

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND PERMIT ISSUED

BUILDING INSPECTION

PERMIT

Permit Number: 091334
DEC 1 2009

Please Read Application And Notes, If Any, Attached

This is to certify that CENTRO HERITAGE SPE 4 LLC / Eastern Fire Protection Co., Inc.
has permission to Install Fire Suppression System City of Portland
AT 1056 BRIGHTON AVE CB# 263A A007001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise covered-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. CAPT. R. Lathau
Health Dept. _____
Appeal Board _____
Other _____
Department Name

Jeane Bowke 12/1/09
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-1334	Issue Date:	CBL: 263A A007001
-----------------------	-------------	----------------------

Location of Construction: 1056 BRIGHTON AVE	Owner Name: CENTRO HERITAGE SPE 4 LLC	Owner Address: 131 DARTMOUTH ST	Phone:
Business Name:	Contractor Name: Eastern Fire Protection Co., Inc.	Contractor Address: 170 Kittyhawk Ave., PO Box0139 Au	Phone 2077841507
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: B-2

Past Use: Commercial - "Cakes Extraordinaire"	Proposed Use: Commercial - "Cakes Extraordinaire" - Install Fire Suppression System	Permit Fee: \$60.00	Cost of Work: \$3,450.00	CEO District: 3
Use under #09-1077		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied * See Conditions		INSPECTION: Use Group: M Type: Sprinkler IBC-2003 Signature: JMB 12/1/09
Proposed Project Description: Install Fire Suppression System		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____		

Permit Taken By: Ldobson	Date Applied For: 11/20/2009	Zoning Approval		
1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..		Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: 11/23/09	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

PERMIT ISSUED

SIGNATURE OF APPLICANT	ADDRESS	DEC DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	City of Portland	DATE	PHONE

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-1334	Date Applied For: 11/20/2009	CBL: 263A A007001
------------------------------	--	-----------------------------

Location of Construction: 1056 BRIGHTON AVE	Owner Name: CENTRO HERITAGE SPE 4 LLC	Owner Address: 131 DARTMOUTH ST	Phone:
Business Name:	Contractor Name: Eastern Fire Protection Co., Inc.	Contractor Address: 170 Kittyhawk Ave., PO Box0139 Au	Phone (207) 784-1507
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

Proposed Use: Commercial - "Cakes Extraordinaire" - Install Fire Suppression System	Proposed Project Description: Install Fire Suppression System
---	---

Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 11/23/2009	Note:	Ok to Issue: <input checked="" type="checkbox"/>
Dept: Building	Status: Approved with Conditions	Reviewer: Jeanine Bourke	Approval Date: 12/01/2009	Note: 1) Sprinkler systems to be designed and installed per IBC 2003 standards Sec. 903.3.1	Ok to Issue: <input checked="" type="checkbox"/>
Dept: Fire	Status: Approved with Conditions	Reviewer: Capt Keith Gautreau	Approval Date: 11/24/2009	Note: 1) The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance. Compliance letters are required. 2) The sprinkler system shall be installed in accordance with NFPA 13. 3) Application requires State Fire Marshal approval. 4) Fire department connection type and location shall be approved in writing by fire prevention bureau. 5) System acceptance and commissioning must be co-ordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.	Ok to Issue: <input checked="" type="checkbox"/>

PERMIT ISSUED

DEC 1 2009

City of Portland



Fire Suppression System Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: Pine Tree Shopping CTR CBL: _____

Exact location: (within structure) Unit 203

Type of occupancy(s) (NFPA & ICC): Confectionary Products

Building owner: _____

Managing Supervisor: Steve Leeman License No: _____

Supervisor phone: 874-2253 E-mail: _____

Installing contractor: Eastern Fire Protection License No: 101

Contractor phone: 784-1507 E-mail: stpierre.d@teameastern.com

The suppression work to be done will be: New: Renovation: Addition to existing system:

This is an amendment to an existing permit: Yes: NO Permit no: _____

NFPA Standard will this system is designed to: 13 Edition: 2007

*Non-NFPA systems are not approved for use within the City of Portland.

Download a new copy of this document from Inspection Division on-line at www.portlandmaine.gov for every submittal. Attach all design information and complete approved submittals as may be required by the State Fire Marshal's Office on 11X17 copies or electronic PDF's in **addition** to full sized plans.

