



APPENDIX J
ISO HYDRANT FLOW TESTS



Table 7 - Hydrant Flow Data Summary for Town Of Southborough
 Conducted by ISO Commercial Risk Services, Inc.

City Southborough State MA Zip 01772 Witnessed by A. Labadinos Date 1-9-00

Table 6 - Fire Flow Test

TEST NO.	TYPE DIST.	TEST LOCATION	SERVICE	FLOW-GPM		PRESSURE PSI		FLOW AT 20 PSI		REMARKS
				INDIVIDUAL HYDRANTS	TOTAL	STATIC	RESID.	NEEDED	AVAIL.	
1	Res	Presidential & Sears	Main	1140	1160	48	10	500	1400	
2	Res	Maple Crest Dr.	"	1570	1570	80	62	750	2000	
3	Comm	Main St. at Fay School	"	2050	2050	76	55	3000	3500	
4	Comm	150 Cordaville Rd	"	1380	1380	96	73	3000	2700	
5	Comm	Cor. Rte 9 & Willow St	"	1200	1200	90	22	3500	1200	
6	Comm	337 Turnpike Rd-Rt 9	"	2060	2060	66	55	2500	4500	
7	Res	Lynnbrook at CUL DE SAC	"	2820	2820	86	75	500	7400	
8	Comm	Neary School-Front Yard	"	1690	1690	90	34	3000	1900	
9	Comm	21 Boston Rd.	"	2150	2150	78	48	1500	3100	
10	Comm	17 Oregon Rd.	"	1280	1280	60	8	1250	1100	
11	Comm	Parkerville Rd. near Gilmore"	"	1160	1160	80	62	2250	2200	
12	Res	151 Southville Rd	"	1980	1980	92	58	750	3000	
13	Comm	Southville Rd. at North St	"	1950	1950	102	50	2250	2500	
14	Comm	10 Southville Rd.	"	2220	2220	105	48	1250	2800	

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR INSURANCE RATING PURPOSES ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.
 * Comm = Commercial; Res = Residential.
 ** Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City SOUTHBOROUGH

County WORCESTER

State MA

Witnessed by Southborough Water Dept.

Date March 4, 2002

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q = (2.481 C U^{0.849})^{1.48}$		PRESSURE PSI		FLOW - AT 20 PSI $Q_{20} = 0.463 (h_p / 1.48)^{0.54}$		REMARKS
				INDIVIDUAL HYDRANTS	TOTAL	STATIC	RESID.	NEEDED **	AVAIL.	
1	Comm	BOSTON WORCESTER @ COSLIN	MAIN	1180	1180	45	44	4000	6700	A (2170gpm)
1-A	Comm	BOSTON WORCESTER @ COSLIN	MAIN	1180	1180	45	44	3000	6700	
2	Comm	MARLBORO @ ST. MARKS	MAIN	1180	1130	67 72	50 54	2500	2100	
3	Comm	ON NEWTON @ ABT. 1/4 MILE S. OF OVERLOOK	MAIN	1300	1300	70	67	3000	5900	A (1920gpm)
4	Comm	RICHARDS @ PARKVILLE	MAIN	1060	1060	83	48	2250	1500	
5	Comm	MT. VICKERY RD. @ CORDAVILLE RD	MAIN	1150	1150	85 84	52 48	3500	1600	
6	Comm	RT -9 near DEERFOOT	MAIN	1260	1260	56	50	1500	3300	
7	Comm	HIGHLAND @ ATWOOD	MAIN	920	920	80	42	1500	1200	
8	Comm	ON BOSTON RD / ABT. 1000' S. OF E. MAIN ST	MAIN	2140	2140	78	48	1500	3100	
9	Res	BANFILL @ FAIRVIEW	MAIN	810	810	38	28	750	1100	
10	Comm	BREAKNECK RD @ MT. VICKERY RD	MAIN	1200	1200	100	89	2000	3500	A (1920gpm)
11	Res	BOSTON RD NR. VALLEY	MAIN	1450	1450	112	84	750	2800	
12	Res	FISHER @ NOR THORO	MAIN	1690	1690	96	82	750	4200	
		A = Limited by available hydrants.								

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

*Comm = Commercial; Res = Residential

**Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.