

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Please Read Application And Notes, If Any, Attached

PERMIT ISSUED  
Permit Number 0518447006  
CITY OF PORTLAND

This is to certify that Finard Murray W Tr/Simple Grinnell  
has permission to Install a fire suppression system in the 9<sup>th</sup> outer room  
AT 1 Monument Sq 032 K012001

provided that the person or persons who apply for and accept this permit shall comply with all of the provisions of the Statutes of the State 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 when permission is procured before this building or part thereof is occupied or services closed-in. 4 HOUR NOTICE REQUIRED.

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

OTHER REQUIRED APPROVALS  
Fire Dept. Greg Cass 1-3-06  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name \_\_\_\_\_

*[Signature]*  
01/13/06  
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: 05-1844	Issue Date: JAN 13 2006	CBL: 032 K012001
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Location of Construction: 1 Monument Sq	Owner Name: Finard Murray W Tr	Owner Address: One Monument Square Suite 200	Phone:
Business Name:	Contractor Name: Simplex / Grinnell	Contractor Address: 20 Thomas Drive Westbrook	Phone: 2078426440
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: B3

Past Use: Commercial	Proposed Use: Commercial Install fire suppression system in the 9th floor computer room	Permit Fee: \$129.00	Cost of Work: \$12,000.00	CEO District: 1
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Proposed Project Description: Install a fire suppression system in the 9th floor computer room.	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: U Type: Fire S JFPA Signature: [Signature]
	Signature: [Signature]	Signature: [Signature]
	PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) 9th floor OK Action: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
	Signature: [Signature]	Date:

Permit Taken By: dmartin	Date Applied For: 12/30/2005	<b>Zoning Approval</b>		
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>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..</p>	<p><b>Special Zone or Reviews</b></p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetland</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/></p> <p>DK Date: 01/05/06 MSU</p>	<p><b>Zoning Appeal</b></p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p><b>Historic Preservation</b></p> <p><input type="checkbox"/> Not in District or Landmark</p> <p><input type="checkbox"/> Does Not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>
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**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.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
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RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	DATE	PHONE
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DISPLAY THIS CARP ON PRINCIPAL FRONTAGE OF WORK

# CITY OF PORTLAND

## BUILDING INSPECTION

### PERMIT

PERMIT ISSUED

Permit Number IAN 0518142006

CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

This is to certify that Finard Murray W Tr/Simple Grinnell has permission to Install a fire suppression system in the 9<sup>th</sup> floor outer room

AT 1 Monument Sq 032 K012001

provided that the person or persons who accept this permit shall comply with all of the provisions of the Statutes of the State 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.

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#### OTHER REQUIRED APPROVALS

Fire Dept. Greg Cass 1-3-06  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name \_\_\_\_\_

*[Signature]*  
01/13/06  
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD



# General Building Permit Application

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

Location/Address of Construction: <u>PIERCE, ATWOOD ONE MONUMENT ST. PORTLAND (9TH FLOOR)</u>		
Total Square Footage of Proposed Structure		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart# <u>1032</u> Block# <u>AK</u> Lot# <u>003</u> <sup>012</sup>		Owner: <u>Joseph Menard</u> <u>Finard Murray W. JR</u>
Lessee/Buyer's Name (If Applicable)		Telephone:
Applicant name, address & telephone:		Cost Of Work: \$ <u>12,000.00</u>
		Fee: \$ <u>129.00</u>
		C of O Fee: \$ <u>N/A</u>
Current Specific use: <u>Commercial</u>		
Proposed Specific use: _____		
Project description: <u>FM 200 FIRE SUPPRESSION SYSTEM IN THE 9TH FLOOR COMPUTER ROOM</u>		
Contractor's name, address & telephone: <u>SIMPLEX GRINNELL, 20 THOMAS DR WESTBROOK, ME 04092</u>		
Who should we contact when the permit is ready: <u>BRIAN HOFFMAN (MANAGER)</u>		
Mailing address: _____ Phone: <u>482-2330</u>		

Please submit all of the information outlined in the Commercial Application Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information visit us on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), stop by the Building Inspections office, room 315 City Hall or call 874-8703.

