

**SHADE (Shaping Healthy Active Deep-rooted Environments) Project Expansion**



**Final Report to Funders' Network for Smart Growth and Livable Communities  
for  
Local Sustainability Matching Fund Grant, December 2017**



***“Little Havana Residents will be living healthier thanks to 70 trees planted in the area.” Frank Carollo, City of Miami Commissioner***

Submitted by project partners:

Citizens for a Better South Florida  
City of Miami  
City of Miami Gardens  
Health Foundation of South Florida  
Miami-Dade County  
Million Trees Miami  
Urban Health Partnerships

## **SHADE (Shaping Healthy Active Deep-rooted Environments) Project Expansion**

### **1. Executive Summary (1-2 paragraphs on the outcomes of the award)**

The purpose of the SHADE Expansion project was to provide tree canopy at bus stops within two historically underserved health-burdened communities, Little Havana and Miami Gardens. We successfully planted 142 trees, conducted walking audits, Photovoice, pre and post interaction surveys, an itree assessment, developed tree tags with educational information, added in a tracking software, obtained more than \$43,000 additional in-kind and cash support for the project, and engaged over 400 residents and key decision-makers in both communities. Based on lessons learned a scalable model was drafted for partners to consider in their next steps in Shaping Healthy Active Deep-rooted Environments throughout Miami-Dade County.

### **2. Description of Project Activities and Accomplishments**

#### **a. Outcomes Achieved (refer to those cited in application) and how the project advanced a key aspect of a community focused sustainability plan**

Per the SHADE Project proposal, our intended outcomes were as follows:

1. *Impact ten bus stops with the planting of 140 trees. Enhance tree canopy and associated benefits such as increased comfort, reduced storm-water runoff, clean air, increased levels of community involvement and interaction, aesthetic values, and more.*

#### **LITTLE HAVANA**

The 2017 SHADE Project tree planting in Little Havana aimed to incorporate sustainability into the Little Havana community residents, students, and organizations to cultivate open spaces that promote the expansion our urban tree canopy, increase outdoor physical activity, and beautify the neighborhood. This tree planting event was a collaboration of the Health Foundation, Miami-Dade County and their Neat Streets Miami and Million Trees Miami initiatives, the City of Miami, Partners for Places, Urban Health Partnerships, Live Healthy Little Havana and Citizens for a Better South Florida. About 30 volunteers helped to plant 72 trees in the Little Havana neighborhood in Miami-Dade County. The tree planting event took place on Wednesday, August 31, 2017. The selected tree planting site runs along NW 5<sup>th</sup> Street between NW 12<sup>th</sup> Avenue and NW 13<sup>th</sup> Avenue. The designated site of Little Havana was selected due to heavy pedestrian, bike, and vehicle traffic to and from the busway. These trees will benefit the community by providing shade, reducing stormwater runoff and removing atmospheric pollutants. The most valuable environmental benefit provided by the Little Havana trees is the stormwater values. A full report outlining the impacts can be found in Attachment C6.

#### **MIAMI GARDENS**

The 2017 SHADE Project tree planting in Miami Gardens aimed to promote the expansion of the Miami-Dade urban tree canopy, increase outdoor physical activity, and beautify the neighborhood through promoting sustainability practices, such as tree planting, to Miami Gardens residents, students, and organizations. This particular tree planting event was a collaboration of the Health Foundation, Miami-Dade County and their Neat Streets Miami and Million Trees Miami initiatives, the City of Miami, Partners for Places, Urban Health Partnerships, Live Healthy Miami Gardens and Citizens for a Better South Florida. About 30 volunteers helped to plant 70 trees in the Miami Gardens neighborhood in Miami-Dade County. The tree planting event took place on Wednesday, August 30, 2017. The selected tree planting site runs along NW 12<sup>th</sup> Street and NW 207<sup>th</sup> Street. The designated planting site in Miami Gardens was selected due to heavy pedestrian, bike, and vehicle traffic to and from the busways in this area. These trees planted will benefit the community by providing shade, reducing stormwater runoff, and removing atmospheric pollutants. The most valuable environmental benefit provided by the

Miami Gardens trees is the stormwater values. A full report outlining the impacts can be found in Attachment C7.

