#### DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



This is to certify that **HARBORVIEW APTSLLC** 

Located At 127 YORK

Job ID: 2011-02-415-MF-5+

CBL: 044 - - A - 005 - 001 - - - -

MAR - 9 2011

City of Portland

has permission to Interior renovations and addition of rear decks at 2<sup>nd</sup> & 3<sup>rd</sup> floors

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

Fire Prevention Officer

Codé Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY.

PENALTY FOR REMOVING THIS CAR





July 15, 2011

Mr. Jonathan Culley Red Fern Properties

Reference: Existing Fire Escapes 127-129 York Street Portland, Maine 04101

Structural Integrity Job: #10-0142

Dear Jonathan,

As requested I am writing this memo regarding the existing fire escapes at the above referenced site.

The opinions expressed are based on limited visual observations during my visit to the site on multiple occasions and my knowledge of structures, their components, and the related building codes. No calculations or physical testing were performed to determine the adequacy of the complete structural systems. Architectural/life safety conditions are not included in this report. No warranty expressed or implied, as to the condition of the structure, is intended.

After visiting the above referenced site and observing the escape in its current condition with the recent repairs, I certify that the fire escape is in good condition and is structurally sound for use as an emergency exit. .

Do not hesitate to call with any questions, comments, or if I can be of further assistance.

Sincercly,

Havor Ch

Aaron C. Jones, P.E., SECB, LEED AP BD+C

#### City of Portland, Maine - Building or Use Permit Application

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

### PERMIT ISSUED

Job No:	Date Applied:		CBL:			
2011-02-415-MF-5+	2/09/2011		044 A - 005 - 001		MAR - 9	2011
Location of Construction: 127 YORK	Owner Name: HARBORVIEW DEVEL LLC	OPMENT	Owner Address: PO BOX 8816, PO	RTLAND, ME 0410-	City of Po	Phone:
Business Name:	Contractor Name: Culley, Joanthan		Contractor Addre	ess:		Phone: 776-9715
Lessee/Buyer's Name:	Phone:		Permit Type: BLDG – Building In	nt alterations and nev	w rear 3 story decks	Zone: R-6
Past Use:  12 residential dwelling units  Proposed Project Description 127 York Street - to add 3 story re		01-210)- to ks and	Cost of Work: 140,000.00  Fire Dept:  Signature: Dept:  Pedestrian Activity	Approved Denied N/A  Wolf, ities District (P.A.	Londitures D.)	CEO District:  Inspection: Use Group: R-2 Type: 3B  DBC 2009 Signature: B
Permit Taken By:				Zoning Appro	oval	
This permit application of Applicant(s) from meeting Federal Rules.     Building Permits do not septic or electrial work.     Building permits are voice within six (6) months of False informatin may invested permit and stop all work.	include plumbing, d if work is not started the date of issuance. validate a building	Special Zo Shoreland Wetland Flood Zo Subdivis Site Plan Maj Date: O CERTIF	me sion required Min_MM  OTH CONTH	Zoning Appeal  Variance  Miscellaneous  Conditional Use  Interpretation  Approved  Denied  Date:	Not in Dis Does not l Requires I Approved	et or Landmark Require Review Review

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.

ADDRESS	DATE	PHONE
	ADDRESS	ADDRESS DATE

Sono PDF TO Lannie ORZ

## 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: 12	7 York Street	
Total Square Footage of Proposed Structure,	Area Square Footage of Lot	1,239,4
Tax Assessor's Chart, Block & Lot	Applicant "must be owner, Lessee or Buy	er Telephone:
Chart# Block# Lot#	Name Harborvier Oevelop	-+UC
44 A 415	Address 6.0. B. + 7816	207-776-9715
044 A 005	City, State & Zip Portland, ME 0416	sef
Lessee/DBA (If Applicable)	Owner (if different from Applicant)	Cost Of \$140,000
RECEIVED	Name	Work: \$
	Address	C of O Fee: \$
FEB - 9 2011	City, State & Zip	Total Fee: \$
Current legal use (i.e. single family)  If vacant, what was the previous use?  Proposed Specific use:		Seede
Is property part of a subdivision?	If yes, please name	J.De.
Project description:	lo convesion Capplied under	Scarate and (hu)
Kenovanon and con	is converien Cappiers and	Solar - all-Array
of bruk 2-unit	multi-family. Now kitchens	, baths, sprinkler Con
Contractor's name: Redfern Pro	pertre: LLC	
Address: Po. box	886	
City, State & Zip Parkla-1 M	E 04104	Telephone:
Who should we contact when the permit is re		Telephone: 207-776-9715
	8814 Poithand, ME	04104
Please submit all of the informatio	n outlined on the applicable Check	list. Failure to
	ne automatic denial of your permit.	

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 or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division 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.

				1	
Signature:	Date:	2	9	2011	

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

Director of Planning and Urban Development Penny St. Louis

Job ID: <u>2011-02-415-MF-5+</u>

Located At: 127 YORK

CBL: <u>044 - - A - 005 - 001 - - - - -</u>

#### **Conditions of Approval:**

#### Zoning

- 1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 2. This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. without special approvals.
- 3. Separate permits shall be required for future decks, sheds, pools, and/or garages.
- 4. This property shall remain a 12 residential unit condominium (#2011-01-210) building. Any change of use shall require a separate permit application for review and approval.
- 5. It is understood that separate reviews are required under site plan review for the 3 story rear decks.
- 6. The 3 story rear decks SHALL NOT have any interconnecting stairways to the ground level. Any change to these decks shall require a separate review and approval.

#### Fire

- 1. Structure shall comply with City Code Chapter 10.
- 2. Separate permits are required for: sprinkler, fire alarm, electrical, HVAC, plumbing.
- 3. The structure shall have a supervised NFPA 13R sprinkler system.
- 4. A fire alarm system is required. Initiation shall be by manual pull stations and the sprinkler shall be supervised for water flow and supervisory signals.
- 5. Hardwired photoelectric smoke alarms are required in each bedroom and outside of each bedroom in the living area. New smoke alarms shall be interconnected within each dwelling. See City Code for specifics.
- 6. Hardwired Carbon Monoxide alarms with battery backup are required in the dwelling units.

#### Building

- 1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
- 2. Those renovating dwelling shall install a CO detector in each area within or giving access to bedrooms. That detection must be powered by the electrical service in the building and battery.
- 3. All penetrations between dwelling units and dwelling units and common areas shall be protected with approved firestop materials, and recessed lighting/vent fixtures shall not reduce the (1 hour) required rating per Sec. 712 of IBC.
- 4. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.

- 5. Per the owner, some existing wall partitions will be modified to meet the 1 hour rated wall assembly #3.
- 6. As agreed with the owner, structural specs for the sizing of all interior beams shall be submitted prior to their installation.
- 7. No storage areas have been designated nor are allowed in the basement. Plans shall be submitted for review if this space is to be occupied, including storage.
- 8. The new deck guardrails shall have openings less than 4".

#### **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.
- 1. Footings/Setbacks
- 2. Deck Framing
- 3. Close in prior to insulation or drywall
- 4. Final/Certificate of Occupancy (Condos)

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 OCCUPIED.

#### Jeanie Bourke - LVL detail, 127 York St.

From:

"Jonathan Culley" < jonathan@redfernproperties.com>

To:

"Jeanie Bourke" <imb@portlandmaine.gov>

Date:

4/19/2011 4:42 PM

Subject:

LVL detail, 127 York St.

Attachments: Document(72).pdf

#### Jeanie.

When you issued the building permit for 127 York, you asked for some additional detail on a structural header. I had Aaron Jones of Structural Integrity inspect the condition once we got the wall opened up. The direction he gave us is in the attached letter. Please add to the file. Thank you and please let me know if you have any questions.

#### Jonathan Culley

Redfern Homes LLC | Redfern Properties LLC

Cell: 207-776-9715 Office: 207-221-5746 Fax: 207-221-2822

jonathan@redfernproperties.com www.redfernhomes.com www.redfernproperties.com

244-A-005

From: Aaron Jones [mailto:aaron@structuralinteg.com]

Sent: Wednesday, April 13, 2011 6:01 PM

To: 'Jonathan Culley'

Subject: RE: LVL detail, 127 York St.

Let's try this Thanks Aaron

Aaron C. Jones, P.E., SECB, LEED AP BD+C

Structural Integrity Consulting Engineers, Inc.

77 Oak Street Portland, ME 04101 p. 207-774-4614 f. 866-793-7835

aaron@structuralinteg.com www.structuralinteg.com





April 13, 2011

Mr. Jonathan Culley Red Fern Properties

Reference:

New Beam at Opening in Existing Bearing Wall 127 York Street Portland, Maine 04101

Structural Integrity Job: #10-0142

Dear Jonathan,

As requested I am writing this memo regarding the installation of a new beam at a small opening in a main level bearing wall at 127 York Street.

Please add a triple 9 1/2" deep LVL dropped beam as shown in the attached sketch. The new dropped beam should stack over three new stud pack posts which will stack over the existing main level girder, columns and foundation.

Do not hesitate to call with any questions, comments, or if I can be of further assistance.

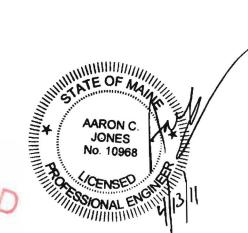
Sincerely,

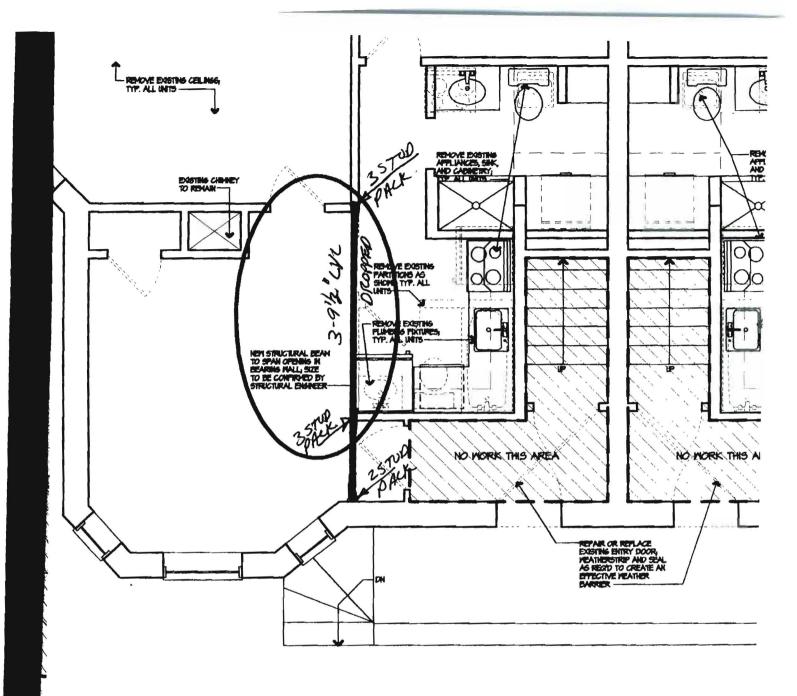
Aaron C. Jones, P.E., SECB, LEED AP BD+C

Havon Ch

President







PORT LAND, ME 04/0/
4/13/11

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Report generated on Feb 14, 2011 2:57:47 PM

Page 1

Job Type:

Multi-Family 5+

Job Description:

127 York Street

Job Year:

2011

**Building Job Status Code:** 

Initiate Plan Review

Pin Value: 652 **Tenant Name:** 

**Job Application Date:** 

Public Building Flag: N

**Tenant Number:** 

**Estimated Value:** 

140,000

Square Footage:

Property Owner

**Related Parties:** 

APTS HARBORVIEW - Joanthan Culley

PLUMBING CONTRACTOR

Charge Fee Code Description Amount

**Permit Charge** Adjustment

**Net Charge** Amount

**Payment** Receipt Date Number

**Job Charges** 

**Payment** Amount

**Payment Adjustment** Amount

**Net Payment** Amount

Outstanding Balance

Job Valuation Fees

\$1,420.00

\$1,420.00

\$1,420.00

Location ID: 6322

**Location Details** 

Alternate Id **Parcel Number** Census Tract GIS X GIS Y GIS Z GIS Reference Longitude Latitude

N10506

044 A 005 001

-70.258851 43.650726

Location Type Subdivision Code Subdivision Sub Code Related Persons

Address(es)

1

127 YORK STREET WEST

**Location Use Code** Variance Use Zone Fire Zone **Inside Outside** District **General Location Inspection Area** Jurisdiction Code Code Code Code Code Code Code Code **ELEVEN TO TWENTY** RESIDENTIAL DISTRICT 3 WEST END

FAMILY

Structure Details

Structure: Condo Conv - 12 Units

Occupancy Type Code:

Structure Type Code Structure Status Type Square Footage Estimated Value

Address

Mutli-Family 5+ Building 0

127 YORK STREET WEST

Longitude Latitude GIS X GIS Y GIS Z GIS Reference

User Defined Property Value

Permit #: 20111259

Permit Data

#### Job Summary Report Job ID: 2011-02-415-MF-5+

Report generated on Feb 14, 2011 2:57:47 PM

Page 2

Location Id	Structure Description	Permit Status	<b>Permit Description</b>	<b>Issue Date</b>	Reissue Date	<b>Expiration Dat</b>	te		
6322	Condo Conv - 12 Units	Initialized	Interior renovations						
				Inspec	tion Details				
Inspection I	Inspection Type	inspection Result	Status Inspection S	Status Date	Scheduled Star	rt Timestamp	Result Status Date	Final Inspection Flag	
				Fee	s Details				
Fee Code		Permit Charg Adjustment		•		Receipt Number	Payment Pay Amount	ment Adjustment Amount	Payment Adj Comment

#### Marge Schmuckal - 127 York Street, new decks

"Jonathan Culley" <jonathan@redfernproperties.com> From: "Barbara Barhydt" <BAB@portlandmaine.gov>

To:

2/14/2011 3:55 PM Date:

Subject: 127 York Street, new decks

"'Marge Schmuckal'" <MES@portlandmaine.gov> CC:

#### Barbara.

We are renovating the existing building at 127 York St (in advance of the new development at 121 York). We have applied for a building permit for the renovations, which include two new exterior decks to the rear of the building. Marge just informed me that these will require Planning review. Can you please advise as to what type of review is required and what I can do to begin the process.

Thank you for any assistance!

Jonathan Culley

Redfern Homes LLC | Redfern Properties LLC

Cell: 207-776-9715 Office: 207-221-5746 Fax: 207-221-2822

jonathan@redfernproperties.com www.redfernhomes.com www.redfernproperties.com

8'x10' = 80#



P.O. Box 8816 Portland, ME 04104 Office: 207-221-5746 Fax: 207-221-2822

www.redfernproperties.com

February 9, 2011

City of Portland
Planning and Development Department
Inspections Division
389 Congress Street
Room 315
Portland, ME 04101

Dear Inspections Division:

Please find attached a Building Permit Application for interior renovations as well as new exterior decks at 127 York Street. Per the notes on the attached architects drawings, we intend to install an NFPA-13R Automatic Sprinkler System in the building and a new NFPA rated fire alarm system. Ben Wallace of the Portland Fire Department has visited the building and has given us guidance on the sprinkler system and the fire alarm system requirements. The sprinkler and fire alarm systems will be permitted separately by our respective sub-contractors.

Our plumbing, heating, and electrical sub-contractors will also be pulling separate permits. Our electrician has been consulting with Brian Laflamme of your office on the scope of electrical renovations.

Finally, we would like to begin work as soon as possible. In particular we would like to remove ceilings to facilitate sprinkler system installation. If you are able to issue a demolition permit in advance of the building permit, this would be very helpful.

Please do not hesitate to contact us with questions, comments, or to request additional information. Thank you for your consideration of this application.

Sincerely,

Jonathan Culley



## Administrative Authorization Application Portland, Maine Planning and Urban Development Department, Planning Division

PRC	JECT NAM	WE:127 York Street, New Exterior	Decks			
PRC	JECT ADI	DRESS:127 York Street, Portland	CHART/BL	OCK/LOT: 44-A	-5	
		FEE:Attached (\$50.00)				
PRO	JECT DES	SCRIPTION: (Please Attach Sketch/Pl	an of the Propo	osal/Development)	ECEIVED	)
CON	NTACT INF	ORMATION:		= )	MAR - 3 2011	
	OWNER/A	PPLICANT	CONSULTAN			
	Name: Address:	Harborview Development LLC c/o Jonathan Culley	Name: Address:	Dept. c	of Building Inspection of Portland Maine	ons
	Work #: Cell #: Fax #:	P.O. Box 8816, Portland, ME 04104 207-221-5746 207-776-9715 207-221-2822	Work #: _ Cell #: _ Fax #:			
	Home #: E-mail:	jonathan@redfernproperties.com	Home #: E-mail:			
Crit (see	eria for an e section 14	Administrative Authorizations: 4-523(4) on pg .2 of this appl.)		Applicant's Assessr Y(yes), N(no), N/A	ment Planning Divis Y(yes), N(no), N	
a) b) c)	Are there a	osal within existing structures? any new buildings, additions, or demoliti print increase less than 500 sq. ft.?	ons?	NO _NEW DECKS _YES ~ 160sf	yes - 6 dako	50 <sup>50</sup> 3 a 480 Total
e)	Are the cu	any new curb cuts, driveways or parking rbs and sidewalks in sound condition? bs and sidewalks comply with ADA?	areas?	NO N/A N/A	- N	
f) g) h)	Is there an	y additional parking?		N/A NO	2	
i) j)	Are there a	any known stormwater problems? crent property screening exist?		NO YES	N	
k)	Are there a	adequate utilities? any zoning violations?		YES NO	2	
m)		ergency generator located to minimize ne		N/A NO	NA	

Signature of Applicant:	Date: 2/17/2011
	Partial Exemption Exemption Denied
with sta	ndard condition
Standard Condition of Approval: The applicant shall obt from the Inspection Division (Room 315, City Hall (874-87	
Planner's Signature a chara Bachy dt	Date _ 2/2/3/1

IMPORTANT NOTICE TO APPLICANT: The granting of an Administrative Authorization to exempt a development from site plan review does not exempt this proposal fro other approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

#### PROVISION OF PORTLAND CITY CODE 14-523 (SITE PLAN ORDINANCE) RE: Administrative Authorization

Sec. 14-523 (b). Applicability

No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

- 1 The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
- 2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
- 3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
- 4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
- 5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
- 6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
- 7 There are no evident deficiencies in existing screening from adjoining properties; and
- 8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way
- 9. There are no current zoning violations;
- 10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
- 11 There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.
- a. Filing the Application. An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1 The application must be accompanied by an application fee of \$50.
- b. Review. Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.
- c. Decision. If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a

## LAUNDRY

CAPACITY

Front Load Compact Washer/Dryer Combo





1 Year Parts an	d Labor,			
10 Years Moto	r, Ufetime on Drum			
WM3455HW	Combo Washer & Dryer - White	048231	010818	
WM3455HS	Combo Washer & Dryer - Silver	048231	011327	

Capacity*	IEC 2.7 cu.ft.
APPEARANCE	
Design Look	Front Control
Intelligent Electronic Controls	
with LED Display	•
Dial-A-Cycle™	•
ENERGY	
Energy Star Compliant	•
WASH/DRY PROGRAMS	
9 Wash Cycles	Cotton/Normal, Perm. Press, Delicates
	Hand Wash/Wool, Drain & Spin,
	Baby Wear, Speed Wash, Sanitary,
	Bulky/Large
6 Dry Cycles	Speed Dry, Sanitary, Cotton/Nomal,
	Perm. Press, Baby Wear, Drain & Spin
5 Wash/Rinse Temps	Extra Hot/Cold, Hot/Cold,
region and the state of the sta	Warm/Warm, Warm/Cold, Cold/Cold
Spin Speeds	Extra High (1300 max), High,
100000000000000000000000000000000000000	Medium, Low, No Spin
No. of Water Levels	Automatically adjusts to size of load
9 Options	Prewash, Extra Rinse, Stain Cycle,
	Rinse & Spin, Water Plus, Tub Clean,
	Delay Wash (up to 19 hours),
	Child Lock, Custom Program
FABRIC CARE FEATURES	Gind Lock, Custom Flogram
Ventless Condensing Drying System	•
SenseClean™ System	•
Sensor Dry	•
CONVENIENCE FEATURES	
3 Tray Dispenser	Prewash, Main Wash, Softener
LoDecibel Quiet Operation	•
End of Cycle Beeper	3
Child Lock	
Auto Suds Removal	
Forced Drain System	
Status Indicator(s)	-
Internal Water Heater (1000W)	4 6 40 - 4 - 600 1
Leveling Legs	4 Adjustable Legs
MOTOR AND AGITATOR	Direct Down Marco
Motor Type	Direct Drive Motor
Motor Speed	Variable
Axis	Horizontal
MATERIALS AND FINISHES	
NeveRust™ Stainless Steel Drum	•
Cabinet	Painted Steel
Control Panel	Plastic
Top Plate	LPM Board
Transparent Door Glass	•
Door Rim	Chrome
Available Colors	White (W), Silver (S)
POWER SOURCE	
Ratings	CSA Listed
Electrical Requirements / Type	120V, 12 Amps / Electric
DIMENSIONS	
Product (WxHxD)	24" x 33 1/2" x 25 1/4"
	(45"D with door open)
Carton (WxHxD)	26"x 35 3/4"x 27 3/4"
Weight: Product / Shipping	159 lbs. / 168 lbs.



#### Control Panel



### LAUNDRY

## WM3455HW WM3455HS

Front Load Compact Washer/Dryer Combo

#### HIGHLIGHTS

Ventless Condensing Dryer SenseClean™ LoDecibe(™ Quiet Operation



2.7 cu.ft. Capacity (IEC)

Direct Drive Motor (10 year Warranty)

1300 RPM

LoDecibel™ Quiet Operation

Highly Energy and Water Efficient

SenseClean™

- 9 Washing Cycles
- 6 Drying Cycles
- 5 Temperature Levels

Sanitary Cycle

Delay Wash (up to 19 hours)

Upfront Electronic Control Panel with LED Display and Dial-A-Cycle™

Chrome Rimmed Door with Glass

Ventless Condensing Drying System









## IS IT A WASHER? OR SOMETHING BETTER?

LG's all-in-one washer and dryer combo does it all in just one machine. It's great for those who want to be able to do laundry at home but do not have an external venting source which conventional dryers require. Perfect for homes, apartments, businesses and vacation homes where space is valuable.

Available colors:

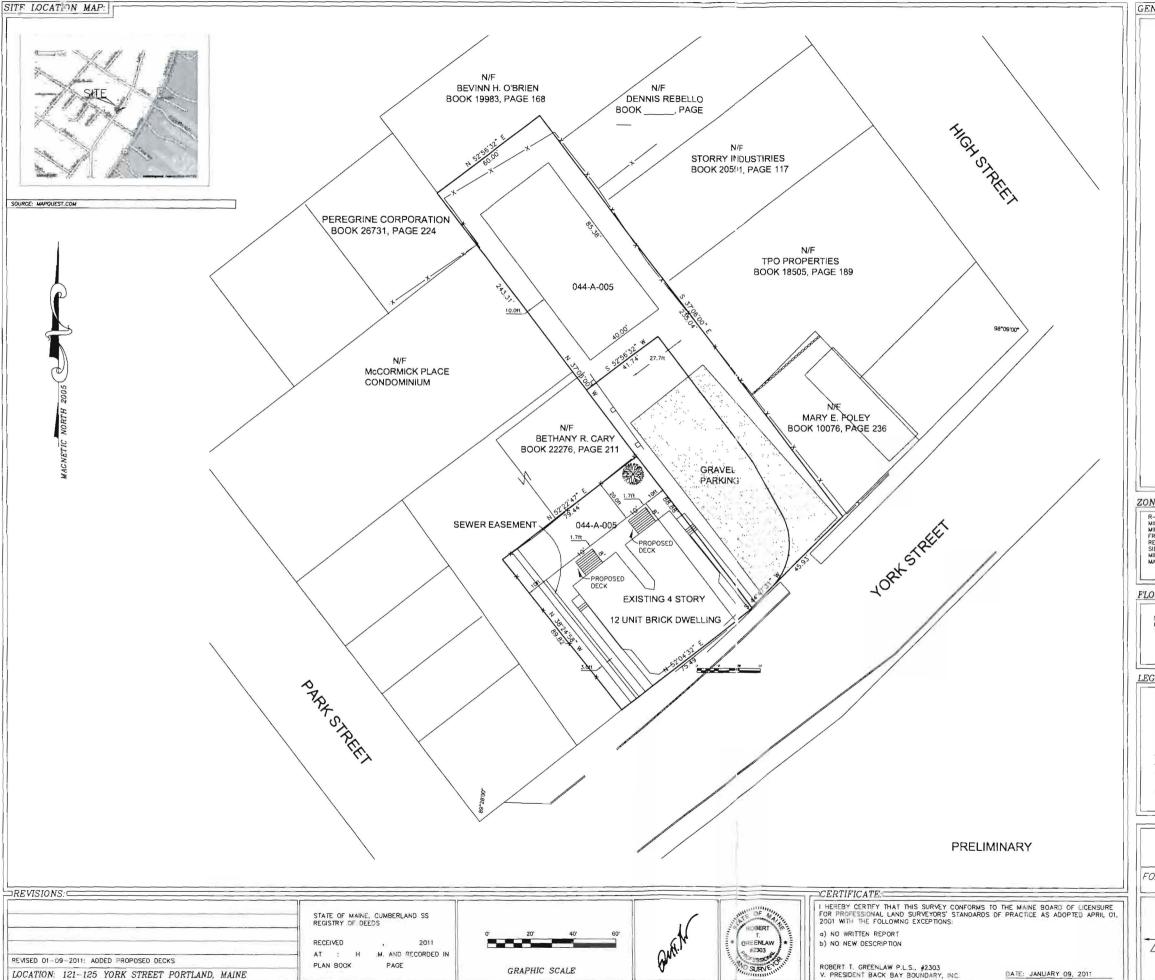




4/20/11 Dec Structural Eng. Spec for wall opening 4-25-11 Close in clay fine 179 york unti, 2,3 cm,

Sph ath Copt Godreson day to un Doma down:

with spontiler System



LOCATION: 121-125 YORK STREET PORTLAND, MAINE

#### GENERAL NOTES:

- 1. RECORD OWNER OF PARCEL: HARBORVIEW APARTMENTS LLC BOOK 27577 PAGE 165 AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.).
- 2. BEARINGS ARE BASED UPON A MAGNETIC OBSERVATION TAKEN AT THE TIME OF THIS SURVEY, UTILIZING THE FOLLOWING EOUPMENT:

  LIETZ SDKKISHA SET 4 TOTAL STATION, LIETZ SDR 33 DATA COLLECTOR, HAND-HELD MAGNETIC COMPASS.
- 3. AREA OF SUBJECT PARCELS: LOT 044-A-004= 14,117 SO. FT., LOT 044-A-005=7122 SOUARE FEET.
- 4. REFERENCE IS MADE TO THE FOLLOWING PLANS:
- a.) CITY OF PORTLAND TAX MAP 44, SUBJECT LOTS SHOWN AS BLOCK A. LOTS 004 AND 005.
- 5. THERE WERE APPARENT EASEMENTS OR RESTRICTIONS BURDENING OR BENEFITING SUBJECT PROPERTY AT THE TIME OF OF THIS SURVEY:
  a.) A SEWER EASEMENT BENIFITING THE PARCEL IDENTIFIED AS BELONGING TO BETHANY R. CARY AS DESCRIBED IN DEED BOOK 22276, PAGE 211.