Contractor shall verify location and type of all FDCs shall be approved in writing by the Fire Prevention Bureau.

Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

Prior to acceptance of any fire protection system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

All installation(s) must comply with NFPA and the Fire Department Technical Standard(s).

State Permit not required.

COST OF WORK: <u>3,450.00</u>
PERMIT FEE: <u>\$60.00</u>
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

Applicant signature: [Signature] Date: 11-19-09

RECEIVED

FEB 24 2010

Dept. of Building Inspections
City of Portland Maine

To: Jon Rioux

I hope this helps
me know.

Let

Thanks

Herve Heenan
Cakes Extraordinaire
824-2253
289-4190

CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

PROCEDURE

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

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

PROPERTY NAME: Pine Tree Retail Center Unit 203 DATE: 12-3-09

PROPERTY ADDRESS: Brighton Avenue, Portland Maine

ACCEPTED BY APPROVING AUTHORITY(IES) NAMES: Portland Code Enforcement

ADDRESS: 389 Congress St. Room 315, Portland, Maine 04101

PLANS

INSTALLATION CONFORMS TO ACCEPTED PLANS YES NO

EQUIPMENT USED IS APPROVED YES NO

IF NO, EXPLAIN DEVIATIONS

HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTALLED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT? YES NO

INSTRUCTIONS

HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS AND NFPA 13A BEEN LEFT ON PREMISES? YES NO

IF NO, EXPLAIN

RECEIVED
FEB 24 2010
Dept. of Building Inspections
City of Portland Maine

LOCATION OF SYSTEM: SUPPLIES BLOGS. Unit 203 Only

SPRINKLERS	MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
	TYCO	TY-FRB	2009	1/2	9	155
	TYCO	TY-FRB	2009	1/2	2	200
	TYCO	TY-FRB	2009	1/2	2	286

PIPE CONFORMS TO NFPA 13 STANDARD YES NO

FITTINGS CONFORM TO NFPA 13 STANDARD YES NO

IF NO, EXPLAIN

ALARM VALVE OR FLOW INDICATOR	ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST PIPE	
	TYPE	MAKE	MODEL	MIN.	SEC.
	<u>Flowswitch</u>	<u>Butter</u>	<u>USR-4</u>		<u>17</u>

DRY PIPE OPERATING TEST	DRY VALVE			O.O.D.				
	MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.		
	TIME TO TRIP THRU TEST PIPE	WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET		ALARM OPERATED PROPERLY	
					MIN.	SEC.	YES	NO
Without O.O.D.								
With O.O.D.								

IF NO, EXPLAIN

DELUGE & PREACTION VALVES	OPERATION <input type="checkbox"/> PNEUMATIC <input type="checkbox"/> ELECTRIC <input checked="" type="checkbox"/> HYDRAULIC											
	PIPING SUPERVISED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			DETECTING MEDIA SUPERVISED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
	DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO											
	IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO											
	MAKE		MODEL		DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM		DOES EACH CIRCUIT OPERATE VALVE RELEASE		MAXIMUM TIME TO OPERATE RELEASE			
				YES NO		YES NO		MIN. SEC.				
TEST DESCRIPTION	HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.8 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped. FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 400 GPM (1514 L/min) for 4-inch pipe, 600 GPM (2271 L/min) for 5-inch pipe, 750 GPM (2839 L/min) for 6-inch pipe, 1000 GPM (3786 L/min) for 8-inch pipe, 1500 GPM (5678 L/min) for 10-inch pipe and 2000 GPM (7570 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available. PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and measure drop which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours.											
	TESTS ALL PIPING HYDROSTATICALLY TESTED AT <u>200</u> PSI FOR <u>2</u> HRS. IF NO, STATE REASON DRY PIPING PNEUMATICALLY TESTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO EQUIPMENT OPERATES PROPERLY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">DRAIN TEST</td> <td style="width:50%;">READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: <u>20</u> PSI</td> <td style="width:40%;">RESIDUAL PRESSURE WITH VALVE IN TEST PIPE OPEN WIDE <u>55</u> PSI</td> </tr> </table> UNDERGROUND MAINS AND LEAD IN CONNECTIONS TO SYSTEM RISERS FLUSHED BEFORE CONNECTION MADE TO SPRINKLER PIPING. VERIFIED BY COPY OF THE U FORM NO. 85B <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO OTHER <u>Underground existing.</u> FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO										DRAIN TEST	READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: <u>20</u> PSI
DRAIN TEST	READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: <u>20</u> PSI	RESIDUAL PRESSURE WITH VALVE IN TEST PIPE OPEN WIDE <u>55</u> PSI										
BLANK TESTING GASKETS	NUMBER USED		LOCATIONS					NUMBER REMOVED				
	<u>0</u>											
WELDING	WELDED PIPING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO											
	IF YES . . .											
	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3								<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
	DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3								<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
HYDRAULIC DATA NAMEPLATE	NAMEPLATE PROVIDED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				IF NO, EXPLAIN							
	RECEIVED											
REMARKS	DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN <u>12-28-09</u>											
	FEB 24 2010											
SIGNATURES	NAME OF SPRINKLER CONTRACTOR <u>Eastern Fire Protection</u>											
	FOR PROPERTY OWNER (SIGNED)					TESTS WITNESSED BY						
	<u>Carl Watt</u>					Dept. of Building Inspections City of Portland, Maine <u>Eller</u> TITLE DATE _____ <u>12-28-09</u>						

