

RECEIVED

JAN 11 2011

# HUMAN CREMATORY AIR GENERAL PERMIT REGISTRATION FORM

Bureau of Air Monitoring  
& Mobile Sources**Part II. Notification to Permitting Office**

(Detach and submit to appropriate permitting office; keep copy onsite)

**Instructions:** To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

0190080-001

**Registration Type**

Check one:

**INITIAL REGISTRATION** - Notification of intent to:

- ☒ Construct and operate a proposed new facility.  
☐ Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

**RE-REGISTRATION** (for facilities currently using an air general permit) - Notification of intent to:

- ☐ Continue operating the facility after expiration of the current term of air general permit use.  
☐ Continue operating the facility after a change of ownership.  
☐ Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

**Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only**

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- ☐ All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): \_\_\_\_\_  
☒ No air operation permits currently exist for this facility.

**General Facility Information**

**Facility Owner/Company Name** (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

**Site Name** (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

Russel Haven of Rest

**Facility Location** (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 2335 Sand Ridge Rd

City: Green Cove Springs

County: Clay

Zip Code: 32043 - 8603

Facility Start-Up Date (Estimated start-up date of proposed **new** facility.) (N/A for existing facility)  
Mar 2011

**Owner/Authorized Representative**

Name and Position Title (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)

Print Name and Title: Sue Campbell

**Owner/Authorized Representative Mailing Address**

Organization/Firm: Russel Haven of Rest Cemetery & Funeral Home

Street Address: 213 Sand Ridge Rd 2335

City: Green Cove Springs

County: Clay

Zip Code: 32043

**Owner/Authorized Representative Telephone Numbers**

Telephone: 904-284-7720

Fax:

Cell phone (optional):

**Facility Contact (If different from Owner/Authorized Representative)**

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)

Print Name and Title:

**Facility Contact Mailing Address**

Organization/Firm:

Street Address:

City:

County:

Zip Code:

**Facility Contact Telephone Numbers**

Telephone:

Fax:

Cell phone (optional):

**Owner/Authorized Representative Statement**

This statement must be signed and dated by the person named above as owner or authorized representative

*I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.*

*I will promptly notify the Department of any changes to the information contained in this registration form.*

Sue Campbell  
Signature

12-22-2010  
Date

**Design Calculations**

If this is an initial registration for a proposed new human crematory unit, provide design calculations to confirm a sufficient volume in the secondary chamber combustion zone to provide for at least a 1.0 second gas residence time at 1800 degrees F.

- ☒ Manufacturer's' design calculations attached.
- ☐ Registration is not for proposed new human crematory unit(s).

**Description of Facility**

Below, or as an attachment to this form, provide a description of all crematory operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

Installation and operation of a B&L Cremation Systems Inc human Crematory Model N-20 Series. 150lbs/hr fired with a LP afterburner, single pen recorder providing constant operation recording of secondary chamber temperature (1600°F@ 1 second retention) Stack provided with opacity monitoring set at 10%.

**CALCULATIONS FOR PRODUCTS OF COMBUSTION  
AND RESIDENCE TIME FOR 150 LB/hr  
TYPE IV WASTE. B&L N-20 SERIES CREMATORY**

**PROPANE**

**A. BASIS: 1 LB WASTE**

1.  $\frac{1 \text{ lb waste} \times 1000 \text{ Btu/lb waste} \times 15 \text{ lbs air}}{10,000 \text{ Btu}} = 1.5 \text{ lbs air}$
2.  $\frac{1 \text{ lb waste} \times 0.10 \text{ lb combustible}}{1 \text{ lb waste}} = 0.10 \text{ lbs of combustibles}$
3.  $\frac{1 \text{ lb waste} \times 0.85 \text{ lb H}_2\text{O} \times 1.6^*}{1 \text{ lb waste}} = 1.36 \text{ lbs of water}$
4.  $\frac{6,500 \text{ Btu aux fuel}^{**} \times 23.8 \text{ cu ft air/cu ft fuel}}{2,500 \text{ Btu/cu ft fuel} \times 13.35 \text{ cu ft air/lb air @ 70f}} = 4.64 \text{ lbs of air for aux fuel}$
5.  $\frac{6,500 \text{ Btu aux fuel} \times 0.044 \text{ lb fuel/cu ft fuel}}{2,500 \text{ Btu/cu ft fuel}} = 0.11 \text{ lb of aux fuel}$
6. Sum = PRODUCTS OF COMBUSTION (POC) = 7.71 lbs POC per lb waste @ 70f

