DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that EASTERN FIRE PROTECTION
of PO Box 1390- Kittyhawk Ave, Auburn, Maine

For installation at 20 PINE TREE INDUSTRIAL PKWY
Hale Trailer

Job ID: 2011-06-1388-FAFS

CBL: 254 - - A - 008 - 001 - - - - -

has permission to extend an NFPA 13 automatic sprinkler system
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

58

Fire Prevention Officer **Code Enforcement Officer / Plan Reviewer**

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCU0PIED.

PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • *www.portlandmaine.gov*

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-06-1388-FAFS
Extension of an NFPA 13 sprinkler system

For installation at:
20 PINE TREE IND PKWY

CBL: 254 - - A - 008 - 001 - - - -

Conditions of Approval:

Fire

The sprinkler system shall be installed in accordance with NFPA 13.

Sprinkler protection shall be maintained. Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.

The Fire Department will require Knox locking caps on all Fire Department Connections on the exterior of the building.

System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.

Installation of a sprinkler or fire alarm system requires a Knox Box to be installed per city ordinance.

City of Portland, Maine - Building or Use Permit Application

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

Job No:	Date Applied:	CBL:	
2011-06-1388-FAFS	**6/13/2011**	**254 - - A - 008 - 001 - - - - -**	
Location of Construction: **20 PINE TREE IND PARKWAY**	Owner Name: **THE NORTHWOODS**	Owner Address: **PO BOX 1400 VOORHEES, NJ - NEW JERSEY 08043**	Phone:
Business Name: **Hale Trailer**	Contractor Name: **Eastern Fire Protection**	Contractor Address: **PO Box 1390 – Kittyhawk Ave, Auburn, ME 04210**	Phone: **784-1507**
Lessee/Buyer's Name:	Phone:	Permit Type: **FAFS**	Zone: **I-M**
Past Use: **Warehouse & Office with Servicing Commercial Trailers**	Proposed Use: **Same: Warhouse & Office with Servicing Commercial Trailers – to install fire suppression system for new addition**	Cost of Work: **$6000.00**	CEO District:
		Fire Dept: ✓ Approved w/ conditions ___ Denied ___ N/A Signature: BJandolph (58)	Inspection: Use Group: Type: Signature:
Proposed Project Description: **water based fire suppression system**		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle			

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 electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ ___ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	___ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan	___ Approved	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Denied	___ Denied
Date: OK 6/16/11	Date:	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 appication 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.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHON

BY mail

20110613866 6/14/11

Water-Based 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: 20 Pine Tree Ind. Parkway CBL: 254 A 008

Exact location: (within structure) 2011 ADDITION

Type of occupancy(s) (NFPA & ICC): ORDINARY HAZARD Group II

Building owner: HALE TRAILER

Managing Supervisor (RMS): WELL PLANT License No: 368

Supervisor phone: 784-1501 E-mail: PLANTMGR.TOWNOFSTOCKTON.COM

Installing contractor: GASTON'S FIRE PROTECTION License No: 101 E-M

Contractor phone: 784-1501 E-mail: GASTONS

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 this system is designed to: 13 Edition: 2010

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

Download a new copy of this document from www.portlandmaine.gov/fire for every submittal. Attach all working documents and complete approved submittals as may be required by the State Fire Marshal's Office on 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.

COST OF WORK: $ 6000 00/100

PERMIT FEE: $ 80 00/100

($10 PER $1,000 + $30 FOR THE FIRST $1,000)

RECEIVED

JUN 13 2011

Dept. of Building Inspections
City of Portland Maine

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).