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

Signature of applicant: <u>Brian Hoffman</u>	Date: <u>12-14-05</u>
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This is not a permit; you may not commence ANY work until the permit is issued.



**City of Portland, Maine - Building or Use Permit**

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

Permit No:	Date Applied For:	CBL:
05-1844	12/30/2005	032 K012001

Location of Construction: 1 Monument Sq	Owner Name: Finard Murray W Tr	Owner Address: One Monument Square Suite 200	Phone:
Business Name:	Contractor Name: Simplex/ Grinnell	Contractor Address: 20 Thomas Drive Westbrook	Phone (207)842-6440
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

Proposed Use: Commercial Install fire suppression system in the 9th floor computer room	Proposed Project Description: Install a fire suppression system in the 9th floor computer room.
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Dept: Zoning      Status: Approved      Reviewer: Ann Machado      Approval Date: 01/03/2006  
 Note:      Ok to Issue:

Dept: Building      Status: Approved      Reviewer: Tammy Munson      Approval Date: 01/13/2006  
 Note:      Ok to Issue:

Dept: Fire      Status: Approved      Reviewer: Cptn Greg Cass      Approval Date: 01/03/2006  
 Note:      Ok to Issue:



Fire & Security

20 Thomas Drive  
Westbrook, ME 04092  
P. 207-842-6440 F. 207-842-6439

SimplexGrinnell

DRAWING TRANSMITTAL LETTER

To: PLANNING DEPT.  
389 CONGRESS STREET

Attention: MICHAEL NUGENT Date: DEC 13, 05  
CONTRACT PIERCE ATWOOD  
ONE MONUMENT SQ  
PORTLAND, ME.

MAILED <input type="checkbox"/> BY HAND <input checked="" type="checkbox"/>		ENCLOSURES ARE FOR ACTION AS INDICATED BY (X)		SG CONTRACT NUMBER				
				915016401				
Drawing Number	NO. OF COPIES	REVISION NO.	DESCRIPTION or DRAWING TITLE	APPROVAL	PRELIMINARY	INFORMATION	CONSTRUCTION	RECORDS
1 of 1	1		PLAN	/				/
	1		CALC'S	/				/
	1		SCOPE OF WORK w/ SYSTEM PARTS	/				/

REMARKS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: RETURN ( ) COPIES OF DRAWINGS  
MARKED WITH YOUR STAMP OF ACCEPTANCE  
AND/OR YOUR COMMENTS

**tyco**

Fire &  
Security

**SimplexGrinnell**

SimplexGrinnell LP  
20 Thomas Drive  
Westbrook, Maine 04092

Tele: 207-842-6440  
Fax: 207-842-6439  
24hr: 888-909-4377  
www.simplexgrinnell.com

**PIERCE ATWOOD**

**FM-200 SYSTEM**

**9<sup>TH</sup> FLR., SERVER ROOM**

Owner: Pierce Atwood  
Location: 9<sup>th</sup> Floor I.S. Operation  
Protected Space: Computer room; 2599 cu-ft.  
System Type: Total flooding, automatic 24VDC electric per NFPA 2001 & 72  
Manufacturer: Kidde-Fenwal, Inc.  
System Design: Temperature: controlled, @ 66-74 degrees F.  
Minimum design concentration: 6.25%  
Actual design concentration: 6.511% for main room  
Actual design concentration: 9.600% raised floor  
KID 3.02 FM-200 Flow calculation, software (UL:  
EX-4674 AND FM: PI 3009421

Enclosure Integrity: All present or future cable penetrations must be sealed to maintain enclosure integrity.

Alarms: System includes 2 local horn-strobe alarm indicators

Parts:

1	90-100125-001-	125lb. FM-200 cylinder
88	90-190000-001-	lbs., FM-200 agent
1	283904 -	1 1/2" Adaptor
1	235317-	cylinder strap
1	486536,	3PDT Pressure Switch
1	48650001-	24 VDC control head
1	870652-	Lever operated control head
1	90-194015-238-	1" nozzle, 180 deg
1	90-194023-144	1/2" nozzle, 360 deg
2	06-231865-739-	warning sign
1	84-232000-102-	Scorpio control panel
2	71-550000-001-	photoelectric smoke detector
3	70-510000-001-	ionization smoke detector
4	70-501000-001-	2-wire detector base
1	84-100007-001-	Pull station
1	296105-	abort station w/ backbox
2	75-000018-002-	15/75 cd horn-strobe alarm
2	90-fm200M-011-	Systems owner manual
1	06-235793-001-	Kidde Scorpio Manual