2. *Increase utilization of Miami-Dade's bus and trolley stops, and increase physical activity among residents in Little Havana and Miami Gardens.*

A total of 275 individuals participated in the pre and post intercept survey at and around bus stops within the Little Havana (71%) and Miami Gardens (29%) neighborhoods between July and October of 2017. There was a greater amount of participation in the pre-survey than in the post survey with 101 individuals from Little Havana and 64 from Miami Gardens participated in the pre-intervention survey, and 95 individuals from Little Havana and 15 from Miami Gardens participated in the post survey. The vast majority of respondents (84%) were residents of the neighborhoods, and the group was divided fairly equally between female (53.5%) and male (44%) with transgender representing 1.5% of the population and an additional 1% not wanting to self-identify.

Two-thirds (67.3%) of the respondents almost always or always take transit as a main mode of transportation, with an additional 28% relying on it sometimes or often. Walking was the mode of transportation most respondents (83%) used to get to the bus stop while few rode a bike (5%) or had someone drop them off (11%). The reason most individuals took transit was related to limited vehicular access such as not owning a car, it being broken down, or other related issue. (52%). Although the majority of residents felt most of times or always safe (62%), comfortable (63%), clean (54%), and they enjoyed walking to the bus stop (62%), more than **84% of all respondents would strongly prefer having trees at their bus stops.**

3. *Increase awareness and appreciation for shade trees and active transportation, and an understanding of their role in encouraging physical activity.*

There were three tactics used to increase awareness and appreciation for shade trees and active transportation in both Little Havana and Miami Gardens: 1. Walking Audits, 2. Photovoice, 3. Tree Tags.

## **WALKING AUDITS**

A walking audit provides an opportunity to assess the walkability of the built environment in a community. For this project it helped to identify concerns for pedestrians related to the bus and trolley riding experience. The goal was to identify 70 locations that trees could be planted at transit stops and on the routes leading to the transit stops in both Little Havana and Miami Gardens. Materials and full summary can be found within Attachments C.

## **LITTLE HAVANA TOP OBSERVATIONS**

- **Many locations within Little Havana are lacking the right of way necessary to plant trees.**
- **The walking groups attempted to talk with transit riders along the route and the groups noticed that people were more willing to talk at the stops that were in the shade.**
- **A few locations that trees could be planted are potentially on private property and will need coordination with property owners.**
- **Some areas around Marlins Park provided shade for pedestrians.**
- **The overall amount of shade along the route was**



ranked as “awful” to “many problems.”

- Walking groups conducted a temperature exercise and noticed more than a 10-degree difference between a location with shade and one without.
- Overall ratings for sidewalks, crosswalks, and bus stops ranged from “awful” to “some problems.” No items evaluated along the route were given a rating of “good” or above.

### **TOP RECOMMENDATIONS**

Locations for 70 trees were identified during the walking audit and are displayed in the attached map. Public Works was able to make final determination of where trees will be located and Citizens assisted with determining which species of tree that would be the best fit. Additional recommendations were identified as potential improvements for transportation agencies to address that could create more shade and pedestrian elements to maximize opportunities for the community to access and ride transit and to be more physical active.

- Bus stop location on NW 17<sup>th</sup> Ave across from Marlins Stadium could be relocated north to a location where there would be more waiting room and trees could be planted.
- Pedestrian crosswalk needed on NW 12<sup>th</sup> Ave and NW 7<sup>th</sup> St.
- Overall cleanup of the neighborhood trash and graffiti is needed.
- NW 10<sup>th</sup> Ave has a very narrow sidewalk that is cracked and uneven. Many crosswalks along NW 10<sup>th</sup> Ave are not painted and feel unsafe for pedestrians.
- Overall, more transit accommodations need to be installed, such as trash cans and benches. Trolley service could be enhanced, specifically the Stadium route.
- NW 12<sup>th</sup> Ave and NW 6<sup>th</sup> Street needs a better crosswalk for students to access school.
- At location where there is no right of way for tree planting, the City/County could consider bulb outs like the ones constructed on NW 27<sup>th</sup> Ave and seen in picture above.
- NW 2<sup>nd</sup> St was identified in the City of Miami Bike and Pedestrian Plan as a corridor in need of being right sized. There is an excess amount of pavement area and many of the intersections need traffic calming features. The walking audit highlighted those safety concerns and would like to see City of Miami expedite the improvements.

