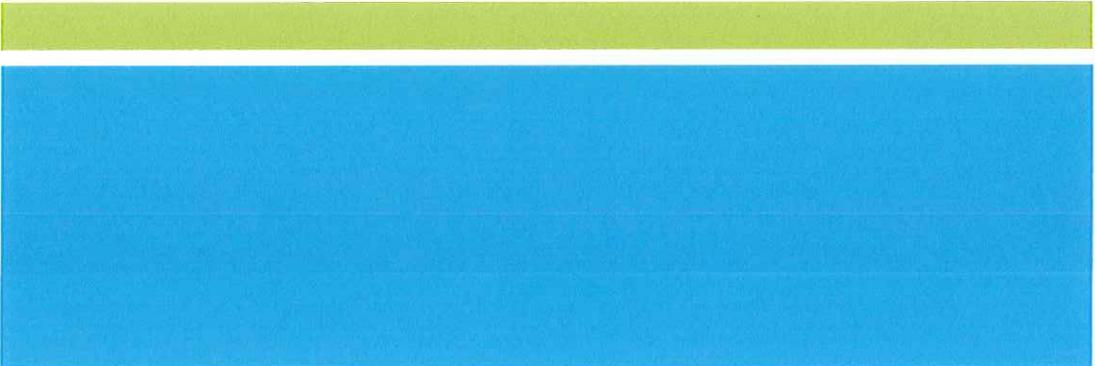




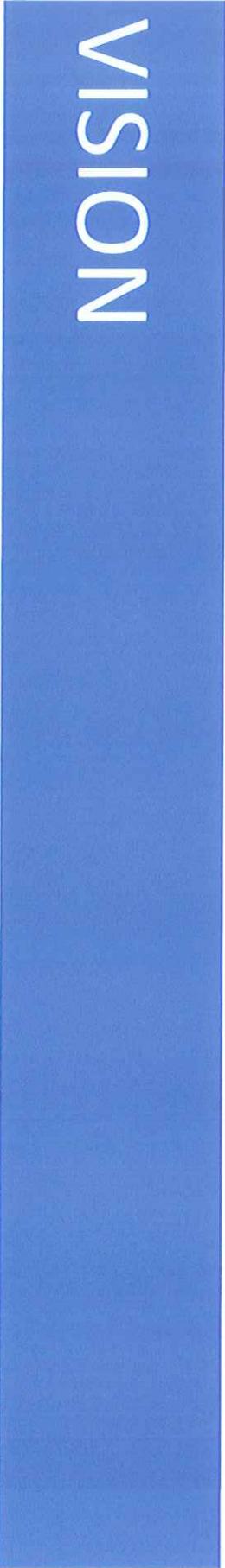
WTG DESIGN ARCHITECTS LLC

Our mission is to assist in the recognition and the value of the life lived and to facilitate meaningful ways for the family and community to celebrate the memory of their loved one. We are sensitive to your needs from the first phone call until long after the funeral is over. At Taylor-Robinson Funeral & Cremation Services, the management and staff strive to exhibit compassion and understanding; keeping in mind that it's a privilege and pleasure to provide everyone with the utmost respect and care.

## MISSION STATEMENT



Our vision is to grow Taylor-Robinson Funeral & Cremation Services by extending our professionalism, dedication, and expertise giving the highest quality, specialized funeral home in the community to all families.



