

BLOCK 547 LOT 6 QUALIFICATION CODE _____ ADDRESS (SITE) 451 BRICK BLVD PERMIT NO. 06-0430



CONSTRUCTION PERMIT APPLICATION

06-0596

Application Completes: Sections I, II, III (optional), IV, VI, and VII

I. IDENTIFICATION

1. Proposed Work Site at: THE GENERAL STORE

2. Name of Owner in Fee: Amadio, Alexander Tel. ()

Address 451 BRICK BLVD BRICK zip code

3. Ownership in Fee. Public _____ Private _____

4. Principal Contractor: ALLIED FIRE + SAFETY Tel. (732) 922-3399

Address 517 GREEN GROVE RD NEPTUNE, NJ 077

License No. OR, if new home, Builder Reg. No. 000166 Exp. Date _____

Federal Employee No. 221924057 FAX: (732) 918-8668

5. Architect or Engineer _____ Tel. ()

Address _____

6. Responsible Person in Charge of Work _____

Tel. () FAX ()

V. FEE SUMMARY (for office use only)

		Update	Update
1. Building	\$		
2. Electrical			
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal	\$		
7. Less 20% for State Plan Review			
8. Subtotal	\$		
9. DCA Training Fee			
10. Subtotal			
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$		

VI. BUILDING/SITE CHARACTERISTICS

- (office use only)
- Number of Stories _____
 - Height of Structure _____ ft.
 - Area — Largest Floor _____ sq. ft.
 - New Building Area _____ sq. ft.
 - Volume of New Structure _____ cu. ft.
 - Construction Classification _____
 - Total Land Area Disturbed _____ sq. ft.
 - Flood Hazard Zone _____
 - Base Flood Elevation _____ ft.
 - Wetlands yes _____ no _____
 - Max. Live Load _____
 - Max. Occupancy Load _____

COMMERCIAL

Fire / sprinklers

II. PROPOSED WORK	Est. Cost	OPTIONAL (for office use only)							
		Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
1. ☐ Minor Work									
2. ☐ New Building									
3. ☐ Addition									
4. ☐ Alteration									
5. ☒ Fire Protection	20,000								
6. ☐ Plumbing									
7. ☐ Electrical									
8. ☐ Elevator Devices									
9. ☐ Asbestos Abat. Subch. 8									
10. ☐ Lead Hazard Abatement									
11. ☐ Demolition									
TOTAL COSTS									

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

- ☐ Elevators/Escalators/Lifts/Dumbwaiters/Moving Walks
- ☐ High Pressure Boilers
- ☐ Pressure Vessels
- ☐ Refrigeration Systems
- ☐ Cross-Connections/Backflow Preventers
- ☐ Hazardous Uses/Places of Assembly
- ☐ Sprinklers
- ☐ Smoke Control Systems in Open Wells
- ☐ Underground Storage Tanks

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL

- ☐ Hotels (R-1)
- ☐ Multi-Family (R-2)
- ☐ Two-Family (R-3) BOCA
- ☐ Two-Family (R-4) CABO
- ☐ One-Family (R-3) BOCA
- ☐ One-Family (R-4) CABO

No. of dwelling units:

Before Construction _____

After Construction _____

Net Gain or Loss _____

B. NON-RESIDENTIAL

1. State Specific Use: _____

2. Use Group: _____

3. Change in Use Group, Indicate Former: _____

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)1 vii:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name ALLIED FIRE + SAFETY

Address 517 GREEN GROVE RD
NEPTUNE NJ

Telephone (732) 922 3399

Signature [Signature]

III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
☐ Zoning Officer									
☐ Planning Board									
☐ Zoning Board									
☐ Sewer Authority									
☐ Water Authority									
☐ Police Department									
☐ Health Department									
☐ Soil Conservation									
☐ N.J. Department of Community Affairs									
☐ N.J. Department of Transportation									
☐ N.J. Department of Environmental Protection									
☐ Utility Dig No.									
☐									
☐									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition	Name of Code & Edition	Other
Building _____	Energy _____	
Electrical _____	Barrier Free _____	
Plumbing _____	Flood Hazard _____	
Fire Protection _____	As Built Elevation Cert. _____	
Mechanical _____	Other _____	

X. CERTIFICATES ISSUED (office use only)

	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
☐ Temporary Certificate of Occupancy	No. _____	_____	_____	_____
☐ Temporary Certificate of Compliance	No. _____	_____	_____	_____
☐ Continued Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Compliance	No. _____	_____	_____	_____
☐ Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Approval	No. _____	_____	_____	_____
☐ Lead Abatement Clearance Certificate	No. _____	_____	_____	_____

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that work installed conforms to the approved plans and the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval given.

☐ Required inspections for all subcodes for one and two family dwellings are the following:

1. The bottom of footing trenches before placement of footings, except that in the case of pile foundations, inspections shall be made in accordance with the requirements of the building subcode;
2. Foundations and all walls up to grade level prior to back filling;
3. All structural framing and connections prior to covering with finish or infill material; plumbing underground services, rough piping, water service, sewer, septic services and storm drains; electrical rough wiring, panels and service installations; insulation installations;
4. Installation of all finished materials, sealings of exterior joints; plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

- ☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. Any violations of the approved plans and/or permit will be noted and the holder of the permit notified of discrepancies.
- ☐ A complete copy of approved plans must be kept on the job site.
- If you do not understand any of this information, please ask.



CONSTRUCTION PERMIT

Date Issued 02/15/2006
Control # C-06-0596
Permit # 06-0430

IDENTIFICATION Block: 547 Lot: 6 Qualifier _____
Work Site Location: 451 BRICK BLVD. Brick Township, NJ Contractor ALLIED FIRE & SAFETY
Address 517 GREEN GROVE RD PO BOX 607 NEPTUNE NJ
Owner in Fee AMODIO, ALEXANDER & MARIA
Address 451 BRICK BLVD. BRICK NJ 08723 Telephone: 732/922-3399
Telephone: _____ Lic. No. or Bids. Reg. No. _____
Federal Employee No. 22-1904087

Is hereby granted permission to perform the following work:

- ☐ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☐ ELECTRICAL ☒ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☐ OTHER

DESCRIPTION OF WORK:

WET/DRY SPRINKLER HEADS

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.
Estimated Cost of Work \$20,000

Construction Official _____ Date 02/15/2006

U.C.C. F170
equiv (rev 8/03)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$0
Plumbing	\$0
Fire Protection	\$75
Elevator Devices	\$0
Other	\$0.00
DCA Training Fee	\$27
CO Fee	
Other	\$0
Total	\$102
Check No.	3042
Cash	\$0
Credit	\$0
Collected By	Stephanie Capozzi

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and/or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.



**FIRE
SUBCODE**



Date Received
Date Issued
Control #
Permit #

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 547

Lot 6

Work Site Location THE GENERAL STORE

451 BRICK BLVD BRICK, NJ

Owner In Fee THE GENERAL STORE

Address 451 BRICK BLVD

City BRICK, NJ

State NEW JERSEY

Contractor ALBINO FIRE + SAFETY

Address 517 GREEN CARROLL RD

City NEPTUNE, NJ

State NEW JERSEY

Tele. (732) 932 3399

Lic. No. PO0166

Federal Emp. No. 221904082 or Social Security No. _____

B. FIRE PROTECTION CHARACTERISTICS

Use Group _____ Present _____ Proposed _____

Constr. Class. _____ Present _____ Proposed _____

Heating Systems ☐ New ☒ Existing

Type: ☐ Gas ☐ Oil ☐ Electrical ☐ Solar

☐ Other _____

Location: _____

Total Est. Cost of Fire Prot. Work \$ 20,000 ☐ Other _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW:

☐ No Plans Required

Joint Plan Review Required:

☐ Bldg. ☐ Plumb. ☐ Elec.

☐ Fire Plans Approved

Date: _____

Approved by: _____

SUBCODE APPROVAL:

☐ CO ☐ CCO ☐ CA

Date: _____

Approved by: _____

INSPECTIONS:

Type:

Failure Failure Approval Initial

Dates (Month/Day)

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

Failure Failure Approval Initial

D. TECHNICAL SITE DATA

Description of Work

Water Supply Source

Method of Valve Supervision

Local Alarm Supervision

Central Supervision

Proprietary Supervision

Flammable Liquid Storage Tanks

Combustible Liquid Storage Tanks

L.P.G. Storage Tanks

L.N.G. Storage Tanks

Wet Sprinkler Heads

Dry Sprinkler Heads

TOTAL

Smoke Detectors

Heat Detectors

TOTAL

Stand Pipes

Kitchen Hood Exhaust Systems

Pre-Engineered Systems

CO₂ Suppression

Halon Suppression

Foam Suppression

Dry Chemical

Wet Chemical

Gas or Oil Fired Appliance

OTHER

Administrative Surcharge

Paid ☐ Check # _____ Minimum Fee \$ _____

Collected by _____ TOTAL FEE \$ _____

U.C.C. Form F-140A

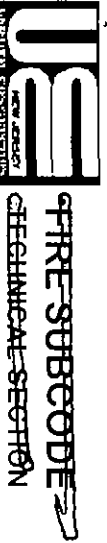
1 White=Inspector Copy

2 Canary=Office Copy

3 Pink=Office Copy

4 Gold=Applicant Copy

PRO 105



FIRE SUBCODE SECTION
MECHANICAL SECTION
FIRE PROTECTION SECTION

A. IDENTIFICATION - APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000
Block 547 Lot 6 Qualification Code

Work Site Location: 451 BRICK BLVD. Brick Township, NJ

Owner in Fee: AMODIO, ALEXANDER & MARIA
Address 451 BRICK BLVD. BRICK NJ

Tel. Contractor: ALLIED FIRE & SAFETY

Address 517 GREEN GROVE RD PO BOX 607 NEPTUNE NJ

Tel. 732/922-3399 Fax

Fire Protection Equipment, NJ Div of Fire Safety Permit No.

Fire Alarm Contractor No.

Federal Employee No. 22-1904087

B. FIRE PROTECTION CHARACTERISTICS

Use Group Present Proposed U Fire Alarm System: New or Existing

Constr. Class Present Proposed Location of Panel:

Heating Systems: New or Existing HVAC Fire Suppression/Standpipe System:

Type: Gas Oil Electric Solar Location of Main Control Valve:

Location: Fuel Storage Tank: Fuel Type: Flammable or Combustible Capacity 0

Total Cost of Fire Protection Work \$20,000

JOB SUMMARY (Office Use Only)

PLAN REVIEW

No Plan Required

Joint Plan Review Required

Building Plumbing

Electrical Elevator

Date: 2/14/04

Approved by: [Signature]

INSPECTIONS

Type: Alarm System

Suppression System

Standpipe

Fire Pump

Pre-Eng. System

Mechanical

Smoke Control

Dates (Month/Day)

Failure Approval Initial

3/10/04

[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

C. CERTIFICATION IN LIEU OF OATH
I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Applicant's Signature/Contractor's Seal and Signature

D. TECHNICAL SITE DATA
DESCRIPTION OF WORK
WET/DRY SPRINKLER HEADS.

Water Supply Source

Method of Alarm/Suppression System Supervision

Flammable/Combustible Tanks

Alarm Systems

System

110V Interconnected

CO Detectors/110V

Alarm Devices (i.e. smoke, heat, pulls, water/flow)

Supervisory Devices (tamper, low/high air)

Signaling Devices (horn/strobes, bells)

Other Devices

TOTAL

Suppression Systems

Fire Pump 0 GPM Type

Dry Pipe/Alarm Valves

Pre-action Valves

Sprinkler Heads (Dry and Wet)

Standpipes

Pre-engineered Systems

Wet Chemical

Dry Chemical

CO2 Suppression

Foam Suppression

FM200 Suppression

Other

Other Systems

Kitchen Hood Exhaust System

Smoke Control System

Fire Appliances

Fireplace Venting/Metal Chimney

Other

Administrative Surcharge

Minimum Fee

State Permit Surcharge Fee

TOTAL FEE

Date Received 02/06/2006 9:32:05 AM
Control # C-06-0596
Date Issued 4/23/1099
Permit # 06-0436

COMMERCIAL

Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.

Allied Fire & Safety

517 Green Grove Road – PO Box 607
Neptune, NJ 07754-0607
Phone: 732-922-3399 / Fax: 732-918-8668
WWW.ALLIEDFIRESAFETY.COM

LETTER OF TRANSMITTAL

TO	Brick Township Building Department
	P.O. Box 189
	Allenhurst, NJ 07712
PHONE:	732-
ATTENTION:	Fire Subcode Official

RE	Brick General Store
PROJ. #	4333 – TRANS1
DATE:	February 6, 2006

WE ARE SENDING YOU: ☒ ATTACHED ☐ UNDER SPERATE COVER VIA Hand Deliver THE FOLLOWING ITEMS

☐ DRAWINGS	☐ DISKS	☐ SUB. PACKAGE
☐ PRINTS	☐ HYD. CALCS	☐ AS - BUILTS
☐ COPY OF LETTER	☐ PERMITS	☒ OTHER _____

# OF COPIES	DATE	DRAWING NO.	DESCRIPTION
3			Sprinkler Drawings
3			Sprinkler Hydraulic Calculations
1			Fire Subcode Permit
1			Constuction Permit application

FOR YOUR:

☒ APPROVAL	☐ INFORMATION	☐ AS REQUESTED
☐ USE	☐ RECORDS	☐ AS - BUILTS
☐ RETURN APPROVED COPIES		

REMARKS: _____

SIGNED: M. J. H.

S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #4 SALES FLOOR

SUBMITTED By:
ALLIED FIRE & SAFETY

Design Specifications	Water Supply Information	System Demand
Density : 0.200	78.00 psi @ 0.00 gpm	67.02 psi
Design Area: 1500.00	70.00 psi @ 1300.00	@ 451.6
		+ 250.0 gpm Hose
Total Demand: 701.6 gpm @ 67.02 psi		
System safety factor: 8.4 psi		
Notes:		

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.


2/6/06

THE GENERAL STORE

Drawing Date:

2/ 2/06 11:54

HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION		HYDRAULIC		FLOW	LOSS	TOTALS
		LENGTH	C ID	gpm	psi	
Hydr Ref 102		Required at Hyd Area 4		452		56.5 psi
1	6" Grvd 90 Ell	14'	120 6.065	452	0.1	
1	Pipe 6" 10x21	10'	120 6.357	452	0.1	
		Elevation Change 10'0"			4.3	
2	6" Grvd 90 Ell	28'	120 6.065	452	0.2	
1	6" Grvd Shotgun Valve "90"	19'	120 6.065	452	0.2	
1	6" Flngd Gate Valve "722U"	3'	120 6.065	452	0.0	
1	6" Flngd Tee	30'	120 6.065	452	0.3	
1	6" Flngd Back Flow Valve FEBCO "805 CHART LOSS			452	4.2	
1	6" Flngd 90 Ell	14'	120 6.065	452	0.1	
Hydr Ref 101		Required at CONNECTION TO UNDERG		452		66.0 psi
2	6" MJ 90 Ell	28'	120 6.065	452	0.2	
1	Pipe 6" DIx18 Cl 350	150'	140 6.338	452	0.7	
		Fixed Flow Outside Hose Allow.		250 gpm		
Hydr Ref 098		Required at Source		702		67.0 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm				702 gpm		75.4 psi
SAFETY PRESSURE						8.4 psi



THE GENERAL STORE Drawing Date:

2/ 2/06 11:54

SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.200

Supplied flow and pressure is based on 67.02 psi available at supply
(75.44 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
D15	39.09	0.000	39.09	5.60	34.7	26.0	33.5%	D15
D05	36.55	0.000	36.55	5.60	33.6	26.0	29.1%	D05
D10	36.29	0.000	36.29	5.60	33.4	26.0	28.6%	D10
D14	38.23	0.000	38.23	5.60	34.3	26.0	32.0%	D14
D12	24.71	0.000	24.71	5.60	27.6	12.0	129.8%	D12
D04	32.94	0.000	32.94	5.60	31.9	26.0	22.6%	D04
D09	32.71	0.000	32.71	5.60	31.8	26.0	22.1%	D09
D08	28.45	0.000	28.45	5.60	29.6	24.0	23.5%	D08
D13	37.95	0.000	37.95	5.60	34.2	12.0	185.0%	D13
D03	27.54	0.000	27.54	5.60	29.2	26.0	12.1%	D03
D11	25.16	0.000	25.16	5.60	27.8	26.0	7.0%	D11
D02	21.49	0.000	21.49	5.60	25.8	12.0	114.8%	D02
D07	20.94	0.000	20.94	5.60	25.4	12.0	112.1%	D07
D01	22.45	0.000	22.45	5.60	26.3	26.0	1.3%	D01
D06	21.87	0.000	21.87	5.60	26.0	26.0	0.0%	D06

[Handwritten Signature]
2/6/06

THE GENERAL STORE

Drawing Date:

2/ 2/06 11:54

Flow and Pressure Summary

JOB NAME: THE GENERAL STORE

Elev. ft.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pe psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S C A L C U L A T I O N S										Velocity fps
									Length	Fitting	Length	Total	Pf/ft	Diam	C	Flow			
10.00	102 >>	451.6 >>	56.55	0.67	0.00	55.88	104	10.00	87.87	2E	16.00	103.87	0.006	6.357	120	451.6	4.6		
10.00	104 >>	451.6 >>	55.88	4.74	0.00	51.14	105	10.00	105.00		0.00	105.00	0.045	4.260	120	451.6	10.3		
10.00	105 >>	451.6 >>	51.14	1.32	0.00	49.82	106	10.00	9.23	T	20.00	29.23	0.045	4.260	120	451.6	10.3		
10.00	106 >>	451.6 >>	49.82	0.54	0.00	49.27	107	10.00	12.00		0.00	12.00	0.045	4.260	120	451.6	10.3		
10.00	107 >>	348.4 >>	49.27	0.10	0.00	49.17	E1	10.00	3.59		0.00	3.59	0.028	4.260	120	348.4	7.9		
10.00	107 >>	103.2 >>	49.27	2.18	-0.22	47.32	246	10.50	0.50	T	10.00	10.50	0.207	2.067	120	103.2	10.0		
10.00	109 <<	293.0 <<	49.01	0.16	0.00	49.17	E1	10.00	7.91		0.00	7.91	0.020	4.260	120	293.0	6.7		
10.00	109 >>	146.3 >>	49.01	5.02	-0.22	44.21	242	10.50	2.63	2T	20.00	22.63	0.222	2.067	120	146.3	14.1		
10.00	109 >>	146.7 >>	49.01	0.05	0.00	48.96	110	10.00	8.75		0.00	8.75	0.006	4.260	120	146.7	3.3		
10.00	110 >>	146.7 >>	48.96	4.75	-0.22	44.43	240	10.50	2.63	2T	20.00	22.63	0.210	2.067	120	146.7	14.2		
10.50	140 <<	146.7 <<	42.01	2.42	0.00	44.43	240	10.50	3.75		0.00	3.75	0.645	1.610	120	146.7	23.3		
10.50	140 >>	113.1 >>	42.01	5.23	0.00	36.78	141	10.50	13.12		0.00	13.12	0.399	1.610	120	113.1	18.0		
10.50	140 >>	33.6 >>	42.01	5.46	0.00	36.55	D05	10.50	0.50	T	5.00	5.50	0.993	1.049	120	33.6	12.6		
10.50	141 >>	81.3 >>	36.78	5.50	0.00	31.28	142	10.50	12.00		0.00	12.00	0.458	1.380	120	81.3	17.6		
10.50	141 >>	31.9 >>	36.78	3.83	0.00	32.94	D04	10.50	0.50	T	5.00	5.50	0.697	1.049	120	31.9	11.9		
10.50	142 >>	52.1 >>	31.28	6.12	0.00	25.16	143	10.50	8.00		0.00	8.00	0.765	1.049	120	52.1	19.5		
10.50	142 >>	29.2 >>	31.28	3.74	0.00	27.54	D03	10.50	1.50	T	5.00	6.50	0.576	1.049	120	29.2	10.9		
10.50	143 >>	26.3 >>	25.16	2.71	0.00	22.45	D01	10.50	10.50	E	2.00	12.50	0.217	1.049	120	26.3	9.9		
10.50	143 >>	25.8 >>	25.16	3.66	0.00	21.49	D02	10.50	0.50	T	5.00	5.50	0.666	1.049	120	25.8	9.7		
10.50	144 >>	112.8 >>	41.80	5.20	0.00	36.60	145	10.50	13.12		0.00	13.12	0.397	1.610	120	112.8	18.0		
10.50	144 >>	33.4 >>	41.80	5.51	0.00	36.29	D10	10.50	0.75	T	5.00	5.75	0.959	1.049	120	33.4	12.5		
10.50	144 <<	146.3 <<	41.80	2.41	0.00	44.21	242	10.50	3.75		0.00	3.75	0.641	1.610	120	146.3	23.3		
10.50	145 >>	31.8 >>	36.60	3.89	0.00	32.71	D09	10.50	0.75	T	5.00	5.75	0.676	1.049	120	31.8	11.9		
10.50	145 >>	81.1 >>	36.60	4.56	0.00	32.04	146	10.50	10.00		0.00	10.00	0.456	1.380	120	81.1	17.6		
10.50	146 >>	29.6 >>	32.04	3.58	0.00	28.45	D08	10.50	0.75	T	5.00	5.75	0.623	1.049	120	29.6	11.1		
10.50	146 >>	51.4 >>	32.04	7.47	0.00	24.56	147	10.50	10.00		0.00	10.00	0.747	1.049	120	51.4	19.3		
10.50	147 >>	26.0 >>	24.56	2.70	0.00	21.87	D06	10.50	10.75	E	2.00	12.75	0.211	1.049	120	26.0	9.7		
10.50	147 >>	25.4 >>	24.56	3.62	0.00	20.94	D07	10.50	0.75	T	5.00	5.75	0.630	1.049	120	25.4	9.5		
10.50	148 >>	68.5 >>	42.94	1.89	0.00	41.05	149	10.50	12.00		0.00	12.00	0.158	1.610	120	68.5	10.9		
10.50	148 <<	103.2 <<	42.94	4.37	0.00	47.32	246	10.50	5.00	T	8.00	13.00	0.336	1.610	120	103.2	16.4		
10.50	148 >>	34.7 >>	42.94	3.85	0.00	39.09	D15	10.50	0.75	T	5.00	5.75	0.670	1.049	120	34.7	13.0		
10.50	149 >>	34.3 >>	41.05	2.82	0.00	38.23	D14	10.50	0.75	T	5.00	5.75	0.490	1.049	120	34.3	12.9		
10.50	149 >>	34.2 >>	41.05	1.22	0.00	39.84	150	10.50	13.17		0.00	13.17	0.092	1.380	120	34.2	7.4		
10.50	150 >>	34.2 >>	39.84	1.89	0.00	37.95	D13	10.50	0.37	T	5.00	5.37	0.351	1.049	120	34.2	12.8		
10.00	243 <<	55.4 <<	28.91	20.26	0.00	49.17	E1	10.00	18.17	T	5.00	23.17	0.875	1.049	120	55.4	20.8		
10.00	243 >>	27.6 >>	28.91	4.20	0.00	24.71	D12	10.00	0.75	T	5.00	5.75	0.731	1.049	120	27.6	10.3		
10.00	243 >>	27.8 >>	28.91	3.75	0.00	25.16	D11	10.00	13.67	E	2.00	15.67	0.240	1.049	120	27.8	10.4		

Calcs By: M. GOUMALATSOS Checked: _____
 SprinkCAD by CSC Systems and Design Inc.



2/16/06

Job
THE GENERAL STORE

Water

Static Pressure: 78.0 psi
Residual Pressure: 70.0 psi
Flow: 1300 gpm

Required

Pressure: 67.0 psi
Total Flow: 702 gpm
Safety Pressure: 8.4 psi

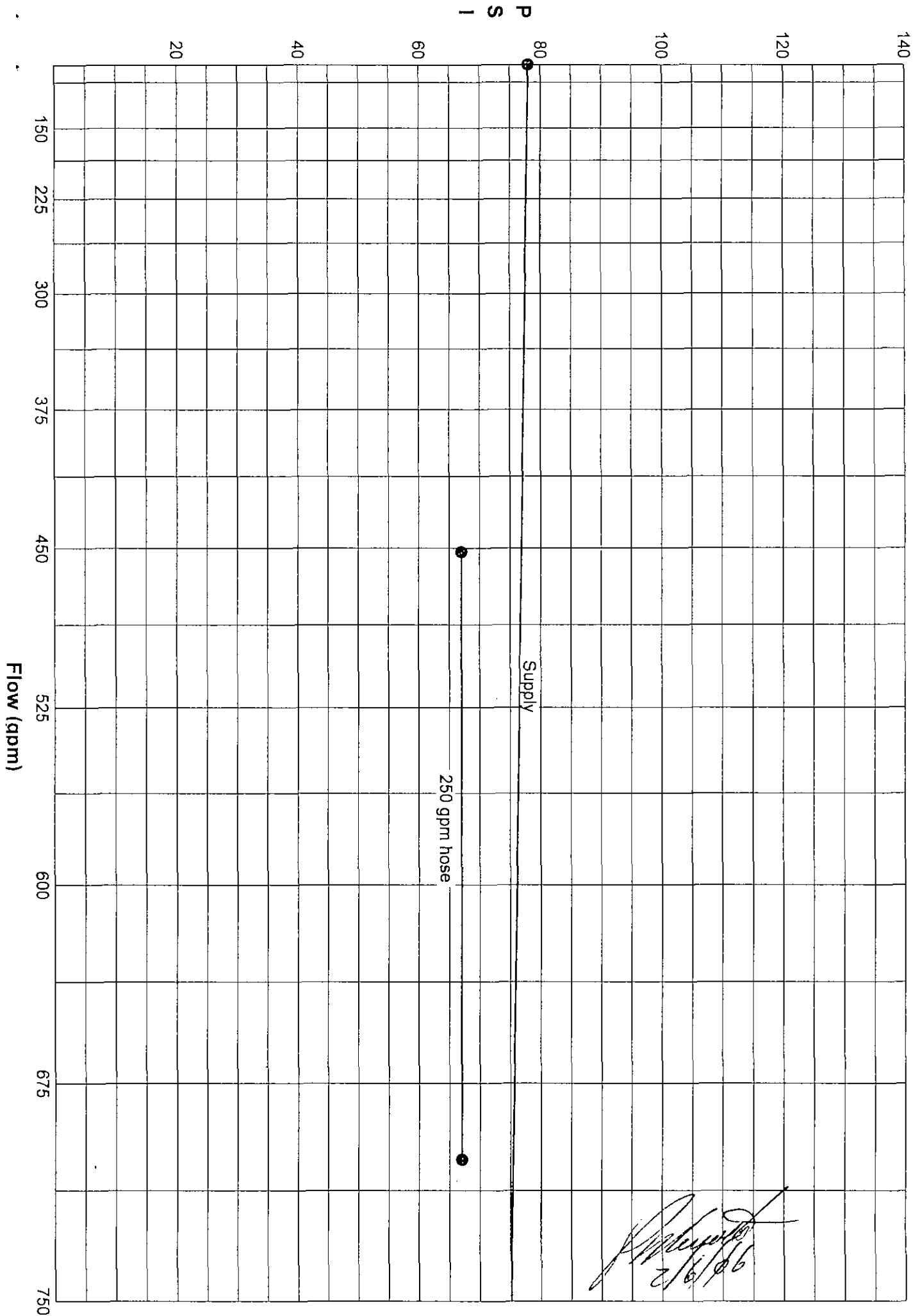
Hose Allowance

Inside: 0 gpm
Outside: 250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 4

Date/Loc: 01/10/06



THE GENERAL STORE

Drawing Date:

2/ 2/06 11:55

S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #3 STORAGE AREA

SUBMITTED By:
ALLIED FIRE & SAFETY

Design Specifications	Water Supply Information	System Demand
Density : 0.150	78.00 psi @ 0.00 gpm	38.13 psi
Design Area: 1500.00	70.00 psi @ 1300.00	@ 327.3
		+ 250.0 gpm Hose
Total Demand: 577.3 gpm @ 38.13 psi		
System safety factor: 38.1 psi		
Notes:		

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.



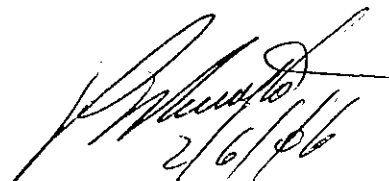
THE GENERAL STORE

Drawing Date:

2/ 2/06 11:55

HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION		LENGTH	C	ID	HYDRAULIC	FLOW	LOSS	TOTALS
						gpm	psi	
Hydr Ref 102	Required at Hyd Area 3					327		28.6 psi
1 6" Grvd 90 Ell		14'	120	6.065		327	0.1	
1 Pipe 6" 10x21		10'	120	6.357		327	0.0	
	Elevation Change 10'0"						4.3	
2 6" Grvd 90 Ell		28'	120	6.065		327	0.1	
1 6" Grvd Shotgun Valve "90"		19'	120	6.065		327	0.1	
1 6" Flngd Gate Valve "722U"		3'	120	6.065		327	0.0	
1 6" Flngd Tee		30'	120	6.065		327	0.1	
1 6" Flngd Back Flow Valve FEBCO "805 CHART LOSS						327	4.1	
1 6" Flngd 90 Ell		14'	120	6.065		327	0.1	
Hydr Ref 101	Required at CONNECTION TO UNDERG					327		37.6 psi
2 6" MJ 90 Ell		28'	120	6.065		327	0.1	
1 Pipe 6" DIx18 Cl 350		150'	140	6.338		327	0.4	
	Fixed Flow Outside Hose Allow.					250 gpm		
Hydr Ref 098	Required at Source					577		38.1 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm						577 gpm		76.2 psi
SAFETY PRESSURE								38.1 psi



THE GENERAL STORE

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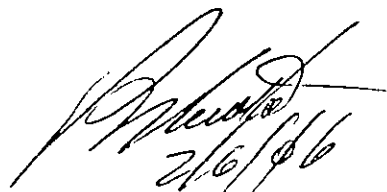
SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.150

Supplied flow and pressure is based on 38.13 psi available at supply
(76.22 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
C15	20.59	0.000	20.59	5.60	25.2	19.5	29.4%	C15
C13	17.90	0.000	17.90	5.60	23.5	19.5	20.7%	C13
C10	12.88	0.000	12.88	5.60	19.9	19.5	2.0%	C10
C07	13.23	0.000	13.23	5.60	20.3	19.5	4.0%	C07
C01	13.14	0.000	13.14	5.60	20.2	19.5	3.6%	C01
C04	14.79	0.000	14.79	5.60	21.4	19.5	9.9%	C04
C11	12.37	0.000	12.37	5.60	19.5	19.5	0.0%	C11
C08	12.70	0.000	12.70	5.60	19.9	19.5	1.9%	C08
C05	13.80	0.000	13.80	5.60	20.7	19.5	6.2%	C05
C02	12.75	0.000	12.75	5.60	19.9	19.5	2.1%	C02
C14	17.47	0.000	17.47	5.60	23.3	19.5	19.3%	C14
C12	16.90	0.000	16.90	5.60	22.8	19.5	16.9%	C12
C09	17.43	0.000	17.43	5.60	23.2	19.5	19.2%	C09
C06	18.93	0.000	18.93	5.60	24.2	19.5	24.1%	C06
C03	17.47	0.000	17.47	5.60	23.3	19.5	19.3%	C03



2/6/06

THE GENERAL STORE

Drawing Date:

2/ 2/06 11:55

Flow and Pressure Summary

JOB NAME: THE GENERAL STORE

Elev. ft.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pa psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S C A L C U L A T I O N S							Velocity fps	
									Length	Fitting	Length	Total	Pf/ft	Diam	C		Flow
10.00	102 >>	327.3 >>	28.64	0.37	0.00	28.27	104	10.00	87.87	2E	16.00	103.87	0.004	6.357	120	327.3	3.3
10.00	104 >>	327.3 >>	28.27	2.61	0.00	25.66	105	10.00	105.00		0.00	105.00	0.025	4.260	120	327.3	7.4
10.00	105 >>	72.0 >>	25.66	0.04	0.00	25.61	106	10.00	9.23	T	20.00	29.23	0.002	4.260	120	72.0	1.6
10.00	105 >>	255.3 >>	25.66	0.36	0.00	25.30	111	10.00	2.75	T	20.00	22.75	0.016	4.260	120	255.3	5.8
10.00	106 >>	25.2 >>	25.61	0.00	0.00	25.61	107	10.00	12.00		0.00	12.00	0.000	4.260	120	25.2	0.6
10.00	106 >>	46.8 >>	25.61	0.69	-0.22	25.14	249	10.50	0.50	T	10.00	10.50	0.066	2.067	120	46.8	4.5
10.00	107 >>	25.2 >>	25.61	0.51	-0.22	25.32	246	10.50	0.50	T	10.00	10.50	0.049	2.067	120	25.2	2.4
10.00	111 >>	193.1 >>	25.30	0.09	0.00	25.21	112	10.00	10.00		0.00	10.00	0.009	4.260	120	193.1	4.4
10.00	111 >>	62.2 >>	25.30	2.20	0.00	23.10	252	10.00	7.00	T	8.00	15.00	0.147	1.610	120	62.2	9.9
10.00	112 >>	63.4 >>	25.21	0.91	-0.22	24.52	248	10.50	0.50	T	10.00	10.50	0.086	2.157	120	63.4	5.6
10.00	112 >>	129.7 >>	25.21	0.04	0.00	25.16	113	10.00	10.00		0.00	10.00	0.004	4.260	120	129.7	2.9
10.00	113 >>	63.4 >>	25.16	0.01	0.00	25.15	114	10.00	10.00		0.00	10.00	0.001	4.260	120	63.4	1.4
10.00	113 >>	66.3 >>	25.16	0.87	-0.22	24.51	244	10.50	0.50	T	10.00	10.50	0.082	2.157	120	66.3	5.9
10.00	114 >>	63.4 >>	25.15	3.21	0.22	21.73	120	10.50	11.49	E+T	12.00	23.49	0.136	1.610	120	63.4	10.1
10.50	120 >>	63.4 >>	21.73	0.76	0.00	20.97	241	10.50	5.56		0.00	5.56	0.136	1.610	120	63.4	10.1
10.50	121 >>	40.1 >>	19.70	4.72	0.00	14.98	122	10.50	10.00		0.00	10.00	0.472	1.049	120	40.1	15.0
10.50	121 >>	23.3 >>	19.70	2.23	0.00	17.47	C03	10.50	0.73	T	5.00	5.73	0.389	1.049	120	23.3	8.7
10.50	121 <<	63.4 <<	19.70	1.27	0.00	20.97	241	10.50	4.38		0.00	4.38	0.289	1.380	120	63.4	13.7
10.50	122 >>	19.9 >>	14.98	2.23	0.00	12.75	C02	10.50	0.73	T	5.00	5.73	0.390	1.049	120	19.9	7.5
10.50	122 >>	20.2 >>	14.98	1.85	0.00	13.14	C01	10.50	8.91	T	5.00	13.91	0.133	1.049	120	20.2	7.6
10.50	123 <<	66.3 <<	23.59	0.92	0.00	24.51	244	10.50	10.99	T	10.00	20.99	0.044	2.067	120	66.3	6.4
10.50	123 >>	66.3 >>	23.59	0.97	0.00	22.62	245	10.50	6.54		0.00	6.54	0.148	1.610	120	66.3	10.6
10.50	124 <<	66.3 <<	21.55	1.07	0.00	22.62	245	10.50	3.41		0.00	3.41	0.315	1.380	120	66.3	14.4
10.50	124 >>	42.1 >>	21.55	5.16	0.00	16.38	125	10.50	10.00		0.00	10.00	0.516	1.049	120	42.1	15.8
10.50	124 >>	24.2 >>	21.55	2.61	0.00	18.93	C06	10.50	1.73	T	5.00	6.73	0.388	1.049	120	24.2	9.1
10.50	125 >>	20.7 >>	16.38	2.58	0.00	13.80	C05	10.50	1.73	T	5.00	6.73	0.383	1.049	120	20.7	7.8
10.50	125 >>	21.4 >>	16.38	1.59	0.00	14.79	C04	10.50	8.73	E	2.00	10.73	0.148	1.049	120	21.4	8.0
10.50	127 >>	63.4 >>	21.38	1.72	0.00	19.66	128	10.50	5.94		0.00	5.94	0.289	1.380	120	63.4	13.7
10.50	127 <<	63.4 <<	21.38	3.14	0.00	24.52	248	10.50	15.00	T	8.00	23.00	0.137	1.610	120	63.4	10.1
10.50	128 >>	23.2 >>	19.66	2.23	0.00	17.43	C09	10.50	0.73	T	5.00	5.73	0.389	1.049	120	23.2	8.7
10.50	128 >>	40.2 >>	19.66	4.73	0.00	14.93	129	10.50	10.00		0.00	10.00	0.473	1.049	120	40.2	15.1
10.50	129 >>	20.3 >>	14.93	1.70	0.00	13.23	C07	10.50	10.73	E	2.00	12.73	0.134	1.049	120	20.3	7.6
10.50	129 >>	19.9 >>	14.93	2.23	0.00	12.70	C08	10.50	0.73	T	5.00	5.73	0.390	1.049	120	19.9	7.5
10.00	130 >>	39.4 >>	19.21	4.56	0.00	14.65	131	10.00	10.00		0.00	10.00	0.456	1.049	120	39.4	14.8
10.00	130 >>	22.8 >>	19.21	2.31	0.00	16.90	C12	10.00	1.73	T	5.00	6.73	0.344	1.049	120	22.8	8.5
10.00	130 <<	62.2 <<	19.21	3.89	0.00	23.10	252	10.00	13.94		0.00	13.94	0.279	1.380	120	62.2	13.5
10.00	131 >>	19.5 >>	14.65	2.28	0.00	12.37	C11	10.00	1.73	T	5.00	6.73	0.338	1.049	120	19.5	7.3
10.00	131 >>	19.9 >>	14.65	1.77	0.00	12.88	C10	10.00	11.73	E	2.00	13.73	0.129	1.049	120	19.9	7.5
10.50	132 <<	46.8 <<	20.49	1.22	0.00	21.71	251	10.50	1.94		0.00	1.94	0.627	1.049	120	46.8	17.5
10.50	132 >>	23.3 >>	20.49	3.02	0.00	17.47	C14	10.50	0.75	T	5.00	5.75	0.526	1.049	120	23.3	8.7
10.50	132 >>	23.5 >>	20.49	2.60	0.00	17.90	C13	10.50	12.75	E	2.00	14.75	0.176	1.049	120	23.5	8.8
10.50	133 <<	25.2 <<	24.33	0.32	0.00	24.65	247	10.50	6.00		0.00	6.00	0.053	1.380	120	25.2	5.5
10.50	133 >>	25.2 >>	24.33	3.74	0.00	20.59	C15	10.50	16.69	E	2.00	18.69	0.200	1.049	120	25.2	9.5
10.50	246 >>	25.2 >>	25.32	0.67	0.00	24.65	247	10.50	19.00	T	8.00	27.00	0.025	1.610	120	25.2	4.0
10.50	249 >>	46.8 >>	25.14	2.10	0.00	23.03	250	10.50	19.00	T	8.00	27.00	0.078	1.610	120	46.8	7.4
10.50	250 >>	46.8 >>	23.03	1.32	0.00	21.71	251	10.50	8.00		0.00	8.00	0.165	1.380	120	46.8	10.1

Calcs By: M. GOMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.

[Signature]
2/6/06

Job

THE GENERAL STORE

Water

Static Pressure:

78.0 psi

Residual Pressure:

70.0 psi

Flow:

1300 gpm

Required

Pressure:

38.1 psi

Total Flow:

577 gpm

Safety Pressure:

38.1 psi

Hose Allowance

Inside:

0 gpm

Outside:

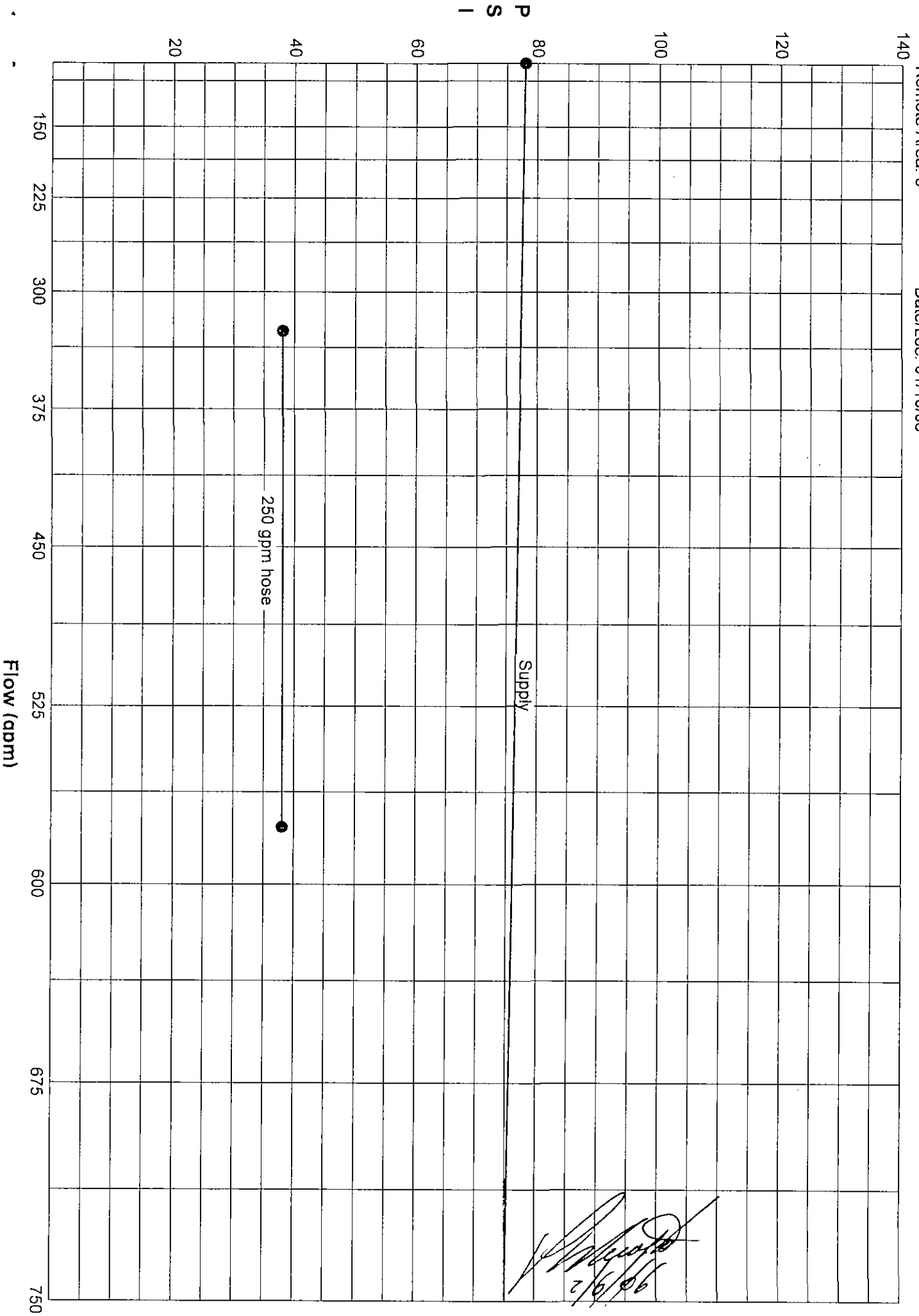
250 gpm

Drawn By
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Tyco Fire Products
(800)495-5541

Remote Area: 3

Date/Loc: 01/10/06

[Signature]
2/6/06



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C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #2 ATTIC SYSTEM

SUBMITTED By:
ALLIED FIRE & SAFETY

Design Specifications	Water Supply Information	System Demand
Density : 0.150	78.00 psi @ 0.00 gpm	66.68 psi
Design Area: 1950.00	70.00 psi @ 1300.00	@ 482.6
		+ 250.0 gpm Hose
Total Demand: 732.6 gpm @ 66.68 psi		
System safety factor: 8.5 psi		
Notes:		

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.



THE GENERAL STORE

Drawing Date:

2/ 2/06 13:44

HYDRAULIC CALCULATION DETAILS

QTY	DESCRIPTION	LENGTH	C	HYDRAULIC ID	FLOW gpm	LOSS psi	TOTALS
	Hydr Ref 200			Required at Hyd Area 2	483		55.1 psi
1	6" Grvd 90 Ell	14'	100	6.065	483	0.2	
1	Pipe 6" 10x21	10'	100	6.357	483	0.1	
	Elevation Change 10'0"					4.3	
2	6" Grvd 90 Ell	28'	100	6.065	483	0.4	
1	6" Grvd Dry Valve Tyco DV-1			CHART LOSS	483	0.8	
1	6" Flngd Gate Valve "722U"	3'	120	6.065	483	0.0	
1	6" Flngd Tee	30'	120	6.065	483	0.3	
1	6" Flngd Back Flow Valve FEBCO "805			CHART LOSS	483	4.2	
1	6" Flngd 90 Ell	14'	120	6.065	483	0.1	
	Hydr Ref 100			Required at CONNECTION TO UNDERG	483		65.6 psi
2	6" MJ 90 Ell	28'	120	6.065	483	0.3	
1	Pipe 6" D1x18 Cl 350	150'	140	6.338	483	0.8	
	Fixed Flow Outside Hose Allow.				250 gpm		
	Hydr Ref 098			Required at Source	733		66.7 psi
	Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm				733 gpm		75.2 psi
	SAFETY PRESSURE						8.5 psi

2/6/06

THE GENERAL STORE Drawing Date:

2/ 2/06 13:44

SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.150

Supplied flow and pressure is based on 66.68 psi available at supply
(75.23 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
B05	11.39	0.000	11.39	5.60	18.9	18.9	0.0%	B05
B04	14.12	1.401	12.72	5.60	20.0	18.9	5.7%	B04
B03	21.17	1.263	19.90	5.60	25.0	18.9	32.2%	B03
B02	26.21	1.407	24.81	5.60	27.9	18.9	47.6%	B02
B01	31.69	2.488	29.20	5.60	30.3	18.9	60.1%	B01
B10	16.00	0.000	16.00	5.60	22.4	18.9	18.5%	B10
B09	19.45	1.948	17.51	5.60	23.4	18.9	24.0%	B09
B08	28.80	1.740	27.06	5.60	29.1	18.9	54.1%	B08
B07	35.37	1.926	33.45	5.60	32.4	18.9	71.4%	B07
223	43.12	3.401	39.72	5.60	35.3	18.9	86.7%	223
B15	15.92	0.000	15.92	5.60	22.3	18.9	18.2%	B15
B14	19.37	1.939	17.43	5.60	23.4	18.9	23.7%	B14
B13	28.69	1.732	26.96	5.60	29.1	18.9	53.8%	B13
B12	35.24	1.918	33.32	5.60	32.3	19.5	65.8%	B12
224	42.97	3.387	39.58	5.60	35.2	18.9	86.4%	224
B17	44.99	0.000	44.99	5.60	37.6	18.9	98.7%	B17
B16	47.00	0.954	46.04	5.60	38.0	18.9	101.1%	B16


2/6/06

THE GENERAL STORE

Drawing Date:

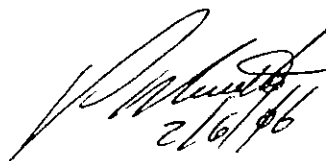
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Flow and Pressure Summary

JOB NAME: THE GENERAL STORE

lev. t.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pe psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S				C A L C U L A T I O N S				Velocity fps
									Length	Fitting	Length	Total	Pf/ft	Diam	C	Flow	
3.50	200 >>	482.6 >>	55.09	0.49	0.00	54.60	201	3.50	37.19	2E	11.42	48.61	0.010	6.357	100	482.6	4.9
3.50	201 >>	223.4 >>	54.60	2.47	0.43	51.70	230	4.50	105.40	2E+T	28.55	133.95	0.018	4.260	100	223.4	5.1
3.50	201 >>	259.2 >>	54.60	0.01	0.00	54.59	202	3.50	2.00		0.00	2.00	0.003	6.357	100	259.2	2.6
3.50	202 >>	259.2 >>	54.59	3.62	0.87	50.10	E1	5.50	138.56	3E	21.41	159.97	0.023	4.260	100	259.2	5.9
4.50	213 >>	259.2 >>	49.40	0.04	0.00	49.36	214	4.50	0.50		0.00	0.50	0.083	3.260	100	259.2	10.1
4.50	213 <<	259.2 <<	49.40	1.13	-0.43	50.10	E1	5.50	35.67	2E	14.27	49.94	0.023	4.260	100	259.2	5.9
4.50	214 >>	137.2 >>	49.36	0.17	0.00	49.20	222	4.50	6.49		0.00	6.49	0.026	3.260	100	137.2	5.3
4.50	214 >>	122.0 >>	49.36	16.68	1.00	31.69	B01	6.80	10.65	3E+T	14.27	24.93	0.669	1.610	100	122.0	19.4
4.50	222 >>	142.6 >>	49.20	6.45	-0.38	43.12	223	5.38	0.93	T	5.71	6.64	0.972	1.610	100	142.6	22.7
4.50	222 <<	5.5 <<	49.20	0.00	0.00	49.20	225	4.50	14.00		0.00	14.00	0.000	3.260	100	5.5	0.2
5.38	223 >>	107.3 >>	43.12	6.71	1.04	35.37	B07	7.79	7.53	T	5.71	13.23	0.507	1.610	100	107.3	17.1
5.35	224 >>	107.1 >>	42.97	6.68	1.04	35.24	B12	7.76	7.52	T	5.71	13.23	0.505	1.610	100	107.1	17.0
5.35	224 <<	142.4 <<	42.97	5.86	0.37	49.20	225	4.50	0.90	T	5.71	6.61	0.887	1.610	100	142.4	22.7
4.50	225 <<	147.8 <<	49.20	0.41	0.00	49.61	228	4.50	14.00		0.00	14.00	0.030	3.260	100	147.8	5.7
4.50	228 >>	75.6 >>	49.61	2.98	-0.37	47.00	B16	5.35	0.90	T	5.71	6.61	0.451	1.610	100	75.6	12.0
4.50	228 <<	223.4 <<	49.61	2.09	0.00	51.70	230	4.50	33.00		0.00	33.00	0.063	3.260	100	223.4	8.7
6.80	B01 >>	91.7 >>	31.69	4.65	0.82	26.21	B02	8.70	6.56	T	5.71	12.27	0.379	1.610	100	91.7	14.6
8.70	B02 >>	63.9 >>	26.21	3.87	1.18	21.17	B03	11.43	9.40		0.00	9.40	0.411	1.380	100	63.9	13.8
11.43	B03 >>	38.9 >>	21.17	5.87	1.18	14.12	B04	14.16	9.40		0.00	9.40	0.624	1.049	100	38.9	14.6
14.16	B04 >>	18.9 >>	14.12	1.55	1.18	11.39	B05	16.89	9.40		0.00	9.40	0.165	1.049	100	18.9	7.1
7.79	B07 >>	75.0 >>	35.37	5.25	1.32	28.80	B08	10.82	9.50		0.00	9.50	0.553	1.380	100	75.0	16.2
10.82	B08 >>	45.8 >>	28.80	8.03	1.32	19.45	B09	13.86	9.50		0.00	9.50	0.846	1.049	100	45.8	17.2
13.86	B09 >>	22.4 >>	19.45	2.14	1.32	16.00	B10	16.90	9.50		0.00	9.50	0.225	1.049	100	22.4	8.4
7.76	B12 >>	74.8 >>	35.24	5.23	1.32	28.69	B13	10.81	9.50		0.00	9.50	0.551	1.380	100	74.8	16.2
10.81	B13 >>	45.7 >>	28.69	8.00	1.32	19.37	B14	13.86	9.50		0.00	9.50	0.842	1.049	100	45.7	17.1
13.86	B14 >>	22.3 >>	19.37	2.13	1.32	15.92	B15	16.90	9.50		0.00	9.50	0.224	1.049	100	22.3	8.4
5.35	B16 >>	37.6 >>	47.00	0.96	1.04	44.99	B17	7.76	7.52	T	5.71	13.23	0.073	1.610	100	37.6	6.0

Calcs By: M. GOUMALATSOS Checked: _____
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2/6/06

