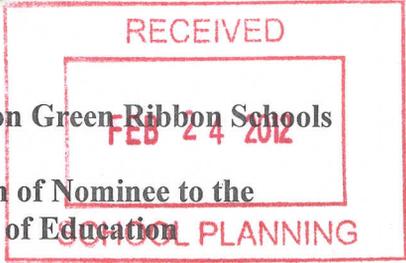




U.S. Department of Education Green Ribbon Schools
2011-2012 Presentation of Nominee to the
U.S. Department of Education



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Attach State or Nominating Authority’s Evaluation of School Nominee (Either application or other documentation of review)

OMB Control Number: 1860-0509
Expiration Date: February 28, 2015

PART I - ELIGIBILITY CERTIFICATION

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. The school achieves or comes close to achieving the goals of all three green Ribbon Pillars: 1) environmental impact and energy efficiency; 2) healthy school environments; and 3) environmental and sustainability education.
3. The school has been evaluated and selected from among schools within the state or Nominating Authority's jurisdiction (BIE, DoDEA), based on *documented achievement* toward the three Green School Pillars and Elements.
4. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
5. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
6. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
7. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
8. The school meets all applicable federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education
Green Ribbon Schools 2012

For Public Schools only: (Check all that apply) [] Charter [] Title I [] Magnet Choice

Name of Principal Dr. Gary Grandon
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name American Hebrew Academy
(As it should appear in the official records)

School Mailing Address 4334 Hobbs Road
(If address is P.O. Box, also include street address.)

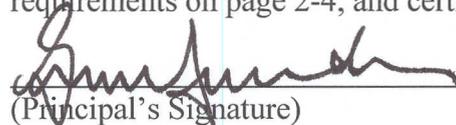
Greensboro North Carolina 27410
City State Zip

County Guilford State School Code Number* CCEB Code 341 579

Telephone (336) 217-7100 Fax (336) 217-7011

Web site/URL www.americanhebrewacademy.org E-mail ggrandon@aha-net.org

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate.

 Date 2/22/2012
(Principal's Signature)

Name of Superintendent* _____
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* _____ Tel.() _____

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate. I concur that this is one of the highest performing green school applicants in our state.

_____ Date _____
(Superintendent's Signature)

**Private Schools: If the information requested is not applicable, write N/A in the space.*

PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your state's highest achieving green school efforts in approximately 600-800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School. Be sure to note if students were actively involved in preparing the application.

This summary should be written as a stand-alone document. It will provide the ED review panel with an overview of the school's green activities that were detailed in the application to the state, DoDEA or BIE evaluators. If the school is awarded a U.S. Department of Education Green Ribbon, this information may be shared with other schools, candidates for next year, the press, and the public.

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

For the pilot year, the Nominating Authority must review nominated schools for high achievement based on the schools' *documented achievement* toward reaching the goals of each of the three U.S. Department of Education Green School Pillars and elements. For each school being nominated by the Authority to ED, please attach state (or equivalent) evaluation materials (application) based on the Nominating Authority Evaluation Support Framework provided by ED to facilitate your evaluation of schools.

The Nominating Authority must review and sign the following certification for each school being nominated to ED.

Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. The school achieves or is one of those overseen by the Nominating Authority which comes the closest to achieving the goals of all three green Ribbon Pillars:
1) environmental impact and energy efficiency; 2) healthy school environments; and
3) environmental and sustainability education.
3. The Nominating Authority has evaluated the school and selected it for submission to the U.S. Department of Education from among those schools overseen by the Nominating Authority which have applied for a Green Ribbon, based on *documented achievement*

toward the three Green School Pillars and Elements.

4. The school meets all applicable federal civil rights and federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency

North Carolina Department of Public Instruction

Name of Nominating Authority

Steve Zetts, AIA, LEED, AP, Consulting Architect

(Specify: Ms., Miss, Mrs., Dr., Mr. Other)

I have reviewed the information in this application, including the award and eligibility requirements on pages 2-4, and certify, to the best of my knowledge through a documentary verification assessment, that the school meets the provisions in this Part of the Nominee Presentation Form.

Steve Zetts AIA, LEED AP

Date MARCH 16, 2012

(Nominating Authority's Signature)

Note to Nominating Authority: The application, including the signed certifications and documentation of evaluation in the three pillars should be converted to a PDF file and emailed to Director, ED-Green Ribbon Schools at green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

**Founder**

Chico Sabbah, z"l
1929 - 2006

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Stanford, California

Part II. Summary of Achievements.**"We may be far ahead of many other schools, but that's not enough!"**

Says Glenn Drew, Executive Director of the American Hebrew Academy. Some may feel that the American Hebrew Academy's campus is environmentally friendly "by accident." Truth be told, many on campus feel that there is something that drives the environmental commitment that cannot be quantified. The Academy is a long time leader in the Green movement, as the founder of the school, Chico Sabbah z"l was an agronomist and built the campus to closely coincide with his personal commitment to Tikkun Olam (repair of the world) and Baal Tashchit (not destroying things).

