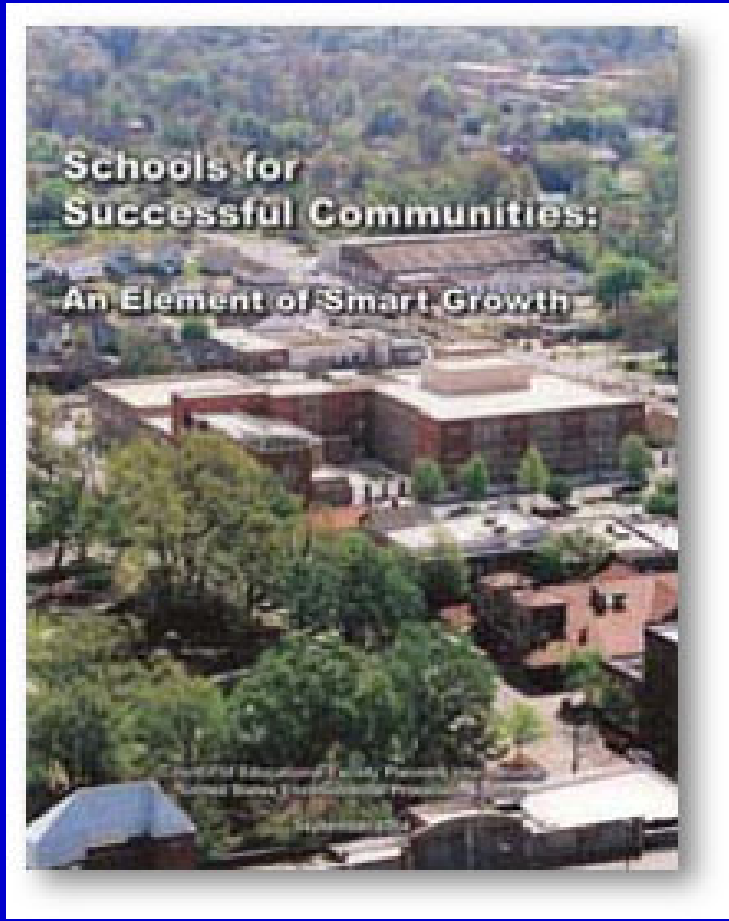
School Siting: The elephant in the living room?