Office & Service Warehouse commercial Trailers

Applicant signature: [signature] Date: 06/09/11

EASTERN FIRE PROTECTION
P.O. Box 1390
Kittyhawk Ave.
Auburn, ME 04210

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

LETTER OF TRANSMITTAL

DATE 06/09/11	JOB NO. 4732
ATTENTION KEITH GAUTREAU	
RE: HALL TAREEN	
2011 ADDITION	

TO BUILDING INSPECTIONS DEPT.
389 CONGRESS ST. ROOM 315
PORTLAND, ME 04101

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via _____ the following items:

☑ Shop drawings ☐ Descriptive data ☑ Hydraulic calculations
☐ Copy of letter ☐ Literature ☐ _____

QUANTITY	DRAWING NO.	DATE	DESCRIPTION	STATUS
2	1 OF 2	10/5/88	SPRINKLER SHOP DWG	C/S
2	2 OF 2	06/07/11	"	
2			HYDRAULIC CALCULATIONS	
1			PUMP APPLICATION	
1			PUMP CHART	

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

Please return 1 copies each indicating your approval and/or comments.

REMARKS _____

COPY TO _____

SIGNED _____

. . . Fire Protection by Computer Design

EASTERN FIRE PROTECTION
170 KITTYHAWK AVE.
P.O. BOX 1390
AUBURN, MAINE 04211-1390
800-274-1507

Job Name	HALE TRAILER ADDITION ROOF
Drawing	EXISTING & NEW STEEL CONSTRUCTION
Location	20 PINE TREE IND. PARKWAY PORTLAND, MAINE
Remote Area	1 OF 1
Contract	AU-4732-11
Data File	1-4732.wx1

Hydraulic Design Information Sheet

Name - HALE TRAILER NEW ADDN ROOF PIPE — Date - 06/07/11
Location - 20 PINE TREE IND. PARKWAY PORTLAND, MAINE
Building - EXISTING & NEW STEEL CONSTRUCTION — System No. - 1 OF 1
Contractor - EASTERN FIRE PROTECTION CO., INC — Contract No. - AU-4732-11
Calculated By - WILIAM FLYNT — Drawing No. - 2 of 2
Construction: ( ) Combustible (X) Non-Combustible — Ceiling Height - VARIES
Occupancy - ROOF PIPING NEW 2011 ADDITION .2/1620 SQ FT

SYSTEM DESIGN

(X) NFPA 13 ( ) Lt. Haz. Ord.Haz.Gp. ( ) 1 (X) 2 ( ) 3 ( ) Ex.Haz.
( ) NFPA 231 ( ) NFPA 231C (X) Figure 13.2.1 Curve ORD II
Other
Specific Ruling — Made By — Date

Area of Sprinkler Operation	- 1620	System Type	Sprinkler/Nozzle
Density	- .2	(X) Wet	Make TYCO
Area Per Sprinkler	- 124.63 SF	( ) Dry	Model TY-B
Elevation at Highest Outlet	- 123'-6"	( ) Deluge	Size 3/4"
Hose Allowance - Inside	-	( ) Preaction	K-Factor 8.0
Rack Sprinkler Allowance	-	( ) Other	Temp.Rat.200
Hose Allowance - Outside	- 250		

Note Design Criteria per NFPA 13 (2010) Table 13.2.1, Class III commodity

Calculation Summary — Flow Required - 633 — Press Required - 73 — AT MAIN POINT
C-Factor Used: 120 — Overhead 140 — Underground

WATER SUPPLY

Water Flow Test:	Pump Data:	Tank or Reservoir:
Date of Test - 6/03/11		Cap. -
Time of Test - 10:30 AM	Rated Cap.-	Elev.-
Static Press - 85	@ Press -	
Residual Press - 84	Elev. -	Well
Flow - 1443		Proof Flow
Elevation - 95'-0"		

Location - OFF 12" CIRCULATING MAIN IN PINE TREE INDUSTRIAL PARKWAY

Source of Information -
PORTLAND WATER DISTRICT

COMMODITY STORAGE

Commodity Truck Parts — Class III — Location addition
Storage Ht. 12 — Area — Aisle W.
Storage Method: Solid Piled % Palletized 100 % Rack