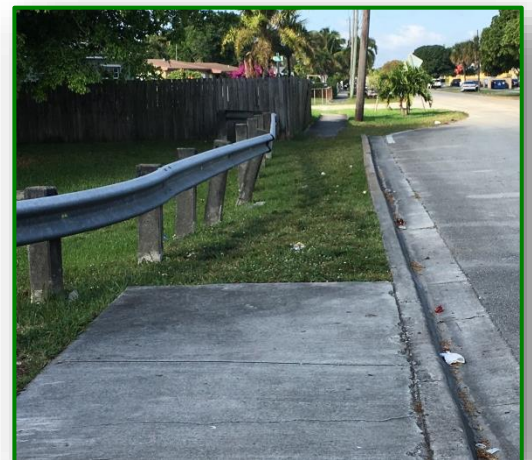
### **MIAMI GARDENS**

#### **TOP OBSERVATIONS**

- A lot of opportunity in both routes to plant trees.
- Some neighbors expressed concern with location of trees and need for parking. A lot of parked cars along both routes would restrict tree plantings.
- Many of the sidewalks were too narrow to walk safely and a lot of the sidewalks were obstructed by utility poles.
- Several notes of speeding cars on NW 207<sup>th</sup> Street.
- No bicycle amenities were noticed on either route.
- Walking groups conducted a temperature exercise and noticed more than a 20-degree difference between a location with shade and one without.
- Average rating for sidewalks, crosswalks, and bus stops was “some problems.” Overall safety of the neighborhood was ranked “good” by the participants.

#### **TOP RECOMMENDATIONS**

- Sidewalks near Norland Middle school should be repaired.





- **The bus/trolley stop on 199<sup>th</sup> need to be addressed as it currently is in an awkward location.**
- **The pedestrian countdown signal is too short for crossing NW 27<sup>th</sup> Ave and should be extended.**
- **Sidewalks on both routes were reported as narrow. Potentially there is an opportunity for a future project to reconstruct and widen.**
- **Additional sidewalks along NW 207<sup>th</sup> St need to be constructed to create a continuous path.**
- **Bike lanes need to be considered on both of these routes.**
- **NW 207<sup>th</sup> Street needs to be reconstructed to include traffic calming elements such as roundabouts and curb extensions.**

#### **PHOTOVOICE:**

Photovoice is a tactic often used to provide people an opportunity to capture their perceptions of community assets and daily trails by telling their story through a picture and somethings accompanying it with a short summary. SHADE took advantage of social media and widely spread #greenbusstops hash tag to mediums throughout Little Havana and Miami gardens. As a result, Attachment A1, provide a snap shot of the leading post that lead to 14,000 impressions countywide. Although, few true Photovoice responses were received, the Live Healthy Little Havana Coordinators state that many advocates did reach out to the City directly to share their ideas on #greenbusstops.

#### **TREE TAGS:**

Attached to each new tree is a tag reading “I’M YOUR NEW TREE”, which includes the tree species and a list of the benefits of the trees. The QR code on the front of the tag directs you to a landing page ([www.hfsf.org/shade](http://www.hfsf.org/shade)) providing an overview of the SHADE project and its partners, as well as event photos. The back of the tree tag has a QR Code that allows Miami-Dade County to track tree attributes and contractor maintenance, such as watering schedule and health of tree.