Tim Torma
U.S. EPA Smart Growth Program

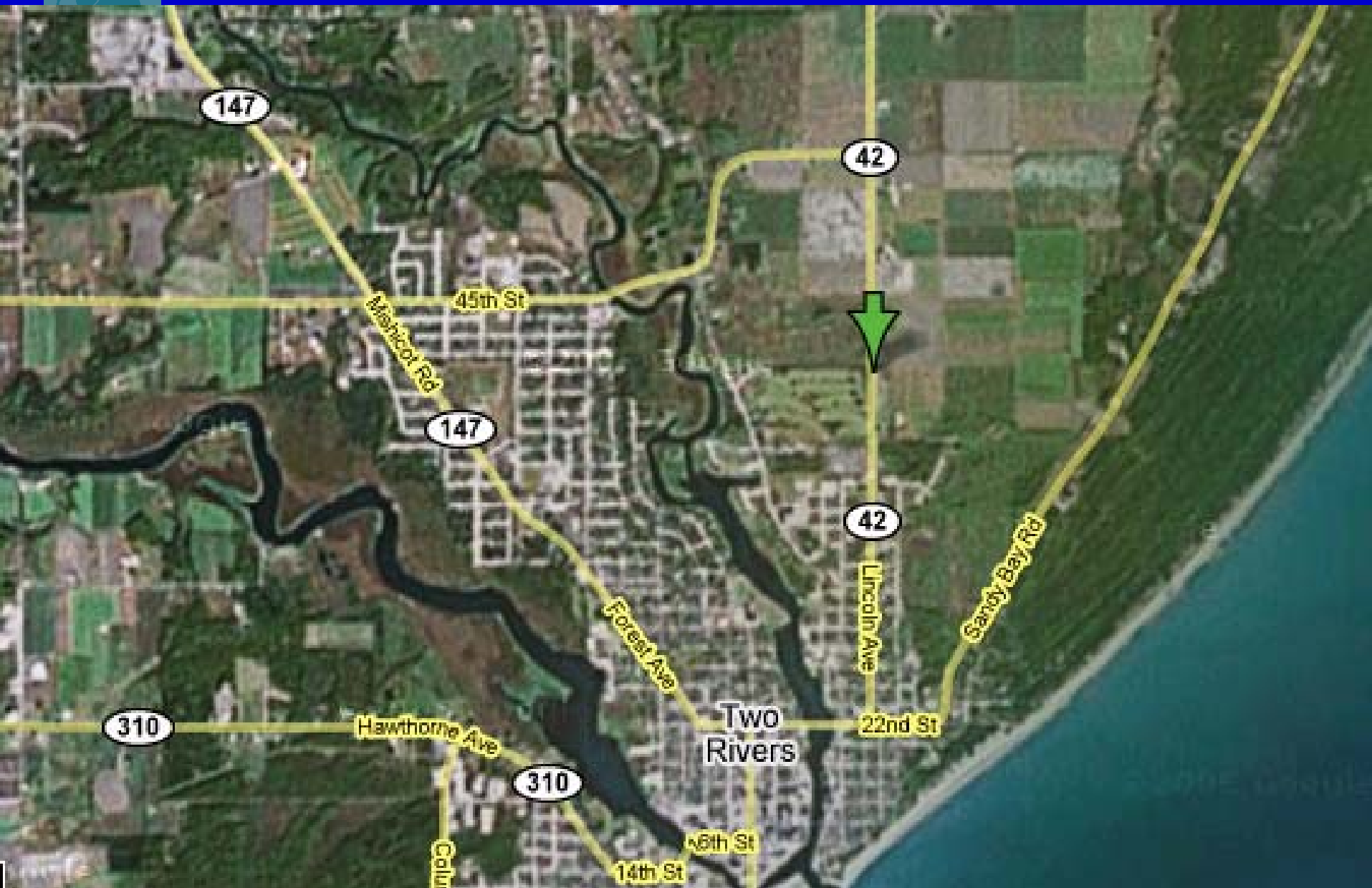
March 5, 2008

Handouts

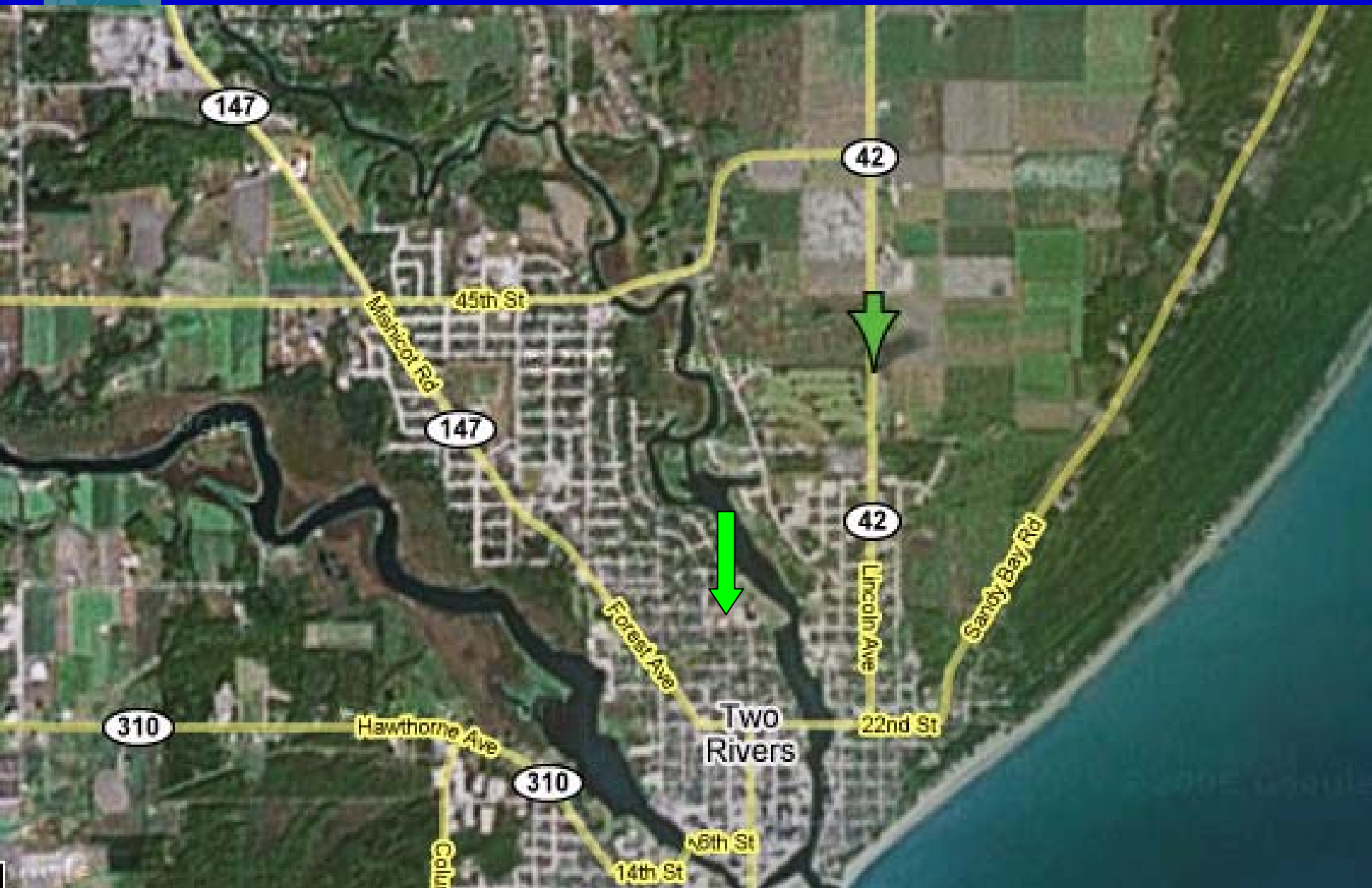


www.epa.gov/smartgrowth/schools.htm

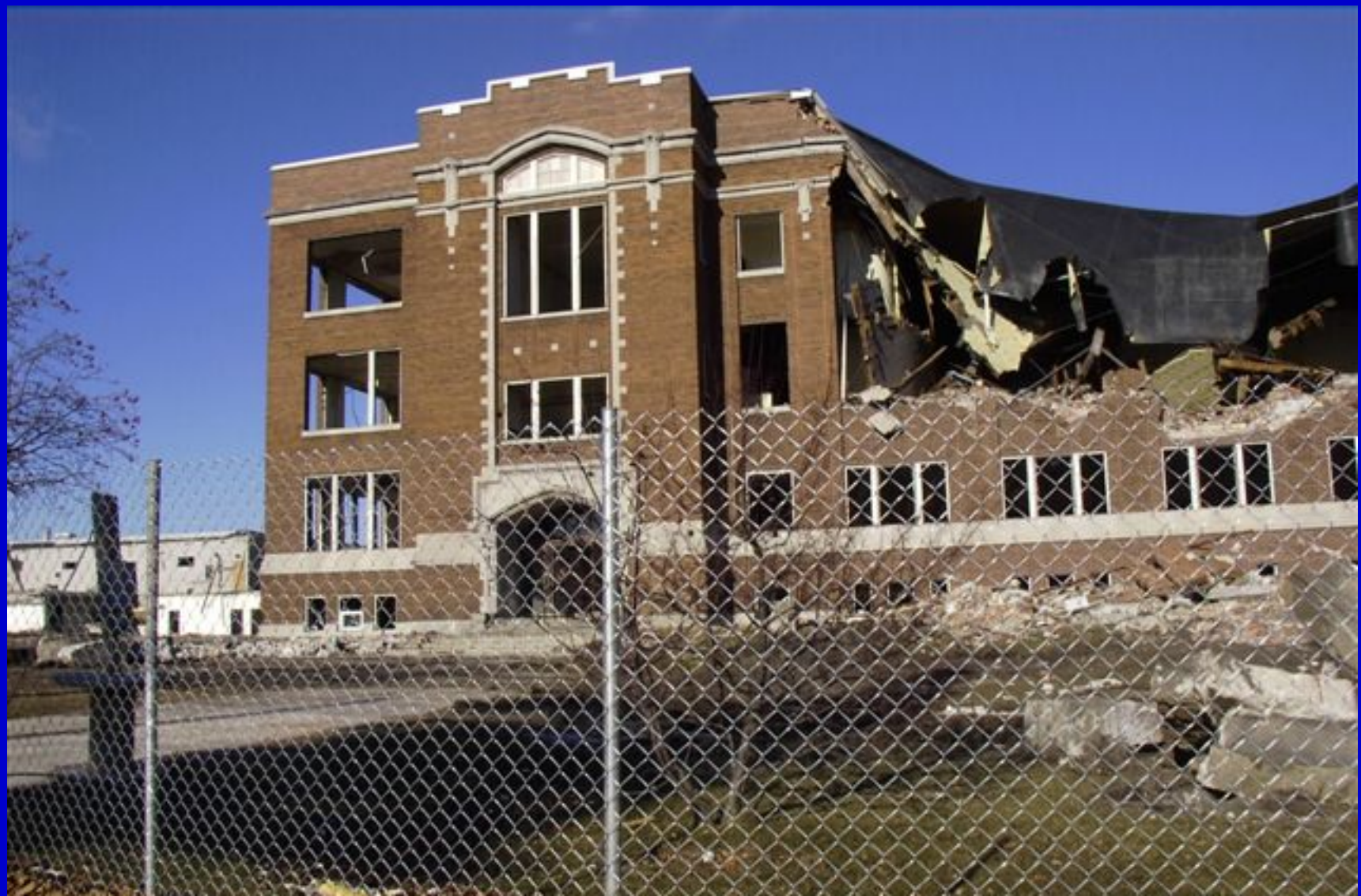
Location of New School



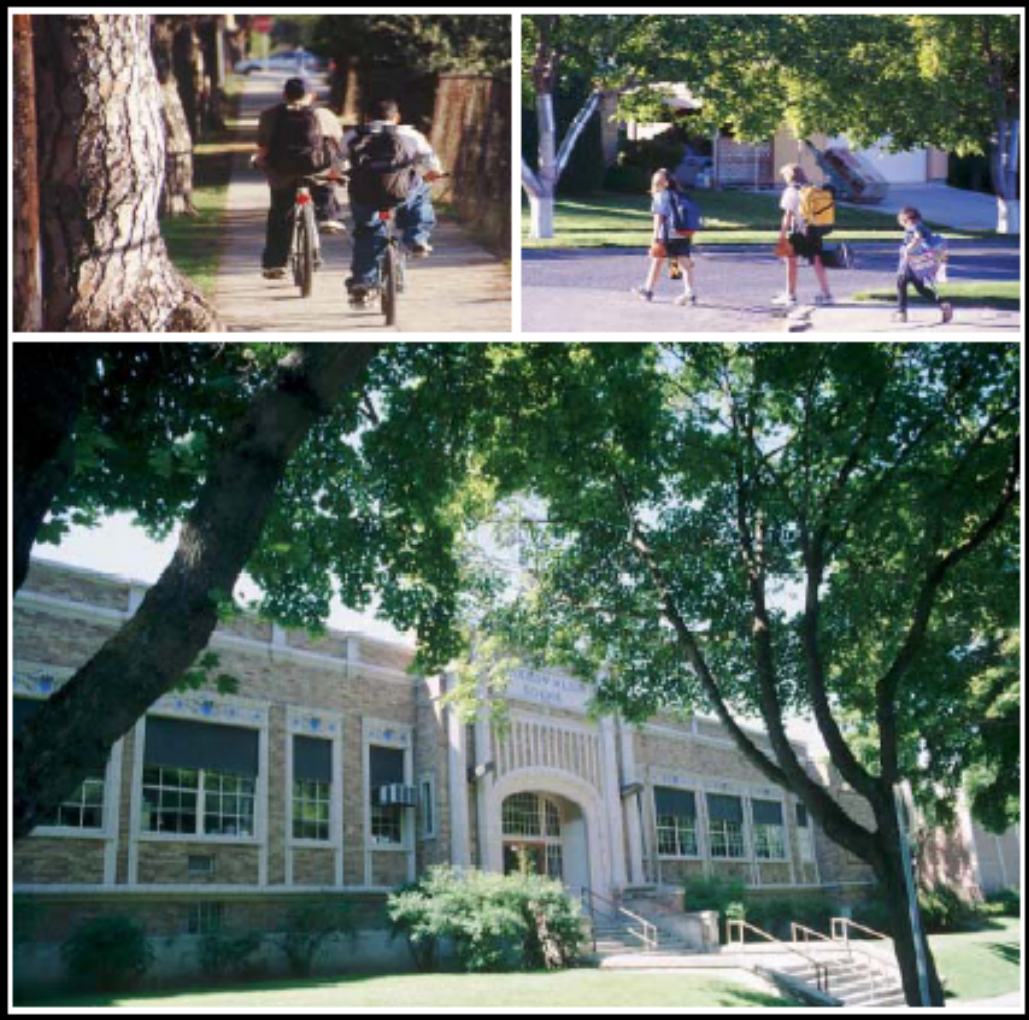
Location of Old School



And by the way, lets remove the evidence…



Why Johnny Can't Walk to School



NATIONAL TRUST for Historic Preservation

SMART GROWTH NETWORK

The Demand for Facilities

- Over half of our school facilities are at least 40 years old.
- $30+ billion per year spent on K-12 construction over the last decade.

We're going to be seeing a lot of this.

- How are these billions of school construction dollars being spent?
- What macro patterns are we seeing in school construction?

Bigger Schools

- 1930 = 262,000 School Facilities
- 2002 = 91,000 School Facilities

- Student population over the same time: up from 28 million to 53.5 million

Dorman High School in Spartanburg, SC

- A pedestrian hit at 40 mph has an 85% chance of being killed.
- At 20 mph the fatality rate is only 5%

(FHWA, Pedestrian Facilities Users Guide, 2002)

Another Pattern: Neglect or Demolish Existing Neighborhood Schools

26 States Still Mandate Minimum Acreages for School Sites

CEFPI
The School Building Association

— ISSUETRAK —

A CEFPI Brief on Educational Facility Issues

Topic: State Acreage Policies
Issue Tracker: Janell Weihs
Date Filed: September 2003

School Site Size — How many acres are necessary?

In recent years one of the most discussed topics regarding school construction is that of appropriate acreage for siting school facilities. This su
question that needs to be addressed for new schools, but for renovation and/or addition projects as well. Many factors need to be considered wh