# VISION

There are a total of six (6) Funeral Homes in the  
City of Hampton

Parklawn & Wood

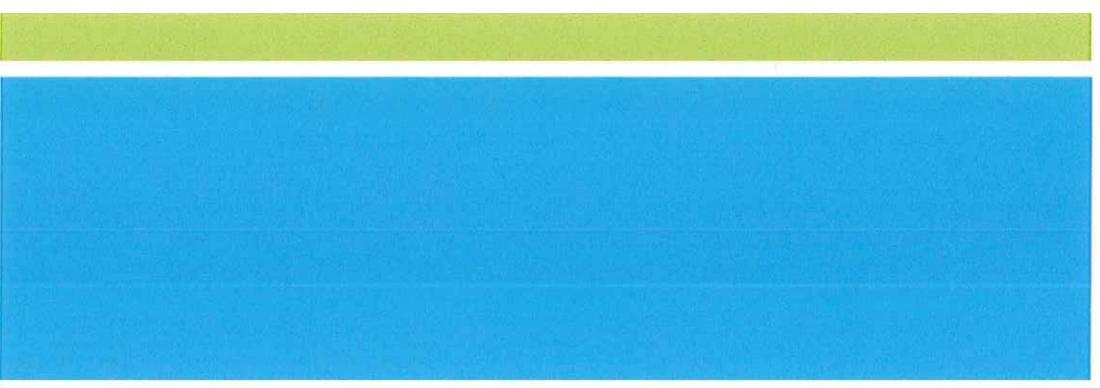
R.C. Perkins

Smith Brothers

R.Hyden & Smith

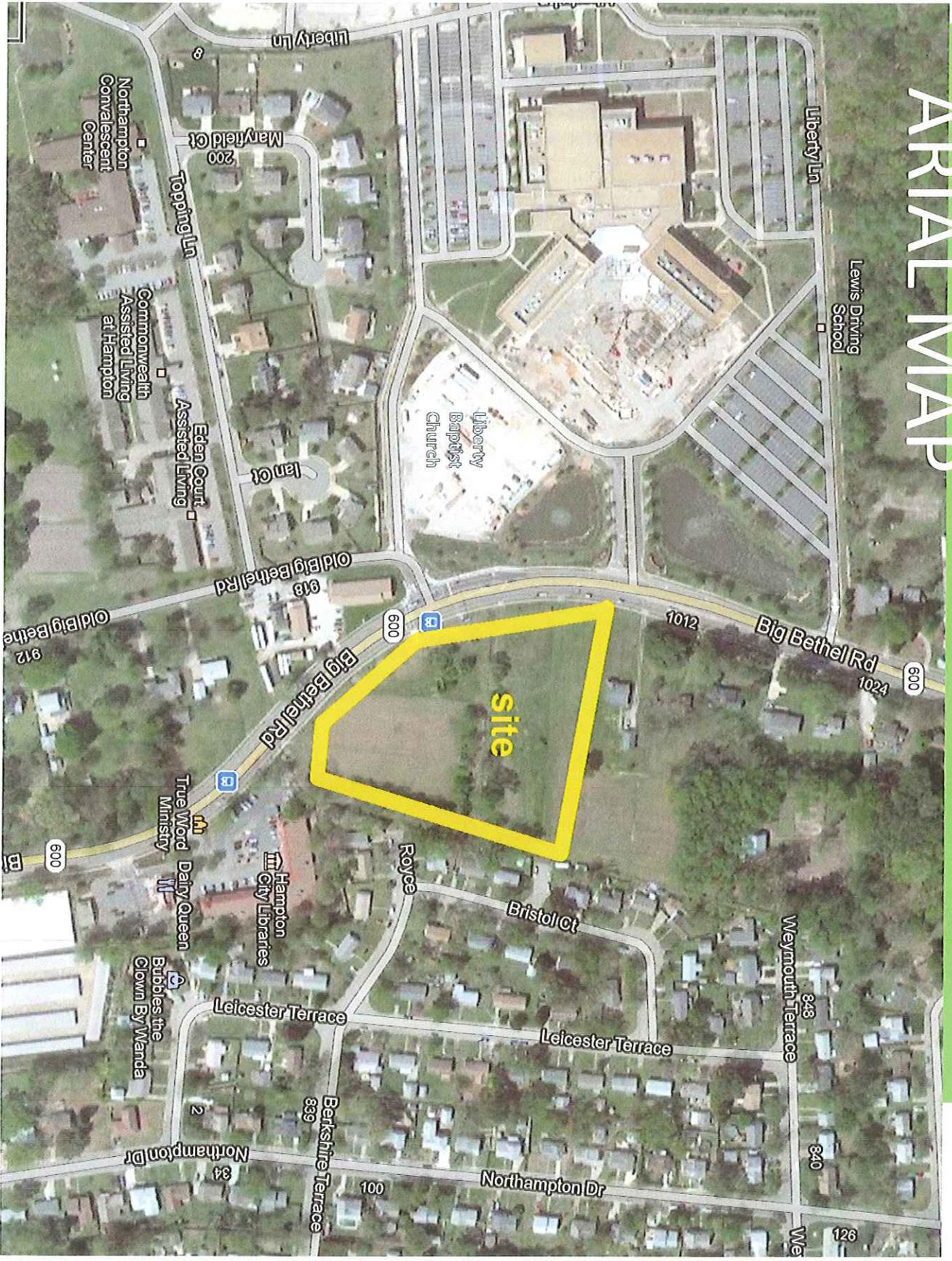
Berceuse

Nicholson & Cummings



# DEMOGRAPHICS

# AIRIAL MAP



# Site

TOTAL AREA OF BUILDING: 16,242 SF (0.37 ACRE)  
 TOTAL AREA OF PARKING: 78,548 SF (1.80 ACRES)  
 TOTAL AREA OF CONCRETE: 5,064 SF (0.12 ACRE)  
 TOTAL AREA OF IMPERVIOUS: 99,854 SF (2.29 ACRE)