Here are 9 GREEN things you may not have known about our campus:

1. When the historic gift was made to start the American Hebrew Academy, Sabbah hired an environmental arborist to identify rare trees and plants throughout the breathtaking campus.
2. Architect Aaron Green (Coincidence? We think not!), was hired to create the campus using organic architecture, a design philosophy conceived by Frank Lloyd Wright in which local building materials are used, and buildings are integrated into, and become part of, the natural landscape.
3. In 2007-08, the kitchen, at the Academy switched from buying produce from around the globe, to using locally grown and often organic produce. For an institution which serves 20 meals per child per week; cost savings, better quality, and reduction in transportation costs are all benefits in "going green." Furthermore, students, staff, and parents all agree that the food tastes fresher, and the vegetarian options are both creative and delicious.
4. The campus includes 26 buildings, all built within nature. Each building is crowned with a skylight, also manufactured in Israel, that allows the influence of natural light, proven to save energy and stimulate emotional well being.
5. Five hundred feet beneath the schools soccer stadium and running track, (which is made of recycled rubber) is the world's largest closed loop

geothermal heating and cooling system. This \$3 million dollar investment, which includes over 750 wells, continuously recycles natural water to heat and cool everything from the kosher dining hall and its refrigeration units, to the natatorium. Student houses are heated and cooled each day, but the academic buildings and athletic center "sleep" at night, so energy is conserved while buildings are not in use. At that point, the Academy will be heating and cooling at a 40% savings annually over conventional methods. As the campus grows with more students, the efficiency of the system will grow increasing costs savings to as high as 60%, all thanks to Mother Nature. Because the geothermal system takes advantage of the earth's natural temperature, as well as recycling all of the water it uses, nothing goes to waste.

6. The geothermal pump house is one of several "living classrooms" on campus. Here, students can learn about geothermal energy and earth science, not to mention being reminded about the Jewish value of Tikkun Olam, the responsibility of each person to repair the world.

7. Between the Academic buildings, sit the "Gardens of Israel" which were designed by the students, and bloom with grapes, vegetables, and trees that are cared for by students and staff, and fed by compost created from kitchen waste.

8. It is likely that one of the greatest contributors to the decrease of the "carbon footprint" that the Academy is leaving is that nearly all of the 100 acre campus is restricted to pedestrian traffic. Staff members who need to get from place to place at long distances are issued electric vehicles.

9. The campus network and many of our teachers allow students to turn in assignments and term papers electronically. When printing is required, our printers' default settings are duplex (double-sided) and economy mode for reduced use of toner.



U.S. DEPARTMENT OF EDUCATION GREEN RIBBON SCHOOLS
(Format based on Sample Scoring Rubric 2-2-2012)

SCHOOL: American Hebrew Academy

TYPE: Private

PILLAR I		PILLAR II				PILLAR III						
Element	1-5 pts	6-10 pts	11-15 pts	Element IIA	1-5pts	6-10 pts	11-15 pts	Element IIIA	1-5 pts	6-10 pts	11-15 pts	15-20 pts
5	3	2	0	11.5	4	4	3.5	17	4	4	4	5
TOTAL				TOTAL				TOTAL				
Element IB	1 pt	2-3 pts	4-5 pts	Element IIB	1-5 pts	6-10 pts	11-15 pts	Element IIIB	1-3 pts	4-5 pts		
3	1	1	1	15	5	5	5	5	3	2		
TOTAL				TOTAL				TOTAL				
Element IC	1-2 pts	3-4 pts	5 pts					Element IIIC	1-3 pts	4-7 pts	8-10 pts	
4	2	2	0					10	3	4	3	
TOTAL								TOTAL				
Element ID	1-2 pts	3-4 pts	5 pts									
5	2	2	1									
TOTAL												
17				26.5				32				

NOTE: Cross Cutting Question not included in scoring total

SCORE TOTAL

75.5

Instructions for Completing this form: Please answer all of the questions below to the best of your ability. A more complete application will increase your chances of success. You may supplement the information in these questions by describing alternative benchmarks or indicators of progress (see final question in each section). **Please note that, should your school become a finalist, you may be asked to provide documentation to verify your answers.**

Crosscutting Questions:

If your school is participating in a local, state, or nationally recognized green school program, please explain what program and what level (if applicable) your school has achieved?

The American Hebrew Academy began construction of its campus in 1999. At that time no known classification for Green Schools was available. The founder's commitment to environmentalism and ecology served as the inspiration for the school's design and operational philosophy. The campus master planner and architect was chosen because of his own design philosophy – one based upon organic architecture which allowed for the creation of the school within its existing natural environment. The utmost priority was and continues to be given to ecological sustainability and preservation which are driven by the school's mission.

If your school has received any green school, environmental, healthy school, environmental education, or sustainability education awards, please describe:

In 2011, the school was nominated as a finalist by Greensboro Beautiful, a citywide nonprofit civic organization committed to city beautification. The school has also received ongoing attention by the U.S. Dept. of State, U.S. Dept. of Energy Assistant Secretary, and numerous publications, given its environmental commitment, and most notably, for its operation of the largest closed loop geothermal heating and cooling system in the world. We have become a "destination" for visiting school officials, universities, community organizations, designers, architects, and engineers seeking to learn from what we have built. Our school embraces this opportunity and values the importance to serve and share its knowledge in hopes of inspiring others to adopt similar programs that will promote environmentalism both in school operations and curriculum.