4. *A scalable model that advances active transportation options and the Million Trees Miami mission. Coordination with colleges – Miami Dade College and St. Thomas University*  
Miami-Dade County is considering scaling the SHADE program through their established relationship with the Universities. The Universities will serve as regional hubs to expand on stakeholder engagements, data collection (walking audits, Photovoice, and intercept surveys), and analysis of where tree canopy can have the greatest impact on active transportation and healthy lifestyles. Additionally, environmental clubs can assist with volunteering to plan trees and track their progress.

The model is based on the collective impact approach where Universities and the County departments share a common agenda and through their collaboration can satisfy self-seeking interest of planting a million tress and building the students’ leadership, analytic, and community service skills. The University structure allowed for measurements to be established and for continual communication to occur between partners. The discussion to begin an expanded approach to SHADE is scheduled to occur in the first quarter of 2018 for implementation in Fall of 2018.

- b. ***Modifications to Activities Proposed (and explanation of reasons and implications)***

The timing for the tree planting events took place at a moment when the soil was ripe and the trees had the greatest chance for survival. This is also during the peak of hurricane season. As a result, a hurricane was hit but the trees fared well and the pre and post survey interactions also followed a delayed implementation.

Additionally, the trees in Little Havana were along routes within 1 block of the bus stop rather than at the bust stop. The right-of-way is very limited in Little Havana and there were limitations we had not accounted for in planting trees exactly at the stop. To inform our decision for which routes would be selected, surface temperatures and heat island effects were calculated along the most used routes. In Miami Gardens, the planting went as planned with trees planted along the routes and at the bus stops.

**c. *What you learned about the tools and tactics that would help other sustainability directors advance their work***

The tree tags allowed us to create a system of accountability with our tree vendors as well as streamline our inventory of trees through the online GIS tool the tags generate. These tools and the location selection model can be scaled and replicated in a quick fashion to continue to build upon, not only the work of sustainability directors, but also the common goal among community groups to provide tree canopy throughout our county.

We have learned that local place-based foundations and their natural grassroots approach and understanding of their communities can truly enhance the allocation of resources for a local government sustainability director. A collaborative process in which the local place-based foundation can identify ideal tree planting locations along with appropriate tree species so that the local government can properly direct assets is one that will not only speed up sustainability director initiatives, but also simultaneously address community issues.

Additionally, while the walking audit tactic was very successful in engaging small groups of residents, the mass media campaign that led the Photovoice activity was only successful in obtaining impressions and comments, and not necessarily gathering additional green bus stop ideas for tree planting locations.. The concept of utilizing social media platforms for this type of engagement is aligned with best practices, but did not obtain the intended results in this project.

**d. *How the relationship between the sustainability director and the local place-based foundation will or might continue beyond the grant term***

Miami-Dade County's Office of Sustainability (OOS) as well as Miami-Dade County's Parks and Recreation and Open Space Department, and Miami-Dade County's Department of Transportation and Public Works have increased their collaboration with the Health Foundation of South Florida (HFSF) as a direct result of the Funders' Network Partners for Places grant program.

The initial Funders' Network grant in 2012 was the start of our sustainability director's relationship with the executive director of HFSF and with HFSF staff. Even though the 1<sup>st</sup> grant ended, the relationship continues. Project SHADE, our second grant collaboration, is an example of this ongoing relationship and a testament to this grant format. Now, this second opportunity brought solidifying relationships with two other departments that also play a key role in advancing the goals of the SHADE project.

Over the past year the Foundation served as a steering committee member on the Safer People Safe Streets Local Action Committee that assessed various tactics that overlapped with Shaping Healthy Active-rooted Environments in Miami-Dade. They also chose to fund Miami-Dade County Parks in collaboration with the other departments to develop the Complete Streets Guidelines that specifically outline the importance of tree canopy and promotion of covered bus stops and active transportation.