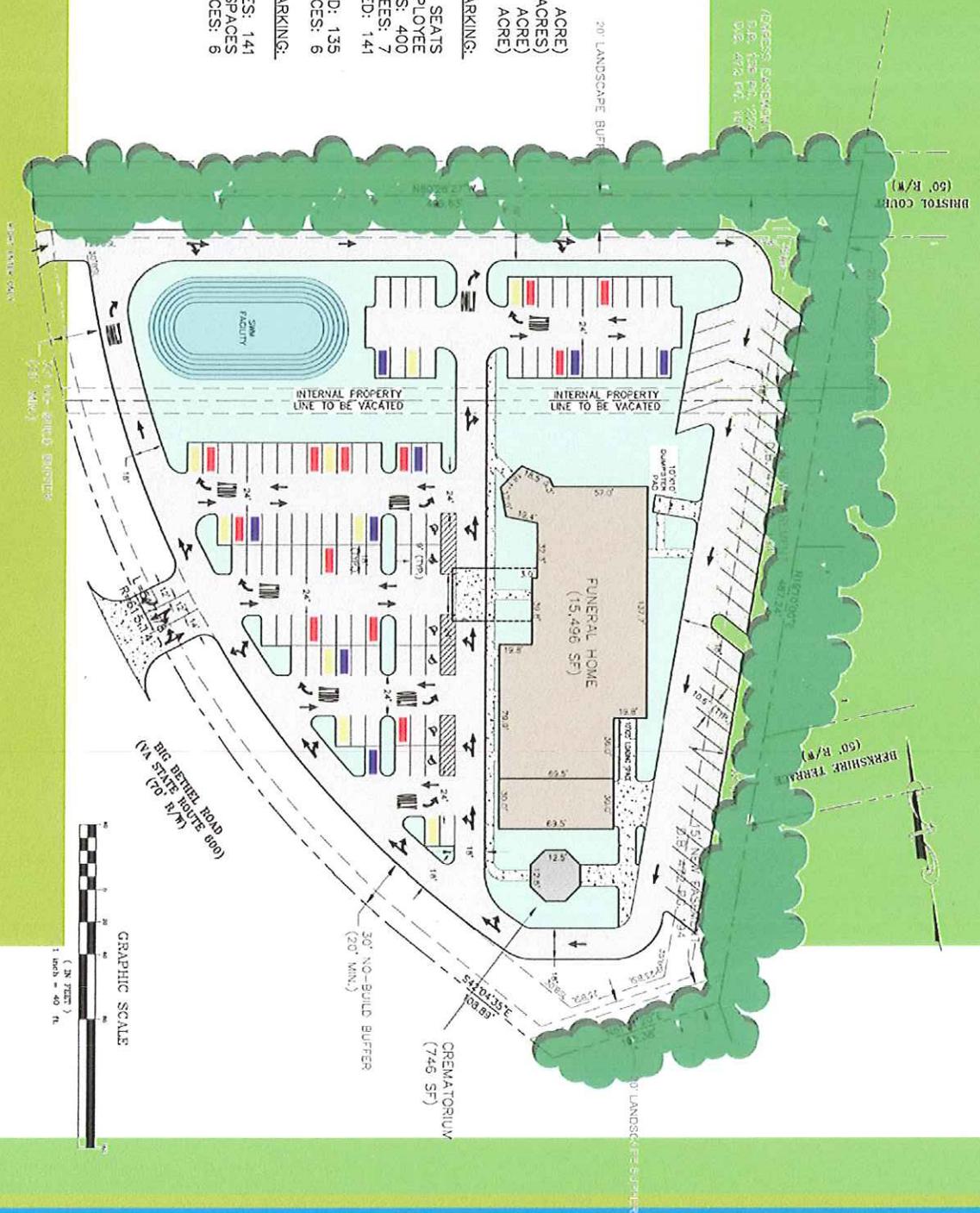
**REQUIRED PARKING:**

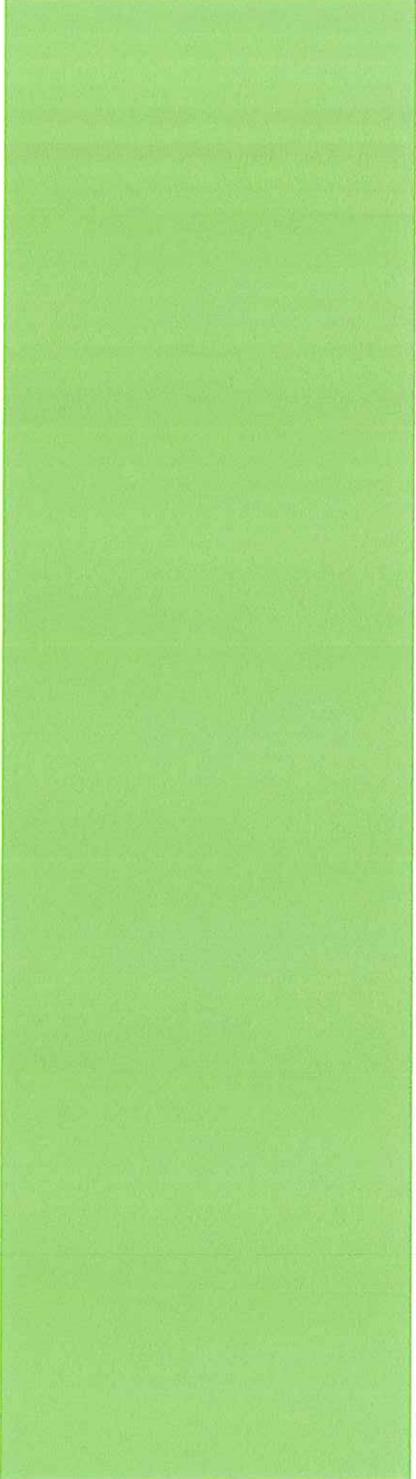
FUNERAL HOME: 1 SPACE PER 3 SEATS  
 + 1 SPACE PER EMPLOYEE  
 NUMBER OF SEATS: 400  
 NUMBER OF EMPLOYEES: 7  
 NUMBER OF SPACES REQUIRED: 141