ADDITIONAL EXPLANATION AND NOTES



EASTERN FIRE PROTECTION

P.O. Box 1390
Kittyhawk Ave.
Auburn, ME 04210

PH # (207) 784-1507
FAX # (207) 782-0566

LETTER OF TRANSMITTAL

DATE	11-19-09	JOB NO.	A 4487-09
ATTENTION	Lannie Dobson		
RE:	Cakes Extraordinaire		

TO City of Portland, Building Inspections
389 Congress Street, Room 315
Portland, Maine 04101

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Descriptive data Hydraulic calculations
 Copy of letter Literature Permit App & check

QUANTITY	DRAWING NO.	DATE	DESCRIPTION	STATUS
1	1 of 1	9-22-06	shop Drawing	C/E
1			Hydraulic Calculation	C/E
1			Permit App	E
1			\$60.00 check	E

Status code A. Approved D. Corrected & resubmitted
 B. Approved as noted E. For your files
 C. Submitted for approval F. Refer to remarks

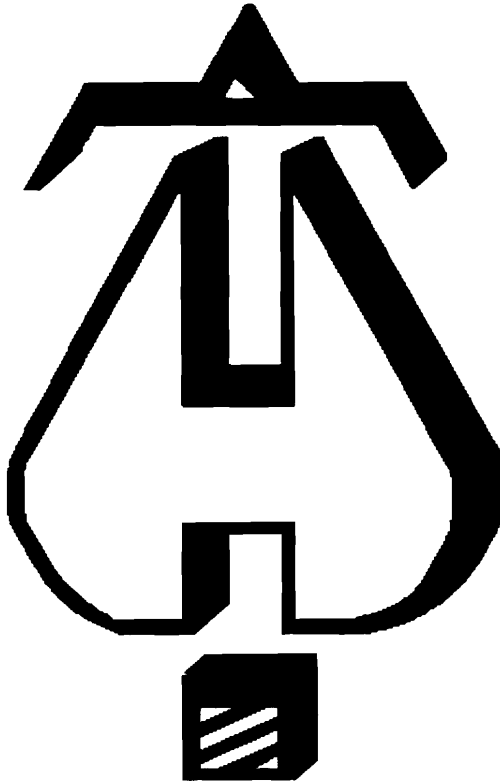
Please return with notification ~~copies each~~ indicating your approval and/or comments.

REMARKS _____

COPY TO FIL

SIGNED Daniel R. St. Pierre
[Signature]

If enclosures are not as noted, kindly notify us at once



... **Fire Protection by Computer Design**

EASTERN FIRE PROTECTION
P.O. BOX 1390
170 KITTYHAWK AVENUE
AUBURN, MAINE 4210
207-784-1507

Job Name : CAKES EXTRAORDINAIRE CALCULATION
Drawing : 1 OF 1
Location : PINE TREE SHOPPING, BRIGHTON AVENUE, PORTLAND, MAINE
Remote Area :
Contract : AN-4487-09
Data File : 4487CAKESXTRAORDINAIRE.WXF

