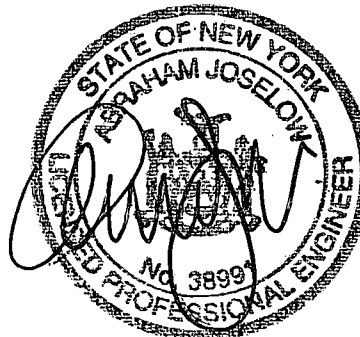


ENGINEERS : PETER JOSELOW, ABRAHAM JOSELOW P.C. (212) 736-2584.
ADDRESS : 45 West 34th Street, Suite 1101, New York NY 10001.

LICENSE :
DESIGNER :
DATE : 03-01-2011

FILE : 293 E207
JOB NAME : 293 East 207th Street 4th Floor
LOCATION : 293 East 207th Street, New York, N.Y.



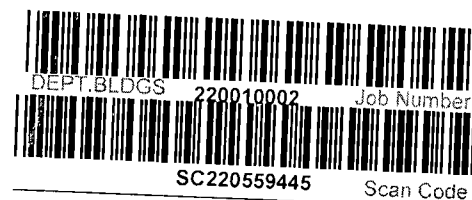
DESIGN DATA.

HAZARD : LIGHT HAZZARD R-2 OCCUPANCY
DENSITY : 0.114 Sq Ft
AREA PER SPRINKLER : 130 Sq Ft
TOTAL CALCULATED AREA : 780 Sq Ft
TOTAL SPRINKLERS CALCULATED : 6 Heads

FLOW DATA.

TOTAL SPRINKLER FLOW : 95.8 Gpm
TOTAL HOSE STREAM : 150.0 Gpm
TOTAL WATER REQUIRED : 245.8 Gpm
BASE OF RISER NODE : 16
FLOW : 95.8 Gpm
PRESS : 29.3 Psi

AUTHORITY HAVING JURISDICTION : NYC Department of Buildings
PHONE : 311



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SOURCE STATIC : 59 Psi RESIDUAL : 57 Psi FLOW : 500 Gpm

NODE NO.	ELEVATION Feet	K-FACTOR	PRESSURE Psi	DISCHARGE Gpm
1	48.5	5.60	7.6	15.4
2	49.0		8.4	
3	48.5	5.60	8.1	16.0
4	49.0		8.9	
5	48.5	5.60	7.0	14.8
6	48.5	5.60	7.4	15.3
7	49.0		9.4	
8	48.5	5.60	9.1	16.9
9	49.0		10.1	
10	48.5	5.60	9.7	17.4
11	49.0		10.2	
12	49.0		10.6	
13	49.0		11.6	
14	19.3		24.8	
15	19.3		25.0	
16	9.3		29.3	
17	9.3		29.7	
18	3.0		32.4	
19	3.0	SOURCE	39.4	

SPRINKLERS FLOWING	:	6	Heads
AREA PER SPRINKLER	:	130	Sq Ft
MIN SPRINKLER FLOW	:	14	Gpm

REQUIRED DENSITY	:	0.11	Gpm/Sq Ft
COMPUTED DENSITY	:	0.11	Gpm/Sq Ft

TOTAL SPRINKLER FLOW	:	95.8	Gpm
INSIDE HOSE STREAM	:		Gpm
OUTSIDE HOSE STREAM	:	150	Gpm
TOTAL WATER REQUIRED	:	245.8	Gpm
TOTAL SPRINKLER PRESS	:	32.4	Psi
VALVE FIXED LOSS	:	7.0	Psi

SUPPLY PRESS AVAILABLE	:	58.5	Psi
DEMAND PRESS REQUIRED	:	39.4	Psi
PRESSURE CUSHION	:	19.0	Psi
MAXIMUM VELOCITY	:	11.2	F/S

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 34119 Fremont Bl, Suite 609
 Fremont, CA 94555
 (800) 845-9819

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JOB : 293 East 207th Street 4th Floor