STORAGE				
	(X) Single Row	( ) Conven. Pallet	( ) Auto. Storage	( ) Encap.
R	(X) Double Row	( ) Slave Pallet	( ) Solid Shelf	( ) Non
A	( ) Mult. Row		( ) Open Shelf	
C				
K	Flue Spacing	Clearance:Storage to Ceiling		
	Longitudinal	Transverse		

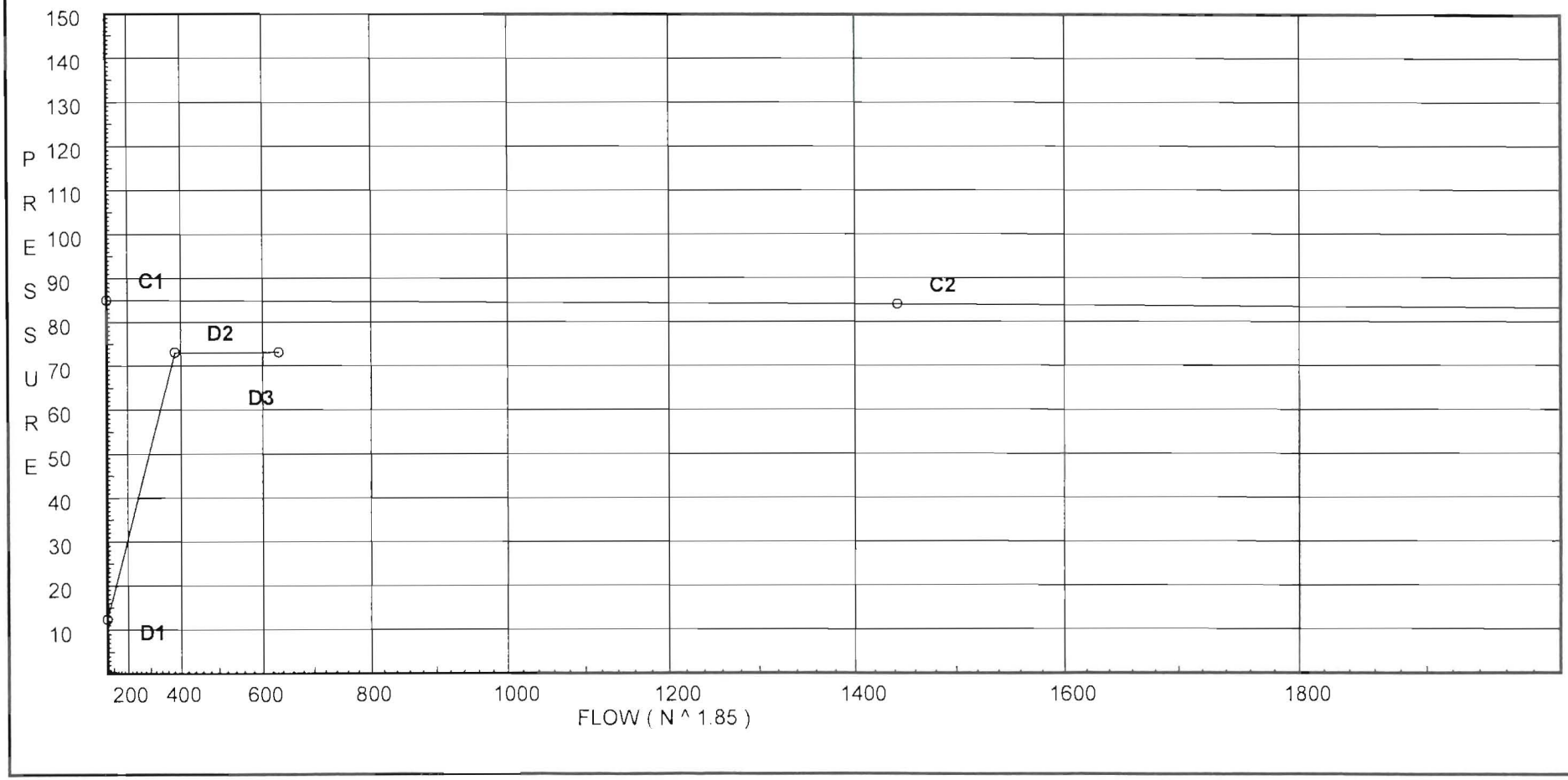
Horizontal Barriers Provided:

City Water Supply

C1 - Static Pressure	85
C2 - Residual Pressure	84
C2 - Residual Flow	1443

Demand:

D1 - Elevation	12.343
D2 - System Flow	383.116
D2 - System Pressure	73.078
Hose (Demand)	250
D3 - System Demand	633.116
Safety Margin	11.704



Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
A	Alarm Rel E1 & E3							7.7	21 5		17		27	29							
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
L	NFPA 13 Long Turn Elbow	0.5	1	2	2	2	3	4	5	5	6	8	9	13	16	18	24	27	30	34	40
T	NFPA 13 90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Units Summary

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

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

SUPPLY ANALYSIS

Node at Source	Static Pressure	Residual Pressure	Flow	Available Pressure	Total Demand	Required Pressure
MAIN	85.0	84	1443.0	84.782	633.12	73.078

NODE ANALYSIS

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes
23	123.5	8	9.77	25.0	
24	123.5	8	9.99	25.29	
25	123.5	8	10.81	26.3	
26	123.5	8	12.58	28.38	
27	123.5	8	15.76	31.76	
19	123.5	8	20.23	35.98	
21	123.5	8	20.66	36.37	
22	123.5	8	22.26	37 74	
11	123.5	8	9.71	24.93	
12	123.5	8	9.93	25.21	
13	123.5	8	10.74	26.22	
14	123.5	8	12.5	28.29	
15	123.5	8	15.66	31.66	
16	123.5		33.11		
17	123.5		33.31		
18	123.5		34.01		
EXT4	123.5		49.27		
BASE	101.5		69.64		
MAIN	95.0		73.08	250.0	

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 ******
23	123.50	8.00	25.00	1.5		0.0	11.330	120	9.769	
to						0.0	0.0		0.0	
24	123.50		25.0	1.682		0.0	11.330	0.0198	0.224	Vel = 3.61
24	123.50	8.00	25.29	1.5		0.0	11.330	120	9.993	
to						0.0	0.0		0.0	
25	123.50		50.29	1.682		0.0	11.330	0.0719	0.815	Vel = 7.26
25	123.50	8.00	26.30	1.5		0.0	11.330	120	10.808	
to						0.0	0.0		0.0	
26	123.50		76.59	1.682		0.0	11.330	0.1565	1.773	Vel = 11.06
26	123.50	8.00	28.38	1.5		0.0	11.330	120	12.581	
to						0.0	0.0		0.0	
27	123.50		104.97	1.682		0.0	11.330	0.2805	3.178	Vel = 15.16
27	123.50	8.00	31.76	1.5	1L	2.475	26.000	120	15.759	
to					1T	9.9	12.375		0.0	
17	123.50		136.73	1.682		0.0	38.375	0.4573	17.549	Vel = 19.74
			0.0							
17			136.73						33.308	K Factor = 23.69
19	123.50	8.00	35.98	1.5		0.0	11.330	120	20.225	
to						0.0	0.0		0.0	
21	123.50		35.98	1.682		0.0	11.330	0.0387	0.438	Vel = 5.20
21	123.50	8.00	36.36	1.5		0.0	11.330	120	20.663	
to						0.0	0.0		0.0	
22	123.50		72.34	1.682		0.0	11.330	0.1409	1.596	Vel = 10.45
22	123.50	8.00	37 75	1.5	1L	2.475	26.000	120	22.259	
to					1T	9.9	12.375		0.0	
18	123.500		110.09	1.682		0.0	38.375	0.3063	11.753	Vel = 15.90
			0.0							
18			110.09						34.012	K Factor = 18.88
11	123.50	8.00	24.93	1.5		0.0	11.330	120	9.708	
to						0.0	0.0		0.0	
12	123.50		24.93	1.682		0.0	11.330	0.0196	0.222	Vel = 3.60
12	123.50	8.00	25.21	1.5		0.0	11.330	120	9.930	
to						0.0	0.0		0.0	
13	123.50		50.14	1.682		0.0	11.330	0.0715	0.810	Vel = 7.24
13	123.50	8.00	26.21	1.5		0.0	11.330	120	10.740	
to						0.0	0.0		0.0	
14	123.50		76.35	1.682		0.0	11.330	0.1556	1.763	Vel = 11.02
14	123.50	8.00	28.29	1.5		0.0	11.330	120	12.503	
to						0.0	0.0		0.0	
15	123.50		104.64	1.682		0.0	11.330	0.2788	3.159	Vel = 15.11
15	123.50	8.00	31.66	1.5	1L	2.475	26.000	120	15.662	
to					1T	9.9	12.375		0.0	
16	123.50		136.3	1.682		0.0	38.375	0.4547	17.449	Vel = 19.68
16	123.50		0.0	3		0.0	10.870	120	33.111	
to						0.0	0.0		0.0	
17	123.50		136.3	3.26		0.0	10.870	0.0181	0.197	Vel = 5.24
17	123.50		136.73	3		0.0	10.750	120	33.308	
to						0.0	0.0		0.0	
18	123.500		273.03	3.26		0.0	10.750	0.0655	0.704	Vel = 10.49