JOB
THE GENERAL STORE

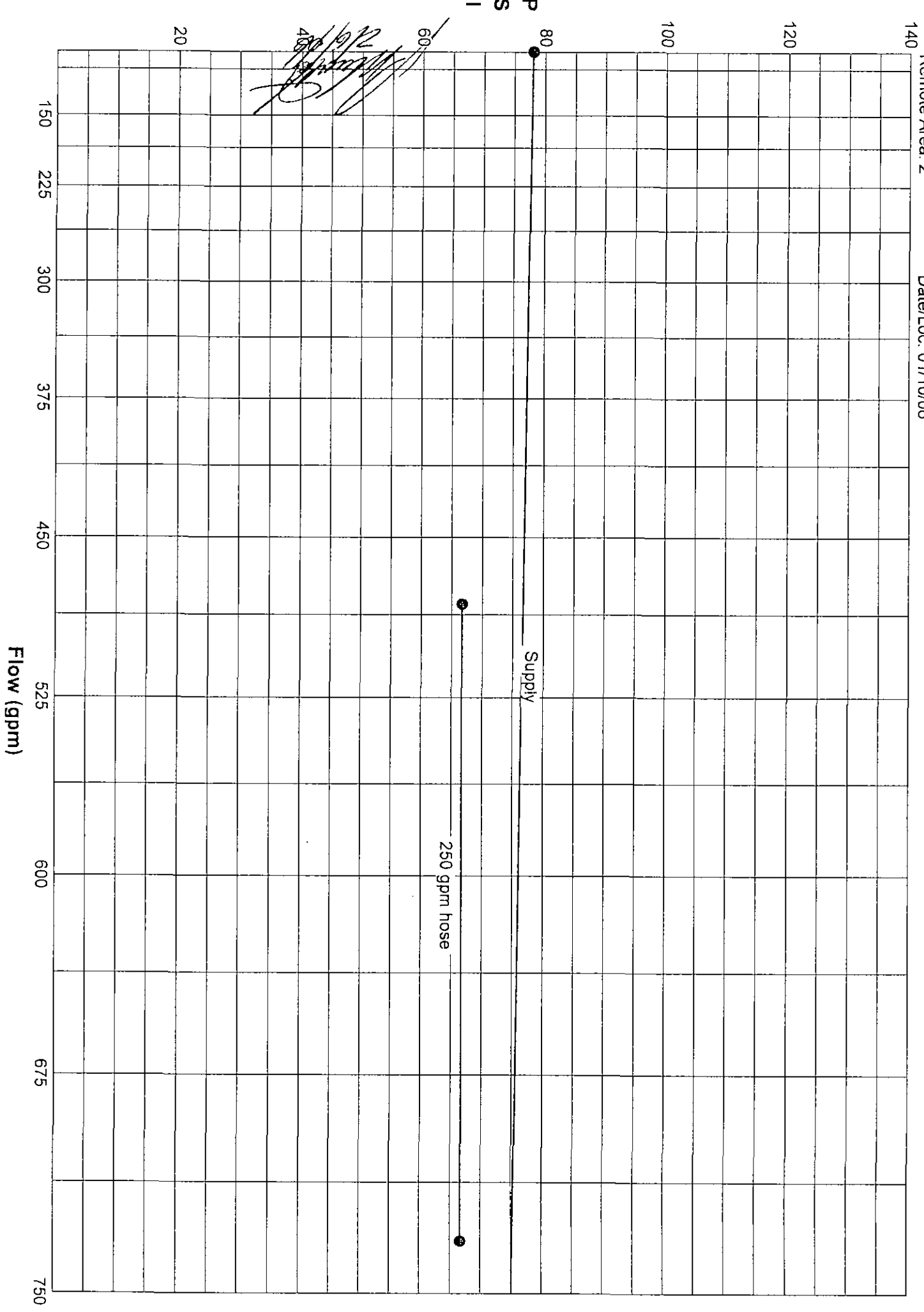
water
Static Pressure: 78.0 psi
Residual Pressure: 70.0 psi
Flow: 1300 gpm
Date/Loc: 01/10/06

Required
Pressure: 66.7 psi
Total Flow: 733 gpm
Safety Pressure: 8.5 psi

Hose Allowance
Inside: 0 gpm
Outside: 250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 2



S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #1 ATTIC SYSTEM

SUBMITTED By:
ALLIED FIRE & SAFETY

Design Specifications	Water Supply Information	System Demand
Density : 0.150	78.00 psi @ 0.00 gpm	64.75 psi
Design Area: 1950.00	70.00 psi @ 1300.00	@ 476.8
		+ 250.0 gpm Hose

Total Demand: 726.8 gpm @ 64.75 psi
System safety factor: 10.5 psi
Notes:

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.



2/6/06

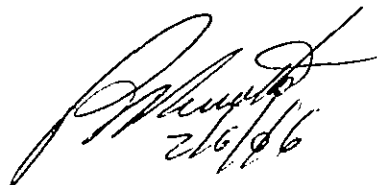
THE GENERAL STORE

Drawing Date:

2/ 2/06 13:45

HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION	HYDRAULIC LENGTH C ID	FLOW gpm	LOSS psi	TOTALS
Hydr Ref 200	Required at Hyd Area 1	477		53.2 psi
1 6" Grvd 90 Ell	14' 100 6.065	477	0.2	
1 Pipe 6" 10x21	10' 100 6.357	477	0.1	
	Elevation Change 10'0"		4.3	
2 6" Grvd 90 Ell	28' 100 6.065	477	0.4	
1 6" Grvd Dry Valve Tyco DV-1	CHART LOSS	477	0.8	
1 6" Flngd Gate Valve "722U"	3' 120 6.065	477	0.0	
1 6" Flngd Tee	30' 120 6.065	477	0.3	
1 6" Flngd Back Flow Valve FEBCO "805	CHART LOSS	477	4.2	
1 6" Flngd 90 Ell	14' 120 6.065	477	0.1	
Hydr Ref 100	Required at CONNECTION TO UNDERG	477		63.7 psi
2 6" MJ 90 Ell	28' 120 6.065	477	0.3	
1 Pipe 6" DIx18 Cl 350	150' 140 6.338	477	0.8	
	Fixed Flow Outside Hose Allow.	250 gpm		
Hydr Ref 098	Required at Source	727		64.8 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm		727 gpm		75.3 psi
	SAFETY PRESSURE			10.5 psi



THE GENERAL STORE Drawing Date:

2/ 2/06 13:45

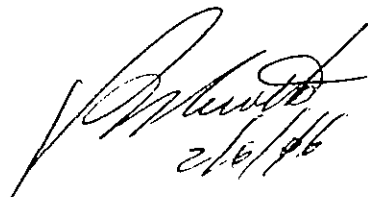
SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.150

Supplied flow and pressure is based on 64.75 psi available at supply
(75.27 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
A05	14.46	0.000	14.46	5.60	21.3	19.5	9.2%	A05
A04	17.02	1.731	15.29	5.60	21.9	19.5	12.3%	A04
A03	26.50	1.568	24.93	5.60	28.0	19.5	43.4%	A03
A02	32.77	1.751	31.02	5.60	31.2	19.5	59.9%	A02
A01	31.28	0.000	31.28	5.60	31.3	19.5	60.6%	A01
A10	13.05	0.000	13.05	5.60	20.2	19.5	3.8%	A10
A09	15.38	1.563	13.82	5.60	20.8	19.5	6.8%	A09
A08	24.00	1.418	22.59	5.60	26.6	19.5	36.5%	A08
A07	29.72	1.585	28.13	5.60	29.7	19.5	52.3%	A07
A06	28.35	0.000	28.35	5.60	29.8	19.5	52.9%	A06
A15	12.13	0.000	12.13	5.60	19.5	19.5	0.0%	A15
A14	14.30	1.452	12.85	5.60	20.1	19.5	2.9%	A14
A13	22.35	1.319	21.04	5.60	25.7	19.5	31.7%	A13
A12	27.70	1.475	26.22	5.60	28.7	19.5	47.1%	A12
A11	26.42	0.000	26.42	5.60	28.8	19.5	47.6%	A11
A18	29.98	0.000	29.98	5.60	30.7	19.5	57.2%	A18
A16	31.30	0.636	30.66	5.60	31.0	19.5	59.0%	A16
A17	31.73	0.000	31.73	5.60	31.5	19.5	61.8%	A17


2/2/06

THE GENERAL STORE Drawing Date:
 Flow and Pressure Summary
 JOB NAME: THE GENERAL STORE

2/ 2/06 13:45

Elev. ft.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pe psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S C A L C U L A T I O N S										Velocity fps
									Length	Fitting	Length	Total	Pf/ft	Diam	C	Flow			
3.50	200 >>	476.8 >>	53.23	0.48	0.00	52.75	201	3.50	37.19	2E	11.42	48.61	0.010	6.357	100	476.8	4.9		
3.50	201 >>	177.0 >>	52.75	1.66	0.43	50.66	230	4.50	105.40	2E+T	28.55	133.95	0.012	4.260	100	177.0	4.0		
3.50	201 >>	299.7 >>	52.75	0.01	0.00	52.74	202	3.50	2.00		0.00	2.00	0.004	6.357	100	299.7	3.1		
3.50	202 >>	299.7 >>	52.74	5.17	0.87	46.71	203	5.50	138.56	3E+T	35.68	174.25	0.030	4.260	100	299.7	6.8		
5.50	203 >>	476.8 >>	46.71	2.55	0.29	43.87	204	6.17	29.26	E	7.14	36.40	0.070	4.260	100	476.8	10.8		
5.50	203 <<	177.0 <<	46.71	1.59	-0.43	47.86	213	4.50	35.67	2E+T	28.55	64.21	0.025	4.260	100	177.0	4.0		
6.17	204 >>	476.8 >>	43.87	2.13	0.00	41.74	205	6.17	8.29		0.00	8.29	0.257	3.260	100	476.8	18.5		
6.17	205 >>	93.2 >>	41.74	13.89	-4.76	32.61	209	17.17	11.00	T	7.14	18.14	0.766	2.067	100	93.2	9.0		
6.17	205 >>	383.6 >>	41.74	1.72	0.00	40.02	206	6.17	10.00		0.00	10.00	0.172	3.260	100	383.6	14.9		
6.17	206 >>	122.7 >>	40.02	14.05	-4.58	30.55	210	16.75	10.58	T	7.14	17.72	0.793	2.067	100	122.7	11.8		
6.17	206 >>	260.8 >>	40.02	0.84	0.00	39.17	207	6.17	10.00		0.00	10.00	0.084	3.260	100	260.8	10.1		
6.17	207 >>	127.2 >>	39.17	9.29	-2.89	32.77	211	12.83	6.67	T	7.14	13.80	0.673	2.067	100	127.2	12.3		
6.17	207 >>	133.7 >>	39.17	0.24	0.00	38.93	208	6.17	10.00		0.00	10.00	0.024	3.260	100	133.7	5.2		
6.17	208 >>	133.7 >>	38.93	3.61	-0.79	36.11	212	8.00	1.83	T	7.14	8.97	0.402	2.067	100	133.7	12.9		
17.17	209 >>	61.7 >>	32.61	1.31	0.00	31.30	A16	17.17	1.50	T	5.71	7.21	0.182	1.610	100	61.7	9.8		
17.17	209 >>	31.5 >>	32.61	0.88	0.00	31.73	A17	17.17	11.00	T	5.71	16.71	0.053	1.610	100	31.5	5.0		
16.75	210 >>	93.9 >>	30.55	2.85	0.00	27.70	A12	16.75	1.50	T	5.71	7.21	0.396	1.610	100	93.9	14.9		
16.75	210 >>	28.8 >>	30.55	4.14	0.00	26.42	A11	16.75	8.00	T	3.57	11.57	0.358	1.049	100	28.8	10.8		
12.83	211 >>	97.4 >>	32.77	3.05	0.00	29.72	A07	12.83	1.50	T	5.71	7.21	0.423	1.610	100	97.4	15.5		
12.83	211 >>	29.8 >>	32.77	4.42	0.00	28.35	A06	12.83	8.00	T	3.57	11.57	0.382	1.049	100	29.8	11.2		
8.00	212 >>	102.3 >>	36.11	3.35	0.00	32.77	A02	8.00	1.50	T	5.71	7.21	0.464	1.610	100	102.3	16.3		
8.00	212 >>	31.3 >>	36.11	4.84	0.00	31.28	A01	8.00	8.00	T	3.57	11.57	0.418	1.049	100	31.3	11.7		
4.50	213 <<	177.0 <<	47.86	0.02	0.00	47.88	214	4.50	0.50		0.00	0.50	0.041	3.260	100	177.0	6.9		
4.50	214 <<	177.0 <<	47.88	0.27	0.00	48.15	222	4.50	6.49		0.00	6.49	0.041	3.260	100	177.0	6.9		
4.50	222 <<	177.0 <<	48.15	0.58	0.00	48.72	225	4.50	14.00		0.00	14.00	0.041	3.260	100	177.0	6.9		
4.50	225 <<	177.0 <<	48.72	0.58	0.00	49.30	228	4.50	14.00		0.00	14.00	0.041	3.260	100	177.0	6.9		
4.50	228 <<	177.0 <<	49.30	1.36	0.00	50.66	230	4.50	33.00		0.00	33.00	0.041	3.260	100	177.0	6.9		
8.00	A02 >>	71.2 >>	32.77	6.27	0.00	26.50	A03	8.00	12.50		0.00	12.50	0.502	1.380	100	71.2	15.4		
8.00	A03 >>	43.2 >>	26.50	9.47	0.00	17.02	A04	8.00	12.50		0.00	12.50	0.758	1.049	100	43.2	16.2		
8.00	A04 >>	21.3 >>	17.02	2.56	0.00	14.46	A05	8.00	12.50		0.00	12.50	0.205	1.049	100	21.3	8.0		
12.83	A07 >>	67.7 >>	29.72	5.71	0.00	24.00	A08	12.83	12.50		0.00	12.50	0.457	1.380	100	67.7	14.7		
12.83	A08 >>	41.1 >>	24.00	8.62	0.00	15.38	A09	12.83	12.50		0.00	12.50	0.690	1.049	100	41.1	15.4		
12.83	A09 >>	20.2 >>	15.38	2.33	0.00	13.05	A10	12.83	12.50		0.00	12.50	0.186	1.049	100	20.2	7.6		
16.75	A12 >>	65.3 >>	27.70	5.34	0.00	22.35	A13	16.75	12.50		0.00	12.50	0.428	1.380	100	65.3	14.1		
16.75	A13 >>	39.6 >>	22.35	8.05	0.00	14.30	A14	16.75	12.50		0.00	12.50	0.644	1.049	100	39.6	14.8		
16.75	A14 >>	19.5 >>	14.30	2.17	0.00	12.13	A15	16.75	12.50		0.00	12.50	0.174	1.049	100	19.5	7.3		
17.17	A16 >>	30.7 >>	31.30	1.32	0.00	29.98	A18	17.17	12.50		0.00	12.50	0.106	1.380	100	30.7	6.6		

Calcs By: M. GOUALATSOS Checked: _____
 SprinkCAD by CSC Systems and Design Inc.

Job
THE GENERAL STORE

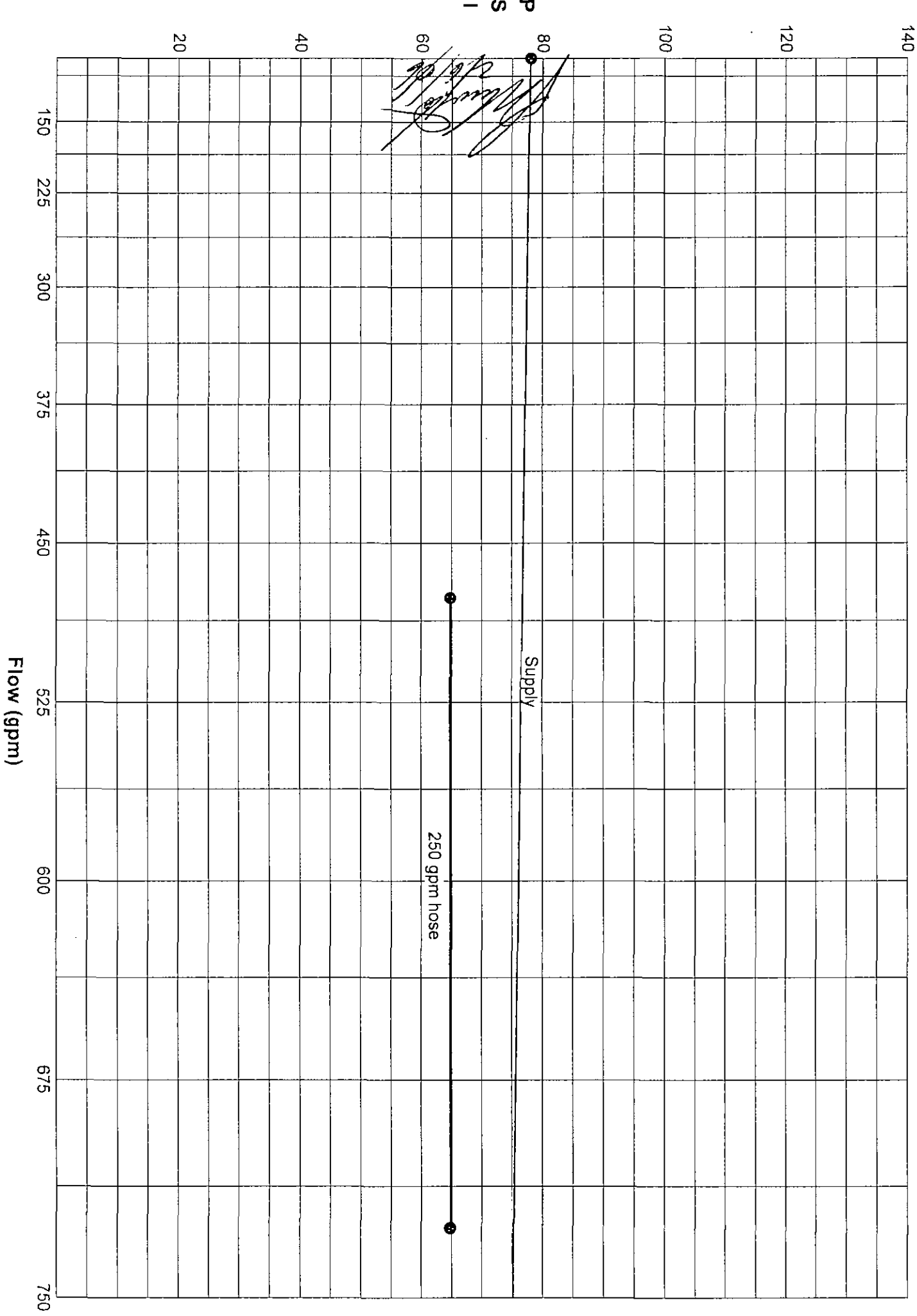
Water
Static Pressure: 78.0 psi
Residual Pressure: 70.0 psi
Flow: 1300 gpm