#### ZONING:

R-6 RESIDENTIAL ZONE:
MINIMUM LOT SIZE: 4500 SQUARE FEET
MINIMUM STREET FRONTAGE: 40 FEET
FRONT YARD SETBACK: 10 FEET
SIDE YARD SETBACK: 20 FEET
SIDE YARD SETBACK: 10 FEET
MINIMUM LOT WIDTH: 50 FEET
MAXIMUM HEIGHT; 45 FEET

#### FLOOD NOTE:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 138, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 1986 AND IS NOTI IN A SPECIAL FLOOD HAZARD AREA.

#### LEGEND:

DATE: JANUARY 09, 2011

Capped 5/8" Rebor Set With # 2303. CRS 9

IPF O Iron Pipe Found MONF 
Monument Found

 Boit Found ------ Property Line Street Line - Setbock Line

- Old Lot Line

(50.00') Distance from reference Plan or deed. N/F Now Or Formerly 12345/99 Deed Book/Page of Local Registry

1 Plot Number (Ref 4a) — Edge of troveled way \_\_\_ ε \_\_ Overhead Utility Ø Utility Pole

Z Indicotes Ownership in Common

DRAWN BY: PJM

CHECKED BY: DMD

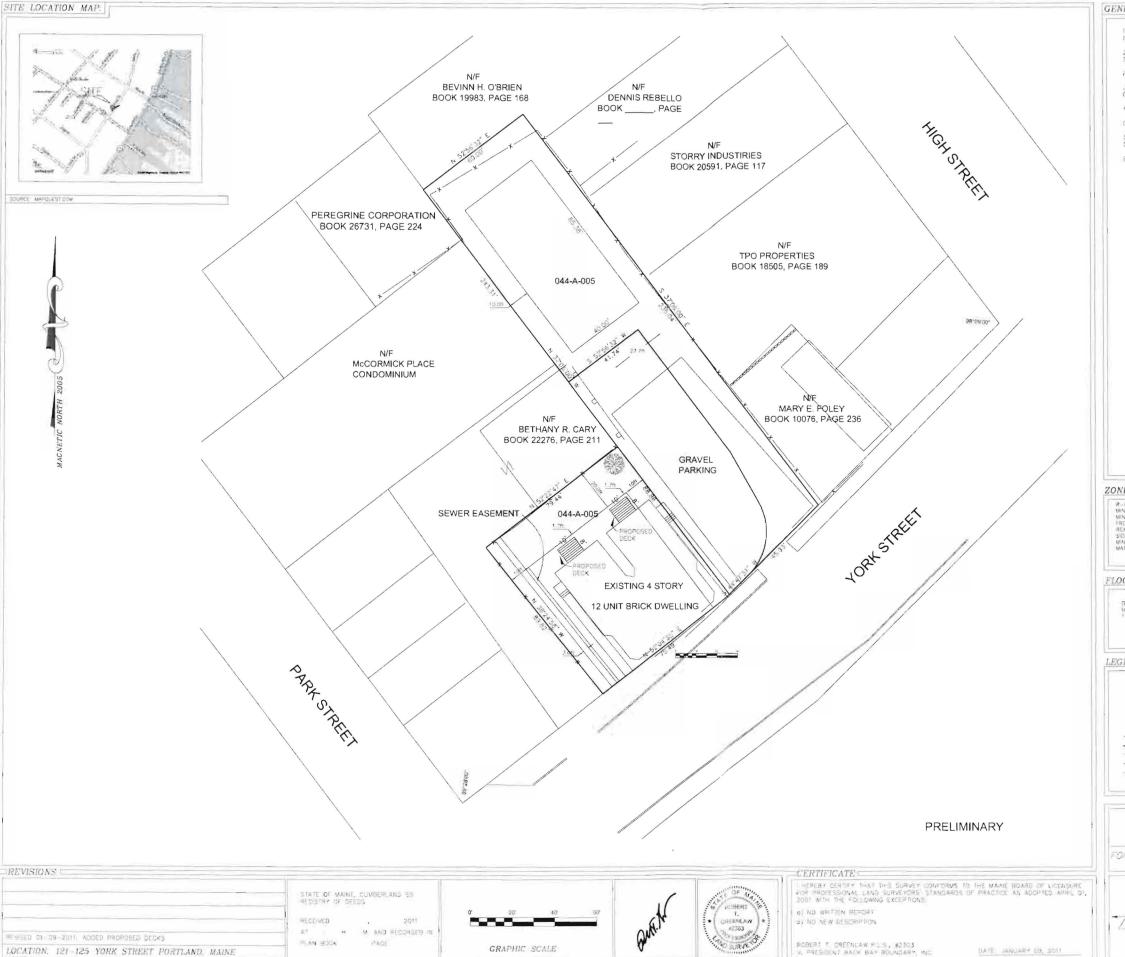
BOUNDARY SURVEY/SITE PLAN AT 121 YORK STREET, PORTLAND, MAINE

RED FERN PROPERTIES LLC

PREPARED BY ROBERT T. GREENLAW PLS LAND SURVEYING

SCALE: 1" = 20" DATE OF SURVEY: 10/20/2010 JOB NUMBER: 121 YORK ST SHEET: 1 OF 1 ORAWER: 2005 NO: 002

134 PORTLAND AVE OLD ORCHARD BEACH MAINE BOBGREENLAWOMYFAIRPOINT, NET 207-749-9471



GRAPHIC SCALE

LOCATION. 121-125 YORK STREET PORTLAND, MAINE

#### GENERAL NOTES:

- I RECORD OWNER OF PARCEL HARBORYIEW APARTMENTS ILC BOOK 27577 PAGE 165 AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.).
- 2. BEARINGS ARE BASED UPON A MAGNETIC DESERVATION TAKEN AT THE TIME OF THIS SURVEY, UTILIZING THE FOLLOWING EQUIPMENT.

  LIFTZ SORKISHA SET & TOTAL STATION, LIETZ SOR 33 DATA COLLECTOR;

  HAND—HELD MAGNETIC COMPASS.
- 1 AREA OF SUBJECT PARCELS. LOT 044-A-004= 14,117 SQ. FT., LOT 044-A-005=7122 SQLARE FEET,
- 4. REFERENCE IS MADE TO THE FOLLOWING PLANS: 4.) CITY OF PORTLAND TAX MAP 44, SUBJECT LOTS SHOWN AS GLOCK A. LOTS 004 AND 005:
- 5. THERE WERE APPARENT EASEMENTS OR RESTRICTIONS BURDENING DR BENEFITING SUBJECT PROPERTY AT THE TIME OF OF THIS SURVEY.

  2) A SEWER EASEMENT BENEFITING THE PARCE, UCHINIED AS BELONGING TO BETHANY R. CARY AS DESCRIBED IN DEED BOOK 22276, PAGE 211

#### ZONING:

#### FLOOD NOTE

BY GRAPHIC PLOTTING ONLY. THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAIR, COMMUNITY PRIMEL NO. 220051 139, AMBIET STREET AN EFFECTIVE DATE OF JULY 17, 1866 AND 15 NOT IN A SPECIAL FLOOD INSURANCE AND

#### LEGEND:

DATE JANUARY 09, 2011

CRS & Copped 5/8" Rebor Set With # 2,503 PF o Iron Pipe Found

MENF □ Morument Found

Δ Migh Mater Survey Point

• Bull Found - Abutter Line

- Street Line - Selback Line Old Lot Line

(50.00') Distance from reference Plan or died N/F Now Or Formerly 12345/99 Deed Book/Page of Local Registry

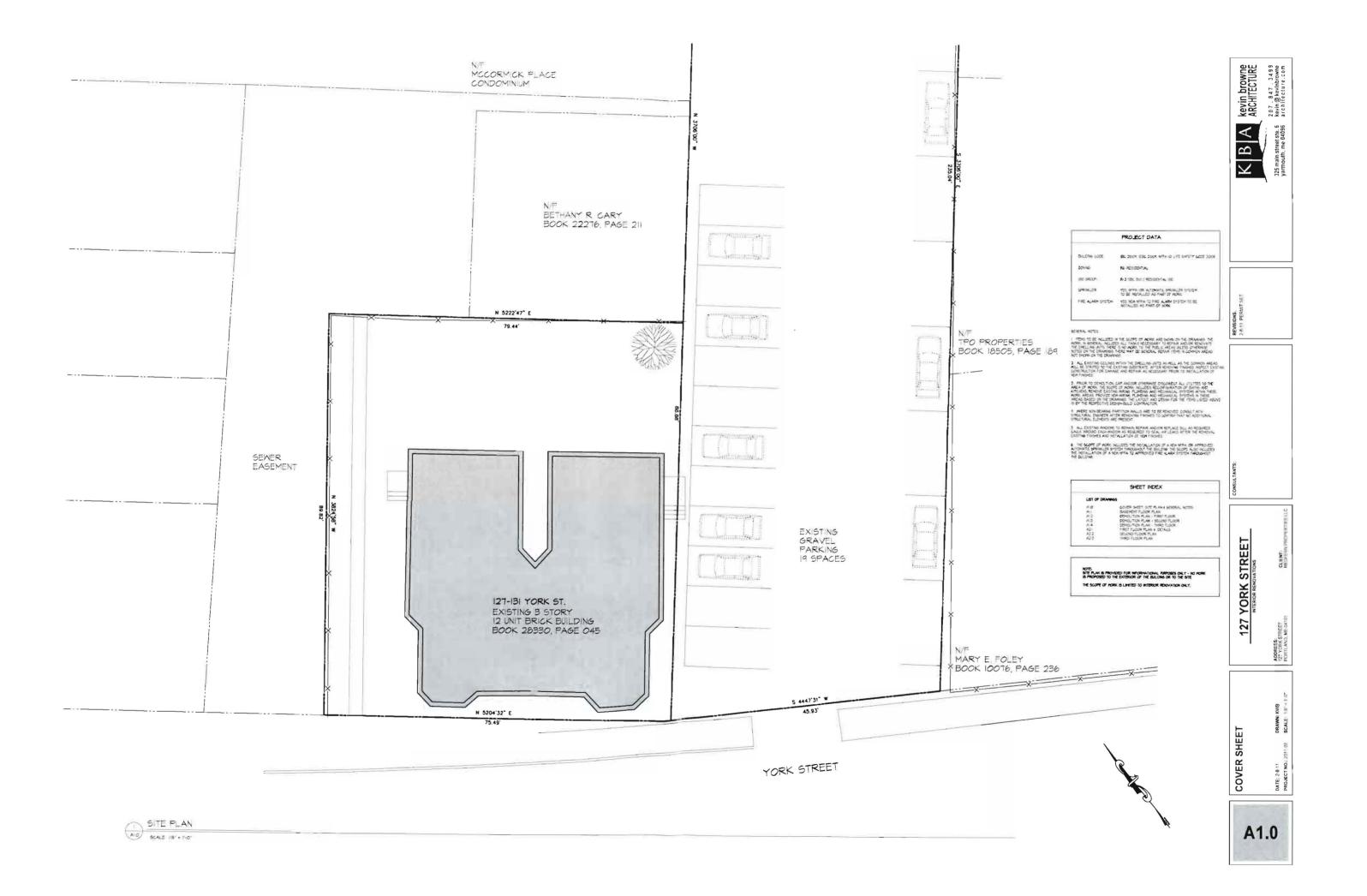
Plot Number (Ref. 4g) - Edge of traveled way \_\_\_ r \_\_ Overhead Utility CE WHILLY Pole Z Indicates Ownership

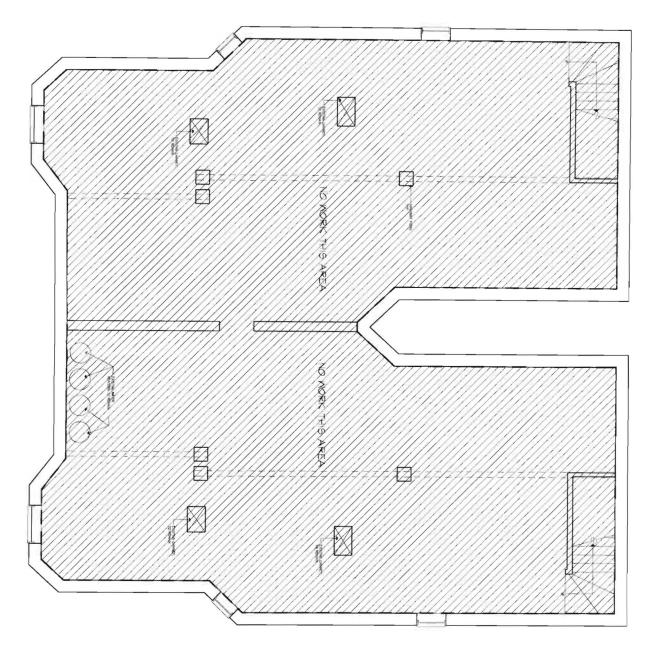
BOUNDARY SURVEY/SITE PLAN AT 121 YORK STREET, PORTLAND, MAINE

FOR RED FERN PROPERTIES LLC



DRAWN BY, PUM CHECKED BY DAD SCAR 1" = 20" MAY 25 SURVEY: 10/20/2010 JOB NUMBER 121 YORK 37 SHEET: 1 DF 1 294WER: 2005 NO COI





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BASEMENT FLOOR PLAN

DATE: 2-8-11 DRAWN: KWB
PROJECT NO.: 2011-02 SCALE. 1/4" = 1-0"

127 YORK STREET

ADDRESS:
127 YORK STREET CLIENT:
PORTLAND, ME 04101 REDFERN PROPERTIES LLC

CONSULTANTS:

REVISIONS 2-8-11 PERMIT SET



CONTRACTOR SHALL REASIBLE AND VERIET ALL DREASONS AT THE 600K.

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DEMOLITION PLAN FIRST FLOOR

DATE 2-11 DRAWN: KWP
PROJECT NO.. 2011-02 SCALE 1/4" = 1".0"

127 YORK STREET

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NO NORK THESE AREAS

ADDRESS:
127 YORK SIREET
PORTLAND, ME 04101 REDFERN PROPERTIES LLC

CONSULTANTS:

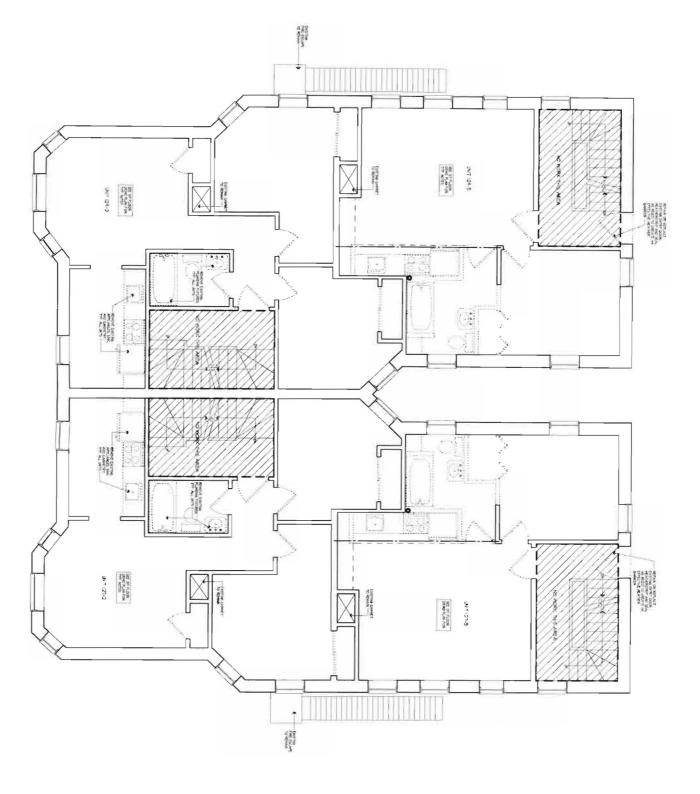
DRAMING KEY

ENSTRE CONTRICTION TO REMAIN ENSTRE CONSTRUCTION TO BY REMOVES

NEW PARTITIONS (NEE FLOOR FLANS)

REVISIONS 2-8-11 PERMIT SET





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DEMOLITION PLAN SECOND FLOOR

DATE: 2-8-11 DRAWN; KWB
PROJECT NO., 2011-02 SCALE 1/4" = 1'-0"

127 YORK STREET

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ADDRESS. 127 YORK STREET PORTLAND, ME 04101 CLIENT. REDFERN PROPERTIES LLC CONSULTANTS:

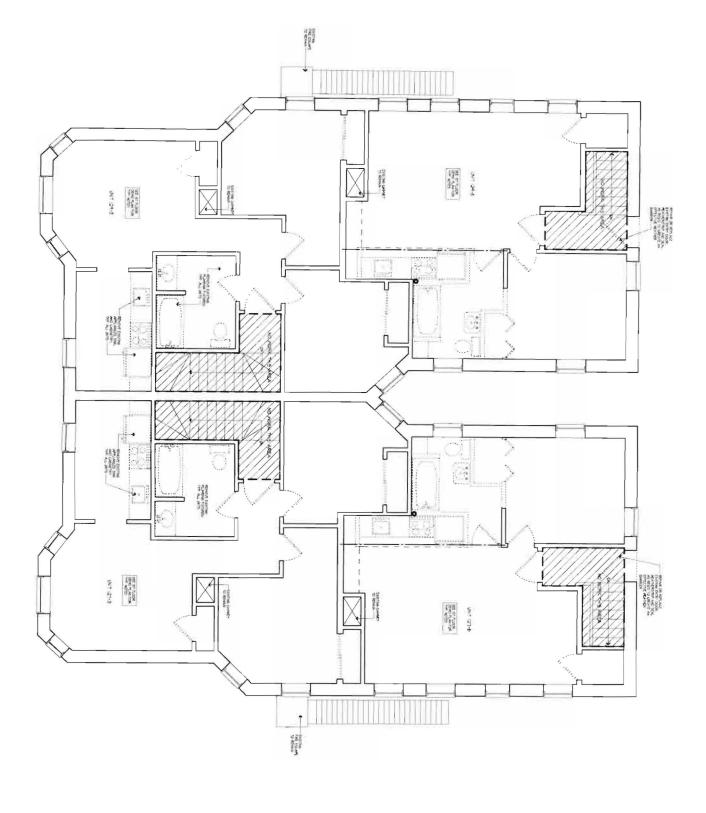
REVISIONS: 2-8-11 PERMIT SET



A1.3

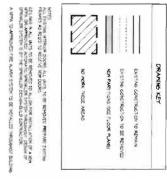
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DRAWING KEY



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CLIENT: REDFERN PROPERTIES LLC

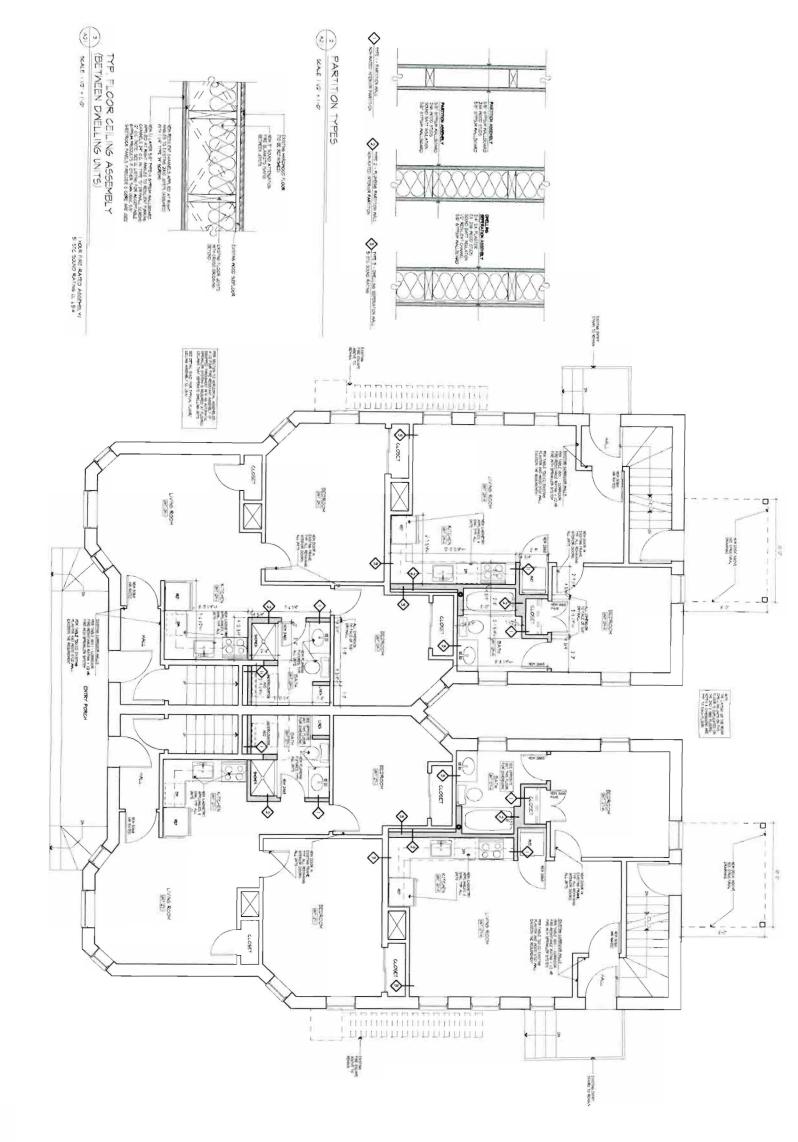
**DEMOLITION PLAN** A1.4 THRID FLOOR DATE; 2-8-11 DRAWN: KWB
PROJECT NO : 2011-02 SCALE: 1/4" = 1:0"

127 YORK STREET ADDRESS: 127 YORK STREET PORTLAND ME 04101

CONSULTANTS:







FIRST FLOOR PLAN

FIRST FLOOR PLAN

127 YORK STREET ADDRESS: 127 YORK STREET PORTLAND, ME 04101

REVISIONS. 2-8-11 PERMIT SET



A2.1

DATE: 2-8-11 DRAWN: KWB PROJECT NO.: 2011-02 SCALE. 1/4" = 1/6"

CLIENT: REDFERN PROPERTIES LLC

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EXAMPLE CONTRUCTION TO REMAIN

DRAMING KEY

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SECOND FLOOR PLAN

DATE: 2-11 DRAWN: KWR
PROJECT NO.: 2011-02 SCALE: 1/4" = 1/40"

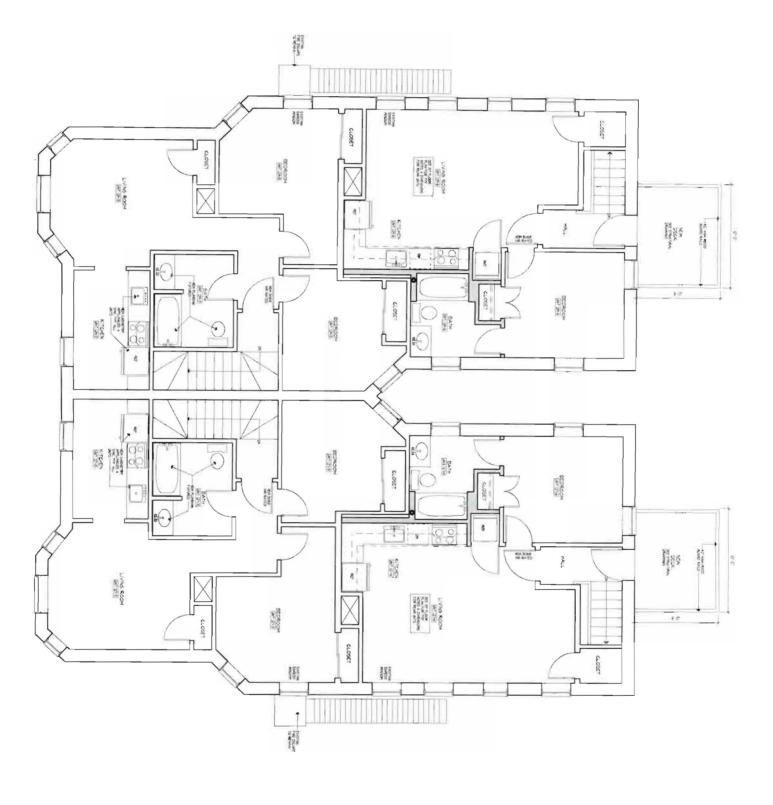


ADDRESS: 127 YORK STREET PORTLAND, ME 04101 CLIENT: REDFERN PROPERTIES LLC









CONTRACTOR SHALL REAGUE AND VERYY ALL DIRENDOUS AT THE WORK.