**B. RESIDENCE TIME @ 1600 F**

1.  $\frac{7.71 \text{ lbs POC/lbs waste} \times 51.89 \text{ cu ft / lb POC @ 1600f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$   
 $= 16.67 \text{ cu ft / sec @ 1600 f} = 17.00 \text{ cu ft for 1 second residence time}$

**RESIDENCE TIME @ 1800 F**

2.  $\frac{7.71 \text{ lbs POC/lbs waste} \times 56.93 \text{ cu ft / lb POC @ 1800f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$   
 $= 18.1 \text{ cu ft / sec @ 1800 f} = 19.00 \text{ cu ft for 1 second residence time}$

\* Correction multiplier for dry air and water vapor

\*\* Fuel is propane

Referances: Incinerator institute of America.  
 North American Combustion Handbook  
 Eclipse Combustion Engineering guide

**C. THERMOCOUPLE PLACEMENT.**

Secondary chamber operating temperature at > or = to 1600f = 17.00 cu ft from flame tip.  
 1800f = 19.00 cu ft from flame tip.

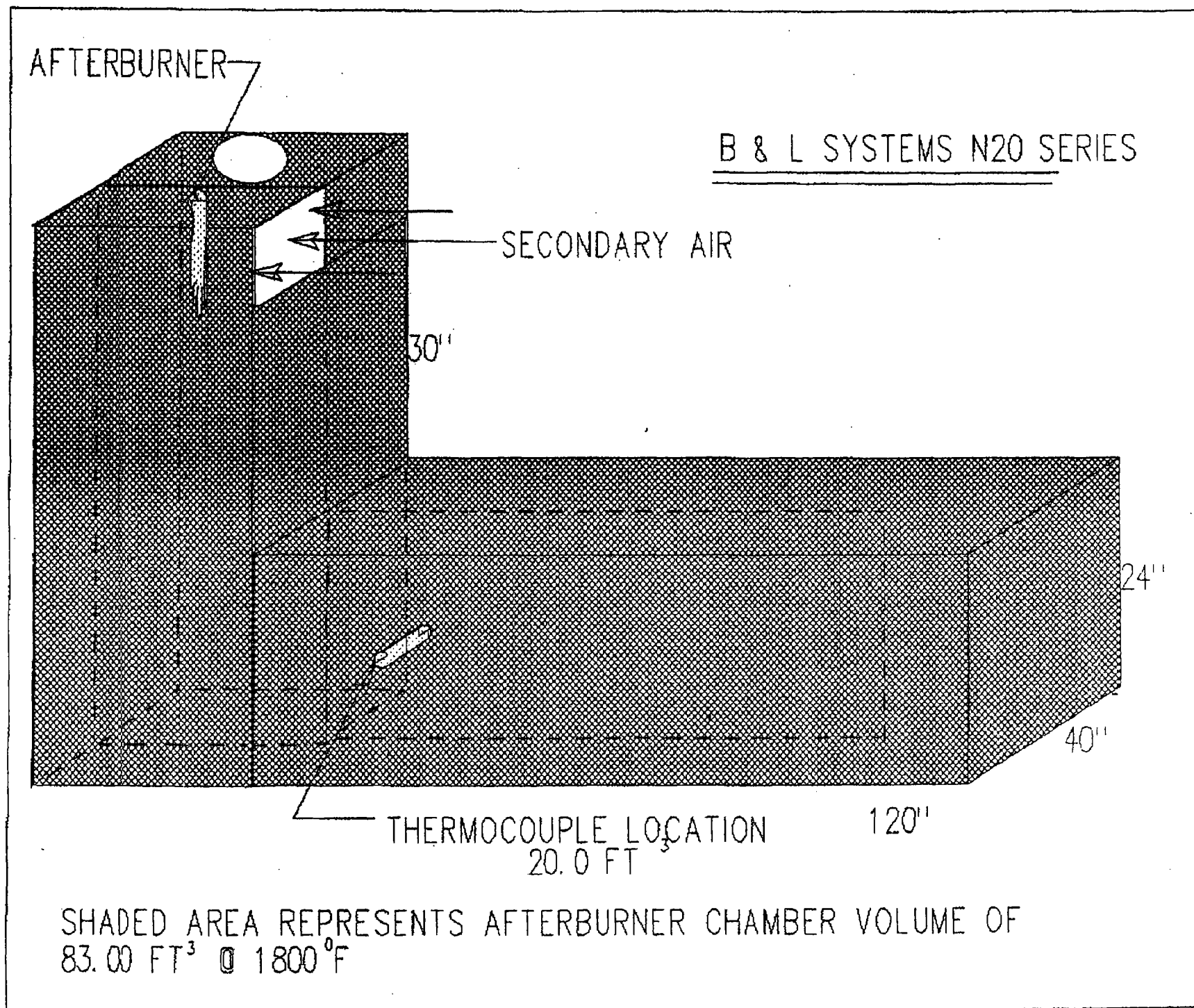


Cremation  
**Systems, Inc.**

7205 - 114th Avenue North • Largo, Florida 33773  
1-800-622-5411 • 727-541-4666 • Facsimile 727-547-0669

## TEMPERATURE CONTROL SEQUENCE

A type "K" thermocouple is placed 19<sup>3</sup> ft. down stream of the flame tip to measure temperature, the signal is sent to the *main control panel* where it is received by a FUJI PYZ series temperature controller with digital readout and a DR4200 *temperature recorder*. The FUJI PYZ series temperature controller controls the temperature via a *motorized butterfly valve* located on the *afterburner inlet gas assembly*. Gas demand is controlled by temperature to maintain a steady temperature. The *ignition/cremation burner* is interlocked to the *afterburning temperature* by the FUJI PYZ series temperature controller set point. Combustion cannot start until *temperature set point* is reached. Alarm contacts in the FUJI-PYZ series temperature controller are utilized for over (high) temperature conditions. 100° F over set point the *afterburner* will be in maximum low fire and the *ignition/cremation burner* will shut off. The *butterfly valve* located on the *secondary air inlet* is controlled by a separate temperature out put to add air to cool the system. At *set point* the unit will return to normal operation. An *optimonitor smoke detector* is placed on the stack and set at 10% opacity if emissions occur the alarm will sound; a visual *red warning lamp* located on the *control panel* will illuminate and the *primary burners* will shut off. The *excess air butterfly valve* will open to add air to the *secondary chamber* to oxidize the emissions. After a five (5) minute period the unit will revert to normal operation.



**INDEX OF DRAWINGS**

- A-1 ARCHITECTURAL SITE PLAN
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- A-4 BUILDING SECTIONS
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- E-5 FIXTURE AND PANEL SCHEDULES
- E-6 GENERAL NOTES AND RISER