Required
Pressure: 64.8 psi
Total Flow: 727 gpm
Safety Pressure: 10.5 psi

Hose Allowance
Inside: 0 gpm
Outside: 250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 1



THE GENERAL STORE

Drawing Date:

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S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #4 SALES FLOOR

SUBMITTED By:
ALLIED FIRE & SAFETY

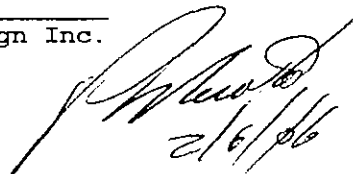
Design Specifications	Water Supply Information	System Demand
Density : 0.200	78.00 psi @ 0.00 gpm	67.02 psi
Design Area: 1500.00	70.00 psi @ 1300.00	@ 451.6
		+ 250.0 gpm Hose
Total Demand: 701.6 gpm @ 67.02 psi		
System safety factor: 8.4 psi		
Notes:		

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
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THE GENERAL STORE

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HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION	HYDRAULIC LENGTH C ID	FLOW gpm	LOSS psi	TOTALS
Hydr Ref 102	Required at Hyd Area 4	452		56.5 psi
1 6" Grvd 90 Ell	14' 120 6.065	452	0.1	
1 Pipe 6" 10x21	10' 120 6.357	452	0.1	
	Elevation Change 10'0"		4.3	
2 6" Grvd 90 Ell	28' 120 6.065	452	0.2	
1 6" Grvd Shotgun Valve "90"	19' 120 6.065	452	0.2	
1 6" Flngd Gate Valve "722U"	3' 120 6.065	452	0.0	
1 6" Flngd Tee	30' 120 6.065	452	0.3	
1 6" Flngd Back Flow Valve FEBCO "805 CHART LOSS		452	4.2	
1 6" Flngd 90 Ell	14' 120 6.065	452	0.1	
Hydr Ref 101	Required at CONNECTION TO UNDERG	452		66.0 psi
2 6" MJ 90 Ell	28' 120 6.065	452	0.2	
1 Pipe 6" DIx18 Cl 350	150' 140 6.338	452	0.7	
	Fixed Flow Outside Hose Allow.	250 gpm		
Hydr Ref 098	Required at Source	702		67.0 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm		702 gpm		75.4 psi
	SAFETY PRESSURE			8.4 psi

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THE GENERAL STORE Drawing Date:

2/ 2/06 11:54

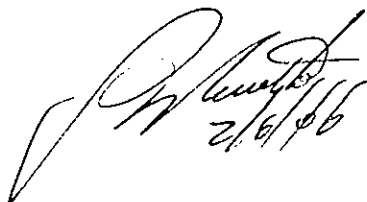
SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.200

Supplied flow and pressure is based on 67.02 psi available at supply
(75.44 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
D15	39.09	0.000	39.09	5.60	34.7	26.0	33.5%	D15
D05	36.55	0.000	36.55	5.60	33.6	26.0	29.1%	D05
D10	36.29	0.000	36.29	5.60	33.4	26.0	28.6%	D10
D14	38.23	0.000	38.23	5.60	34.3	26.0	32.0%	D14
D12	24.71	0.000	24.71	5.60	27.6	12.0	129.8%	D12
D04	32.94	0.000	32.94	5.60	31.9	26.0	22.6%	D04
D09	32.71	0.000	32.71	5.60	31.8	26.0	22.1%	D09
D08	28.45	0.000	28.45	5.60	29.6	24.0	23.5%	D08
D13	37.95	0.000	37.95	5.60	34.2	12.0	185.0%	D13
D03	27.54	0.000	27.54	5.60	29.2	26.0	12.1%	D03
D11	25.16	0.000	25.16	5.60	27.8	26.0	7.0%	D11
D02	21.49	0.000	21.49	5.60	25.8	12.0	114.8%	D02
D07	20.94	0.000	20.94	5.60	25.4	12.0	112.1%	D07
D01	22.45	0.000	22.45	5.60	26.3	26.0	1.3%	D01
D06	21.87	0.000	21.87	5.60	26.0	26.0	0.0%	D06


2/6/06

THE GENERAL STORE

Drawing Date:

2/ 2/06 11:54

Flow and Pressure Summary

JOB NAME: THE GENERAL STORE

Elev. ft.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pa psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S C A L C U L A T I O N S										Velocity fps
									Length	Fitting	Length	Total	Pf/ft	Diam	C	Flow			
10.00	102 >>	451.6 >>	56.55	0.67	0.00	55.88	104	10.00	87.87	2E	16.00	103.87	0.006	6.357	120	451.6	4.6		
10.00	104 >>	451.6 >>	55.88	4.74	0.00	51.14	105	10.00	105.00		0.00	105.00	0.045	4.260	120	451.6	10.3		
10.00	105 >>	451.6 >>	51.14	1.32	0.00	49.82	106	10.00	9.23	T	20.00	29.23	0.045	4.260	120	451.6	10.3		
10.00	106 >>	451.6 >>	49.82	0.54	0.00	49.27	107	10.00	12.00		0.00	12.00	0.045	4.260	120	451.6	10.3		
10.00	107 >>	348.4 >>	49.27	0.10	0.00	49.17	E1	10.00	3.59		0.00	3.59	0.028	4.260	120	348.4	7.9		
10.00	107 >>	103.2 >>	49.27	2.18	-0.22	47.32	246	10.50	0.50	T	10.00	10.50	0.207	2.067	120	103.2	10.0		
10.00	109 <<	293.0 <<	49.01	0.16	0.00	49.17	E1	10.00	7.91		0.00	7.91	0.020	4.260	120	293.0	6.7		
10.00	109 >>	146.3 >>	49.01	5.02	-0.22	44.21	242	10.50	2.63	2T	20.00	22.63	0.222	2.067	120	146.3	14.1		
10.00	109 >>	146.7 >>	49.01	0.05	0.00	48.96	110	10.00	8.75		0.00	8.75	0.006	4.260	120	146.7	3.3		
10.00	110 >>	146.7 >>	48.96	4.75	-0.22	44.43	240	10.50	2.63	2T	20.00	22.63	0.210	2.067	120	146.7	14.2		
10.50	140 <<	146.7 <<	42.01	2.42	0.00	44.43	240	10.50	3.75		0.00	3.75	0.645	1.610	120	146.7	23.3		
10.50	140 >>	113.1 >>	42.01	5.23	0.00	36.78	141	10.50	13.12		0.00	13.12	0.399	1.610	120	113.1	18.0		
10.50	140 >>	33.6 >>	42.01	5.46	0.00	36.55	D05	10.50	0.50	T	5.00	5.50	0.993	1.049	120	33.6	12.6		
10.50	141 >>	81.3 >>	36.78	5.50	0.00	31.28	142	10.50	12.00		0.00	12.00	0.458	1.380	120	81.3	17.6		
10.50	141 >>	31.9 >>	36.78	3.83	0.00	32.94	D04	10.50	0.50	T	5.00	5.50	0.697	1.049	120	31.9	11.9		
10.50	142 >>	52.1 >>	31.28	6.12	0.00	25.16	143	10.50	8.00		0.00	8.00	0.765	1.049	120	52.1	19.5		
10.50	142 >>	29.2 >>	31.28	3.74	0.00	27.54	D03	10.50	1.50	T	5.00	6.50	0.576	1.049	120	29.2	10.9		
10.50	143 >>	26.3 >>	25.16	2.71	0.00	22.45	D01	10.50	10.50	E	2.00	12.50	0.217	1.049	120	26.3	9.9		
10.50	143 >>	25.8 >>	25.16	3.66	0.00	21.49	D02	10.50	0.50	T	5.00	5.50	0.666	1.049	120	25.8	9.7		
10.50	144 >>	112.8 >>	41.80	5.20	0.00	36.60	145	10.50	13.12		0.00	13.12	0.397	1.610	120	112.8	18.0		
10.50	144 >>	33.4 >>	41.80	5.51	0.00	36.29	D10	10.50	0.75	T	5.00	5.75	0.959	1.049	120	33.4	12.5		
10.50	144 <<	146.3 <<	41.80	2.41	0.00	44.21	242	10.50	3.75		0.00	3.75	0.641	1.610	120	146.3	23.3		
10.50	145 >>	31.8 >>	36.60	3.89	0.00	32.71	D09	10.50	0.75	T	5.00	5.75	0.676	1.049	120	31.8	11.9		
10.50	145 >>	81.1 >>	36.60	4.56	0.00	32.04	146	10.50	10.00		0.00	10.00	0.456	1.380	120	81.1	17.6		
10.50	146 >>	29.6 >>	32.04	3.58	0.00	28.45	D08	10.50	0.75	T	5.00	5.75	0.623	1.049	120	29.6	11.1		
10.50	146 >>	51.4 >>	32.04	7.47	0.00	24.56	147	10.50	10.00		0.00	10.00	0.747	1.049	120	51.4	19.3		
10.50	147 >>	26.0 >>	24.56	2.70	0.00	21.87	D06	10.50	10.75	E	2.00	12.75	0.211	1.049	120	26.0	9.7		
10.50	147 >>	25.4 >>	24.56	3.62	0.00	20.94	D07	10.50	0.75	T	5.00	5.75	0.630	1.049	120	25.4	9.5		
10.50	148 >>	68.5 >>	42.94	1.89	0.00	41.05	149	10.50	12.00		0.00	12.00	0.158	1.610	120	68.5	10.9		
10.50	148 <<	103.2 <<	42.94	4.37	0.00	47.32	246	10.50	5.00	T	8.00	13.00	0.336	1.610	120	103.2	16.4		
10.50	148 >>	34.7 >>	42.94	3.85	0.00	39.09	D15	10.50	0.75	T	5.00	5.75	0.670	1.049	120	34.7	13.0		
10.50	149 >>	34.3 >>	41.05	2.82	0.00	38.23	D14	10.50	0.75	T	5.00	5.75	0.490	1.049	120	34.3	12.9		
10.50	149 >>	34.2 >>	41.05	1.22	0.00	39.84	150	10.50	13.17		0.00	13.17	0.092	1.380	120	34.2	7.4		
10.50	150 >>	34.2 >>	39.84	1.89	0.00	37.95	D13	10.50	0.37	T	5.00	5.37	0.351	1.049	120	34.2	12.8		
10.00	243 <<	55.4 <<	28.91	20.26	0.00	49.17	E1	10.00	18.17	T	5.00	23.17	0.875	1.049	120	55.4	20.8		
10.00	243 >>	27.6 >>	28.91	4.20	0.00	24.71	D12	10.00	0.75	T	5.00	5.75	0.731	1.049	120	27.6	10.3		
10.00	243 >>	27.8 >>	28.91	3.75	0.00	25.16	D11	10.00	13.67	E	2.00	15.67	0.240	1.049	120	27.8	10.4		

Calcs By: M. GOUMALATSOS Checked: _____
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2/6/06

Job
THE GENERAL STORE

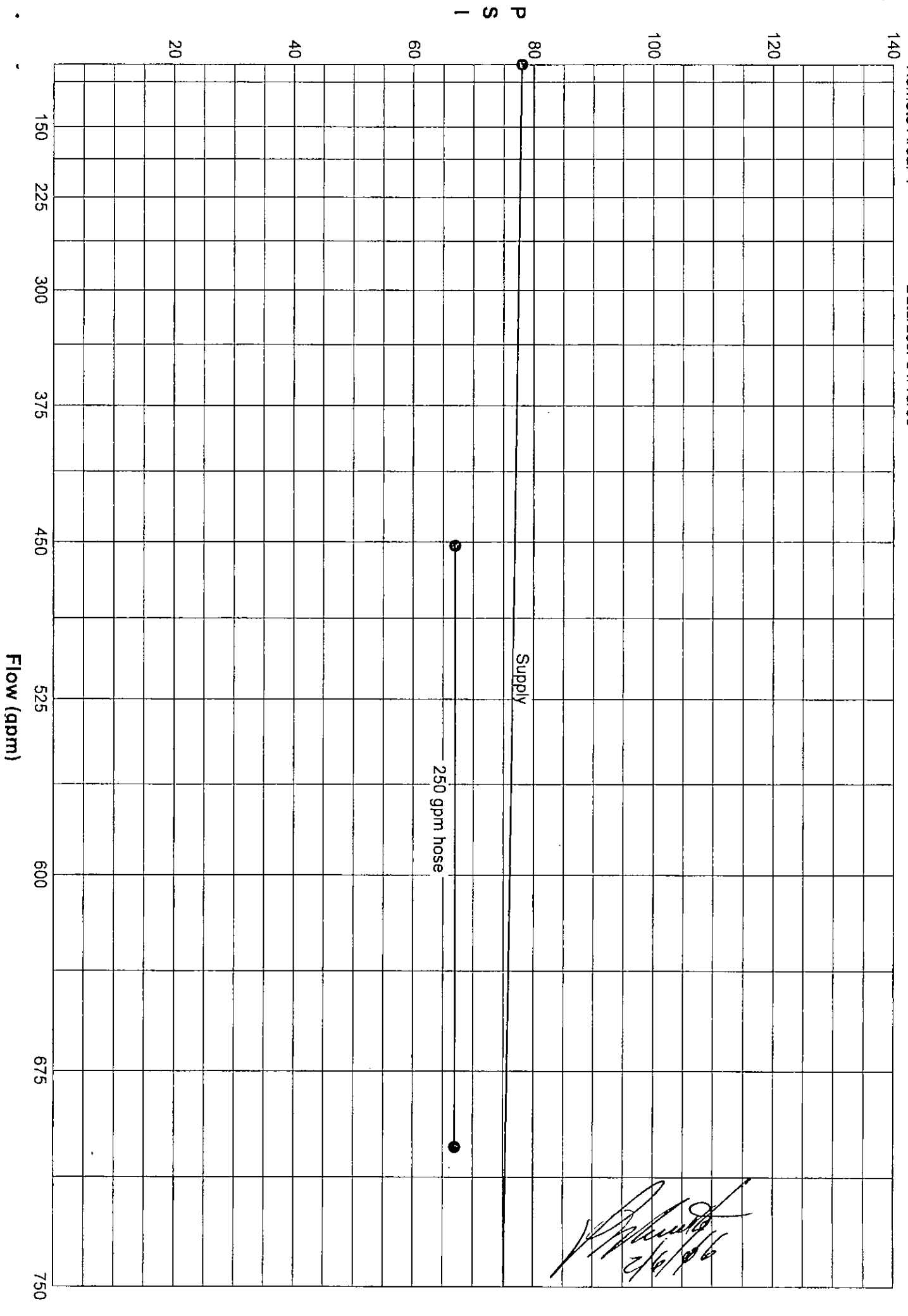
Water
Static Pressure: 78.0 psi
Residual Pressure: 70.0 psi
Flow: 1300 gpm
Date/Loc: 01/10/06

Required
Pressure: 67.0 psi
Total Flow: 702 gpm
Safety Pressure: 8.4 psi

Hose Allowance
Inside: 0 gpm
Outside: 250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 4



S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #3 STORAGE AREA

SUBMITTED By:
ALLIED FIRE & SAFETY

Design Specifications	Water Supply Information	System Demand
Density : 0.150	78.00 psi @ 0.00 gpm	38.13 psi
Design Area: 1500.00	70.00 psi @ 1300.00	@ 327.3
		+ 250.0 gpm Hose
Total Demand: 577.3 gpm @ 38.13 psi		
System safety factor: 38.1 psi		
Notes:		

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.