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A2.3

THRID FLOOR PLAN

DATE 28-11 DRAWN: KWP PROJECT NO. 2011-02 SCALE: 1/4" = 1.0"

127 YORK STREET

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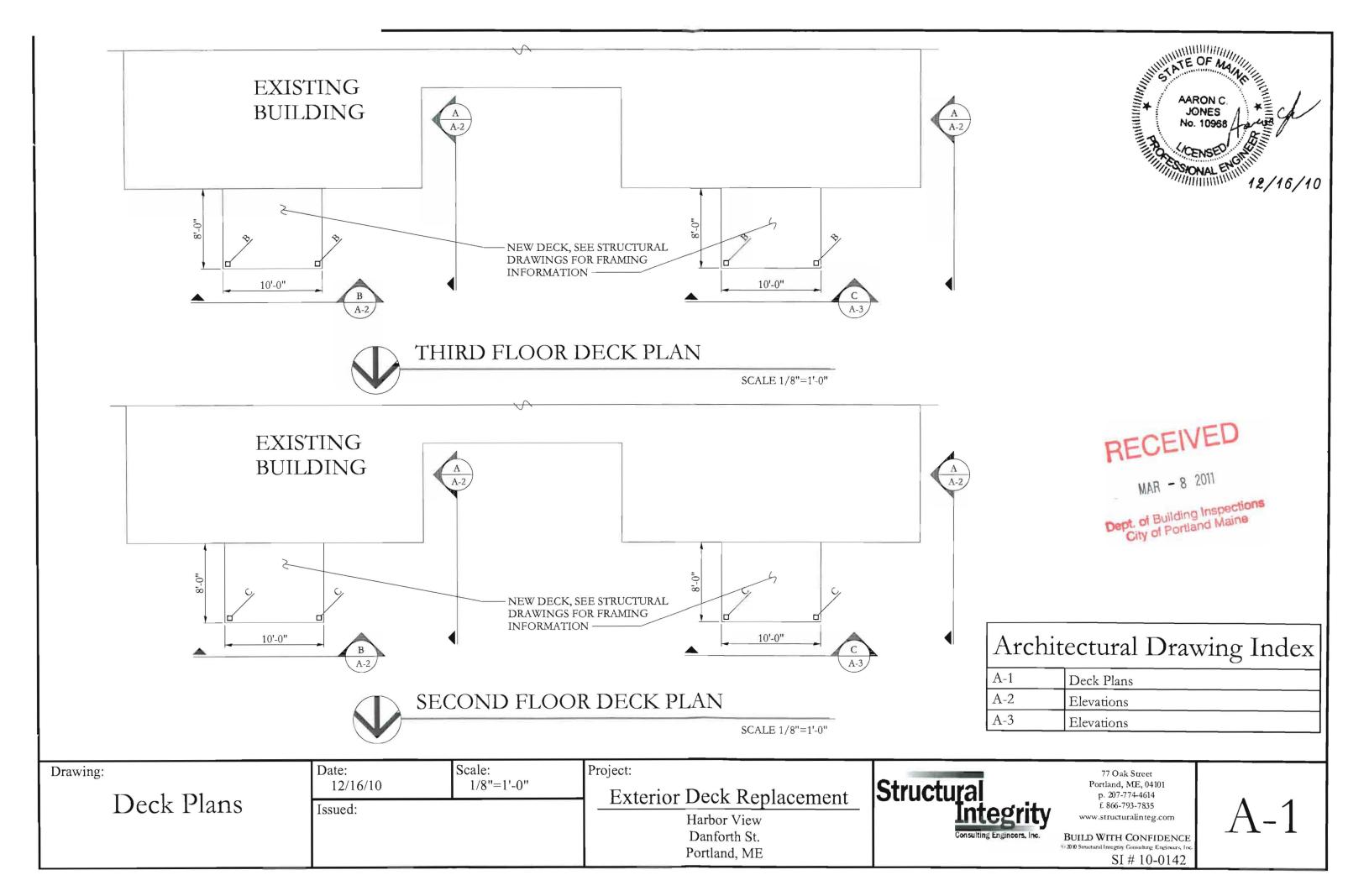
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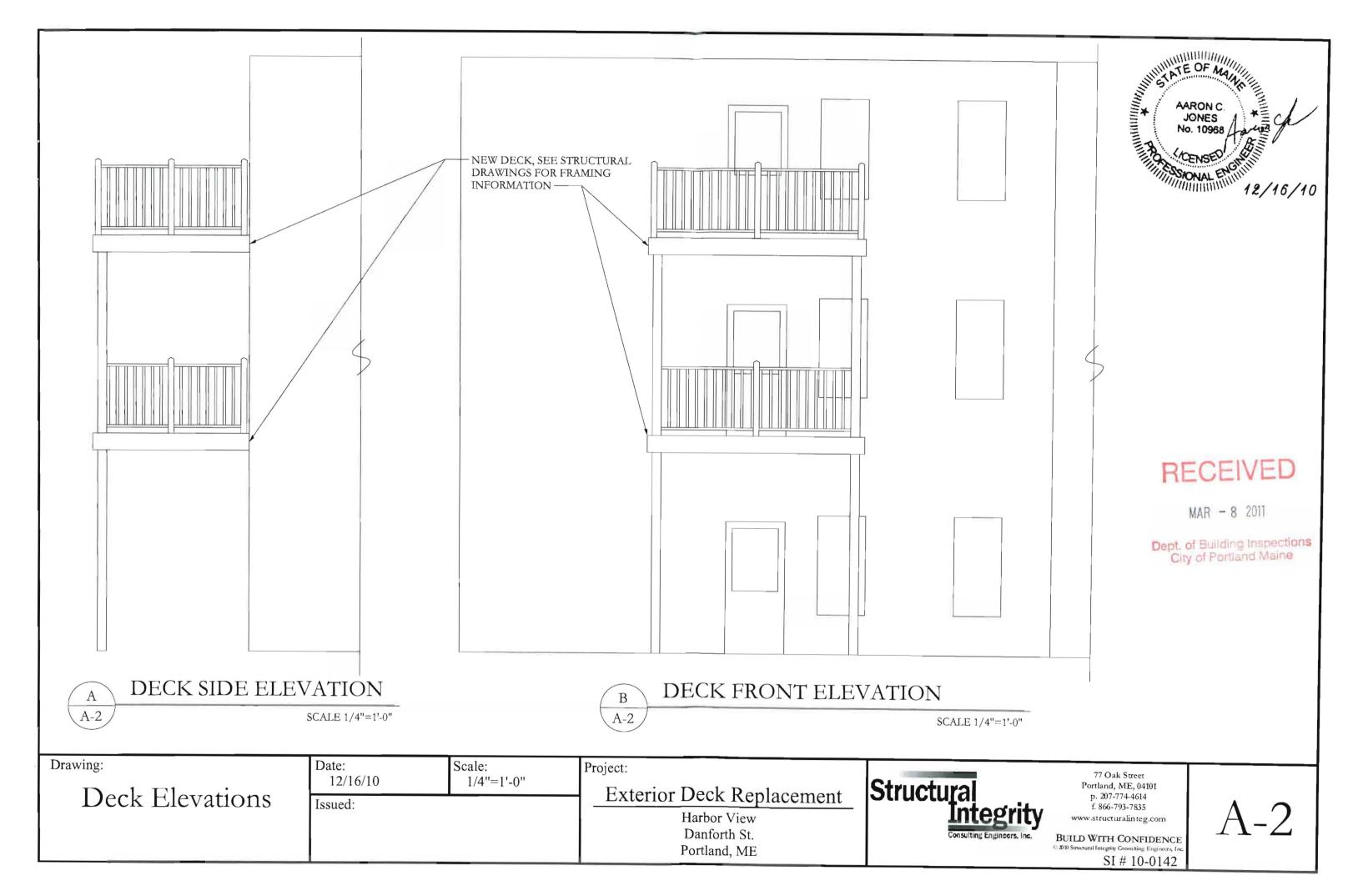
CLIENT: RECFERN PROPERTIES LLC

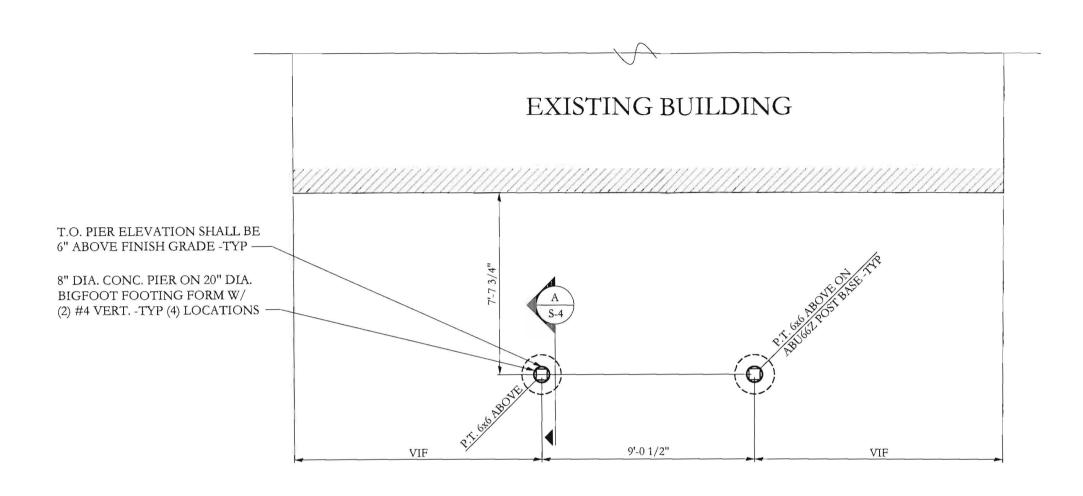
CONSULTANTS

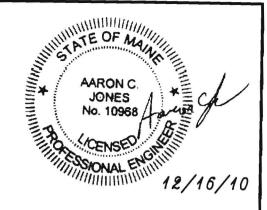
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MAR - 8 2011

Dept. of Building Inspections City of Portland Maine

	FRAM	ING PLAN SYMBOLS KEY
ſ		WOOD POST
	-	JOIST BEARING
	<b> -</b>	FLUSH FRAMED JOIST BEARING WITH HANGER



### TYPICAL DECK FOUNDATION PLAN

NOTES:

SCALE 1/4"=1'-0"

1. ALL FRAMING TO BE PRESSURE TREATED OR NATURALLY DECAY RESISTANT.
2. ALL EXPOSED CONNECTORS TO BE GALVANIZED -TYP

Typical Deck
Foundation Plan

Date: Scale: 1/4"=1'-0"

Issued:

Project:

Exterior Deck Replacement

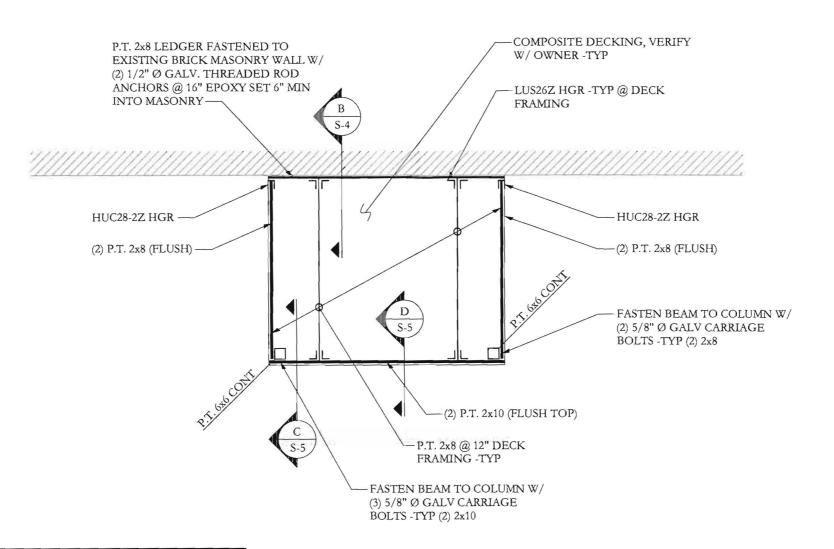
Harbor View Danforth St. Portland, ME

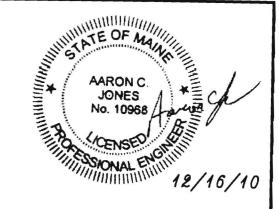


77 Oak Street
Portland, ME, 04101
p. 207-774-4614
f. 866-793-7835
www.structuralinteg.com

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SI # 10-0142

S-1







FRAM	ING PLAN SYMBOLS KEY
	WOOD POST
-	JOIST BEARING
<b>-</b>	FLUSH FRAMED JOIST BEARING WITH HANGER



## TYPICAL SECOND FLOOR DECK FRAMING PLAN

SCALE 1/4"=1'-0"

1. ALL FRAMING TO BE PRESSURE TREATED OR NATURALLY DECAY RESISTANT.

2. ALL EXPOSED CONNECTORS TO BE GALVANIZED - TYP

Portland, ME

Drawing: Typical Second Floor Deck Framing Plan

Date: Scale: 12/16/10 1/4"=1'-0" Issued:

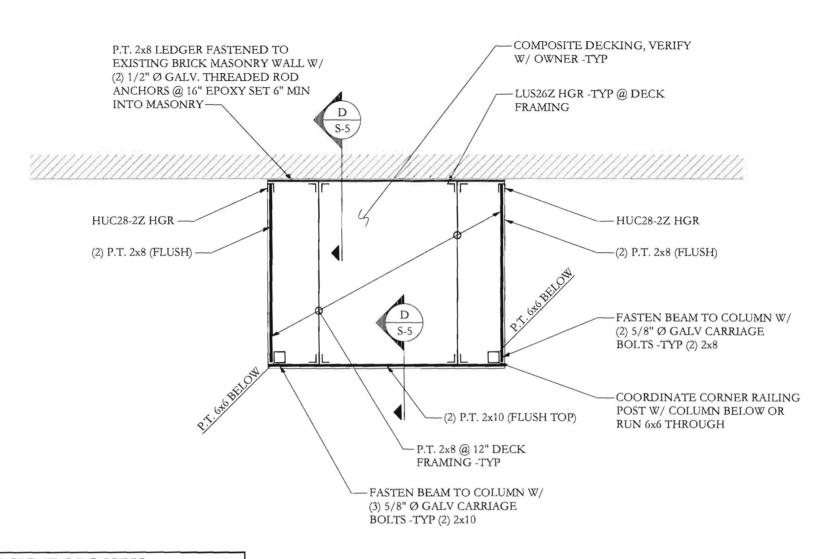
Project: Structura Exterior Deck Replacement Harbor View Danforth St.

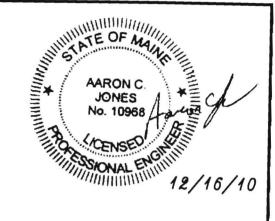
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City of Building Inspections

FRAM	FRAMING PLAN SYMBOLS KEY				
	WOOD POST				
-	JOIST BEARING				
<u> </u>	FLUSH FRAMED JOIST BEARING WITH HANGER				



## TYPICAL THIRD FLOOR DECK FRAMING PLAN

NOTES:

SCALE 1/4"=1'-0"

- 1. ALL FRAMING TO BE PRESSURE TREATED OR NATURALLY DECAY RESISTANT.
- 2. ALL EXPOSED CONNECTORS TO BE GALVANIZED -TYP

Drawing:
Typical Third Floor
Deck Framing Plan

Date: 12/16/10	Scale: 1/4"=1'-0"
Issued:	

Project:

## Exterior Deck Replacement

Harbor View Danforth St. Portland, ME

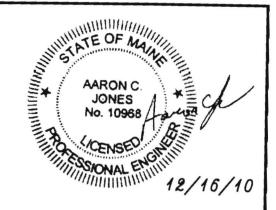


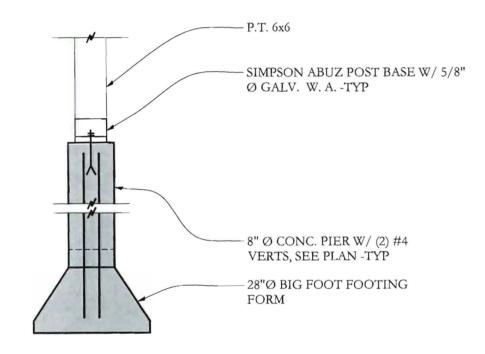
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SI # 10-0142

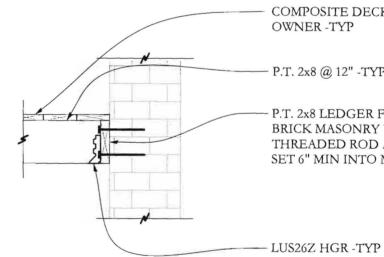
5-3





**SECTION** 

3/4"=1'-0



COMPOSITE DECKING, VERIFY W/OWNER-TYP

P.T. 2x8 @ 12" -TYP DECK FRAMING

P.T. 2x8 LEDGER FASTENED TO EXISTING BRICK MASONRY WALL W/ (2) 1/2" Ø GALV. THREADED ROD ANCHORS @ 16" EPOXY SET 6" MIN INTO MASONRY

LUS26Z HGR -TYP @ DECK FRAMING

**SECTION** 

3/4"=1'-0

Drawing:

**SECTIONS** 

Date: 12/16/10

Issued:

Scale: 3/4"=1'-0" Project:

Exterior Deck Replacement

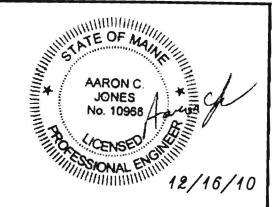
Harbor View Danforth St. Portland, ME

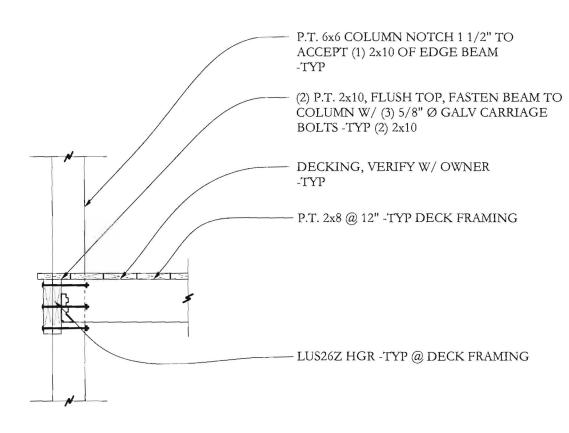


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BALUSTERS AND RAILINGS BY CONTRACTOR -TYP

P.T. 4x4 NOTCH 1 1/2" AND FASTEN TO EDGE BEAM W/ (2) 1/2" Ø GALV CARRIAGE BOLTS -TYP

(2) P.T. 2x10, FLUSH TOP

(2) P.T. 2x8, FLUSH

DECKING, VERIFY W/ OWNER -TYP

P.T. 2x8 @ 12" -TYP DECK FRAMING

LUS26Z HGR -TYP @ DECK FRAMING

SECTION

D S-5

3/4"=1'-0

Drawing:

**SECTIONS** 

Date: 12/16/10

Issued:

**SECTION** 

Scale: 3/4"=1'-0"

3/4"=1'-0

Project:

Exterior Deck Replacement

Harbor View Danforth St. Portland, ME



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BUILD WITH CONFIDENCE 2010 Structural Integrity Consulting Engineers Inc.

SI # 10-0142

S-5

#### City of Portland, Maine - Building or Use Permit Application

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

Location of Construction:  127 YORK ST  Owner Name: HARBORVIEW APTS LLC  Owner Address: PO Box 8816 Portland, ME 04104  Business Name:  Contractor Name: Sprinkler Systems, Inc. – Scott Garland  Contractor Address: PO Box 1285, Lewiston, ME 04243  207-782-010  Lessee Buyer's Name: Permit Type: FIRE SYS WB - Fire Suppression Water Based  R-6	Job No: 2011-05-1127-FAFS	Date Applied: 5/18/2011		CBL:			
Business Name:  Contractor Name: Sprinkler Systems, Inc. – Scott Garland  Contractor Address: PO Box 1285, Lewiston, ME 04243  207-782-010  Lessee Busar's Name:  Phone: Sprinkler Systems, Inc. – Scott Garland  Permit Type: FIRE SYS WB - Fire Suppression Water Based  R-6  Past Use:  12 Residential Condos  12 residential condos – install water based fire suppression system  Proposed Project Description: 127-129 York Street – install water based fire supression system  Permit Taken By:  Cott of Work: 6000.00  Fire Dept: Approved Denied N/A  Signature:  Pedestrian Activities District (P.A.D.)  Signature:  Zoning Approval  Pedestrian Activities District (P.A.D.)  1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.  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.  Approved App	2011-03-1127-PAP3	3/10/2011		044 A - 005 - 00	1		
Sprinkler Systems, Inc. – Scott Garland  Sprinkler Systems, Inc. – Scott Garland  PO Box 1285, Lewiston, ME 04243  207-782-010  207-782-010  207-782-010  207-782-010  207-782-010  207-782-010  207-782-010  Permit Type: FIRE Sys WB - Fire Suppression Water Based  R-6  Past Use:  12 residential condos — install water based fire suppression system  Proposed Project Description: 127-129 York Street – install water based fire supression system  Proposed Project Description: 127-129 York Street – install water based fire supression system  Pedestrian Activities District (P.A.D.)  Signature:  Pedestrian Activities District (P.A.D.)  Signature:  Zoning Approval  Special Zone or Reviews  Subdivision  Subdivision  Subdivision  Subdivision  Site Plan  Approved  Appro	The second state of the second state of the second	The state of the s	LC	PO Box 8816		Phone:	
Past Use:  12 Residential Condos  12 residential condos — install water based fire suppression system  13 residential condos — install water based fire suppression system  14	Business Name:	Sprinkler Systems, In	c. – Scott	TOWN ST. BOUNDARD NO. NO. CARDINA.	13	Phone: 207-782-0104	
12 Residential Condos   12 residential condos — install water based fire suppression system   12 residential condos — install water based fire suppression system   13 residential condos — install water based fire suppression system   14	Lessee/Buyer's Name:	Phone:		1	re Suppression Water	r Based	
water based fire suppression system  Fire Dept:  Approved Approved Signature:  Proposed Project Description: 127-129 York Street – install water based fire supression system  Permit Taken By:  Signature:  Pedestrian Activities District (P.A.D.)  Signature:  Position Signature:  Signature:  Pedestrian Activities District (P.A.D.)  Signature:  Signature:  Pedestrian Activities District (P.A.D.)  Signature:  Signature:  Signature:  Position Signature:  Signat		50.	– install	The second secon			CEO District:
Permit Taken By:    Special Zone or Reviews   Zoning Approval			0.5	Denied	y conditions	Use Group: Type:	
Special Zone or Reviews  I. 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.  Special Zone or Reviews  Shoreland  Wetlands  Flood Zone  Subdivision  Subdivision  Site Plan  Miscellaneous  Conditional Use  Interpretation  Approved  Approved  Approved  Approved  Approved  Denied			m	Pedestrian Activ	ities District (P.A.	D.)	
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.  Shoreland  Wetlands  — Wetlands  — Flood Zone  Subdivision — Subdivision — Site Plan  — Miscellaneous — Requires Review — Approved — Approved — Approved — Approved — Approved w/Conditions — Maj _Min _MM	Permit Taken By:				Zoning Appr	oval	
5/25   11 Date. Date: 1 Date: 1	<ul> <li>Applicant(s) from meetin Federal Rules.</li> <li>2. Building Permits do not i septic or electrial work.</li> <li>3. Building permits are voic within six (6) months of the False informatin may inv</li> </ul>	g applicable State and nolude plumbing,  I if work is not started the date of issuance.  alidate a building	Shoreland Street Subdivis Site Plan	one ion MinMM	Variance  Miscellaneous  Conditional Us  Interpretation  Approved  Denied	Not in Dis  Does not I  Requires I  Approved  Approved  Denied	it or Landmark Require Review Review

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

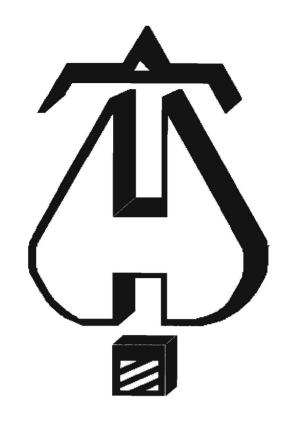
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1e	3-22-11	-	FLOW TOST MAP -				
le	3-22-11	1300	MXIT REDUCED!				
le	4-9-11	9462	STATE FINE MANSIE	LAL'S PERMIT			
10	3-29-11	26534	PERMIT CHOCK	62 POD			
10	5-18-11	_	POMERNO PRANT	Aprilon	)		
급	For your app	roval	checked below:  Approved as submitted  Approved as noted			—copies for approval	
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			4				
					THAN	TE CAPUNA	o set, ens
				SIGNED:	To the second	by Nex.	



#### 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: 127-129 York Street CBL: 044 A 005	
Exact location: (within structure) Entire	
Type of occupancy(s) (NFPA & ICC): Residential - Condominiums	
Building owner: Redfern Properties LLC, PO Box 8816, Portland, ME 04104	_
Managing Supervisor (RMS): Scott E. Garland License No: 278	
Supervisor phone: 207-775-1521 E-mail: scottssi@maine.rr.com	
Installing contractor: Sprinkler Systems Inc.  License No: 093	c
Contractor phone: 207-782-0104 735-1521 E-mail:	_
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: NFPA 13-R Edition: 2007	
*Non-NFPA systems are not approved for use within the City of Portland.  COST OF WORK: \$6,000.00	
Download a new copy of this document from  PERMIT FEE: \$80.00	
www.portlandmaine.gov/fire for every submittal. Attach all working (\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)	
documents and complete approved submittals as may be required by the State Fire Marshal's Office on electronic PDF's in addition to	
the State Fire Marshal's Office on electronic PDF's in addition to	
full sized plans. MAY 1 8 2011	
Contractor shall verify location and type of all FDCs shall be approved in writing by the Fire Prevention Bureau.  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	า
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).	
Applicant signature: Date: 5-18-2011	



. . . Fire Protection by Computer Design

Sprinkler Systems, Inc. 2-4 Avon Street P.O. Box 1285 Lewiston, Maine 04240 207-782-0104

Job Name: 127-129 York St.

