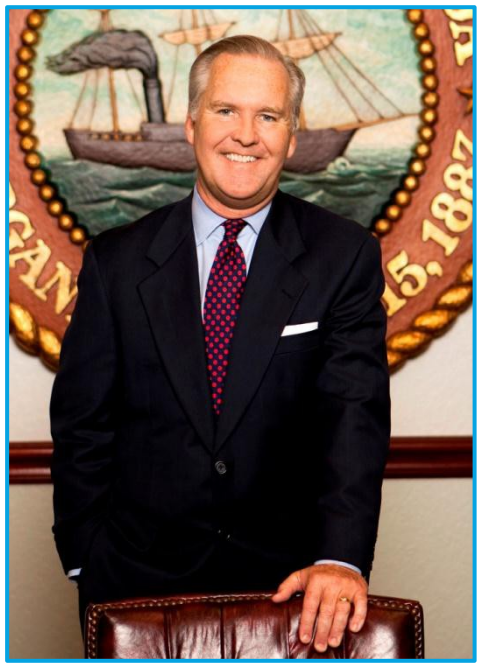
City of Tampa
Annual Sustainability Report
2014

... Preserving Tampa's natural resources while creating a sustainable future

Mayor's Message



Bob Buckhorn, Mayor

City Government is working constantly to improve the overall quality of life in our community and that includes preservation of our unique and limited natural resources.

Initiatives such as encouraging the use of the City's undeveloped lots for the development of public green spaces; modernization of land development codes and practices to promote urban redevelopment; fostering the City's walkable and bikable urban policies; and the implementation of long-term sustainable methods of operations will increase this great City's sense of permanence.

The City's Green Officer will continue to guide government in enhancing the conservation measures, renewable energy programs and sustainable building practices that for the second time has earned the City of Tampa Green Local Government "Gold" status by the Florida Green Building Coalition.

I commend the citizens of Tampa for their long-standing support of programs and policies aimed at reducing the City's carbon footprint for both current and future generations.

Green Spaces

Green Environment

Green Operations

Green Building

Green Business, Outreach & Education

Resolution No. 2008-575 (Green Resolution)

On June 12, 2008, Tampa City Council passed Resolution No. 2008-575, the "Green Resolution". The resolution requires an annual report from the City's Green Officer highlighting the City's progress in all areas of sustainability

This annual report is organized into five general areas of Sustainability:

5 Areas of Sustainability:

- ❑ Green Spaces
- ❑ Green Environment
- ❑ Green Operations
- ❑ Green Building
- ❑ Green Business, Outreach & Education

Green Spaces

The City continues to create green spaces to conserve our natural ecosystem, protect our wildlife and foster our walkable and bikable urban policies.

Public Parks & Gardens

Davis Islands Dog Beach and Boat Ramp (December 2013)

The beach restoration project includes building an off shore break water, installing artificial reef modules, as well as adding and renewing sand, which will prevent future shore erosion. Additionally, the City repaired and re-paved the boat ramp and added new Florida-friendly landscaping to the area.

The restoration of the beloved dog beach was necessary because waves from passing boats eroded the beach and shore line exposing rubble and making it unsafe for dogs and their owners.

"Parks immeasurably improve the quality of life for our residents." - Mayor Buckhorn

Cypress Point Park (November 2013)

A new 3,300-square foot playground containing play features for children ages 2-12 such as rope climbers, a see-saw, and spinners has been constructed at the starting point of the Tampa side of the Courtney Campbell Trail. If you fly into Tampa International Airport or drive into Tampa on the Howard Frankland Bridge, its white-sand beach is easy to spot north of the bridge.

Along with the new playground, the seawall is being repaired and a new restroom and concession building added at Ben T. Davis Beach as amenities to the trail. Additional comfort/rest stations with shade and weather structures, drinking fountains, benches, bike racks, and trash receptacles; security cameras; and, new landscaping will be installed by Hillsborough County.

New Tampa Nature Park Phase One (November 2012)

New Tampa Nature Park is a 122-acre parcel of land that lies east of Interstate 75 and south of Bruce B. Downs Boulevard. The park connects to the Hillsborough County's Flatwoods Park trail system providing access to miles of trails. Amenities include a boardwalk that crosses wetland habitat, picnic areas and a 100-foot long zip line. Wildlife such as deer, turkey, alligators, bobcats and foxes inhabit the park. The property languished for years, before it was acquired with help from the Florida Communities Trust Preservation 2000 program and the county's Environmental Lands Acquisition and Protection Program. The City is working with regulatory agencies to meet environmental requirements such as control burns, etc.

Ballast Point Park Grand Reopening (September 2012)

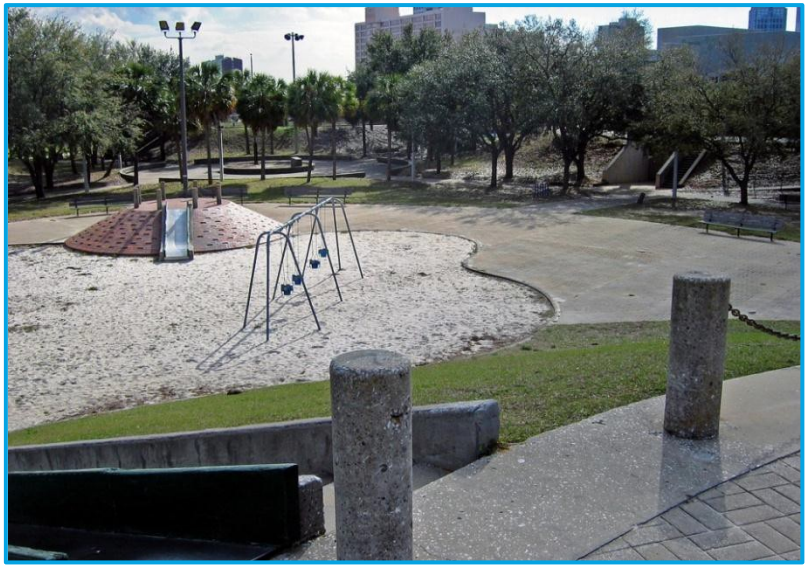
Ballast Point Park, a Tampa park for more than 100 years has reopened. Improvements to the park include a great circular lawn, the use Florida-friendly landscape throughout, a playground designed for children under 5 years of age, a splash pad, new picnic shelters, benches, and grills. The park, located on Interbay Boulevard, was developed as a tropical park in 1894 to serve as a terminal for an electric trolley-car line at the south end of Bayshore Boulevard. It was originally called Jules Verne Park after French writer Jules Verne who in his novel From *the Earth to the Moon* fired a cannon from "Tampa town," Florida to the moon.

Water Works Park (October 2013)

Water Works Park is a 5-acre expanse of green space along the Hillsborough River in the Tampa Heights area and is home to Ulele Spring. The spring is Tampa's original source of fresh drinking water and was named for the daughter of a Timucuan chief who saved the life of a young 16th century Spanish explorer. A master plan has been developed to restore the shoreline as well as the Clara Frye garden. Amenities will include boat docks, public boat slips, picnic shelters, a playground, a dog run, a stage area, benches and seat walls. The century-old Water Works building located next to the park is being converted into a chophouse-style restaurant.

Julian B. Lane Park Redevelopment (Master Plan November 2013)

Julian B. Lane Park, a 23 acre riverfront park, is located on the west side of the Hillsborough River across from the Straz Center. The park opened in 1977 and was named after dairy rancher Julian B. Lane who served as mayor of Tampa from 1959 through 1963. A master plan will be developed after a series of community meetings and community input, as well as input from the various stakeholders. One of the elements that will be discussed is the softening of the shoreline to provide a variety of opportunities for citizens to interact with the Hillsborough River. Another consideration is to extend the Hillsborough River Greenway, a trail that runs near but not directly along the riverbank, to bring new activity to the riverfront.



Perry Harvey Sr. Park Redevelopment (Construction 2015)

Construction at Perry Harvey Sr. Park will take 18 months to two years to complete. Plans started in 2015 for Perry Harvey Sr. Park include:

- A history walk that would take pedestrians through a timeline outlining Central Avenue's development, its businesses, buildings and people.
- A study of the existing skate bowl.
- A fountain featuring lights and music.
- Open lawns with space for concerts or other events.
- Historical markers, but more than just bronze plaques. Some could be three-dimensional. Some could be interactive. Some could use photos to re-create a scene of life along Central Avenue. Some could use QR codes to connect to photos, video, sound or other online resources.

Osborne Pond Exercise Trail (December 2013)

An exercise trail 8 feet wide and about 0.4 miles long and boardwalk will be constructed to surround the 3.8-acre Osborne Pond. The half-mile trail will have four stops along with the way offering eight pieces of fitness or play equipment. More than 110 trees, including palms and cypress will be planted to complete the inviting look.

The trail is expected to be open to the community in April 2014.

"We could turn this pond into an amenity for the community." – Mayor Buckhorn

Parks Department Honored by Florida Native Plant Society (February 2012)

Cotanchobee Fort Brooke Park received an Award of Honor for the restoration of the natural shore line. The concrete seawall and dock were removed and the bank was re-graded and restored along its entire length. Buffers were created through the use of rip-rap, oyster shell mounds and native wetland plantings to establish the shoreline and provide estuary and wildlife habitat. A dock with a floating kayak launch provides access to the water. The 6.5 acre park is predominantly planted with native trees, shrubs, grasses and ground covers. Located on Old Water Street directly behind on the Tampa Bay Times Forum, the park serves as a living demonstration of the benefits of using native plants to create a successful urban park.

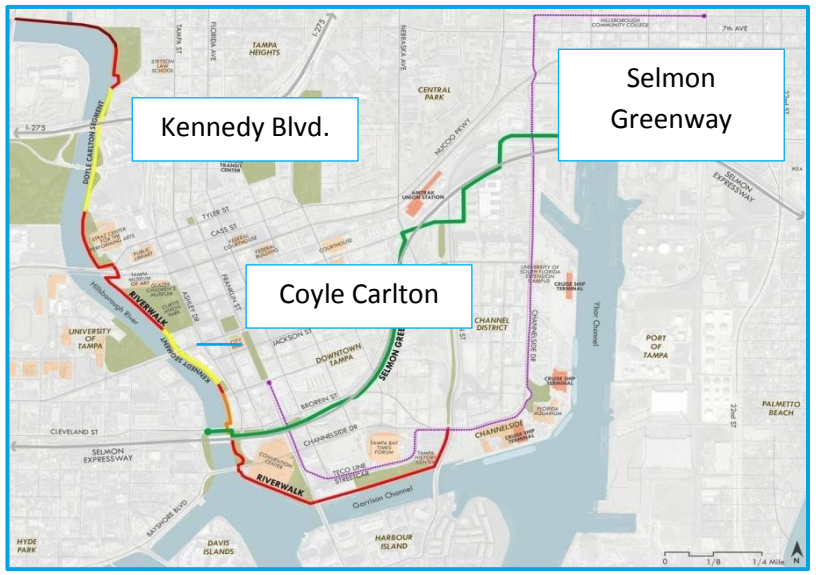
USF Park received an Award of Merit for its environmentally-friendly design. The park includes USF Plaza, which honors the university's contributions to the city as an institute of higher learning. The Riverwalk connection allows visitors to walk from the west side of the Tampa Convention Center all the way to the Channelside district. The park incorporates seating along undulating walks, surrounded by native plants that provide shade and interest along with views of the shoreline. USF serves as a great example of restoring a small urban site to a naturalized setting while re-creating connection to the river in downtown Tampa.