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 ******
18	123.500		110.09	3	6L	40.319	64.000	120	34.012	
to					1T	20.159	60.478		0.0	
EXT4	123.500		383.12	3.26		0.0	124.478	0.1226	15.260	Vel = 14.73
EXT4	123.500		0.0	4	5T	131.671	145.000	120	49.272	
to					3L	23.701	180.389		9.528	
BASE	101.500		383.12	4.26	1A	22.384	325.389	0.0333	10.839	Vel = 8.62
					1G	2.633				
BASE	101.500		0.0	6	1L	12.911	90.000	140	69.639	
to					1G	4.304	60.252		2.815	
MAIN	95		383.12	6.16	1T	43.037	150.252	0.0042	0.624	Vel = 4.12
			250.00							Qa = 250.00
MAIN			633.12						73.078	K Factor = 74.06

. . . Fire Protection by Computer Design

EASTERN FIRE PROTECTION
170 KITTYHAWK AVE.
P.O. BOX 1390
AUBURN, MAINE 04211-1390
800-274-1507

Job Name	HALE TRAILER ADDITION ROOF
Drawing	EXISTING & NEW STEEL CONSTRUCTION
Location	20 PINE TREE IND. PARKWAY PORTLAND, MAINE
Remote Area	1 OF 1
Contract	AU-4732-11
Data File	1-4732.wx1

Hydraulic Design Information Sheet

Name - HALE TRAILER NEW ADDN ROOF PIPE — Date - 06/07/11
Location - 20 PINE TREE IND. PARKWAY PORTLAND, MAINE
Building - EXISTING & NEW STEEL CONSTRUCTION — System No. - 1 OF 1
Contractor - EASTERN FIRE PROTECTION CO., INC — Contract No. - AU-4732-11
Calculated By - WILIAM FLYNT — Drawing No. - 2 of 2
Construction: ( ) Combustible (X) Non-Combustible — Ceiling Height - VARIES
Occupancy - ROOF PIPING NEW 2011 ADDITION .2/1620 SQ FT

SYSTEM DESIGN

(X) NFPA 13 ( ) Lt. Haz. Ord.Haz.Gp. ( ) 1 (X) 2 ( ) 3 ( ) Ex.Haz.
( ) NFPA 231 ( ) NFPA 231C (X) Figure 13.2.1 Curve ORD II
Other
Specific Ruling — Made By — Date