Building : ENTIRE

Location : 127-129 YORK STREET, PORTLAND, ME 04101

System: 1 OF 1 Contract: 11027

Data File : 127-129YORKST1.WXF

#### HYDRAULIC DESIGN INFORMATION SHEET

```
Name - 127-129 YORK STREET
                                                                         Date - 3-22-2011
Location - 127-129 YORK STREET, PORTLAND, ME 04101
Building - ENTIRE
                                                               System No. - 1 OF 1
Contractor - OWNER
                                                              Contract No. - 11027
                                                              Drawing No. - 1-3 OF 3
Calculated By - KRISTOPHER J. FISH
Construction: (X) Combustible ( ) Non-Combustible Ceiling Height 8-6
OCCUPANCY - RESIDENTIAL - CONDOMINIUMS
S
    Type of Calculation: ( )NFPA 13 Residential (X)NFPA 13R ( )NFPA 13D
Y
    Number of Sprinklers Flowing: ( )1 ( )2 (X)4 ( )
S
    ( )Other
T
    ( )Specific Ruling
                                                                          Date
                                                 Made by
  Listed Flow at Start Point - 13 Gpm System Type
Listed Pres. at Start Point - 7 Psi (X) Wet () Dry
MAXIMUM LISTED SPACING 16 x 16 () Deluge () PreAction
Domestic Flow Added - Gpm Sprinkler or Nozzle
Additional Flow Added - Gpm Make RELIABLE Model F1RES49
Elevation at Highest Outlet - 72.333Feet Size 1/2X1/2 K-Factor 4.9
Note: DESIGN AREA #1 - THIRD FLOOR
E
M
D
E
S
T
   Note: DESIGN AREA #1 - THIRD FLOOR Temperature Rating 155 DEG
G
N
Calculation Gpm Required 56.27 Psi Required 59.531 AT BASE OF RISER
Summary C-Factor Used: Overhead 150 Underground 150
    Water Flow Test:
Date of Test - 5-31-2002 Rated Cap.
Time of Test - @ Psi
Static (Psi) - 76 Elev.
                                                                  Tank or Reservoir:
                                                               Cap.
A
T
                                                                 Elev.
E
  Residual (Psi) - 74 Other
R
                                                                        Well
   Flow (Gpm) - 963
Elevation - 70.5
                                                                 Proof Flow Gpm
    Location: WATER WAS FLOWED FROM HYD #327 ON PARK ST OPPOSITE GRAY ST FROM AN
P 8" CIRCULATING CITY MAIN. TEST GUAGE READ FROM HYD #135 ON DANFORTH ST.
   Source of Information: PORTLAND WATER DISTRICT
L
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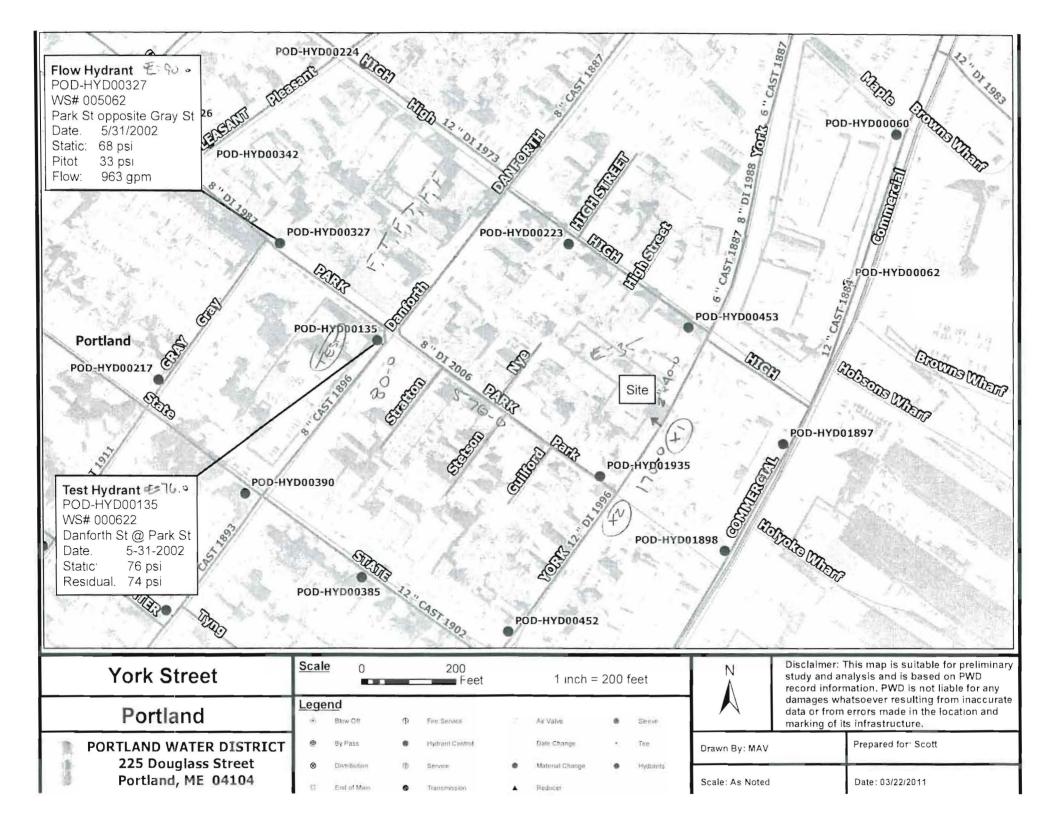
#### Fittings Used Summary

	kler Systems, Inc. I 29 York St.						-5:												age 3 ate 3	3 3-18-2	011
	Legend V. Name	1/2	3/4	1	11/4	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
E	90' Standard Elbow	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
G	45' Elbow Generic Gate Valve	1	1	1 0	1 0	2	2	3	3	3	4	5	7	9 4	11 5	13 6	17 7	19 8	21 10	24 11	28 13
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
Z	Generic Flow Switch	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61

#### Units Summary

Diameter Units Length Units Flow Units Pressure Units Inches Feet

US Gallons per Minute Pounds per Square Inch





#### State of Maine Department of Public Safety

## Fire Sprinkler System Permit



9462

#### 127-129 York Street

Located at:

127-129 York Street

In the Town of: Portland

Occupancy/Use: Condominiums

Type of System: NFPA 13R

#### Permission is hereby given to:

Sprinkler Systems, Inc.

PO Box 1285

Lewiston, ME 042431285

Contractor License # 93

to begin installation according to plans submittal approved by the Office of State Fire Marshal. The submittal is filed under log # 2111111, and no departure from the application submittal shall be made without prior approval in writing. This permit is issued under the provisions of Title 32, Chapter 20, Section 12004-I.

Nothing herein shall excuse the holder of this permit from failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. This permit shall be displayed at the construction site or be made readily available.

This permit was issued on

4/9/2011

for a fee paid of \$112.00

This permit will expire at midnight on

Thursday, October 06, 2011

The expiration date applies only if the installation has not begun by that date and no permission has been granted to extend the date. Once installation begins, then the permit is valid for however long it takes to complete the installation, assuming that the work is fairly continuous.

John E. Morris Commissioner

The type of Fire Department Connection and its location is to be according to the Local Fire Department

Within 30 days of the completion of a new fire sprinkler system or an addition to an existing fire sprinkler system, a fire sprinkler system contractor shall provide to the Office of State Fire Marshal a copy of this permit signed and dated by the certified Responsible Managing Supervisor representing that the fire sprinkler system has been installed according to specifications of the approved plan to the best of the supervisor's knowledge, information, and belief. This requirement is part of the sprinkler Jaw, and neglect of this duty is grounds to not renew the contractor's license to do work in the State of Maine. All renewed sprinkler licenses are good for two years and expire on a June 30th.

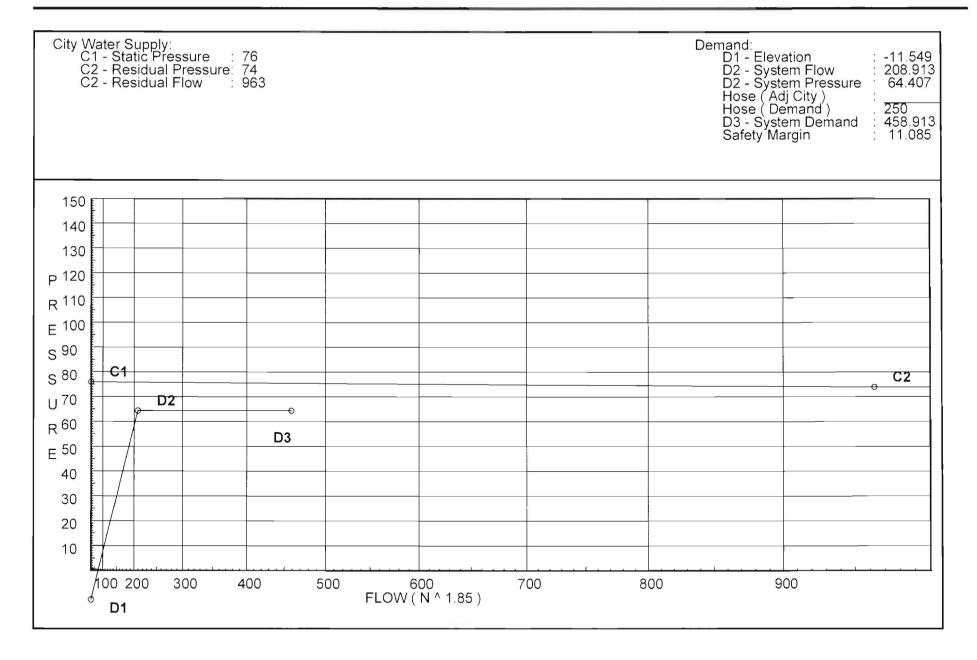
Job completed, tested and verified by date of \_

RMS Signature:

RMS for this job: Garland Scott E.

Page 14

Date 3-18-2011



Sprinkler Systems, Inc. 127-129 York St.

Page 4 Date 3-18-2011

Node No.	Elevation	K-Fact	Pt Actual	Pn -	Flow Actual	Density	Area	Press Req.
TYP	0.0	4.9	7.0	na	12.96	0.05	259.284	7.0
1	72.333	K = K @ DRP	7.3	na	12.96			
2	72.333	K = K @ DRP	7.57	na	13.2			
3	72.333	K = K @ DRP	8.69	na	14.14			
4	72.333	K = K @ DRP	11.06	na	15.96			
Α	72.333		10.01	na				
В	72.333		12.17	na				
C	72.333		23.84	na				
DT	44.333		48.88	na				
D	43.333		54.61	na				
L	43.333		54.68	na				
J	43.333		54.92	na				
K	43.333		55.52	na				
RT	43.333		57.34	na				
RM	38.917		59.53	na				
RB	36.0		66.82	na				
X1	29.5		71.27	na				
X2	70.5		53.52	na				
TEST	70.5		53.54	na	100.0			

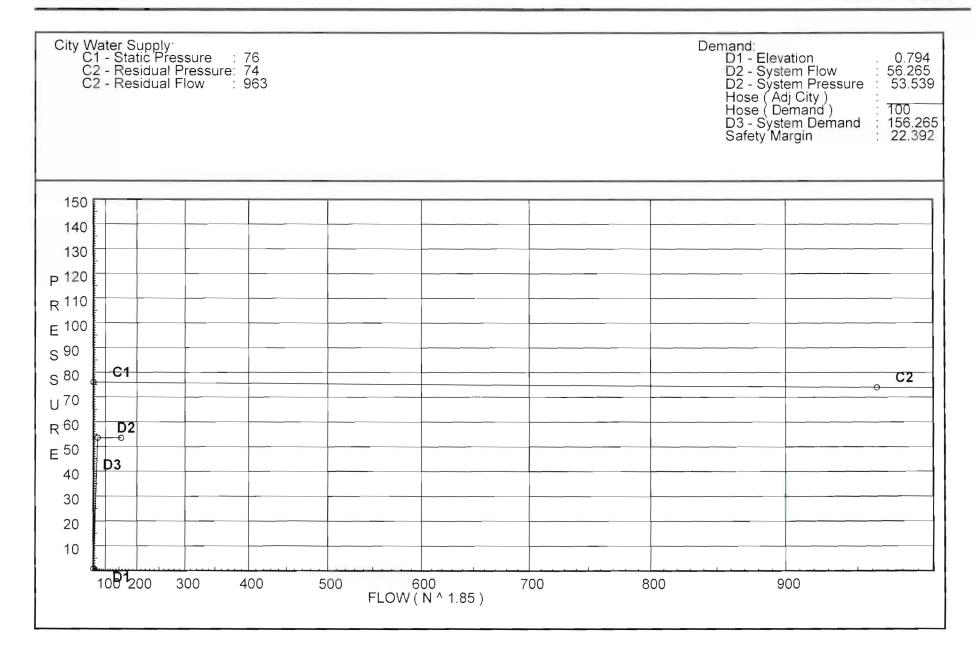
The maximum velocity is 20.89 and it occurs in the pipe between nodes DT and D

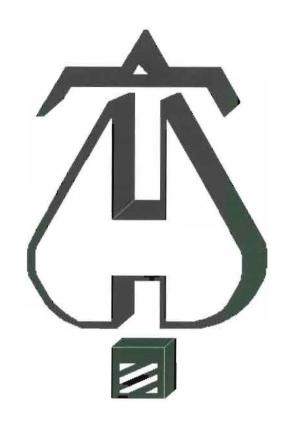
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	(	ing or v. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	****** Notes *****
TYP to	12.96	1.101 150	1T	9.563 0.0	0.333 9.562	7.000 0.0		K Factor = 4.90
DRP	12.96 0.0	_0.0305		0.0	9.895	0.302		Vel = 4.37
***	12.96	····				7.302		K Factor = 4.80
1 to	12.96	1.101 150	1E	3.825 0.0	5.000 3.825	7.302 0.0		K Factor @ node DRP
2	12.96	0.0305		0.0	8.825	0.269		Vel = 4.37
2 to <u>3</u> 3	13.21	1.101 150		0.0	10.000 0.0	7.571 0.0		K Factor @ node DRP
3	26.17	0.1119		0.0	10.000	1.119	**	Vel = 8.82
3 to	14.14	1.101 150	1E	3.825 0.0	1.500 3.825	8.690 0.0		K Factor @ node DRP
A	40.31	0.2486		0.0	5.325	1.324		Vel = 13.58
	0.0 40.31					10.014		K Factor = 12.74
4 to	15.96	1.101 150	1T	9.563 0.0	15.167 9.562	11.063		K Factor @ node DRP
B	15. <u>96</u> 0.0	0.0448		0.0	24.729	1.108		Vel = 5.38
	15.96					12.171		K Factor = 4.57
Α	40.31	1.101		0.0	8.667	10.014		
to	10.01	150		0.0	0.0	0.0		Val = 12 E9
B	40.31		4T	0.0 9.563	8.667 15.750	2.157 12.171		Vel = 13.58
B to	15.96	1.101 150	1T	0.0	9.562	0.0		
C	56.27	0.4611		0.0	25.312	11.672		Vel = 18.96
C	0.0	1.101		0.0	28.000	23.843		
to	EC 27	150		0.0	0.0	12.127		Vel = 18.96
DT	56.27 0.0	0.4611 1.049	1T	0.0 5.0	28.000 1.000	12.911 48.881		Vei - 10.30
to	0.0	120	1.1	0.0	5.000	0.433		
D	56.27	0.8818	The last	0.0	6.000	5.291		Vel = 20.89
D	0.0	1.61		0.0	0.667	54.605		
to	56 27	120		0.0	0.0 0.667	0.0 0.073		Vel = 8.87
L L	56.27 0.0	0.1094 2.067		0.0	7.500	54.678		
to	0.0	120		0.0	0.0	0.0		
J	56.27	0.0324		0.0	7.500	0.243		Vel = 5.38
J	0.0	2.067		0.0	18.333	54.921		
to K	56.27	120 0.0325		0.0 0.0	0.0 18.333	0.0 0.595		Vel = 5.38

Sprinkler Systems, Inc. 127-129 York St.

Page 6 Date 3-18-2011

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitti o Eqv	-	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	****** Notes *****
K	0.0	2.067	 1T	10.0	46.250	55.516		
to RT	56.27	120 0.032 <u>4</u>		0.0	10.000 56.250	0.0 1.824		Vel = 5.38
RT to	0.0	2.157 120	1Z	6.153 0.0	4.417 6.153	57.340 1.913		Vel = 4.94
RM RM to	56.27 0.0	0.0263 2.635 120		0.0 0.0 0.0	10.570 2.917 0.0	0.278 59.531 7.263		* Fixed loss = 6
RB RB	56.27 0.0	0.0099 1.959	1E	0.0 5.818	2.917	0.029		Vel = 3.31
to X1	56.27	150 0.0279		11.635 1.164	18.616 58.616	2.815 1.634		Vel = 5.99
X1 to	0.0	12.34 140	1T 9	93.767 0.0	170.000 93.767	71.272 -17.757		
X2 X2	56.27 0.0	_0.0 8.27	4F :	0 <u>.0</u> 56.936	263.767 650.000	0.001 53.516		Vel = 0.15
to TEST	56.27	140 0.0	2T 1	10.709 _0.0	167.645 817.645	0.0 0.023		Vel = 0.34
	100.00 156.27		nine.			53.539		Qa = 100.00 K Factor = 21.36





. . . Fire Protection by Computer Design

Sprinkler Systems, Inc. 2-4 Avon Street P.O. Box 1285 Lewiston, Maine 04240 207-782-0104

Job Name: 127-129 York St.

Building : ENTIRE

Location : 127-129 YORK STREET, PORTLAND, ME 04101

System 1 OF 1 Contract 11027

Data File : 127-129YORKST2.WXF

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Hydraulic Design Information Sheet
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```
Name - 127-129 YORK STREET
                                                                                                                                                                Date - 3-22-2011
 Location - 127-129 YORK STREET, PORTLAND, ME 04101
 Building - ENTIRE
                                                                                                                                             System No. - 1 OF 1
Contractor - OWNER
                                                                                                                                              Contract No. - 11027
Calculated By - KRISTOPHER J. FISH
                                                                                                                                            Drawing No. - 1 OF 3
 Construction: (X) Combustible ( ) Non-Combustible Ceiling Height - OWJ
Occupancy - ORDINARY HAZARD GROUP 1 - BASEMENT MECHANICAL
       (X) NFPA 13 ( ) Lt. Haz. Ord. Haz. Gp. (X) 1 ( ) 2 ( ) 3 ( ) Ex. Haz. ( ) NFPA 231 ( ) NFPA 231C ( ) Figure Curve
 S
          Other
                                                                                                            Made By
 T
          Specific Ruling
                                                                                                                                                                  Date
Area of Sprinkler Operation - 900 SF System Type Sprinkler/Nozzle Density - .15 (X) Wet Make RELIABLE

D Area Per Sprinkler - 108 SF () Dry Model F1FR

E Elevation at Highest Outlet - 43.833 () Deluge Size 1/2X1/2

S Hose Allowance - Inside - () Preaction K-Factor 5.6

Rack Sprinkler Allowance - () Other Temp.Rat.200 DEG

G Hose Allowance - Outside - 250 GPM AT TEST
G Hose Allowance - Outside - 250 GPM AT TEST
 N
             Note DESIGN AREA #2 - BASEMENT
 Calculation Flow Required - 208.91 Press Required - 52.984 AT BASE OF RISER
Summary C-Factor Used: 120 Overhead 150 Underground
W Water Flow Test:

A Date of Test - 5-21-2002

T Time of Test - Rated Cap. - Elev. - Well
Flow - 963

Pump Data: Tank or Reservoir:
Cap. - Elev. - Well
Proof Flow
          Flow - 963
Elevation - 70.5
                                                                                                                                                     Proof Flow
 U
         Location - WATER WAS FLOWED FROM HYD #327 ON PARK ST OPPOSITE GRAY ST FROM AN
 P 8" CIRCULATING CITY MAIN. TEST GUAGE READ FROM HYD #135 ON DANFORTH ST.
 L Source of Information - PORTLAND WATER DISTRICT
                                         Company of the Control of the Contro
C Commodity Class Location
O Storage Ht. Area Aisle W.
M Storage Method: Solid Piled % Palletized % Rack
141
( ) Single Row ( ) Conven. Pallet ( ) Auto. Storage ( ) Encap. S R ( ) Double Row ( ) Slave Pallet ( ) Solid Shelf ( ) Non T A ( ) Mult. Row ( ) Open Shelf
 0 C
R K Flue Spacing
                                                                                                   Clearance:Storage to Ceiling
                                                                                                               Transverse
                 Longitudinal
 A
 E Horizontal Barriers Provided:
```

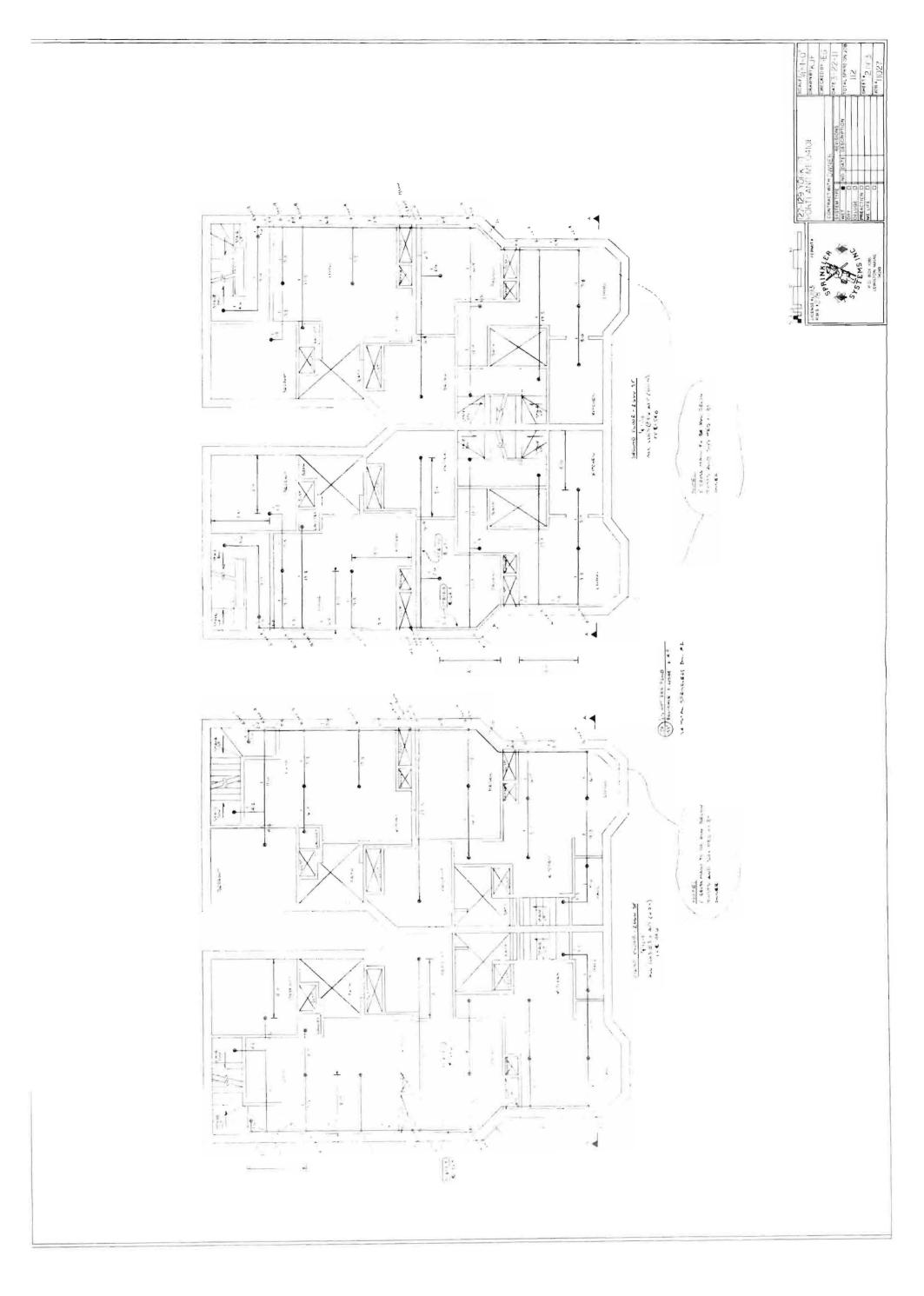
#### Pressure / Flow Summary - STANDARD

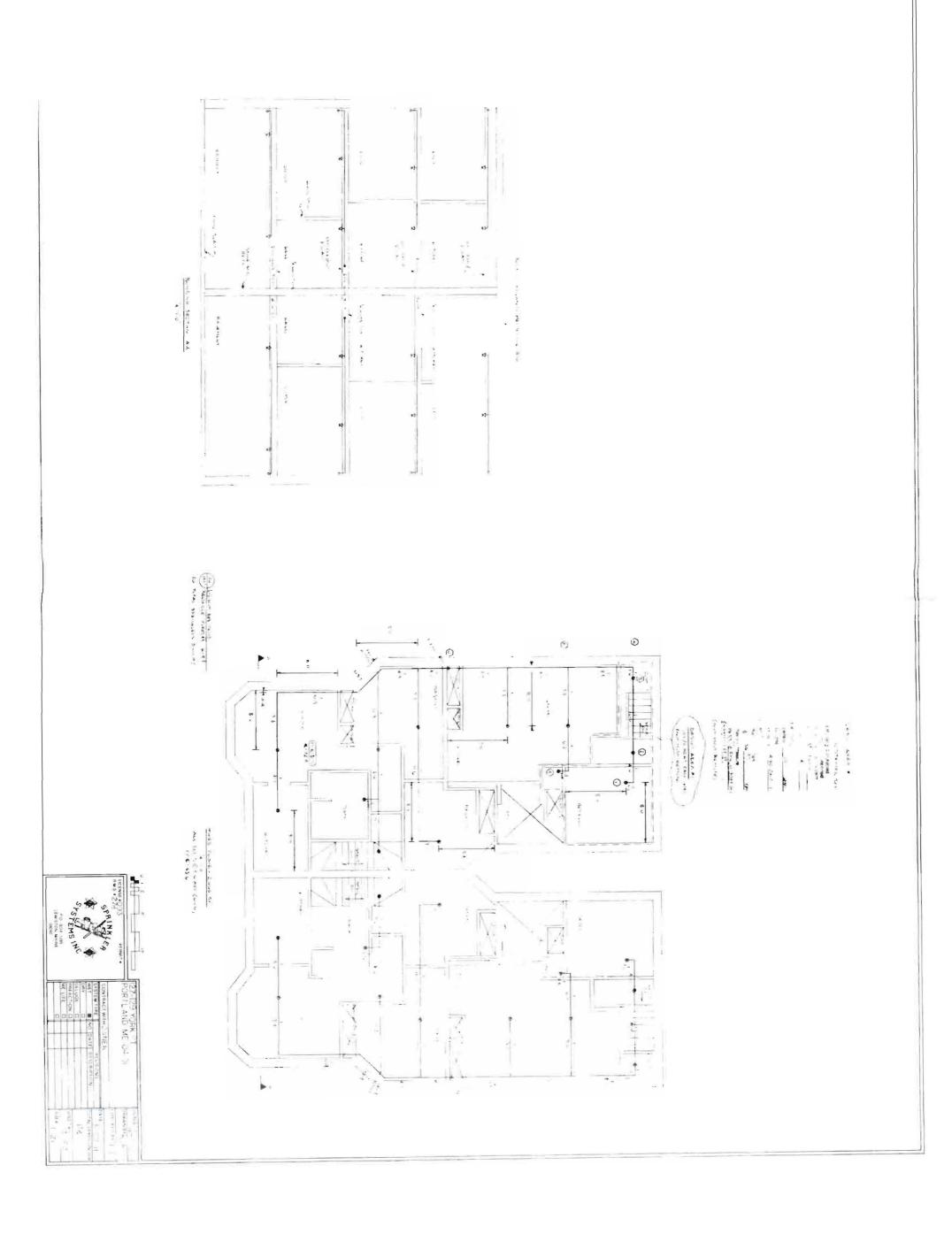
	er Systems, I York St.	nc.					Page Date	10 3-18-2011
Node No.	Elevation	K-Fact	Pt Actual	Pn 	Flow Actual	Density	Area	Press Reg.
TYP	0.0	5.6	8.37	na	16.2	0.15	108	8.369
TYP1 5	0.0 43.833	5.6 K = K @ DRP	8.37 11.06	na na	16.2 18.12	0.15	108	8.369
ET	43.833		11.52	na				
6	43.833	K = K @ DRP	8.84	na	16.2			
7	43.833	K = K @ DRP	10.38	na	17.56			
FT	43.833		11.23	na				
8	43.833	K = K @ DRP	9.58	na	16.87			
9	43.833	K = K @ DRP	10.86	na	17.96			
GT	43.833		11.76	na				
10	43.833	K = K @ DRP	11.12	na	18.17			
11	43.833	K = K @ DRP	12.59	na	19.33			
HT	43.833		13.62	na				
12	43.833	K = K @ DRP1	13.08	na	19.47			
13	43.833	K = K @ DRP1	13.83	na	20.02			
14	43.833	K = K @ DRP1	15.41	na	21.13			
LT	43.833		16.39	na				
15	43.833	K = K @ DRP	19.55	na	24.09			
JT	43.833		20.0	na				
E	43.333		12.01	na				
F	43.333		12.03	na				
G	43.333		12.6	na				
Н	43.333		14.55	na				
D	43.333		18.02	na				
L	43.333		18.34	na				
J	43.333		20.53	na				
K	43.333		27.26	na				
RT	43.333		47.92	na				
RM	38.917		52.98	na				
RB	36.0		60.58	na				
X1	29.5		81.89	na				
X2	70.5		64.14	na	250.0			
TEST	70.5		64.41	na	250.0			

