

Virginia Paving Company
5601 Courtney Avenue
Alexandria, Virginia 22304

Asphalt and the production process.



**VIRGINIA
PAVING
COMPANY**

Facts about Asphalt

More than 94 percent of the nation's two million miles of streets and highways are paved with asphalt



Hot Mix Asphalt is usually mixed at temperatures between 300 and 325 degrees, and it needs to be laid hot, no less than about 250 degrees. It must therefore be produced close to where it is needed.



Drum Plant

Step 4 : Emission Control System

Bag House Collectors filter fine sand and dust particles from the exhaust air.

There are some 3,600 hot mix asphalt plants in the U.S.

Step 5 : Storage Silo

Holds hot mix asphalt (HMA) until its time to load onto trucks for paving jobs.

Step 3 : Drying Drum

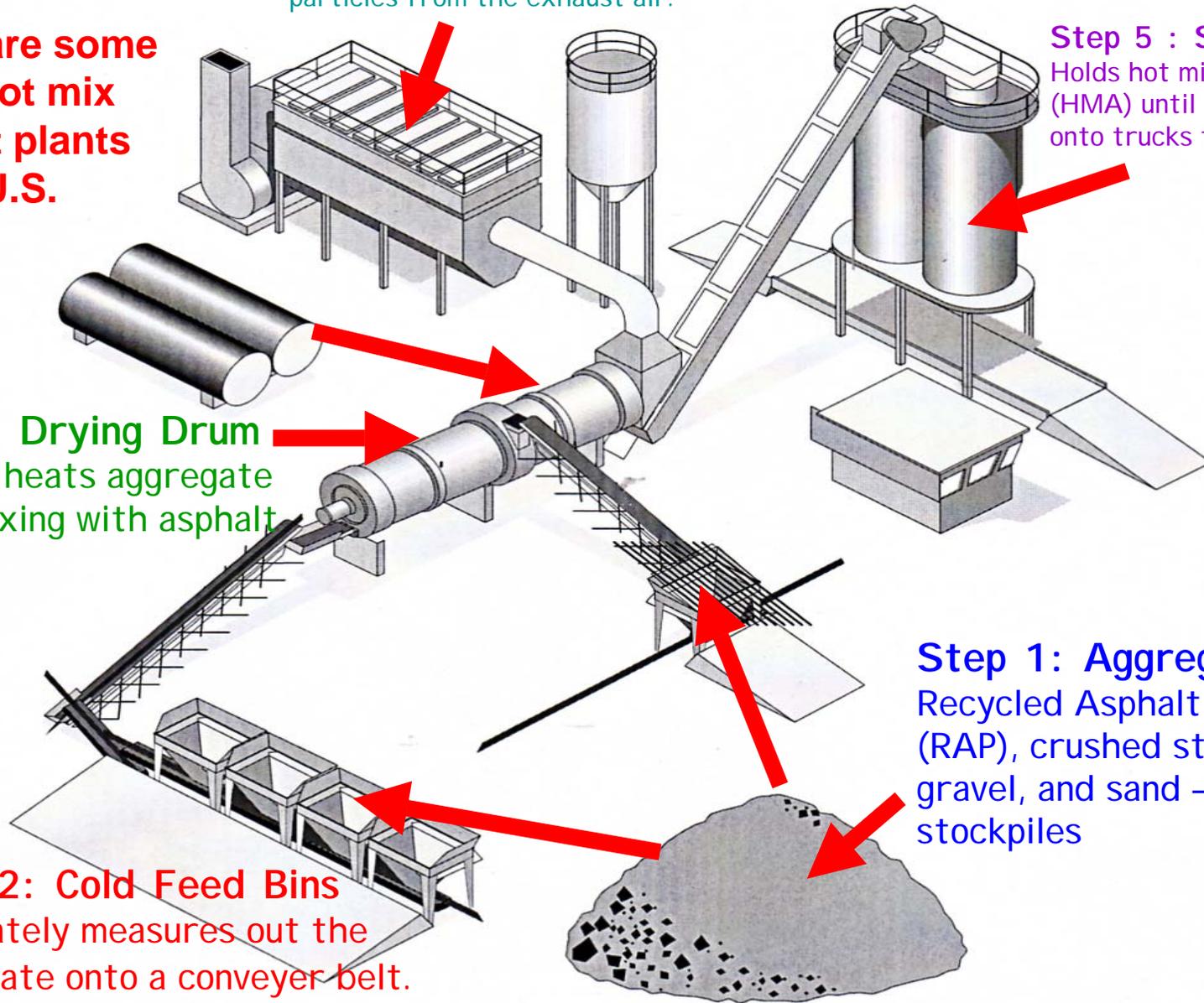
Dries and heats aggregate before mixing with asphalt cement.

Step 2: Cold Feed Bins

Accurately measures out the aggregate onto a conveyer belt.