Greenways, Trails, Roundabout & Bridges

Upgraded Bayshore Boulevard fitness trail (November 2013)

The equipment at all 10 fitness stations on the Bayshore Boulevard trail has been replaced through the generous donation of local law firm Hill, Ward & Henderson. The trail stretches along Bayshore from the Davis Islands bridges south to Rome Avenue. The sand pits at each station were also upgraded with weather- and saltwater-resistant rubber surfaces. New equipment includes upgraded leg and hip stretchers, a pommel horse and a sit-up bench.

"Bayshore is a better place and our community will be a healthier place." - Mayor Buckhorn



Tampa Riverwalk (April 2015)

The City was awarded a TIGER grant in the amount of $10.9 million to complete the final two sections of the Riverwalk and design and construct the Selmon Greenway. The Greenway project, managed by the Tampa-Hillsborough Expressway Authority, will stretch 1.7 miles under the Selmon Expressway viaduct from the river (and Riverwalk) to 19th street. The two sections of the Riverwalk consist of the Doyle Carlton section linking the Straz Center to the Water Works Park, and the Kennedy Boulevard Plaza, 1460 feet of walkway over the River, connecting MacDill Park to Curtis Hixon Waterfront Park. When these sections are complete, the Riverwalk will stretch 2.4 miles from the Water Works Park down the Hillsborough River and along Garrison Channel to the Channelside District. The Riverwalk provides a venue for pedestrian activity, serves as an impetus for other transportation means such water taxis and has restored deteriorating seawalls. LED lighting has been used in numerous places along the Riverwalk to conserve energy. Also, the Stormwater Department has also installed a Stormcepter at the corner of Brorein and Ashley to filter debris from the streets.

South Plaza segment of the Tampa Riverwalk

The Tampa Riverwalk's South Plaza is the beginning of the waterfront pedestrian corridor that spans from the Channel District to the Brorein Street Bridge. The Plaza serves as the gateway to Cotanchobee Fort Brooke Park and the Tampa Bay History Center. It incorporates contemporary shade structures and informational kiosk signage, whose maps and lighting are solar powered.

Trail Opened in South Tampa (February 2012)

A new one-mile asphalt multi-use trail running along the east side of South Manhattan Avenue at Interbay Boulevard has been constructed. The Manhattan Avenue segment of the Friendship Trail Project is part of the City's South Tampa Greenway, a planned 15.8-mile trail linking Bayshore Boulevard to the Gandy Bridge and Picnic Island. A pedestrian crossing just south of West Iowa Avenue allows users to ride along the west side of South Manhattan Avenue up to Legacy Park Drive, just south of West Tyson Avenue. Additionally, 82 Florida-friendly trees were planted along the trial to create a future-shaded walkway.

Downtown Opportunity Corridors (August 2012)

As part of the Opportunity Corridors project, 782 indigenous trees such as Southern Red Cedar, Chickasaw Plum, and Sabal Palms were planted in and around downtown. The project will be expanded, working in concentric circles, during the upcoming years to include major transportation arteries, such as Ashley Drive, Nebraska Avenue, and Martin Luther King Jr. Boulevard in an effort to create a more pedestrian-friendly environment. The downtown Corridors include: Bayshore Boulevard from Platt St. to Rome Ave.; Ashley Drive; Orange/Jefferson Interchange; Union Station; Laurel Street; Franklin Street; and Nuccio Parkway.

Tampa Greenway and Trails Master Plan (Ongoing)

The Master Plan increases public access to recreational and non-motorized transportation opportunities and is designed to link parks, schools, transit bus systems, waterfront areas, and places of cultural and historical significance. The planning process is citizen-driven, led by members of local neighborhoods, businesses, and public agencies.

22nd Street Roundabout (September 2013)

The 22nd Street road work is on a stretch of 22nd that links Ybor City with East Tampa and includes the College Hill neighborhood and the Belmont Heights Estates complex from Dr. Martin Luther King Jr. Boulevard to 21st Avenue. Improvements include landscaping, irrigation, crosswalks, a 10- foot-wide multi-use trail on the west side, more sidewalks, bus bays and shelters, signs alerting motorists to share the road with bicyclists and, in some areas, bicycle lanes.

New Tampa Boulevard Bridge (February 2013)

A new bridge has been constructed in response in New Tampa to a New Tampa Area Traffic Safety Study. The bridge, just under one mile in length, includes a 5-foot sidewalk on the south side and an 8-foot wide multiuse trail on the north side, allowing pedestrians and bicyclists to safely cross the interstate without using the high-traffic and construction-filled Bruce B. Downs Boulevard.

"The bridge will improve the quality of life for area residents." – Mayor Buckhorn

Urban Forest

Arbor Day Celebration (January 2013-Ongoing Program)

MacFarlane Elementary School students and the Parks and Recreation Department celebrated Tampa's 31st year as a Tree City USA® by planting three American Liberty elm trees at MacFarlane Park. The National Arbor Day Foundation recognizes cities across America that effectively manage their tree resources based on Tree City USA® program standards.

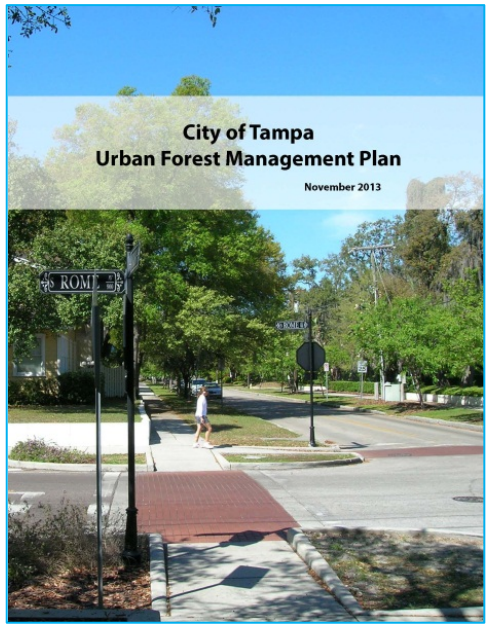
The City boasts over 4 million trees that assist in the removal of air pollutants, provide energy conservation, conserve soil and water, and bring the natural environment into our lives. For the past 31 years, the City has received the "Tree City USA designation by the Arbor Day Foundation for it its street canopies, planning efforts, planting programs, and proven urban forestry practices.

Urban Ecological Analysis (November 2013-5 Year Ongoing Updates)

The City conducts an Urban Ecological Analysis every 5 years in partnership with the Tampa Bay Watershed-Forest Working Group, a consortium that includes the University of South Florida, the University of Florida, and the University of Florida/ Hillsborough County Extension, and concluded with a 5-year update in November 2013. The study takes a detailed look into the economic and ecological characteristics and values of the urban forest. The results from this assessment serves for the basis of enhancing the understanding of urban forest values, improving or developing science-based urban forest policies, ensures effective planning and management of the urban landscape and provides data for the inclusion of trees within environmental regulations. The model also quantifies urban forest functions such as: energy savings, air pollution removal, carbon storage and sequestration, and compensatory or replacement values.

Executive Order 2014-01 - April 2014

The city of Tampa has extensive tree and landscape requirements that are codified in ordinance form. The city of Tampa recently had The Urban Forest Management Plan approved through city Council with implementation policies executed by **The Mayor by executive order 2014-1** The Plan requires, and is premised upon "right plant right place". The Plan itself is regarded as a state of the art policy document which has already been used to revise code and landscape requirements for the city of Tampa based on the science of the Plan. Included in the submittal packet is a recent newspaper article which provides a nice synopsis of the plan and its value. The Plan is a strategic plan, with a 20-year planning horizon, defining criteria, performance measures, and alternatives for action; and, by following an adaptable, quantifiable, and science-based approach, the City of Tampa will address the challenges to growing and maintaining a healthy urban forest, in an efficient and sustainable manner; to insure balance, consistency, and efficiency in interdepartmental coordination and public engagement, the Plan calls for the formation of an Internal Technical Advisory Committee comprised of department directors and their appointed designees, and the creation of an Advisory Committee on Natural Resources, which will be comprised of members from a variety of government, business, and neighborhood interests.



Bioswales (2013-Ongoing)

The Facilities Management Division has incorporated bioswales into the stormwater retention system currently being used in the redesign of the major streets in Drew Park to provide runoff quality enhancement. Bioswales and other runoff water quality enhancement systems are more and more being used throughout Tampa by the City as well as private developers alike.

Green Environment

The City continues to balance relations between humans and the various natural systems on which they depend through changes in public policy and individual behavior.

Nehemiah Project, WIN, SWEEP & River Cleanup

Nehemiah Project: (January 2013-Ongoing)

The Nehemiah Project has been implemented in the Sulfur Springs area to eliminate blight caused by illegal dumping and poor property maintenance in one of the City's most impoverished neighborhoods.

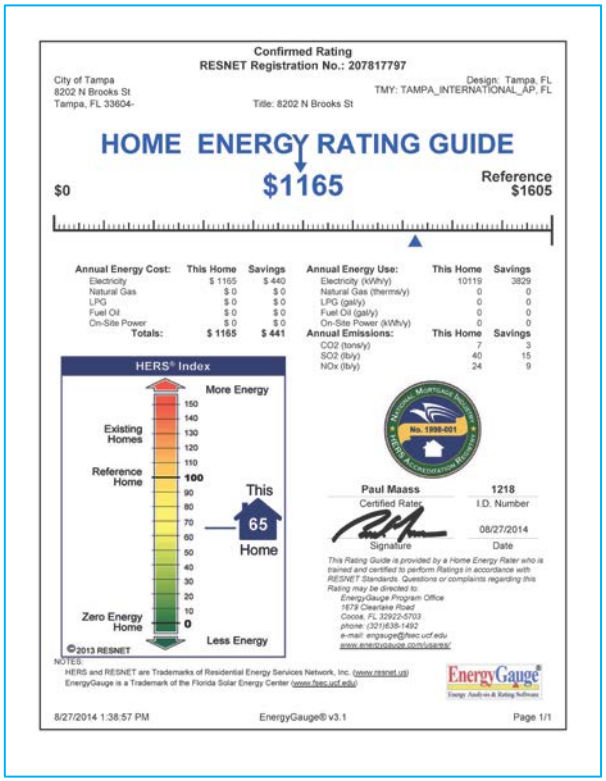
The Code Enforcement Department began by demolishing the worst abandoned homes and picking up approximately 100 tons of trash primarily from illegal dumping. The second phase of the Project is torebuild new affordable replacement homes along with sidewalks and bike paths starting in areas close to the neighborhood's elementary school and recreation center thereby improving the neighborhood a few houses at a time and ultimately attracting private investment.

