The opening of Hillsborough Community College’s fifth campus, the SouthShore Center, marks an exciting milestone for the college and will open an exciting new chapter for the residents of southern Hillsborough County. Great thought and planning have gone into this campus, and I am very excited for the opportunities that it will bring to the many constituencies of the surrounding area. Our District Board of Trustees, administration, faculty, and staff have all worked diligently to bring this community access to the high quality programming that HCC has been offering for over forty years, and I am pleased that you are here to see it first hand.

I would like to thank the Dickman family of Ruskin for their incredibly generous contribution of the 60 acres upon which this facility now stands. It is an enormous gesture of their faith in HCC to make such a contribution and is a testament to their family’s long-standing philanthropy and understanding of the importance that education can play in creating a vibrant community.

This facility was built to meet the standards set forth by the United State’s Green Building Council’s Leadership in Energy and Environmental Design (LEED) standards. HCC is the first community college in Florida that has designed and constructed a “green” campus. The SouthShore Center will serve as a wonderful environment for the community to learn about renewable energy and sustainable design, in addition to serving as a demonstration of HCC’s commitment to being thoughtful stewards of the environment. This publication will take you through the facility highlighting the unique aspects of its design.

I hope that you enjoy your visit to the SouthShore Center and all that it has to offer.

Gwendolyn W. Stephenson, Ph.D.
HCC President
SouthShore Center represents a bold commitment to sustainable building design and operations. As Campus President I am honored to further that commitment by promoting our campus as a stellar example of green building concepts. Designed and constructed for LEED certification (Leadership in Energy and Environmental Design), the SouthShore Center incorporates a number of sustainable features, including a rainwater recycling process to service all of our restrooms with non-potable water, a raised-floor HVAC system that provides greater efficiencies for cooling, maximum use of natural light combined with the latest in lighting technology to reduce electrical dependence, and landscaping with all-native plantings to virtually eliminate the use of chemicals and fertilizers.

Educating our students, future students, and the greater SouthShore communities to the importance of preserving and sustaining our environment is one of SouthShore’s major commitments. We welcome all visitors and guests to our facility to show them how we have integrated award-winning aesthetic design with earth-friendly, energy-conscious functionality.

George F. Keith, Ph.D.
Campus President, HCC SouthShore
Hillsborough Community College has committed to building the SouthShore campus according to the standards promoted by the U.S. Green Building Council (USGBC) and to follow its rating system known by the acronym “LEED” (Leadership in Energy and Environmental Design).

The USGBC is a non-profit organization composed of leaders from every sector of the building industry working to promote buildings and communities that are environmentally responsible, profitable, and healthy places to live and work.

LEED is the USGBC’s voluntary, consensus-based national standard expressed as a comprehensive rating system to assist the industry in evaluating all aspects of a building. The intention is to promote the development of high-performance, sustainable facilities.

Environmental Responsibility and Sustainability

The categories in the rating system are:

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality
- Innovation & Design Process
Symbol Key

SUSTAINABLE SITES

1. Construction Activity Pollution Prevention
   Reduces pollution from construction activities by controlling soil erosion, water-
   way sedimentation and airborne dust generation. An erosion and sedimentation
   control plan was generated and implemented prior to construction.

2. Site Selection
   Encourages selection of appropriate sites and reduces the environmental impact
   by the proper location of the building on the site. This building was sited after
careful review of the slough, grade, sun and road orientation.

3. Alternative Transportation: Public Transportation Access
   Reduces pollution and land development impacts from automobile use by locat-
   ing building near alternate transportation. This project is located within 1/4 mile
   of one or more stops for two public or campus bus lines usable by building oc-
   cupants.

4. Alternative Transportation: Bicycle Storage &

5. Changing Rooms
   Reduces pollution and land development impacts from automobile use by provid-
   ing facilities for bike riders. Bicycle racks and showers have been provided for 5%
or more of the building occupants.