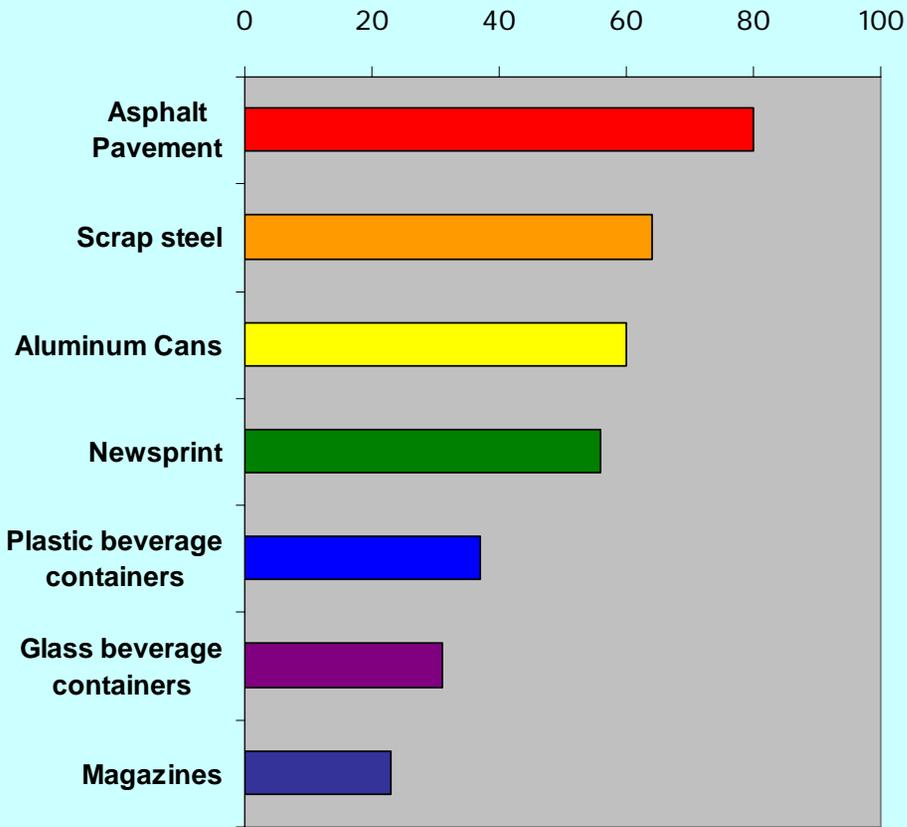
Step 1: Aggregate

Recycled Asphalt Pavement (RAP), crushed stone, gravel, and sand - stored in stockpiles



Asphalt pavement is the leader in Recycling

Percentage of Material that is Recycled



Source : National Asphalt Pavement Association

- The most widely recycled product in terms of both percentage and tonnage is asphalt pavement.
- Using RAP benefits the tax payers and the environment.
 - Using RAP results in lower cost. Less new material is used.
 - Less landfill space is consumed. Fewer trucks on the road.

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**How does having the plant
here help?**



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Savings to the Community

- The optimal location inside the beltway saves the taxpayers money.

- Virginia Paving Company has historically been the low bidder for the City of Alexandria and Arlington County street maintenance programs.

- Over the past three years, Virginia Paving Co. saved Virginia taxpayers approximately \$4.6 million on government contracts.



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**How did we get here?
Why night paving?**

How did we get here?

In 1960, Newton Asphalt began operating at this location.

In 2001, Virginia Paving Company purchased the Alexandria Plant from Newton Asphalt.

We were not aware of any restrictions to the way the plant had been operated for decades.

When code enforcement brought the issue of the night time operations permit wording to our attention, we began this process.

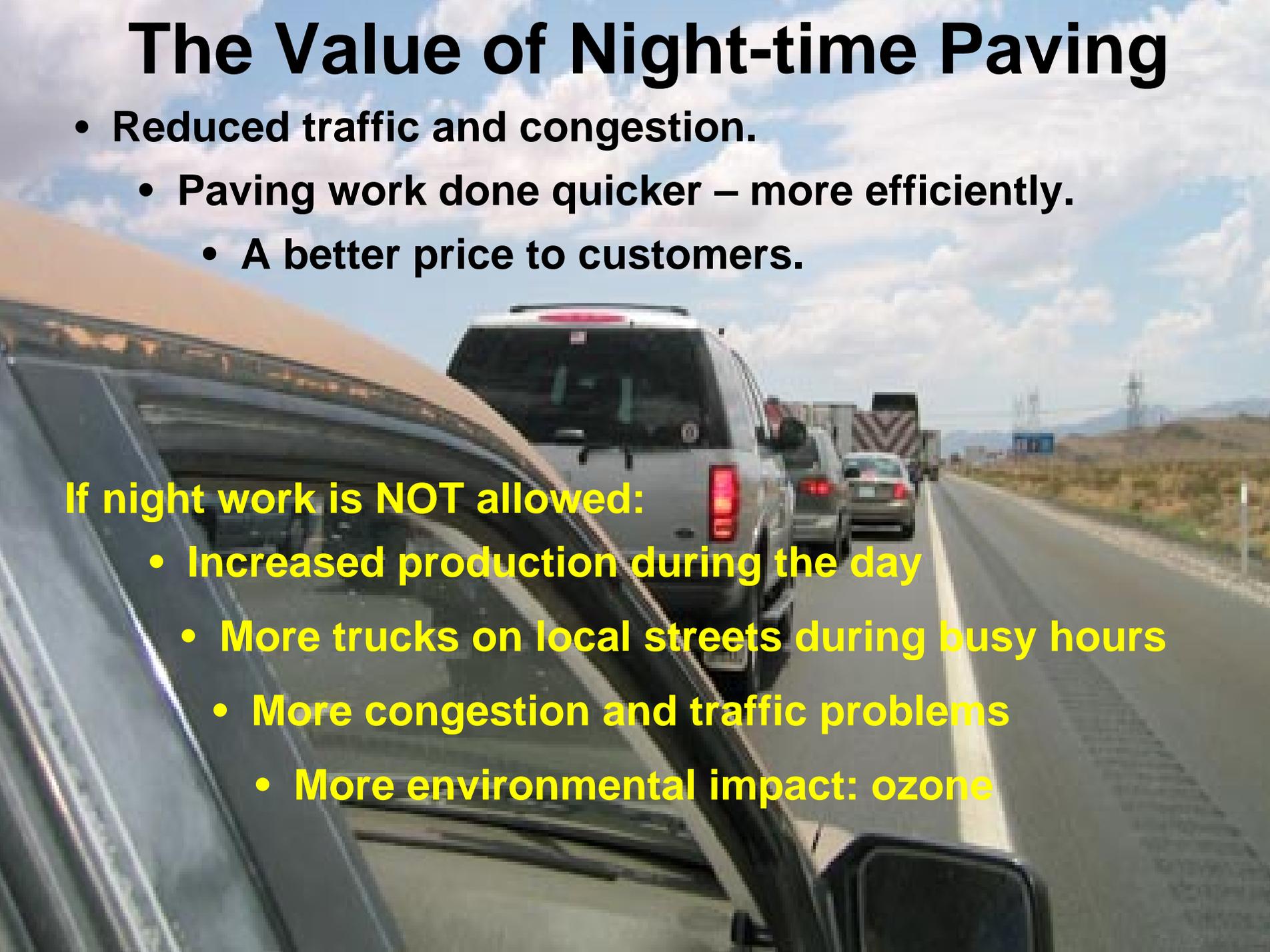
We did not purposely violate our permit.