RESOURCES: [US Green Building Council Center for Green Schools](#), [Earth Day Network's Green Schools Program](#), [National Wildlife Federation Eco-Schools USA](#), [Project Learning Tree's Green Schools!](#)

PILLAR ONE: The school has a net zero environmental impact

Element 1A: Zero greenhouse gas (GHG) emissions

ENERGY

1A1. Using the inventory module from [Clean Air Cool Planet's Campus Carbon Calculator](#) or similar green house gas calculator, what is your school's GHG emissions per person? **Baseline in 2008 - 3295 MT eCO₂/person, and in 2010 – 2982 MT eCO₂/person indicating a net decrease of 9.5%.**

Note that, while completing this inventory can be an extensive and time-consuming process, it will facilitate answering many other questions on this application form

1A2. If your school has received EPA's ENERGY STAR certification, in what year was the certification earned? **N/A**

RESOURCES: [DOE and EPA ENERGY STAR for K-12 School Districts](#),
[DOE Purchasing Specifications for Energy Efficient Products](#)

1A3. If your school has reduced your total non-transportation energy use (i.e., electricity and temperature control) from an initial baseline, please provide:

Percentage reduction: **8%**

Measurement unit used (kBtu/Square foot or kBtu/student): **2008 - 65,162 kBtu/Square foot and in 2010 – 60,177 kBtu/Square foot.**

Time period measured: **from 2008 to 2010**

RESOURCES: [EPA Portfolio Manager](#), [Database of State Incentives for Renewable Energy \(DSIRE\)](#)
[DOE's Better Building Manager](#)

1A4. What percentage of your energy consumption is derived from:

On-site renewable energy generation: Through the utilization of our geothermal energy system, energy efficient lighting, building management systems, and the use of a fleet of electric powered vehicles, we estimate we are reducing our use of traditional energy resources and demand on the grid by approximately 30%-40%, with variations depending upon heating and cooling needs driven by weather/climatic conditions

Purchased renewable energy: **0%**

RESOURCES: [Advanced Energy Design Guide for K-12 School Buildings](#),
[USGBC Center for Green Schools](#)

BUILDINGS

1A5. If your school has constructed and/or renovated buildings in the past three years, what percentage of the building area meets Leadership in Energy and Environmental Design (LEED), Collaborative for High Performance Schools (CHPS), Green Globes or other standards? **N/A - The campus and all buildings were constructed just prior to LEEDS certification becoming available.**

What is the total constructed area? **435,803 SQ.FT**

What is the total renovated area? **N/A**

Which certification (if any) did you receive and at what level (e.g. Silver, Gold, Platinum)? **N/A**

RESOURCES: [K-12 Guide to Energy Savings Performance Contracting](#)

1A6. What percentage of your school's total existing building area has achieved LEED Existing Buildings: Operation & Maintenance, CHPS Operations Report Card, Green Globes or other standards? **N/A**

What is the total building area? **N/A**

Which certification (if any) did you receive and at what level (e.g. Silver, Gold, Platinum)? **N/A**

RESOURCES: [ENERGY STAR for Federal Agencies](#)

1A7. If your school reduces or offsets the GHG emissions from building energy use, please provide:

Current Total GHG Emissions (MtCO_{2e}) **Not Available**

Baseline Total GHG Emissions (MtCO_{2e}) **Not Available**

Change from Baseline: GHG Emissions (MtCO_{2e}) **Not Available**

Time period: from: **Not Available**

Explain any offsets used? **Not Available**

RESOURCES: [DOE State Energy Program](#)

1A8. Has your school fully implemented the Facility Energy Assessment Matrix within EPA's Guidelines for Energy Management? **No.** Has the school building been assessed using the Federal Guiding Principles Checklist in Portfolio Manager? **No.**

RESOURCES: [EPA's Guidelines for Energy Management Overview](#), [EPA Portfolio Manager](#)

1A9. What percentage by cost of all your school's furniture purchases are certified under the Business and Institutional Furniture Manufacturers Association's "level" ecolabel?

RESOURCES: [BIFMA's level Standard](#)

0% ?

1A10. Does your school have an energy and water efficient product purchasing and procurement policy in place? **No.**

RESOURCES: [EPA Portfolio Manager](#)

1A11. Other indicators of your progress towards elimination of GHG emissions (describe in detail and include metrics if available): **Electric golf carts are used throughout campus for transportation and the Academy hosts the nation's largest closed loop geothermal heating and cooling system. We also utilize many energy star certified appliances in our residential facilities. SEE ATTACHED DESCRIPTION.**

Element 1B: Improved water quality, efficiency, and conservation

1B1. If you can demonstrate reduced total water consumption intensity (measured in gal/square foot) from an initial baseline, please provide: Information not available.

Percentage reduction in domestic use: 100% - The water source, our geothermal heating and cooling system, is a closed loop system which recycles 100% of all water contained in the system without the need for or dependency on other water resources.

Ninety-five percent of all buildings are designed without gutters in order to allow for natural storm water management and significantly reducing run-off into storm water sewer systems.

Percentage reduction in irrigation: 100% All irrigation needed are satisfied through use of wells on campus, eliminating the need for domestic water for this purpose.