TOTAL NUMBER OF REGULAR SPACES REQUIRED: 135  
 TOTAL NUMBER OF VAN ACCESSIBLE SPACES: 6

**PROVIDED PARKING:**

TOTAL NUMBER OF PARKING SPACES: 141  
 REGULAR SPACES: 135 SPACES  
 VAN ACCESSIBLE HANDICAP SPACES: 6





Taylor - Robinson Funeral Home will be a full service facility. Our goal is to offer our families the respect and compassion; from the first phone call to the arrangement conference making their necessary selections, visitation, and funerals. Each family circumstance will be served individually so that each family will have their own private allocated time during their grieving process.



DESIGN

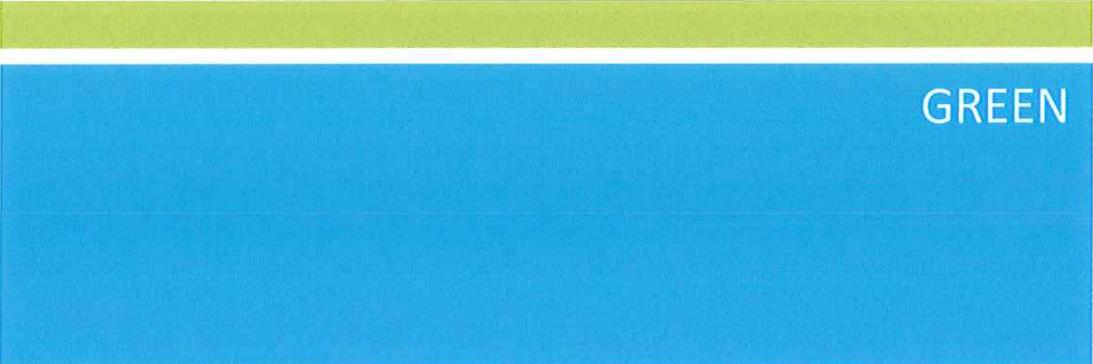


- **Green materials**

This is directly concerned with the environment. After all, energy is not only measured by the electric meter that records power consumption. Green architecture also considers the use of material that will not waste energy in its production, transport and use in construction. Green materials also involve the use of nontoxic and renewable materials so that natural resources are not depleted, and vital rainforests denuded.

- **Green building systems**

This is a catch-all phrase that includes the various active design considerations that seek to monitor and reduce power consumption, water use, temperature, air quality, etc.



GREEN

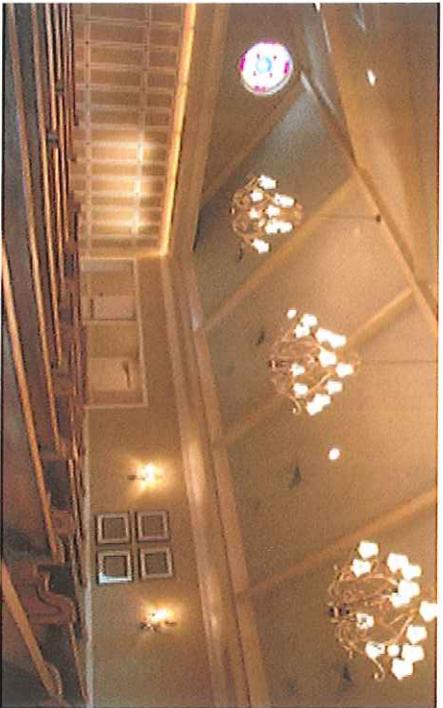
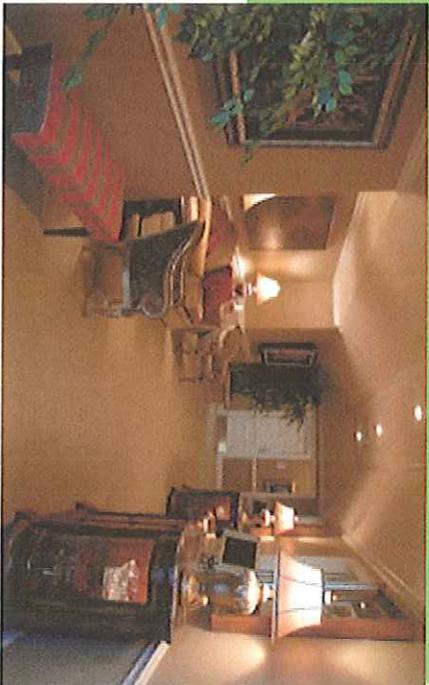
ARCHITECTURE