6. Alternative Transportation: Low-Emitting & Fuel Efficient
   Vehicles
   Reduces pollution and land development impacts from automobile use by encour-
   aging clean vehicle use. Preferred parking has been provided for low emitting and
   fuel efficient vehicles for 5% of the total vehicle parking capacity.

7. Alternative Transportation: Parking Capacity - Carpooling
   Reduce pollution and land development impacts from automobile use by encour-
   aging carpooling. Preferred parking has been provided for carpool vehicles for 5%
of the total vehicle parking capacity.

8. Site Development: Protect or Restore Habitat
   Conserves existing natural areas and restores damaged areas to provide habitat
   and promote biodiversity. A minimum of 50% of the site area was protected or
   restored with native or adapted vegetation.
9. Site Development: Maximize Open Space
Provides a high ratio of open space to development footprint to promote biodiversity. This project provides open space adjacent to the building that is equal to the building footprint.

10. Stormwater Management: Quantity Control 1
Limits disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, and managing stormwater runoff. Pervious paver blocks are used for much of the parking to increase filtration of runoff.

11. Stormwater Management: Quality Control 2
Reduces or eliminates water pollution by reducing impervious cover, increasing onsite infiltration, eliminating sources of contaminants, and removing pollutants from stormwater runoff. A large pond was designed to store runoff water and the parking island swales allow vegetation to treat and filter runoff.

12. Heat Island Effect: Non-Roof
Reduces heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impacts on microclimate and human and wildlife habitat. Porous parking pavers and the generous use of trees reduces the amount of heat created by the project.

13. Heat Island Effect: Roof
Reduces heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impacts on microclimate and human and wildlife habitat. The entire roof of this project is white to reflect rather than absorb the sun’s heat.

14. Light Pollution Reduction
Minimizes light trespass from the building and site, reduces sky-glow to increase night sky access, improves nighttime visibility through glare reduction, and reduces development impact on nocturnal environments. All exterior lighting is directed down or prevented from shining into the sky as well as off of the project property.

**WATER EFFICIENCY**

15. Water Efficient Landscape
Limits or eliminates the use of potable water, or other natural surface or subsurface water resources available on or near the project site, for landscape irrigation. The large pond is used for storing runoff water for landscape irrigation.

16. Innovative Wastewater Technologies
Reduces generation of wastewater and potable water demand, while increasing the local aquifer recharge.
17. Water Use Reduction
Minimizes water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems. All water fixtures are low-flow fixtures.

ENERGY & ATMOSPHERE

18. Fundamental Commissioning of The Building Energy Systems
Verifies that the building’s energy-related systems are installed, calibrated and perform according to the owner’s project requirements, basis of design, and construction documents. The building will be fully commissioned upon completion and will be monitored for 18 months to ensure maximum functionality.

19. Minimum Energy Performance
Establishes the minimum level of energy efficiency for the proposed building and systems. Energy performance is designed to meet and exceed this minimum.

20. Fundamental Refrigerant Management
Reduces ozone depletion. There is zero use of CFC-based refrigerants in the building’s HVAC system.

21. Optimize Energy Performance
Achieves increasing levels of energy performance above the baseline in the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use. This building reduces its energy use 25% above the baseline to achieve 5 out of the 10 available credits. Light sensors have been employed to work in conjunction with the glazing to dim the lights when enough natural light is present. The lights are designed to dim and therefore not use electricity when the correct level of light is present.

22. On-Site Renewable Energy
Encourages and recognizes increasing levels of on-site renewable energy self-supply in order to reduce environmental and economic impacts associated with fossil fuel energy use. This project is designed to make use of photovoltaic (solar) panels.