Fire & Security

SimplexGrinnell

SimplexGrinnell LP  
 50 Technology Drive  
 Westminster, MA 01441  
 (978) 731-2500  
 AP FAX: (978) 731-7756

**Payment Requisition Form**

This form is to be used only when payment is required and an invoice is not available ( i.e. permits, drawings, bids). If an invoice is available please go through the standard payment procedures for submitting invoices to accounts payable.

Please provide a detailed reason for payment and attach any available back up when submitting request.

Please supply vendor number. If not available, send an email to sg.spinquiry@tycoinc.com. Please fill in "Request for vendor number" in the subject line. Reference the full remit-to address in the body of the email. You will receive either a response with the current vendor number or information on how to have the new vendor setup.

This payment will be made per system payment terms. Exceptions will require additional approval. (RM < \$25k or VP > \$25k)

Note: Signature cards must be on file with Accounts Payable for all approvers stating their approved dollar limit.

Request Date:

Requestor:

Email Address:

Vendor Number:

055712

Pay-to Vendor Name:

City Of Portland

Remit-to Address Line 1:

PO Box 544

Remit-to Address Line 2:

City / State / Zip:

Portland, ME 04101

Payment Amount: \$

174.00

Need by Date:

12/14/05

Checks will be cut on Tuesdays & Thursdays

Reason for Payment:

Permit Fees for Pierce Atwood installation. Need to have overnight via federal express for tomorrow morning as installation is to start tomorrow.

Delivery Method:

U.S. Mail

FEDEX

Deliver to District

District Number:

147

FedEx Contact:

Jennifer Hennebury

Permanent / 1 Per District

Deliver to Vendor

Vendor Name:

Contact:

Mail-to Address Line 1:

Mail-to Address Line 2:

City / State / Zip:

Telephone:

Approver (Print Name):

Jennifer Hennebury

Title:

Senior Secretary

Signature:

Date:

*Jennifer Hennebury*  
12/13/05

Cost Distribution					
Purchase Order	PO Num			\$ Amt	
	#1	/			
	#2				
	#3				
	#4				
	#5				
Subtotal				\$ -	
Direct Job Cost	Proj Num	Ctrl	Dist	\$ Amt	
	#1	915016401	12	147	\$ 174.00
	#2				
	#3				
	#4				
	#5				
Subtotal				\$ 174.00	
Overhead Exp	Acct Num	Dept	Dist	\$ Amt	
	#1				
	#2				
	#3				
	#4				
	#5				
Subtotal				\$ -	
Grand Total				\$ 174.00	
Cost Distribution in balance.					

**Additional Approvals (when applicable)**

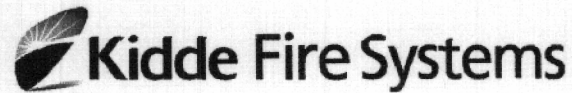
Print Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

Print Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_





## **Simplex Grinnell**

20 Thomas Dr  
Westbrook, ME 04092  
United States  
Phone: 207-799-4360  
ECS Series - KID3.02  
UL: EX4674 FM: PI 3009421  
Project: I.S. Room

File Name: C:\Program Files\Kidde-Fenwal\ECS Series KID302\Projects\pierce-atwood server-raised fir.FLC  
Calculation Date/Time: Tuesday, November 15, 2005, 3:35:16 PM

## **Consolidated Report**

### **Customer Information**

Company Name: Pierce Atwood  
Address: One Monument Square  
Portland, Me. 04101

Phone: 207-791-1177  
Contact: Norman Houle  
Title: Director I.T.