HYDRAULIC CALCULATIONS
for

Project name: CAKES EXTRAORDINAIRE CALCULATION
Location: PINE TREE SHOPPING, BRIGHTON AVENUE, PORTLAND, MAINE
Drawing no: 1 OF 1
Date: 11/17/09

Design

Remote area number:
Remote area location: FRONT OF STORE
Occupancy classification: ORDINARY HAZARD GROUP II
Density: .2 - Gpm/SqFt
Area of application: 1089 - SqFt
Coverage per sprinkler: 130 - SqFt
Type of sprinklers calculated: TYCO, TY-FRB, TY-3131, UPRIGHT, 5.6K, 155 DE
No. of sprinklers calculated: 9
In-rack demand: - GPM
Hose streams: 250 - GPM
Total water required (including hose streams): 497.9 - GPM @ 72.9 - Psi
Type of system: WET TREE
Volume of dry or preaction system: - Gal

Water supply information

Date: 5/21/04
Location: AT BRIGHTON AVENUE & CHABOT
Source: PORTLAND WATER DISTRICT

Name of contractor: EASTERN FIRE PROTECTION
Address: P.O. BOX 1390 / 170 KITTYHAWK AVENUE / AUBURN, MAINE 4210
Phone number: 207-784-1507
Name of designer: DRS
Authority having jurisdiction: PORTLAND FIRE DEPARTMENT
Notes: (Include peaking information or gridded systems here.) AREA REDUCED PER NFPA 13 SECTION 11.2.3.2.3.1.

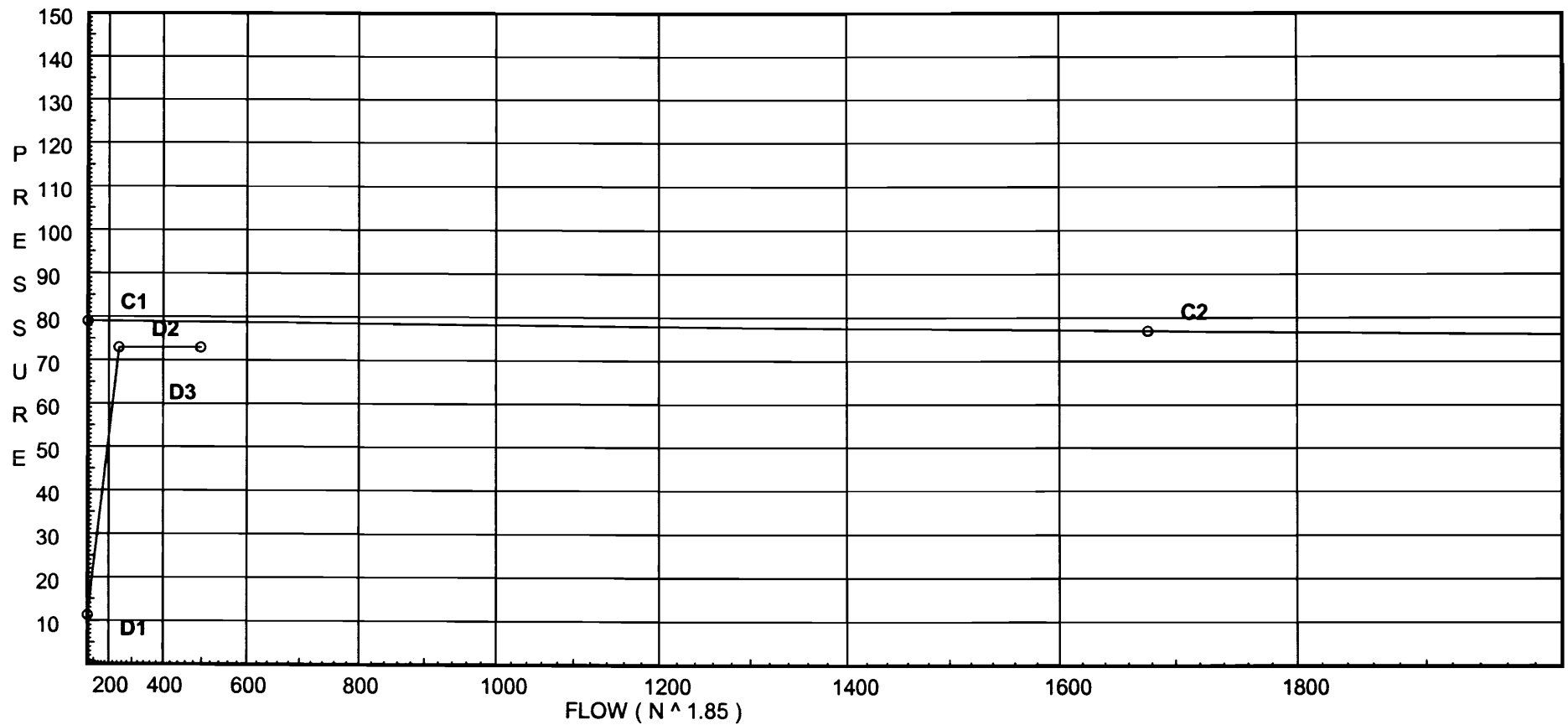
Water Supply Curve (C)