Percentage reduction: _____%

Time period: from _____ to _____

RESOURCES: [EPA WaterSense](#)

1B2. How often does your school conduct audits of facilities and irrigation systems to ensure they are free of significant water leaks and to identify opportunities for savings? **Daily**

RESOURCES: [EPA WaterSense: Outdoor Water Use](#)

1B3. Describe how your school's site grading and irrigation system and schedule is appropriate for your climate, soil conditions, plant materials, and climate, with an emphasis on water conservation: **We use groundwater, only. To water athletic fields and for campus irrigation, no city water is used for this purpose. Natural storm water management systems maximize groundwater and runoff within the campus which includes a lake for natural storm water retention.**

RESOURCES: [EPA Drinking Water in Schools & Childcare Facilities](#)

1B4. Do all your outdoor landscapes consist of water-efficient or regionally-appropriate (native species and/or adapted species) plant choices? **Yes. The landscape and grounds maintenance program is one which was adopted as part of the campus master design. First and foremost, care was given to maximize the preservation of natural species and to create an environment for wildlife habitat. More formalized planting areas were designed with native species and water consumption in mind. The Academy is also committed to an ongoing annual tree planting program.**

If no, what percentage of the total consists of this type of plantings: _____%

Describe the type and location of plantings: **Close to 40% of the Academy's campus has remained undeveloped and is designated for preservation in its natural state, which serves to beautify the campus and create a natural wildlife habitat.**

1B5. Are alternative water sources (e.g., grey water) used before potable water for irrigation?

Yes If yes, describe these alternative water sources:

Ninety-five percent of the buildings on campus do not have gutters to allow for natural runoff, primarily in non-developed areas.

1B6. If drinking water is acquired from the school's own well, are your drinking water sources protected? Yes/No If yes, describe how they are protected: **Only city treated drinking water is used on campus.**

1B7. Does your school have a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure in drinking water) in place?

Yes/No If yes, describe this program: **Only city treated drinking water is used on campus.**

1B8. Has your school been cited within the past three years for failure to meet federal, state or local potable water quality standards? **No**

1B9. Are all taps, faucets and fountains used for drinking and cooking cleaned on a regular basis to reduce possible bacterial and other contamination; and are faucet screens and aerators regularly cleaned to remove particulate lead deposits? **Yes**
If yes, how often is such cleaning conducted? **Daily**

1B10: Describe any other ways, not addressed above, that the school is improving water quality, efficiency, and conservation:

The Academy has a 22-acre lake which we supply with carp for natural lake maintenance and control of algae and aquatic weeds. Furthermore, we do not use pesticides to control our population of Canadian Geese. We use a natural wildlife management program called Goose Masters.

GROUNDS

1B11. What percentage of your school grounds are devoted to ecologically or socially (e.g., playgrounds, outdoor spaces designed and used regularly for social interaction, athletic or recreational areas, etc.) beneficial uses, including those that give consideration to native wildlife? **100%** Describe:

Our campus was built entirely within nature with an adoptive environmental philosophy driven by the school's mission and religious teachings. We view this philosophy as a necessity and so it is incorporated into the culture and curriculum of our school. Given that we are a boarding school, our campus functions as a small community which provides significant opportunity to raise "community awareness" about the environment. With respect to teenagers, we believe we can best educate them

by first serving as living examples from which they can learn and be mentored in their role as leaders in conservation, developing new technologies to improve the world in an environmentally sensitive manner and by showing how they can impact the world either positively or negatively through their own actions.

RESOURCES: [Fish and Wildlife Service Schoolyard Habitats](#)

Element 1C: Reduced waste production

Waste

1C1. What percentage of waste is diverted from the landfill or incinerator by reuse, composting, and/or recycling: **40% of waste, and 100% of used vegetable oil, which is collected and used for biodiesel.**

Monthly garbage volume (garbage dumpster size(s) X frequency of collection): **32 cubic yards.**

Monthly recycling volume(s) (recycling dumpster sizes(s) X frequency of collection): **32 cubic yards.**

Monthly compostable materials volume(s) (food scrap/food soiled paper dumpster size(s) X frequency of collection): **4 cubic yards per month.**

Recycling rate calculation: Total monthly recycling quantity plus total monthly compostable material quantity divided by total monthly recycling, composting, and garbage quantity x 100 **53%**

RESOURCES: [EPA WasteWise Re-TRAC](#)

1C2. What percentage of total office/classroom paper content by cost is post-consumer material or fiber from forests certified as responsibly managed by the Forest Stewardship Council, Sustainable Forestry Initiative, American Tree Farm System or other certification standard: **30%** (If a paper is only 30% recycled, only 30% of the cost of that paper should be counted towards the recycled portion.) Which standard did you use? **Sustainable Forestry Initiative, FSC and Green Seal certified.**

1C3. What percentage of total office/classroom paper content by cost is "totally chlorine-free" (TCF) or "processed-chlorine-free" (PCF) ? **N/A**

Hazardous waste

1D1. How much hazardous waste does your school generate? **N/A**

How was this calculated? _____

List each hazardous waste and the amount of each present at the end of the year: **Chemicals, batteries, light bulbs, ballasts (amounts not available)**

1D2. How does your school monitor hazardous waste?

Fluorescent bulbs, ballasts, and batteries are held in secure locations in our warehouse and are recycled regularly.