### **Project Data**

Project Name: I.S. Room  
Designer: BH  
Number:  
Account:  
Location: 9th Flr  
Description: 125 lb. Kidde-Fenwal FM-200 Clean Agent System

## Consolidated Report Enclosure Information

Elevation: 0 ft (relative to sea level)  
Atmospheric Correction Factor 1

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Enclosure Number: 1  
Name: Server Room  
Enclosure Temperature...  
Minimum: 66 F  
Maximum: 74 F  
Maximum Concentration: 6.621 %  
Design Concentration...  
Adjusted: 6.511 %  
Minimum: 6.250 %  
Minimum Agent Required: 69.8 lbs  
Width: 0.0 ft  
Length: 0.0 ft  
Height: 0.0 ft  

---

Volume: 0.0 cubic ft  
Non-permeable: 0.0 cubic ft  

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Total Volume: 2291.0 cubic ft  
Adjusted Agent Required: 73.0 lbs  
Number of Nozzles: 1

## Consolidated Report Enclosure Information

Elevation: 0 ft (relative to sea level)  
Atmospheric Correction Factor: 1

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Enclosure Number: 2  
Name: raised floor  
Enclosure Temperature...  
Minimum: 66 F  
Maximum: 72 F  
Maximum Concentration: 9.742 %  
Design Concentration...  
Adjusted: 9.600 %  
Minimum: 6.250 %  
Minimum Agent Required: 9.4 lbs  
Width: 0.0 ft  
Length: 0.0 ft  
Height: 0.0 ft

---

Volume: 0.0 cubic ft  
Non-permeable: 0.0 cubic ft

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Total Volume: 308.0 cubic ft  
Adjusted Agent Required: 15.0 lbs  
Number of Nozzles: 1

## Consolidated Report Agent Information

Agent: FM-200 / Propellant N2  
(FM-200 is a Trademark of Great Lakes Chemical Corp.)

Adjusted Agent Required: 88.0 lbs  
 Container Name: 125 lb Cylinder  
 Container Part Number: 90-100125-001  
 Number of Main Containers: 1  
 Number of Reserve Containers: 0  
 Manifold: No Manifold

Pipe Take Off Direction: Horizontal  
 Agent Per Container: 88.0 lbs  
 Fill Density: 49.2 lbs / cubic ft  
 Container Empty Weight: 96.0 lbs  
 Weight, All Containers + Agent: 184.0 lbs  
 Floor Area Per Container: 0.89 square ft  
 Floor Loading Per Container: 207 lbs / square ft

### Pipe Network

Part 4 - Pipe Description	Start	End	Type	Diameter	Length	Elevation
Main Cyl. X 1	0	1		1-1/2 in	2.99 ft	2.99 ft
Adapter	1	2		1-1/2 in	0.22 ft	0.00 ft
Pipe	2	3	40T	1-1/4 in	0.50 ft	0.00 ft
Pipe	3	4	40T	1-1/4 in	5.16 ft	5.16 ft
Pipe	4	5	40T	1-1/4 in	3.50 ft	0.00 ft
Pipe	5	6	40T	1 in	2.00 ft	0.00 ft
Pipe/E1-N1	6	7	40T	1 in	0.33 A	-0.33 ft
Pipe	5	8	40T	1/2 in	0.33 ft	0.00 ft
Pipe	8	9	40T	1/2 in	8.00 ft	-8.00 ft
Pipe	9	10	4QT	1/2 in	8.00 ft	0.00 ft
Pipe/E2-N1	10	11	40T	1/2 in	0.16 ft	-0.16 ft



**Consolidated Report**

**Part 2 - Equivalent Length**

Start	End	90	45	Thru	Side	Union	Other	Added	Total
0	1	0	0	0	0	0		0.00 ft	50.0 ft
1	2	0	0	0	0	0	1-1/2in VOA	0.00 ft	11.8 ft
2	3	0	0	0	0	0		0.00 ft	0.5 ft
3	4	1	0	0	0	0		0.00 ft	8.9 ft
4	5	1	0	0	0	0		0.00 ft	7.2 ft
5	6	0	0	1	0	0		0.00 ft	3.8 ft
6	7	1	0	0	0	0		0.00 ft	3.1 ft
5	8	0	0	0	1	0		0.00 ft	3.7 ft
8	9	1	0	0	0	0		0.00 ft	9.7 ft
9	10	1	0	0	0	0		0.00 ft	9.7 ft
10	11	1	0	0	0	0		0.00 ft	1.9 ft