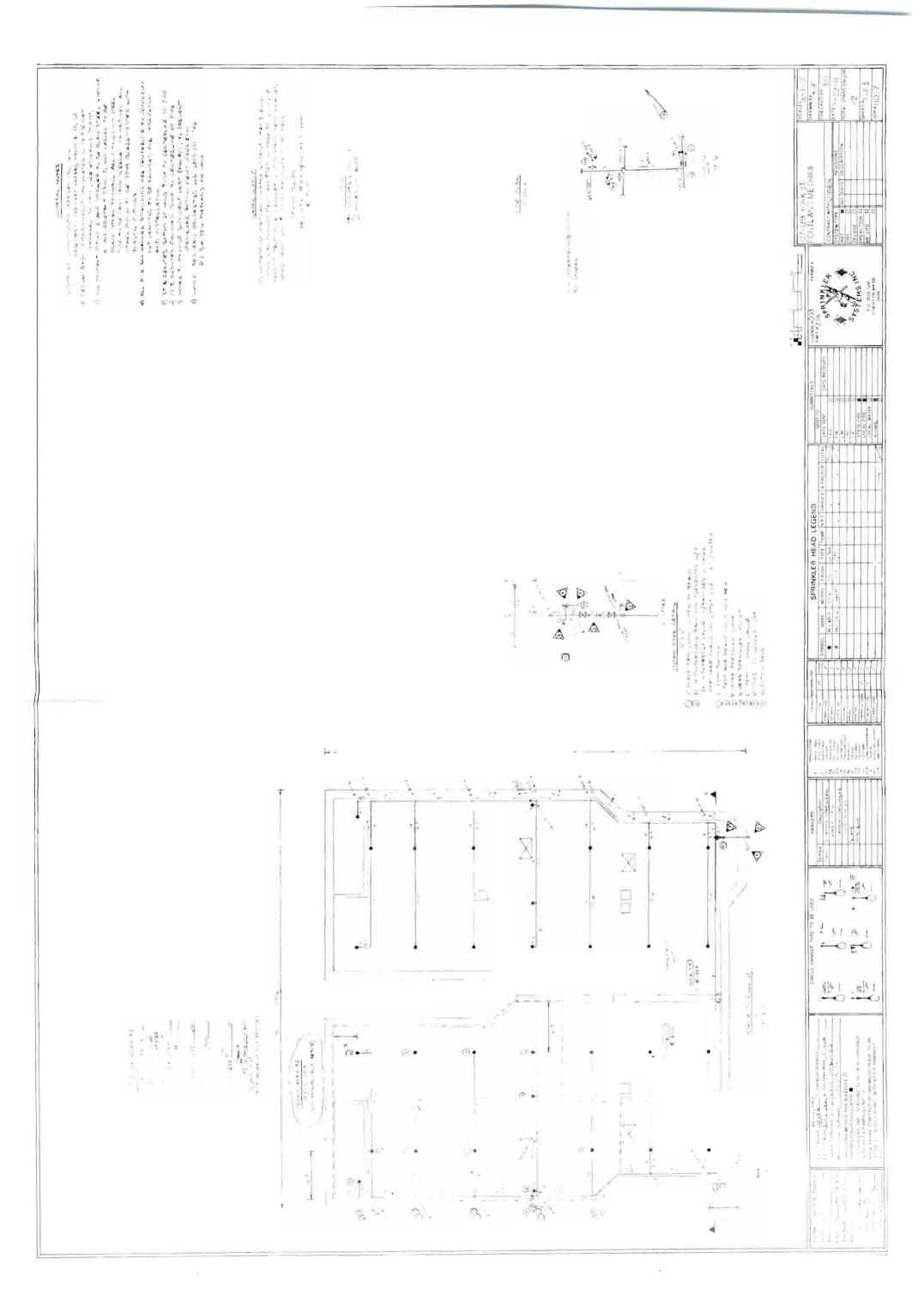
The maximum velocity is 22.24 and it occurs in the pipe between nodes RB and X1

Hyd. Ref.	Qa	Dia. "C"		ting or	Pipe Ftng's	Pt Pe	Pt Pv	****** Notes *****
Point	Qt	Pf/Ft		v. Ln.	Total	Pf	Pn	Notes
TYP	16.20	1.049	1T	5.0	0.333	8.369		K Factor = 5.60
to DRP	16.2	120 0.0881		0.0	5.000 5.333	0.0 0.470		Vel = 6.01
	16.20					8.839		K Factor = 5.45
TYP1 to	16.20	1.049 120	1E 1T	2.0 5.0	0.833 7.000	8.369 0.0		K Factor = 5.60
DRP1	16.2 0.0	0.0881	-	0.0	7.833	0.690		Vel = 6.01
	16.20					9.059		K Factor = 5.38
5 to	18.12	1.049 120	1E	2.0	2.250 2.000	11.060 0.0		K Factor @ node DRP
ET	18.12	0.1085		0.0	4.250	0.461		Vel = 6.73
ET to	0.0	1.049 120	1E	2.0	0.500 2.000	11.521 0.217		
E	18.12 0.0	0.1084	an ilana	0.0	2.500	0.271		Vel = 6.73
	18.12					12.009		K Factor = 5.23
6 to	16.20	1.049 120	1E	2.0 0.0	15.500 2.000	8.839 0.0		K Factor @ node DRP
7	16.2	0.0881		0.0	17.500	1.542		Vel = 6.01
7 to FT	17.56 33.76	1.38 120 0.0902	1E	3.0 0.0 0.0	6.417 3.000 9.417	10.381 0.0 0.849		K Factor @ node DRP  Vel = 7.24
FT to	0.0	1.38	1T	6.0 0.0	0.500 6.000	11.230 0.217		VGI - 7.24
F	33.76	0.0900		0.0	6.500	0.585		Vel = 7.24
	33.76					12.032		K Factor = 9.73
8 to	16.87	1.049 120		0.0	13.500 0.0	9.580 0.0		K Factor @ node DRP
9	16.87	0.0950		0.0	13.500	1.282		Vel = 6.26
9 to	17.95	1.38 120	1E	3.0	6.417 3.000	10.862 0.0		K Factor @ node DRP
GT	34.82	0.0955		0.0	9.417	0.899		Vel = 7.47
GT to	0.0	1.38 120	1T	6.0 0.0	0.500 6.000	11.761 0.217		
G	34.82	0.0954		0.0	6.500	0.620		Vel = 7.47
	0.0 34.82					12.598		K Factor = 9.81
10 to	18.17	1.049 120		0.0	13.500 0.0	11.117 0.0	-	K Factor @ node DRP
11	18.17	0.1090		0.0	13.500	1.471		Vel = 6.75

Hyd. Ref.	Qa	Dia. "C"		ting or	Pipe Ftng's	Pt Pe	Pt Pv	****** Notes *****
Point	Qt	Pf/Ft	Eq	v. Ln.	Total	Pf	Pn	
11	19.33	1.38	1E	3.0	6.417	12.588		K Factor @ node DRP
to		120		0.0	3.000	0.0		-
HT	37.5	0.1095		0.0	9.417	1.031		Vel = 8.04
HT to	0.0	1.38 120	1T	6.0	0.500 6.000	13.619		
to H	37.5	0.1094		0.0	6.500	0.217 0.711		Vel = 8.04
	0.0			. 212				2000
	37.50					14.547		K Factor = 9.83
12	19.47	1.049		0.0	6.000	13.085		K Factor @ node DRP1
to 13	19.47	120 0.1238		0.0	0.0 6.000	0.0		Vel = 7.23
13	20.01	1.38		0.0	13.167	13.828		K Factor @ node DRP1
to	20.01	120		0.0	0.0	0.0		IN Factor (@ Hode Diti 1
14	39.48	0.1205		0.0	13.167	1.586		Vel = 8.47
14	21.14	1.38	1E	3.0	0.667	15.414		K Factor @ node DRP1
to LT	60.62	120 0.2662		0.0	3.000 3.667	0.0 0.976		Vel = 13.00
LT	0.0	1.38	1T	6.0	0.500	16.390		VCI - 10.00
to	0.0	120		0.0	6.000	0.217		
L	60.62	0.2662		0.0	6.500	1.730		Vel = 13.00
	0.0 60.62					18.337		K Factor = 14.16
15	24.09	1.38	1E	3.0	6.417	19.547		K Factor @ node DRP
to	24.00	120	12	0.0	3.000	0.0		K i dotor @ node Ditt
JT	24.09	0.0483		0.0	9.417	0.455		Vel = 5.17
JT	0.0	1.38	1T	6.0	0.500	20.002		
to J	24.09	120 0.0482		0.0	6.000 6.500	0.217 0.313		Vel = 5.17
<u>,</u>	0.0	0.0402		0.0	0.000	0.010		
	24.09					20.532		K Factor = 5.32
E	18.12	1.61		0.0	1.750	12.009		
to	40.40	120		0.0	0.0	0.0		Vel = 2.86
F F	18.12 33.76	0.0131 1.61		0.0	1.750 6.000	0.023 12.032		vei – 2.00
to	33.70	120		0.0	0.0	0.0		
G	51.88	0.0943		0.0	6.000	0.566		Vel = 8.18
G	34.82	1.61		0.0	8.000	12.598		
to H	86.7	120 0.2436		0.0	0.0	0.0 1.949		Vel = 13.66
Н	37.50	1.61		0.0	7.333	14.547		10.00
to	37.30	120		0.0	0.0	0.0		
D	124.2	0.4737		0.0	7.333	3.474		Vel = 19.57







#### DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# **CITY OF PORTLAND**



# BUILDING PERMIT

This is to certify that HARBORVIEW APTS LLC

Located At 127 YORK ST

Job ID: 2011-07-1785-HVAC

CBL: 044 - - A - 005 - 001 - - - - -

has permission to Install a Solaia cast iron gas boiler in the basement vented to the chimney

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

**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



# City of Portland, Maine - Building or Use Permit Application 389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2011-07-1785-HVAC	Date Applied: 7/27/2011		CBL: 044 A - 005 - 00	1					
Location of Construction: 127 YORK ST	Owner Name: HARBORVIEW APTS L	LC	277 TUTTLE RD	Owner Address: 277 TUTTLE RD CUMBERLAND CTR, ME - MAINE 04021					
Business Name:	Contractor Name: Tim Delane'ys Burn	er Service	Contractor Addi 87 Maggie LN,	ress: Portland, ME 04103	3	Phone: 831-5974			
Lessee/Buyer's Name:	Phone:		Permit Type: H	Zone: R-6					
Past Use:	Proposed Use:  Same: 12 residential dwellin units – to install Solaia CSL 8350 heating system					CEO District:			
units		Fire Dept:	Approved w/ control Denied N/A	onditions	Inspection: Use Group: R-2 Type: HVAL TMC 2009 Signature:				
Proposed Project Description install SOLAIA CSL 8350 in Base Permit Taken By: Lannie			Pedestrian Activ	Zoning Approva		8/3/11			
Terrific Taken By. Lamine									
This permit application Applicant(s) from meet Federal Rules.     Building Permits do not septic or electrial work.     Building permits are vo within six (6) months of False informatin may in permit and stop all worl	ing applicable State and tinclude plumbing, id if work is not started the date of issuance.	Shoreland: Wetland: Flood Zc Subdivis Site Plan	one sion  Min _MINT	Zoning Appeal  Variance  Miscellaneous  Conditional Use  Interpretation  Approved  Denied  Date:	Not in D Does not Requires Approve				

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
DESDONSIBLE DEDSON IN CHARGE (	AP WORK TITLE	DATE	PHON

#### **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.
- 1. Final at completion of work

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 OCCUPIED.

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

Director of Planning and Urban Development Penny St. Louis

Job ID: 2011-07-1785-HVAC

Located At: 127 YORK

CBL: 044 - - A - 005 - 001 - - - - -

#### **Conditions of Approval:**

#### Fire

- 2. Installation shall comply with City Code Chapter 10.
- 3. Fuel-fired boilers shall be protected in accordance with NFPA 101, Life Safety Code.
- 4. Installation shall comply with NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel—Burning Appliances*, NFPA 54, *National Fuel Gas Code*, NFPA 70, *National Electrical Code*; and the manufacturer's published instructions.

#### Building

- 1. The installation must comply with the State of Maine Gas Regulations.
- 2. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
- 3. The appliance and venting shall be installed in accordance with the manufacturer's specifications the UL listing, IMC 2003 and NFPA 211



# APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

ļ	1

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.  The undersigned hereby applies for a permit to instance accordance with the Laws of Maine, the Building Code of the STAND AND ADDRESS OF THE STAND ADDRESS OF THE STAND ADDRESS OF THE STAND AND ADDRESS OF THE STAND ADDR	all the following heating, cooking or power equipment in the City of Portland, and the following specifications:
Location / CBL 137-139 Your ST	Use of Building SSIDENTAL Date 7:25-1
Name and address of owner of appliance 127/124 - 108 V S-	T ZEOFFOLL SZALEGITEC
Traine and address of owner of apprairee	12/25 17-6
Installer's name and address Time DELANE DEA	DECAMENT BURNES SPONTE
Installer's name and address TIM DELANEY DEA	Telephone 831-5974
Location of appliance:	Type of Chimney:
■ Basement	Masonry Lined
☐ Attic ☐ Roof	Factory built
CIE	· ·
Type of Fuel:	☐ Metal
Type of Fuel:  A Gas Oil Sond Sond Sond Sond Sond Sond Sond Sond	Factory Built U.L. Listing #
Appliance Name: SOLATA CSL 8350 ding and Miss	☐ Direct Vent
U.L. Approved V Yes No	Type UL#
DepCIA	7)pe
Will appliance be installed in accordance with the manufacture's	Type of Fuel Tank
installation instructions? • Yes • No	Oil
K	☑ Gas NAT
IF NO Explain:	a Sub Mary
	Size of Tank
The Type of License of Installer:	Number of Tanks PA
☐ Master Plumber #	
□ Solid Fuel #	Distance from Tank to Center of Flame feet.
Oil #	
1 Gas # PNT 4547	Cost of Work: § 37,000
□ Other	Permit Fee: S 260
	Termit Tee.
Approved	Approved with Conditions
Fire:	☐ See attached letter or requirement
Ele.:	•
Bldg.:	Inspector's Signature Date Approved

Signature of Installer

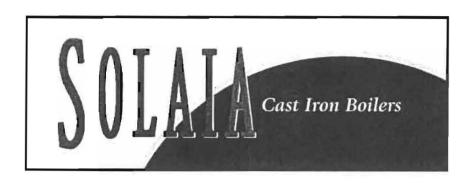
Yellow - File

White - Inspection

Pink - Applicant's

Gold - Assessor's Copy

#### INSTALLATION AND OPERATOR'S MANUAL



## CSL6230 Thru CSL12590

CAST IRON BOILERS

Keep these instructions with the boiler at all times for future reference

BOYERTOWN FURNACE CO.
PO Box 100
BOYERTOWN, PA 19512
1-610-369-1450

www.boyertownfurnace.com

#### **Boiler Components**

INSPECT FOR DAMAGE. All equipment is carefully manufactured, inspected, and packaged by experienced workers. Our responsibility ceases upon-delivery of the skidded boiler and component boxes to the carrier in good condition. ANY CLAIMS FOR DAMAGE OR SHORTAGES IN SHIPMENT MUST BE FILED IMMEDIATELY against the carrier by the consignee.

The boiler is shipped in multiple packages consisting of the following items:

- 1. Assembled casting strapped to a skid.
- 2. Cabinet parts box. See jacket assembly instructions for a complete listing of all items included.
- 3. Burner/Parts Box Includes burner, aquastats, low water cutoff, safety relief valve, drain valve and associated trim piping. See packing list included in box for a complete list of all components.

#### **Installation Clearances**

**Warning:** Boilers in rooms shall be installed with the clearances from combustible materials not less than indicated below. Combustible materials are those made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that will ignite and burn, whether flame proofed or not, or whether plastered or not.

The boiler must not be installed on combustible flooring. The boiler is approved for installation on non combustible flooring only. The boiler must not be installed on carpeting or vinyl flooring

#### Minimum clearances to combustible construction are as follows:

TOP - 24 IN.
FRONT - 24 IN.
FLUE CONNECTOR SINGLE WALL VENT PIPING - 18 IN.
REAR -6 IN.
SIDES - 6 IN.

Consult NFPA-31 for construction techniques where the above minimum clearances cannot be obtained

#### Minimum recommended clearances for service and access are as follows:

TOP - 24 IN. FRONT - 24 IN. FROM BURNER FLUE CONNECTOR - 18 IN. REAR - 18 IN. SIDES - 12 IN.

#### **Ventilation and Combustion Air**

**Warning:** This boiler must be supplied with combustion and ventilation air in accordance with ANSI Z223.1/NFPA54 and all applicable local codes. Air openings to combustion area must not be obstructed. Adequate combustion air must be supplied at all times. Ventilation of boiler room must be adequate enough to provide sufficient air for combustion. Never use an exhaust fan in the boiler room. The boiler room must never be under a negative pressure or improper burner operation, flue gas leakage and carbon monoxide emissions may occur.

Opening sizes must comply with state or local codes. In their absence, use the following when the boiler is installed in a confined room:

When a boiler is located in an unconfined space in a building of conventional frame or masonry construction infiltration may provide adequate air for combustion and ventilation. If there is any doubt, install air supply provisions for combustion and ventilation air.

When a boiler is located in a confined space and air for combustion and room ventilation is from inside buildings, the confined space shall be provided with two permanent openings, one starting 12 inches from the top and one 12 inches from the bottom of the enclosed space. Each opening shall have a minimum free area of 1 square inch per one thousand (1,000) BTU/HR of the total input rating of all appliances in the enclosed space, but must not be less than one hundred (100) square inches. These openings must freely communicate with the interior areas having adequate infiltration from the outside.

When a boiler is installed in a confined space, or in a building of unusually tight construction, air for combustion and room ventilation must be obtained from the outdoors by means of two permanent openings one starting 12 inches from the top and one 12 inches from the bottom of the enclosed space. When air is taken through the outside wall or vertical ducts, at least one square inch of free opening must be provided per 4000 Btu/Hr. When air is taken through horizontal ducts at least one square inch of free opening must be provided per 2000Bth/Hr. The minimum dimensions of rectangular air ducts shall not be less than 3 inches.

In calculating free area using louvers, grills or screens for the above, consideration shall be given to their blocking effect. Screens used shall not be smaller than ¼ inch mesh. If free area through a design of louver or grill is known, it should be used in calculating the opening size required to provide the free area specified. If the design and free area is not known, it may be assumed that wood louvers will have 20-25% free area and metal louvers and grills will have 60-75% free area.

Louvers and grills shall be fixed in the open position or interlocked with the boiler so that they are opened automatically during boiler operation.

#### **Boiler Location**

**Warning:** Never install the boiler on top of combustible flooring. Never install the boiler in an area where combustible materials, gasoline or any other products containing flammable vapors or liquids are stored.

Locate the boiler in an area that provides good access to the unit. To provide the best possible serviceability the boiler should be installed using the minimum recommended service and accessibility clearances as previously listed. Under no circumstances should the unit be installed next to combustible materials with clearances less than listed in installation clearances above.

The boiler should be installed on a level, flat concrete floor or pad that is structurally sound and will support the combined weight of the boiler when filled with water. This boiler is designed to be installed on noncombustible flooring only.

The boiler should be installed as close to the chimney as possible while still being located centrally to the piping system.

#### **Boiler Block Assembly**

All boilers are shipped as an assembled block. If it is necessary to split the block into sections for installation purposes reassemble the sections as follows:

To assemble split blocks, move the sections into line facing each other. Sections may be slid along boards placed beneath the sections. Inspect nipple ports for damage or burrs. Remove any burrs by brushing the ports very lightly. Remove old section sealant from the castings. Wipe the push nipples and nipple ports with a clean cloth. Apply a film of nipple compound to both nipple and port. Install the nipple in the port and then seal by hitting with a rubber mallet. Apply section sealant to one section only and slide the sections together. Install the four draw rods. Draw the sections together until the sections make iron to iron contact at a point around the top and bottom ports of each section. Check to ensure that the combustion chamber is sealed using a flash light or other lighting device. Place the light into the combustion chamber

#### DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



This is to certify that HARBORVIEW APARTMENTS LLC

Located At 127 YORK ST

Job ID: 2011-04-859-FAFS

CBL: 044 - - A - 005 - 001 - - - - -

has permission to install a new fire alarm 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

4-27-11

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



#### City of Portland, Maine - Building or Use Permit Application

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

Job No: 2011-04-859-FAFS	Date Applied: 4/22/2011		CBL: 044 A - 005 - 00	1		
Location of Construction: 127 YORK ST	Owner Name: HARBORVIEW APTS LLC		Owner Address: 277 TUTTLE RD CUMBERLAND CTR, ME 04021			Phone:
Business Name:	Contractor Name: Cunningham Security		Contractor Address:  10 Princes Point Rd., Yarmouth ME 04096			Phone: (207) -846-3350
Lessee/Buyer's Name:	Phone:		Permit Type: FIRE ALARM - Fire Alarm			Zone: R-6
Past Use:	Proposed Use:	a unita	Cost of Work: 8000.00			CEO District:
12 residential Dwelling units	install a fire alarm	g units	Fire Dept:	√ Approved ω(ce Denied N/A	nditurs	Inspection: Use Group: Type:
				Signature: Harbell.		Signature:
Proposed Project Description 127 York St. – install fire alarm	Pedestrian Agtivities District (P.A.D.)					
Permit Taken By:				Zoning Approv	al	
		Special Zo	one or Reviews	Zoning Appeal	Historic Pi	reservation
<ol> <li>This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</li> <li>Building Permits do not include plumbing, septic or electrial work.</li> <li>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.</li> </ol>		Shoreland Wetlands Flood Zone Subdivision Site Plan Maj Min MM Date: 4126111		Variance Miscellaneous Conditional Use Interpretation Approved Denied Date:	Does not Requires Approved	
nereby certify that I am the owner of e owner to make this application as e appication is issued, I certify that enforce the provision of the code(s	his authorized agent and I agree the code official's authorized re	or that the prop	all applicable laws of t	his jurisdiction. In addition	on, if a permit for wo	rk described in

#### **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 OCCUOPIED.

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

Director of Planning and Urban Development Penny St. Louis

Job ID: <u>2011-04-859-FAFS</u>

Located At: <u>127 YORK ST</u>

CBL: <u>044 - - A - 005 - 001 - - - - -</u>

#### **Conditions of Approval:**

#### Fire

The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

The new automatic sprinkler system shall be supervised by the fire alarm system.

In field installation shall be installed per code as conditions dictate.

Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.

Central Station monitoring for addressable fire alarm systems shall be by point.

All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".

Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance.