EASTERN FIRE PROTECTION
 CAKES EXTRAORDINAIRE CALCULATION

Page 2
 Date

City Water Supply:
 C1 - Static Pressure : 79
 C2 - Residual Pressure: 77
 C2 - Residual Flow : 1677

Demand:
 D1 - Elevation : 11.295
 D2 - System Flow : 247.947
 D2 - System Pressure : 72.916
 Hose (Adj City) :
 Hose (Demand) : 250
 D3 - System Demand : 497.947
 Safety Margin : 5.873



Fittings Used Summary

EASTERN FIRE PROTECTION
 CAKES EXTRAORDINAIRE CALCULATION

Page 3
 Date

Fitting Legend

Abbrev.	Name	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
B	Generic Butterfly Valve	0	0	0	0	0	0	7	10	0	12	9	10	12	19	21	0	0	0	0	0
E	90' Standard Elbow	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
Fsp	Flow Switch Potter VSR	Fitting generates a Fixed Loss Based on Flow																			
G	Generic Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
L	Long Turn Elbow	1	1	2	2	2	3	4	5	5	6	8	9	13	16	18	24	27	30	34	40
T	90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121
Zcb	Colt C200 Vert Butt	Fitting generates a Fixed Loss Based on Flow																			

Units Summary

Diameter Units Inches
 Length Units Feet
 Flow Units US Gallons per Minute
 Pressure Units Pounds per Square Inch

SUPPLY ANALYSIS

<i>Node at Source</i>	<i>Static Pressure</i>	<i>Residual Pressure</i>	<i>Flow</i>	<i>Available Pressure</i>	<i>Total Demand</i>	<i>Required Pressure</i>
TEST	79.0	77	1677.0	78.788	497.95	72.916

NODE ANALYSIS

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
1	101.08	5.6	21.56	26.0	
2	101.08	5.6	23.44	27.11	
3	101.08	5.6	24.58	27.76	
AA	101.08		26.19		
A	99.67		30.05		
4	101.08	5.6	22.09	26.32	
5	101.08	5.6	24.02	27.44	
6	101.08	5.6	25.18	28.1	
BB	101.08		26.82		
B	99.67		30.76		
7	101.08	5.6	23.94	27.4	
8	101.08	5.6	26.02	28.57	
9	101.08	5.6	27.27	29.24	
CC	101.08		29.04		
C	99.67		33.24		
D	99.67		41.86		
DD	97.0		49.16		
E	97.0		49.37		
F	97.0		53.05		
TOR	97.0		53.92		
BFP	90.0		60.06		
BASE	87.0		66.07		
MAIN	80.0		69.58	250.0	
TEST	75.0		72.92		