THE GENERAL STORE

Drawing Date:

2/ 2/06 11:55

HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION	LENGTH	C	ID	HYDRAULIC FLOW gpm	LOSS psi	TOTALS
Hydr Ref 102	Required at Hyd Area 3			327		28.6 psi
1 6" Grvd 90 Ell	14'	120	6.065	327	0.1	
1 Pipe 6" 10x21	10'	120	6.357	327	0.0	
	Elevation Change 10'0"				4.3	
2 6" Grvd 90 Ell	28'	120	6.065	327	0.1	
1 6" Grvd Shotgun Valve "90"	19'	120	6.065	327	0.1	
1 6" Flngd Gate Valve "722U"	3'	120	6.065	327	0.0	
1 6" Flngd Tee	30'	120	6.065	327	0.1	
1 6" Flngd Back Flow Valve FEBCO "805 CHART LOSS				327	4.1	
1 6" Flngd 90 Ell	14'	120	6.065	327	0.1	
Hydr Ref 101	Required at CONNECTION TO UNDERG			327		37.6 psi
2 6" MJ 90 Ell	28'	120	6.065	327	0.1	
1 Pipe 6" DIx18 Cl 350	150'	140	6.338	327	0.4	
	Fixed Flow Outside Hose Allow.			250 gpm		
Hydr Ref 098	Required at Source			577		38.1 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm				577 gpm		76.2 psi
SAFETY PRESSURE						38.1 psi



THE GENERAL STORE Drawing Date:

2/ 2/06 11:55

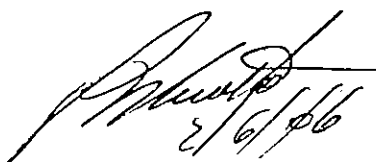
SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.150

Supplied flow and pressure is based on 38.13 psi available at supply
(76.22 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
C15	20.59	0.000	20.59	5.60	25.2	19.5	29.4%	C15
C13	17.90	0.000	17.90	5.60	23.5	19.5	20.7%	C13
C10	12.88	0.000	12.88	5.60	19.9	19.5	2.0%	C10
C07	13.23	0.000	13.23	5.60	20.3	19.5	4.0%	C07
C01	13.14	0.000	13.14	5.60	20.2	19.5	3.6%	C01
C04	14.79	0.000	14.79	5.60	21.4	19.5	9.9%	C04
C11	12.37	0.000	12.37	5.60	19.5	19.5	0.0%	C11
C08	12.70	0.000	12.70	5.60	19.9	19.5	1.9%	C08
C05	13.80	0.000	13.80	5.60	20.7	19.5	6.2%	C05
C02	12.75	0.000	12.75	5.60	19.9	19.5	2.1%	C02
C14	17.47	0.000	17.47	5.60	23.3	19.5	19.3%	C14
C12	16.90	0.000	16.90	5.60	22.8	19.5	16.9%	C12
C09	17.43	0.000	17.43	5.60	23.2	19.5	19.2%	C09
C06	18.93	0.000	18.93	5.60	24.2	19.5	24.1%	C06
C03	17.47	0.000	17.47	5.60	23.3	19.5	19.3%	C03


2/6/06

THE GENERAL STORE Drawing Date:
 Flow and Pressure Summary
 JOB NAME: THE GENERAL STORE

2/ 2/06 11:55

Lev.	Ref.	Flow	Pt	Pf	Pe	Pt	REF.	Elev.	F R I C T I O N L O S S C A L C U L A T I O N S							Velocity	
									Length	Fitting	Length	Total	Pf/ft	Diam	C		Flow
10.00	102 >>	327.3 >>	28.64	0.37	0.00	28.27	104	10.00	87.87	2E	16.00	103.87	0.004	6.357	120	327.3	3.3
10.00	104 >>	327.3 >>	28.27	2.61	0.00	25.66	105	10.00	105.00		0.00	105.00	0.025	4.260	120	327.3	7.4
10.00	105 >>	72.0 >>	25.66	0.04	0.00	25.61	106	10.00	9.23	T	20.00	29.23	0.002	4.260	120	72.0	1.6
10.00	105 >>	255.3 >>	25.66	0.36	0.00	25.30	111	10.00	2.75	T	20.00	22.75	0.016	4.260	120	255.3	5.8
10.00	106 >>	25.2 >>	25.61	0.00	0.00	25.61	107	10.00	12.00		0.00	12.00	0.000	4.260	120	25.2	0.6
10.00	106 >>	46.8 >>	25.61	0.69	-0.22	25.14	249	10.50	0.50	T	10.00	10.50	0.066	2.067	120	46.8	4.5
10.00	107 >>	25.2 >>	25.61	0.51	-0.22	25.32	246	10.50	0.50	T	10.00	10.50	0.049	2.067	120	25.2	2.4
10.00	111 >>	193.1 >>	25.30	0.09	0.00	25.21	112	10.00	10.00		0.00	10.00	0.009	4.260	120	193.1	4.4
10.00	111 >>	62.2 >>	25.30	2.20	0.00	23.10	252	10.00	7.00	T	8.00	15.00	0.147	1.610	120	62.2	9.9
10.00	112 >>	63.4 >>	25.21	0.91	-0.22	24.52	248	10.50	0.50	T	10.00	10.50	0.086	2.157	120	63.4	5.6
10.00	112 >>	129.7 >>	25.21	0.04	0.00	25.16	113	10.00	10.00		0.00	10.00	0.004	4.260	120	129.7	2.9
10.00	113 >>	63.4 >>	25.16	0.01	0.00	25.15	114	10.00	10.00		0.00	10.00	0.001	4.260	120	63.4	1.4
10.00	113 >>	66.3 >>	25.16	0.87	-0.22	24.51	244	10.50	0.50	T	10.00	10.50	0.082	2.157	120	66.3	5.9
10.00	114 >>	63.4 >>	25.15	3.21	0.22	21.73	120	10.50	11.49	E+T	12.00	23.49	0.136	1.610	120	63.4	10.1
10.50	120 >>	63.4 >>	21.73	0.76	0.00	20.97	241	10.50	5.56		0.00	5.56	0.136	1.610	120	63.4	10.1
10.50	121 >>	40.1 >>	19.70	4.72	0.00	14.98	122	10.50	10.00		0.00	10.00	0.472	1.049	120	40.1	15.0
10.50	121 >>	23.3 >>	19.70	2.23	0.00	17.47	C03	10.50	0.73	T	5.00	5.73	0.389	1.049	120	23.3	8.7
10.50	121 <<	63.4 <<	19.70	1.27	0.00	20.97	241	10.50	4.38		0.00	4.38	0.289	1.380	120	63.4	13.7
10.50	122 >>	19.9 >>	14.98	2.23	0.00	12.75	C02	10.50	0.73	T	5.00	5.73	0.390	1.049	120	19.9	7.5
10.50	122 >>	20.2 >>	14.98	1.85	0.00	13.14	C01	10.50	8.91	T	5.00	13.91	0.133	1.049	120	20.2	7.6
10.50	123 <<	66.3 <<	23.59	0.92	0.00	24.51	244	10.50	10.99	T	10.00	20.99	0.044	2.067	120	66.3	6.4
10.50	123 >>	66.3 >>	23.59	0.97	0.00	22.62	245	10.50	6.54		0.00	6.54	0.148	1.610	120	66.3	10.6
10.50	124 <<	66.3 <<	21.55	1.07	0.00	22.62	245	10.50	3.41		0.00	3.41	0.315	1.380	120	66.3	14.4
10.50	124 >>	42.1 >>	21.55	5.16	0.00	16.38	125	10.50	10.00		0.00	10.00	0.516	1.049	120	42.1	15.8
10.50	124 >>	24.2 >>	21.55	2.61	0.00	18.93	C06	10.50	1.73	T	5.00	6.73	0.388	1.049	120	24.2	9.1
10.50	125 >>	20.7 >>	16.38	2.58	0.00	13.80	C05	10.50	1.73	T	5.00	6.73	0.383	1.049	120	20.7	7.8
10.50	125 >>	21.4 >>	16.38	1.59	0.00	14.79	C04	10.50	8.73	E	2.00	10.73	0.148	1.049	120	21.4	8.0
10.50	127 >>	63.4 >>	21.38	1.72	0.00	19.66	128	10.50	5.94		0.00	5.94	0.289	1.380	120	63.4	13.7
10.50	127 <<	63.4 <<	21.38	3.14	0.00	24.52	248	10.50	15.00	T	8.00	23.00	0.137	1.610	120	63.4	10.1
10.50	128 >>	23.2 >>	19.66	2.23	0.00	17.43	C09	10.50	0.73	T	5.00	5.73	0.389	1.049	120	23.2	8.7
10.50	128 >>	40.2 >>	19.66	4.73	0.00	14.93	129	10.50	10.00		0.00	10.00	0.473	1.049	120	40.2	15.1
10.50	129 >>	20.3 >>	14.93	1.70	0.00	13.23	C07	10.50	10.73	E	2.00	12.73	0.134	1.049	120	20.3	7.6
10.50	129 >>	19.9 >>	14.93	2.23	0.00	12.70	C08	10.50	0.73	T	5.00	5.73	0.390	1.049	120	19.9	7.5
10.00	130 >>	39.4 >>	19.21	4.56	0.00	14.65	131	10.00	10.00		0.00	10.00	0.456	1.049	120	39.4	14.8
10.00	130 >>	22.8 >>	19.21	2.31	0.00	16.90	C12	10.00	1.73	T	5.00	6.73	0.344	1.049	120	22.8	8.5
10.00	130 <<	62.2 <<	19.21	3.89	0.00	23.10	252	10.00	13.94		0.00	13.94	0.279	1.380	120	62.2	13.5
10.00	131 >>	19.5 >>	14.65	2.28	0.00	12.37	C11	10.00	1.73	T	5.00	6.73	0.338	1.049	120	19.5	7.3
10.00	131 >>	19.9 >>	14.65	1.77	0.00	12.88	C10	10.00	11.73	E	2.00	13.73	0.129	1.049	120	19.9	7.5
10.50	132 <<	46.8 <<	20.49	1.22	0.00	21.71	251	10.50	1.94		0.00	1.94	0.627	1.049	120	46.8	17.5
10.50	132 >>	23.3 >>	20.49	3.02	0.00	17.47	C14	10.50	0.75	T	5.00	5.75	0.526	1.049	120	23.3	8.7
10.50	132 >>	23.5 >>	20.49	2.60	0.00	17.90	C13	10.50	12.75	E	2.00	14.75	0.176	1.049	120	23.5	8.8
10.50	133 <<	25.2 <<	24.33	0.32	0.00	24.65	247	10.50	6.00		0.00	6.00	0.053	1.380	120	25.2	5.5
10.50	133 >>	25.2 >>	24.33	3.74	0.00	20.59	C15	10.50	16.69	E	2.00	18.69	0.200	1.049	120	25.2	9.5
10.50	246 >>	25.2 >>	25.32	0.67	0.00	24.65	247	10.50	19.00	T	8.00	27.00	0.025	1.610	120	25.2	4.0
10.50	249 >>	46.8 >>	25.14	2.10	0.00	23.03	250	10.50	19.00	T	8.00	27.00	0.078	1.610	120	46.8	7.4
10.50	250 >>	46.8 >>	23.03	1.32	0.00	21.71	251	10.50	8.00		0.00	8.00	0.165	1.380	120	46.8	10.1

Calcs By: M. GOUMLATSOS Checked: _____
 SprinkCAD by CSC Systems and Design Inc.

Job
THE GENERAL STORE

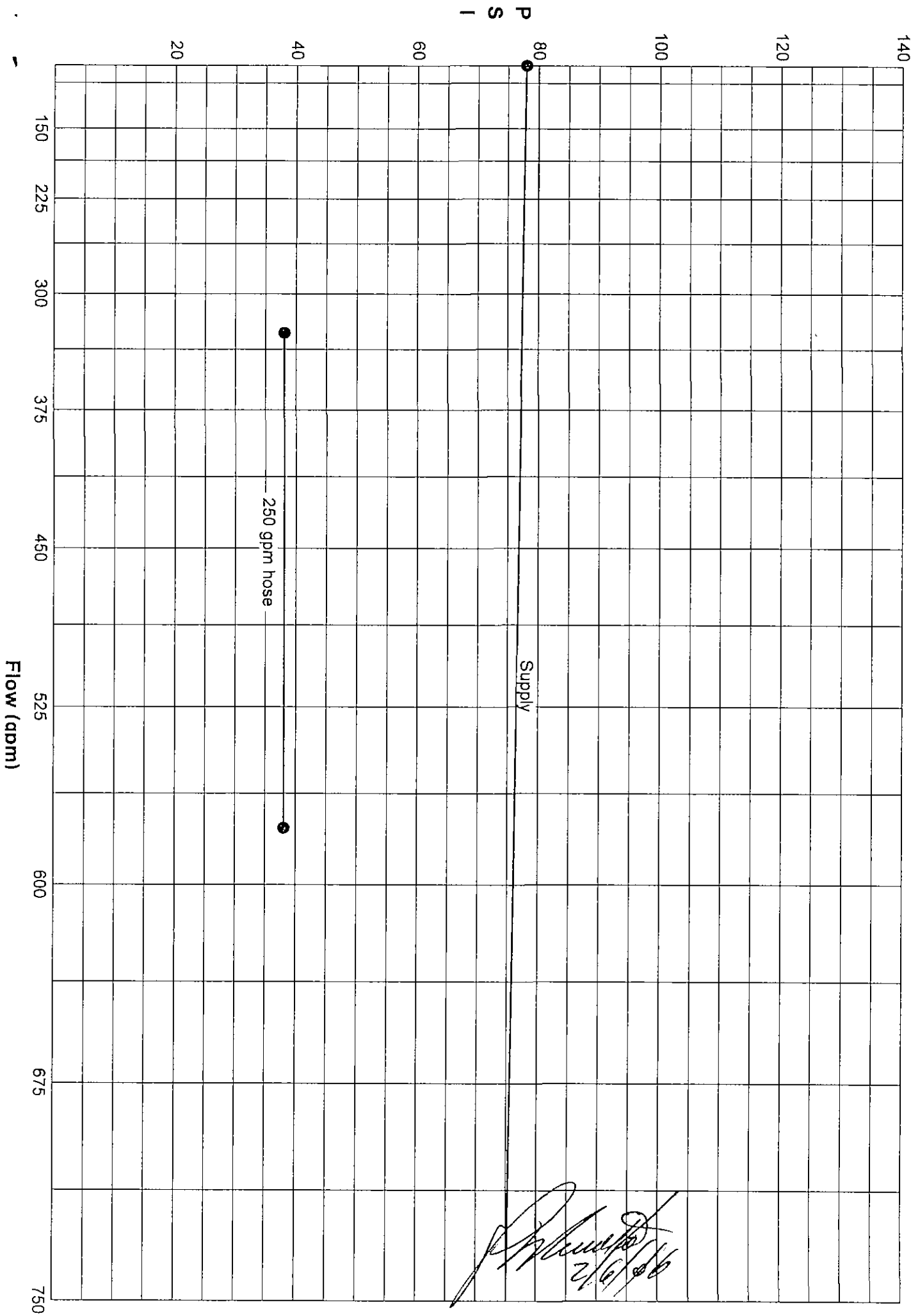
Water
Static Pressure: 78.0 psi
Residual Pressure: 70.0 psi
Flow: 1300 gpm
Date/Loc: 01/10/06

Required
Pressure: 38.1 psi
Total Flow: 577 gpm
Safety Pressure: 38.1 psi

Hose Allowance
Inside: 0 gpm
Outside: 250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 3



S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #2 ATTIC SYSTEM

SUBMITTED By:
ALLIED FIRE & SAFETY

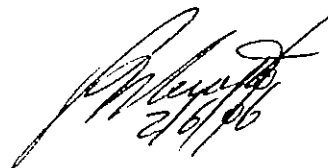
Design Specifications	Water Supply Information	System Demand
Density : 0.150	78.00 psi @ 0.00 gpm	66.68 psi
Design Area: 1950.00	70.00 psi @ 1300.00	@ 482.6
		+ 250.0 gpm Hose
Total Demand: 732.6 gpm @ 66.68 psi		
System safety factor: 8.5 psi		
Notes:		

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.