RESOURCES: [CDC Hazardous Waste Self-Management Checklist](#) , [Tennessee School Lab Chemical Cleanout Campaign Inventory](#), [Design for the Environment](#)

1D3. Is a Hazardous Waste Policy for storage, management and disposal of chemicals in laboratories and other areas with hazardous waste in place and actively enforced? **Yes**

1D4. Has your school been cited within three years for improper management of hazardous waste according to Federal and State regulations? **No**

1D5. What percentage of total computer purchases by cost are Electronic Product Environmental Assessment Tool (EPEAT) certified products: **N/A** % How does your school dispose of unwanted computer and other electronic products? **Appropriate computer recyclers take care of disposing (including electronics, toners, etc...)**

RESOURCES: [EPEAT](#), [EPA Reducing Risk From Hazardous Waste](#)

1D6. What percentage by cost of all cleaning products in use are "third party certified" green cleaning products? ? **50%** Which standard(s) are you using? **Greal Seal, CRI Green Label Program**

RESOURCES: [Consumer Reports](#) on Ecolabels

1D7. Has your custodial program been certified by the ISSA Cleaning Industry Management Standard - Green Building (or an equivalent standard): **No**

RESOURCES: [ISSA Cleaning Industry and Management Standards](#)

1C8. Describe any other indicators, not included above, of the school's reduction of solid waste and elimination of hazardous waste: **N/A**

Element 1D: Use of alternative transportation to, during and from school

1D1. What percentage of students walk, bike, bus, or carpool (2+ students in the car) to/from school? % Describe how this information been collected and calculated: **The Academy is a 100-acre pedestrian campus. Eighty-percent of our students are residential and of the remaining 20%, about half carpool to and from school. Several faculty members bike or walk to campus from off-site on a daily basis.**

RESOURCES: [DOT Pedestrian & Bicycle Safety](#)

1D2. Does your school have a no-idling policy on file and signs posted stating that all vehicles, including school buses and other vehicles dropping off and picking up students, are prohibited from idling on school premises? **No need given that we are a predominantly pedestrian campus**

RESOURCES: [EPA Clean School Bus USA](#)

1D3. Are all vehicles loading & unloading areas at least 25 feet away from all buildings air intakes (including doors and windows)? **Yes**

1D4. Describe how your school transportation use is efficient and environmentally benign (e.g. the percentage of school-owned electric/hybrid/alternative fuel vehicles in your fleet, or other indicators of significant reductions in emissions): **The School owns 45 electric vehicles which is the only form of transportation allowed on campus upon entrance to the school grounds.**

RESOURCES: [CHPS Transportation Plan](#)

1D5. Have "Safe Pedestrian Routes" to school or "Safe Routes to School" been designated, distributed to parents and posted in the main office? **Yes**

RESOURCES: [Safe Routes to Schools](#)

1D6. Describe any other accomplishments your school has made under Pillar One towards eliminating its negative environmental impact or improving your environmental footprint which you feel should be considered:

Because of the Academy's residential nature, we serve 20 meals per child per week. We regularly compost fruit and vegetable matter on campus in a designated area. Our kitchen maximizes procurement of locally grown produce. All of our buildings are equipped with skylights to reduce energy usage and create a more inviting interior living space utilizing natural sunlight. Buildings which are not used or occupied all day are regularly "put to sleep" and "woken up" in order to assure maximum energy savings via energy management and building systems. The Academy hosts the nation's largest closed loop geothermal heating and cooling system, **see attached.**

PILLAR TWO: The school environment has a "net positive" impact on student and staff health

Element 2A: An integrated school environmental health program based on an operations and facility-wide environmental management system that considers student and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds

RESOURCES: Many of the questions under Pillar Two can be better understood and answered by using [EPA's Healthy Schools Environments Assessment Tool](#)

Integrated Pest Management

2A1. Does your school have an integrated pest management plan in effect to reduce or eliminate pesticides? **Yes, our pest management program uses green label products.**

2A2. Does your school provide notification of your pest control policies, methods of application and requirements for posting and pre-notification to parents and school employees? **No, we treat student living areas during breaks.**

2A3. Does your school maintain annual summaries of pesticide applications, copies of pesticide labels, copies of notices and MSDSs in an accessible location? **Yes, our pest management company keeps labels and MSDs in their locations.**

2A4. Does your school prohibit children from entering the pesticide area for at least 8 hours following the application or longer, if feasible, or if required by the pesticide label? **Yes**

RESOURCES: [EPA Integrated Pest Management for Schools](#), [Beyond Pesticides Model School Policy](#)

Ventilation

2A5. Does your school meet the stricter standard of: ASHRAE Standard 62.1-2010 (Ventilation for Acceptable Indoor Air Quality) OR your state or local code? **No Info Available** If yes, which standard is your school using?

2A6. Are local exhaust systems (including dust collection systems, paint booths, and/or fume hoods) installed at all major airborne contaminant sources, including science labs, copy/printing facilities, chemical storage rooms? **Yes**

2A7. Has your school installed energy recovery ventilation systems where feasible to bring in fresh air while recovering the heating or cooling from the conditioned air? **Yes, the Academy's Athletic Center and Natatorium are equipped with duct socks which allow us to circulate fresh air into the building several times an hour and maximize "healthy building" technology to minimize the potential for mold and bacteria growth. The Natatorium operates using a separately dedicated ventilation (HVAC) system to contain chlorine atmospheric transfer and humidity.**

RESOURCES: [EPA Indoor Air Quality Tools for Schools](#)

Contaminant Controls

2A8. Radon: Have all ground-contact classrooms been tested for radon within the past 24 months: **No information available. No indicators requiring need at this time.**

What percentage of all classrooms with levels greater than 4 pCi/L have been mitigated in conformance with ASTM E2121? _____%

RESOURCES: [EPA Radon Information](#)

2A9. Carbon Monoxide (CO): If your school has combustion appliances, does your school have an inventory of all combustion appliances and does your school annually inspect these appliances to ensure no release of Carbon Monoxide (CO)? **Yes.**