The Value of Night-time Paving

- Reduced traffic and congestion.
 - Paving work done quicker – more efficiently.
 - A better price to customers.

If night work is NOT allowed:

- Increased production during the day
- More trucks on local streets during busy hours
- More congestion and traffic problems
- More environmental impact: ozone



What work will be done at night?

All night work will be public work.

Even in the daytime, approximately 60% of the Alexandria plant work is public work.

Virginia Paving is proposing to modify plant operations at night as part of the SUP.

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**What are the emissions
from the plant site?**

Emissions from our plant have been extensively evaluated by experts

EPA has extensively tested, or overseen the testing of hot mix asphalt production operations nationally. Virginia DEQ has evaluated our airborne emissions and found them to be within acceptable limits.

Experts involved with the facility's Air Dispersion Model include:

Cambridge Environmental

**Laura Green Ph.D., D.A.B.T.,
Mike Ames M.S., Sc. D.,
Stephen Zemba, Ph.D., P.E.**

AERO Engineering Services

Maureen Barrett, P.E.

Sullivan Environmental Consulting, Inc.

**David A. Sullivan, Certified Meteorologist
Dennis Hlinka, Certified Meteorologist**

We are in full compliance with all applicable emissions standards.

Our emissions were tested in 2004 & 2005 and found to be well within VDEQ and EPA standards.

The panel of experts is here to answer your questions.

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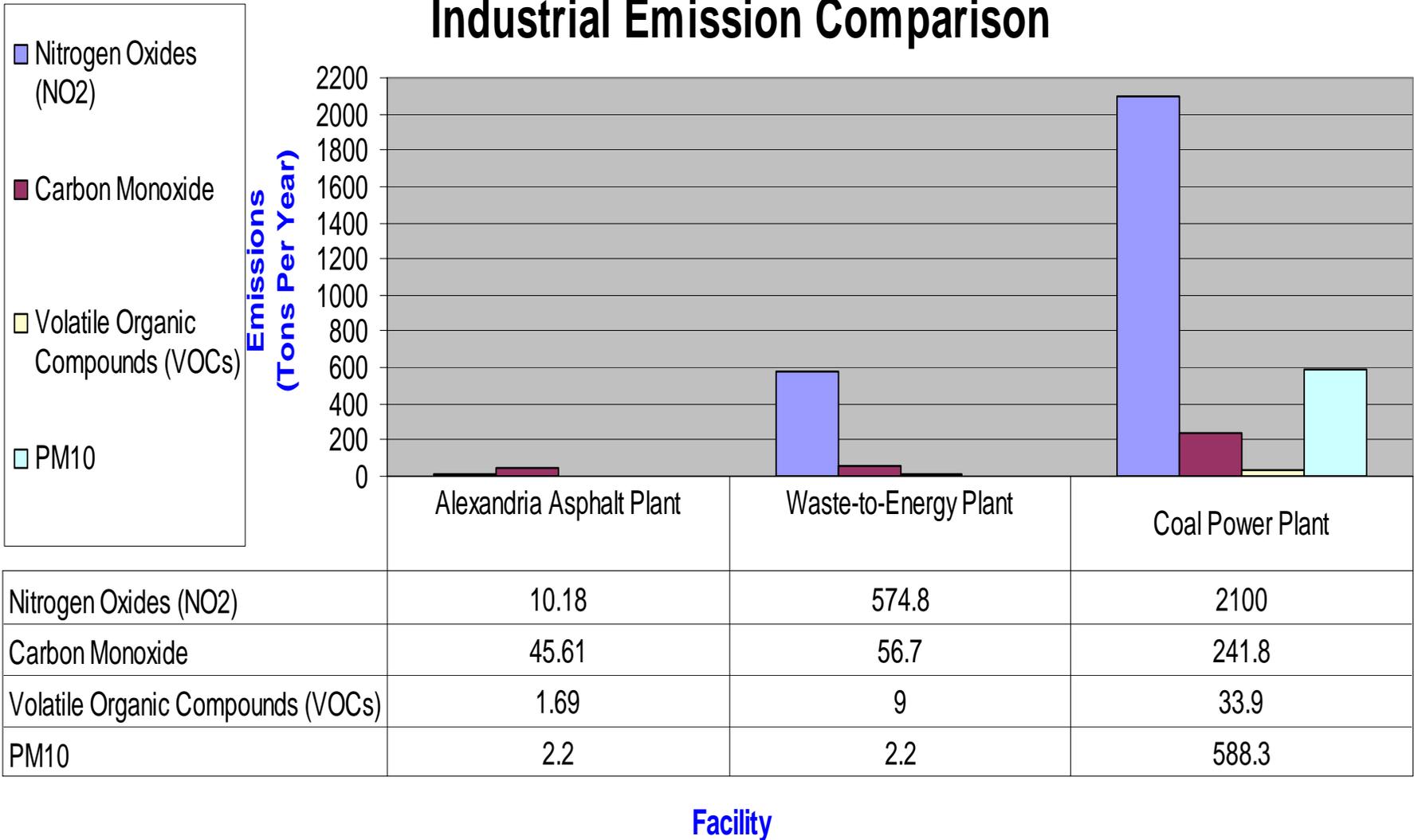
**Putting the emissions
in perspective.**



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We are not a power plant...