Abandoned and derelict homes create "*a cancer in our neighborhoods.*" – Mayor Buckhorn

Throughout 2013 and 2014 the Department's Code Enforcement and Clean City teams have removed, 150 tons of garbage, trash and debris. This dumping, littering and abandonment breeds environmental cesspools and works contrary to anything we are trying to accomplish with new energy efficient homes. It also removes serious health and safety risks to the neighborhood residents.

Nehemiah Project: Home Energy Rating Guide

Home Energy Rating System (HERS) Index is the industry standard by which a home's energy efficiency is measured. It's also the nationally recognized system for inspecting and calculating a home's energy performance. A certified Home Energy Rater assesses the energy efficiency of a home, assigning it a relative performance score. The lower the number, the more energy efficient the home. The U.S. Department of Energy has determined that a typical resale home scores 130 on the HERS Index while a standard new home is awarded a rating of 100. A home with a HERS Index Score of 70 is 30% more energy efficient than a standard new home. A home with a HERS Index Score of 130 is 30% less energy efficient than a standard new home.



Confirmed Rating
RESNET Registration No.: 207817797

City of Tampa
8202 N Brooks St
Tampa, FL 33604-

Design: Tampa, FL
TMY: TAMPA_INTERNATIONAL_AP, FL

Title: 8202 N Brooks St

HOME ENERGY RATING GUIDE

$0 $1165 Reference $1605

Annual Energy Cost:	This Home	Savings
Electricity	$ 1165	$ 440
Natural Gas	$ 0	$ 0
LPG	$ 0	$ 0
Fuel Oil	$ 0	$ 0
On-Site Power	$ 0	$ 0
Totals:	$ 1165	$ 441

Annual Energy Use:	This Home	Savings
Electricity (kWh/y)	10119	3829
Natural Gas (therms/y)	0	0
LPG (gal/y)	0	0
Fuel Oil (gal/y)	0	0
On-Site Power (kWh/y)	0	0

Annual Emissions:	This Home	Savings
CO2 (tons/y)	7	3
SO2 (lb/y)	40	15
NOx (lb/y)	24	9

HERS® Index
More Energy
Existing Homes
Reference Home
100
This Home
65
Zero Energy Home
0
Less Energy
©2013 RESNET

No. 1998-001

Paul Maass — Certified Rater
1218 — I.D. Number
Signature
08/27/2014 — Date

This Rating Guide is provided by a Home Energy Rater who is trained and certified to perform Ratings in accordance with RESNET Standards. Questions or complaints regarding this Rating may be directed to:
EnergyGauge Program Office
1679 Clearlake Road
Cocoa, FL 32922-5703
phone: (321)638-1492
e-mail: engauge@fsec.ucf.edu
www.energygauge.com/usersys/

NOTES:
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EnergyGauge is a Trademark of the Florida Solar Energy Center (www.fsec.ucf.edu)

EnergyGauge® Energy Analysis & Rating Software

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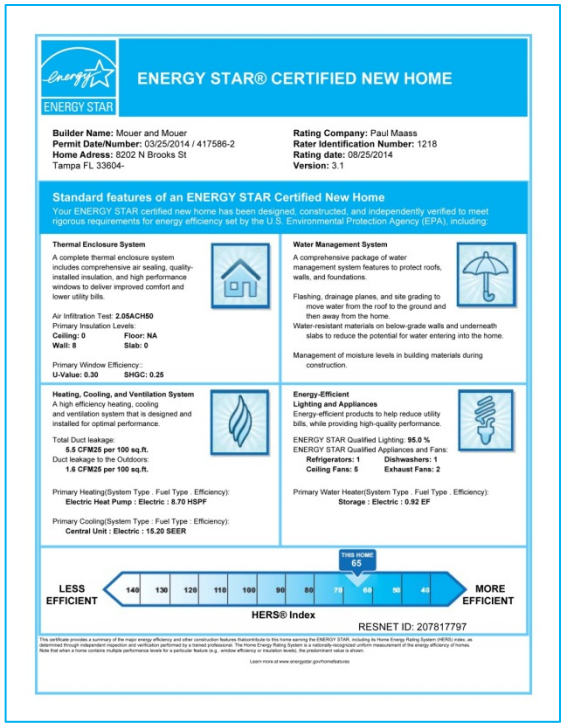


ENERGY STAR® CERTIFIED NEW HOME

Builder Name: Mouer and Mouer
Permit Date/Number: 03/25/2014 / 417586-2
Home Adress: 8202 N Brooks St
Tampa FL 33604-

Rating Company: Paul Maass
Rater Identification Number: 1218
Rating date: 08/25/2014
Version: 3.1

Standard features of an ENERGY STAR Certified New Home
Your ENERGY STAR certified new home has been designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

Thermal Enclosure System
A complete thermal enclosure system includes comprehensive air sealing, quality-installed insulation, and high performance windows to deliver improved comfort and lower utility bills.

Air Infiltration Test: **2.05ACH50**
Primary Insulation Levels:
Ceiling: 0 **Floor: NA**
Wall: 8 **Slab: 0**

Primary Window Efficiency::
U-Value: 0.30 **SHGC: 0.25**

Water Management System
A comprehensive package of water management system features to protect roofs, walls, and foundations.

Flashing, drainage planes, and site grading to move water from the roof to the ground and then away from the home.
Water-resistant materials on below-grade walls and underneath slabs to reduce the potential for water entering into the home.

Management of moisture levels in building materials during construction.

Heating, Cooling, and Ventilation System
A high efficiency heating, cooling and ventilation system that is designed and installed for optimal performance.

Total Duct leakage:
5.5 CFM25 per 100 sq.ft.
Duct leakage to the Outdoors:
1.6 CFM25 per 100 sq.ft.

Primary Heating(System Type . Fuel Type . Efficiency):
Electric Heat Pump : Electric : 8.70 HSPF

Primary Cooling(System Type : Fuel Type : Efficiency):
Central Unit : Electric : 15.20 SEER

Energy-Efficient Lighting and Appliances
Energy-efficient products to help reduce utility bills, while providing high-quality performance.

ENERGY STAR Qualified Lighting: **95.0 %**
ENERGY STAR Qualified Appliances and Fans:
Refrigerators: 1 **Dishwashers: 1**
Ceiling Fans: 5 **Exhaust Fans: 2**

Primary Water Heater(System Type . Fuel Type . Efficiency):
Storage : Electric : 0.92 EF

THIS HOME 65
LESS EFFICIENT — 140 130 120 110 100 90 80 70 60 50 40 — MORE EFFICIENT
HERS® Index

RESNET ID: 207817797

This certificate provides a summary of the major energy efficiency and other construction features that contribute to this home earning the ENERGY STAR, including its Home Energy Rating System (HERS) index, as determined through independent inspection and verification performed by a trained professional. The Home Energy Rating System is a nationally-recognized uniform measurement of the energy efficiency of homes. Note that when a home contains multiple performance levels for a particular feature (e.g., window efficiency or insulation levels), the predominant value is shown.

Learn more at www.energystar.gov/homefeatures

Nehemiah Project: Plans on File

As a green incentive, The City of Tampa has energy star rated green affordable housing plans "on file" available for use to any contractor desiring to build these homes. The houses can be built on city owned lots, as is the case in the Nehemiah project, or private developers can acquire their own lot and use the plans at no cost. Using the plans on file saves the developer the cost of hiring an architect to draft a full set of building plans, which represents a substantial savings and provides an incentive to build energy efficient affordable housing The City of Tampa owns and has the rights to the plans which are "permit ready" and fully Florida Building Code compliant.

Working in Neighborhoods-WIN Program (Ongoing)

The Working In Neighborhoods program (WIN) was created to beautify thoroughfares, medians, and parkways, and reduce litter, graffiti and illegal dumping, to both restore and enhance the City's environment and improve the quality of life for citizens. The WIN program kicked off in August 2011. The City held its annual Clean City Day along with Friends of Clean City, during the Great American Clean Up, the nation's largest community improvement program.

Annual River Cleanup (October 2012-Ongoing)

Tampa's Water Department and Solid Waste Department set up an environmental education booth at the Lowry Park Boat Ramp's Annual Hillsborough River & Coastal Cleanup. Debris of all sizes was removed from the waterways during this event which is hosted annually by the City's partner, Keep Tampa Bay Beautiful,

S.W.E.E.P. Program (36 weeks Annually-Ongoing)

The Solid Waste Enhanced Environment Program (SWEEP) provides 36 weeklong neighborhood bulk trash pick-ups each year. Over the past 5 years, SWEEP has removed 13,489 tons of bulk trash items and debris from Tampa's neighborhoods.