PIPE NO.	BEG END	FLOW Gpm	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	C-FACTOR FRI-LOSS (Psi/Ft)	PRESSURE (Psi)			
1	1	q= 15.4	K= 5.60 L=	11.0		Pt	7.6	Pt	7.6
		Q= 15.4	F= E F=	2.0	C= 120	Pe	-0.2	Pv	-0.2
		Vel= 5.7	D= 1.049 TL=	13.0	0.0803	Pf	1.0	Pn	7.4
	2					Pt	8.4		
2	2	q= 0.0	K= 0.00 L=	7.0		Pt	8.4	Pt	8.4
		Q= 15.4	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.2
		Vel= 5.7	D= 1.049 TL=	7.0	0.0803	Pf	0.6	Pn	8.2
	4					Pt	8.9		
3	3	q= 16.0	K= 5.60 L=	7.0		Pt	8.1	Pt	8.1
		Q= 16.0	F= T F=	5.0	C= 120	Pe	-0.2	Pv	-0.2
		Vel= 5.9	D= 1.049 TL=	12.0	0.0859	Pf	1.0	Pn	7.9
	4					Pt	8.9		
4	4	q= 0.0	K= 0.00 L=	6.0		Pt	8.9	Pt	8.9
		Q= 31.4	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.3
		Vel= 6.7	D= 1.380 TL=	6.0	0.0788	Pf	0.5	Pn	8.6
	7					Pt	9.4		
5	5	q= 14.8	K= 5.60 L=	6.0		Pt	7.0	Pt	7.0
		Q= 14.8	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.2
		Vel= 5.5	D= 1.049 TL=	6.0	0.0746	Pf	0.4	Pn	6.8
	6					Pt	7.4		
6	6	q= 15.3	K= 5.60 L=	3.0		Pt	7.4	Pt	7.4
		Q= 30.1	F= T F=	5.0	C= 120	Pe	-0.2	Pv	-0.8
		Vel= 11.2	D= 1.049 TL=	8.0	0.2768	Pf	2.2	Pn	6.6
	7					Pt	9.4		
7	7	q= 0.0	K= 0.00 L=	5.0		Pt	9.4	Pt	9.4
		Q= 61.5	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.6
		Vel= 9.7	D= 1.610 TL=	5.0	0.1289	Pf	0.6	Pn	8.8
	9					Pt	10.1		
8	8	q= 16.9	K= 5.60 L=	7.0		Pt	9.1	Pt	9.1
		Q= 16.9	F= T F=	5.0	C= 120	Pe	-0.2	Pv	-0.3
		Vel= 6.3	D= 1.049 TL=	12.0	0.0956	Pf	1.1	Pn	8.9
	9					Pt	10.1		
9	9	q= 0.0	K= 0.00 L=	2.0		Pt	10.1	Pt	10.1
		Q= 78.4	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.4
		Vel= 7.5	D= 2.067 TL=	2.0	0.0599	Pf	0.1	Pn	9.7
	11					Pt	10.2		

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 JOB : 293 East 207th Street 4th Floor

PIPE NO.	BEG END	FLOW Gpm	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	C-FACTOR FRI-LOSS (Psi/Ft)	PRESSURE (Psi)			
10	10	q= 17.4	K= 5.60 L=	2.0		Pt	9.7	Pt	9.7
		Q= 17.4	F= T F=	5.0	C= 120	Pe	-0.2	Pv	-0.3
		Vel= 6.5	D= 1.049 TL=	7.0	0.1010	Pf	0.7	Pn	9.4
	11					Pt	10.2		
11	11	q= 0.0	K= 0.00 L=	5.0		Pt	10.2	Pt	10.2
		Q= 95.8	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.6
		Vel= 9.2	D= 2.067 TL=	5.0	0.0868	Pf	0.4	Pn	9.6
	12					Pt	10.6		
12	12	q= 0.0	K= 0.00 L=	5.0		Pt	10.6	Pt	10.6
		Q= 95.8	F= EG F=	6.0	C= 120	Pe	0.0	Pv	-0.6
		Vel= 9.2	D= 2.067 TL=	11.0	0.0868	Pf	1.0	Pn	10.0
	13					Pt	11.6		
13	13	q= 0.0	K= 0.00 L=	29.7		Pt	11.6	Pt	11.6
		Q= 95.8	F= F=	0.0	C= 120	Pe	12.9	Pv	-0.1
		Vel= 4.2	D= 3.068 TL=	29.7	0.0127	Pf	0.4	Pn	11.5
	14					Pt	24.8		
14	14	q= 0.0	K= 0.00 L=	13.0		Pt	24.8	Pt	24.8
		Q= 95.8	F= F=	0.0	C= 120	Pe	0.0	Pv	-0.1
		Vel= 4.2	D= 3.068 TL=	13.0	0.0127	Pf	0.2	Pn	24.7
	15					Pt	25.0		
15	15	q= 0.0	K= 0.00 L=	10.0		Pt	25.0	Pt	25.0
		Q= 95.8	F= F=	0.0	C= 120	Pe	4.3	Pv	0.0
		Vel= 2.4	D= 4.026 TL=	10.0	0.0034	Pf	0.0	Pn	24.9
	16					Pt	29.3		
16	16	q= 0.0	K= 0.00 L=	52.0		Pt	29.3	Pt	29.3
		Q= 95.8	F= 5E F=	50.0	C= 120	Pe	0.0	Pv	0.0
		Vel= 2.4	D= 4.026 TL=	102.0	0.0034	Pf	0.3	Pn	29.3
	17					Pt	29.7		
17	17	q= 0.0	K= 0.00 L=	6.3		Pt	29.7	Pt	29.7
		Q= 95.8	F= F=	0.0	C= 120	Pe	2.7	Pv	0.0
		Vel= 2.4	D= 4.026 TL=	6.3	0.0034	Pf	0.0	Pn	29.6
	18					Pt	32.4		
DDC	18	Q= 95.8				Pt	32.4		
		FIXED PRESSURE LOSS				Valve	7.0		
						Pt	39.4		
	19								
19	19	Q= 245.8	<<< SOURCE >>>			Pt	39.4		