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

Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.

legaluse 12 d.u. # 69-0517 201201-210

#### **Job Summary Report** Job ID: 2011-04-859-FAFS

Report generated on Apr 25, 2011 9:24:18 AM

Charge

Amount

Fire Alarm / Suppression

**Job Description:** 

127 York St.

**Payment** 

Amount

Job Year:

**Payment Adjustment** 

Amount

2011

Outstanding

**Balance** 

Page 1

**Building Job Status Code:** 

Initiate Plan Review

Pin Value: 1203 **Tenant Name:** 

**Job Application Date:** 

8,000

**Permit Charge** 

Adjustment

Public Building Flag: N

Square Footage:

**Payment** 

Date

**Tenant Number:** 

**Estimated Value:** 

**Net Charge** 

**Amount** 

Property Owner

**Net Payment** 

Amount

**Related Parties:** 

Fee Code

Description

Job Type:

APTS HARBORVIEW

FIRE ALARM INSTALLER

Cunningham Security - Cunningham Security

Cunningham Security

**Job Charges** 

Receipt

Number

ı	ocation	TD:	63	22

					Location De	tails			
Alternate Id	Parcel Numb	er Census Trac	t GIS X	GIS Y GIS Z	GIS Reference Long	gitude Latitude			
N10506	044 A 005 001		М		-70.2	258851 43.650726			
				Location Type	Subdivision Code 5	Subdivision Sub Cod	e Related Persons	Address(es)	
				1			1.	27 YORK STREET WEST	_
Location (	Jse Code	Variance Code	Use Zone Code	Fire Zone Code	Inside Outside Code	e District Code	General Location Code	Inspection Area Code	Jurisdiction Code
ELEVEN TO TV FAMILY	VENTY	RE	SIDENTIAL	RL				DISTRICT 3	WEST END
					Structure De	etails		-	
Structure:	Condo Conv	- 12 Units	_					G (	7
Occupancy	Type Code:				70.0		-		
		The second second	La Company						
Structure T	ype Code Stru	cture Status Typ	e Square	Footage Esti	nated Value	Address			
	ype Code Stru i+ Building 0	icture Status Typ	e Square	Footage Esti		RK STREET WEST			
Mutli-Family 5	i+ Building 0	cture Status Typ	Sil a (red			RK STREET WEST	Jser Defined Property	Value	
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#### **Fire Alarm 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.

dress: 127 York Street

Installation address: 127 York Street	CBL: 044A005001					
Exact location: (within structure) Basement Boiler Room						
Type of occupancy(s) (NFPA & ICC): 12 Unit Residential						
Building owner: Harborview Development LLC						
Must be System Designer (point of contact): Michael Major						
Designer phone: 207-846-3350	E-mail: mmajor@cunninghamsecurity.cc					
Installing contractor: Cunningham Security Systems	_ Certificate of Fitness No: 1004					
Contractor phone: <u>07-846-3350</u>	E-mail: michelle@cunninghamsecurity					
	AES Master Box: YES NO lude Master Box approval form					
Amendment to an existing permit: YES NO Perm	nit no:					
The following documents shall be provided with this application:						
Floor plans Scope of Work	COST OF WORK: <u>₹7900</u>					
Wiring diagram 11 ½ x 17s	PERMIT FEE: (\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)					
Annunciator details pdf copy (may be e-mailed)	(STOTE LINE STOTE OF THE STOTE					
Input/ Output Matrix  Designer qualifications	APP o					
Equipment data sheets  Battery/ voltage drop calcs	APR 2 2 2011					
Electrical Permit Pulled (check alarm/com)						
Master box approval only: YES NO (If yes check New AES Master Box above)						
The designer shall be the responsible party for this application. Download a new copy of this application at						
www.portlandmaine.gov/fire for every submittal. Submit all plans in electronic PDF in addition to readable 11 ½ x 17s to						
the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.						
Prior to acceptance of any fire alarm 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 the City of Portland Technical Standard for Signaling Systems for the Protection of						
Life and Property, available at www.portlandmaine.gov/fire.						
Applicant signature: Date:						

### **CUNNINGHAM**

#### Security Systems

10 Princes Point Road Yarmouth Maine 04096 207-846-3350

#### Scope Of Work

The project at 127 York Street is the provision of a completely new fire alarm system to monitor the new sprinkler system currently being installed, provide smoke detection in the stairways and basement, and to provide occupant notification in the residential condominium units. As per your agreement with the building owner, there are no horn/strobes in the stairways and no system heat or smoke detectors in the units. There will be 120V interconnected smoke detectors in all of the units.

## **ANN-80**

### 80-Character LCD Serial Annunciator



**Annunciators** 

### General

The ANN-80 annunciator is a compact, backlit, 80-character LCD fire annunciator that mimics the Fire Alarm Control Panel (FACP) display. It provides system status indicators for AC Power, Alarm, Trouble, Supervisory, and Alarm Silenced conditions. The ANN-80 and the FACP communicate over a two-wire serial interface employing the ANN-BUS communication format. Connected devices are powered, via two additional wires, by either the host FACP or a remote UL-listed, filtered power supply. ANN-80 is red; for white, order ANN-80-W.

The ANN-80 displays English-language text of system point information including device type, zone, independent point alarm, trouble or supervisory status, as well as any custom alpha labels programmed into the control panel. It includes control switches for remote control of critical system functions. (A keyswitch prevents unauthorized operation of the control switches.)

Up to eight ANN-80s may be connected to the ANN-BUS of each FACP. No programming is required, which saves time during system commissioning.

### **Features**

- · Listed to UL Standard 864, 9th Edition.
- Backlit 80-character LCD display (20 characters x 4 lines).
- · Mimics all display information from the host panel.
- Control switches for System Acknowledge, Signal Silence, Drill, and Reset.
- Control switches can be independently enabled or disabled at the FACP.
- Keyswitch enables/disables control switches and mechanically locks annunciator enclosure
- · Keyswitch can be enabled or disabled at the FACP.
- · Enclosure supervised for tamper.
- System status LEDs for AC Power, Alarm, Trouble, Supervisory, and Alarm Silence.
- · Local sounder can be enabled or disabled at the FACP.
- ANN-80 connects to the ANN-BUS terminal on the FACP and requires minimal panel programming.
- Displays device type identifiers, individual point alarm, trouble, supervisory, zone, and custom alpha labels.
- · Time-and date display field.
- Surface mount directly to wall or to single, double, or 4" square electrical box.
- Semi-flush mount to single, double, or 4" square electrical box. Use ANN-SB80KIT for angled view mounting.
- Can be remotely located up to 6,000 feet (1,800 m) from the panel.
- Backlight turns off during AC loss to conserve battery power but will turn back on if an alarm condition occurs.
- May be powered by 24 VDC from the host FACP or by remote power supply (requires 24 VDC).
- Up to eight ANN-80s can be connected on the ANN-BUS.

#### **Controls and Indicators**

- AC Power
- Alarm
- Trouble



- Supervisory
- Alarm Silenced

### **Specifications**

- Operating voltage range: 18 VDC to 28 VDC.
- Current consumption @ 24 VDC nominal (filtered and non-resettable): 40 mA maximum.
- Ambient temperature: 32°F to 120°F (0°C to 49°C).
- Relative humidity: 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F).
- 5.375" (13.65 cm.) high x 6.875" (17.46 cm.) wide x 1.375" (3.49 cm.) deep.
- · For use indoors in a dry location.
- All connections are power-limited and supervised.

### **Agency Listings and Approvals**

The listings and approvals below apply to the ANN-80. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL: S2424
- FM approved
- CSFM: 7120-0075:211
- MEA: 442-06-E

### The ANN-BUS

### POWERING THE DEVICES ON THE ANN-BUS FROM AUXILIARY POWER SUPPLY

The ANN-BUS can be powered by an auxiliary power supply when the maximum number of ANN-BUS devices exceeds the ANN-BUS power requirements. See the FACP manual for more information.

### ANN-BUS DEVICE ADDRESSING

Each ANN-BUS device requires a unique address (ID Number) in order to communicate with the FACP. A maximum of 8 devices can be connected to the FACP ANN-BUS communication circuit. See the FACP manual for more information.

#### WIRE REQUIREMENTS: COMMUNICATIONS CIRCUIT

The ANN-80 connects to the FACP ANN-BUS communications circuit. To determine the type of wire and the maximum wiring distance that can be used with FACP ANN-BUS accessory modules, it is necessary to calculate the total worst case current draw for all modules on a single 4-conductor bus. The total worst case current draw is calculated by adding the individual worst case currents for each module.

**NOTE:** For total worst case current draw on a single ANN-BUS refer to appropriate FACP manual.

After calculating the total worst case current draw, the following table specifies the maximum distance the modules can be located from the FACP on a single wire run. The table ensures 6.0 volts of line drop maximum. In general, the wire length is limited by resistance, but for heavier wire gauges, capacitance is the limiting factor.

These cases are marked in the chart with an asterisk (\*). Maximum length can never be more than 6,000 feet (1,800 m), regardless of gauge used. See table below.

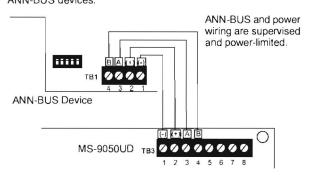
### WIRE REQUIREMENTS: POWER CIRCUIT

- 14 to 18 AWG (0.75 2.08 mm<sup>2</sup>) wire for 24 VDC power circuit is acceptable. Power wire distance limitation is set by 1.2 volt maximum line drop form source to end of circuit.
- · All connections are power-limited and supervised.
- A maximum of eight ANN-80 modules may be connected to this circuit.

Communication Pa	air Wiring Dist	ance: FACP t	o Last ANN-B	US Module
Total Worst Case Current Draw (amps)	22 Gauge	18 Gauge	16 Gauge	14 Gauge
0.100	1,852 ft.	4,688 ft.	* 6,000 ft.	*6,000 ft.
0.200	926 ft.	2,344 ft.	3,731 ft.	5,906 ft.
0.300	617 ft.	1,563 ft.	2,488 ft.	3,937 ft.
0.400	463 ft.	1,172 ft.	1,866 ft.	2,953 ft.
0.500	370 ft.	938 ft.	1,493 ft.	2,362 ft.
0.600	309 ft.	781 ft.	1,244 ft.	1,969 ft.
0.700	265 ft.	670 ft.	1,066 ft.	1,687 ft.
0.800	231 ft.	586 ft.	933 ft.	1,476 ft.
0.900	206 ft.	521 ft.	829 ft.	1,312 ft.
1.000 (max.)	185 ft.	469 ft.	746 ft.	1,181 ft.

### WIRING CONFIGURATION

The following figure illustrates the wiring between the FACP and ANN-BUS devices.



### FACP Wiring to ANN-BUS Device

### **ORDERING OPTIONS:**

ANN-80: Red 80 character LCD Annunciator.

ANN-80-W: White, 80 character LCD Annunciator.

ANN-SB80KIT-R: Red surface mount backbox with angled

wedge.

**ANN-SB80KIT-W:** White surface mount backbox with angled wedge.

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# **MS-9200UDLS(E)** Rev 3

# Intelligent Addressable FACP with Built-In Communicator



Addressable Fire Alarm Control Panel

### General

The Fire•Lite MS-9200UDLS Rev 3 with Version 5.0 firmware is a combination FACP (Fire Alarm Control Panel) and DACT (Digital Alarm Communicator/Transmitter) all on one circuit board. This compact intelligent addressable control panel has an extensive list of powerful features.

While the MS-9200UDLS Rev 3 may be used with an SLC configured in the CLIP (Classic Loop Interface Protocol) mode, it can also operate in LiteSpeed™ mode—Fire•Lite's latest polling technology—for a quicker device response time. LiteSpeed's patented technology polls 10 devices at a time. This improvement allows a fully-loaded panel with up to 198 devices to report an incident and activate the notification circuits in under 10 seconds. With Litespeed polling, devices can be wired on standard twisted, unshielded wire up to a distance of 10.000 feet.

The MS-9200UDLS Rev 3's quick-remove chassis protects the electronics during construction. The backbox can be installed allowing field wiring to be pulled. When construction is completed, the electronics can be quickly installed with just two bolts.

New features for Rev 3 with Version 5.0 firmware include removable terminal blocks, improved transient protection, additional secondary ANN-BUS, and increased power for the resettable and remote sync outputs.

Available accessories include ANN-BUS devices as well as ACS LED, graphic and LCD annunciators, and reverse polarity/city box transmitter.

The integral DACT transmits system status (alarms, supervisories, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. It also allows remote and local programming of the control panel using the PS-Tools Upload/ Download utility. In addition, the control panel may be programmed or interrogated off-site via the public switched telephone network. Any personal computer with Windows® XP or greater, a compatible modem, and PS-Tools-the Fire-Lite Upload/Download software kit-may serve as a Service Terminal. This allows download of the entire program or upload of the entire program, history file, walktest data, current status and system voltages. The panel can also be programmed through the FACP's keypad or via a standard PS-2 computer keyboard, which can be plugged directly into the printed circuit board. This permits easy typing of address labels and other programming information.

Version 5.0 firmware supports the following: Primary and Secondary ANN-bus devices, AD355 (LiteSpeed), USB port, NAC circuit diagnostics, a new report has been added to the walktest that lists untested devices, new device types added: audio telephone type code for ACC 25/50ZST, Photo Supervisory and auto-resettable Drill (non-latching).

The FireWatch Series internet monitoring modules IPDACT-2 and IPDACT-2UD permit monitoring of alarm signals over the Internet saving the monthly cost of two dedicated business telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line.

**NOTE:** Unless otherwise specified, the term MS-9200UDLS is used in this document to refer to both the MS-9200UDLS and the MS-9200UDLS(E) FACPs (Fire Alarm Control Panels).



# 52422cov.j

### **Features**

- Listed to UL standard 864, 9th edition.
- On-board DACT.
- Remote site or local USB port upload/download, using PS-Tools
- Four (4) Style Y (Class B) NAC circuits, which can be converted to four (4) Style Z (Class A) circuits with optional ZNAC-92 converter module. (Up to 6.0 amps total NAC power when using optional XRM-24B.)
- Selectable strobe synchronization for System Sensor, Wheelock, and Gentex devices.
- Remote Acknowledge, Silence, Reset and Drill via addressable monitor modules or LCD-80F, ANN-80 or Legacy ACS Annunciators.
- ANN-BUS for connection to following optional modules (cannot be used if ACS annunciators are used):
  - ANN-80(-W) Remote LCD Annunciator
  - ANN-I/O LED Driver
  - ANN-S/PG Printer Module
  - ANN-RLY Relay Module
  - ANN-LED Annunciator Module
  - ANN-RLED Annunciator Module alarms only
  - ROME Relay Option Module Enclosure
- ACS/TERM:
  - ACS Annunciators: Up to 32 Legacy ACM Series annunciators (ACM-16AT or ACM-32 series). Cannot be used if ANN-BUS devices are used.
  - Terminal-mode Annunciators: Up to 32 Legacy LCD-80F remote annunciators.

- EIA-232 printer/PC interface (variable baud rate) on main circuit board, for use with optional UL-listed printer PRN-6F.
- · Integral 80-character LCD display with backlighting.
- Real-time clock/calendar with automatic daylight savings control.
- · Detector sensitivity test capability (NFPA 72 compliant).
- · History file with 1,000-event capacity.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- · Automatic device type-code verification.
- One person audible or silent walk test with walk-test log and printout.
- Point trouble identification.
- Waterflow (nonsilenceable) selection per monitor point.
- · System alarm verification selection per detector point.
- PAS (Positive Alarm Sequence) and presignal delay per point (NFPA 72 compliant).

NOTE: Only detectors may participate in PAS.

#### SLC LOOP:

- SLC can be configured for NFPA Style 4, 6, or 7 operation.
- SLC supports up to 198 addressable devices per loop (99 detectors and 99 monitor, control, or relay modules).
- SLC loop maximum length 10,000 ft. (3,000 m.).
   See installation manual for wire tables.

#### NOTIFICATION APPLIANCE CIRCUITS (NACS):

- Four onboard NACs with additional NAC capability using output control modules (CMF-300 or CMF-300-6). The four Class B NACs can be converted to four Class A NACs with optional ZNAC-92 converter module.
- · Silence Inhibit and Auto Silence timer options.
- Continuous, March Time, Temporal or California code for main circuit board NACs with two-stage capability.
- Selectable strobe synchronization per NAC.
- · 2.5 amps maximum per each NAC circuit.

**NOTE:** Maximum 24VDC system power output is shared among all NAC circuits and 24VDC special-application auxiliary power outputs. Total available output is 3.0 amps. Using the optional XRM-24B transformer increases 24VDC output to 6.0 amps.

#### PROGRAMMING AND SOFTWARE:

- · Autoprogram (learn mode) reduces installation time.
- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Three Form-C relay outputs (two programmable).
- · 99 software zones.
- Continuous fire protection during online programming at the front panel.
- Program Check automatically catches common errors not linked to any zone or input point.
- OFFLINE PROGRAMMING: Create the entire program in your office using a Windows®-based software package (order programming kit PS-Tools, separately). Upload/ download system programming locally to the MS-9200UDLS Rev 3 in less than one minute.
- USB upload/download programming with standard Male-A to Male-B cable.

### **User Interface**

#### LED INDICATORS

- · AC Power (green)
- · Fire Alarm (red)

- Supervisory (yellow)
- · Alarm Silenced (yellow)
- · System Trouble (vellow)
- Maintenance/Presignal (yellow)
- · Disabled (yellow)
- Battery Fault (yellow)
- · Ground Fault (yellow)

### **KEYPAD CONTROLS**

- Acknowledge/Step
- Alarm Silence
- Drill
- · System Reset (lamp test)
- 16-key alpha-numeric pad (similar to telephone keypad)
- 4 cursor keys
- Enter

#### **Product Line Information**

MS-9200UDLS: 198-point addressable Fire Alarm Control Panel, one SLC loop. Includes 80-character LCD display, single printed circuit board mounted on chassis, and cabinet. 120 VAC operation.

MS-9200UDLSE: Same as MS-9200UDLS, except with 240 VAC operation.

**4XTMF Reverse Polarity Transmitter Module:** Provides supervised output for local energy municipal box transmitter, alarm, and trouble.

**ZNAC-92:** Optional converter module which converts four (4) Style Y (Class B) NAC circuits to four (4) Style Z (Class A) circuits.

**PK-CD** Programming software for Windows®-based PC computer (cable not included), available on www.firelite.com.

DP-9692: Optional dress panel for MS-9200UDLS Rev 3.

TR-CE: Optional trim Ring for semi-flush mounting.

**BB-26:** Battery backbox, holds up to two 25 AH batteries and CHG-75.

BB-55F: Battery box, houses two 55 AH batteries.

CHG-75: Battery charger for lead-acid batteries with a rating of 25 to 75 AH.

**CHG-120F:** Remote battery charging system for lead-acid batteries with a rating of 55 to 120 AH. Requires additional BB-55F for mounting.

BAT Series: Batteries, see data sheet DF-52397.

XRM-24B(E): Optional transformer. Increases system power output to 6.0 amps. Use XRM-24BE with MS-9200UDLS Rev 3(F)

**PRT/PK-CABLE:** Cable printer/personal computer interface cable; required for printer or for local upload/download programming and updating panel firmware.

**PRN-6F:** UL listed compatible event printer. Uses tractor-fed paper.

IPDACT-2/2UD, IPDACT Internet Monitoring Module: Mounts in bottom of enclosure with optional mounting kit (PN IPBRKT). Connects to primary and secondary DACT telephone output ports for internet communications over customer provided ethernet internet connection. Requires compatible Teldat VisorALARM Central Station Receiver. Can use DHCP or static IP. (See data sheet DF-60407 or DF-52424 for more information.)

IPBRKT: Mounting kit for IPDACT-2/2UD in common enclosure.

**IPSPLT:** Y-adaptor option allows connection of both panel dialer outputs to one IPDACT-2/2UD cable input.

#### **COMPATIBLE ANNUNCIATORS**

**ANN-80(-W):** LCD Annunciator is a remote LCD annunciator that mimics the information displayed on the FACP LCD display. Recommended wire type is un-shielded. (Basic model is red; order -W version for white; see *DF-52417*.)

**ANN-LED:** Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Ships with red enclosure (see DF-60241).

**ANN-RLED:** Provides alarm (red) indicators for up to 30 input zones or addressable points. (See DF-60241).

**ANN-RLY:** Relay Module, which can be mounted inside the cabinet, provides 10 programmable Form-C relays. (See DF-52431.)

ROME: Relay Option Module Enclosure. Provides one ANN-RLY Relay Module already installed. The ROME Series provides mounting space for one additional Relay Module or one addressable Multi-module. (See Installation Sheet PN 53530.)

**ANN-S/PG:** Serial/Parallel Printer Gateway module provides a connection for a serial or parallel printer. (See DF-52429.)

**ANN-I/O:** LED Driver Module provides connections to a user supplied graphic annunciator. (See DF-52430.)

ACM-8RF: Relay module provides 8 Form-C 5.0 amp relays.

**ACS-LED Zone Series:** LED-type fire annunciators capable of providing up to 99 software zones of annunciation. Available in increments of 16 or 32 points to meet a variety of applications.

**LDM Graphic Series:** Lamp Driver Module series for use with custom graphic annunciators.

LCD-80F (Liquid Crystal Display) point annunciator: 80-character, backlit LCD-type fire annunciators capable of displaying English-language text.

**NOTE:** For more information on Compatible Annunciators for use with the MS-9200UDLS Rev 3, see the following data sheets (document numbers) ACM-8RF (DF-51555), ACS/ACMSeries (DF-52378), LDM Series (DF-51384), LCD-80F (DF-52185).

### LITESPEED COMPATIBLE ADDRESSABLE DEVICES

All feature a polling LED and rotary switches for addressing.

CP355: Addressable low-profile ionization smoke detector.

SD355: Addressable low-profile photoelectric smoke detector.

**SD355T:** Addressable low-profile photoelectric smoke detector with thermal sensor.

**SD355R:** Addressable remote test capable detector for use with D355PL or DNR(W) duct smoke detector housings.

H355: Fast-response, low-profile heat detector.

**H355R:** Fast-response, low-profile heat detector with rate-of-rise option.

H355HT: Fixed high-temperature detector that activates at 190F/88C

**AD355(A):** Low-profile, intelligent, "Adapt" multi-sensor detector (B350LP base included).

BEAM355: Intelligent beam smoke detector.

**BEAM355S:** Intelligent beam smoke detector with integral sensitivity test.

D355PL: Innovair Flex low-flow non-relay duct-detector housing, SD355R included.

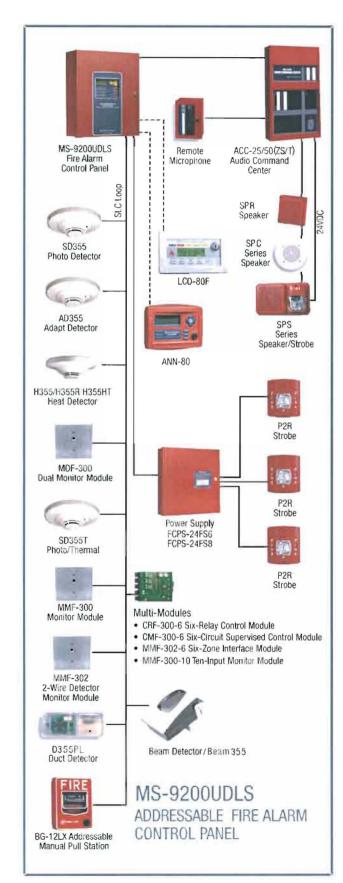
**DNRW:** Innovair Flex low-flow non-relay duct-detector housing, with NEMA-4 rating. Watertight. (Order SD355R separately.)

MMF-300: Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 4.0" (10.16 cm.) box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Style B (Class B) or Style D (Class A) IDC.

MDF-300: Dual Monitor Module. Same as MMF-300 except it provides two Style B (Class B) only IDCs.

MMF-301: Miniature version of MMF-300. Excludes LED and Style D option. Connects with wire pigtails. May mount in device backbox.

**MMF-302:** Similar to MMF-300, but may monitor up to 20 conventional two-wire detectors. Requires resettable 24 VDC power. Consult factory for compatible smoke detectors.



**CMF-300:** Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 4.0" (10.16 cm.) electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

CRF-300: Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 4.0" (10.16 cm.) box, surface mount using the SMB500.

**BG-12LX:** Addressable manual pull station with interface module mounted inside.

**I300:** Fault Isolator Module. This module isolates the SLC loop from short circuit conditions (required for Style 6 or 7 operation)

SMB500: Used to mount all modules except the MMF-301 and M301.

**MMF-300-10:** Ten-input monitor module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

**MMF-302-6:** Six-zone interface module for compatible conventional two-wire detectors. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

**CMF-300-6:** Six-circuit supervised control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

**CRF-300-6:** Six Form-C relay control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

NOTE: 1) For more information on Compatible Addressable Devices for use with the MS-9200UDLS Rev 3, see the following data sheets (document numbers): AD355 (DF-52324), BG-12LX (DF-52013), CMF-300-6 (DF-52365), CRF-300-6 (DF-60379), CMF/CRF Series (DF-52130), CP355 (DF-52383), D355PL (DF-52388), H355 Series (DF-52385), I300 (DF-52389), MMF-300 Series/MDF-300 (DF-52121), MMF-300-10 (DF-52347), MMF-302-6 (DF-52356), SD355/SD355T (DF-52384). 2) Legacy 300 Series detection devices such as the CP300/CP350, SD300(T)/SD350(T) and older modules such as the M300, M301, M302, C304, and BG-10LX are not compatible with LiteSpeed polling. If the SLC contains one of these devices, polling must be set for standard LiteSpeed protocol. Please consult factory for further information on previous 300 Series devices.

#### Wiring Requirements

While shielded wire is not required, it is recommended that all SLC wiring be twisted-pair to minimize the effects of electrical interference. Wire size should be no smaller than 18 AWG (0.78 mm²) and no larger than 12 AWG (3.1 mm²). The wire size depends on the length of the SLC circuit. Refer to the panel manual for wiring details.

## SYSTEM SPECIFICATIONS

### **System Capacity**

•	Intelligent Signalling Line Circuits	1
•	Addressable device capacity	198
•	Programmable software zones	. 99
•	ACS Annunciators	. 32
•	ANN-bus devices	. 16

### **Electrical Specifications**

**AC Power:** MS-9200UDLS Rev 3: 120 VAC, 60 Hz, 3.0 amps. MS-9200UDLS Rev 3E: 240 VAC, 5 0 Hz, 1.5 amps. Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation.