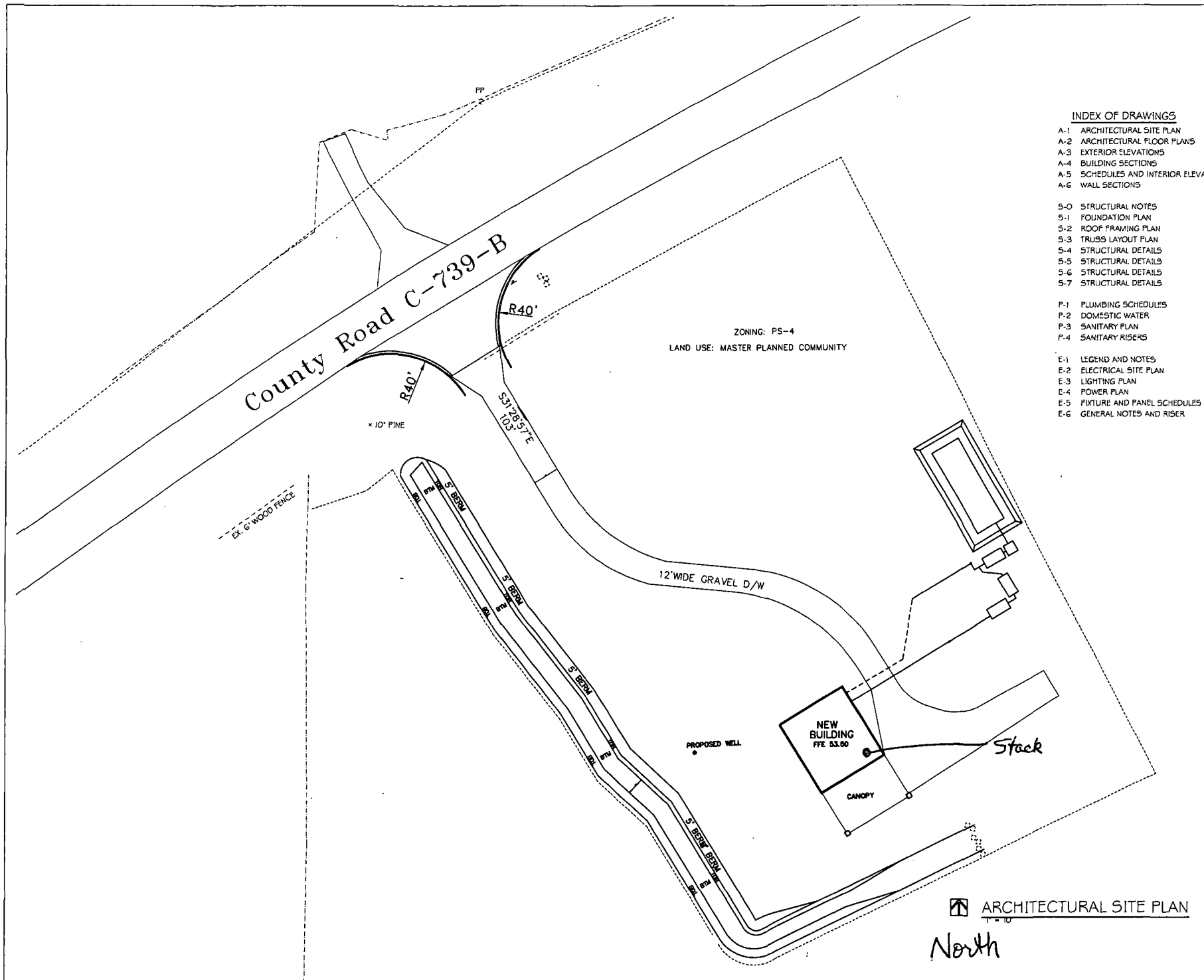
FUNERAL  
UTILITY  
BUILDING

HAVEN  
OF REST  
FUNERAL  
HOME

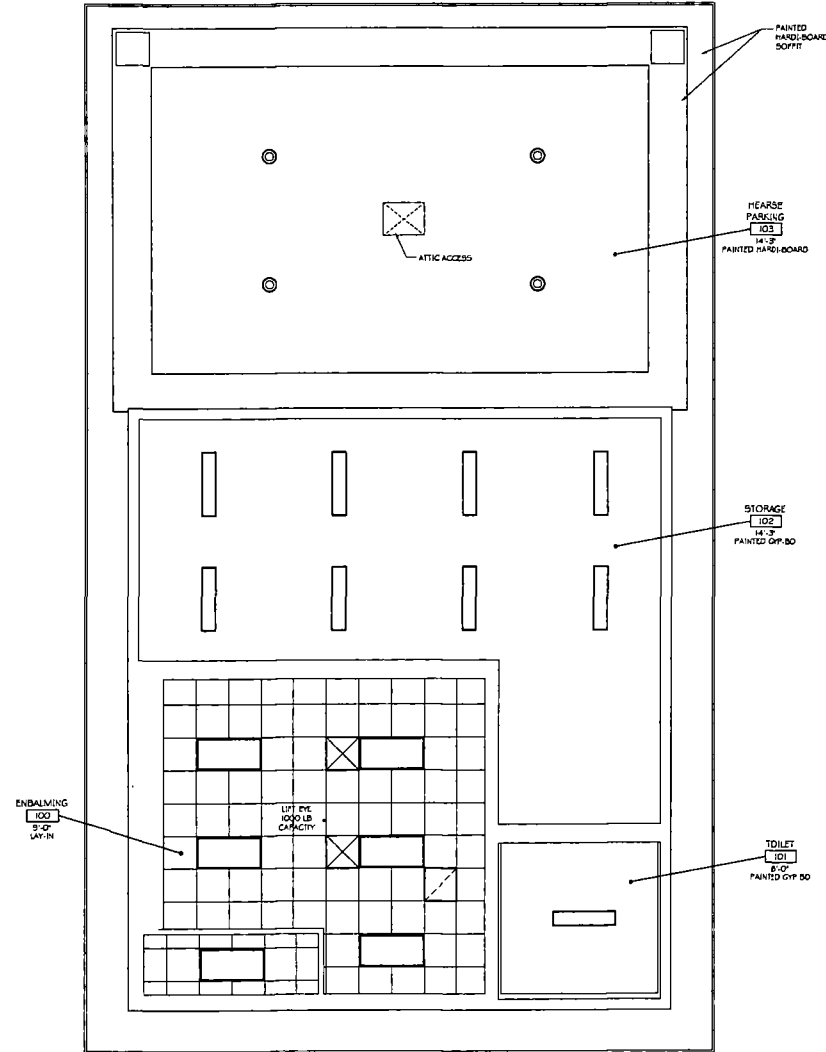
REVISIONS  
NO. DATE

JOB NO. 101300-ek  
FILENAME SITE  
DATE 8-04-10  
DRAWN BY SCM  
CHECKED BY SCM

A-1

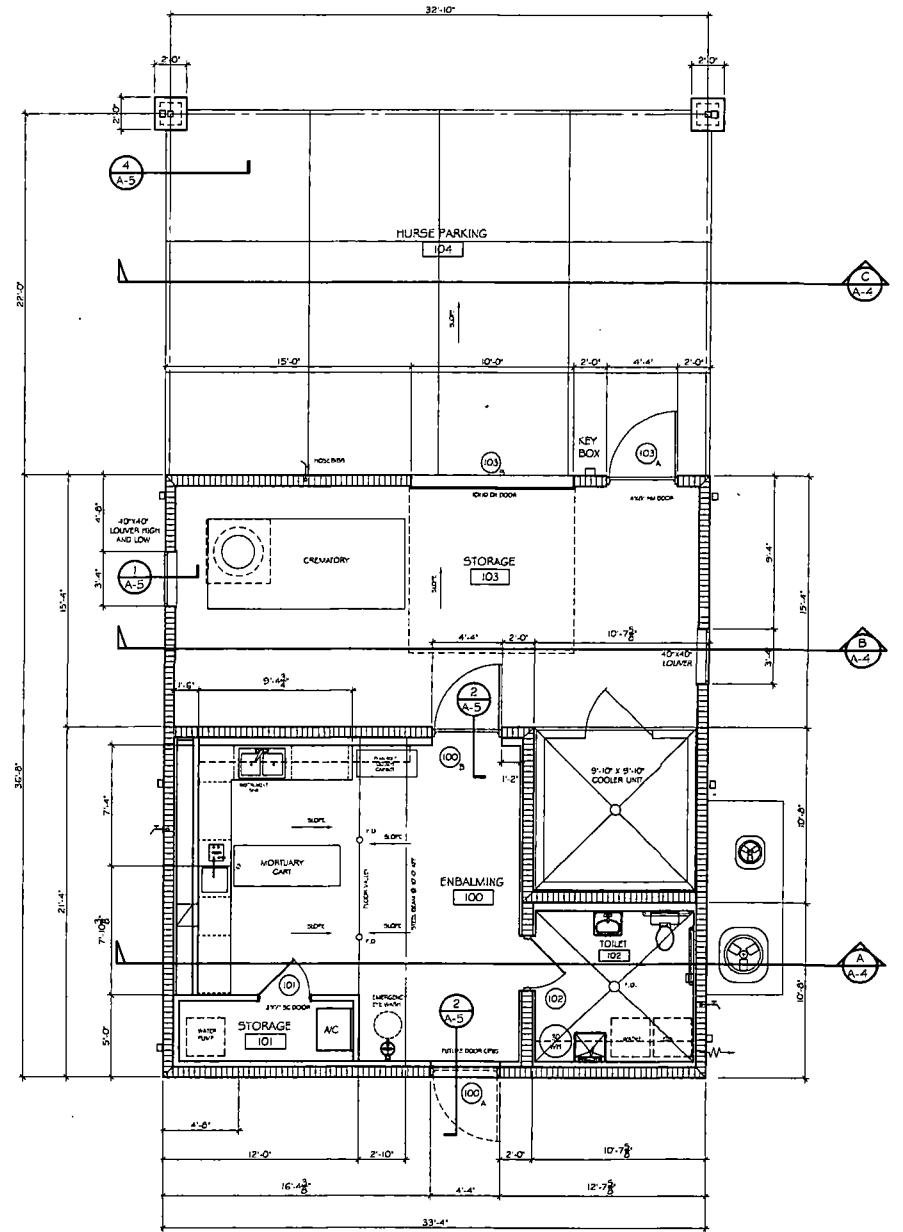






REFLECTED CEILING PLAN

1/8" = 1'-0"



ARCHITECTURAL FLOOR PLAN

SCALE 1/8" = 1'-0"

# 2010 FOR PROFIT CORPORATION ANNUAL REPORT

DOCUMENT# P99000092912

FILED  
Apr 01, 2010  
Secretary of State

Entity Name: RUSSELL HAVEN OF REST CEMETERY, INC.

**Current Principal Place of Business:**

2315 SANDRIDGE ROAD  
GREEN COVE SPRINGS, FL 32043 US

**New Principal Place of Business:**

**Current Mailing Address:**

2429 SANDRIDGE ROAD  
GREEN COVE SPRINGS, FL 32043 US