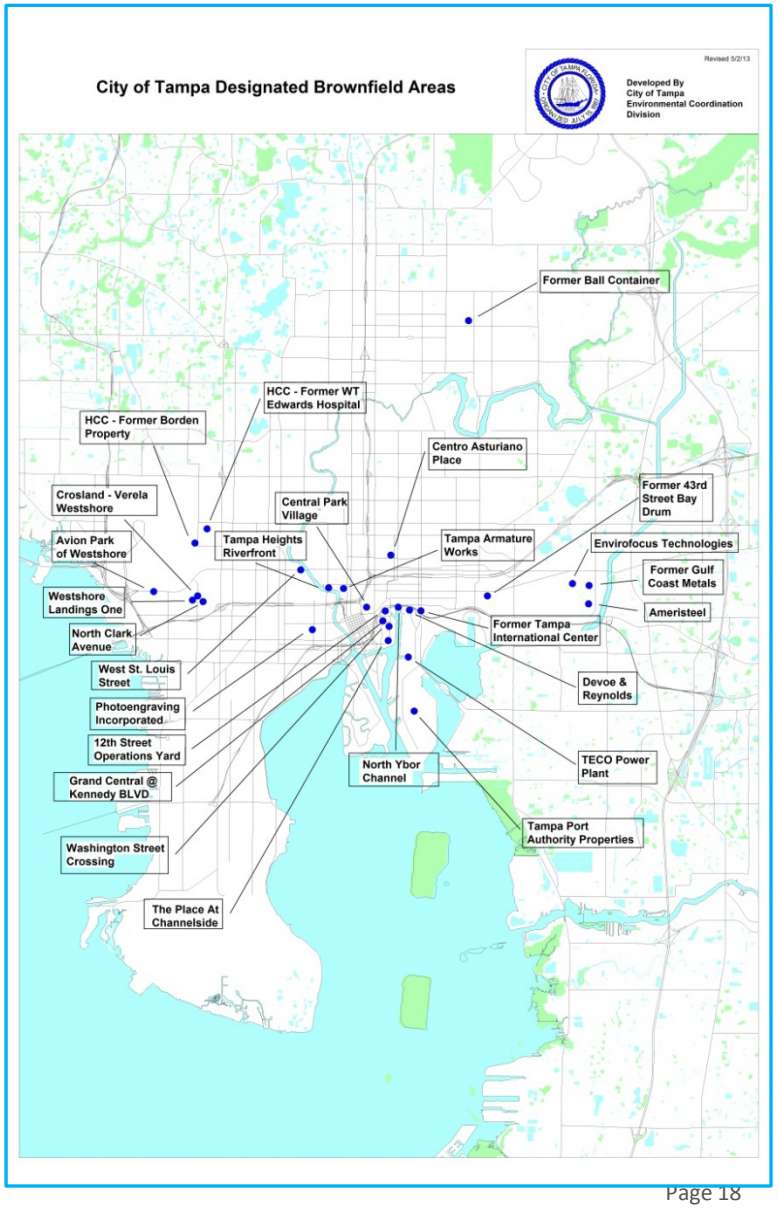
Fertilizer Ordinance (Implemented June 2012)

The city enacted an ordinance to improve water quality in our lakes, streams, rivers and bays. The ordinance establishes a restricted period from June 1 - September 30, when the application of lawn and landscape fertilizer containing nitrogen and/or phosphorous is not allowed. The ordinance is designed to reduce the potential of nitrogen and phosphorous carried into our waters with stormwater runoff and is supplemental to the rules of the Environmental Protection Commission of Hillsborough County. Both City and EPC laws must be followed within the City's boundaries. Fertilizer isn't a pollutant when it is applied to the landscape, however, if too much fertilizer is used or it is applied at the wrong time it can wash off of the landscape and flow untreated into bays and streams. Once in the water, fertilizer can stimulate the growth of harmful algae and aquatic plant growth.

Clean-Up of Contaminated Properties

Multi-Purpose EPA Pilot Grant (Awarded June 2012)

The City was awarded a $400,000 grant funded by EPA's Brownfields program, to conduct assessments and cleanup activities, and to secure funding. The goal of program is to clean up America's land, boost local economies and create jobs while protecting public health. The Department of Solid Waste & Environmental Program Management manages the City's Brownfield Program to rehabilitate and redevelop contaminated site, typically old industrial sites in urban areas.



Brownfields Incentives

The City sponsors a program for Brownfields Community Redevelopment projects to provide qualified applicants an opportunity to pursue financial incentives on a federal, state, and/or local level. The City enacted institutional controls such as those related to restrictive zoning and land use on property use or access to eliminate or minimize exposure to contaminants and to assist in the risk based corrective actions necessary for the project.

City Staff assists applicants in obtaining grants, loans, and other assistance for qualified Brownfields projects and provides City staff personnel to facilitate expedited processing of permits and reviews for qualified Brownfields projects.

Ulele Spring

The Ulele' Spring restoration (as part of Water Works Parks)has created a basin that allows the water to pool on its way toward the Hillsborough River. The immediate shoreline to the spring has been restored with mangroves and the spring is now teeming with fish and wildlife. Manatees also frequent the spring itself. Volunteers from The Krewe of Princess Ulele, Green Artery, Rowers Crewe, Tampa Heights Civic Association, Tampa Federation of Garden Clubs, and Scheda Ecological Associates, Inc. planted a variety of native plants surrounding the restored Ulele Spring. More than 4,000 plants, ranging from cordgrass species to spider lily were planted. Plants were paid for by the Tampa Bay Estuary Program and the Florida Freshwater Fish and Wildlife Commission. The spring restoration component of the park was funded through a partnership with the Southwest Florida Water Management District and the City of Tampa, as well as assistance from Ecosphere Restoration Institute, the Tampa Bay Estuary Program, National Oceanic and Atmospheric Administration, and United States Fish and Wildlife Service.

Urban Infill

InVision Plan for Downtown (The Tampa Center City Plan presented November 2012. The Hillsborough and Nebraska Corridor Master Plan presented September 2013)

The City was awarded a $1.2 million Sustainable Communities Challenge Grant in 2011 from the U.S. Department of Housing & Urban Development to develop a plan for the Nebraska-Hillsborough Avenue Primary Transit Corridor. The InVision Team prepared a plan focusing on re-centering downtown around the Hillsborough River and connecting area neighborhoods in a pedestrian, transit friendly manner. The plan includes 10 forward moves designed to continue the resurgence and momentum that the Center City is experiencing:

1) Nurture new river places that spur activity and create access to the Hillsborough River and Garrison Channel.

2) Make north downtown neighborhoods multimodal, walkable area to extend the value of the Riverwalk and cultural venues east to Nebraska Avenue.

3) Establish streets and parks as primary elements of civic identity to catalyze downtown as the location of choice for new private development investment in the region.

4) Redevelop south downtown in a pattern of streets, blocks and public spaces that connect the Channel District with venues in the Downtown Core.

5) Reposition street corridors to residentially-oriented "Neighborhood Connectors" and local business to "Main Streets."

6) Rebalance Tampa and Florida Avenues as local streets, joining neighborhoods while providing regional access.

7) Develop an attractive, safe, cross-city, multi-purpose trail linking the Center City to neighborhoods and the Riverwalk.

8) Create a premium local transit route crossing the river from the Channel District to North Hyde Park to link residential, employment, and academic areas and capture "choice riders."

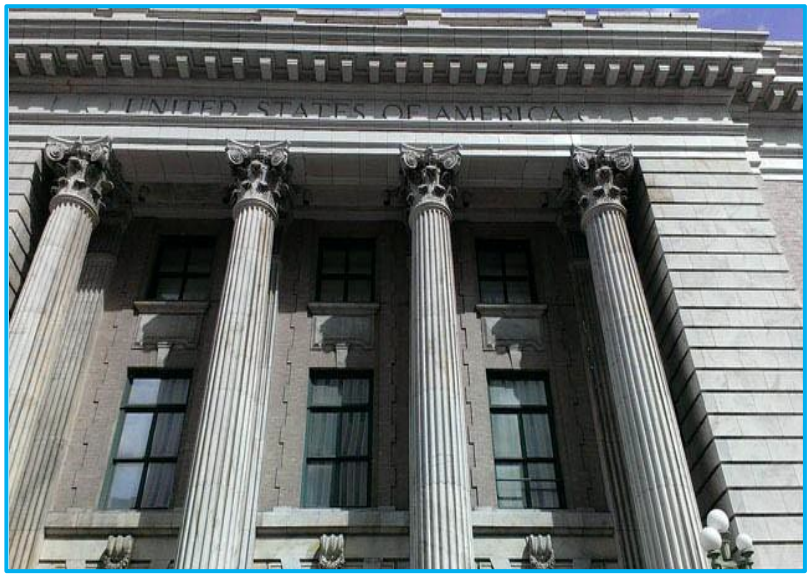
9) Continue on the mission of repositioning the large parcels of property within the Center City for development.

10) Leverage substantial education and healthcare assets and investments by linking their large workforce and student populations with community revitalization.

Preservation of Historic Resources (Ongoing)

The City continues to be actively engaged in the preservation of Tampa's historic resources through an approach that achieves quality urban development while respecting the architectural accomplishments of the past.

"Repurposing is now part of the downtown mantra." – Mayor Buckhorn



Code Changes (Ongoing)

Many code changes were adopted in May 2011 to include community gardens throughout the City and in 2009 to reduce use of turf area. Turf area percentages were lowered from 50% configured with a permanent irrigation system to 45% in 2009. In 2011, the allowable percentage was 35%, and will continue to decrease 5% annually until reaching 25% in 2013. The City's Community Gardens Ordinance (Ordinance 2011-62) became official May 2011. Under the ordinance, Land Development Coordination & Zoning approved the first city community garden on September 6, 2011.

New Urbanism & Form-Based Zoning (Ongoing)

The City continues to modernize its land development codes by incorporating New Urbanism and Form-Based Zoning concepts to promote urban redevelopment. These concepts are designed to go beyond land use to address not just the physical form of buildings but also surrounding streets, blocks, and public spaces in order to create, protect, and revitalize sustainable communities. The Seminole Heights Form-Based code was adopted March 2011 with the rezoning effort slated for approval Spring 2012. The concentration of new growth within the existing core reduces infrastructure needs, increases walk-ability and use of public transit. *Visions Plans* have been designed for historic Seminole Heights and 40th street neighborhoods towards this effort.

Daniel Rose Fellows (Ongoing)

The Tampa Mayoral Team, named one of the Daniel Rose Fellows in September 2011, continues to work with the Urban Land Institute Rose Center for Public Leadership in Land Use to determine the best sustainable land use policies for the City. The Urban Land Institute is a global nonprofit education and research institute supported by its members. The City continues to collaborate with the Urban Land Institute. The Manager for the City's Planning and Urban Design Division was appointed to the U.S. National Product Council: Transit Oriented Development Council (TODC). It is a 5 year term, running from 2013through 2018.

Water Conservation–City Initiatives

The City continues to ensure a superior sustainable supply of drinking water for residents using conservation programs such reclaimed water, and watering restrictions.

David L Tippin Water Treatment Facility (Ongoing)

Most of Tampa's drinking water is treated surface water from the Hillsborough River. The Hillsborough River Reservoir, the stretch of river between the dam and the 40th Street Bridge, impounds more than 1 billion gallons of water. The adjacent David L. Tippin Water Treatment Facility, one of the largest surface water treatment facilities in Florida, has been treating the river water supply since 1926. The river water goes through a six-step process before it becomes finished water and is pumped through 2,300 miles of pipe to the approximately 600,000 people we serve. All water used in the David L. Tippin Water Treatment Facility is recycled and reprocessed from the Hillsborough River.