23. Enhanced Refrigerant Management
Reduces ozone depletion and supports early compliance with the Montreal Protocol while minimizing direct contributions to global warming. This was done by selecting refrigerants that minimize or eliminate the emissions of compounds that contribute to ozone depletion and global warming.
MATERIALS & RESOURCES

24. Storage & Collection of Recyclables
Facilitates the reduction of waste generated by building occupants that is hauled to and disposed of in landfills. There are easily accessible areas, serving the entire building, dedicated to the collection and storage of materials for recycling. Paper, glass, plastics and metals are collected on site and stored.

25. Construction Waste Management
Diverts construction, demolition and land clearing debris from disposal in landfills and incinerators. Redirects recyclable recovered resources back to the manufacturing process. Redirects reusable materials to appropriate sites. At least 50% of the construction waste was diverted from landfills.

26. Recycled Content
Increases demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials. Materials have been used that contained recycled content. Credit 4.1 is based on 10% of the material used in the building recycled content. Credit 4.2 is based on 20% of the material used in the building having recycled content. The building materials for this project, based on cost, make up more than 20% recycled content.

27. Regional Materials
Increases demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation. This building uses materials and products that have been extracted, harvested and recovered as well as manufactured, within 500 miles of the project site for a minimum of 10% of the materials value.

28. Rapidly Renewable Materials
Reduces the use and depletion of finite raw materials and long-cycle renewable materials by replacing them with rapidly renewable materials. Based on cost, 2.5% of this building uses rapidly renewable materials.

INDOOR ENVIRONMENTAL QUALITY

29. Minimum Indoor Air Quality Performance
Establishes minimum indoor air quality (IAQ) performance to enhance indoor air quality in buildings, thus contributing to the comfort and well-being of the occupants. The purpose of this standard is to specify minimum ventilation rates for indoor air that is intended to minimize the potential for adverse health effects. This building has been designed to meet this performance level.
30. Environmental Tobacco Smoke Control - Breathe Easy Campus
Minimizes exposure of building occupants, indoor surfaces, and ventilation air distribution systems to Environmental Tobacco Smoke (ETS). The SouthShore campus of Hillsborough Community College has gone a step further by making the campus a Breathe Easy Campus. This entire campus has been designated as non-smoking.

31. Outdoor Air Delivery Monitoring
Provides capacity for ventilation system monitoring to help sustain occupant comfort and well-being. A permanent monitoring system has been installed to provide feedback on the ventilation system performance to ensure the ventilation systems maintain design minimum ventilation requirements.

32. Construction Indoor Air Quality Management Plan:
During Construction
Reduces indoor air quality problems resulting from the construction/renovation process in order to help sustain the comfort and well-being of construction workers and building occupants. An Indoor Air Quality (IAQ) Management Plan has been developed and implemented. The Management Plan keeps contaminants from entering the building envelope.

33. Construction Indoor Air Quality Management Plan:
Before Occupancy
Reduces indoor air quality problems resulting from the construction/renovation process in order to help sustain the comfort and well-being of construction workers and building occupants. After construction ended, prior to occupancy with all the interior finishes installed, a building flush-out was performed by supplying a total air volume of 14,000 cu. ft. of outdoor air per sq. ft. of floor area while maintaining an internal temperature of at least 60 degrees Fahrenheit and relative humidity no higher than 60%.

34. Low Emitting Materials: Adhesives & Sealants
Reduces the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants. All adhesives and sealants used in this building’s construction meet the requirements to be low emitting.

35. Low Emitting Materials: Paints & Coatings
Reduces the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants. All of the paints and coatings used on the interior of the building do not exceed the Volatile Organic Compound (VOC) limits established by Green Seal.

36. Low Emitting Materials: Carpet Systems
Reduces the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants. All carpet installed in this project meets the Carpet and Rug Institute’s Green Label Plus Program.
37. Low Emitting Materials: Composite Wood & Agrifiber
Reduces the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants. There is no added urea-formaldehyde used in any of the composite wood or agrifiber products within the building.

