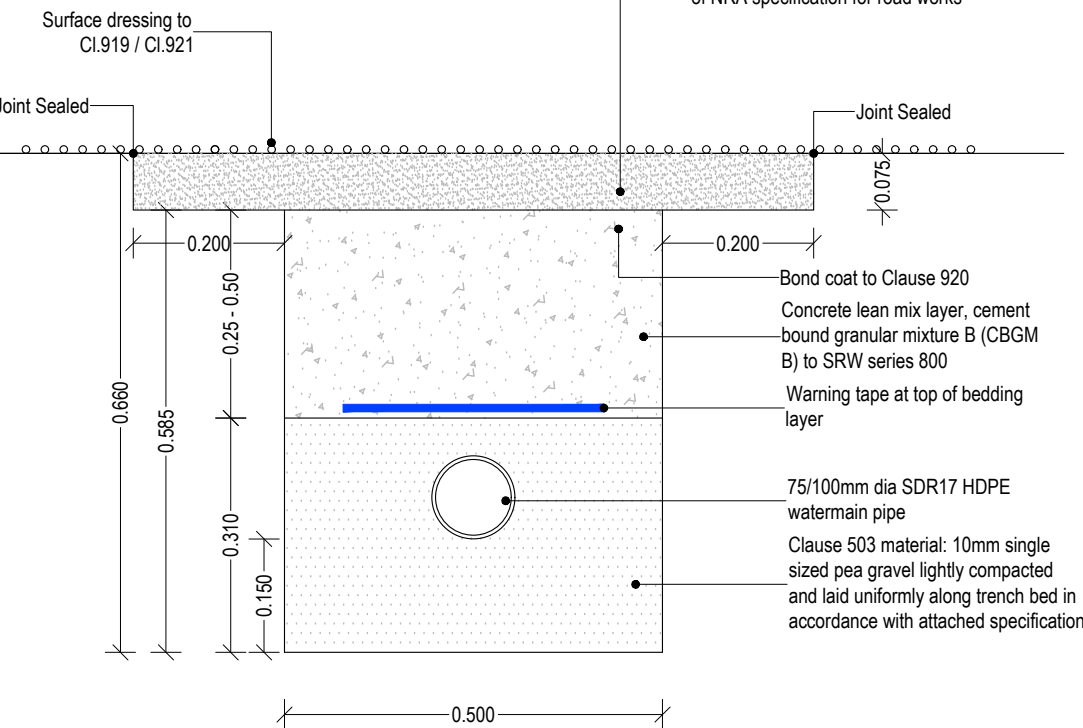


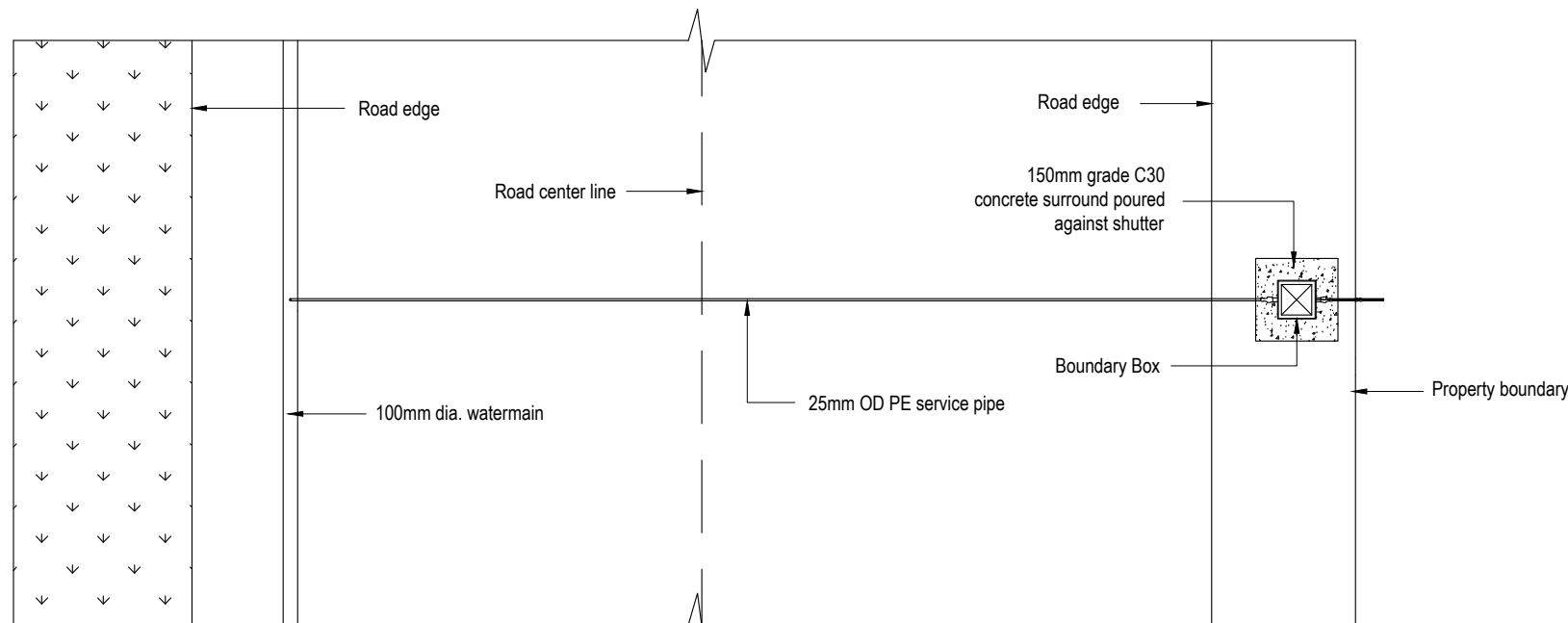
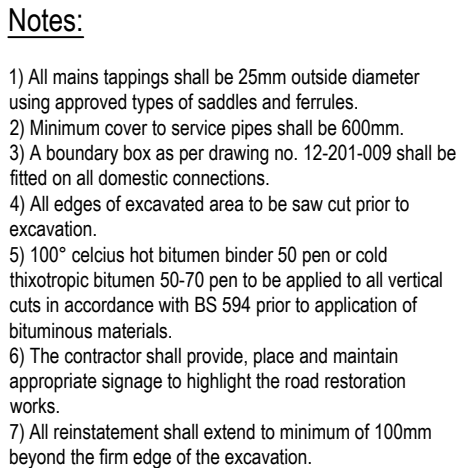
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Permanent Reinstatement Details
100mm Diameter Watermain in Grass Verge where side
of trench is more than 1.0m of Paved Edge
Scale 1/10

Permanent Reinstatement Details
50mm Diameter Watermain in Gravel Rural Unbound
Road (Longitudinal Opening) Section C-F
Scale 1/10