**Part 3 - Nozzles**

Start	End	Flow	Name	Size	Type	Nozzle Area
0	1	88.0 lbs				
1	2	88.0 lbs				
2	3	88.0 lbs				
3	4	88.0 lbs				
4	5	88.0 lbs				
5	6	73.0 lbs				
6	7	73.0 lbs	E1-N1	1 in	180°	0.3623 square in
5	8	15.0 lbs				
8	9	15.0 lbs				
9	10	15.0 lbs				
10	11	15.0 lbs	E2-N1	1/2 in	360°	0.1303 square in

**Parts Information**

Total Agent Required: 88.0 lbs  
 Container Name: 125 lb Cylinder (Part: 90-100125-001)  
 Number Of Containers: 1

Nozzle	Type	Nozzle Area	Part Number
E1-N1	180°	0.3623 square in	90-194015-238

### Consolidated Report

Nozzle	Type	Nozzle Area	Part Number
E2-N1	360°	0.1303 square in	90-194023-144

Pipe:	Type	Diameter	Length
	40T	1/2 in	16.49ft
	40T	1 in	2.33 ft
	40T	1-1/4 in	9.16 ft

**'Other' Items:**

1 - 1-1/2 in. Valve Outlet Adapter (Part: 283904)

**List of 90 degree elbows:**

- 1 - 1 in
- 2 - 1-1/4 in
- 3 - 1/2 in

**List of Tees:**

- 2 - 1-1/4 in

### System Acceptance

System Discharge Time: 0.9 seconds  
 Percent Agent In Pipe: 17.6%  
 Percent Agent Before First Tee: 12.8%  
 Enclosure Number 1  
 Enclosure Name: Server Room  
 Minimum Design Concentration: 6.250%  
 Adjusted Design Concentration: 6.511%  
 Predicted Concentration: 6.467%  
 Maximum Expected Agent Concentration: 6.569% (At 74 F)

Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E1-N1	69.8 lbs	73.0lbs	72.4 lbs	159 psig

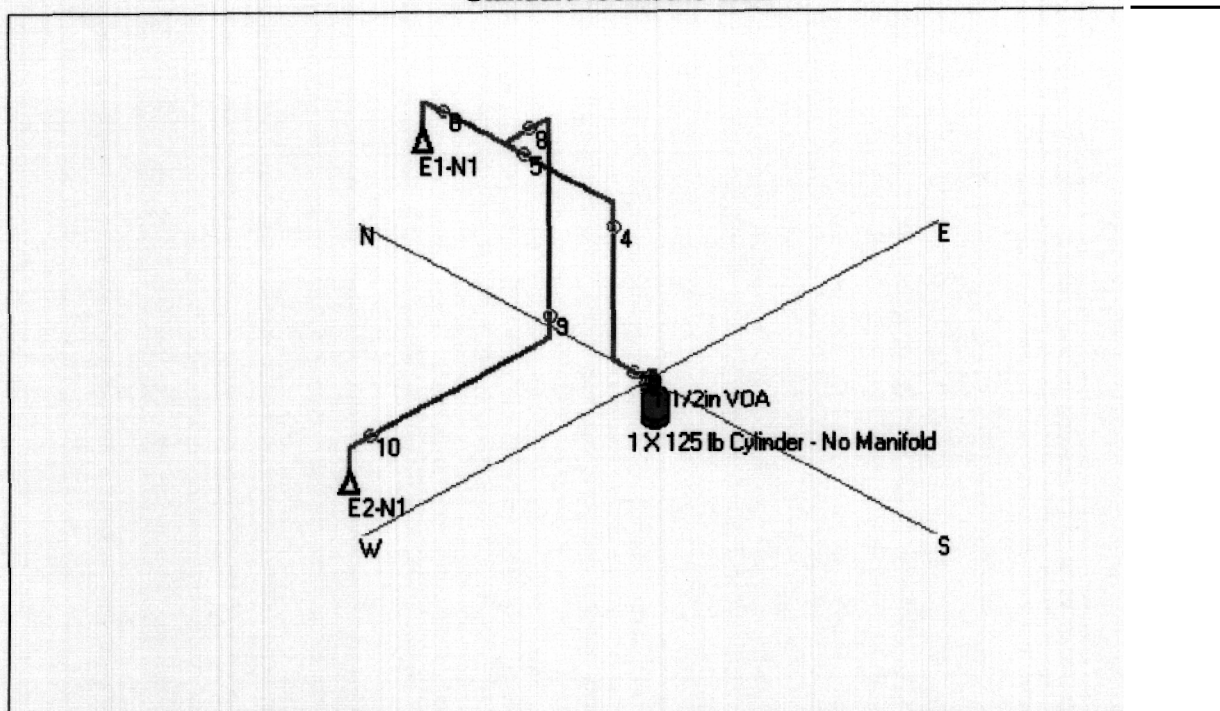
Enclosure Number: 2  
 Enclosure Name: raised floor  
 Minimum Design Concentration: 6.250%