# Funeral Home

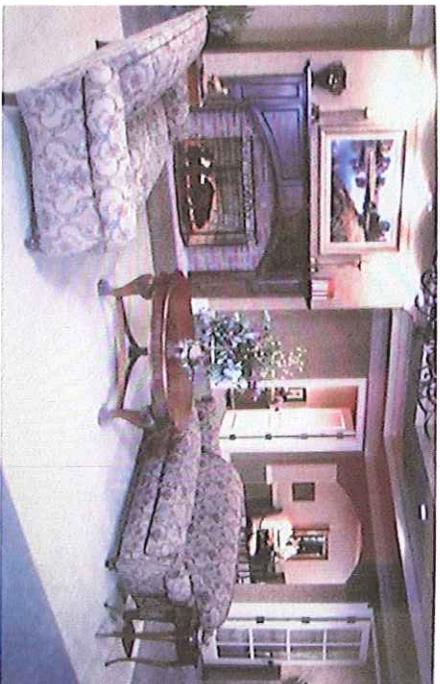
EXAMPLE





# Example Funeral Home

INTERIOR



# Example Funeral Home

INTERIOR

# THE ARCHITECTURE

## ARCHITECTURAL STANDARDS

- Maximum height of all structures shall be thirty-five (35') feet
  - Gable and hip-style roofs
- Roof materials: 30 year architectural asphalt shingle, standing seam metal and cedar shake may be used as an accent roofing material
  - Primary building materials: brick masonry





# EXAMPLE OF CREMATORIUM IN AN URBAN ENVIRONMENT

Taylor-Robinson Funeral Home & Cremation Services will be an establishment for all who seek our assistance during their time of need for all people. Our ultimate goal is to be able to give the community and family at large an opportunity to utilize our services when needed. While offering professional services and a unique approach we will leave a lasting memory that will give each family peace and closure.

CLOSING

---

**Subject:** Crematory Manufacturing & Service – Crematory Emissions report

**From:** John Elias (john@crematorymanufacturing.com)

**To:** taylor\_robinson777@yahoo.com;

**Date:** Monday, March 25, 2013 1:39 PM

---

Ms. Taylor;

Cremation is the process of reducing human remains to the basic elements of bone and ash through flame, heat and vaporization.

Crematory units being manufactured today are using advanced technology that eliminates smoke, odor, dust, or any harmful gasses to exit into the atmosphere. The notion that cremation equipment used in our time is harmful to the environment is groundless. The notion that one can “tell” that a building houses a cremation unit is also illogical. Unless one knows, there is no evidence to support the presence of a crematory unit in a building.

CMS base these statements on facts. Because the technical analysis can be tedious, the data is attached to this email. (stack test). Crematory Manufacturing and Service, Inc. has been designing, engineering, manufacturing, and servicing cremation equipment gives them credibility to speak informatively on this matter. CMS has been involved with writing state level legislation dictating the standards with which modern crematory units must comply.

Every state has legislation that dictates the levels of certain hazardous materials that can be emitted into the atmosphere per year by a crematory. The units manufactured by CMS, Inc. are so far below that minimum level that they are EXEMPT from permitting in some states.

### **CREMATE CLEANER, SAFER, FASTER, QUIETER**

- All CMS model cremators are guaranteed to meet or exceed environmental requirements for crematories around the

world.

- The CMS Millennium cremators are the only crematories made that carry listings by both the Underwriters Laboratories (UL) and The Canadian Standards Association's (CSA).

- The Secondary Chamber compartment receives the combustion gases produced in the primary chamber. As these gases pass through the secondary chamber, the flame from the afterburner combusts the gas to eliminate the possibility of pollution exiting the hot air duct.

Please see the attached certified stack emission report.