Industrial Emission Comparison

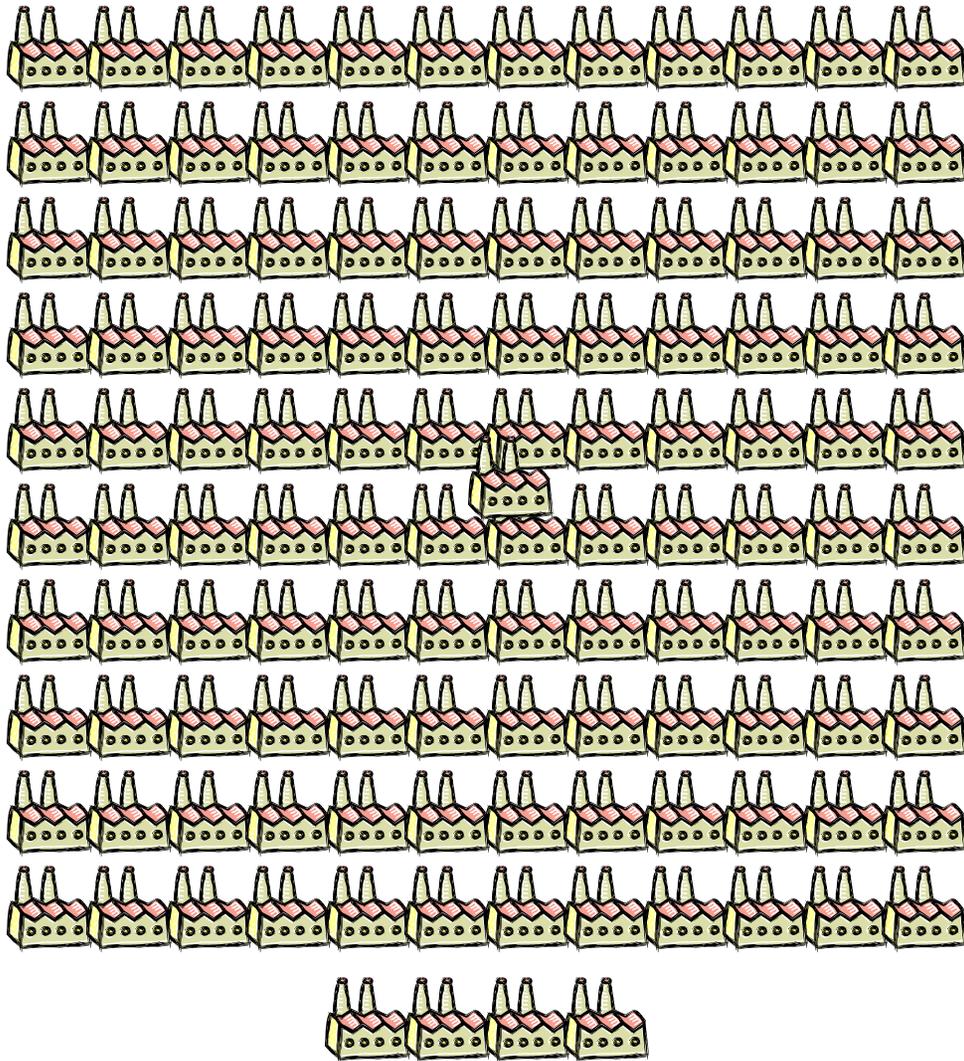


Facility

Waste to Energy data For Covanta – Alexandria see <http://www.deq.state.va.us/air/pdf/titlevpermits/71895sb.pdf>

Emission Inventory 2000; Page 6

Coal Power Plant data for Mirant – Potomac River Power Plant see <http://www.notice-alexandria.org/mirantpg.htm#apr04> “An Assessment of the State of Virginia’s efforts to control Emissions at the Mirant Potomac River Power Plant in Alexandria.”