38. Controllability of Systems: Lighting
A high level of lighting system control by individual occupants or by specific groups in multi-occupant spaces (classrooms and conference areas) promotes the productivity, comfort and well-being of building occupants. Individual lighting controls have been provided for at least 90% of the building occupants to enable adjustments to suit individual task needs and preferences.

A high level of thermal comfort system control by individual occupants or by specific groups in multi-occupant spaces (classrooms and conference areas) promotes the productivity, comfort and well-being of building occupants. Individual comfort controls have been provided to at least 50% of the building occupants.

40. Thermal Comfort: Design
Provides a comfortable thermal environment that supports the productivity and well-being of building occupants. A comfort criterion has been established that supports the desired quality and occupant satisfaction with building performance.

41. Thermal Comfort: Verification
Provide for the assessment of building thermal comfort over time. A survey with a rating system has been developed that can be applied to a set of outlined corrective measures. The survey is implemented between the sixth month after occupancy and the 18th month after occupancy.

42. Daylight & Views: Daylight for 75% of Spaces
Provides for the building occupants a connection between the indoor spaces and the outdoors through the introduction of daylight into the regularly occupied areas of the building. A minimum glazing factor of 2% in a minimum of 75% of the regularly occupied areas is required. The building achieves a minimum glazing factor of 2% in well over 77% of the regularly occupied areas.

43. Daylight & Views: Views for 90% of Spaces
Provides for the building occupants a connection between the indoor spaces and the outdoors through the introduction of views into the regularly occupied areas of the building. A minimum glazing factor of 2% in a minimum of 75% of the regularly occupied areas is required. The building achieves a minimum glazing factor of 2% in 99+% of the regularly occupied areas.
44. Innovation in Design: Reduce Waste Conveyance by Water by 100%
The need for utility-treated water in sewage conveyance has been totally eliminated. Through the use of low flow and dual flush water closets and urinals, total wastewater demand is reduced. A rainwater collection system allows treated/filtred on-site collected water to make up 100% of the conveyance needs for the building.

45. Reduce Water Use in Showers, Lavatories, Mop Sinks & Kitchen by 40%
The building uses low flow water closets, urinals, showers and sink fixtures. Uses on-site water collection for sewage conveyance fixtures. The total water savings is 80% over baseline.

46. Ecological Water Treatment Train for Water Management System
The project site was designed to provide a stormwater conveyance system based on hydrologic and ecological principles of natural systems. A treatment train approach provides for movement of stormwater through a vegetated system of swales, ponds and created wetlands. The end result is improved water quality beyond that mandated by regulatory stormwater approaches or LEED stormwater credits. Florida has some of the most progressive stormwater quality rules in the nation. The LEED credit requirements for stormwater quality can easily be met with a conventionally designed stormwater pond using biological assimilation. This project goes beyond these minimum requirements to create a bold and robust natural treatment system. Currently this innovative approach is not counted toward meeting state water quality standards. Attaining LEED credits for this methodology will encourage more developers as well as regulatory agencies to consider this technology in the future.

47. Experiencing Sustainability
The intent is to illustrate the how and why a sustainable environment is vital to its users. The guidebook, directory and tours reinforce the culture of sustainability. The approach is to enlighten through the culture of the educational environment. Exposing the occupants to the building and environment is only half the picture; education is primarily through the keyed directory, expanded information brochure and guided tours to explain the intent of this built environment.

48. LEED Accredited Professional
The intent is to support and encourage the design integration required by a LEED-NC (New Construction) green building project and to streamline the application and certification process. At least one principal participant of the project team shall be a LEED Accredited Professional (AP). There were multiple LEED Accredited Professionals involved with the design of this project.
Vision
Hillsborough Community College will deliver education of the highest standards enabling a diverse community of life-long learners to achieve their maximum potential in a global society.

Mission
Hillsborough Community College, a public, comprehensive institution of higher education, empowers students to excel through its superior teaching and service in an innovative learning environment.