question of acreage. These include, but are not limited to the number of students; the grades to be housed; the educational programs and services th
site requirementsincluding physical education programs, parking, forestation or reforestation, zoning and set-backs, storm water management, and
leisure, and recreational events. Very often there are state, school district, and/or local government site size requirements, guidelines, or standards
considered. These entities may have varying opinions, methodologies, and rationales for their school site size requirements, guidelines, or standards

Although the Council of Educational Facility Planners (CEFPI) is not a "standards" setting organizations, the Council does publish guidelines on variou
educational facility planning. Many states that do provide acreage and other design specifications have formulas that are similar to the CEFPI reco
were published in past editions of *The Guide for Planning Educational Facilities*. These recommendations are being carefully reviewed as the new editi
Planning Educational Facilities is being prepared, due to be released in the Spring of 2004. Currently many states follow these site formulas:

Elementary Schools = 10 acres plus 1 acre for every 100 students;
Junior High/Middle Schools = 20 acres plus 1 acre for every 100 students;
Senior High Schools = 30 acres plus 1 acre for every 100 students.

In this report, no attempt has been made to either evaluate the published documents or determine how a state implements the acreage formula. Add
does not identify local district or governmental policies that may vary from the figures listed for a specific state. Most states with oversight respon
waivers and alternatives to the published requirements, guidelines or standards, and often differentiate between existing facilities and new construc
have formulas that only apply to the maximum amount of state funding available and allow districts to locally fund acreage beyond the site si
accompanying chart. In other cases a state might approve a site smaller than what is specified in the charts based upon the submission of a reques
well-documented justification. For specific information regarding the school site size requirements, guidelines, or standards, please contact the S
Education or school building authority in your state. Please contact your local school district for additional information and policies affecting the size
general or for a specific project. State documents that have been referenced may be accessible through the individual department of education websit

With the assistance of Barbara Kent Lawrence, Ed.D., educational consultant, CEFPI staff collected this data from state facility reports, manuals and c
legislation, and verified it through direct contact with personnel from state educational agencies and practitioners. Dr. Kelvin Lee, Ed.D., Superinte
Joint Elementary School, and Yale Stenzler, Ed.D., educational facilities consultant, also deserve recognition and thanks for their assistance in develop

All information in the table was collected from state facility reports and manuals, and verified through direct contact with personnel from state educat
practitioners. For additional information, details, and/or procedures regarding school site size requirements, guidelines, or standards in your state,
State Department of Education or school building authority in your state. To recommend revisions and additions to the table, please contact CEFPI.