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Virginia Paving Company

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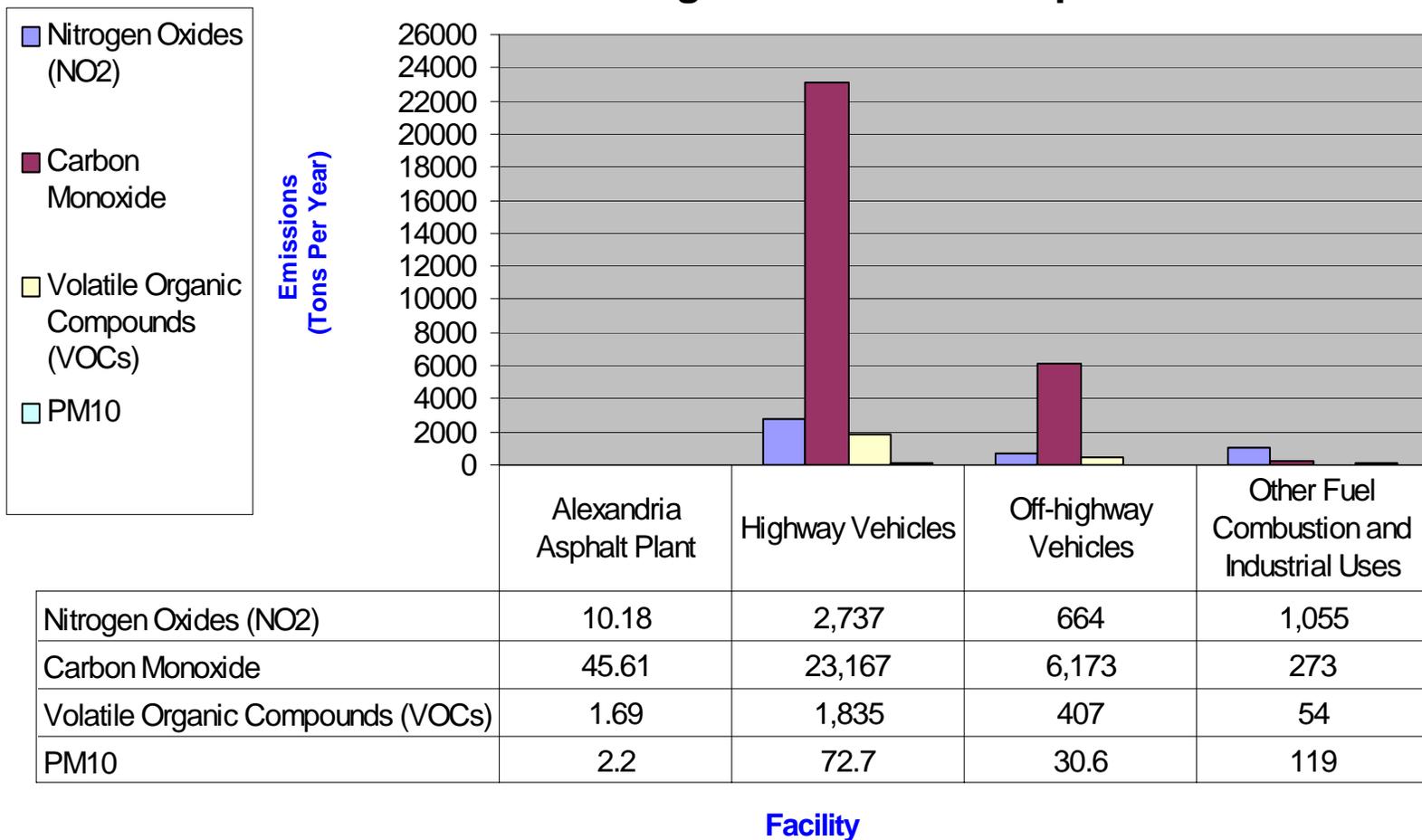
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Coal Fired Power Plant



Our emissions are a small fraction of those from other common combustion sources in Alexandria,...

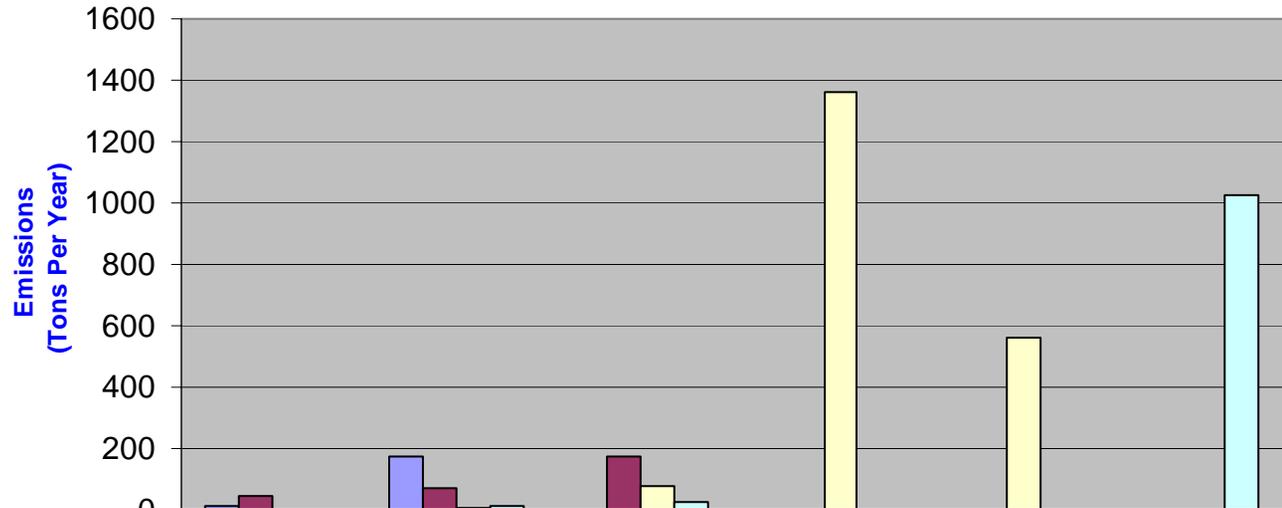
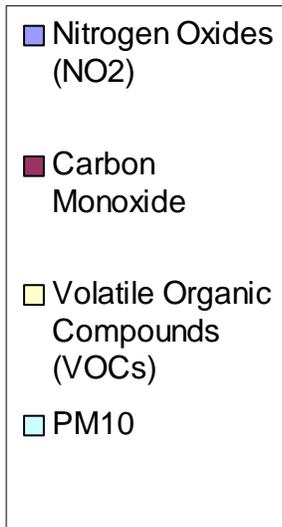
Other Source Categories Emission Comparison



Other Source category emissions – EPA Airdata for 2001, see <http://www.epa.gov/air/data/emcatrep.html?co~51510~Alexandria%20City%2C%20Virginia>
 Virginia Paving Company – Alexandria Asphalt Plant – see 2005 Particulate Stack Test & 2004 Gaseous Stack Test

... and are also small relative to some less frequently thought of Alexandria sources.