Are CO alarms installed which meet the requirements of the National Fire Protection Association code 720? **No, but we do have detectors for the hydrogen fumes that could be emitted by golf cart batteries.**

2A10. Mercury: Have all unnecessary mercury containing devices been replaced with non-mercury devices? **No Mercury containing devices were purchased for science department.**

Does your school recycle or dispose of unwanted mercury laboratory chemicals, mercury thermometers, gauges and other devices in accordance with federal, state and local environmental regulations: **Not Applicable**

RESOURCES: [EPA Schools and Mercury](#)

2A11. Chromated Copper Arsenate (CCA): Have all wooden decks, stairs, playground equipment or other structures treated with Chromated Copper Arsenate been either removed or sealed within the past 12 months? **We have no items treated with CCA.**

L. Secondhand Tobacco Smoke: Is smoking prohibited on campus and school buses? **Yes, we have a smoke free campus.**

RESOURCES: [CDC Guidelines for School Health Programs to Prevent Tobacco Use](#)

2A12. Asthma Control: Does your school have an asthma management program in place consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools Guidelines? **Yes, all children who have Asthma have an Asthma action plan completed by their physician, and managed closely by our nursing team. If a teacher encounters a child with respiratory difficulty, they are instructed to contact one of our on site nurses immediately (or call them if they are off site).**

RESOURCES: [EPA Managing Asthma in Schools](#), [CDC Tools for Making Your School Asthma-Friendly](#)

2A13. Indoor Air quality: Have you developed and implemented a comprehensive indoor air quality management program consistent with IAQ Tools for Schools? **No**

RESOURCES: [EPA Indoor Air Quality Tools for Schools](#)

2A14. Moisture Control: Are all structures visually inspected on a regular basis and free of mold, moisture & water leakage? **Yes** Is indoor relative humidity maintained below 60% (cold climates during freezing temperatures should target 20-30%)? **Yes** Are moisture resistant materials/protective systems installed (e.g., flooring, tub/shower, backing, and piping)? **Yes**

RESOURCES: [EPA Mold Remediation in Schools and Commercial Buildings](#)

2A15. Chemical Management: Does your school have a chemical management program in place that includes the following elements:

- Chemical purchasing policy, including low- or no-VOC products
- Chemical inventory
- Storage and labeling
- Training and handling
- Hazard communication
- Spills, clean-up and disposal

-Select EPA's Design for the Environment - approved cleaning products

Yes

Explain- In addition to our chemical management and facilities we also have an academic chemical hygiene plan in place. Our purchasing policy goes beyond low-no-VOC. We adhere to a policy of minimal use: ordering and storing only what is needed for medium term use and use of micro volumes in experiments. We maintain an updated chemical hygiene plan (CHP) and properly label, organize, and store inventory that adheres to OSHA standards. All new and current employees are regularly trained in proper storage, use, handling and disposal of chemicals.

Element 2B: High standards of nutrition, fitness, and quantity of quality outdoor time for both students and staff

Food and Nutrition

2B1. Has your school earned USDA's Healthier US School Challenge award for school food? **NO**

List award level earned:

RESOURCES: [USDA HealthierUS School Challenge](#)

2B2. What percentage (by cost) of food purchased is certified as "environmentally preferable" (e.g. Organic, FairTrade, Food Alliance, Rainforest Alliance, etc.)? **100% of the food served on campus is Kosher which has traditionally been an ethical way of treating food and animals. However, since there is no Kosher butcher in any of our neighboring states, we are required to bring our meat and occasional other products from more than 200 miles away. In addition 10.5% of our vegetables are certified in this way.**

RESOURCES: [USDA Farm to School Program](#)

2B3. What percentage (by cost) of food purchased is grown and processed within 200 miles of the school (including food grown on school grounds)? **We estimate roughly 27% of our food, and produce.**

Does the school have an onsite garden in which the students participate? **Yes**

RESOURCES: [USDA Agriculture In the Classroom](#)

2B4. Does the school have an onsite food garden? **Yes**

If yes, does the school garden supply food for the school cafeteria? **Yes, when available. It also supplies quantities during the growing season to the local food bank.**

RESOURCES: [Edible School Yard Project](#)

Physical Education, Outdoor Opportunities, and UV Safety

2B5. What percentage of students over the past year engaged in at least 150 minutes of school-supervised physical education and/or outdoor time per week? **100%**

2B6. What is the average amount of time over the past year that each student engages in school-supervised physical education (including outdoor time) per week? **212 minutes/week**

2B7. What percentage of school-supervised physical education is spent outdoors? **66%**

RESOURCES: [The President's Challenge](#), [The First Lady's Let's Move!](#)

2B8. What percentage of your current student body has participated in EPA's Sunwise Program or an equivalent program regarding UV protect and skin health? **100%**

RESOURCES: [EPA Sunwise Program](#)

Coordinated School Health, Mental Health, School Climate, and Safety

2B9. Does the school use a Coordinated School Health approach or other health related initiatives to address overall school health issues? **Yes**

If yes, describe the health related initiatives or approaches used by the school:

Wellness classes formally address physical and emotional well-being of students in their curriculum during the freshman and sophomore years. Nurses, and our mental health counselor, regularly meet with groups of students to discuss timely topics such as infection control, adolescent developmental issues, and safety. The Health Center staff is always available to educate and intervene as necessary with individual student needs and to answer questions. Our Health Center maintains excellent relationships with local health care providers. Transportation to these providers is available for free to students. Both the medical director and a group of physicians and nurses are available to discuss issues of medical/health concerns. The Director of Health Services is a member of NASN (National Association of School Nurses) and regularly reviews position papers, list serves, and other NASN advisories. Additionally, the Health Center receives weekly information from School Health Alert, the Allergy and Asthma Association, and the CDC. The Licensed Professional Counselor has been invited to participate as a collaborating investigator in the American Psychiatrist Association's process of creating the DSM-5.