State	Contact Info	Formulas for School Site Analysis	Comments	Document(s)
Alabama	School Architect & Facilities (334) 242-9731 http://www.alsde.edu/html/sections/section_detail.asp?section=86&menu=sections&footer=sections	**Elementary School** (K-8, and must not contain a grade above 8) Base of 5 acres plus one acre for every 100 students **Middle School** (4-9, but not including both grades 4 and 9) Base of 10 acres plus one acre for every 100 students **Secondary School** (5-12, but must contain a grade above 8) Base of 15 acres plus one acre for every 100 students for existing schools Base of 30 acres plus one acre for every 100 students for proposed schools	The state architect referred to the specifications as recommendations only.	Construction Requirements for County and Public Schools
Alaska	Department of Education & Early Development Facilities (907) 465-2785 http://www.eed.state.ak.us/facilities/	**Elementary** = 10 acres plus one acre for every 100 students **Middle** = 20 acres plus one acre for every 100 students **High** = 30 acres plus one acre for every 100 students **K-12** = 20 acres plus one acre for every 100 students For very small schools: 4 acres = 10-25 students; 6 acres = 26-50 students; 8 acres = 50-99 students	No acreage requirements are regulated. Specifications are recommendations only, and are applied to the state share of funding.	Site Selection Criteria and Evaluation Handbook (1997)
Arizona	School Facilities Board (602) 542-6501 http://www.sfb.state.az.us/	**Elementary** = up to 8-18 acres **Middle/Junior** = up to 18-36 **High School** = up to 30-70	Acreage guidelines range based upon student capacity and serve for new construction only. Recommendations are not listed in the Rules and Policies.	Arizona School Facilities Board Rules and Policies
Arkansas	Department of Education (501) 682-4261 http://arkedu.state.ar.us/administrators/077.html	No acreage recommendations made		Arkansas Department of Education Rules and Regulations Governing the Minimum Schoolhouse Construction Standards
California	School Facilities Planning Division (916) 322-2470 http://www.cde.ca.gov/facilities/	**Grades K-6** 450 students = 9.6 acres 750 students = 13.8 acres 1200 students = 17.6 acres **Grades 7-8** 600 students = 17.4 acres (with track facilities) 900 students = 20.9 acres (with track facilities) 1200 students = 23.1 acres (with track facilities) **Grades 9-12** 1200 students = 33.5 acres 1800 students = 44.5 acres 2400 students = 52.7 acres	Alternative solutions to acreage recommendations are provided. If a school site is less than the recommended acreage required, the district shall demonstrate how the facilities will accommodate an adequate educational program, including physical education, as described in the district's adopted course of study.	1. Guide to School Site Analysis and Development, 2000 2. School Site Selection and Approval Guide 3. Small School Site Policy Memo (2001)
Colorado	Department of Education (303) 866-6600 http://www.cde.state.co.us/index_finance.htm	The state does not provide any recommendations for school facilities.	Jefferson County has developed comprehensive guidelines for their facilities, which do address acreage requirements.	
Connecticut	School Facilities Unit (860) 713-6490 http://www.state.ct.us/sde/dgm/sfu/index.htm	**Elementary** = 10 acres plus1 acre for each 100 students* **Middle** = 15 acres plus1 acre for each 100 students* **High** = 20 acres plus1 acre for each 100 students* * of the projected enrollment (8 years from the application date)	Site allowances refers to the maximum amount the state will consider funding and does not restrict local districts to exceed the acreage allowance or obstruct the district to use a smaller site.	Regulations of the State Board of Education Concerning School Construction Grants
Delaware	Department of Education (302) 739-4601 http://facilitynet.doe.k12.de.us/sitenet/default.asp	**Elementary** = 10 acres plus 1 acre for every 100 students of school capacity **Middle/Junior High** = 20 acres plus 1 acre for every 100 students of school capacity **High School** = 30 acres plus 1 acre for every 100 students of school capacity	Specifications are minimum recommendations only, but "there is probably no real substitute for sufficient size." Options to consider for sites that do not meet the minimum acreage recommendation are provided.	School Construction Technical Assistance Manual
Florida	Office of Educational Facilities (850) 245-0494 http://www.firn.edu/doe/edfacil	Guidelines provide detailed information about the site but do not address acreage guidelines.	Size specifications refer to the spaces in the building(s) and the number of spaces allowed according to enrollment.	State Requirements for Educational Facilities

http://www.cefpi.org/pdf/state_guidelines.pdf

JAMA®

The Journal of the American Medical Association — To Promote the Science and Art of Medicine and the Betterment of the Public Health

Vol. 294 No. 17, November 2, 2005 TABLE OF CONTENTS >

From the Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report

Barriers to Children Walking to or From School—United States, 2004

JAMA. 2005;294:2160-2162.