E=90-Elb T=Tee L=LgtElb C=ChkVlv B=BfyVlv G=GatVlv A=AlmChk F=45-Elb

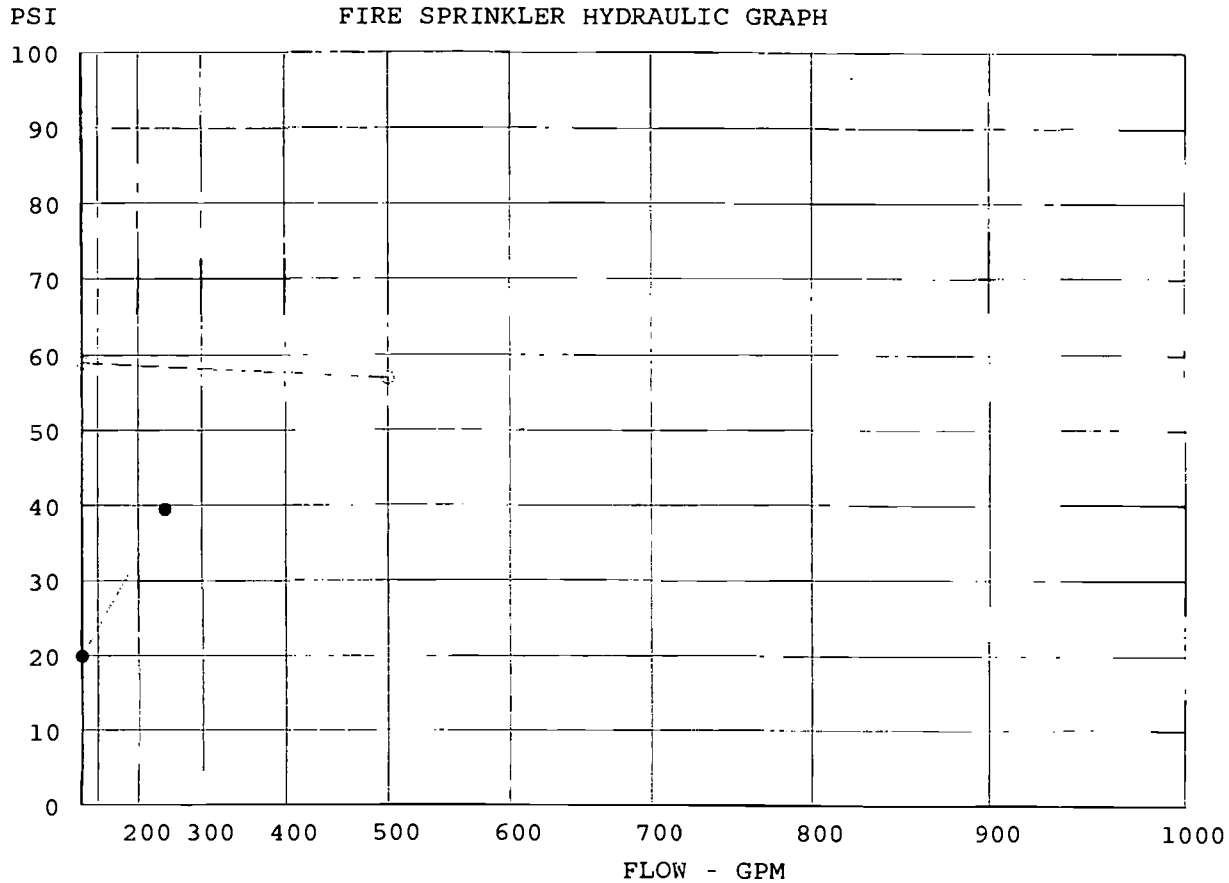
HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 5.6 - SUBMITTAL.

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— Water Supply

Static : 59 Psi

Resid : 57 Psi

Flow : 500 Gpm

• Water Demand

Avl Press : 58.5 Psi @ 246 Gpm

Req Press : 39.4 Psi @ 246 Gpm

Press Cush: 19.0 Psi