Battery charger capacity: 7 AH - 18 AH batteries. Up to two 18 Ah batteries can be housed in the FACP cabinet. Larger batteries require an external battery charger such as the CHG-75 or CHG-120, and a separate battery cabinet such as the BB-26 or NFS-LBB.

Communication Loop: Supervised and power-limited.

Notification Appliance Circuits: Each terminal block provides connections for two Style Y (Class B) for a total of four Style Y (Class B) or with an optional ZNAC-92 module converts to four Style Z (Class A) NACs. Maximum signaling current per circuit: 2.5 amps. End-of-Line Resistor: 4.7K ohm, 1/2 watt (P/N 71252 UL listed) for Style Y (Class B) NAC. Refer to panel documentation and Fire+Lite Device Compatibility Document for listed compatible devices.

Two Programmable Relays and One Fixed Trouble Relay: Contact rating: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). Form-C relays.

Special Application Non-resettable Power (24 VDC Nominal): Jumper selectable (JP4) for conversion to resettable power output. Up to 1.0 amp total DC current available from each output. Power-limited.

Special Application Resettable Power (24 VDC nominal): Jumper selectable (JP6) for conversion to non-resettable power. Up to 1.0 amp total DC current available. Refer to the Fire-Lite Device Compatibility Document for listed compatible devices.

Remote Sync Output: Remote power supply synchronization output. Nominal special application power: 24 VDC. Maximum current: 300 mA. End-of-Line Resistor: 4.7K ohm. Output linked to NAC 1 control. Supervised and power-limited.

**Telephone Interface:** Unless used with Teldat VISORALARM, requires dedicated business telephone number with a minimum of 5 volts DC (off-hook voltage). Obtain dedicated phone line directly from your local phone company. Do not use shared phone lines or PBX (digital) type phone line extensions.

### Cabinet Specifications

**Door:** 19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.12" (.30 cm.) deep. **Backbox:** 19.00" (48.26 cm.) high x

16.65" (42.29 cm.) wide x 5.20" (13.34 cm.) deep. **Trim Ring (TR-CE):** 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

### **Shipping Specifications**

**Weight:** 26.9 lbs. (12.20 kg.) **Dimensions:** 20.00" (50.80 cm.) high x 22.5" (57.15 cm.) wide x 8.5" (21.59 cm.) deep.

### **Temperature and Humidity Ranges**

This system meets NFPA requirements for operation at 0 - 49°C/32 - 120°F  $\,$  and at a relative humidity 93%  $\pm$  2% RH (noncondensing) at 32°C  $\pm$  2°C (90°F  $\pm$  3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 - 27°C/60 - 80°F.

#### **NFPA Standards**

The MS-9200UDLS Rev 3 complies with the following NFPA 72 Fire Alarm Systems requirements:

- LOCAL (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- AUXILIARY (Automatic, Manual and Waterflow) (requires 4XTMF).
- REMOTE STATION (Automatic, Manual, Waterflow and Sprinkler Supervisory) (Where a DACT is not accepted, the alarm, trouble and supervisory relays may be connected to UL 864 listed transmitters. For reverse polarity signaling of alarm and trouble, 4XTMF is required.)
- **PROPRIETARY** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- CENTRAL STATION (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- OT, PSDN (Other Technologies, Packet-switched Data Network)

### **Agency Listings and Approvals**

The listings and approvals below apply to the basic MS-9200UDLS Rev 3 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

UL Listed: S624FM approved

CSFM: 7165-0075:0208

• MEA: 120-06-E

For ULC-listed version, see DF-60599.

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# MMF-300-10(A)

### **Ten-Input Monitor Module**



Addressable Devices

### General

The MMF-300-10 ten-input monitor module is an interface between a control panel and normally open contact devices in intelligent alarm systems such as pull stations, security contacts, or flow switches.

The first address on the MMF-300-10 is set from 01 to 150 and the remaining modules are automatically assigned to the next nine higher addresses. Provisions are included for disabling a maximum of two unused addresses.

The supervised state (normal, open, or short) of the monitored device is sent back to the panel. A common SLC input is used for all modules, and the initiating device loops share a common supervisory supply and ground — otherwise each monitor operates independently from the others.

Each MMF-300-10 module has panel-controlled green LED indicators. The panel can cause the LEDs to blink, latch on, or latch off.

**NOTE:** Unless otherwise specified, the term MMF-300-10 is used in this data sheet to refer to both the MMF-300-10 and the MMF-300-10A (ULC-listed version).

### **Features**

- · Listed to UL Standard 864, 9th edition.
- Ten addressable Class B or five addressable Class A initiating device circuits.
- Removable 12 AWG (3.25 mm²) to 18 AWG (0.9 mm²) plug-in terminal blocks.
- · Status indicators for each point.
- · Unused addresses may be disabled.
- · Rotary address switches.
- · Class A or Class B operation.
- · Flexible mounting options.
- · Mounting hardware included.

### **Specifications**

**Standby current:** 3.5 mA (SLC current draw with all addresses used; if some addresses are disabled, the standby current decreases).

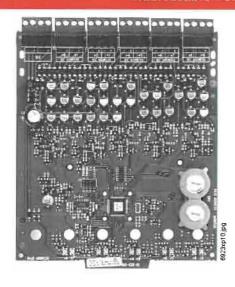
Alarm current: 55 mA (assumes all ten LEDs solid ON).

**Temperature range:** 32°F to 120°F (0°C to 49°C) for UL applications; -10°C to +55°C for EN54 applications.

**Humidity:** 10% to 85% noncondensing for UL applications; 10% to 93% noncondensing for EN54 applications.

**Dimensions:** 6.8" (172.72 mm) high x 5.8" (147.32 mm) wide x 1.25" (31.75 mm) deep.

Shipping weight: 0.76 lb. (0.345 kg) including packaging.



### Mounting options:

- CHS-6 chassis: Up to 6 modules.
- BB-6F cabinet: Up to 6 modules.
- BB-2F cabinet: One or two modules.

Wire gauge: 12 AWG (3.25 mm²) to 18 AWG (0.9 mm²).

**Power-limited circuits** must employ type FPL, FPLR, or FPLP cable as required by Article 760 of the NEC.

MMF-300-10 is shipped in Class B position; remove shunt for Class A operation.

Maximum SLC wiring resistance: 40 or 50 ohms, panel

Maximum IDC wiring resistance: 1500 ohms.

Maximum IDC voltage: 10.2 VDC. Maximum IDC current: 240 µA.

### **Agency Listings and Approvals**

The listings and approvals below apply to the MMF-300-10(A)Ten-Input Monitor Module. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

UL Listed: S2424ULC Listed: S2424

CSFM approved: 7300-0075:205

FM approved

MEA approved: 55-02-E

### **Product Line Information**

MMF-300-10: Ten-input monitor module

MMF-300-10A: Same as above with ULC Listing.

**BB-2F:** Optional cabinet for one or two modules. *Dimensions*, *DOOR*: 9.234" (23.454 cm) wide (9.484" [24.089 cm] including hinges), x 12.218" (31.0337 cm) high, x 0.672" (1.7068 cm) deep; *BACKBOX*: 9.0" (22.860 cm) wide (9.25" [23.495 cm] including hinges), x 12.0" (30.480 cm) high x 2.75" (6.985 cm); *CHASSIS* (installed): 7.150" (18.161 cm) wide overall x 7.312" (18.5725 cm) high interior overall x 2.156" (5.4762 cm) deep overall.

**BB-6F:** Optional cabinet for up to six modules mounted on CHS-6 chassis (below). *Dimensions, DOOR:* 24.0" (60.96 cm) wide x 12.632" (32.0852 cm) high, x 1.25" (3.175 cm) deep, hinged at bottom; *BACKBOX:* 24.0" (60.96 cm) wide x 12.550" (31.877 cm) high x 5.218" (13.2537 cm) deep.

CHS-6: Chassis, mounts up to six modules in BB-6F.

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# Selectable-Output Horns, Strobes, and Horn Strobes

SpectrAlert\* Advance selectable-output horns, strobes, and horn strobes are rich with features guaranteed to cut installation times and maximize profits.











### **Features**

- · Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- · Horn rated at 88+ dBA at 16 volts
- · Rotary switch for horn tone and three volume selections
- · Universal mounting plate for wall and ceiling units
- Mounting plate shorting spring checks wiring continuity before device installation
- · Electrically compatible with existing SpectrAlert products
- · Compatible with MDL sync module

**The SpectrAlert Advance series** offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry. With white and red plastic housings, wall and ceiling mounting options, and plain and FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement.

Like the entire SpectrAlert Advance product line, horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, which make installations fast and foolproof while virtually eliminating costly and time-consuming ground faults. Furthermore, a universal mounting plate with an onboard shorting spring tests wiring continuity before the device is installed, protecting devices from damage.

In addition, field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with three volume selections enables installers to easily adapt devices to suit a wide range of application requirements.

### **Agency Listings**









### **SpectrAlert Advance Specifications**

#### Architect/Engineer Specifications

#### General

SpectrAlert Advance horns, strobes, and horn strobes shall mount to a standard  $4 \times 4 \times 1\%$ -inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang  $2 \times 4 \times 1\%$ -inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

#### Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_\_\_listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

#### Horn Strobe Combination

The horn strobe shall be a System Sensor Spectr Alert Advance Model \_\_\_\_\_\_\_\_ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn strobe models shall operate on a coded or non-coded power supply.

#### Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a  $4\% \times 4\%$  inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

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Physical/Electrical Specifications	
Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR <sup>1</sup>
Operating Voltage Range <sup>2</sup>	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 /WG
Ceiling-Mount Dimensions (including lens)	$6.8^{\circ}$ diameter $\times 2.5^{\circ}$ high (173 mm diameter $\times 64$ mm high)
Wall-Mount Dimensions (including lens)	5.6°L × 4.7°W × 2.5°D (142 mm L × 119 mm W × 64 mm D)
Horn Dimensions	5.6" L × 4.7" W × 1.3" D (142 mm L × 119 mm W × 33 mm D)
Wall-Mount Back Box Skirt Dimensions (BBS-2, BBSW-2)	5.9° L × 5.0°
Ceiling-Mount Back Box Skirt Dimensions (BBSC-2, BBSCW-2)	7.1° diameter $\times$ 2.2° high (180 mm diameter $\times$ 57 mm high)
Wall-Mount Trim Ring Dimensions (sold as a 5 pack) (TR-HS, TRW-HS)	5.7"L × 4.8"W × 0.35"D (145 mm L × 122 mm W × 9 mm D)
Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)	6.9" diameter × 0.35" high (175 mm diameter × 9 mm high)

#### Notes

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

2, P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

### **UL Current Draw Data**

		8-17.5	Volts	16-33 Volts		
	Candela	DC	FWR	DC	FWF	
Standard	15	123	128	66	71	
Candela Range	15/75	142	148	77	81	
	30	NA	NA	94	96	
	.75	NA	NA	158	153	
	95	NA	NA	181	176	
	110	NA	NA	202	195	
	115	NA	NA	210	205	
High Candela Range	135	NA	NA	228	207	
	150	NA	NA	246	220	
	177	NA	NA	281	251	
	185	NA	NA	286	258	

		8-17.5	Volts	16-33 Volts		
Sound Pattern	dB	DC	FWR	DC	FWR	
Temporal	High	57	55	69	75	
Temporal	Medium	44	49	58	69	
Temporal	Low	38	44	44	48	
Non-temporal	High	57	56	69	75	
Non-temporal	Medium	42	50	60	69	
Non-temporal	Low	41	44	50	50	
Coded	High	57	55	69	75	
Coded	Medium	44	51	56	69	
Coded	Low	40	46	52	50	

	8-17.5	Volts	16-3	3 Volts						
DCInput	15	15/75	15	15/7	5 30	75	95		110	115
Temporal High	137	147	79	90	107	176	19	4	212	218
Temporal Medium	132	144	69	80	97	157	18	2	201	210
Temporal Low	132	143	66	77	93	154	17	9	198	207
Non-Temporal High	141	152	91	100	116	176	20	1	221	229
Non-Temporal Medium	133	145	75	85	102	163	18	7	207	216
Non-Temporal Low	131	144	68	79	96	156	18	2	201	210
FWR Input										
Temporal High	136	155	88	97	112	168	19	0	210	218
Temporal Medium	129	152	78	88	103	160	18	4	202	206
Temporal Low	129	151	76	86	101	160	18	4	194	201
Non-Temporal High	142	161	103	112	126	181	20	3	221	229
Non-Temporal Medium	134	155	85	95	110	166	_18	9	208	216
Non-Temporal Low	132	154	80	90	105	161	18	4	202	211
UL Max. Current Draw (m	1A RMS), 2-W	/ire Horn Stro	be, High C	andela Range	(135–185 cd)					
	16-33 Vo	olts					16-33 V	olts		
DCInput	135	150	177	185	FWR Input		135	150	177	185
Temporal High	245	259	290	297	Temporal High		215	231	258	265
PÉRSONALIS PARA DE 192	SOF	252	200	207	T		200	224	250	250

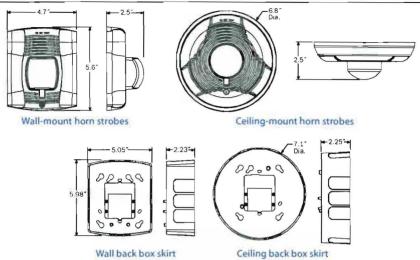
	16-33 Volts					16-33 Volts			
DCInput	135	150	177	185	FWR Input	135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262

# **Horn Tones and Sound Output Data**

			8-17	7.5	16-33		24-Volt Nominal			
Switch			Volt	s	Volt	s	Reve	rberant	Anec	choic
Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	75	81	81	88	84	96	92
71	Coded	High	82	82	88	88	93	92	101	101
81	Coded	Medium	78	78	85	85	90	90	97	98
91	Coded	Low	75	75	81	81	88	85	96	92

<sup>&</sup>lt;sup>1</sup>Settings 7, 8, and 9 are not available on 2-wire horn strobe.

## **SpectrAlert Advance Dimensions**



### **SpectrAlert Advance Ordering Information**

Model	Description
Wall Hor	Strobes
P2R*1	2-Wire Horn Strobe, Standard cd <sup>4</sup> , Red
P2RH*	2-Wire Horn Strobe, High cd, Red
P2W*	2-Wire Horn Strobe, Standard cd, White
P2WH*	2-Wire Horn Strabe, High cd, White
P4R*	4-Wire Horn Strobe, Standard cd, Red
P4RH	4-Wire Horn Strobe, High cd, Red
P4W	4-Wire Horn Strobe, Standard cd, White
Wall Stro	bes
SR*1	Strobe, Standard cd, Red
SRH*1	Strobe, High cd, Red
SW*	Strobe, Standard cd, White
SWH*	Strobe, High cd, White
Ceiling H	om Strobes
PC2R*	2-Wire Horn Strobe, Standard cd, Red
PC2RH	2-Wire Horn Strobe, High cd, Red
PC2W*1	2-Wire Horn Strobe, Standard cd, White
PC2WH*	2-Wire Horn Strobe, High cd, White
PC4R	4-Wire Horn Strobe, Standard cd, Red
PC4RH	4-Wire Horn Strobe, High cd, Red
PC4W	4-Wire Horn Strobe, Standard cd, White

Model	Description	
Ceiling St	robes	
SCR	Strobe, Standard cd, Red	= <del>57</del> <del>- 5</del>
SCRH	Strobe, High cd, Red	
SCW*	Strobe, Standard cd, White	
SCWH	Strobe, High cd, White	
Horns		
HR	Horn, Red	
HW	Horn, White	
Accessori	es	
BBS-2	Back Box Skirt, Wall, Red	
BBSW-2	Back Box Skirt, Wall, White	
BBSC-2	Back Box Skirt, Ceiling, Red	
BBSCW-2	Back Box Skirt, Ceiling, White	
TR-HS	Trim Ring, Wall, Red	
TRW-HS	Trim Ring, Wall White	
TRC-HS	Trim Ring, Ceiling, Red	
TRCW-HS	Trim Ring, Ceiling, White	

#### Notes



<sup>\*</sup> Add"-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2R-P.

t Add "SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP

<sup>#&</sup>quot;Standard cd" refers to strobes that include 15, 15/75; 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 188 candela settings.

## BG-12LX

### **Addressable Manual Pull Station**



**Addressable Devices** 

### General

The Fire-Lite BG-12LX is a state-of-the-art, dual-action (i.e., requires two motions to activate the station) pull station that includes an addressable interface (mounted inside) for Fire-Lite's addressable fire alarm control panels (FACPs) Because the BG-12LX is addressable, the control panel can display the exact location of the activated manual station. This leads fire personnel quickly to the location of the alarm.

#### **Features**

- Maintenance personnel can open station for inspection and address setting without causing an alarm condition.
- Built-in bicolor LED, which is visible through the handle of the station, flashes in normal operation and latches steady red when in alarm.
- Handle latches in down position and the word "ACTIVATED" appears to clearly indicate the station has been operated.
- Captive screw terminals wire-ready for easy connection to SLC loop (accepts up to 12 AWG/3.25 mm² wire).
- Can be surface mounted (with SB-10 or SB-I/O) or semiflush mounted. Semi-flush mount to a standard singlegang, double-gang, or 4" (10.16 cm) square electrical box.
- · Smooth dual-action design.
- Meets ADAAG controls and operating mechanisms guidelines (Section 4.1.3[13]); meets ADA requirement for 5 lb. maximum activation force.
- · Highly visible.
- · Attractive shape and textured finish.
- Key reset.
- · Includes Braille text on station handle.
- · Optional trim ring (BG12TR).
- Meets UL 38, Standard for Manually Actuated Signaling Boxes

#### Construction

Shell, door, and handle are molded of durable polycarbonate material with a textured finish.

### **Specifications**

Shipping Weight: 9.6 oz. (272.15 g)
Normal operating voltage: 24 VDC.
Maximum SLC loop voltage: 28.0 VDC.
Maximum SLC loop current: 230 µA.

Temperature Range: 32°F to 120°F (0°C to 49°C)
 Relative Humidity: 10% to 93% (noncondensing)

· For use indoors in a dry location

### Installation

The BG-12LX will mount semi-flush into a single-gang, double-gang, or standard 4" (10.16 cm) square electrical outlet box, or will surface mount to the model SB-10 or SB-I/O surface backbox. If the BG-12LX is being semi-flush mounted, then the optional trim ring (BG12TR) may be used. The BG12TR is



ullStation.jpg

usually needed for semi-flush mounting with 4" (10.16 cm) or double-gang boxes (not with single-gang boxes).

### Operation

Pushing in, then pulling down on the handle causes it to latch in the down/activated position. Once latched, the word "ACTIVATED" (in bright yellow) appears at the top of the handle, while a portion of the handle protrudes from the bottom of the station. To reset the station, simply unlock the station with the key and pull the door open. This action resets the handle; closing the door automatically resets the switch.

Each manual station, on command from the control panel, sends data to the panel representing the state of the manual switch. Two rotary decimal switches allow address settings (1 – 159 with Breakaway Tab removed for MS-9600 Series, 1 – 99 and MS-9200UDLS, 1 – 50 for MS-9050UD).

### Architectural/Engineering Specifications

Manual Fire Alarm Stations shall be non-coded, with a keyoperated reset lock in order that they may be tested, and so designed that after actual Emergency Operation, they cannot be restored to normal except by use of a key. An operated station shall automatically condition itself so as to be visually detected as activated. Manual stations shall be constructed of red-colored polycarbonate material with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in white letters, 1.00 inches (2.54 cm) or larger. Stations shall be suitable for surface mounting on matching backbox SB-10 or SB-I/O; or semi-flush mounting on a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box, and shall be installed within

the limits defined by the Americans with Disabilities Act (ADA) or per national/local requirements. Manual Stations shall be Underwriters Laboratories listed.

Manual stations shall connect with two wires to one of the control panel SLC loops. The manual station shall, on command from the control panel, send data to the panel representing the state of the manual switch. Manual stations shall provide address setting by use of rotary decimal switches.

#### **Product Line Information**

**BG-12LX:** Dual-action addressable pull station. Includes key locking feature.

SB-10: Surface backbox; metal.SB-I/O: Surface backbox; plastic.BG12TR: Optional trim ring.17003: Keys, set of two.

### **Agency Listings and Approvals**

In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

UL Listed: S711MEA: 67-02-E

• CSFM: 7150-0075:0184

FDNY:FM Approved

Patented: U.S. Patent No. D428,351; 6,380,846; 6,314,772;

6,632,108.

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# SD355(A), SD355T(A), SD355R(A)

### Addressable Photoelectric Smoke Detectors



**Addressable Devices** 

### General

The SD355(A) and SD355T(A) addressable, low-profile plugin photoelectric detectors use a state-of-the-art photoelectric sensing chamber with communications to provide open area protection and are used exclusively with Fire•Lite's Addressable Fire Alarm Control Panels (FACPs). The SD355T(A) adds thermal sensors that will alarm at a fixed temperature of 135°F (57°C). Since these detectors are addressable, they will help emergency personnel quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage. Two LEDs on each sensor light to provide a local, visible sensor indication. Remote LED annunciator capability is available as an optional accessory (P/N RA100Z(A)). The SD355R is a remote test capable detector for use with D355PL or DNR(W) duct smoke detector housings.

### **Features**

#### SLC loop:

- Two-wire loop connection.
- · Unit uses base for wiring

#### Addressing:

- · Addressable by device.
- Direct Decade entry of address: 01 99 with MS-9200 series, and 01 – 159 with MS-9600 series.

#### Architecture:

- Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires.
- · Sleek, low-profile design.
- Integral communications and built-in type identification.
- · Built-in tamper-resistant feature.
- Removable cover and insect-resistant screen for simple field cleaning.

### Operation:

- Withstands air velocities up to 4,000 feet-per-minute (20 m/ sec.) without triggering a false alarm.
- Factory preset at 1.5% nominal sensitivity for panel alarm threshold level.
- Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on in alarm.

#### Mechanicals:

- · Sealed against back pressure.
- · Direct surface mounting or electrical box mounting.
- Mounts to: single-gang box, 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box, or 4.0" (10.16 cm) square electrical box (using a plaster ring included).

#### Other system features:

- Fully coated circuit boards and superior RF/transient protection.
- · 94-V0 plastic flammability rating.
- Low standby current.

#### Options:

Remote LED output connection (P/N RA100Z).



SD355 with B350LP base



SD355T with B350LP base

### **Applications**

Use photoelectric detectors in life-safety applications to provide a broad range of fire-sensing capability, especially where smoldering fires are anticipated. Ionization detectors are often better than photoelectric detectors at sensing fast, flaming fires.

### Construction

These detectors are constructed of off-white LEXAN®. SD355(T) plug-in, low-profile smoke detectors are designed to commercial standards and offer an attractive appearance.

### Installation

SD355(T) plug-in detectors use a detachable mounting base to simplify installation, service and maintenance. Mount base on box which is at least 1.5 inches (3.81 cm) deep. Suitable boxes include:

- · 4.0" (10.16 cm) square box with plaster ring
- 4.0" (10.16 cm) octagonal box.
- 3.5" (8.89 cm) octagonal box.
- Single-gang box.

**NOTE:** Because of the inherent supervision provided by the SLC loop, **end-of-line resistors** are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class B) wiring. SD355R mounts in a D355PL or DNR(W) duct detector housing.

### Operation

Each SD355/T/R uses one of 99 possible addresses on the MS-9200 series and up to 318 (159 on each loop) on the MS-9600 series Signaling Line Circuit (SLC). It responds to regular polls from the system and reports its type and status.

The SD355/T/R addressable photoelectric sensor's unique unipolar chamber responds quickly and uniformly to a broad range of smoke conditions and can withstand wind gusts up to 4,000 feet-per-minute (20 m/sec.) without sending an alarm level signal. Because of its unipolar chamber, the SD355/T/R is approximately two times more responsive than most photoelectric sensors. This makes it a more stable detector.

### **Detector Sensitivity Test**

Each detector can have its sensitivity tested (required per NFPA 72, Chapter 14 on *Inspection, Testing and Maintenance*) when installed/connected to a MS-9200 series or MS-9600 series addressable fire alarm control panel. The results of the sensitivity test can be printed off the MS-9200 series or MS-9600 series for record keeping.

### **Specification**

Voltage range: 15-32 VDC (peak). Standby current:  $300 \mu A @ 24$  VDC.

LED current: 6.5 mA @ 24 VDC (latched "ON").

Air velocity: 4,000 ft./min. (20 m/sec.) maximum.

Diameter: 6.1" (15.5 cm) installed in B350LP base.

Height: 2.1" (5.33 cm) installed in B350LP base.

Weight: 3.6 oz. (102 g).

Operating temperature range: for SD355(A):  $0^{\circ}$ C to  $49^{\circ}$ C (32°F to 120°F); for SD355T(A):  $0^{\circ}$ C to 38°C (32°F to 100°F). SD355F(A): installed in a DNR(W) -20°C to 70°C (-4°F to

Temperature:  $0^{\circ}\text{C} - 49^{\circ}\text{C} (32^{\circ}\text{F} - 120^{\circ}\text{F})$ . Relative humidity: 10% - 93%, non-condensing.

### Listings

Listings and approvals below apply to the SD355(A) and SD355T(A) detectors. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- · UL Listed, file S1059.
- · ULC Listed, file S1059.
- CSFM approved: file 7272-0075:194.
- MEA approved: file 243-02-E.
- · FM approved.

#### **Product Line Information**

NOTE: "A" suffix indicates ULC-Listed model.

SD355: Adressable photoelectric detector; B350LP base included

SD355A: Sames as SD355 with ULC Listing (B350LPA base included).

**SD355T:** Same as SD355 but with *thermal* element; B350LP base included.

 $\ensuremath{\textbf{SD355TA:}}$  Same as SD355T with ULC Listing (B350LPA base included).

**SD355R:** Remote test capable addressable photoelectric detector for use with a D355PL or DNR(W) duct detector housing.

**B350LP(A):** Plug-in detector base. Dimensions: 6.1" (15.5 cm). Mounting: 4.0" (10.16 cm) square box with or without plaster ring, 4.0" (10.16 cm) octagonal box, 3.5" (8.89 cm) octagonal box, or single-gang box. All mounting boxes have a minimum depth of 1.5" (3.81 cm).