Area of Sprinkler Operation	- 1620	System Type	Sprinkler/Nozzle
Density	- .2	(X) Wet	Make TYCO
Area Per Sprinkler	- 124.63 SF	( ) Dry	Model TY-B
Elevation at Highest Outlet	- 123'-6"	( ) Deluge	Size 3/4"
Hose Allowance - Inside	-	( ) Preaction	K-Factor 8.0
Rack Sprinkler Allowance	-	( ) Other	Temp.Rat.200
Hose Allowance - Outside	- 250		

Note Design Criteria per NFPA 13 (2010) Table 13.2.1, Class III commodity

Calculation Summary — Flow Required - 633 — Press Required - 73 — AT MAIN POINT
C-Factor Used: 120 — Overhead — 140 — Underground

WATER SUPPLY

Water Flow Test:	Pump Data:	Tank or Reservoir:
Date of Test - 6/03/11		Cap. -
Time of Test - 10:30 AM	Rated Cap.-	Elev.-
Static Press - 85	@ Press -	
Residual Press - 84	Elev. -	Well
Flow - 1443		Proof Flow
Elevation - 95'-0"		

Location - OFF 12" CIRCULATING MAIN IN PINE TREE INDUSTRIAL PARKWAY

Source of Information -
PORTLAND WATER DISTRICT

COMMODITY

Commodity Truck Parts — Class III — Location addition
Storage Ht. 12 — Area — Aisle W.
Storage Method: Solid Piled % Palletized 100 % Rack

RACKAGE

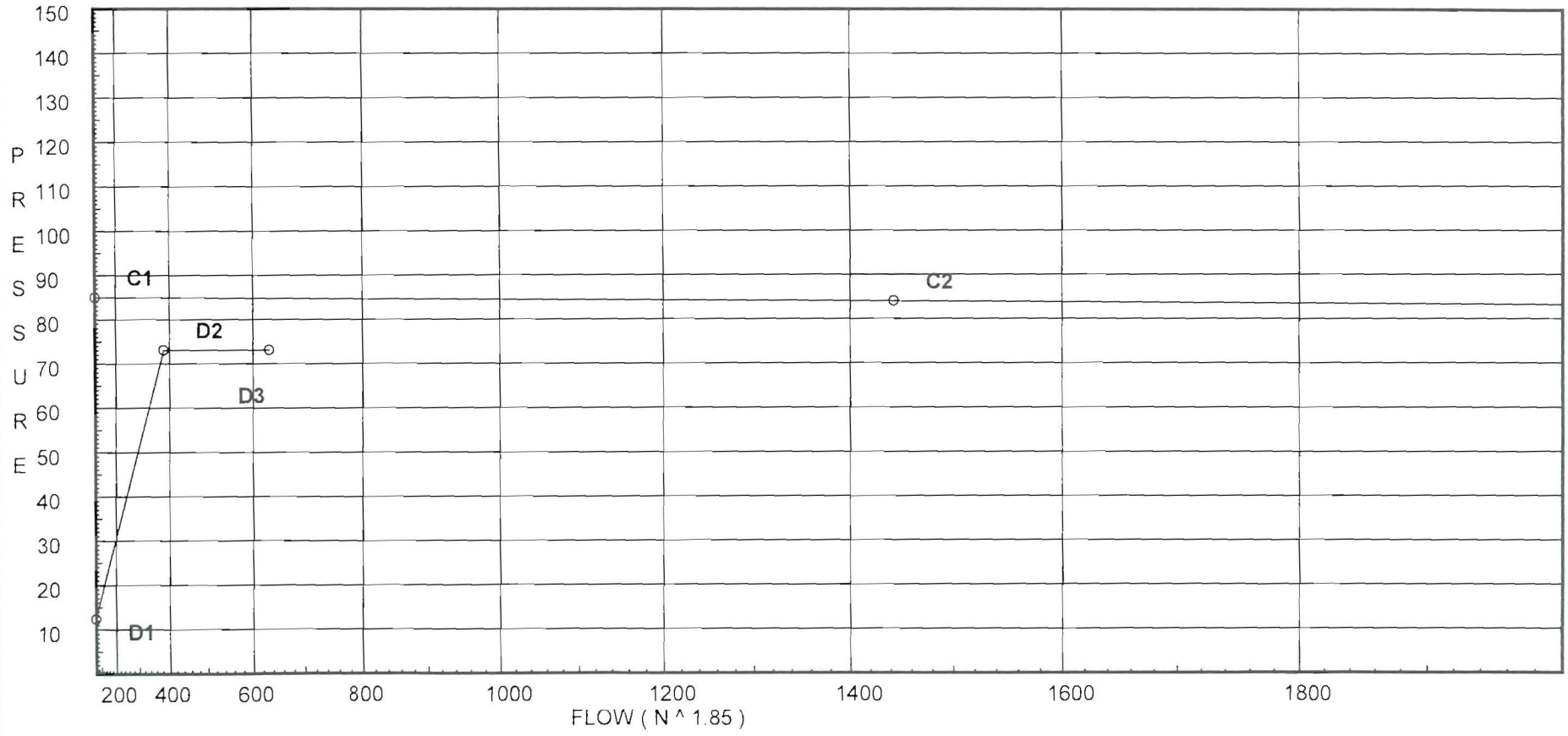
(X) Single Row	( ) Conven. Pallet	( ) Auto. Storage	( ) Encap.	
R (X) Double Row	( ) Slave Pallet	( ) Solid Shelf	( ) Non	
A ( ) Mult. Row		( ) Open Shelf		
C				
K Flue Spacing		Clearance:Storage to Ceiling		
Longitudinal		Transverse		

