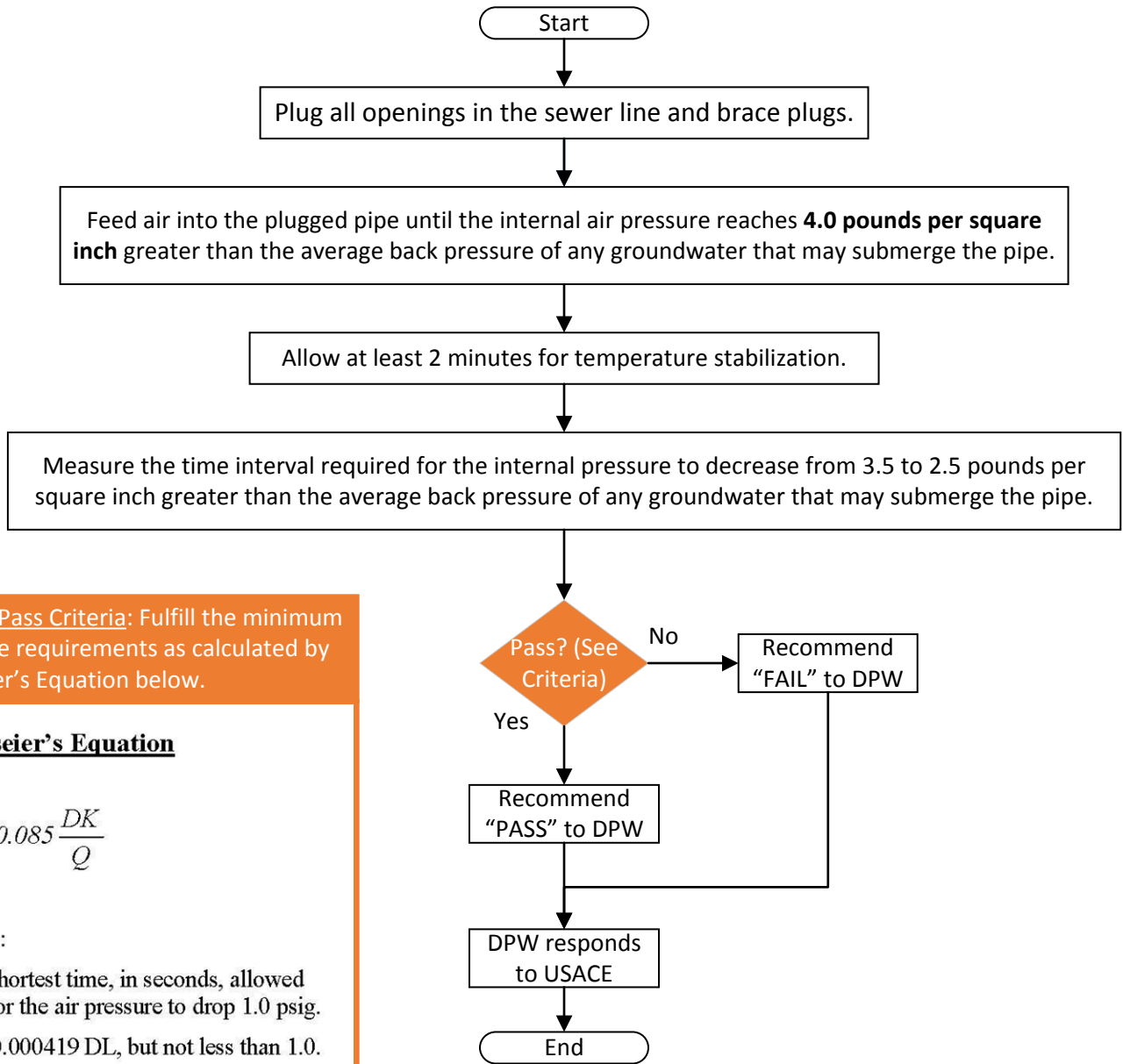


Pipe Low Air Pressure Testing



Testing Pass Criteria: Fulfill the minimum test time requirements as calculated by Ramseier's Equation below.

Ramseier's Equation

$$T = 0.085 \frac{DK}{Q}$$

Where:

T = shortest time, in seconds, allowed for the air pressure to drop 1.0 psig.

K = 0.000419 DL, but not less than 1.0.

Q = 0.0015 cubic feet/minute/square feet of internal surface.

D = nominal pipe diameter in inches.

L = length of pipe being tested in feet.

Notes:

1. The determination of "PASS" or "FAIL" will not be made on the field on the test day. Documentation will be prepared and formal written response from DPW will be provided to USACE.
2. No workers shall be allowed in the excavation or manhole while the line is under pressure. The Contractor shall make provisions for reading the pressure at the ground surface and for safely releasing the air pressure without entering the manhole or excavation.
3. Sewer laterals must be tested by inserting air plugs into the lateral and isolating the portion of the sewer lateral that has been replaced or rehabilitated. The lateral, including the cleanout wye, must be air tested. If the tested line does not meet the requirements of the test, the Contractor, at his own expense, must determine, locate and remedy the cause.
4. The final leakage test of the sewer main line and branching service laterals must be conducted in the presence of a Collection System Superintendent or their designated representative.
5. In areas to be paved, the pressure test must be done after the "base" material is satisfactorily compacted.
6. In areas to be left unpaved, the pressure test shall be made after the backfill is satisfactorily compacted.
7. The time and procedure for air testing the pipe shall be calculated in accordance with ASTM C828.