As the relationship strengthens our interest continue to overlap, which creates opportunities for continued engagement and positive impacts that are felt countywide.

e. *Lessons for developing a collaborative process between a local government sustainability director and local place-based foundation.*

- **The residents should be part of the formation of a collaborative as key stakeholders to the process of developing sustainable tactics.**
  - Many supported having more trees.
  - Others didn't like the idea of SHADE because felons hide in trees and when hurricanes come they are a threat
  - The benefits of having tree shade is particularly clear for seniors, students or people that may not be able to afford a car or can't have a driver's license, and depend on public transportation. These subpopulations should be considered in establishing collaboration.
  
- **Including additional departments, such as public works, to consider seating or additional amenities to maximize the use of shade or achieve that could achieve the programs goals.**
  - We noticed that a lot of people were requesting more seats where shade was being proposed.
  
- **Establish a Memorandum of Understanding with partners to establish a clear understanding of roles and responsibilities for being involved.**
  - In working with Universities and various non-profits aside from an action with all partners listed, a more detailed written agreement could be beneficial in sustaining the relationship over time.
  
- **Strong project coordination is essential.**
  - With this many partners on the project, it is important to have roles and responsibilities clearly defined and to have a coordinator that can manage tasks and the calendar. It's also important to have a back-up plan in the case of staff turnover or leave of absence.
  
- **Identifying locations for tree plantings can be challenging, especially in urban environments.**
  - In Little Havana, many of the locations initially identified as potential tree planting sites were paved over. We had budgeted some funds to have the city remove concrete and asphalt in these areas but the process to get approval for that would have drastically slowed down the project and prevented us from planting during the rainy season.
  
- **Results from tree plantings may not be immediate.**
  - Although there is an immediate visual difference to the stops and corridors where the trees were planted, it will take some time for the trees to grow to the point where they are providing enough shade to cool the area.

### 3. Attachments

<b>Folders</b>	<b>Items</b>
Attachment. A. Media and Promotions	Attachment. A1. Promotions through Social Media.pdf
	Attachment. A2. Sun-Sentinel Article on SHADE LH 8-30-17.png
	Attachment. A3. LITTLE HAVANA Walking Audit Promotional Flier.jpg
	Attachment. A4. LH – Spanish- Walking Audit and Green Bus Stops Promotional Flier.pdf
	Attachment. A5. MIAMI GARDENS Walking Audit and Green Bus Stops

	Promotional Flier – Spanish.pdf
	Attachment. A6. Screen Capture Shade Landing Page 10-20-17.png
	Attachment. A7. SHADE Fact Sheet Jan 2015 UPDATE.pdf
	Attachment. B1. iTree Analysis Report Miami Gardens 2017.pdf
Attachment. B. Data	Attachment.B2. iTree Analysis Report Little Havana 2017.pdf
	Attachment. B3. Final Draft of Shade Project Survey for LH July 28 2017.pdf
	Attachment. B4. Final Draft of Shade Project Survey for MG July 28 2017.pdf
	Attachment. B5. SHADE Project POST-Survey Responses Little Havana.pdf
	Attachment. B6. SHADE Project POST-Survey Responses Miami Gardens.pdf
	Attachment. B7. SHADE Project PRE-Survey Responses Little Havana.pdf
	Attachment. B8. SHADE Project PRE-Survey Responses Miami Gardens.pdf
	Attachment. C1. Walking Audit Facilitator Guide and Materials – LH.pdf
Attachment. C. Meeting Materials	Attachment. C2. Walking Audit Facilitator Guide and Materials – MG.pdf
	Attachment. C3. SHADE Presentation Facilitator Training.pdf
	Attachment. C4. LH Bike Ped Network Around Bus Stops.pdf
	Attachment. C5. LH Land Use Around Bus Stops.pdf
	Attachment. C6. LH Temperatures Around Bus Stops.pdf
	Attachment. C7. WA Summary for MG.pdf
	Attachment. C8. WA Summary for LH.pdf
	FOLDER - LH Event
Attachment. D. Project Pictures	FOLDER – LH Walking Audit
	FOLDER – MH Event
	FOLDER – Survey
	FOLDER – Tree Tags
	FOLDER – Tree Tags