Horizontal Barriers Provided:

City Water Supply:
- C1 - Static Pressure . 85
- C2 - Residual Pressure: 84
- C2 - Residual Flow . 1443

Demand:

D1 - Elevation	12.343
D2 - System Flow	383.116
D2 - System Pressure	73.078
Hose (Demand)	250
D3 - System Demand	633.116
Safety Margin	11.704



Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
A	Alarm Rel E1 & E3							7.7	21.5		17		27	29							
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
L	NFPA 13 Long Turn Elbow	0.5	1	2	2	2	3	4	5	5	6	8	9	13	16	18	24	27	30	34	40
T	NFPA 13 90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Units Summary

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

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

SUPPLY ANALYSIS

Node at Source	Static Pressure	Residual Pressure	Flow	Available Pressure	Total Demand	Required Pressure
MAIN	85.0	84	1443.0	84.782	633.12	73.078

NODE ANALYSIS

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes
23	123.5	8	9.77	25.0	
24	123.5	8	9.99	25.29	
25	123.5	8	10.81	26.3	
26	123.5	8	12.58	28.38	
27	123.5	8	15.76	31.76	
19	123.5	8	20.23	35.98	
21	123.5	8	20.66	36.37	
22	123.5	8	22.26	37.74	
11	123.5	8	9.71	24.93	
12	123.5	8	9.93	25.21	
13	123.5	8	10.74	26.22	
14	123.5	8	12.5	28.29	
15	123.5	8	15.66	31.66	
16	123.5		33.11		
17	123.5		33.31		
18	123.5		34.01		
EXT4	123.5		49.27		
BASE	101.5		69.64		
MAIN	95.0		73.08	250.0	