Other Source Categories Emission Comparison



	Alexandria Asphalt Plant	Residential Fuel Combustion	Residential Wood Combustion	Solvent Usage (domestic, paints)	Storage and Transport (gas stations)	Fugitive Dust
Nitrogen Oxides (NO ₂)	10.18	173	2.4			
Carbon Monoxide	45.61	73.5	174			
Volatile Organic Compounds (VOCs)	1.69	9.63	77	1,364	559	
PM ₁₀	2.2	15.1	23.8			1,026

Facility

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**What are we proposing
to change?**

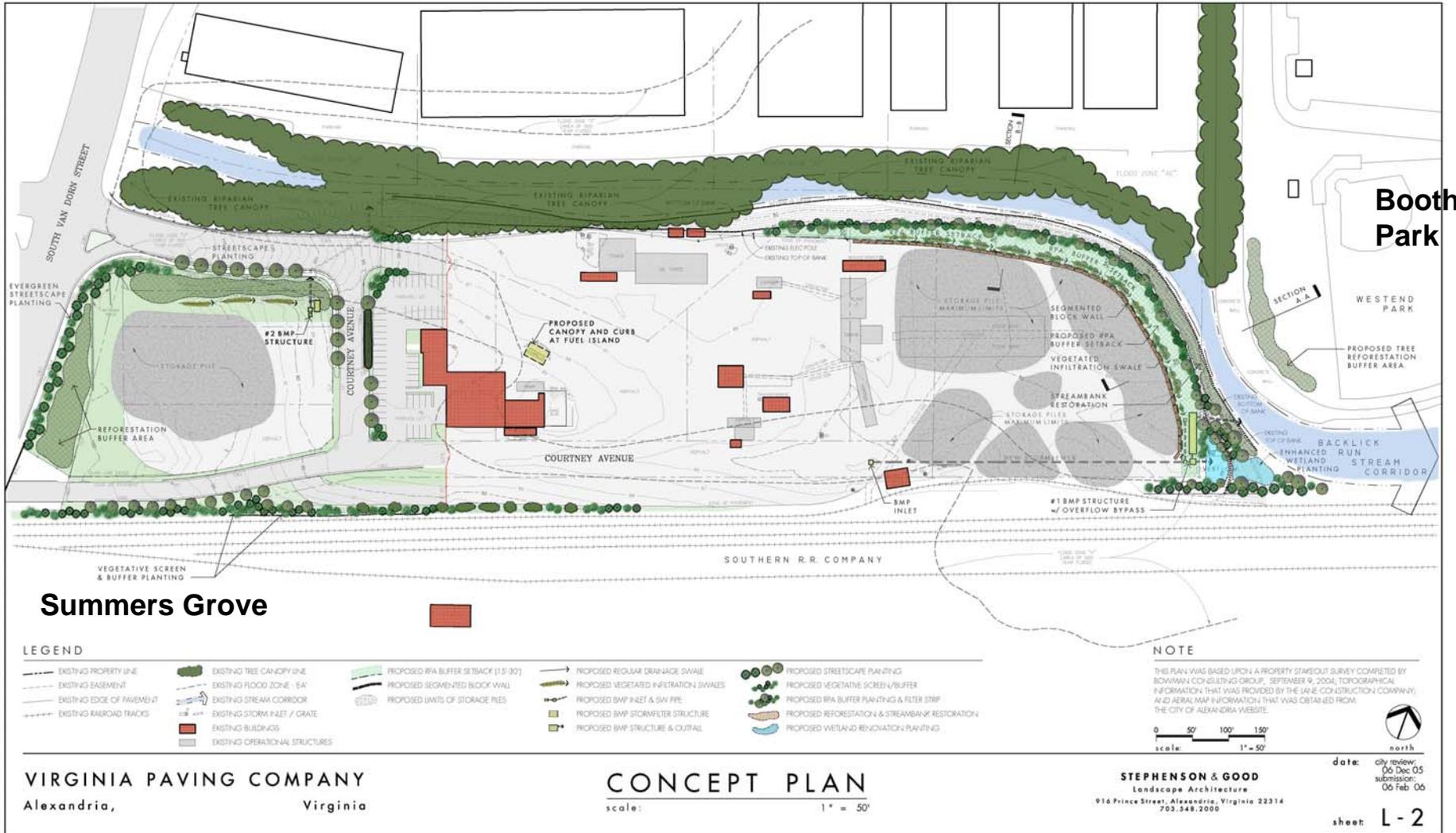


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Proposed Plant Improvements

- Fugitive Emissions Package – silo tops, loadout.
 - Enclosing Transfer Points on aggregate conveyors
- Increase in stack height - will help dispersion.
- **Anti Odor Equipment** – liquid asphalt, final product.
- Enhanced Storm Water Management System
- Landscape
 - Resource Protection Area (RPA) Enhancement
 - Vegetative Screenings
- Best Management Practices (BMPs)
 - Inspections, housekeeping, yard watering and sweeping, logs & records.
- Voluntary reduction in production limit
 - VDEQ permits 1.5 million tons; reduced to 1.2 million tons.