EASTERN FIRE PROTECTION
 CAKES EXTRAORDINAIRE CALCULATION

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
1 to 2	101.080 101.080	5.60	26.00 26.0	1 1.049		0.0 0.0	8.920 0.0	120 0.2114	21.556 0.0 1.886			Vel = 9.65
2 to AA	101.080 101.080	5.60	27.11 53.11	1.25 1.38	1T	6.0 0.0	7.170 6.000 13.170	120 0.2085	23.442 0.0 2.746			Vel = 11.39
AA			0.0 53.11						26.188			K Factor = 10.38
3 to AA	101.080 101.080	5.60	27.76 27.76	1 1.049	1T	5.0 0.0	1.750 5.000 6.750	120 0.2387	24.577 0.0 1.611			Vel = 10.31
AA to A	101.080 99.670		53.12 80.88	1.25 1.38	1T	6.0 0.0	1.170 6.000 7.170	120 0.4538	26.188 0.611 3.254			Vel = 17.35
A to B	99.670 99.670		0.0 80.88	2 2.157		0.0 0.0	13.790 0.0 13.790	120 0.0516	30.053 0.0 0.711			Vel = 7.10
B			0.0 80.88						30.764			K Factor = 14.58
4 to 5	101.080 101.080	5.60	26.32 26.32	1 1.049		0.0 0.0	8.920 0.0 8.920	120 0.2163	22.088 0.0 1.929			Vel = 9.77
5 to BB	101.080 101.080	5.60	27.44 53.76	1.25 1.38	1T	6.0 0.0	7.170 6.000 13.170	120 0.2132	24.017 0.0 2.808			Vel = 11.53
BB			0.0 53.76						26.825			K Factor = 10.38
6 to BB	101.080 101.080	5.60	28.10 28.1	1 1.049	1T	5.0 0.0	1.750 5.000 6.750	120 0.2441	25.177 0.0 1.648			Vel = 10.43
BB to B	101.080 99.670		53.76 81.86	1.25 1.38	1T	6.0 0.0	1.170 6.000 7.170	120 0.4642	26.825 0.611 3.328			Vel = 17.56
B to C	99.670 99.670		80.88 162.74	2 2.157		0.0 0.0	13.170 0.0 13.170	120 0.1879	30.764 0.0 2.475			Vel = 14.29
C			0.0 162.74						33.239			K Factor = 28.23
7 to 8	101.080 101.080	5.60	27.40 27.4	1 1.049		0.0 0.0	8.920 0.0 8.920	120 0.2331	23.941 0.0 2.079			Vel = 10.17
8 to CC	101.080 101.080	5.60	28.57 55.97	1.25 1.38	1T	6.0 0.0	7.170 6.000 13.170	120 0.2296	26.020 0.0 3.024			Vel = 12.01
CC			0.0 55.97						29.044			K Factor = 10.39
9 to CC	101.080 101.080	5.60	29.24 29.24	1 1.049	1T	5.0 0.0	1.750 5.000 6.750	120 0.2628	27.270 0.0 1.774			Vel = 10.85

EASTERN FIRE PROTECTION
 CAKES EXTRAORDINAIRE CALCULATION

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
CC to C	101.080 99.670		55.97 85.21	1.25 1.38	1T	6.0 0.0	1.170 6.000	120	29.044 0.611			
C to D	99.670 99.670		162.74 247.95	2	1T	12.307 0.0	8.750 12.307	120	33.239 0.0		Vel = 18.28	
D to DD	99.670 97		0.0 247.95	2	1T	12.307 0.0	2.670 12.307	120	41.864 1.156		Vel = 21.77	
DD to E	97 97		0.0 247.95	4	1E	13.167 0.0	1.170 13.167	120	49.155 0.0		Vel = 21.77	
E to F	97 97		0.0 247.95	4	1Fsp 1B	0.0 15.8	3.670 42.134	120	49.368 3.000		Vel = 5.58	* Fixed loss = 3
F to TOR	97 97		247.95 0.0	4	1T 1E	26.334 13.167	45.804 19.040	0.0149	0.683 53.051		Vel = 5.58	
TOR to BFP	97 90		247.95 0.0	4	1Fsp 1Zcb	0.0 0.0	7.000 3.000	120	53.922 6.032		Vel = 5.58	* Fixed loss = 3
BFP to BASE	90 87		0.0 247.95	4	1Zcb	0.0 0.0	3.000 3.000	120	60.058 5.963		Vel = 5.58	* Fixed loss = 4.664
BASE to MAIN	87 80		0.0 247.95	6	1L 1G	12.911 4.304	200.000 60.252	140	66.066 3.032		Vel = 2.67	
MAIN to TEST	80 75	H250	250.00 497.95	6	2L 1G	25.822 4.304	100.000 73.163	140	69.581 2.166		Vel = 5.36	
TEST			0.0 497.95						72.916		K Factor = 58.31	