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 ******
23	123.50	8.00	25.00	1.5		0.0	11.330	120	9.769	
to						0.0	0.0		0.0	
24	123.50		25.0	1.682		0.0	11.330	0.0198	0.224	Vel = 3.61
24	123.50	8.00	25.29	1.5		0.0	11.330	120	9.993	
to						0.0	0.0		0.0	
25	123.50		50.29	1.682		0.0	11.330	0.0719	0.815	Vel = 7.26
25	123.50	8.00	26.30	1.5		0.0	11.330	120	10.808	
to						0.0	0.0		0.0	
26	123.50		76.59	1.682		0.0	11.330	0.1565	1.773	Vel = 11.06
26	123.50	8.00	28.38	1.5		0.0	11.330	120	12.581	
to						0.0	0.0		0.0	
27	123.50		104.97	1.682		0.0	11.330	0.2805	3.178	Vel = 15.16
27	123.50	8.00	31.76	1.5	1L	2.475	26.000	120	15.759	
to					1T	9.9	12.375		0.0	
17	123.50		136.73	1.682		0.0	38.375	0.4573	17.549	Vel = 19.74
			0.0							
17			136.73						33.308	K Factor = 23.69
19	123.50	8.00	35.98	1.5		0.0	11.330	120	20.225	
to						0.0	0.0		0.0	
21	123.50		35.98	1.682		0.0	11.330	0.0387	0.438	Vel = 5.20
21	123.50	8.00	36.36	1.5		0.0	11.330	120	20.663	
to						0.0	0.0		0.0	
22	123.50		72.34	1.682		0.0	11.330	0.1409	1.596	Vel = 10.45
22	123.50	8.00	37 75	1.5	1L	2.475	26.000	120	22.259	
to					1T	9.9	12.375		0.0	
18	123.500		110.09	1.682		0.0	38.375	0.3063	11.753	Vel = 15.90
			0.0							
18			110.09						34.012	K Factor = 18.88
11	123.50	8.00	24.93	1.5		0.0	11.330	120	9.708	
to						0.0	0.0		0.0	
12	123.50		24.93	1.682		0.0	11.330	0.0196	0.222	Vel = 3.60
12	123.50	8.00	25.21	1.5		0.0	11.330	120	9.930	
to						0.0	0.0		0.0	
13	123.50		50.14	1.682		0.0	11.330	0.0715	0.810	Vel = 7.24
13	123.50	8.00	26.21	1.5		0.0	11.330	120	10.740	
to						0.0	0.0		0.0	
14	123.50		76.35	1.682		0.0	11.330	0.1556	1.763	Vel = 11.02
14	123.50	8.00	28.29	1.5		0.0	11.330	120	12.503	
to						0.0	0.0		0.0	
15	123.50		104.64	1.682		0.0	11.330	0.2788	3.159	Vel = 15.11
15	123.50	8.00	31.66	1.5	1L	2.475	26.000	120	15.662	
to					1T	9.9	12.375		0.0	
16	123.50		136.3	1.682		0.0	38.375	0.4547	17.449	Vel = 19.68
16	123.50		0.0	3		0.0	10.870	120	33.111	
to						0.0	0.0		0.0	
17	123.50		136.3	3.26		0.0	10.870	0.0181	0.197	Vel = 5.24
17	123.50		136.73	3		0.0	10.750	120	33.308	
to						0.0	0.0		0.0	
18	123.500		273.03	3.26		0.0	10.750	0.0655	0.704	Vel = 10.49

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 ******
18	123.500		110.09	3	6L	40.319	64.000	120	34.012	
to					1T	20.159	60.478		0.0	
EXT4	123.500		383.12	3.26		0.0	124.478	0.1226	15.260	Vel = 14.73
EXT4	123.500		0.0	4	5T	131.671	145.000	120	49.272	
to					3L	23.701	180.389		9.528	
BASE	101.500		383.12	4.26	1A	22.384	325.389	0.0333	10.839	Vel = 8.62
					1G	2.633				
BASE	101.500		0.0	6	1L	12.911	90.000	140	69.639	
to					1G	4.304	60.252		2.815	
MAIN	95		383.12	6.16	1T	43.037	150.252	0.0042	0.624	Vel = 4.12
			250.00							Qa = 250.00
MAIN			633.12						73.078	K Factor = 74.06