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Work instruction:	Date Raised
'Open Cut' Pipe Replacement (Drainage)	18/06/2012

Work Description
Process to replace a section of pipe
Instruction
Refer to W0002. 1. Sufficient numbers of trained operatives must be on site prior to work commencing. 2. Sufficient and suitable plant must be available for trench support and lifting requirements if the work is at any great depth. 3. Isolate the area of excavation from the public by means of suitable barriers. 4. Undertake a risk assessment of the areas to be excavated, highlighting any hazards and the risks involved (see RM10 Laying of Pipes). Once control measures have been implemented for any risks identified, you may commence work. 5. Carry out a CAT scan of the area to be excavated prior to breaking ground and at 300mm intervals until the required depth is reached. In any areas where services are located, you must only dig by hand. 6. For NRSWA works, local authority drawings are to be used in conjunction with CAT scanning equipment. These drawings are to be gathered using a Utilities Search completed by the Account Manager. 7. Any spoil you remove that is to be put back into the excavation is to be stored upon plywood boards or blue tarp within the secured area. 8. Once the damaged section of pipe work has been exposed, make clean cuts at either end of the line to enable the removal of the pipe and prepare for the installation of the new couplings. 9. Once you have removed the damaged section of pipe, which must be removed from site and must not be used as fill, excavate a further 100mm below this level in order to install sufficient granular material bedding for the new pipe to maintain the original gradient of the line. (100mm of pea gravel must be layered before installing new pipework, photos of this must be provided) 10. Install the new section of pipe and connect to the existing ends with new couplers, following the manufacturers' instructions. 11. Granular material size for bedding should always be 10mm diameter. However, as a rule granular material between 5mm – 10mm (100mm Diameter pipe) and 5mm – 15mm (150mm Diameter pipe) is suitable. 12. Whilst excavation is open, carry out flow testing of the newly installed pipe and/or fittings to confirm that they are fully watertight. Where the customer's issue has been water ingress, this is to be completed with dye testing and the office is to be contacted if the property fails the test. 13. Following the completion of work, you will need to complete the project documentation and return to the office; a. Completed drain repair tick sheet b. Completed health & safety risk assessment c. Before, during and after photographs of the works taking place d. After videos of all lines repaired (replaced and relined) e. A revised site layout (if different from the one provided in the initial survey)
Responsibilities
Drainage Engineers

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Key Objectives
Repair to enable serviceability of drainage system All in accordance with WRc – The Drain Repair Book – 4th Edition, best practice manual for the inspection and repair of domestic and light industrial drains.