### Consolidated Report

Adjusted Design Concentration: 9.600%  
 Predicted Concentration: 9.993%  
 Maximum Expected Agent Concentration: 10.106% (At 72 F)

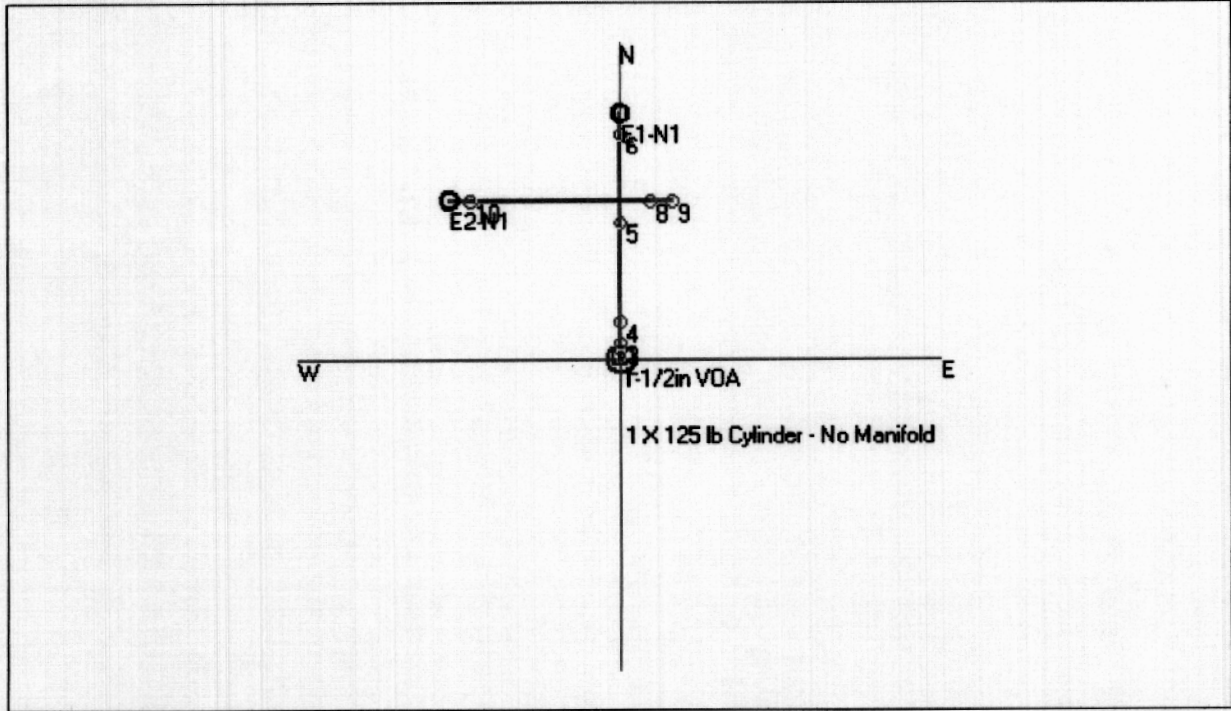
Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E2-N1	9.4 lbs	15.0 lbs	15.6 lbs	133 psig

#### Standard Isometric View



### Consolidated Report

#### Standard Plan View



#### Standard Elevation View