2B10. Does the school partner with any community groups to support student health and/or safety? **Yes**

If yes, describe these partnerships: **We partner with the local mental health association for education regarding emotional illness and suicide prevention. We also partner with the police department to educate our students regarding risks and negative outcomes of substance abuse, and drunk driving. We utilize local nutritionists to meet and educate students who may have eating or nutritional health concerns. Our local health department has helped us educate students on issues of sexuality and self-esteem.**

2B11. Describe any other measures regarding the school's built and natural environment that your school takes to protect student and staff health and which you feel should be considered:

The Academy 's Health Center provides the services of a full-time RN staff who are available 24/7 to address the health-related needs of our students. The LPC provides services during the school day and is also on call 24/7. The Health Center is a free-standing facility with private rooms and a negative pressure isolation chamber. The floor of the Health Center has been constructed of a special anti-bacterial material. Flu immunizations are available at the Health Center to students and staff. Faculty and staff are welcome at the Health Center for individual blood pressure and blood sugar screening as well as individual physical and emotional counseling. A safety committee apprised of all department heads meets three times a year (or as needed) to discuss safety issues on campus.

PILLAR THREE: 100% of the school's graduates are environmentally and sustainability literate

Learning and Environmental Literacy

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems

3A1. What percentage of last year's graduates scored proficient or better during their high school career on state or school:

environmental education assessments? _____%

sustainability assessments? _____%

environmental science assessments ? _____%

Briefly describe the assessment(s): **We do not administer these specific assessments, but all 4-year graduates are required to take and pass Biology I, which has core curricular components which support these objectives. One of the five major units of study, shown below, is focused on energy and human systems. Objectives: Investigate and analyze the interrelationships among organisms, populations, communities, and ecosystems,(field ecology techniques, abiotic and biotic factors, carrying capacity); analyze the energy flow and matter cycling in the ecosystem (biogeochemical cycles and trophic levels); assess and explain human activities that influence and modify the environment such as global climate change, population growth, pesticide use, and water and power consumption; relate plant adaptations, including tropisms, to the ability to survive stressful environmental conditions; relate animal adaptations, including behaviors, to the ability to survive stressful environmental conditions; consider historical significance of population growth and its environmental impact.**

3A2. Does your school or your state have an environmental or sustainability literacy graduation requirement? Yes/No Describe: **We do not specifically have an environmental sustainability literacy graduation requirement, but all 4-year students are required to take the Biology I course with relevant unit shown above, so our value for that education is evident, though not formally organized as described above.**

3A3. Are environmental and sustainability concepts integrated throughout the curriculum? Yes. Describe: **This is a key theme for us especially as we attempt to draw in the interdisciplinary connections with Israel. We incorporate concepts of water sustainability in Biology and Chemistry, concepts related to food sustainability in Biology and AP Biology, and energy sustainability across all sciences. We also periodically offer a course that integrates Judaism and ecology "EcoJudaism" to explore connections between the spiritual values and scientific objectives.**

RESOURCES: [State Education & Environment Roundtable](#), [Excellence in Environmental Education: Guidelines for Learning \(K-12\)](#)

3A4. If your school is a high school, what percentage of your eligible graduates last year had completed Advanced Placement Environmental Science during their school career? _____% What percentage of these students scored 3 or better on the Advanced Placement Environmental Science assessment? _____%

Three students sat for the AP Environmental Science exam last year and all three scored 3 or higher. Of 32 graduates, the 3 students represented about 9% of the graduating class.

RESOURCES: [Advanced Placement Environmental Science](#)

3A5. If neither your state or school conduct environmental science, sustainability or environmental education assessments, what percentage of your students scored proficient or better on science

education assessments in the last year? _____% **Using our standard that all of our graduates take and pass Biology I, all students earn proficient scores.**

3A6. Are teacher professional development opportunities in environmental and sustainability education provided for all teachers in your school? Yes/No

Describe these professional development opportunities including the number and percentage of teachers who participated in these over the last 2 years:

Such opportunities are made available as needed/ requested.

3A7. Does your school's environmental education program pay particular attention to scientific practices, such as asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations, and engaging in argument and applications based on evidence: **Yes.**

Our science department focuses on higher level skills such as development of models to represent relationships, experiential learning, and extrapolation of data from data collected so that application is better understood.

3A8. Do your students have meaningful outdoor experiences (an investigative or experiential project that engages students in critical thinking, problem solving and decision making) at every grade level?