THE GENERAL STORE

Drawing Date:

2/ 2/06 13:44

HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION	HYDRAULIC		FLOW	LOSS	TOTALS
	LENGTH	C ID	gpm	psi	
Hydr Ref 200	Required at Hyd Area 2		483		55.1 psi
1 6" Grvd 90 Ell	14'	100 6.065	483	0.2	
1 Pipe 6" 10x21	10'	100 6.357	483	0.1	
	Elevation Change 10'0"			4.3	
2 6" Grvd 90 Ell	28'	100 6.065	483	0.4	
1 6" Grvd Dry Valve Tyco DV-1	CHART LOSS		483	0.8	
1 6" Flngd Gate Valve "722U"	3'	120 6.065	483	0.0	
1 6" Flngd Tee	30'	120 6.065	483	0.3	
1 6" Flngd Back Flow Valve FEBCO "805	CHART LOSS		483	4.2	
1 6" Flngd 90 Ell	14'	120 6.065	483	0.1	
Hydr Ref 100	Required at CONNECTION TO UNDERG		483		65.6 psi
2 6" MJ 90 Ell	28'	120 6.065	483	0.3	
1 Pipe 6" DIX18 Cl 350	150'	140 6.338	483	0.8	
	Fixed Flow Outside Hose Allow.		250 gpm		
Hydr Ref 098	Required at Source		733		66.7 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm			733 gpm		75.2 psi
SAFETY PRESSURE					8.5 psi

THE GENERAL STORE Drawing Date:

2/ 2/06 13:44

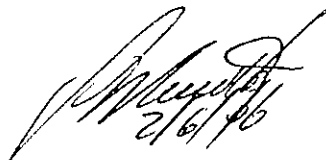
SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.150

Supplied flow and pressure is based on 66.68 psi available at supply
(75.23 is actually available)

Ref. Pt.	PRESSURE			K Factor	FLOW		Percent Excess	Ref. Pt.
	Pt	Pv	Pn		Actual	Minimum		
B05	11.39	0.000	11.39	5.60	18.9	18.9	0.0%	B05
B04	14.12	1.401	12.72	5.60	20.0	18.9	5.7%	B04
B03	21.17	1.263	19.90	5.60	25.0	18.9	32.2%	B03
B02	26.21	1.407	24.81	5.60	27.9	18.9	47.6%	B02
B01	31.69	2.488	29.20	5.60	30.3	18.9	60.1%	B01
B10	16.00	0.000	16.00	5.60	22.4	18.9	18.5%	B10
B09	19.45	1.948	17.51	5.60	23.4	18.9	24.0%	B09
B08	28.80	1.740	27.06	5.60	29.1	18.9	54.1%	B08
B07	35.37	1.926	33.45	5.60	32.4	18.9	71.4%	B07
223	43.12	3.401	39.72	5.60	35.3	18.9	86.7%	223
B15	15.92	0.000	15.92	5.60	22.3	18.9	18.2%	B15
B14	19.37	1.939	17.43	5.60	23.4	18.9	23.7%	B14
B13	28.69	1.732	26.96	5.60	29.1	18.9	53.8%	B13
B12	35.24	1.918	33.32	5.60	32.3	19.5	65.8%	B12
224	42.97	3.387	39.58	5.60	35.2	18.9	86.4%	224
B17	44.99	0.000	44.99	5.60	37.6	18.9	98.7%	B17
B16	47.00	0.954	46.04	5.60	38.0	18.9	101.1%	B16


2/6/06

THE GENERAL STORE Drawing Date:
 Flow and Pressure Summary
 JOB NAME: THE GENERAL STORE

2/ 2/06 13:44

lev. t.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pa psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S		C A L C U L A T I O N S						Velocity fps
									Length	Fitting	Length	Total	Pf/ft	Diam	C	Flow	
3.50	200 >>	482.6 >>	55.09	0.49	0.00	54.60	201	3.50	37.19	2E	11.42	48.61	0.010	6.357	100	482.6	4.9
3.50	201 >>	223.4 >>	54.60	2.47	0.43	51.70	230	4.50	105.40	2E+T	28.55	133.95	0.018	4.260	100	223.4	5.1
3.50	201 >>	259.2 >>	54.60	0.01	0.00	54.59	202	3.50	2.00		0.00	2.00	0.003	6.357	100	259.2	2.6
3.50	202 >>	259.2 >>	54.59	3.62	0.87	50.10	E1	5.50	138.56	3E	21.41	159.97	0.023	4.260	100	259.2	5.9
4.50	213 >>	259.2 >>	49.40	0.04	0.00	49.36	214	4.50	0.50		0.00	0.50	0.083	3.260	100	259.2	10.1
4.50	213 <<	259.2 <<	49.40	1.13	-0.43	50.10	E1	5.50	35.67	2E	14.27	49.94	0.023	4.260	100	259.2	5.9
4.50	214 >>	137.2 >>	49.36	0.17	0.00	49.20	222	4.50	6.49		0.00	6.49	0.026	3.260	100	137.2	5.3
4.50	214 >>	122.0 >>	49.36	16.68	1.00	31.69	B01	6.80	10.65	3E+T	14.27	24.93	0.669	1.610	100	122.0	19.4
4.50	222 >>	142.6 >>	49.20	6.45	-0.38	43.12	223	5.38	0.93	T	5.71	6.64	0.972	1.610	100	142.6	22.7
4.50	222 <<	5.5 <<	49.20	0.00	0.00	49.20	225	4.50	14.00		0.00	14.00	0.000	3.260	100	5.5	0.2
5.38	223 >>	107.3 >>	43.12	6.71	1.04	35.37	B07	7.79	7.53	T	5.71	13.23	0.507	1.610	100	107.3	17.1
5.35	224 >>	107.1 >>	42.97	6.68	1.04	35.24	B12	7.76	7.52	T	5.71	13.23	0.505	1.610	100	107.1	17.0
5.35	224 <<	142.4 <<	42.97	5.86	0.37	49.20	225	4.50	0.90	T	5.71	6.61	0.887	1.610	100	142.4	22.7
4.50	225 <<	147.8 <<	49.20	0.41	0.00	49.61	228	4.50	14.00		0.00	14.00	0.030	3.260	100	147.8	5.7
4.50	228 >>	75.6 >>	49.61	2.98	-0.37	47.00	B16	5.35	0.90	T	5.71	6.61	0.451	1.610	100	75.6	12.0
4.50	228 <<	223.4 <<	49.61	2.09	0.00	51.70	230	4.50	33.00		0.00	33.00	0.063	3.260	100	223.4	8.7
6.80	B01 >>	91.7 >>	31.69	4.65	0.82	26.21	B02	8.70	6.56	T	5.71	12.27	0.379	1.610	100	91.7	14.6
8.70	B02 >>	63.9 >>	26.21	3.87	1.18	21.17	B03	11.43	9.40		0.00	9.40	0.411	1.380	100	63.9	13.8
11.43	B03 >>	38.9 >>	21.17	5.87	1.18	14.12	B04	14.16	9.40		0.00	9.40	0.624	1.049	100	38.9	14.6
14.16	B04 >>	18.9 >>	14.12	1.55	1.18	11.39	B05	16.89	9.40		0.00	9.40	0.165	1.049	100	18.9	7.1
7.79	B07 >>	75.0 >>	35.37	5.25	1.32	28.80	B08	10.82	9.50		0.00	9.50	0.553	1.380	100	75.0	16.2
10.82	B08 >>	45.8 >>	28.80	8.03	1.32	19.45	B09	13.86	9.50		0.00	9.50	0.846	1.049	100	45.8	17.2
13.86	B09 >>	22.4 >>	19.45	2.14	1.32	16.00	B10	16.90	9.50		0.00	9.50	0.225	1.049	100	22.4	8.4
7.76	B12 >>	74.8 >>	35.24	5.23	1.32	28.69	B13	10.81	9.50		0.00	9.50	0.551	1.380	100	74.8	16.2
10.81	B13 >>	45.7 >>	28.69	8.00	1.32	19.37	B14	13.86	9.50		0.00	9.50	0.842	1.049	100	45.7	17.1
13.86	B14 >>	22.3 >>	19.37	2.13	1.32	15.92	B15	16.90	9.50		0.00	9.50	0.224	1.049	100	22.3	8.4
5.35	B16 >>	37.6 >>	47.00	0.96	1.04	44.99	B17	7.76	7.52	T	5.71	13.23	0.073	1.610	100	37.6	6.0

Calcs By: M. GOUMALATSOS Checked: _____
 SprinkCAD by CSC Systems and Design Inc.

[Signature]
 2/6/06

JOB
THE GENERAL STORE

Water

Static Pressure:

78.0 psi

Residual Pressure:

70.0 psi

Flow:

1300 gpm

Date/Loc: 01/10/06

Required

Pressure:

66.7 psi

Total Flow:

733 gpm

Safety Pressure:

8.5 psi

Hose Allowance

Inside:

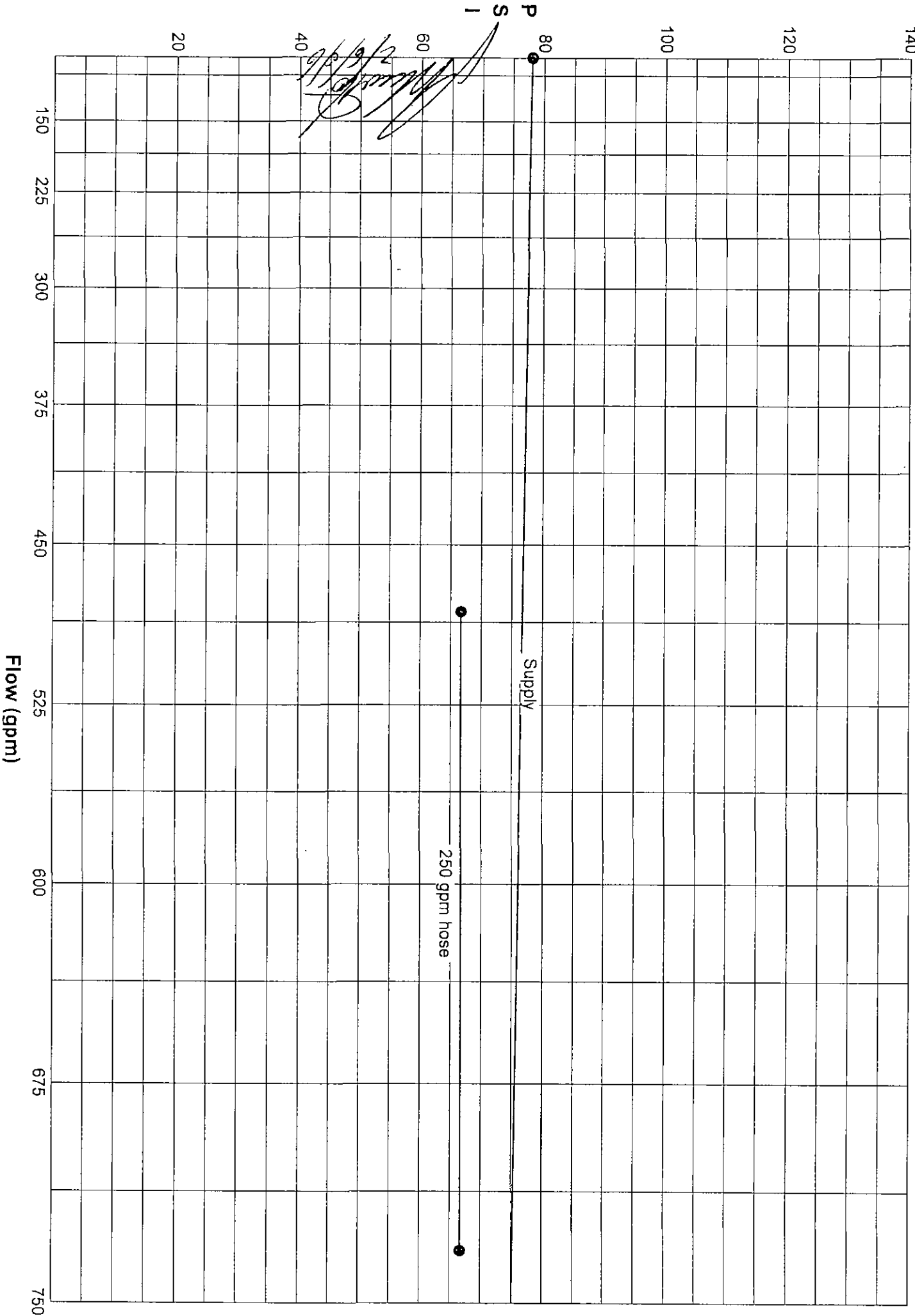
0 gpm

Outside:

250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 2



S U M M A R Y
O F
H Y D R A U L I C
C A L C U L A T I O N S
F O R

THE GENERAL STORE
REMOTE AREA #1 ATTIC SYSTEM

SUBMITTED By:
ALLIED FIRE & SAFETY

Design Specifications	Water Supply Information	System Demand
Density : 0.150	78.00 psi @ 0.00 gpm	64.75 psi
Design Area: 1950.00	70.00 psi @ 1300.00	@ 476.8
		+ 250.0 gpm Hose

Total Demand: 726.8 gpm @ 64.75 psi
System safety factor: 10.5 psi
Notes:

Listing of Fitting Abbreviations

Example: "E2TC" = one Std. Elbow, two Std. Tee, and one Check Va

Code:Description	Code:Description	Code:Description	Code:Description
A : Alarm Va	H :	O :	V :
B : Butt'fly Va	I :	P : Deluge Va.	W :
C : Check Va	J :	Q :	X :
D : DryPipeVa	K :	R :	Y :
E : Std. Elbow	L : LongTurnEl	S :	Z :
F : 45 Ell	M :	T : Std. Tee	
G : Gate Va	N :	U :	

Calcs By: M. GOUMALATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.



2/2/06

THE GENERAL STORE

Drawing Date:

2/ 2/06 13:45

HYDRAULIC CALCULATION DETAILS

QTY DESCRIPTION	LENGTH	C	HYDRAULIC ID	FLOW gpm	LOSS psi	TOTALS
Hydr Ref 200	Required at Hyd Area 1			477		53.2 psi
1 6" Grvd 90 Ell	14'	100	6.065	477	0.2	
1 Pipe 6" 10x21	10'	100	6.357	477	0.1	
	Elevation Change 10'0"				4.3	
2 6" Grvd 90 Ell	28'	100	6.065	477	0.4	
1 6" Grvd Dry Valve Tyco DV-1	CHART LOSS			477	0.8	
1 6" Flngd Gate Valve "722U"	3'	120	6.065	477	0.0	
1 6" Flngd Tee	30'	120	6.065	477	0.3	
1 6" Flngd Back Flow Valve FEBCO "805	CHART LOSS			477	4.2	
1 6" Flngd 90 Ell	14'	120	6.065	477	0.1	
Hydr Ref 100	Required at CONNECTION TO UNDERG			477		63.7 psi
2 6" MJ 90 Ell	28'	120	6.065	477	0.3	
1 Pipe 6" DIx18 Cl 350	150'	140	6.338	477	0.8	
	Fixed Flow Outside Hose Allow.			250 gpm		
Hydr Ref 098	Required at Source			727		64.8 psi
Water Source 78.0 psi static, 70.0 psi residual @ 1300 gpm				727 gpm		75.3 psi
SAFETY PRESSURE						10.5 psi

Handwritten signature and date 2/6/06

THE GENERAL STORE Drawing Date:

2/ 2/06 13:45

SUMMARY OF SPRINKLER AND HOSE FLOWS

JOB NAME: THE GENERAL STORE

Design Density: 0.150

Supplied flow and pressure is based on 64.75 psi available at supply
(75.27 is actually available)

Ref.	PRESSURE			K	FLOW		Percent	Ref.
Pt.	Pt	Pv	Pn	Factor	Actual	Minimum	Excess	Pt.
A05	14.46	0.000	14.46	5.60	21.3	19.5	9.2%	A05
A04	17.02	1.731	15.29	5.60	21.9	19.5	12.3%	A04
A03	26.50	1.568	24.93	5.60	28.0	19.5	43.4%	A03
A02	32.77	1.751	31.02	5.60	31.2	19.5	59.9%	A02
A01	31.28	0.000	31.28	5.60	31.3	19.5	60.6%	A01
A10	13.05	0.000	13.05	5.60	20.2	19.5	3.8%	A10
A09	15.38	1.563	13.82	5.60	20.8	19.5	6.8%	A09
A08	24.00	1.418	22.59	5.60	26.6	19.5	36.5%	A08
A07	29.72	1.585	28.13	5.60	29.7	19.5	52.3%	A07
A06	28.35	0.000	28.35	5.60	29.8	19.5	52.9%	A06
A15	12.13	0.000	12.13	5.60	19.5	19.5	0.0%	A15
A14	14.30	1.452	12.85	5.60	20.1	19.5	2.9%	A14
A13	22.35	1.319	21.04	5.60	25.7	19.5	31.7%	A13
A12	27.70	1.475	26.22	5.60	28.7	19.5	47.1%	A12
A11	26.42	0.000	26.42	5.60	28.8	19.5	47.6%	A11
A18	29.98	0.000	29.98	5.60	30.7	19.5	57.2%	A18
A16	31.30	0.636	30.66	5.60	31.0	19.5	59.0%	A16
A17	31.73	0.000	31.73	5.60	31.5	19.5	61.8%	A17


2/6/06

THE GENERAL STORE Drawing Date:
Flow and Pressure Summary
JOB NAME: THE GENERAL STORE

