

NEPTUNE TOWNSHIP SCHOOL DISTRICT



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May 13, 2013

Mr. Joseph V. Donnelly, Director
E. I. Associates
8 Ridgedale Avenue
Cedar Knolls, NJ 07927

Dear Mr. Donnelly:

A handwritten signature in black ink that reads "Joe".

The district is pleased to advise you that the Summerfield Elementary School, constructed by the NJ Schools Development Authority, based on E. I. Associate's design, has been named a New Jersey and National Green Ribbon School. Enclosed is a press release regarding this achievement. The building principal and department chairperson responsible for submission of the application to New Jersey Green Schools Council, as well as the U. S. Department of Education, will be traveling to Washington, DC to officially receive this honor.

We appreciate your having participated so directly in the construction of this school – making possible not only this award, but a building that has distinguished itself as being green, sustainable and healthy. Please feel free to utilize any part of this recognition and award in future brochures or newsletters.

Sincerely,

A handwritten signature in black ink that reads "David A. Mooij".

David A. Mooij
Superintendent of Schools

DAM:dmh
Enclosure



SUMMERFIELD ELEMENTARY SCHOOL NEPTUNE TOWNSHIP PUBLIC SCHOOLS

2013 NJ GREEN RIBBON SCHOOLS WINNER

From the initial planning and conceptual design to the daily instructional activities, Neptune Township's Summerfield Elementary School has made a commitment to reducing environmental impact and costs, improving student and staff health, and providing effective environmental and sustainability education. Because of this commitment, in 2007 Summerfield Elementary was honored as the first New Jersey public school to ever receive a LEED Gold Certification. Summerfield was also recognized by the Design Build Institute of America as its 2006 Project of the Year in the Legacy Category. It has also been featured in countless publications and news articles including the American School Board Journal's "Learning by Design", Geo Outlook Magazine, and a NJIT study on school designs that support the inclusion of students with disabilities.

Summerfield uses several unique and innovative technologies to reduce its environmental impact and cost. Two electric vehicle charging stations are located in parking spots near the main entrance. A Geothermal heating and cooling system utilizes variable frequency drives, flow control valves, and an energy recovery system to capture energy that would normally be lost through exhaust. Sunscreens placed over the south and west facing windows control the effects of sunlight by allowing passive solar heating in the winter, but shading the windows in the summer. Day lighting controls, occupancy sensors, and a building automation system add to the efficiency. The automation system gives the facilities director precise control and timing of heating, air conditioning, and lighting systems remotely through a mobile device 24 hours a day. This all add up to a 33% reduction in energy use.

Neptune's commitment to improve student and staff health is evident through its efforts to control and improve indoor air quality, manage chemical use, encourage fitness both in and out of the building, provide healthy meals, and educate the students about nutrition. Research finds that healthy environments are the key to improving student and staff attendance, which directly correlates to student achievement. Summerfield's ventilating system uses under-floor air distribution to continually sweep contaminants from floor to ceiling reducing asthma triggers and the spread of airborne pathogens. The Physical Education curriculum ensures that the students

receive over 150 minutes of physical education each week; over 50% of which occurs outside. To inspire even more outdoor physical activity, the Science curriculum includes hikes through the woods, gardening, and on-site marine ecology labs. The students and staff also participate in programs such as the American Heart Association's "Jump Rope for Heart" and a staff weight loss competition called the "Neptune Meltdown".

However, the most unique aspect of Summerfield is that all of these innovative technologies and programs allow the building and its campus to serve as a "living textbook". To this end, there are three Elementary Environmental Science teachers employed to teach four distinct environmental and sustainability literacy programs that engage the students in Live Event Learning. These programs include the SummerWood trips, the LEED Green Schools Curriculum, the Gardening Program, and the Marine Science Program. Students participate in a Service Learning Project to remove invasive species from SummerWood, a Green Acres Preserve adjacent to Summerfield's campus. Classes gather and record data for the NJDEP Biological Water Monitoring Program by collecting and identifying benthic macro-invertebrates present in the Jumping Brook Stream, an NJDEP Category One Stream in SummerWood. First through third grade students grow perennials to attract and support local fauna. Fourth and fifth graders design and conduct gardening experiments and then have a salad party to celebrate the fruits of their labor. Students travel to Sandy Hook and seine in the bay to collect and identify marine life just like true Marine Biologists. As an elementary school in an urban school district, Summerfield strives to rescue children from what Richard Louv calls "Nature Deficit Disorder." The Elementary Science Curriculum makes every effort to engage the students in memorable, real-life outdoor experiences to produce well-equipped, environmentally literate citizens.

During the winter months the Gardening teacher travels to the five elementary schools to do the LEED Green Schools lessons. Students do sustainability-based labs that focus on topics such as alternative forms of energy and clean water. It is during these lessons that Summerfield and its campus are utilized the most as Living Textbooks. The students learn about the building's geothermal heating and cooling system. They also are brought out to see the sunscreens that are located over the south and west facing windows. They learn how the angles of the crossbars can control the effects of sunlight by allowing passive solar heating in the winter when the sun is low in the sky, but that they shade the windows in the summer when the sun is higher in the sky. During the lesson on the importance of clean water and wise water usage, they study the school's bio-retention swale. They learn that it is planted with native vegetation so that it does not need to be irrigated and that it also acts as a rain garden buffering the campus from storm water that may come from the road.

To find out more information about the Summerfield Elementary School's Green Ribbon Schools proposal please contact:

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Mr. David A. Mooij - Superintendent, (732) 776-2200 or damooij@neptune.k12.nj.us

Josh Loveland - Depart. Chair K-6 Science, jloveland@neptune.k12.nj.us