Results of a bench-scale study completed under the direction of Water Quality Officer Dr. Lei have allowed the Water Department to establish a more efficient water treatment process to control bromate by-product formation without diminishing the quality or the safety of drinking Tampa's water. This water treatment process change is expected to save the David L. Tippin Water Treatment Facility an estimated $1 million annually in chemical costs.

Expansion of Reclaimed Water Program (Began fall 2012)

Reclaimed water is in use at Tampa International Airport (TIA) for irrigation and for cooling at one airside. Work is underway with TIA to facilitate the expansion of reclaimed water use to additional cooling towers in use at that facility. Reclaimed water will also be used to irrigate public parkways along Bayshore aiding in conserving Tampa's potable water supply by an estimated 22,000 gallons per day and reducing wastewater effluent discharge into Hillsborough Bay.

Reclaimed Water Use throughout the City (Ongoing)

The Solid Waste Department is now using reclaimed water at the McKay Bay RTE facility and the McKay Bay Cooling tower. The Wastewater Department continued their program of finding uses for reclaimed water in its operations. In FY2013, the Department utilized 8.2 million gallons per day of reclaimed wastewater saving approximately 3.0 billion gallons of processed potable water use.

Additionally, the reclaimed water program is helping to bring Florida's first oil recycling plant, NexLube, to Tampa. The planned re-refining facility on Pendola Point Road in Port Sutton, will produce high quality base oil and lubricant products by recycling used oil. The NexLube facility is expected to re-refine approximately 24 million gallons of used oil a year, reducing air emission and using 50-80% less energy than the crude oil refining process.

Infrastructure Upgrades to avoid water leakage (2013)

The Tampa Water Department completed $9.9M of infrastructure upgrades in 2013. The upgrades reduce the volume of finished drinking water lost to leakage in the distribution system while realizing improvements in system reliability.

Monthly Meter Reading (January-September 2012)

Between January and September 2012 the department implemented monthly meter reading for 100 percent of customers. A timelier accounting of water use provides customers the ability to discover and promptly repair service line, plumbing or irrigation system leaks sooner and make usage adjustments to control their bills.

Hydration Stations (2012-Ongoing)

Three pilot water cooler/filling station combinations have been installed to replace existing drinking water fountains (2 at Tampa Convention Center/1 at Tampa Municipal Office Building) to evaluate maintenance requirements and collect consumer comments on usability. In addition to encouraging tap water use, the stations provide a more efficient water transfer mechanism than traditional fountains for those filling containers, resulting in less water wastage and energy loss (for cooled water). The stations feature energy-efficient refrigeration systems and their use is estimated to have offset the disposal of approximately 14,000 plastic water bottles in FY2013.

Water Conservation-Consumer Programs

Kits & Sensors Provided to Consumers (Ongoing)

In 2013, the Water Department provided to consumers:

- 646 free plumbing kits (including low-flow showerheads and faucet aerator and toilet leak detection tablets)
- 1025 free leak detection kits (including toilet leak detection tablets and the Home Water Efficiency Tool Kit)
- 99 free rain sensor devices to achieve compliance with Florida Statute and inhibit or interrupt operations of the irrigation system during periods of sufficient moisture. The device can save an estimated 20% in outdoor water use.

– Provided funding for 373 consumers to attend a rain barrel educational workshop and receive a 55-gallon rain barrel to assist with offsetting potable water use with rain water (in partnership with the University of Florida & Hillsborough County Extension Service).

– Provided funding for up to 152 consumers to attend either an 8-week Home Improvement course or a 3-hour Fix-A-Leak workshop to provide participants with basic skill sets to identify and repair water leaks and to repair and/or replace existing appliances and fixtures with water efficient upgrades (in partnership with Hillsborough Education Foundation and Hillsborough County School District – Erwin Technical Center).

Build Your Own Rebate Program (January 2013)

The Build Your Own Rebate Program initiated in January 2013 expanded during 2014 to offer rebate opportunities to both residential and non-residential account holders. For residential consumers, a limited number of rebates were offered to motivate single-family account holders to commit to and achieve potable water use reductions. The rebate amount is determined by the percentage of water consumption reduction. Participants choose their own ways to reduce use and are assigned a personal efficiency coach to help them achieve established goals. For non-residential consumers, a menu of rebate options, ranging from toilet and urinal rebates to sub-metering to cooling tower pre-treatment capability. Rebate amounts are determined by conservation measures implemented.

Partnerships (Ongoing)

A grant program offered classroom teachers in Tampa grants ranging from $250 to $5,000 to develop and implement water conservation activities for their students.

Recognition for Water-Efficient Landscapes (Ongoing)

For more than a decade, the Water Department has partnered with Tampa Bay Water and the Hillsborough County Extension Offices' Florida Yards & Neighborhoods Program to recognize those who use the best water-efficient landscape design and maintenance. Past Community Water-Wise Award landscapes have demonstrated the beauty and resiliency of water-wise, Florida-friendly landscapes. A residential homeowner received the award for 2013.

Florida Friendly Landscape Workshop (March 23, 2013)

The Tampa Water Department sponsored a Florida-Friendly Landscape Workshop presented by the Hillsborough County Extension Service to provide Tampa residents with information about outdoor water conservation along with hands-on instruction from subject-matter experts. An estimated 125 people attended this free event at Hillsborough Community College's Dale Mabry Campus.

Florida Water Star (October 2013)

Began working with Southwest Florida Water Management District to identify existing structures in Tampa eligible for Florida Water Star certification and to increase availability of information about and recognition of Florida Water Star building and retrofit guidelines for conserving water in residential and commercial design and building practices.

Water Quality

Upgrades to Pump Station in Sulphur Springs (June 2012)

Upgrades to the decades old pumping system at Sulphur Springs will enhance water quality as well as provide a new community landmark. The upgrades are part of a multi-year plan to increase water flow in the Lower Hillsborough River and support environmental recovery. The improvements double the amount of water going to the river below the dam, enhancing water quality by providing a much needed freshwater zone downstream of the dam. Since the 1960s, Sulphur Springs has augmented water supplies in the Hillsborough River Reservoir during times of low rainfall or to bolster flows in the Lower Hillsborough River. The new pumps will help maintain a thermal refuge area for manatees, and improve estuarine habitats. A mural wrapping the building by artist John Gurbacs depicts the ecosystem of the river.

Greenhouse Gas Emission Reduction

Energy Efficiency and Conservation Plan-EECP (Ongoing)

A Greenhouse Gas (GHG) Emission Study and Energy Efficiency and Conservation Plan (EECP) were completed in June 2011. Following the state's adopted GHG reduction target, the City has set a goal to reduce emissions back to 1990 levels by the year 2025. Sources of emissions include transportation, electricity and natural gas use, landscaping, water and wastewater pumping and treatment, and treatment and decomposition of solid waste. The dollars saved will be calculated solely based on fuel savings. Reduction measures recommended in the Plan to achieve this goal are:

Energy Reduction Measures-41.5%
Renewable Energy goal of 25% by 2025
Residential Energy Efficiency Retrofits
Commercial Energy Efficiency Retrofits
Solid Waste-2%
Waste Reduction goal of 12% by 2018
No Waste Sent to Landfill
Area Source-1.5%
Substitute LED lighting for landscaping for energy savings
Transportation-54%
Smart Growth Planning
Expand Use of Low/Zero Emission Vehicles
Bicycle Infrastructure
Encourage Telecommuting and Alternative Work Schedules
Tampa Bay Area Regional Transportation Authority (TBARTA) Master Plan
Water & Wastewater-1.2%
Conservation Efforts

Household Chemical and Electronics Collection

Collection Site Event (June 2013-Ongoing)

This collection provides residents with the opportunity to safely dispose of unwanted chemicals and electronics at no charge. Materials accepted at the collection site include: paints and solvents; used motor oil; pool chemicals; mercury-containing devices, lawn, garden, and household chemicals; and electronics including computer monitors, printers, CPUs, keyboards, televisions, DVD players, VCRs, and cell phones. This year's event resulted in the removal of 42,211 pounds of chemicals and 42,097 pounds of electronics from the waste stream for proper disposal.

Green Operations

The City is dedicated to implementing long-term sustainable methods of operations that become a natural part of our work and continually reduce our carbon footprint.

Energy Efficiency projects funded through the 2009 American Recovery & Reinvestment Act (ARRA)

The City received a $3.7 million Energy Efficiency and Conservation Block Grant (EECBG) in 2009 through the AARA to implement programs aimed at reducing total energy use, improving energy efficiency in the transportation and building sectors, and creating and retaining jobs. Following are the programs completed or currently being completed:

LED Lighting for Traffic Signals & Street Signs

All City traffic signals (480 intersections) have been converted from incandescent to LED lighting, reducing power demand by 70-80% per lamp, reducing electricity cost by about 60-70%. The City is currently working towards illuminating street signs for better visibility.

Retrofit of Parking Garage Lighting

The City has replaced inefficient lighting with energy efficient induction lights in five municipal parking garages, reducing electrical use by approximately 55% equating to an annual savings of about $315k. Retrofitting of the downtown Whiting Garage and Police Department are currently underway.

Traffic

Replacement of Traffic Signal System to Result in Reduced Air Pollution (Design 2013)

The City is working in conjunction with the Hillsborough County Metropolitan Planning Organization and the Florida Department of Transportation to upgrade the existing traffic management system. The project will include the replacement of current traffic control software, communications equipment and existing communications cabling in the field some of which is over 30 years old. The project will also upgrade the communications plant to fiber optic cable and replace controllers. The goal is to move the City's traffic signal system to the next generation of traffic control and help ease congestion throughout the City which will result in reduced air pollution.

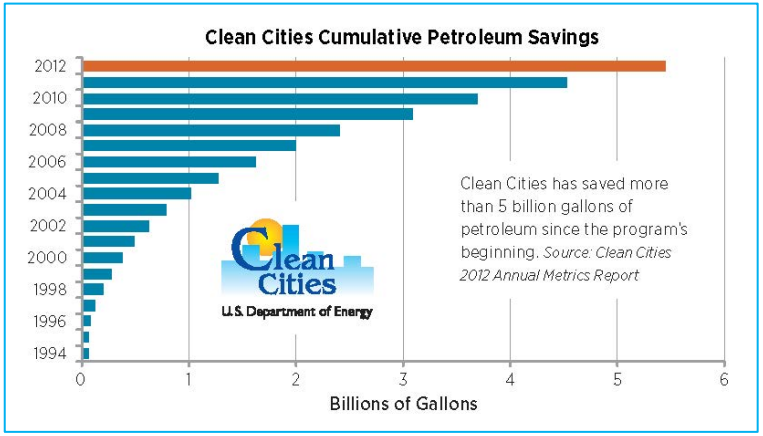
Refuse-to-Energy

The McKay Bay Refuse-to-Energy Facility uses about 94% of the City's post recycled waste as fuel to produce clean, renewable energy. The facility produces 500 kWh of electricity from each ton of solid waste. Each ton of waste used as fuel offsets the use of 1 barrel of oil or ¼ ton of coal and prevents 1 ton of CO2 equivalents from being released from fossil fuel power plants and landfills. The facility also recovers about 8,000 tons of ferrous metals and 240 tons of non-ferrous metals per year for recycling. The facility uses about 180,000,000 gallons of wastewater each year from the City's advanced wastewater treatment facility.