MMWR. 2005;54:949-952

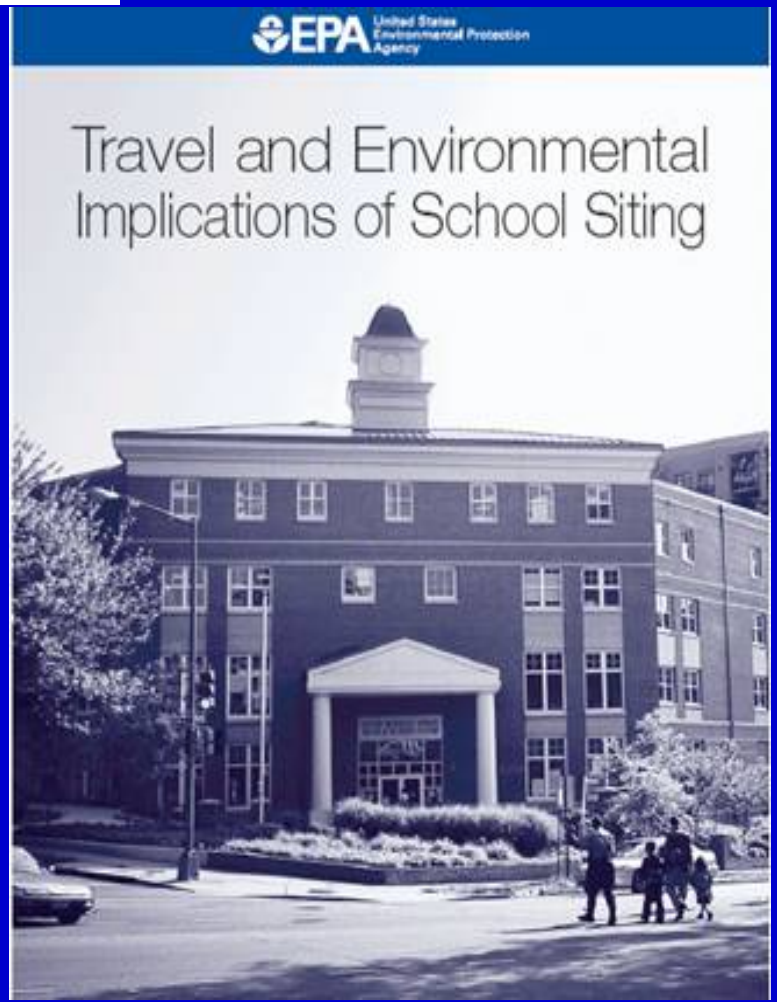
1 figure, 1 table omitted

Walking for transportation is part of an active lifestyle that is associated with decreased risks for heart disease, diabetes, hypertension, and colon cancer and an increased sense of well being.[1] However, the percentage of trips made by walking has declined over time among both children[2] and adults.[3] One of the objectives of *Healthy People 2010* (no. 22-14b) is to increase among children and adolescents the proportion of trips to school made by walking from 31% to 50%.[4] In 1969, approximately half of all schoolchildren walked or bicycled to or from school, and 87% of those living within 1 mile of school walked or bicycled.[5] Today, fewer than 15% of children and adolescents use active modes of transportation.[2] This report examines data from the 2004 ConsumerStyles Survey and a follow-up recontact survey to describe what parents report as barriers to their children aged 5-18 years walking to or from school. Distance to school was the most commonly reported barrier, followed by traffic-related danger. Comprehensive initiatives that include behavioral, environmental, and policy strategies are needed to address these barriers to increase the percentage of children who walk to school.

#1 Barrier? Distance to School

Where you put the School Matters

- Schools built close to students, in walkable neighborhoods
  - Can reduce traffic
  - Yield increase in walking and biking
  - Reduce emissions



www.epa.gov/smartgrowth/publications.htm

New Research

- "Estimating the proportion of Georgia children who can walk to school," American Journal of Preventive Medicine
- Estimated that 6% of elementary school students (K–5), 11% of middle school students (6 to 8), and 6% of high school students live within a safe and reasonable walking distance from school.
- High population density, small enrollment size, and high street connectivity were associated with higher percentages of potential walkers.

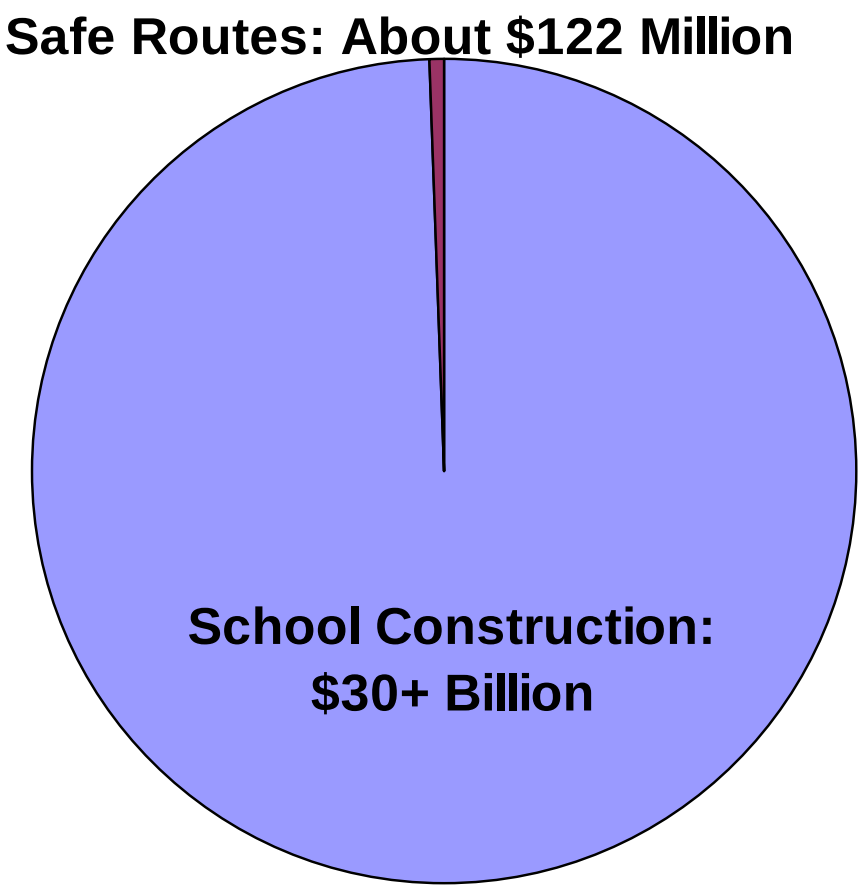
Falb and others, "Estimating the proportion of children who can walk to school," American Journal of Preventive Medicine, Vol 33, No. 4, pp 269-275.

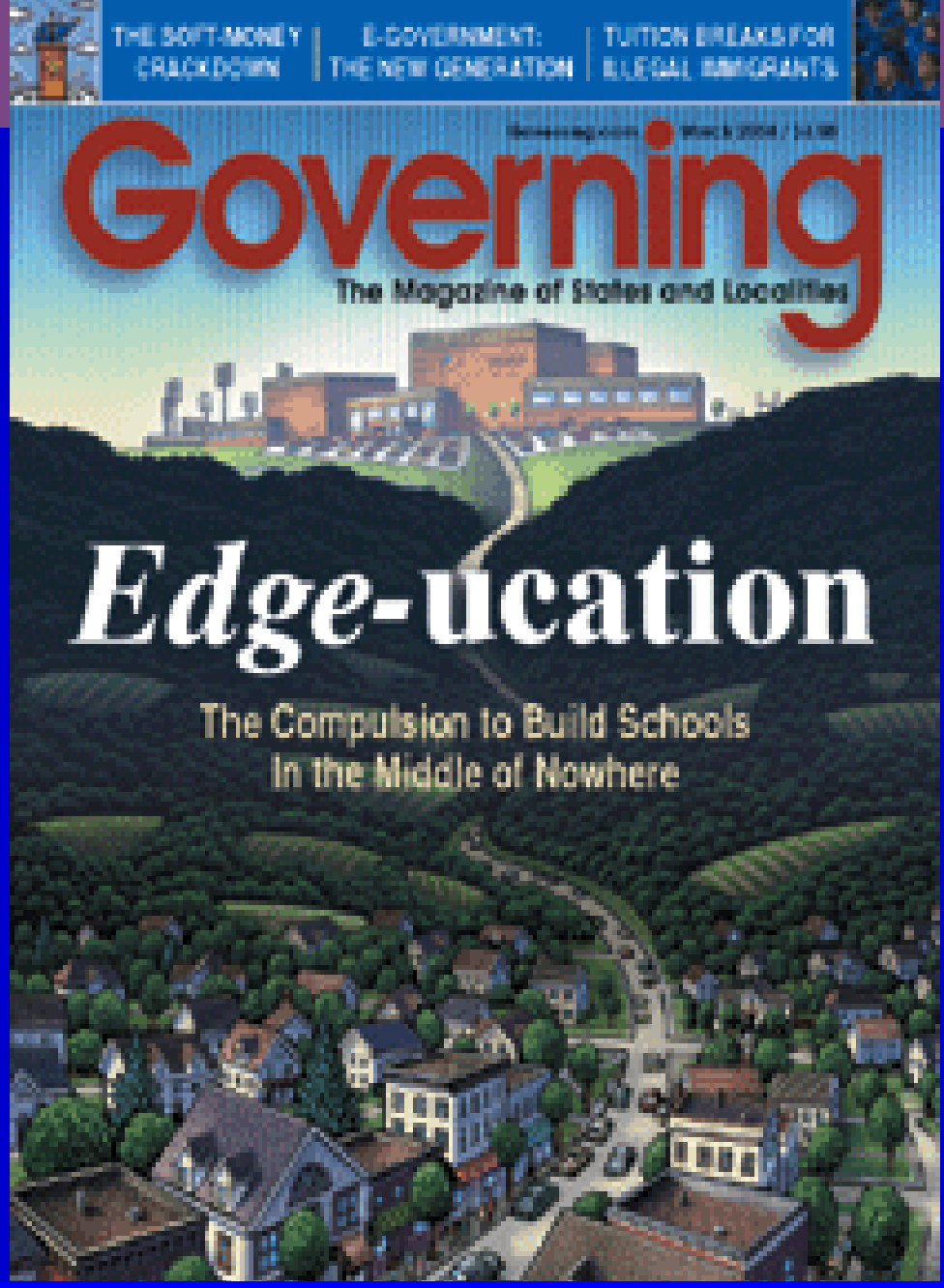
You have to deal with the elephant!

- If you want more kids bike and walk to school, you have address policies that drive school investments.
- The Safe Routes movement can and should move the discussion on school investments forward.

This is YOUR Pie!!!

Annual Spending





www.governing.com/articles/3schools.htm

Positive Motion on School Siting

- South Carolina eliminated minimum acreage standards in 2003

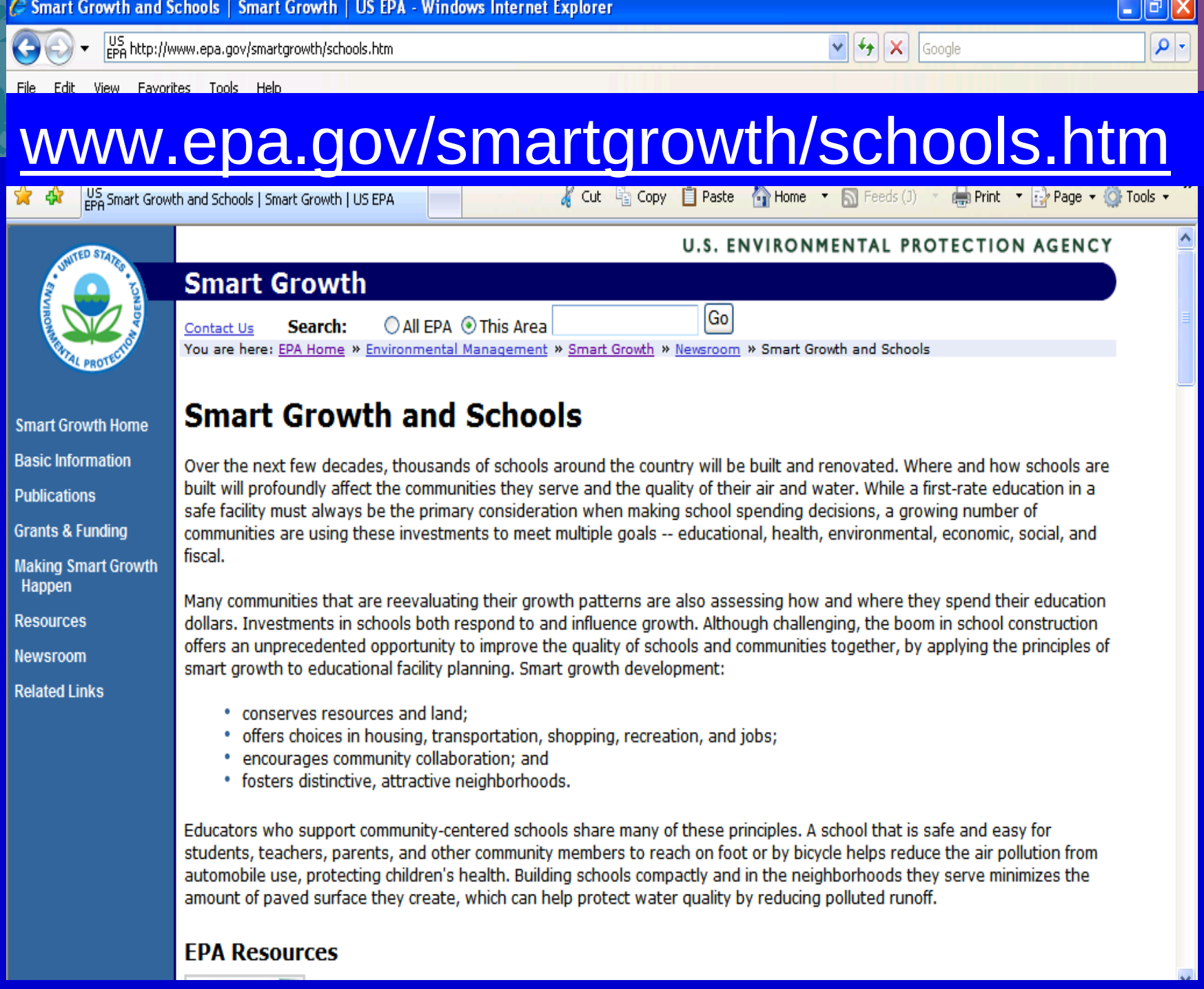
"Creating more neighborhood schools is one of the most important avenues for advancing quality of life in South Carolina.

