



APPLICATION FORM

All applications must include the following information. Separate applications must be submitted for each eligible program. **Deadline: June 1, 2016.** Please include this application form with electronic entry.

PROGRAM INFORMATION

County: Henrico County

Program Title: Homegrown Diesel Techs: A Partnership of Schools and Central Automotive Maintenance

Program Category: Community and Economic Development

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR CHIEF ADMINISTRATIVE OFFICER

Name: John A. Vithoukas

Title: County Manager

Signature: 

Short Overview

Because of the high demand for diesel technicians certified by the National Institute for Automotive Service Excellence, many experienced technicians in this field now have their choice of jobs. With the demand for these technicians and the aging of the current workforce, local governments that employ technicians can find it difficult to fill positions and retain qualified technicians. Henrico County Public Schools has decided to take a unique approach to this problem by developing a partnership between the school system and the general government's central automotive maintenance – or CAM – to train our own homegrown diesel technicians. While other school divisions may offer classes in diesel technology, what makes this program so remarkable is that it is taught at the CAM facility, providing the students with real-world opportunities and experiences that would not be possible in the regular school setting. Imagine being able to look out of the classroom window and see the practical application of what is being taught. While Henrico County's CAM facility may be able to hire two to three graduating seniors each year, the remaining students will be able to help fill the regional need for qualified diesel technicians.

The Problem/Challenge/Situation

What happens to the movement of people and goods when society's transportation systems break down? Someone must be able to diagnose and repair the problems. Enter the diesel technician. According to the U.S. Bureau of Labor Statistics, employment of diesel service technicians and mechanics is projected to grow 12 percent from 2014 to 2024 – faster than the average for all occupations. Because of this rapid growth, many positions go unfilled. A recent search on Indeed.com listed 54 positions in the Richmond area for diesel technicians. While these positions may be filled by experienced technicians who leave their current employers, what happens to the positions that they have vacated? Newly trained technicians

can be hired to meet the needs of these employers, but someone must train them. Henrico County's program is designed to address not only the county's needs for quality diesel technicians, but the needs of the regional work force as well.

How the Program Was Carried Out

Henrico County Public Schools' Career and Technical Education Department tries to anticipate future career opportunities for our students. The department discovered that there weren't enough qualified diesel technicians to meet the needs of Henrico County's CAM facility, or the needs of other local businesses. We looked at Henrico Schools' technical centers as a possible solution, but they didn't have the space to house an expanded program. During a brainstorming session, staff members discussed the possibility of teaching diesel technology students at Henrico County's central automotive maintenance facility. A discussion began between the school division and county agencies, and staff members identified possible classrooms and shop facilities.

The concept offered unique benefits to students: not only could they learn from instructors, they could use onsite educational resources and watch as technicians worked on county vehicles.

While the students would be exposed to the same educational information regardless of where the program was taught, the resulting partnership between CAM and the schools is unique.

The advantages start with the design and construction of the elevated classroom constructed within the main CAM facility. The classroom was built above a storeroom, and includes large windows that let students look down on the main repair-facility floor. With this design, the instructor can point out repairs in progress or simply walk down a flight of steps and show the

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students an example of what they're discussing; students can view the main floor from the classroom. This experience allows the students firsthand knowledge of how repairs are done.



In addition to the classroom, a wash bay was enclosed and upgraded to serve as a separate shop facility for the program. The shop is equipped with the same equipment used by the county's technicians, much of which was donated by the county facility. The shop bay is large enough to house a full-sized school bus for students to work on.

While the classroom experience is crucial, the internship and work aspects of the program provide the connection to the real world of work. During summers and the second semester of their senior years, students are provided with an intern experience or a paying job using skills they have learned in class. Students do not need to worry about traveling to a job site; it exists right outside the classroom door.

In addition to the many educational aspects of the program, an unintentional gain has been the positive relationships students have developed with members of the county's fire and police departments. When police officers or firefighters are present for the maintenance of their vehicles, students have had the opportunity to interact positively with them, asking questions and gaining insights into other possible career choices.

Beyond Henrico County schools and Henrico County's central automotive maintenance facility, the program incorporates the contributions of other groups. The Henrico County Vocational Technical Education Foundation provides the funds necessary to equip each student with a pair of steel-toe work boots. While the foundation typically supports the building trades, they see the importance of this partnership and want to be part of the students' success.

Creation of the program had another benefit: students enrolled in Henrico County Public Schools' Summer Building Trades program were able to gain hands-on experience by assisting with the construction of the diesel technology classroom.

With many counties still feeling the effects of the last recession, this partnership makes sense. Both the schools and the county government are being good stewards of the taxpayer's money.

Renovating existing facilities and sharing existing equipment have kept costs kept to a minimum, allowing for much needed funds to be use elsewhere.

Students are being provided with the opportunities to use technologies related to this field that otherwise might not be possible. The county automotive facility has diagnostic test equipment, which would be cost-prohibitive in a classroom setting. In addition to test and service equipment, each student has access to computer software that supports the diesel technology program.

Financing and Staffing Cost

Most program costs were divided between the school system and the county government. Renovating the classroom and work-bay cost approximately \$150,000; Henrico schools paid \$50,000 and Henrico County supplied \$100,000. Considering the value of the program and need for qualified technicians, the cost is a bargain.

Program Results

We are in the first year of the program and already there have been many positive results. Each year up to 40 students will have the opportunity to be certified by the National Institute for Automotive Service Excellence. This certification allows them to enter the field of diesel technology. Because students have had the experience of internships and part-time employment with the county's central automotive maintenance facility, the true value of this program will be realized when that facility is able to offer students employment straight out of the classroom.

Students have expressed an awareness of the unique opportunity the program presents. No other career and technical education program in Henrico County or nearby localities offers a comparable marriage of real world and classroom experience. This program is an example of a creative youth apprenticeship program; students have the opportunity to learn the skills and immediately apply them.

Both Henrico County Public Schools and the government of Henrico County have expressed an awareness of the program's value and have begun exploring other possibilities for similar partnerships.

Brief Summary

Homegrown Diesel Technicians: A Partnership of Schools and Central Automotive Maintenance is designed to help students connect classroom concepts to the real world and to allow students to explore careers options related to the rapidly growing field of diesel technology. By providing students with a classroom setting perched above a working auto maintenance facility, the program affords opportunities that similar programs can't. The program also shows what can be accomplished when schools and other county agencies work together to find solutions to issues facing our communities each day.

Supplemental Materials:

A view of Henrico County's auto maintenance facility from the HCPS diesel technology classroom:

