



UPPER DARBY TOWNSHIP FIRE DEPARTMENT

FIRE MARSHAL'S OFFICE

***Only this document will be accepted by the Upper Darby Township Fire Prevention Division for annual testing purposes as required by the Pennsylvania Uniform Fire Safety Code and applicable N.F.P.A. Standards*

Contractor's Material and Test Certificate for **U**nderground Piping

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME

DATE

PROPERTY ADDRESS

PLANS	ACCEPTED BY APPROVING AUTHORITIES (NAMES)	
	ADDRESS	
	INSTALLATION CONFORMS TO ACCEPTED PLANS	<input type="checkbox"/> YES <input type="checkbox"/> NO
	EQUIPMENT USED IS APPROVED	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF NO, STATE DEVIATIONS	
INSTRUCTIONS	HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT? IF NO, EXPLAIN	<input type="checkbox"/> YES <input type="checkbox"/> NO
	HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS BEEN LEFT ON PREMISES? IF NO, EXPLAIN	<input type="checkbox"/> YES <input type="checkbox"/> NO
LOCATION	SUPPLIES BUILDINGS	
UNDERGROUND PIPES AND JOINTS	PIPE TYPES AND CLASS	TYPE JOINT
	PIPE CONFORMS TO _____ STANDARD	<input type="checkbox"/> YES <input type="checkbox"/> NO
	FITTINGS CONFORM TO _____ STANDARD IF NO, EXPLAIN	<input type="checkbox"/> YES <input type="checkbox"/> NO
	JOINTS NEEDING ANCHORAGE CLAMPED, STRAPPED, OR BLOCKED IN ACCORDANCE WITH _____ STANDARD IF NO, EXPLAIN	<input type="checkbox"/> YES <input type="checkbox"/> NO
TEST DESCRIPTION	<p>FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 390 gpm (1476 L/min) for 4-in. pipe, 880 gpm (3331 L/min) for 6-in. pipe, 1560 gpm (5905 L/min) for 8-in. pipe, 2440 gpm (9235 L/min) for 10-in. pipe, and 3520 gpm (13,323 L/min) for 12-in. pipe. When supply cannot produce stipulated flow rates, obtain maximum available.</p> <p>HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.8 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.3 bar) for 2 hours.</p> <p>LEAKAGE: New pipe laid with rubber gasketed joints shall, if the workmanship is satisfactory, have little or no leakage at the joints. The amount of leakage at the joints shall not exceed 2 qt/hr (1.89 L/hr) per 100 joints irrespective of pipe diameter. The leakage shall be distributed over all joints. If such leakage occurs at a few joints the installation shall be considered unsatisfactory and necessary repairs made. The amount of allowable leakage specified above can be increased by 1 fl oz per in. valve diameter per hr (30 mL/25 mm/hr) for each metal seated valve isolating the test section. If dry barrel hydrants are tested with the main valve open, so the hydrants are under pressure, an additional 5 oz/min (150 mL/min) leakage is permitted for each hydrant.</p>	
FLUSHING TESTS	NEW UNDERGROUND PIPING FLUSHED ACCORDING TO _____ STANDARD BY (COMPANY)	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF NO, EXPLAIN	
	HOW FLUSHING FLOW WAS OBTAINED <input type="checkbox"/> PUBLIC WATER <input type="checkbox"/> TANK OR RESERVOIR <input type="checkbox"/> FIRE PUMP	THROUGH WHAT TYPE OPENING <input type="checkbox"/> HYDRANT BUTT <input type="checkbox"/> OPEN PIPE
	LEAD-INS FLUSHED ACCORDING TO _____ STANDARD BY (COMPANY)	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF NO, EXPLAIN	
	HOW FLUSHING FLOW WAS OBTAINED <input type="checkbox"/> PUBLIC WATER <input type="checkbox"/> TANK OR RESERVOIR <input type="checkbox"/> FIRE PUMP	THROUGH WHAT TYPE OPENING <input type="checkbox"/> Y CONN. TO FLANGE <input type="checkbox"/> OPEN PIPE & SPIGOT



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HYDROSTATIC TEST	ALL NEW UNDERGROUND PIPING HYDROSTATICALLY TESTED AT _____ PSI FOR _____ HOURS		JOINTS COVERED <input type="checkbox"/> YES <input type="checkbox"/> NO	
	LEAKAGE TEST			
LEAKAGE TEST	TOTAL AMOUNT OF LEAKAGE MEASURED _____ GAL _____ HOURS			
	ALLOWABLE LEAKAGE _____ GAL _____ HOURS			
HYDRANTS	NUMBER INSTALLED	TYPE AND MAKE	ALL OPERATE SATISFACTORILY <input type="checkbox"/> YES <input type="checkbox"/> NO	
	WATER CONTROL VALVES LEFT WIDE OPEN IF NO, STATE REASON		<input type="checkbox"/> YES <input type="checkbox"/> NO	
CONTROL VALVES	HOSE THREADS OF FIRE DEPARTMENT CONNECTIONS AND HYDRANTS INTERCHANGEABLE WITH THOSE OF FIRE DEPARTMENT ANSWERING ALARM		<input type="checkbox"/> YES <input type="checkbox"/> NO	
	REMARKS			
SIGNATURES	DATE LEFT IN SERVICE			
	NAME OF INSTALLING CONTRACTOR			
	TESTS WITNESSED BY			
	FOR PROPERTY OWNER (SIGNED)		TITLE	DATE
FOR INSTALLING CONTRACTOR (SIGNED)		TITLE	DATE	
ADDITIONAL EXPLANATION AND NOTES				

(NFPA 14, 2 of 2)

9-8 Instructions. The installing contractor shall provide the owner with the following:

- (1) All literature and instructions provided by the manufacturer describing the proper operation and maintenance of equipment and devices installed
- (2) A copy of NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*

9-9 Signs. The installation of signs required by this standard shall be verified.

Chapter 10 Buildings under Construction

10-1 General. Where required by the authority having jurisdiction, a standpipe system, either temporary or permanent, shall be provided in accordance with this chapter in buildings under construction.

10-2 Fire Department Connections. The standpipes shall be provided with conspicuously marked and readily accessible fire department connections on the outside of the building at the street level.

10-3 Other System Features. Pipe sizes, hose connections, hose, water supply, and other details for new construction shall be in accordance with this standard.

10-4 Support of Piping. Standpipes shall be supported and restrained securely at each alternate floor.

10-5* Hose Connections. At least one hose connection shall be provided at each floor level. Hose valves shall be kept closed at all times and guarded against mechanical injury.

10-6* Extension of System Piping. Standpipes shall be extended upward for each story and securely capped at the top.

10-7 Temporary Installations. Temporary standpipes shall remain in service until the permanent standpipe is complete. Where temporary standpipes normally contain water, the piping shall be protected against freezing.

10-8 Timing of Water Supply Installation. Where construction reaches a height at which public waterworks system pressure is no longer adequate, temporary or permanent fire pumps shall be installed to provide protection to the uppermost level or to the height required by the authority having jurisdiction.