2/ 2/06 13:45

Elev. ft.	Ref. Point	Flow gpm	Pt psi	Pf psi	Pe psi	Pt psi	REF. POINT	Elev. ft.	F R I C T I O N L O S S C A L C U L A T I O N S										Velocity fps
									Length	Fitting	Length	Total	Pf/ft	Diam	C	Flow			
3.50	200 >>	476.8 >>	53.23	0.48	0.00	52.75	201	3.50	37.19	2E	11.42	48.61	0.010	6.357	100	476.8	4.9		
3.50	201 >>	177.0 >>	52.75	1.66	0.43	50.66	230	4.50	105.40	2E+T	28.55	133.95	0.012	4.260	100	177.0	4.0		
3.50	201 >>	299.7 >>	52.75	0.01	0.00	52.74	202	3.50	2.00		0.00	2.00	0.004	6.357	100	299.7	3.1		
3.50	202 >>	299.7 >>	52.74	5.17	0.87	46.71	203	5.50	138.56	3E+T	35.68	174.25	0.030	4.260	100	299.7	6.8		
5.50	203 >>	476.8 >>	46.71	2.55	0.29	43.87	204	6.17	29.26	E	7.14	36.40	0.070	4.260	100	476.8	10.8		
5.50	203 <<	177.0 <<	46.71	1.59	-0.43	47.86	213	4.50	35.67	2E+T	28.55	64.21	0.025	4.260	100	177.0	4.0		
6.17	204 >>	476.8 >>	43.87	2.13	0.00	41.74	205	6.17	8.29		0.00	8.29	0.257	3.260	100	476.8	18.5		
6.17	205 >>	93.2 >>	41.74	13.89	-4.76	32.61	209	17.17	11.00	T	7.14	18.14	0.766	2.067	100	93.2	9.0		
6.17	205 >>	383.6 >>	41.74	1.72	0.00	40.02	206	6.17	10.00		0.00	10.00	0.172	3.260	100	383.6	14.9		
6.17	206 >>	122.7 >>	40.02	14.05	-4.58	30.55	210	16.75	10.58	T	7.14	17.72	0.793	2.067	100	122.7	11.8		
6.17	206 >>	260.8 >>	40.02	0.84	0.00	39.17	207	6.17	10.00		0.00	10.00	0.084	3.260	100	260.8	10.1		
6.17	207 >>	127.2 >>	39.17	9.29	-2.89	32.77	211	12.83	6.67	T	7.14	13.80	0.673	2.067	100	127.2	12.3		
6.17	207 >>	133.7 >>	39.17	0.24	0.00	38.93	208	6.17	10.00		0.00	10.00	0.024	3.260	100	133.7	5.2		
6.17	208 >>	133.7 >>	38.93	3.61	-0.79	36.11	212	8.00	1.83	T	7.14	8.97	0.402	2.067	100	133.7	12.9		
17.17	209 >>	61.7 >>	32.61	1.31	0.00	31.30	A16	17.17	1.50	T	5.71	7.21	0.182	1.610	100	61.7	9.8		
17.17	209 >>	31.5 >>	32.61	0.88	0.00	31.73	A17	17.17	11.00	T	5.71	16.71	0.053	1.610	100	31.5	5.0		
16.75	210 >>	93.9 >>	30.55	2.85	0.00	27.70	A12	16.75	1.50	T	5.71	7.21	0.396	1.610	100	93.9	14.9		
16.75	210 >>	28.8 >>	30.55	4.14	0.00	26.42	A11	16.75	8.00	T	3.57	11.57	0.358	1.049	100	28.8	10.8		
12.83	211 >>	97.4 >>	32.77	3.05	0.00	29.72	A07	12.83	1.50	T	5.71	7.21	0.423	1.610	100	97.4	15.5		
12.83	211 >>	29.8 >>	32.77	4.42	0.00	28.35	A06	12.83	8.00	T	3.57	11.57	0.382	1.049	100	29.8	11.2		
8.00	212 >>	102.3 >>	36.11	3.35	0.00	32.77	A02	8.00	1.50	T	5.71	7.21	0.464	1.610	100	102.3	16.3		
8.00	212 >>	31.3 >>	36.11	4.84	0.00	31.28	A01	8.00	8.00	T	3.57	11.57	0.418	1.049	100	31.3	11.7		
4.50	213 <<	177.0 <<	47.86	0.02	0.00	47.88	214	4.50	0.50		0.00	0.50	0.041	3.260	100	177.0	6.9		
4.50	214 <<	177.0 <<	47.88	0.27	0.00	48.15	222	4.50	6.49		0.00	6.49	0.041	3.260	100	177.0	6.9		
4.50	222 <<	177.0 <<	48.15	0.58	0.00	48.72	225	4.50	14.00		0.00	14.00	0.041	3.260	100	177.0	6.9		
4.50	225 <<	177.0 <<	48.72	0.58	0.00	49.30	228	4.50	14.00		0.00	14.00	0.041	3.260	100	177.0	6.9		
4.50	228 <<	177.0 <<	49.30	1.36	0.00	50.66	230	4.50	33.00		0.00	33.00	0.041	3.260	100	177.0	6.9		
8.00	A02 >>	71.2 >>	32.77	6.27	0.00	26.50	A03	8.00	12.50		0.00	12.50	0.502	1.380	100	71.2	15.4		
8.00	A03 >>	43.2 >>	26.50	9.47	0.00	17.02	A04	8.00	12.50		0.00	12.50	0.758	1.049	100	43.2	16.2		
8.00	A04 >>	21.3 >>	17.02	2.56	0.00	14.46	A05	8.00	12.50		0.00	12.50	0.205	1.049	100	21.3	8.0		
12.83	A07 >>	67.7 >>	29.72	5.71	0.00	24.00	A08	12.83	12.50		0.00	12.50	0.457	1.380	100	67.7	14.7		
12.83	A08 >>	41.1 >>	24.00	8.62	0.00	15.38	A09	12.83	12.50		0.00	12.50	0.690	1.049	100	41.1	15.4		
12.83	A09 >>	20.2 >>	15.38	2.33	0.00	13.05	A10	12.83	12.50		0.00	12.50	0.186	1.049	100	20.2	7.6		
16.75	A12 >>	65.3 >>	27.70	5.34	0.00	22.35	A13	16.75	12.50		0.00	12.50	0.428	1.380	100	65.3	14.1		
16.75	A13 >>	39.6 >>	22.35	8.05	0.00	14.30	A14	16.75	12.50		0.00	12.50	0.644	1.049	100	39.6	14.8		
16.75	A14 >>	19.5 >>	14.30	2.17	0.00	12.13	A15	16.75	12.50		0.00	12.50	0.174	1.049	100	19.5	7.3		
17.17	A16 >>	30.7 >>	31.30	1.32	0.00	29.98	A18	17.17	12.50		0.00	12.50	0.106	1.380	100	30.7	6.6		

Calcs By: M. GOUMLATSOS Checked: _____
SprinkCAD by CSC Systems and Design Inc.

[Signature]
2/6/06

Job
THE GENERAL STORE

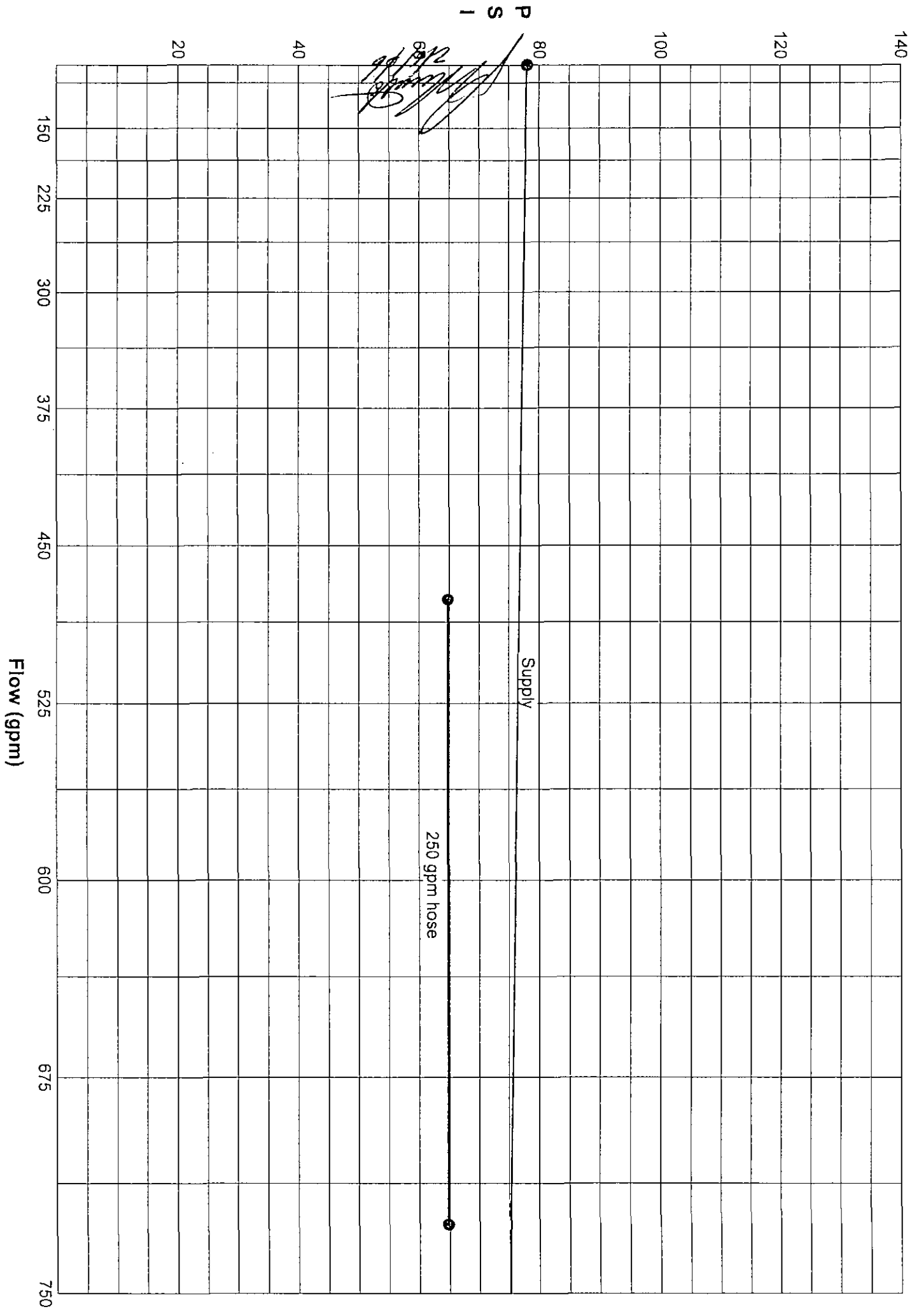
Water
Static Pressure: 78.0 psi
Residual Pressure: 70.0 psi
Flow: 1300 gpm
Date/Loc: 01/10/06

Required
Pressure: 64.8 psi
Total Flow: 727 gpm
Safety Pressure: 10.5 psi

Hose Allowance
Inside: 0 gpm
Outside: 250 gpm

Drawn By
SprinkCAD
Tyco Fire Products
(800)495-5541

Remote Area: 1





ALLIED

FIRE & SAFETY EQUIPMENT CO. INC.

817 GREEN GROVE RD ~ PO BOX 607 ~ NEPTUNE, NJ 07754-0607

TEL 732-922-3398 ~ FAX 732-918-8668

WWW.ALLIEDFIRESAFETY.COM

Work Order No: 634551

Date: 3/14/06 Phone: _____

Ship To:

BILL TO: THE GENERAL STORES

451 BRICK BLVD

BRICK, NJ

732 477-7179

Date Completed: 3/14/06

Salesman:

Terms: ☒ Charge (Net 30 DAYS) . ☐ C.O.D.

Purchase Order Number:

[illegible]

TOTAL PARTS

Received By

ALLIED FIRE & SAFETY EQUIPMENT CO., INC.

517 GREEN GROVE ROAD ♦♦ P.O. BOX 607 ♦♦ NEPTUNE, NJ 07754-0607

PHONE: (732) 922-3399 ♦♦ FAX: (732) 918-8668

DRY PIPE VALVE TEST REPORT

Customer: THE GENERAL STORES Bldg/Location: SAME
 Address: 451 BRICK BLVD BRICK NJ
 Contact: DON Phone: 732-477-7179

DRY PIPE VALVE #1

SIZE: 6" MAKE: RELIABLE MODEL: D YEAR: 91
 PRESSURE BEFORE TEST: AIR: 45 LBS WATER: 75 LBS
 IS CONTROL VALVE WIDE OPEN? (YES OR NO) NO IF NOT, HOW MANY TURNS? 5
 VALVE ACTIVATED AT: AIR PRESSURE: 20 LBS TIME (SEC): 36
 DID SYSTEM PASS OR FAIL? (YES OR NO) PASS WAS VALVE RESET DRY OR WET? DRY
 CONDITION OF VALVE: INTERIOR OF BODY: 6 WATER FROM TEST PIPE: 6 SEATS: 6
 (G = GOOD / F = FAIR / P = POOR) MOVING PARTS: 6 RUBBER FACING: 6
 DID ALARMS ACTIVATE? (YES OR NO) YES

QUICK OPENING DEVICES #1

SIZE: N/A MAKE: _____ MODEL: _____ YEAR: _____
 DID DEVICE ACTIVATE? (YES OR NO) _____

DRY PIPE VALVE #2

SIZE: _____ MAKE: _____ MODEL: _____ YEAR: _____
 PRESSURE BEFORE TEST: AIR: _____ LBS WATER: _____ LBS
 IS CONTROL VALVE WIDE OPEN? (YES OR NO) _____ IF NOT, HOW MANY TURNS? _____
 VALVE ACTIVATED AT: AIR PRESSURE: _____ LBS TIME (SEC): _____
 DID SYSTEM PASS OR FAIL? (YES OR NO) _____ WAS VALVE RESET DRY OR WET? _____
 CONDITION OF VALVE: INTERIOR OF BODY: _____ WATER FROM TEST PIPE: _____ SEATS: _____
 (G = GOOD / F = FAIR / P = POOR) MOVING PARTS: _____ RUBBER FACING: _____
 DID ALARMS ACTIVATE? (YES OR NO) _____

QUICK OPENING DEVICES #2

QUICK OPENING DEVICES #2

SIZE: _____ MAKE: _____

MODEL: _____

YEAR: _____

DID DEVICE ACTIVATE? (YES OR NO) _____

WWW.ALLIEDFIRESAFETY.COM

[illegible]

DRY PIPE VALVE #3

SIZE: _____ MAKE: _____ MODEL: _____ YEAR: _____

PRESSURE BEFORE TEST: _____ AIR: _____ LBS WATER: _____ LBS

IS CONTROL VALVE WIDE OPEN? (YES OR NO) _____ IF NOT, HOW MANY TURNS? _____

VALVE ACTIVATED AT: _____ AIR PRESSURE: _____ LBS TIME (SEC): _____

DID SYSTEM PASS OR FAIL? (YES OR NO) _____ WAS VALVE RESET DRY OR WET? _____

CONDITION OF VALVE: _____ INTERIOR OF BODY: _____ WATER FROM TEST PIPE: _____ SEATS: _____
(G - GOOD / F - FAIR / P - POOR)

MOVING PARTS: _____ RUBBER FACING: _____

DID ALARMS ACTIVATE? (YES OR NO) _____

QUICK OPENING DEVICES #3

SIZE: _____ MAKE: _____ MODEL: _____ YEAR: _____

DID DEVICE ACTIVATE? (YES OR NO) _____

EXPLANATION OF ANY "NO" ANSWERS**ADJUSTMENTS OR CORRECTIONS MADE****DESIRABLE IMPROVEMENTS**

On this date, the above system was tested and inspected in accordance with procedures of the most recent adopted editions of NFPA 13, 13D, 13R, 25 and the State of New Jersey Uniform Fire Code and was operated according to these procedures with the results indicated above. Any comments or unsatisfactory marks have been explained to the customer / customer's agent below.

ME / KB	3/14/06	<i>[Signature]</i>		
SERVICE TECHNICIAN	DATE	TIME	CUSTOMER SIGNATURE	TITLE

A COPY WILL BE FORWARDED TO THE AUTHORITY HAVING JURISDICTION (I.E. FIRE MARSHAL)

ONE CALL DOES IT ALL AT ALLIED FIRE & SAFETY

DESIGN, INSTALLATION, & SERVICE OF
 FIRE SPRINKLER SYSTEMS ♦♦ SUPPRESSION SYSTEMS ♦♦ ALARM SYSTEMS
 FIRE EXTINGUISHERS ♦♦ MONITORING ♦♦ FIRE SAFETY TRAINING

CONTROL VALVES	NO.	TYPE	OPEN		SECURED		CLOSED		SIGNS		CONDITION
			Yes	No	Yes	No	Yes	No	Yes	No	
Sectional Control Valve(s)											
System Control Valve(s)	1	658Y	X		X			X	X		Good

WATER FLOW TEST

Water Pressure? ☒ YES / NO City: 55 psi Tank: N/A psi Fire Pump: N/A psi
 Water Flow Test? ☒ YES / NO (If no explain why not) _____

TEST PIPE LOCATION	TEST PIPE SIZE	PRESSURE BEFORE	FLOW PRESSURE	PRESSURE AFTER
Riser RM Outside LEFT FRONT	2"	75	55	70
Dry	2"	75	55	70

INSPECTORS TEST LOCATION	LOW POINT DRAIN LOCATION
DRY - UPSTAIR ATTIC PEAR DEADE	DAM DRIP RIGHT FRONT BLDG
WET - LEFT BOARD STAKE RM	

EXPLANATION OF ANY "NO" ANSWERS**RECENT CHANGES IN BUILDING OCCUPANCY OR FIRE PROTECTION EQUIPMENT****ADJUSTMENTS OR CORRECTIONS MADE****DESIRABLE IMPROVEMENTS**

On this date, the above system was tested and inspected in accordance with procedures of the most recent adopted editions of NFPA 13, 13D, 13R, 25 and the State of New Jersey Uniform Fire Code and was operated according to these procedures with the results indicated above. Any comments or unsatisfactory marks have been explained to the customer / customer's agent below.

MEF/KB	3/14/06	X <i>[Signature]</i>		
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DESIGN, INSTALLATION, & SERVICE OF
 FIRE SPRINKLER SYSTEMS ♦♦ SUPPRESSION SYSTEMS ♦♦ ALARM SYSTEMS
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ALLIED

FIRE & SAFETY EQUIPMENT CO., INC.

517 GREEN GROVE RD ~ PO BOX 607 ~ NEPTUNE, NJ 07754-0607
TEL 732-922-3399 ~ WWW.ALLIEDFIRESAFETY.COM ~ FAX 732-918-8668

March 8, 2006

Mr. Kevin Batsel
BRICK BUILDING DEPARTMENT
401 Chambersbridge Road
Brcik, NJ 08723

RE: THE GENERAL STORE - BRICK, NJ
ALLIED'S No. 4333-LT1
PERMIT #06-0430

Dear Mr. Batsel:

Allied Fire and Safety has satisfactorily completed the work on the Fire Sprinkler System as identified on the released permit plans. Allied Fire and Safety shall certify that, to the best of our knowledge and belief, such has been done in accordance with code and the approved plans.

If you have any questions or require additional information, please feel free to contact us.

Sincerely,

Marios Goumalatsos
Project Manager
Allied Fire & Safety
NJ License #P00166

2-12-10 @ 9:30

2 outside

2 wet / to dry @ entrance floor

1 candle stage

1 cash register 5/10/10

1 window handle

1 relocate front window 3/10/10

2 props after stage

1 lace 5/10/10 (relocate)

1 heat 5/10/10 stage

1 heat 5/10/10 10/10/10

1 need front 5/10/10

1 11 due 12/10/10

1 12/10/10

3-8-10 DRY TEST weather was taken for previous
200 PSI @ 8:00
1032 RPS 200 checked 5/10/10 ok @ 220
* 12/10/10 report



ALLIED

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TEL 732-922-3399 ~ WWW.ALLIEDFIRESAFETY.COM ~ FAX 732-918-8668

RECEIVED
MARCH 14, 2006
BRICK BUILDING DEPARTMENT
401 CHAMBERSBRIDGE ROAD
BRICK, NJ 08723