Extend this concrete to the limit of the over excavation along the line of the pipe trench and across the full width of the pipe trench shown on the Drawings or the limit of the excavation whichever is least.

26.4.6 Anchor and Thrust Blocks

A. Where pipes are laid in common trenches and other services prevent the thrust block bearing on undisturbed ground, the block shall be extended into undisturbed ground and shall encase these services with a 150 mm minimum surround. The other services shall be wrapped with minimum 25mm thick flexible material to allow their future removal without removing any concrete from the thrust block.

B. The metal straps and anchor bolts shall be non-corrosive, of adequate strength and dimension to prevent movement and rubber strips shall be provide under all straps at contact surfaces.

C. The contractor shall install thrust blocks at bends, tees, dead ends, and reducers or at fittings where changes in pipe diameter occur as detailed on the approved shop drawings and as required by the Engineer. Calculation and design of the thrust blocks shall comply with UK CDMATA Report R128 (or approved equivalent) and shall be done by the contractor and approved by the Engineer.

D. Where concrete thrust blocks encase pipes of a flexible material, eg HDPE, a membrane of polythene film (1000 gauge) shall be used between the concrete and the pipe.

26.4.7 Valves

A. All valves and accessories shall be designed, manufactured and tested in accordance with the appropriate standards and codes.

B. The Contractor shall prepare and submit for approval a complete valve schedule, showing for each individual valve the identification number, service, type & manufacturer, size, pipe identification number, location, mode of operation (normally closed [NC] or open [NO], drain, etc.).

C. Valves shall be designed for a nominal pressure of 16 bar and shall have PN16 flanges, unless otherwise specified.

D. Manually operated valves with a size ≥ DN 250 shall be provided with a gearbox for easier operation unless otherwise specified.