**B224RB(A):** Plug-in System Sensor *relay* detector base. *Diameter:* 6.2" (15.75 cm). *Mounting:* 4.0" (10.16 cm) square box with or without plaster ring, 4.0" (10.16 cm) octagonal box, or 3.5" (8.89 cm) octagonal box. All mounting boxes have a minimum depth of 1.5" (3.81 cm).

**B224BI(A):** Plug-in System Sensor *isolator* detector base. Maximum 25 devices between isolator bases *(see DF-52389)*. *Diameter:* 6.2" (15.75 cm). *Mounting:* 4.0" (10.16 cm) square box with or without plaster ring, 4.0" (10.16 cm) octagonal box, or 3.5" (8.89 cm) octagonal box. All mounting boxes have a minimum depth of 1.5" (3.81 cm).

**B200SR:** Sounder base capable of producing temporal-3 or steady sound output.

#### ACCESSORIES:

**RA100Z(A):** Remote LED annunciator, 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B350LP(A) bases only.

**SMK400E:** Surface mounting kit provides for entry of surface wiring conduit. For use with B501(A) base only.

RMK400: Recessed mounting kit. For use with B501(A) base

M02-04-00:Test magnet.

M02-09-00: Test magnet with telescoping handle.

**XR2B:** Detector removal tool. Allows installation and/or removal of detector heads from bases in high ceiling applications.

XP-4: Extension pole for XR2B. Comes in three 5-foot (1.524 m) sections.

T55-127-010: Detector removal tool without pole.

**BCK-200B:** Black detector covers, box of 10. **WCK-200B:** White detector covers, box of 10.

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# Selectable-Output Horns, Strobes, and Horn Strobes

SpectrAlert\* Advance selectable-output horns, strobes, and horn strobes are rich with features guaranteed to cut installation times and maximize profits.











#### **Features**

- · Plug-in design with minimal intrusion into the back box
- · Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- · Horn rated at 88+ dBA at 16 volts
- · Rotary switch for horn tone and three volume selections
- · Universal mounting plate for wall and ceiling units
- Mounting plate shorting spring checks wiring continuity before device installation
- · Electrically compatible with existing SpectrAlert products
- · Compatible with MDL sync module

**The SpectrAlert Advance series** offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry. With white and red plastic housings, wall and ceiling mounting options, and plain and FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement.

Like the entire SpectrAlert Advance product line, horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, which make installations fast and foolproof while virtually eliminating costly and time-consuming ground faults. Furthermore, a universal mounting plate with an onboard shorting spring tests wiring continuity before the device is installed, protecting devices from damage.

In addition, field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with three volume selections enables installers to easily adapt devices to suit a wide range of application requirements.

### **Agency Listings**









### **SpectrAlert Advance Specifications**

### Architect/Engineer Specifications

#### Genera

SpectrAlert Advance horns, strobes, and horn strobes shall mount to a standard  $4 \times 4 \times 1\%$ -inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang  $2 \times 4 \times 1\%$  inch back box. A universal mounting plate shall be used for mounting celling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

#### Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_\_\_listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

#### Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_\_\_\_ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn strobe models shall operate on a coded or non-coded power supply

### Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a  $4^{11}/_{16} \times 2^{11}/_{16} \times 2^{11}/_{16}$  inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.
Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR <sup>1</sup>
Operating Voltage Range <sup>2</sup>	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Ceiling-Mount Dimensions (including lens)	$6.8^{\circ}$ diameter $\times 2.5^{\circ}$ high (173 mm diameter $\times 64$ mm high)
Wall-Mount Dimensions (including lens)	5.6°L × 4.7°W × 2.5°D (142 mm L × 119 mm W × 64 mm D)
Horn Dimensions	5.6°L × 4.7°W × 1.3°D (142 mm L × 119 mm W × 33 mm D)
Wall-Mount Back Box Skirt Dimensions (BBS-2, BBSW-2)	5.9°L × 5.0°W × 2.2°D (151 mm L × 128 mm W × 56 mm D)
Ceiling-Mount Back Box Skirt Dimensions (BBSC-2, BBSCW-2)	7.1" diameter $\times$ 2.2" high (180 mm diameter $\times$ 57 mm high)
Wall-Mount Trim Ring Dimensions (sold as a 5 pack) (TR-HS, TRW-HS)	$5.7^{\circ}L \times 4.8^{\circ}W \times 0.35^{\circ}D$ (145 mm L × 122 mm W × 9 mm D)
Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)	$6.9^{\circ}$ diameter $\times 0.35^{\circ}$ high (175 mm diameter $\times 9$ mm high)

#### Notes

- 1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
- 2. P. S. PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

### **UL Current Draw Data**

		8-17.5	Volts	16-33 \	/olts
	Candela	DC	FWR	DC	FWR
Standard	15	123	128	66	71
Candela Range	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High	135	NA	NA	228	207
Candela Range	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

		8-17.5	Volts	16-33	Volts
Sound Pattern	dB	DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

	8-17.	5 Volts	16-3	3 Volts						
DCInput	15	15/75	15	15/	75 30	75	95	;	110	115
Temporal High	137	147	79	90	107	1/6	19	94	212	218
Temporal Medium	132	144	69	80	9/	157	18	32	201	210
Temporal Low	132	143	66	77	93	154	17	'9	198	207
Non-Temporal High	141	152	91	100	116	176	20	)1	221	229
Non-Temporal Medium	133	145	/5	85	102	163	18	37	207	216
Non-Temporal Low	131	144	68	79	96	156	18	32	201	210
FWR Input										
Temporal High	136	155	88	97	-112	168	19	90	210	218
Temporal Medium	129	152	78	88	103	160	18	34	202	206
Temporal Low	129	151	76	86	101	160	18	34	194	201
Non-Temporal High	142	161	103	112	126	181	20	)3	221	229
Non-Temporal Medium	134	155	85	95	110	166	18	39	208	216
Non-Temporal Low	132	154	80	90	105	161	18	34	202	211
UL Max. Current Draw (n	A RMS), 2-V	Vire Horn Str	be, High C	andela Rang	je (135–185 cd)					
	16-33 Vo	olts					16-33\	/olts		
DCInput	135	150	177	185	FWR Input		135	150	177	185
Temporal High	245	259	290	297	Temporal High		215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium		209	224	250	258
Temporal Low	232	251	282	292	Temporal Low		207	221	248	256
Non-Temporal High	255	270	303	309	Non-Temporal Hig	h	233	248	275	281
Non-Temporal Medium	242	259	293	299	Non-Temporal Med	dium	219	232	262	267

# **Horn Tones and Sound Output Data**

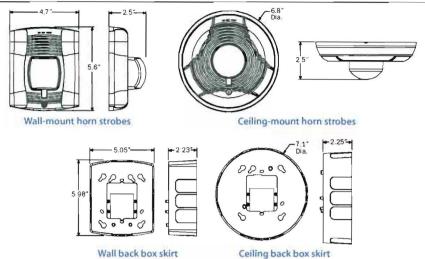
Non-Temporal Low

			8-17.5 Volts		16-33 Volts		24-Volt Nominal			
Switch							Reverberant		Aned	thoic
Position	Sound Pattern	Sound Pattern dB DC FWR DC FW		FWR	DC	FWR	DC	FWR		
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	/5	81	81	88	84	96	92
/1	Coded	High	82	82	88	88	93	92	101	101
81	Coded	Medium	78	78	85	85	90	90	97	98
91	Coded	Low	75	75	81	81	88	85	96	92

Non-Temporal Low

<sup>&</sup>lt;sup>1</sup>Settings 7, 8, and 9 are not available on 2-wire horn strobe.

### **SpectrAlert Advance Dimensions**



### **SpectrAlert Advance Ordering Information**

Model	Description
Wall Horn	Strobes
P2R*1	2-Wire Horn Strobe, Standard cd <sup>‡</sup> , Red
P2RH*	2-Wire Horn Strobe, High cd, Red
P2W*	2-Wire Horn Strobe, Standard cd, White
P2WH*	2-Wire Horn Strobe, High cd, White
P4R*	4-Wire Horn Strobe, Standard cd, Red
P4RH	4-Wire Horn Strobe, High cd, Red
P4W	4-Wire Horn Strobe, Standard cd, White
Wall Stro	bes
SR*†	Strobe, Standard cd, Red
SRH*†	Strobe, High cd, Red
SW*	Strobe, Standard cd, White
SWH*	Strobe, High cd, White
Ceiling H	orn Strobes
PC2R*	2-Wire Horn Strobe, Standard cd, Red
PC2RH	2-Wire Horn Strobe, High cd, Red
PC2W*1	2-Wire Horn Strobe, Standard cd, White
PC2WH*	2-Wire Horn Strobe, High cd, White
PC4R	4-Wire Horn Strobe, Standard cd, Red
PC4RH	4-Wire Horn Strobe, High cd, Red
PC4W	4-Wire Horn Strobe, Standard cd, White

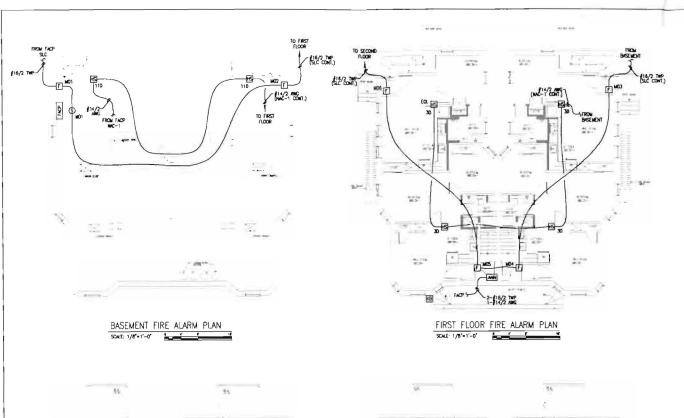
Model	Description
Ceiling St	robes
SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCW*	Strobe, Standard cd, White
SCWH	Strobe, High cd, White
Horns	
HR	Horn, Red
HW	Horn, White
Accessori	es
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

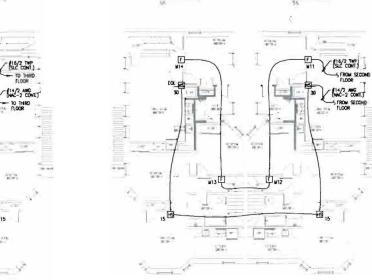
### Notes:

- \* Add \* P\* to model number for plain housing (no \*FIRE\* marking on cover), e.g., P2R-P † Add \* SP\* to model number for \*FUEGO\* marking on cover, e.g., P2R-SP
- # "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.











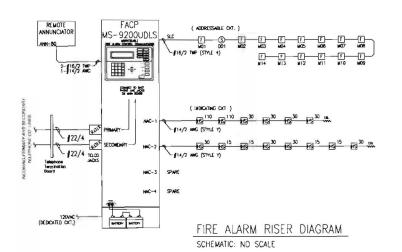
N. A.

(Sic cont)

FROM FIRST 5-FLOOR

\$14/2 AMG-

0.00 p



### GENERAL NOTES:

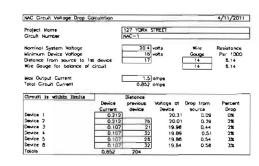
- THESE DRAWINGS ARE DIAGRAMMATIC REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- 4 FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
- 5. POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT.
- 6. POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CARNET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LLAST 0.25" MANY FROM ANY INNOVERSEMENTED DIRECUIT WIRING LIMITED CHARLE MEMORE, LAL POWER-LIMITED AND MONPOWER-LIMITED CIRCUIT WIRING MUST ENTIFF AND EXIT THE CARINET THROUGH BY FERENT HONCOK OUTS AND/OR SEPARATE CONDUITS.
- WHEN UTILIZING CLASS "A" CIRCUITS, SEPARATE OUTCOING AND RETURN CONDUCTORS OF CLASS "A" CIRCUITS BY A MINIMUM OF 12" WHERE RUN VERTICALLY AND 4B" WHERE RUN HORZOWTALLY.
- 8. When utilizing shielded cable tie, shields through and insulate at each junction box. Insulate and tape back at end.
- ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
- 10. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL. 11. LOCATE SMOKE DETECTORS A MINIMUM OF THREE (3) FEET FROM MECHANICAL DEFUSERS. WALL-MOUNTED SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 12° FROM CEILURG, CEILURG-MOUNTED SMOKE DETECTORS SHALL BE MOUNTED ON CEILURGS AND NOT ON THE BOTTOMS OF BEAMS OR JOSTS.
- 12. PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES.
- VERIFY ALL FIELD SELECTABLE AUDBILITY SETTINGS OF NOTIFICATION APPLIANCES WITH FIRE ALARM CONTRACTOR.
- 14. UPON COMPLETION OF THE FIRE ALARM SYSTEM INSTALLATION AND PROGRAMMING, THE INSTALLING CONTRACTOR SHALL PERFORM FINAL TESTING OF THE EMTIRE SYSTEM, PER PALL PAPILCABE, COOKS, AND SHALL COORDINATE AND PERFORM A FINAL FIRE ALARM SYSTEM INSPECTION.
- PROMDE OFF-SITE MONITORING AS REQUIRED BY THE INTERNATIONAL FIRE CODE, SECTION 907.15 AND THE LOCAL AUTHORITY HAVING JURISDICTION.

SYMBOL	DESCRIPTION	MOUNTING
FACP	FIRE ALARM CONTROL PAVEL	WALL-TOP @ 66
FAPS	FIRE ALARM POWER SUPPLY	FIELD VERIFY
AN	REMOTE ANNUMONTOR	WALL-TOP @ 66
[52]	FIRE/SMOKE DAMPER	BY DTHERS
(A)	HEAT DETECTION	CELNG
<u>®</u>	SWOKE DETECTOR	CING
100	DUCT SMOKE DETECTOR	N DUCT
F	WANIER PULL STATION	WALL O 48" AT
<b>D</b>	CONTROL MODULE	DETO ADMILA
DH	WAGNETIC DOOR HOLDER	FIELD VERITY
- I	HONTON NOTINON	FIELD VERITY
R	MALTI-VOLTAGE RELAY	DELD VERIFY
Rui	ADDRESSABLE RELAY MODULE	UETD ADBILL
FSI	FLOW SWITCH	BY OTHERS
FTS]	TAMPER SMITCH	BY OTHERS
<u> </u>	STROBE	CELING
- K	HORN / STROBE	ane
® ®	SPEAKER STROBE	CI LING
H	HORN	WALL 0 90" AFT
FG	HORN / STROBE	WALL 80"-95" A
[3]	STRORE	WALL BO"-95" A
 89	SPEAKER	WALL D 90° AFT
<u> </u>	SPEAKER STROBE	MAT 90,-32, V
<u>@</u>	KINOX BOX	UETD AEMILA
ABBREVIATION	DESCRIPTION	State S
E	DOSTING	262 (m) 7 (256 ) 10
G P	WITH GUARD PENDENT MOUNT	7.0
R	RESIDENTIAL (110V)	(S) / BONGS ADDRESS (H)
<u>s</u>	SOUNDER BASE	L10001 DR D01
MP	WEATHERPROOF	0 - 0 - 00 - 00 - 00 - 00 - 00 - 00 -
[OL	DND OF LINE RESISTOR	the second or street or second
EDLR	DAD OF UNE RELAY	70 September 20
ANG	AMERICAN WIRE GALGE	1-(15/2 Turp wat ner seem
TWP	TWISTED PAIR	WE THE MENT ASSET
Twe'rD	THATTER CHELOCA DAD	

ANN	REMOTE ANNUMINATOR	WALL-TOP & 66" AFF			
F\$0	FIRE/SMOKE DAMPER		BY DTHERS		
®	HEAT DETECTOR		CELNC		
(3)	SMOKE DETECTOR		CELING		
00	DUCT SMOKE DETECTOR		N DUCT		
F	MANUAL PULL STATION	WALL D 48" AT			
D2 -	CONTROL WORDLE	FIELD VERIFY			
DH	MAGNETIC DOOR HOLDER	FIELD VERITY			
<u></u>	AUTON NOTINON		FIELD YERRIY		
R	MULTI-VOLTAGE RELAY		FIELD VERIFY		
RM	ADDRESSABLE RELAY MODULE		DELD YORKY		
FS	FLOW SWITCH		BY DTHERS		
FSI	TAMPER SWITCH		BY OTHERS		
<u></u>	STROBE				
œ ·	HORN / STROBE	CELNG			
<u>®</u>	SPEAKER STROBE	CI UNG			
H)	HORN				
FS	HORN / STROBE	_	WALL BO'-95" AFF		
[S]	STRORE		WALL BO"-95" AFT		
<u>₽</u>	SPEAKER		WALL BU - 90" AFT		
	( - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				
<u>8</u>	SPEAKER STROBE		WALL 80"-95" AFT		
<u>@</u>	KINOX BÓX		UETD AEMILA		
REVIATION	DESCRIPTION	SK#TP- 55	-m FS		
E	DOSTING	Selficat (Ser)	7 ESS 100		
G P	WITH GLIARD PENDENT MOUNT				
R	RESIDENTIAL (110V)	(S) ~ 100	CE MEDIESS (H)		
S	SOUNDER BASE	110001	DR DO1		
₩P	WEATHERPROOF	0-0	S DOELLOS OL MODERT D		
FOX.	DND OF LINE RESISTOR	Cho n - govern	2 or others its report to		
EDLR	DND OF UNE RELAY				
ANG	AMERICAN WIRE GALICE	1-115/2	TWP		
TMP	TWISTED PAIR	1 ~ 1 1 7 T			
		111	COMPLETOR COUNT		
TWSP	TWISTED SHELDED PAIR	1 1/			
FPLP	FIRE POWER LIMITED PLENUM	_	ONT , CHET WITHIN		
FPLR	FIRE POWER LIMITED RISER	_			
AFF	ABOVE FINISHED FLOOR	1			

OPERATIONS MATRIX	FIRE ALARM OUTPUT	ACTIVATE ALABA MIDICATOR	ACTIVATE AUDINE ALARM	ACTIVATE TROUBLE NEICATOR	ACTIVATE AUDINE TROUBLE NEXCATOR	TRANSUT ALABA SICIAL	TRANSLET TROUBLE SOM
SWOKE DETECTORS		•					Т
Pull Stations		•					Г
FIRE ALARM AC POWER FALL		_					
FIRE ALARM LOW BATTERY							
OPEN CIRCUIT					•		
GROUND FAULT					•		•
NAC SHORT CROUT							
LOSS OF AC TO BUILDING						П	

FACP Ba	attery C	alc	ulation		4/8/201
PROJECT NAME	: 127 YORK	CTOC	er e		
Recuired Standby Time		Hour			
Required Alarm Time		Minut			
Regula	ted Load in	Ste			
	Number		Current		Total Current
Device Type	of Devices		(Amps)		(Amps)
MS-9200UDLS - Moin Circuit Boord ANN-80 Annuaciator	1	×	0.13700	-	0.1370
SD356 Smoke Detector	1 1	Ŷ	0.00030		0.0003
BG-12LX Pull Stations	14	×	0.00023	-	0.0032
17965 531 561			0.00023	-	
TOTAL STANDBY L	OAD.				0.1555
Regul	ated Load i	D AL	ARM		
Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
MS-9200UDLS - Moin Circuit Board	U) DEVICES	x	0.36000	-	0.3600
ANN-80 Annunciator	1 3 1	×	0.04000		0.0400
Max. Alarm Draw - All Addressable Devices	i	×	0.40000		0.4000
NAC-1	1 1	x	0.85200	-	0.8520
NAC-2	1	x	0.74400	-	0.7440
TOTAL ALARM L	OAD.				2.3980
Bat	tery Require	men	nta	_	
Standby Load			Required Stands	y Tir	me in Houre
Current (Amps)	0.15552	X	24.00000	-	3.7324
Alorm Load	5 27 20 mm 27 20		Required Alarm		in Hours
Current (Amps)	2.39600	×	0.08333	-	0.1996
Total Ampere Hours (before denoting factor)					3.9321
Deroting Foctor	-			X	1.
TOTAL AMPERE HOURS REQUI	RED			-	4,7185



NAC Circuit Voltage Drop C	alculation				4/8/2011
Project Name	Г	127 YORK	STREET		
Circuit Number	1	NAC-2			
Naminal System Voltage	Г	20.4	ente.	Wire	Resistance
Minimum Device Vallage		16	volts	Gouge	Per 1000
Distance from source to 1:	d device	34	17070	14	6.14
Wire Gauge for balance of				14	6.14
	,	0.744	omps omps		
Total Circuit Current	J.,	0.744 Dietonce	omps		
Total Circuit Current	Device	0.744 Distance previous	omps Voltage of		Percent
Total Circuit Current Circuit is within limits	Current	0.744 Dietonce	Voltage of Device	<b>Source</b>	Drop
Total Circuit Current Circuit is within limits  Device 1	Current 0.107	0.744 Dietonce previous device	Voltage of Device 20,24	90urca 0.16	Drop 1%
Total Circuit Current  Circuit is within limits  Device 1  Device 2	0.107 0.079	0.744 Dietonce previous device	Vortage of Device 20.24 20.11	0.16 0.29	Drop 1X 1X
Total Circuit Current  Circuit is within limits  Device 1  Device 2  Device 3	0.107 0.079 0.079	0.744 Dietonce previous device 34 36	Vortage of Device 20.24 20.11 19.99	90urca 0.16 0.29 0.41	Drop 1% 1% 2%
Total Circuit Current  Circuit is within limits  Device 1  Device 2  Device 3  Device 4	0.107 0.079 0.079 0.107	0.744 Distance previous device 34 36 34	Vortage of Device 20.24 20.11 19.99 19.89	0.16 0.29 0.41 0.51	Drop 1% 1% 2% 3%
Total Circuit Current  Circuit is within limits  Device 1  Device 2  Device 3  Device 4  Device 5	0.107 0.079 0.079 0.107 0.107	0.744 Distance previous device 34 36 36	Voltage of Device 20,24 20,11 19,99 19,89 19,87	90urca 0.16 0.29 0.41 0.51 0.53	Drop 1% 1% 1% 2% 3% 3%
Total Circuit Swithin limits  Device 1 Device 2 Device 2 Device 4 Device 5 Device 5 Device 6	0.107 0.079 0.079 0.107 0.107 0.107	0.744 Distance previous device 34 36 36	Voltage of Device 20,24 20,11 19,99 19,89 19,87 19,81	90urca 0.16 0.29 0.41 0.51 0.53 0.59	Drop 1% 1% 2% 3% 3% 3%
Total Circuit Current  Circuit is within limits  Device 1  Device 2  Device 3  Device 4	0.107 0.079 0.079 0.079 0.107 0.107 0.079	0.744 Distance previous device 34 36 36	Votage of Device 20.24 20.11 19.99 19.89 19.87 19.51 19.77	0.16 0.29 0.41 0.51 0.53 0.59	Drop 1% 1% 2% 3% 3% 3% 3%
Device 2 Device 3 Device 4 Device 5 Device 6	0.107 0.079 0.079 0.107 0.107 0.107	0.744 Distance previous device 34 36 34	Voltage of Device 20,24 20,11 19,99 19,89 19,87 19,81	0.16 0.29 0.41 0.51 0.53 0.59	Drop 1% 1% 2% 3% 3% 3%

CUNNINGHAM Security Systems Security 127 YORK STREET PORTLAND, ME 04101 **ALARM PLAN** FIRE

ESSUED FOR REMEW & APPROVAL REMEMBER OF REPRESENTING OF

DRAWN JPB UNICAD JOE \$11131 CHECKED MAYNE & HAWS HIGHT N 90496 DATE 4/7/2011 REVISION 1 SCHE 1/8" = 1'-0" THE STATE UNICADING FA-1

	PLUMBING :	APPLICAT	ION			Department of Health and Human Service Division of Environmental Health
Last: Applie Nam Mailing Ac Owner/Ap (II Diffe	PROPERTY CONTROL OF THE PROPER	WNERS NAM  First: Cather  Solicant Statemer  mitted is correct to the	E  Tine  Tine  Tine  The  Tine  The  The  The  The  The  The  The  T	Ca	Signature  Ution: Inspe	\$ 11588 TOWN COPY \$ Double Fee Charged  LPI. # 1588 TOWN COPY  FEE Charged  LPI. # 1588 TOWN COPY  Section Required  Thomas above and lound it to be in
Plumb	Signature of Owner	Permii	3/	29 60 Local Plumbing II		
	) Signature or Owner		PERM	IIT INFORMATIO		Date Approved
■. □ NE	Application is for EW PLUMBING ELOCATED LUMBING	1. SINGLE	FAMILY D' DDULAR C LE FAMILY	DR MOBILE HOME DWELLING	1.  MAS 2.  OIL 3.  MFG 4.  PUB	Umbing To Be Installed By:  STER PLUMBER BURNERMAN  STO. HOUSING DEALER/MECHANIC SLIC UTILITY EMPLOYEE  OPERTY OWNER  E # \[ \bigcite{\infty} \]
3	Hook-Up & Piping Rel Maximum of 1 Hook		Number	Column 2 Type of Fixture	Number	Column1 Type of Fixture
P	HOOK-UP: to public those cases where the is not regulated and the local Sanitary Dis	sewer in ne connection inspected by	L	Hosebib / Sillcock Floor Drain	18	Bathtub (and Shower) Shower (Separate)
3	OR	sting subsurface		Urinal  Drinking Fountain	12	Sink Wash Basin
	PIPING RELOCATIO	N: of sanitary		Indirect Waste  Water Treatment Softener, Filter, etc.	12	Water Closet (Toilet)  Clothes Washer
	lines, drains, and piping without new fixtures.			Grease / Oil Separator		Dish Washer
				Roof Drain	1/2	Garbage Disposal
Y	OI	R		Bidet		Laundry Tub
	TRA	NSFER FEE [\$6.00]		Other:Fixtures (Subtotal) Column 2		Water Heater Fixtures (Subtotal) Column 1
,		SEE PERMI FOR CAL				Fixtures (Subtotal) Column 2 Total Fixtures Fixture Fee

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Transfer Fee

Hook-Up & Relocation Fee

Permilt Fee

(Total)