Sincerely,

**John Elias**

New Equipment Sales



**Crematory  
Manufacturing  
& Service, Inc.**

PO Box 371

Tulsa, OK 74101

PH: (800) 726-6120 x 7089

Cell: (918) 845-6000

FX: (866) 458-3483

[www.CrematoryManufacturing.com](http://www.CrematoryManufacturing.com)

**ENGINEERING EVALUATION TEST**  
**PM, NO<sub>x</sub>, CO, SO<sub>2</sub>, NMHC & HCI**  
*Millennium III, SN: 103*

**CREMATORY MANUFACTURING AND SERVICES, INC.**  
Tulsa, Oklahoma  
Creek County  
*January 6, 2010*

**ENGINEERING EVALUATION TEST**

PM, NOx, CO, SO2, NMHC & HCl

*Reference Methods: 1, 2, 3A, 4, 5, 6C, 7E, 10, 25A & 26A*

Millennium III, SN: 103

***Crematory Manufacturing and Services, Inc.***

Tulsa, Oklahoma

Creek County

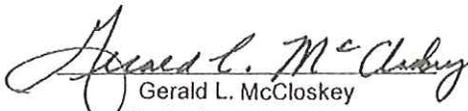
Test Date:

January 6, 2010

Report Date: January 14, 2010

CETCON Job Number: CJ-5858

" We certify that we have personally examined and we are familiar with the information submitted herein, and based on our inquiries of those individuals immediately responsible for obtaining the information, we believe the submitted information is true, accurate, and complete."

  
Gerald L. McCloskey  
Sr. Project Coordinator

  
J. Jeff Abel  
Project Coordinator

  
Michael T. Hanlon  
Environmental Specialist

**CETCON**

## TABLE OF CONTENTS

EXECUTIVE SUMMARY

SUMMARY OF RESULTS

ANALYTICAL PROCEDURES AND SAMPLING METHODS

DESCRIPTION OF TEST

APPENDIX A - UNIT DIAGRAM AND SAMPLE POINT LOCATION

APPENDIX B - PLANT OPERATIONAL DATA

APPENDIX C - FIELD DATA

APPENDIX D - CALIBRATION DATA

APPENDIX E - LAB ANALYSIS

APPENDIX F - EQUATIONS

APPENDIX G - ORIGINAL TEST PROPOSAL

APPENDIX H - RESUMES

APPENDIX I - RAW FIELD DATA

## EXECUTIVE SUMMARY

A series of Engineering Evaluation Tests were performed for Crematory Manufacturing and Services, Inc. on the Millennium III cremator stack, Serial Number 103, located in Tulsa, Oklahoma on January 6, 2010. Testing was performed to document mass emission rates of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), non-methane hydrocarbons (NMHC), hydrogen chloride (HCl), and particulate matter (PM). A series of three 64-minute test runs (labeled E1, E2, and E3) were conducted. Testing was conducted, according to guidelines and procedures outlined in the Code of Federal Regulations (CFR) Title 40, Part 60, Appendix A, Methods 1, 2, 3A, 4, 5, 6C, 7E, 10, 25A, & 26A, .

The average results were as follows:

<b>Parameter</b>	<b>ppmvd</b>	<b>lb/hr</b>
PM	NA	0.09
HCl	8.23	0.03
NO <sub>x</sub>	64.95	0.32
CO	0.02	0.00
SO <sub>2</sub>	8.86	0.06
NMHC	12.04	0.06

<b>Parameter</b>	<b>Concentration Corrected to 7.0% O<sub>2</sub></b>
CO	0.03 ppmvd
PM	0.02 gr/dscf

A complete breakdown of all test data can be found on the following page of this report titled, "Summary of Results".

**CETCON, Inc.**  
**SUMMARY OF RESULTS**

Unit Designation: CMS, Inc.

Tulsa, Oklahoma

Millennium III SN: 103

**PARAMETERS:**

Test No.	E1	E2	E3
Date	1/6/2010	1/6/2010	1/6/2010
Start Time	1338	1721	1958
End Time:	1457	1837	2113
Test Duration (min.)	64	64	64

**OPERATING DATA:**

	E1	E2	E3	Average:
Approx. Body weight:	160	130	160	150

**FLUE GAS:**

Stack Temperature, °F	1540	1505	1555	1533
O <sub>2</sub> , % dry	11.27	11.13	12.04	11.48
CO <sub>2</sub> , % dry	5.97	6.13	5.24	5.78
CO, % dry	0.00	0.00	0.00	0.00
N <sub>2</sub> , %dry	82.76	82.75	82.71	82.74
% Moisture	9.87	10.38	10.25	10.17
Stack Flow, ACFM	2988	2828	2999	2938
Stack Flow, DSCFM	699	668	694	687
% Isokinetic (1)	95.4	102.7	98.8	99.0