Yes/No If not in all grades please specify which grades: **Students across all grades have the opportunity for outdoor experiences in an outdoor classroom, on the 100-acre campus, or with the 22-acre lake that is adjacent to our campus. Primary use occurs in Biology I (11th grade), AP Biology (12th grade), and Science Research Internship (12th grade).**

Element 3B: Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy

3B1. Do your students matriculate or graduate with a robust general science education that includes a deep understanding of life, physical, and earth sciences? **Yes. Our science department sequence of study begins with Physics first so that students are best equipped for laboratory work and data collection from the high proportion of concrete opportunities available. Our science department is regarded as the most rigorous at the school.**

How many hours per week on average do students spend in science content classes? **At a minimum, students in grades 9-11 taking a single science course spend 4 hours per week in a science class. For 12th graders who take two science courses, that number increases to 8 hours per week. 7 seniors are taking an additional Science Research Internship, bringing their number of contact hours to 12 hours per week.**

3B2. If your school is a high school, does your curriculum provide a demonstrated connection between classroom content and college and career readiness, particularly to post-secondary options that focus explicitly on environmental and sustainability fields, studies, and/or careers? **Yes.**

Describe these college and career connections: **We have developed a course, Science Research Internship, that is designed to place students in research labs at the University of North Carolina at Greensboro as interns. Students there are investigating a variety of topics dealing with disease vectors, optimal sustainable grasses for cattle feeding, and protein analysis.**

Community and Civic Engagement

Element 3C: Development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community

3C1. Are all students required to conduct an age-appropriate, self-selected civic/community engagement project at every grade level? **Yes.** If not in all grades, please specify which grades:

All students are required to complete a minimum of 18 hours of community service per year.

What percentage of these projects focused on environmental or sustainability topics? **15%**

What percentage of students satisfactorily completed such a project last year: **20%**

3C2. What percentage of last year's graduates scored proficient or better on a community or civic engagement skills assessment? **Not Applicable**

RESOURCES: [Sample Civic Engagement Skills Assessment](#)

3C3. Does your school partner with local academic, businesses, government, nonprofits, informal science institutions and/or other schools to help advance your school, other schools (particularly schools with lesser capacity in these areas), and community toward the 3 Pillars? Yes/No

Briefly describe the scope and impact of these partnerships:

We have developed a course, Science Research Internship, that is designed to place students in research labs at the University of North Carolina at Greensboro as interns. Students there are investigating a variety of topics dealing with disease vectors, optimal sustainable grasses for cattle feeding, and protein analysis.

3C4. Does your school provide outdoor learning opportunities for students (e.g. outdoor classrooms)? Yes/No

If yes, describe how outdoor learning is used to teach an array of subjects in context, engage the broader community, and develop civic skills:

Students across all grades have the opportunity for outdoor experiences in an outdoor classroom, on the 100 acre campus, or with the 24 acre lake that is adjacent to our campus. Primary use occurs in Biology I (11th grade), AP Biology (12th grade), and Science Research Internship (12th grade).

RESOURCES: [Fish and Wildlife Service Schoolyard Habitats](#)

3C5. What other indicators or benchmarks (quantified whenever possible) of your progress towards the goal of 100% of your graduates being environmental and sustainability literate does your school feel should be considered by the review committee?



GEOTHERMAL FACT SHEET

The American Hebrew Academy is home to one of the largest geothermal energy systems in the world. Our commitment to energy conservation, fiscal responsibility and tikkun olam are reflected in our geothermal investment and educational philosophy. Geothermal power is green and clean. It produces almost no carbon emissions and uses one third the land needed for solar or wind power alternatives.

- At the time of its construction in 2001, the American Hebrew Academy operated the largest water-sourced closed loop geothermal system in the world.
- The system is currently used to heat and cool 440,000 thousand square feet in 29 buildings. It has the capacity to heat 50 buildings and 700,000 thousand square feet to allow for growth at the Academy.
- Five hundred feet below the earth's surface a constant temperature of 50-55 degrees Fahrenheit is maintained by Mother Nature, regardless of the temperature above ground. Geothermal Heat Pumps (GHPs) harness this constant temperature and use it to heat and cool buildings at a substantially lower cost than conventional electric, gas or oil systems. Unlike solar or wind turbine alternative energy systems, geothermal energy is not impacted by weather conditions.
- The American Hebrew Academy's decision to install a geothermal system has paid off by reducing heating and cooling costs by as much as 30 percent. Future growth will generate even greater energy and cost savings as economies of scale increase.
- The energy savings attributed to current system operations is estimated to pay for the added capital installation cost by Spring 2013.
- The American Hebrew Academy system has 756 wells approximately 500 feet deep located under the main soccer and baseball fields and 5,280 feet of distribution pipe across the 100 acre campus. Each well handles three tons of heat transfer and is equivalent to one conventional residential air conditioning unit.
- The American Hebrew Academy's geothermal system is capable of cooling and heating buildings for 1,000 students on a 90 degree Fahrenheit day.
- Average geothermal energy savings are between 30-70 percent below conventional heating/cooling costs as reported by the GeoExchange Heat Pump consortium.
- Because the system is "closed loop", all of the water that circulates through the pipes is constantly recycled. Three 200 horsepower pumps circulate water in the system.
- Our geothermal water is tested monthly for algae and bacteria. No glycol or other anti-freeze agents are required. The system is registered and monitored by the North Carolina Department of Environment & Natural Resources.
- The Israeli company ORMAT, headquartered in Yavne, is the largest operator of geothermal facilities around the world.
- The United States now leads the world in the production of geothermal power with 3,087 megawatts of energy in 2010 followed by Philippines, Indonesia, Mexico and Italy. Per capita, Iceland utilizes the most geothermal energy in the world, virtually 100% for heat & hot water domestic and commercial needs.