

Brief procedure to prepare a force main for SeeSnake inspection

The line does need to be turned off and de-pressured during insertion of the tool; however, this usually takes less than half an hour.

The procedure (for a wireline tool) is as follows:

- 1) Excavate and expose the pipe for a length of 10' to 12'
- 2) Provide shoring if necessary
- 3) Close main-line upstream valve
- 4) Bleed pressure from line and if possible drain the water from the area of the access point
- 5) Have a pump running to take any spilled water to storm or septic sewer
- 6) Cut a 6' length of pipe out of the main (this can be re-inserted later)
- 7) Install a Tee using Dresser couplings or similar (Tool is inserted into the line at this time)
- 8) We attach a stuffing box on the Tee through which the wireline is fed and attached to the tool
- 9) The stuffing box is secured and the main line valve is opened to push the tool out to target distance (maximum 3300')
- 10) The flow is shut off or reduced while the tool is winched back to the launch point using wireline winch. Data is gathered at this stage.
- 11) Flow is shut off and the line de-pressured while tool is removed
- 12) The temporary TEE is removed and replaced with original piece of pipe. Dresser couplings are used to attach it.
- 13) Alternatively, the piece of pipe is treated as a sample for destructive examination and plastic pipe is used for the repair.
- 14) The most efficient way to organize these excavations is to have a city crew doing them ahead of the inspection crew by 2-3 days, and a repair crew coming behind to repair the roadway.

The wireline tools have a maximum reach of about 1.5km (4900')

Un-tethered tools can go much further, but a practical limit is 5km because of battery and memory limitations. In this case there would be one access hole and one egress hole. The exhaust water would be ported to the storm sewer through large hoses.

If we were going to do a lot of locations, we would recommend proper launch and receive piping (see photos attached), that are usually built by the City to our specifications, out of aluminum piping. With this kind of set-up, the tool is launched and received above ground, which make the whole operation easier and safer.