

## CONCRETE/SCREED PUMPING METHOD STATEMENT

### **1. Description and sequence**

- a. Use of vehicle mounted pump for placement of concrete

### **2. Method**

#### **a. Before leaving depot**

- i. Walk-round inspection of vehicle, to ensure road worthiness, to include: general visual check, hydraulic hoses (to check for any leaks), tyres, mirrors & lights, hopper guard grid is secure and serviceable.
- ii. Defrost all windows (during winter conditions) to provide good all-round driving visibility.
- iii. Allow engine to “warm up” and idle for 10 minutes prior to departure, to build up air reservoirs for brakes.

#### **b. Arrival on site**

- i. Park safely outside and report to site.
- ii. Wear appropriate PPE
- iii. Go through site induction process if required.
- iv. Walk to area designated for pump setup area, and visibly assess environment. Check for ground stability (responsibility for suitable preparation is down to the site manager/hirer); overhead obstructions; visibility to work area; access conditions and route for delivery lorries.
- v. Establish a code of signals between the pump operator and the concrete laying gang/foreman prior to commencement of pumping works.

#### **c. Pump setup**

- i. Check if the customer has a permit from the council for temporary closure of the footpath.
- ii. If the permit is not available the customer should provide a ramp to go over the pipe.
- iii. If none of the above are available the area should be coned off and the customer informed he would be liable for any penalties incurred.
- iv. Remove rubber pipes (necessary to reach pour stating point) from the reel, and carry to lay-out position.
- v. Layout necessary pipes in approximate assembly locations.
- vi. Join pipes together using couplings with rubber sealing rings and safety pins.
- vii. Once all hoses have been connected, conduct a final walk –through check of all hoses and couplings starting at point of pour and finishing at pump hopper.

#### **d. During works**

- i. Reverse concrete delivery lorry up to hopper ready for discharge (if required).
- ii. Ensure that hopper grid is in lowered position, prior to approach of mixer lorry and at all times during discharge and pumping operations.

- iii. Allow delivery vehicle to agitate mixer drum for a couple of minutes to avoid initial aggregate separation on discharge.
- iv. Discharge concrete into hopper to check slump and suitability of concrete prior to starting to pump through hoses.
- v. Establish a suitable position of work – to be able to see concrete/screed discharge into hopper and point of delivery from hose.
- vi. Commence pumping of concrete/screed at a suitable rate to allow for site operators to spread concrete; and for lorry to discharge concrete/screed at a rate to keep hopper  $\frac{3}{4}$  full.
- vii. Until concrete/screed is flowing smoothly out of the end of the delivery hose, or when a blockage occurs in the pipeline, all personnel should remain clear of the delivery hose. (The danger zone is the area around the delivery hose in which the delivery hose can strike out. The diameter of the zone is twice the length of the delivery hose.)
- viii. If a blockage occurs during the pour, the pump operator must stop pumping immediately and instruct personnel to move to a safe position before attempting to remove the blockage.
- ix. If the pump operator needs to open the delivery pipeline to clear the blockage, he must first release the pressure inside the pipeline as much as possible, e.g. by reversing the pumping action. The pipeline must be treated as being pressurised at all times. Appropriate and adequate eye protection must be worn when opening the pipeline.
- x. The operator is to ensure that site personnel DO NOT under any circumstance open or attempt to open the pipe line under pressure.
- xi. At the end of the discharge of each load remove any disconnected hoses and wash out immediately to avoid concrete/screed drying inside hoses and pipes.
- xii. If the concrete pump has to be left unattended, the operation of the pump must be isolated.

**e. On completion of works**

- i. Concrete/screed in the hopper should be discharged until only a small amount is left in the hopper (just covering the chambers)
- ii. The pressure in the pipeline should be released by retracting concrete/screed into the hopper.
- iii. The access point should be opened, a wetted sponge ball inserted into the line, and the access cover re-secured.
- iv. A cage, or protective back board, should be erected at the end of the delivery hose (to receive and confine the cleaning ball).
- v. The end of the discharge hose should be secured to avoid any whiplash.
- vi. All laying gang members should be moved away from the discharge hose, to a safe area.
- vii. The cleaning ball should then be advanced through the remaining pipes and hose, at reduce engine revs, until it emerges at the discharge point.
- viii. The ball should then be recovered and thoroughly cleaned and washed off.
- ix. All hoses should be thoroughly washed out and stored on the lorry.
- x. All couplings should be cleaned, washed and stored on the lorry bed.
- xi. Ensure all pipes, clips, hoses are stowed in their respective areas on the lorry, and ready for road travel.
- xii. Complete client invoice/delivery note and present to client's representative.
- xiii. Sign out (if required) from site and return to depot.