**New Mailing Address:**

FEI Number: 58-2503797

FEI Number Applied For ( )

FEI Number Not Applicable ( )

Certificate of Status Desired ( )

**Name and Address of Current Registered Agent:**

CAMPBELL, JERRY LEE  
2429 SANDRIDGE RD.  
GREEN COVE SPRINGS, FL 32043 US

**Name and Address of New Registered Agent:**

The above named entity submits this statement for the purpose of changing its registered office or registered agent, or both, in the State of Florida.

SIGNATURE: \_\_\_\_\_

Electronic Signature of Registered Agent

\_\_\_\_\_ Date

Election Campaign Financing Trust Fund Contribution ( ).

**OFFICERS AND DIRECTORS:**

Title: P  
Name: CAMPBELL, SUE W  
Address: 2429 SANDRIDGE RD  
City-St-Zip: GREEN COVE SPRINGS, FL 32043

Title: ST  
Name: CAMPBELL, JERRY L  
Address: 2429 SANDRIDGE RD  
City-St-Zip: GREEN COVE SPRINGS, FL 32043

I hereby certify that the information indicated on this report or supplemental report is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am an officer or director of the corporation or the receiver or trustee empowered to execute this report as required by Chapter 607, Florida Statutes; and that my name appears above, or on an attachment with all other like empowered.

SIGNATURE: SUE W. CAMPBELL

P

04/01/2010

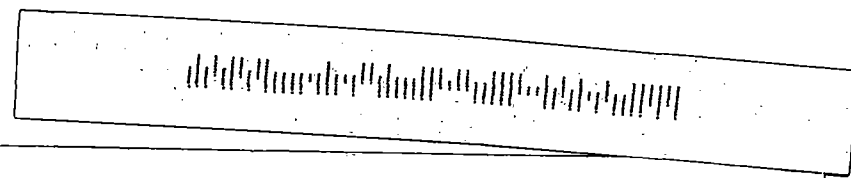
Electronic Signature of Signing Officer or Director

\_\_\_\_\_ Date

RUSSELL HAVEN OF REST  
CEMETERY AND FUNERAL HOME  
2429 Sandridge Road  
Green Cove Springs, FL 32043



Jacksonville FL 32206 300  
SAT 09 JAN 2011 PM



FDEP  
P.O. Box 3070  
Tallahassee, FL 32315-3070