Section Through Domestic Connection Pipe in Road Crossing
Scale 1/10

- ## **Restraint Notes:**
- i. Compliance with these drawings and details are mandatory. Dependent on circumstances and where drawings provide options/alternatives, road authorities may specify one option only as being applicable. Where a utility has an approved equivalent detail for bedding and surround they may be substituted for the drawing and surround detail shown in the Standard Drawings, provided it is agreed by the relevant authority.
 - j. Full width/walling reinstatements works shall be machine laid with materials used in accordance with TII Specification for Road Works and use materials and depths of reconstruction to match the existing surface. Note: Surface Dressing does not constitute full width reinstatement.
 - k. All work shall have a temporary site, the name of the contractor and Licence Holder must be clearly displayed with a 24 hour contact number.
 - l. On approach to a worksite Traffic management plan, which shall be available for inspection on site, and shall comply with the Traffic Signs Manual and health and safety requirements.
 - i. The approach to the worksite shall include provision of all underground and ground services must be identified and marked by a competent person trained in the use of cable detectors. Contact shall be made with all relevant service providers in this regard.
 - ii. All works and materials shall comply with the TII Specification for Road Works. Series 9000 of that specification will be the March 2016 version unless otherwise stated.
 - iii. Excavation on a road should not be closer than 500mm to the kerb line in order to prevent undermining of the adjacent footway, tarmac or concrete.
 - iv. Excavations should be located so as to avoid surface water being blocked off the street as far as reasonably practicable.
 - v. All excavations shall be backfilled with suitable material and compacted to meet the original design strength. All edges shall be transversely straight, smoothed and vertical.
 - vi. The excavation shall sufficiently protect to avoid harmful effects caused by weather or roadworthy wheel loading.
 - m. The methods of work shall ensure proper disposal of waste and such equipment may be tested by the road authority. To ensure adequate protection, minimum clearances must be maintained vertically and horizontally between individual ducts or services installed in a group and other structures. A minimum clearance of 75mm shall be maintained between the following:
 - i. Cables and conduits
 - ii. Reinforced concrete pipes and reinforced concrete structures
 - iii. Concrete structures and concrete pipes
 - iv. Other items CL 804 may be used. Foamed concrete CL 1043 may only be used as a bedding material or bacfill material with prior approval from the relevant authority.
 - v. Ducts and cables shall be protected by a minimum of 100mm of bedding material, unless otherwise directed.
 - n. Where steel plates or other trench covers are used, they must comply with Section 6.3.7.
 - o. Hand laying of hot bituminous mastic shall be restricted to the following circumstances:
 - i. The edges of the layers of material at gutters, manholes and other structures.
 - ii. In confined spaces where it is impracticable for a paver to generate.
 - iii. At the approaches to expansion joints at bridges, viaducts or other structures.
 - p. Transverse reinstatements less than 20 metres in length.
 - q. Longitudinal reinstatements less than 20 metres in length.
 - r. Surface course reinstatements of longitudinal extensions less than 1 metre in width.
 - s. Temporary reinstatement.
- The method of laying shall be such that the finished surface is free from dragging, tearing and segregation of the material.
- i. All surface course aggregate shall have a minimum P₂₀ of 60 declared unless otherwise specified by the road authority.
 - ii. All surface course aggregate shall be transported in accordance with Clause 20.2 to application of Aggregates Concrete Layer.
 - iii. Any damage to the road surface or areas adjacent to the opening and resulting from the works shall be repaired and included within the area to be reinstated.
 - iv. Where there are significant structural concerns not covered by the drawing, the reinstatement specification shall be agreed with the road authority.
- A minimum permeable reinstatement layer shall match existing depth AC layers or depths shown.
- i. The existing surface finish shall be plane cut to the depth specified for the new permanent reinstatement in this drawing. Where a temporary surface has been used, material shall be plane cut to the depth specified in this drawing. The new permeant surface shall be machine laid.
 - ii. The existing surface finish shall be plane cut to the depth specified for the new permanent reinstatement in this drawing. Where a temporary surface has been used, material shall be plane cut to the depth specified in this drawing. The new permeant surface shall be machine laid.
 - iii. Where the trimmed edge of an excavation is within 400mm of a path/pedestrian, network or other reinstatement, this trimmed edge shall be extended to include the edge of reinstatement shall be extended accordingly. (to exceed 1800mm where this is a pre-existing practice).
 - iv. Joint sealant to be a hot 400/60 mineral binder or cold bitropic/bitumen 50 + 70 pen to be applied to all vertical cuts in accordance with clause 20.2 to application of Aggregates Concrete Layer.
 - v. Joints sealed with hot bitumen and topped with fine sand/grit to get a minimum 50kN resistance value as determined by the Portable Sid Resistance Penetrometer used in accordance with Route 20 and not need exceed 3mm depth and 50mm width and other method approved by the road authority.
 - vi. Surface course to match existing surfaces unless otherwise directed by road authority.
 - vii. The coarse aggregate in the asphalt surface shall be checked to ensure that a positional tolerance of not less than 50.
 - viii. The thickness of cover of 500mm shall be allowed on lightly trafficked roads as directed by the road authority.

Notes:

- 1) All edges of excavated areas to be saw cut prior to excavation.
- 2) 40/60 pen bitumen binder or cold chlorotropic bitumen to be applied to all vertical cuts in accordance with BS 594987 prior to application of bituminous materials.
- 3) The contractor shall provide, place and maintain appropriate signage to highlight the road restoration works.
- 4) Reinstatement to extend minimum 100mm beyond the firm edge of the excavation.
- 5) Where trench is excavated across existing tarmac/dry/dry embankment outside of the existing road formation, a trench shall be reinstated with 15mm layer of DBM (dense bitumen macadam) using 14mm nominal size chips and category resistance to polishing PSV60

Rev	Description	Date

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