Proposed Site Plan



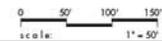
Summers Grove

LEGEND

- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING EDGE OF PAVEMENT
- - - EXISTING RAILROAD TRACKS
- █ EXISTING TREE CANOPY LINE
- - - EXISTING FLOOD ZONE - 5A'
- █ EXISTING STREAM CORRIDOR
- █ EXISTING STORM INLET / GRATE
- █ EXISTING BUILDINGS
- █ EXISTING OPERATIONAL STRUCTURES
- █ PROPOSED RPA BUFFER SETBACK (15-30')
- █ PROPOSED SEGMENTED BLOCK WALL
- █ PROPOSED LIMITS OF STORAGE PILES
- PROPOSED REGULAR DRAINAGE SWALE
- PROPOSED VEGETATED INFILTRATION SWALES
- PROPOSED BMP INLET & SW PRE
- PROPOSED BMP STORMFILTER STRUCTURE
- PROPOSED BMP STRUCTURE & OUTFALL
- █ PROPOSED STREETScape PLANTING
- █ PROPOSED VEGETATIVE SCREEN / BUFFER
- █ PROPOSED RPA BUFFER PLANTING & FILTER STRIP
- █ PROPOSED REFORESTATION & STREAMBANK RESTORATION
- █ PROPOSED WETLAND RENOVATION PLANTING

NOTE

THIS PLAN WAS BASED UPON A PROPERTY STAKEOUT SURVEY COMPLETED BY BOWMAN CONSULTING GROUP, SEPTEMBER 9, 2004, TOPOGRAPHICAL INFORMATION THAT WAS PROVIDED BY THE LAKE CONSTRUCTION COMPANY, AND AERIAL MAP INFORMATION THAT WAS OBTAINED FROM THE CITY OF ALEXANDRIA WEBSITE.



VIRGINIA PAVING COMPANY
Alexandria, Virginia

CONCEPT PLAN
scale: 1" = 50'

STEPHENSON & GOOD
Landscape Architecture
914 Prince Street, Alexandria, Virginia 22314
703.548.2000

date: city review: 06 Dec 05
submission: 06 Feb 06
sheet: L-2

Proposed Site Improvements



View from Summers Grove



Proposed Site Improvements



View from Boothe Park



FIG 8

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Get the facts.



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Don't rely on Assumptions and Apprehension

Get the facts.

**Site-specific expert studies and other
information is available online.**

www.laneconstruct.com/AboutUs/Environmental.aspx

Virginia Paving

Alexandria SUP Application

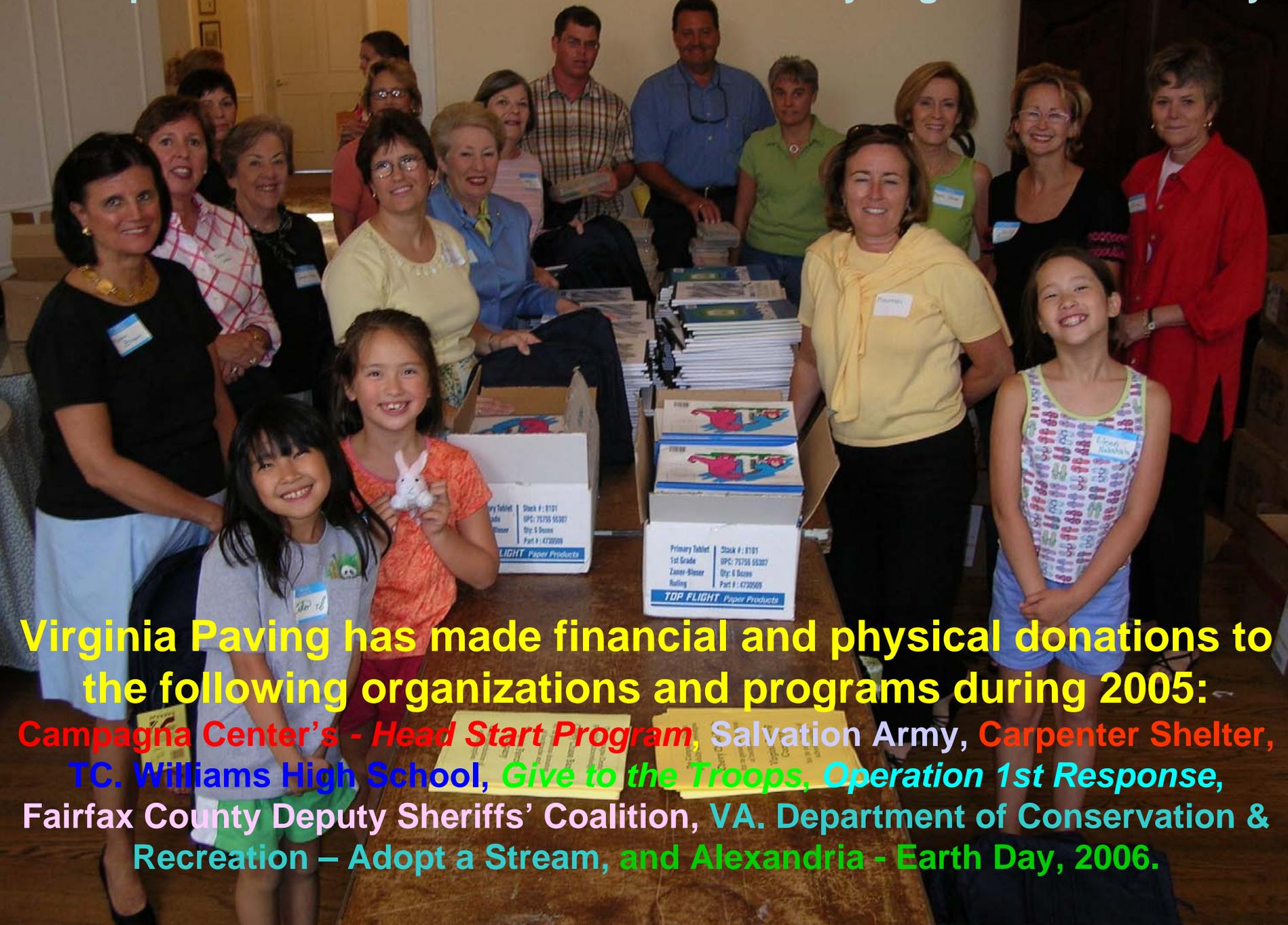
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We are a good neighbor.