It makes sense from a learning standpoint, an economic standpoint and it makes sense if you want to have schools that are part of a community's fabric as opposed to part of its sprawl."

South Carolina Governor Mark Sanford
July 16, 2003

What is EPA Doing?

- Further research on travel and environmental implications.
- Work with policy makers and setting organization (Council of Educational Facility Planners, Intl.) to identify best practices and model policies.
- Partnership with the National Trust for Historic Preservation to examine state level policy barriers to better siting decisions; working with stakeholders to consider alternatives.


Smart Growth and Schools | Smart Growth | US EPA - Windows Internet Explorer
http://www.epa.gov/smartgrowth/schools.htm
Google
File Edit View Favorites Tools Help
www.epa.gov/smartgrowth/schools.htm
Smart Growth and Schools | Smart Growth | US EPA
Cut Copy Paste Home Feeds (J) Print Page Tools
U.S. ENVIRONMENTAL PROTECTION AGENCY
Smart Growth
Contact Us Search: All EPA This Area Go
You are here: EPA Home » Environmental Management » Smart Growth » Newsroom » Smart Growth and Schools
Smart Growth Home
Basic Information
Publications
Grants & Funding
Making Smart Growth Happen
Resources
Newsroom
Related Links
Smart Growth and Schools
Over the next few decades, thousands of schools around the country will be built and renovated. Where and how schools are built will profoundly affect the communities they serve and the quality of their air and water. While a first-rate education in a safe facility must always be the primary consideration when making school spending decisions, a growing number of communities are using these investments to meet multiple goals -- educational, health, environmental, economic, social, and fiscal.
Many communities that are reevaluating their growth patterns are also assessing how and where they spend their education dollars. Investments in schools both respond to and influence growth. Although challenging, the boom in school construction offers an unprecedented opportunity to improve the quality of schools and communities together, by applying the principles of smart growth to educational facility planning. Smart growth development:
conserves resources and land;
offers choices in housing, transportation, shopping, recreation, and jobs;
encourages community collaboration; and
fosters distinctive, attractive neighborhoods.
Educators who support community-centered schools share many of these principles. A school that is safe and easy for students, teachers, parents, and other community members to reach on foot or by bicycle helps reduce the air pollution from automobile use, protecting children's health. Building schools compactly and in the neighborhoods they serve minimizes the amount of paved surface they create, which can help protect water quality by reducing polluted runoff.
EPA Resources


MATH & SCIENCE
ARTS & HISTORY
RACHEL CARSON ELEMENTARY SCHOOL
100

Voters say no to 'mega-campus'

Kevin Hoffman/The Mercury

Pottstown School Board challenger Michele Pargeon, above, greets voters in front of a sign telling voters to stop the $54 million proposed mega campus in Pottstown. At right, the five challengers celebrate their victory. From left are Richard Huss, Julia Wilson, Nat White, Dennis Wausnock and Michele Pargeon smile and talk about the favorable results as they come in.

Challengers overwhelm incumbents to win seats on Pottstown School Board

By Evan Brandt
ebrandt@pottsmerc.com

POTTSTOWN – Voters swept from office Tuesday the incumbent school board team that had advocated closing the borough's five elementary schools.

Instead, voted chose by a roughly 4-to-1 margin the team that championed saving those schools.

Unofficial results tabulated at Republican campaign headquarters showed a whopping 78 percent of the voters favoring the challengers – Dennis Wausnock, Julie Wilson, Michele Pargeon, Rick Huss and Nat White.

They handily defeated the team of one-term incumbents led by Barry Robertson, James Smock, Philip Thees, Bonita Barnhill and Cathy Skitko.

Both teams "cross-filed" for both the Republican and the Democratic line on the November ballot.

The challengers' overwhelming majority on both ballot lines makes the November election a foregone conclusion.

"I got fired, I understand that," Robertson said from his home after the results had become obvious.

"Of all the elections I've been in, this is the most exciting," said Huss, a former school board member who "came out of retirement because the issue meant so much to me" to run for a fourth time.

"It was exciting because the people spoke," Huss said.

What they spoke about was the rejection of the

- My Contact information:
- Tim Torma
- torma.tim@epa.gov
- 202-566-2864