The City took over operations at the McKay Bay Transfer Station in October 2011. The transfer station is used to sort mixed loads of waste into separate waste streams that can be recycled (yard waste and white goods), used as fuel at the refuse-to- energy facility or landfilled. The City has been able to decrease
the amount of waste previously landfilled, increase the amount used as fuel at the refuse-to-energy facility and is looking to increase the recycling of C&D debris in the future. The McKay Bay Scalehouse added an automated scale in July 2009 to speed up the processing of Solid Waste & Environmental Program Management trucks and reduce wait (idle) times for everyone.

Clean Cities – US Department of Energy

The City of Tampa was one of the first municipalities to join and support the creation of Tampa Bay Clean Cities Coalition. The Mission of Clean Cities is to advance the energy, economic, and environmental security of the United States by supporting local actions to reduce petroleum use in transportation. It is especially important to reduce our consumption of petroleum products as we continue to find transit options and improved land use development patterns. The U.S. Department of Energy's Clean Cities program advances the nation's economic, environmental, and energy security by supporting local actions to reduce petroleum use in transportation. Part of DOE's Vehicle Technologies Office, Clean Cities has saved more than 5 billion gallons of petroleum since its inception in 1993. The following slides shows some of the ways we were able to accomplish Tampa's contribution to that achievement.



Clean Cities
U. S. Department of Energy

Recycling

In 2013, the City recycled approximately 19,616 tons of material from residences and commercial businesses. Because of a city-wide program implemented in June, 2010, the number of households with curbside yard waste collection increased from 45% to 100% while decreasing the number of vehicles on the road by 10%. CO2 emissions were reduced by 500,000 pounds per year. Additionally, in 2009, a revised collection schedule was implemented for holidays saving about $500,000 per year in collection costs and 140,000 pounds of CO2 emissions per year.

The Tampa Convention Center recycles over 1,000 cubic yards of aluminum, plastic and mixed-paper products as well as twenty tons of cardboard annually.

Automated Cart Recycling (February 2013)

The Department of Solid Waste & Environmental Program Management launched a new "Be Smart, Use Your Cart" program for City of Tampa residents. Over an 18-month period, the 14-gallon blue bins currently used will be replaced with new 95-gallon green recycling carts, complete with tracking technology. It is anticipated that the implementation of automated carted recycling will substantially increase recycling participation and the tonnage of recyclables collected.

New Solid Waste Recycling Initiatives (2013)

The City continues to expand and improve the recycling options available to residents and businesses alike with the addition of new commercial recycling accounts; the establishment of new neighborhood recycling collection centers; enhanced collection programs for special events; and the provision of recycling collection services to occupied City of Tampa facilities and Parks and Recreation facilities.

Office Recycling & Reduction in Paper Use (Ongoing)

The City purchases green and or environmentally friendly products for 21.3% of its office supply needs. Office supply orders are made electronically via the internet using P-Cards, thus eliminating the need to print and mail hard copy orders. The City currently participates in the Hewlett-Packard (HP) Recycling Program. Original HP ink and LaserJet cartridges are returned to HP and HP gives the City credit points towards free equipment and supplies. The City recycled 760 toner cartridges in 2013. Additionally, the Tampa Convention Center actively pursues donation of surplus event materials to the community as part of a landfill diversion effort as well as the donation of unused food to local charities.

Earth-Friendly Products (Ongoing)

The Fleet Department has incorporated green, earth friendly products into their work centers such as lead free wheel weights, battery cleaners, parts washers that recycle and utilize a micro-organism base instead of petroleum solvents. The Tampa Convention Center uses locally grown produce and sustainable products to lesson transportation emissions.

Solar Trash & Recycling Compactors (December 2010) The City continues to collect data on its six solar-powered trash compactors located downtown. The goal is to replace 32- gallon trash cans saving money and reducing greenhouse gas emissions by fewer pickups by a city vehicle. The device is powered by a solar panel on top that recharges a 12-volt battery. An electric beam triggers a ram that compacts garbage until it reaches maximum volume. Whenthe receptacle is ready to be emptied, an electronic message is sent to a Website monitored by city sanitation employees. The technology emerged several years ago, and solar compactors can be found on street corners, in parks and elsewhere in cities including Boston, Philadelphia, Baltimore and New York. They also are being used in many state and national parks.

Construction Debris Recycling

Cold-in-Place Asphaltic Recycling: The project achieves cold- in – place recycling of bituminous pavements at various locations throughout the city.

Solar Parking

The City continues to save energy with its 146 Solar Parking Pay Stations with the elimination of conduits, power or the need to set up power meters at the stations. The City's reduces its carbon footprint by using less power.

Green Transit

Walk-Bike Plan Phase III (October 2013-Ongoing)

The Transportation Division supports upgrading the bicycle and pedestrian network throughout the City by implementing feasible multimodal concepts on all capital improvement projects including resurfacing projects. The Transportation Division also works closely with the Hillsborough County Metropolitan Planning Organization in the development of the City Walk-Bike Plans. These planning level studies identify and prioritize needed bicycle and pedestrian projects that provide neighborhood and activity center connectivity.

Tampa's City Hall can be accessed by transit utilizing the Hillsborough Area Regional Transit Authority (HART). Use their trip planner at http://www.gohart.org/routes/plan/tripplanner.html for the best route from your location. Bike racks are available on the west side of the building for those who chose this green mode of transit. HART has deployed 28 new Compressed Natural Gas (CNG) vans to replace its diesel-powered models. In 2015, HART expects to put 22 new CNG buses in service as its diesel buses are retired from service. By the end of 2015, HART expects a total of 59 CNG vehicles to be in service providing additional green transit opportunities for Tampa residents.

Bike Share Program (To launch late spring 2014)

Tampa's Coast Bike Share is a joint venture between Social Bicycles and CycleHop LLC, which will manage the program day to day. Riders will be able to use cell phones or credit cards to rent bicycles on an hourly basis or by membership fees, using a pin code to unlock the bikes. The bikes are equipped with drive shafts instead of chains for grease-free propulsion, LED headlights and tail lights for night time riding, adjustable seats and baskets out front. The bikes will be housed at designated sites and with their onboard technology riders can leave them tied up anywhere when they're finished. The proposed hub locations for the first phase of implementation will encompass downtown, Hyde Park, Ybor City, and Davis Island.

"Bike sharing programs like ours are an easy, affordable, and healthy mode of transportation." – Mayor Buckhorn

New Bicycle Lanes (April 2013-2 year project)

Bike paths are being created as part of an overall strategy to make downtown more accessible and safer for pedestrians.

The to-do list includes adding bike lanes to: Doyle Carlton Drive north of the Straz Center; Palm Avenue in Ybor City; Laurel Street between North Boulevard and Tampa Street

Existing pavement markings are removed using hydroblasting, allowing for the roadway to be restriped without having to completely resurface the roadway with a new layer of pavement providing a substantial cost savings. Hydroblasting uses no additives or chemicals and creates no dust, thereby protecting the public and environment from contaminants normally associated with resurfacing.

Platt Street Traffic Calming (March 2015)

The City of Tampa recently redesigned Platt Street in South Tampa, adding on street parking, lowering the speed limit, and creating the City's first buffered bike lane. Green paint near busy intersections help draw more attention to the new bike lane.

This is the first such design in the city, which was added as part of a larger, $2.4 million repaving and traffic-calming project. Additional buffered lanes will be added on Cleveland Street. The traffic-calming project reduced the speed limit on Platt and Cleveland from 40 mph to 35 and reduced the three-lane roads to two, allowing for the creation of the bike lanes. This project further helps reduce carbon emissions, by slowing cars down and encouraging the use of non-vehicular bicycles. These improvements are part of Mayor Buckhorn's pledge to make Tampa safer for pedestrians and bicyclists.

Electric Vehicle Stations

Through a grant program, the City received 10 electric vehicle charging stations at no cost in October 2011 to help reduce greenhouse emissions. The stations are part of the Charge Point America program sponsored by Coulomb Technologies through the American Recovery and Reinvestment Act and the Transportation Electrification Initiative administered by the Department of Energy. The goal is to provide electric vehicle charging infrastructure to regions in the US and foster the adoption and readiness of EV's throughout the country. The stations are located at the following public parking garages: Fort Brooke, Tampa Convention Center, South Regional, Twiggs Street, Centro Ybor, Palm Avenue, William F. Poe, and the Jackson Street surface lot.

Electric Vehicles

The City of Tampa participated as a sponsor helping Tampa Bay celebrate electric vehicles with **Drive Electric Tampa Bay.** A one-day event presented by the City of Oldsmar in partnership with NovaCharge and the Sierra Club. The event took place on Saturday, September 20, 2014. This event is part of the 4th Annual National Drive Electric Week (formerly known as "National Plug In Day") in which nearly 100 cities across the country participated. The event celebrated the myriad of benefits that electric vehicles can bring to cities from coast-to-coast. Plug-in electric vehicles have enabled millions of miles of cleaner, oil-free driving, including here in the Tampa Bay area.

Global Electric Motorcars (GEM) Cars

The Parking Division has replaced several gas-operated trucks, cars and 4-wheelers with GEM cars. This has resulted in a substantial reduction in fuel costs, emissions and noise pollution while allowing for greater mobility and higher visibility.

GEM cars have a top speed of 25 mph and a range of up to 30 miles (on a charge. They are battery-electric, operate on a 72-volt battery system and plug into a standard 110-volt outlet for recharging, and fully recharge in six to eight hours. GEM cars are used by local, state and national government agencies, resorts, master-planned communities, universities, medical and corporate campuses, sports teams, taxi-shuttle services and individual consumers.

TECO Line Streetcar System

The Tampa Convention Center offers free Streetcar passes to convention attendees as an eco-friendly method of transport around Downtown, Channelside and Ybor City. Over 28,000 conventioneers utilize this service. The Streetcar also connects with several HART bus routes including Route 30 Ride-n-Fly Airport Service.

Mass transit connects communities, mobilizes residents and fosters growth and civic pride within the community.

Alternative Fuels/Fuel Efficiency

Compressed Natural Gas (CNG) Garbage Trucks (2012-ongoing) The Department of Solid Waste and Environmental Programs operates five refuse vehicles fueled by CNG. Additional CNG trucks are on order and the fleet should include 20 CNG fueled vehicles by the end of 2014. Plans are underway to construct a temporary CNG fueling station at the Fleet and Solid Waste Yard while preparations are made for a permanent station that will accommodate the entire Solid Waste fleet. The permanent facility will be built in stages to keep pace with the acquisition of additional CNG vehicles.

GPS Route Optimization (June 2015)

The Solid Waste & Environmental Program Management will be purchasing a GPS Route Optimization system. The system will determine the most cost effective routes for garbage pickup thus saving fuel and increasing overall efficiency in picking up garbage.

Fuel Consumption Down (FY2013)

The Fleet Maintenance Department's unleaded fuel consumption is down 1.1% when comparing FY2012 to FY2013 based on increases in MPG because of newer and more efficient engines. The Wastewater Department has begun the process of downsizing its fleet vehicles with more efficient models that provide higher gas mileage. In appropriate applications, 4-cylinder (18-22 mpg) vehicles have been replacing heavy duty 8-cylinder work trucks (8-12 mpg) to reduce fuel consumption. Evolving automotive technology allows smaller engines to provide power and performance that would previously have required larger, less fuel efficient engines.

Ultra Low Sulfur Diesel (2006-2013)

Ultra low sulfur diesel purchases have been approximately 950,000 gallons a year since it has been phased in, reducing sulfur content in the fuel by 95%. Bio-diesel has not been purchased due to lack of availability and operational concerns when it was previously tested.

Diesel Engine Replacement (2011-2013)

Since 2011, the Fleet Department has replaced 100 old inefficient diesel engines with newer diesel engines with selective catalytic reduction (SCR) exhaust systems. SCR is a method of converting harmful diesel oxides of nitrogen (NOx) emissions, by catalytic reaction, into benign nitrogen gas and water. SCR can deliver near-zero emissions of NOx, an acid rain smog-causing pollutant and greenhouse gas. The combination of ultra-low sulfur diesel fuel and the sophisticated emissions devices on the new engines will result in more than a 90% reduction in soot and oxides of nitrogen.

Automotive Materials Recycling (2013)

In 2013 the Fleet Department recycled 57 tons of metal, 462 gallons of anti-freeze and 10,654 gallons of used oil.

Energy Conservation Projects – Wastewater Department

Wastewater Pump Station Rehabilitations and Upgrades (2013)

Pumping equipment, electrical improvements, and valve replacements were made to 20 pump stations to increase efficiency, ensure reliability, and provide long term protection of system assets. Newer pumps and electrical control systems reduce overall energy requirements.

Wastewater Electrical Co-Generation Program (Ongoing)

The Wastewater Department continues its program of electrical co-generation from the combustion of digester methane gas at its treatment plant. In FY13, the Department generated approximately 9.4 million KWH of electricity thus avoiding having to purchase this from Tampa Electric, for an estimated savings of approximately $660,000.

Wastewater Treatment Plant Improvements (2013-Ongoing)

The Wastewater Department has awarded projects for the rehabilitation of the High Purity Oxygen Generator Facility, Nitrification Reactor Air Distribution System, Raw Sewage Pumping station, the Screen and Grit facilities, and several other projects to improve the operating efficiency of our wastewater treatment plant and retire parts of its aging system. The Wastewater Department is also in the process of installing catalytic converters on diesel generators at the standby power facility to reduce the emission of greenhouse gases.

Energy Conservation Projects – Facilities Management Division

Energy Management Systems

The City installed Energy Management Systems at Old City Hall, the Tampa Police Department and Tampa Fire Rescue headquarters to reduce electrical consumption by controlling operational hours of lighting and equipment, fresh air usage and interior space temperature. Savings range from 10% to 25% and are expected to increase by using remote monitoring capabilities to detect problems early, allowing for improved response time for remedial actions.

The Facilities Management Division continues to implement energy saving measures such as lighting upgrades, roof upgrades and installation of energy management systems at various locations. Energy management components optimize electrical consumption in city facilities. Energy reduction is accomplished through controlling operational hours of lighting, equipment, fresh air usage and the interior space temperature.

LED Strobe and Induction Lighting (Ongoing)

Several thousand high-pressure sodium lights with induction lighting have been replaced in the City's Parking Garages resulting in a 50% savings in electricity costs along with brighter, whiter light, allowing for clearer visibility. Multi-colored, high-powered LED strobe lights have been placed on all security vehicles. The strobe lights give the appearance of more vehicles, and allow for higher visibility and increase peace of mind for our customers.

Lights under on-site storage tanks at the Water Department's Production Division have been converted to LED technology and retrofitted the entrance roadway at the David L. Tippin Water Production Facility with induction lamps. Building perimeter lights for the chemical and maintenance buildings and the main pumping station have been converted to induction fixtures to improve lighting quality while achieving a 50 percent reduction in power consumption.

Workgroup on Energy Management and Sustainability (Ongoing)

The City continues to have representation on the Hillsborough County Workgroup on Energy Management and Sustainability, headed by Commissioner Mark Sharpe, to improve energy efficiency in government operations. The current focus is finding transportation solutions that reduce our dependence on petroleum products.

TECO Energy Conservation Task Force (Ongoing)

The City continues work to implement recommendations from the Mayor's Citizen-TECO Energy Conservation Task Force:

-The City & TECO seek funding sources to support aggressive, community outreach programs for low income residents.

-Encourage landlords/property owners to make energy efficient improvements using TECO and City rebates & grants.

-Review the feasibility of requiring Section 8 rental housing to have standard weatherization and ceiling attic insulation improvements as a condition for entering a HAP contract.

-Collaborate with TECO in expanding current energy conservation education programs.

-Develop a Neighborhood Energy Audit / Weatherization Roll-Out Program.

Green Building

The City is committed to designing and constructing more environmentally friendly buildings using proven LEED certified practices and systems.

LEED Certified Buildings

The City promotes LEED (Leadership in Energy & Environmental Design) standards per City Code, Chapter 17.5. LEED buildings are designed to 1) lower operating costs and increase asset value; 2) reduce waste sent to landfills; 3) conserve energy and water; 4) be healthier and safer for occupants; and 5) reduce harmful greenhouse gas emissions. To earn LEED certification, a project must satisfy all LEED prerequisites and earn a minimum 40 points on a 110-point LEED rating system scale. Homes must earn a minimum of 45 points on a 136-point scale. There are 27 newly registered LEED certified buildings through the U.S. Green Building Council to include commercial, multi-family and single-family residences.

Springhill Park Community Center (Opened May 2012)

Silver-Level LEED standards were met for the Springhill Park Community Center, located in the Sulphur Springs area. The 16,000 square foot building includes high efficiency HVAC and lighting systems, CoolRoof rated materials, use of regional and recycled materials and Florida-friendly landscaping.

ENCORE (2nd Building, the Trio, to Open March 2014)

The ENCORE, a mixed use development for varying levels of income is currently under construction in Central Park just outside downtown.

The ENCORE is a LEED certified development using sustainable construction practices and efficient energy and water systems. When finished, the 28-acre Encore is expected to include 794 mixed-income apartments, 300 condominiums or other privately owned units sold at market rates and 268,000 square feet of offices and stores, including a hotel, museum, school and grocery store.

Assistance to Firefighters Grant (2009-2012)

The City received $1.7 million Assistance to Firefighters Grant for Fire Station Construction as part of the federal stimulus American Reinvestment Recovery Act. The Tampa Fire Rescue Department was one of 100 selected from 5,000 fire departments across the nation to receive the funding.

Fire Stations #11, #19 and #22

These fire stations are constructed using LEED Silver standards. Building sustainability features include high efficiency lighting and controls, solar-powered exterior lighting, an energy-efficient HVAC system, solar-powered water heating, and use of recycled materials. Site sustainability elements include preservation of the onsite wetlands, Florida-friendly landscaping, and the incorporation of bioswales into the stormwater retention system to provide runoff water quality enhancement.

EPA WaterSense Program Green Home Builder Webinars (May 9, 2013)

EPA is hosting informational webinars to share more about the benefits of WaterSense labeled new homes. WaterSense specification for single-family new homes was designed to work in harmony with other green building programs, so points can easily be earned towards LEED® for Homes and the National Green Building Standard. Products bearing the WaterSense label are 20% more water efficient than average products in that category and achieve water efficiency through several technology options.

Affordable Housing

The City of Tampa has continually provided funding for green, sustainable, energy efficient, affordable housing. Projects listed below demonstrate this commitment. Each of these projects went through a competitive Request for Proposal (RFP) process where they were specifically awarded points for constructing green and sustainable buildings and systems, creating environmental benefits internal and external to the project and improving the overall quality-of-life for its residents.

Trio at Encore

The Trio at Encore is a **161 unit LEED gold certified** multifamily residence. The city contributed $2.75 million dollars toward their construction. Sustainable goals have been met.

Eco Oaks

Eco Oaks is a **Platinum level LEED certified 18 unit** multi-family project serving female veterans and their children. The City of Tampa awarded $3,747,709.00 in funding.

Tampa Convention Center

Lighting (ongoing)

An ongoing program to replace older lighting technologies with LED lighting is being done at the Tampa Convention Center. The Convention Center is one of the few convention centers to have LED lighting in the exhibit halls. The efficiency of LED's and the extreme long life reduces energy and maintenance costs.

CoolRoof (Ongoing)

CoolRoof material is being used throughout the City for minimal slope roof replacements above conditioned spaces to reduce heat gain. The white material reflects the sun's heat back to the sky instead of transferring it to the building.

The Tampa Convention Center has nine acres of energy-star reflective roof covering to minimize solar heat loading by reflecting infrared energy up and away from the building. This reduces the amount of energy needed for cooling and reduces the "heat island" effect at night.

Energy Management Systems (Ongoing)

Energy Management Systems is a computer-aided tool is used to monitor, control and optimize the performance of HVAC systems and lighting in office buildings. Energy Management Systems utilize CO2 demand ventilation reducing energy consumption and helps lower carbon footprint. This is used throughout the City to include the Tampa Convention Center. The Convention Center is able to match the cooling and heating needs to the varying levels needed for different types of events and the number of people present in the building at the particular time.

Efficient Chillers (Ongoing)

The Tampa Convention Center installed two "TurboCor" Chillers that utilize magnetic bearing technology, allowing electromagnets to "float" the rotating parts. This process reduces energy consumption for air conditioning and eliminated the need for the oil to be changed and be disposed. These units combined produce 400 tons of cooling capacity. Overall the Convention Center has six chillers with a combined capacity of 4500 tons.