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It is important for us as a business within the City to give back to the City.



Virginia Paving has made financial and physical donations to the following organizations and programs during 2005:

Campagna Center's - Head Start Program, Salvation Army, Carpenter Shelter, TC. Williams High School, Give to the Troops, Operation 1st Response, Fairfax County Deputy Sheriffs' Coalition, VA. Department of Conservation & Recreation – Adopt a Stream, and Alexandria - Earth Day, 2006.

Virginia Paving Wins NAPA Award

Virginia Paving Company's programs have contributed to the community and won an award from the National Asphalt Pavement Association

BY CHRISTINA FISHER

PICTURES COURTESY OF VIRGINIA PAVING COMPANY

If you ask Phil Frazier, assistant plant manager, why Virginia Paving Company has become involved in its community of Alexandria, his answer is simple. "We felt that we needed, from a business standpoint, to start enhancing our relationship with the community and working with them. They are good neighbors, and I think the construction industry has to become more proactive in giving back to the community. This fosters the industry's image as well as improves community relations." This commitment has earned the company a 2005 NAPA Community Involvement Award, which is co-sponsored by Associated Construction Publications, in recognition of its outstanding programs.

In the past year, Virginia Paving has participated in two programs: "Adopt-A-Stream," managed by the Virginia Department of Conservation, and "Tools for Schools," an ongoing outreach program developed by Phil Frazier and sponsored by Virginia Paving for Head Start students.

Adopt-A-Stream is really a part of Virginia Paving's growing environmental program that is led by Chris Monahan, the company's environmental coordinator. Chris explained that Virginia Paving has "embraced the challenge" to be a good steward of the environment. "We take a lot of pride in keeping a clean site. We try to go above and beyond the requirements of our permits, and we have worked with (the state) to develop good systems."

Volunteering for Adopt-A-Stream, employees adopted a quarter-mile section of Backlick Run, a tributary of the Potomac River. Volunteers gathered 30 bags of trash and debris during their last



Employees participate regularly in Adopt-A-Stream events. During their last pickup, 30 bags of trash and debris were collected from the company's quarter-mile section of Backlick Run.



Chris Monahan and Phil Frazier worked with Campagna Center members to stuff backpacks full of school supplies for Head Start students.



Elizabeth, Maria, Nelsabeta and Aiko (right) are now ready for school with their new backpacks.

cleanup event and beautified both sides of the stream bank that run near their Alexandria HMA facility and offices.

This ongoing program has given Virginia Paving employees the satisfaction of improving the local waterway, and there are plans to include other members of the community such as the local Boy Scout troop in their future cleanup events. In addition, Chris Monahan is looking at other ways Virginia Paving can expand its environmental programs as a company.

"Chris is doing a lot with environmental issues around the creek," added Phil Frazier. "We're going to start looking at landscaping. We have to plant more trees and protect the water systems at our sites."

"Asphalt plants and concrete plants... Do we do a good job with house-keeping? No. Now that Chris is on board, he's looking at it differently. As a corporation, we're going to have to make an investment."

Coming from an environmental consulting background, Chris was initially concerned about accepting the position of environmental coordinator with Virginia Paving. "I didn't know what kind of support I was going to get, but it has been a pleasure. I have received nothing but positive support from management to clean these plants up and enhance our environmental stewardship."

The Tools for Schools program is another ongoing program that Virginia



Paving sponsors to reach out to young Head Start students at the Campagna Center in Alexandria. Last August, Virginia Paving donated school supplies and then participated in an afternoon of organizing backpack stuffing, providing 300 students with new crayons, pens, pencils, notebooks, and other tools for school.

But Virginia Paving's commitment to the children at Campagna Center didn't stop there. This winter they donated stocking caps and mittens, and the company also agreed to participate in periodic tutoring and reading to Head Start children for one hour a week. The company is also repaving the center's parking lot once spring arrives.

Because of management and employee support, Tools for Schools will continue, and the program's success has generated another program that will reach out to junior and senior high school students and teach them about work zone safety issues.

"We felt a need to work with younger drivers in the secondary school

system to emphasize work zone safety issues," said Phil. "They are exposed to work zone issues in an urban environment every single day. We want to be a part of that learning process, and we want them to pay attention to (these issues)."

Co-sponsored with the Virginia Department of Transportation, the work zone safety program will begin organizing in early spring and culminate in an organized day of instruction in safe driving habits. Scheduled for October 5 at the Prince William County Fairgrounds, Phil hopes to reach 500 to 1,000 students through the program.

When asked why Virginia Paving submitted their entry for NAPA's Community Involvement Award, Chris Monahan explained that he hoped the award would give other companies ideas for developing their own programs. "We wanted to stress the importance of getting involved with your local community. We're more aware that it's just a part of good business, and it's really our responsibility to give back to the community where we live and work."

Phil Frazier added, "It's a process we've just started, but we hope we'll be neighbors here for the next 25 to 30 years. We want the community to think of Virginia Paving Company as a good neighbor... and as a professional company to work for. Businesses have to make the investment." ■

Cooperative effort with various groups has led to constructive planning

- **Community Associations**
 - Cameron Station Civic Association
 - Cameron Station Community Association
 - Summers Grove Home Owners Association
- **City of Alexandria**
 - Planning and Zoning
 - Transportation and Environmental Services
 - Department of Recreation, Parks, and Cultural Activities
- **Site Planners**
 - Landscape Architecture Design
 - Storm Water Management Survey & Design

Thank you !!



Cambridge Environmental's
Air Quality and Public Health Evaluation
of the
Virginia Paving Facility in Alexandria, Virginia

Laura Green, Ph.D., D.A.B.T.
Green@CambridgeEnvironmental.com

May 15, 2006