**EMISSION DATA:**

Front Half PM, lb/dscf ( x10 <sup>-6</sup> )	2.27	2.51	1.96	2.25
Front Half PM, lb/hr	0.10	0.10	0.08	0.09
Front Half PM, gr/dscf @ 7.0% O <sub>2</sub> (2)	0.02	0.03	0.02	0.02
HCl, ppmvd	8.32	8.21	8.15	8.23
HCl, lb/hr	0.03	0.03	0.03	0.03
NO <sub>x</sub> , ppmd	59.04	60.39	75.42	64.95
NO <sub>x</sub> , lb/hr	0.30	0.29	0.37	0.32
CO, ppmd	0.00	0.07	0.00	0.02
CO, lb/hr	0.00	0.00	0.00	0.00
CO, ppmvd corr. @ 7.0% O <sub>2</sub>	0.00	0.10	0.00	0.03
SO <sub>2</sub> , ppmd	9.28	5.47	11.83	8.86
SO <sub>2</sub> , lb/hr	0.06	0.04	0.08	0.06
NMHC, ppmw	5.14	16.47	NA (3)	10.81
NMHC, ppmd	5.71	18.38	NA	12.04
NMHC, lb/hr (4)	0.03	0.08	NA	0.06

**NOTES:**

1. % Isokinetic Must Be 90 ≥ %I ≤ 110 Per RM-5
2. gr/dscf = lb/dscf x 7000 gr/lb
3. NMHC results for Test Run 3 were considered invalid due to a malfunction with CETCON's NMHC analyzer.
4. Non-Methane Hydrocarbons reported as propane equivalent.

DATE 1/26/2010

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SUMGAS.XLS

## SAMPLING METHODS

Pollutants were measured according to EPA Reference Methods (RM's) described in the Code of Federal Regulations (CFR), Title 40, Chapter 1, Part 60, Appendix A. The following methods were used:

- RM-1            Sample and velocity traverses for stationary sources. Determination of measurement site and sample point location.
- RM-2            Determination of stack gas velocity and volumetric flow rate. A calibrated Type S pitot tube is used in conjunction with an inclined manometer to determine average gas velocity and for quantifying gas flow.
- RM-3A          Determination of Oxygen (O<sub>2</sub>) and Carbon Dioxide (CO<sub>2</sub>) concentrations in emissions from stationary sources (Instrumental Analyzer Procedure). Servomex 1400B4 series analyzers are used to continuously measure the concentrations of O<sub>2</sub> and CO<sub>2</sub>. O<sub>2</sub> and CO<sub>2</sub> concentrations are determined by paramagnetic and non-dispersive infrared detectors, respectively. The instruments are calibrated with gases prepared according to EPA Protocol One.
- RM-4            Determination of moisture content in stack gases. A gas sample is extracted from the source through an impinger sampling train which condenses the moisture. The volume of the gas sample leaving the impinger train is determined using a calibrated dry gas meter. The impingers are weighed before and after the test run to determine moisture content.
- RM-5            Determination of particulate emissions from stationary sources. Particulate matter is extracted isokinetically from the source and collected in a heated probe and heated glass fiber filter which are maintained at 248 ± 25 °F. An impinger train is used to remove the moisture and condensable particulate matter from the gas sample. Gas sample volume is determined using a calibrated dry gas meter. The mass of particulate matter is determined gravimetrically.
- RM-6C          Determination of Sulfur Dioxide (SO<sub>2</sub>) emissions from stationary sources (Instrumental Analyzer Procedure). A Bovar (Western Research) Model 721AT2 or 721M ultraviolet photometric analyzer is used to continuously measure the concentration of SO<sub>2</sub>. The instrument is calibrated with gases prepared according to EPA Protocol One.

### SAMPLING METHODS, continued

- RM-7E            Determination of Nitrogen Oxides ( $\text{NO}_x$ ) emissions from stationary sources (Instrumental Analyzer Procedure). A Thermo Environmental Instruments Company Model 10S, 42H or 42C chemiluminescent analyzer is used to continuously measure the concentration of  $\text{NO}_x$ . The instrument is calibrated with gases prepared according to EPA Protocol One.
- RM-10            Determination of Carbon Monoxide ( $\text{CO}$ ) emissions from stationary sources (Instrumental Analyzer Procedure). A Thermo Environmental Instruments Company Model 48 or 48C gas filter correlation infrared analyzer is used to continuously measure the concentration of  $\text{CO}$ . The instrument is calibrated with gases prepared according to EPA Protocol One.
- RM-25A           Determination of non-methane total gaseous organic concentration using a flame ionization analyzer (FIA). A gas sample is extracted from the source through a heated sample line and heated filter (if necessary). The instruments are calibrated with gases prepared according to EPA Protocol One consisting of Methane ( $\text{CH}_4$ ) or Propane ( $\text{C}_3\text{H}_8$ ) in a balance of Nitrogen ( $\text{N}_2$ ) or air. NMHC concentrations are expressed in units of ppm as  $\text{C}_3\text{H}_8$  or as Carbon.
- RM-26A           Determination of Hydrogen Halide ( $\text{HCl}$ ,  $\text{HBr}$  and  $\text{HF}$ ) and Halogen ( $\text{Cl}_2$  and  $\text{Br}_2$ ) emissions from stationary sources - Isokinetic method. A gas sample is extracted isokinetically from the source through a heated glass probe and heated Teflon filter. The Hydrogen halides are absorbed in impingers containing 0.1N sulfuric acid ( $\text{H}_2\text{SO}_4$ ). The Halogens, having low solubility in acidic solutions, pass through and are absorbed in impingers containing 0.1N sodium hydroxide ( $\text{NaOH}$ ). Gas sample volume is determined using a calibrated dry gas meter. The collected samples are analyzed by Ion Chromatography. This method being isokinetic is used in place of RM-26 for sources with wet scrubbers where moisture droplets may be present.