Daylight Harvesting (Ongoing)

The Tampa Convention Center practices daylight harvesting to utilize sunlight while turning off lighting during the day. This saves energy and reduces heat that is normally produced by the lighting fixtures. Additionally, the life span of the bulb is extended.

Energy Star Partner (Ongoing)

The Tampa Convention Center is a Federal EPA program that ranks buildings by their energy consumption compared to others of similar size and use. TCC ranks very high at 84 percent of building efficiency as compared with other convention centers. By utilizing green building operations techniques, the Convention Center has seen a 12 % decrease in energy usage for 2013 over prior years, helping offset power rate increases.

Fast-Track Plan Review

As an incentive for using green building technologies, the City provides a Fast-Track Plan Review process to anyone planning to build a sustainable project. Green design strategies include recycling construction and demolition waste, using recycled material in concrete, using Forest Stewardship Council (FSC) Certified Wood for framing, installing graywater system, installing Energy Star-qualified windows, and using renewable flooring materials.

The City continues to require green and sustainable items into its Request for Proposal for participation as part of the affordable housing design standards.

The City also encourages builders and developers to exceed the minimum requirements for energy efficiency of the Florida Building Code by sharing information on training, tools and resource efficient development such as the National Association of Home Builders "Guide to Developing Green Builder Programs;" the Florida Green Building Coalition's "Green Trends" annual conference; and achieving LEED accreditation through the Florida Gulf Coast Chapter of the U.S. Green Building Council.

Green Business, Outreach & Education

The City promotes sustainability by partnering with the Sustany Foundation to offer local businesses a sustainability assessment to identify and acknowledge best practices and measure results.

Green Business Designation

The City continues its partnership with the Sustany Foundation to offer a Green Business Designation Program (GBDP). The program was developed to formally recognize businesses that adopt energy efficient and sustainable practices. The certification is signed by the Mayor and a GBDP logo is provided to help market the business as a leader in sustainability and environmental stewardship. There are currently 17 businesses who have received this designation:

Bayside Engineering
Bayshore Solutions
Birkitt Environmental Services
Children's Cancer Center
City of Tampa
DLA Piper
eBridge Solutions
EcoAsset Solutions
EVOS
Florida Business Interiors
Geyen Group South
HOK Architecture
Law Office of Jeanne L. Coleman
Straz Center for the Performing Arts
Sykes Enterprises
Tampa Bay Times Forum
Tampa Downtown Partnership

Recognizing the time and technical constraints for small businesses interested in the green business designation, Sustany developed the Sustany Sustainable Business Program (SSBP) to launch in 2014. The SSBP is a 12-week program that includes a curriculum, workshops, and access to sustainability consultants to guide businesses through the self-assessment. Businesses can experience improved profitability through energy efficiencies and waste reduction, reduced environmental impact, and greater community engagement.

In 2014, Sustany will partner with the Tampa Downtown Partnership to host the SSBP for the following businesses: 22squared, Anise Global Gastrobar, Bamboozle Cafe and Bamboozle Tea Lounge, City Bike Tampa, Duckweed Urban Market, Malios Prime Steakhouse, Moxies Cafe, Renaissance Planning Group, Sunny Side Up, and Zudar's Deli.

Outreach and Education

Learning Gate Eco Fest

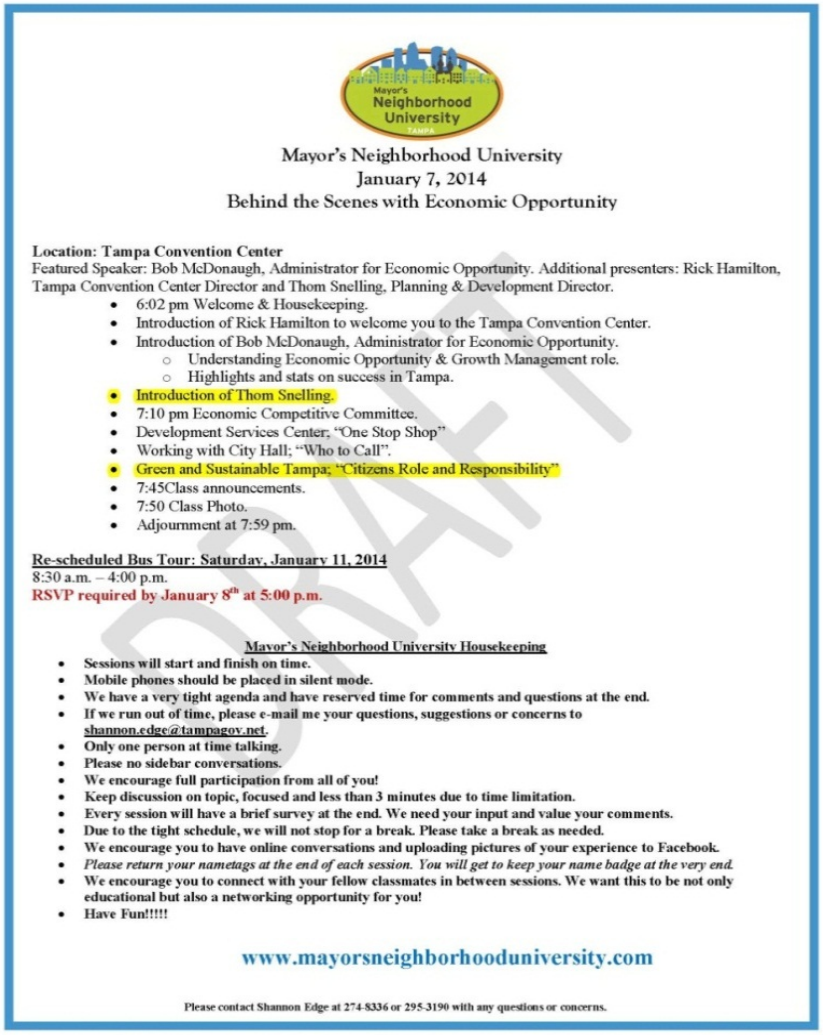
The City participated in EcoFest, a community event organized by Learning Gate Community School, the City of Tampa and the USF Patel College of Global Sustainability to celebrate the many businesses, organizations, and individuals in the Tampa Bay area dedicated to the principles of sustainability – Ecology, Equity and Economy. Activities included live music, workshops, demonstrations, informational booths, green living products and services from local artists, green businesses, environmental organizations, alternative health practitioners, renewable energy specialists, and organic farms and gardens with fresh local produce.

Tree-Mendous Tampa Program

Tampa recognizes the benefits of its trees and is committed to the conservation and enhancement of its environment. The **Tree-mendous Tampa Program**, also known as the Community Tree Program, is free and provides individuals and neighborhood associations with trees for planting on City land, greenways, and street rights of way. The program fosters the replenishment of Tampa's valuable and gracious tree canopy. Trees are a community resource that provides tangible benefits, in terms of visual and aesthetic attributes, environmental assets, health benefits, and economic value.

The Mayor's Neighborhood University (MNU)

The MNU provides a formal leadership training program for neighborhood leaders. In addition, the MNU builds upon the existing City's Neighborhood Empowerment program offering enhanced technical support services for the City's neighborhoods. As part of an ongoing educational opportunity the Green Officer presents to each class of the MNU to discuss ways citizens and neighborhoods can help forward their City's green and sustainable initiatives



Mayor's Neighborhood University
January 7, 2014
Behind the Scenes with Economic Opportunity

Location: Tampa Convention Center
Featured Speaker: Bob McDonaugh, Administrator for Economic Opportunity. Additional presenters: Rick Hamilton, Tampa Convention Center Director and Thom Snelling, Planning & Development Director.

- 6:02 pm Welcome & Housekeeping.
- Introduction of Rick Hamilton to welcome you to the Tampa Convention Center.
- Introduction of Bob McDonaugh, Administrator for Economic Opportunity.
  - Understanding Economic Opportunity & Growth Management role.
  - Highlights and stats on success in Tampa.
- Introduction of Thom Snelling.
- 7:10 pm Economic Competitive Committee.
- Development Services Center; "One Stop Shop"
- Working with City Hall; "Who to Call".
- Green and Sustainable Tampa; "Citizens Role and Responsibility"
- 7:45Class announcements.
- 7:50 Class Photo.
- Adjournment at 7:59 pm.

Re-scheduled Bus Tour: Saturday, January 11, 2014
8:30 a.m. – 4:00 p.m.
RSVP required by January 8th at 5:00 p.m.

Mayor's Neighborhood University Housekeeping

- **Sessions will start and finish on time.**
- **Mobile phones should be placed in silent mode.**
- **We have a very tight agenda and have reserved time for comments and questions at the end.**
- **If we run out of time, please e-mail me your questions, suggestions or concerns to shannon.edge@tampagov.net.**
- **Only one person at time talking.**
- **Please no sidebar conversations.**
- **We encourage full participation from all of you!**
- **Keep discussion on topic, focused and less than 3 minutes due to time limitation.**
- **Every session will have a brief survey at the end. We need your input and value your comments.**
- **Due to the tight schedule, we will not stop for a break. Please take a break as needed.**
- **We encourage you to have online conversations and uploading pictures of your experience to Facebook.**
- ***Please return your nametags at the end of each session. You will get to keep your name badge at the very end.***
- **We encourage you to connect with your fellow classmates in between sessions. We want this to be not only educational but also a networking opportunity for you!**
- **Have Fun!!!!!**

www.mayorsneighborhooduniversity.com

Please contact Shannon Edge at 274-8336 or 295-3190 with any questions or concerns.

Florida Green Building Coalition (FGBC)

The Florida Green Building Coalition (FGBC) is a nonprofit dedicated to improving the built environment. Its mission is to lead and promote sustainability with environmental, economic, and social benefits through regional education and certification programs.

The FGBC is continually finding new and innovative ways to educate builders, developers, local governments, and consumers about how to achieve a healthier, more environmentally sustainable future. The purpose of the FGBC is to administer certification programs based upon the green building standards, educate the general public, businesses, institutional and governmental bodies of the long term benefits of sustainable development and green building practices and encourage housing affordability by increasing building sustainability.

The City of Tampa was the second city to reach gold-level certification with an impressive score of 41% for its initial certification. Our re-certification improved on that number and achieved a score of 52%. Certified green governments promote being more energy and water efficient, safe, healthy, and durable.

Communicating Science in Sustainable Communities

The purpose of the daylong seminar was to share our organization's unique perspective and knowledge in a highly engaging and interactive facilitated session; Uncover new insights into the Tampa Bay Sustainability Community; Revel who we all need to become to serve our customers; Perhaps most importantly to impact the design of new PCGS educational programs to be of greater service for organizations in the community at large.