## DESCRIPTION OF TEST

Personnel from CETCON, (Combustion and Environmental Testing Consultants), arrived at Crematory Manufacturing and Services, Inc. (CMS) in Tulsa, Oklahoma on Tuesday, January 5, 2010 at 4:00 PM. The purpose of the visit was to perform a series of engineering evaluation tests on the Millennium III Cremator Stack for Particulate Matter (PM), Nitrogen Oxide (NO<sub>x</sub>), Carbon Monoxide (CO), Sulfur Dioxide (SO<sub>2</sub>), Non-Methane Hydrocarbons (NMHC) and Hydrogen Chloride (HCl).

The test trailer, identified as CETCON IV, was parked near the building that housed the cremator. Power was supplied to the trailer and testing equipment from various power receptacles in the area. Water, needed for cooling the particulate probe, was supplied by a standard water faucet located on the outside of the building. The test trailer and reference method analyzers were powered up and checked for proper operation. The remote testing equipment was lifted to the roof and assembled in preparation for testing to take place the following morning. The equipment and trailer were secured for the evening and CETCON departed the facility at approximately 7:00 PM.

CETCON returned to the facility on Wednesday, January 6, 2010 at 8:00 AM. Sample components for RM 5 particulate matter (PM) and HCl were hoisted and assembled on the stack while reference method (RM) analyzers were calibrated. Calibration error, calibration bias, and system response time tests were performed on the RM analyzers. The sample probe was traversed across the stack to obtain preliminary data needed for determining isokinetic sampling. It was discovered that the stack flow was much lower than expected. Maintenance was performed on the cremator's blower (dirty inlet screen) unit to correct air flow issues. Upon completion the first cadaver was inserted into the cremator. The RM sample probe was inserted into the stack and allowed to achieve a stable response. The PM and HCl probe was inserted into the stack and the first test run (labeled E1) was initiated at 1:38 PM. Each of the two sample ports were traversed for 32 minutes for a total test duration of 64 minutes. The PM and HCl train was positioned at each of sixteen sample traverse points for a duration of four minutes per point. Following the test run, a leak test was conducted on the PM and HCl train and a sample system bias test was performed on the RM analyzers to monitor analyzer drift. The PM and HCl samples were recovered while the cremator was prepared for the second cadaver.

The PM and HCl sample train was reassembled and leak checked. There was a delay because the probe was not heating correctly and the heated probe liner had to be replaced to correct the problem. Another leak check was performed and the probe was inserted into the stack. The second test run (labeled E2) was started at 5:21 PM and completed at 6:37 PM. It was identical in procedures to those described above. Again the PM and HCl samples were recovered and stored in the test trailer. Calibration drift tests were performed on the RM analyzers to document analyzer bias and drift. A third test run (labeled E3) was performed starting at 7:58 PM and concluding at 9:13 PM. It was identical in procedure and technique as runs E1 and E2.

As the third test run was initiated it was noticed that the concentration of NMHC exceeded the analyzer span. Further investigation revealed that the analyzer had apparently become contaminated. Due to the limited time of each run and since all of the other RM analyzers and PM samples were in progress it was decided to continue with the third test run. At the

**CETCON**

DESCRIPTION OF TEST, continued

conclusion of the third test run air was pulled through the sample system to purge contaminants from the NMHC analyzer. Observation of the analyzer operation confirmed some type of contaminate was trapped in the sample column. Due to the contamination, the analyzer failed to meet the post run drift criteria. It was decided that two good NMHC runs would be sufficient data for the demonstration of NMHC emissions from the cremator.

This concluded the testing to be performed. Some of the test equipment was disassembled and lowered to grade, but because of sleet, freezing rain, and slippery conditions on the roof, it was decided to wait until the next day to finish breaking down the remaining equipment. The trailer was secured for the evening and CETCON personnel departed the plant at approximately 11:00 PM.

CETCON returned to the facility on Thursday, January 7, 2010 at 1:30 PM. The remaining testing equipment was secured in the trailer for departure and CETCON personnel left the facility at 3:30 PM.

The following people were present for all or part of the testing at Crematory Manufacturing Services facilities on Wednesday, January 6, 2010.

Shaun Seely	Crematory Manufacturing Services, Inc.
Jerry McCloskey	CETCON, Inc.
Jeff Abel	CETCON, Inc.
Mike Hanlon	CETCON, Inc.

**CETCON**