

**US EPA BROWNFIELDS ASSESSMENT GRANT  
FINAL REPORT  
COOPERATIVE AGREEMENT  
BF-95498212**



**Submitted by:**

**Public Works Department  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue  
Orlando, Florida, 32802-4990**

**Final Report by ECT, Inc.**

**December 28, 2015**

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2015 Parramore Community Garden Holiday Event  
Attendees with Brownfield Educational Materials

## 1.0 INTRODUCTION

The purpose of the document is to provide a final report for the City of Orlando area-wide brownfield assessment grant as required by the cooperative agreement between the United States Environmental Protection Agency (EPA) and the City of Orlando (BF-95498212). A copy of the cooperative agreement is provided in **Appendix A**. This final report provides a summary of the grant-specific tasks and project expenditures.

### 1.1 PROJECT DESCRIPTION

EPA Cooperative Agreement BF-95498212 was formally awarded to the City of Orlando in early October 2012. A community-wide grant, its primary focus was on the predominately African-American Parramore Neighborhood. The historic Parramore Neighborhood is bounded to the north by Colonial Drive, to the south by W. Gore Street, to the west by S. Orange Blossom Trail, to the east by S. Division Avenue and I-4 and is over 1 square mile in area. Please refer to the **Figures** section, which addresses the grant-defined Parramore Neighborhood Brownfield area.

First established as a segregated community in the last century, Parramore is situated due west of downtown Orlando (Orange County, Florida). As detailed in the 2015 Parramore Comprehensive Neighborhood Plan, as of 2013, there were only 6,175 residents, a decline of 65% since the 1960's. In the post war period, the unintended consequences of rectifying "separate but equal" laws and the barriers created through new thoroughfares (I-4 and the East-West Expressway), as well as urban renewal projects, caused Parramore to fragment, and through this process, lose much of its population, sense of place and cultural heritage. Moreover, interspersed among the neighborhood's commercial and residential areas, were various industrial and agricultural related uses that would not be allowed in today's world due to potentially adverse impacts to the built and human environment. While multi-decade civic efforts have successfully striven to correct many of these deficiencies through environmental and infrastructure improvements, as well as robust social program implementation, much more needs to be done.

At present, there are approximately 2,762 housing units in Parramore, of which 19% are vacant. Most Parramore residents are likely to rent than own. The median household income is \$15,493, approximately \$26,925 less than the City of Orlando's median household income of \$42,418. The unemployment rate is 23.8%, an estimated 18.5 points higher than the Orange County average. A 2014 Parramore Neighborhood Health Fair also identified that community members disproportionately suffer from multiple chronic health conditions, such as high blood pressure, diabetes, and heart disease. Asthma, too, was a concern particularly among the youth.

### 1.2 PROJECT TEAM AND RESPONSIBILITIES

The City of Orlando was the official Cooperative Agreement Recipient (CAR) of the EPA Brownfield Assessment grant. The CAR team responsible for overall program

administration included City staff from the City's Attorney's Office, Environmental Control Division, Economic Development Department, as well as the Downtown Development Board/Community Redevelopment Agency Director of Urban Development. Under the guidance of the Public Works Project Manager, the team met as needed to conduct a variety of tasks, inclusive of:

- Reviewing the terms and conditions of the cooperative agreement;
- Developing the Request for Qualifications (RFQ) packet for Brownfield Assessment Grant services;
- Assessing submitted statements of qualifications and selecting a consultant to provide site analysis and assessment services, and
- Reviewing technical reports provided by the selected consultant, providing related feedback as well as conducting other grant related duties, as assigned.

In particular, personnel from Public Works Department (Dan Dashtaki, Project Manager) and the Economic Development (EDV) Department (Tisa Mitchell, Fiscal Manager) were directly responsible for overseeing and directing the selected consultant, Jeff Peters, Environmental Consulting & Technology, Inc. (ECT), to perform technical assessments, as well as carry-out the required financial and performance reports. Mary-Stewart Droege, EDV grant facilitator, also worked with ECT, Inc. to coordinate meetings, conduct public outreach as well as brownfield education. David Bass, City's Attorney's Office, Steve Howe, Public Works Department, Erik Melear, Public Works Department, and Lusbeth Perez Pena, Economic Development Department provided general support.

Moreover, through email, regular written correspondence as well as telephone contact, City of Orlando personnel and ECT, Inc. made the EPA aware of site-specific assessment activities and provided them an opportunity to review and comment on technical reports, including Quality Assurance Project Plans (QAPPs), sampling plans, Phase I/II Environmental Site Assessments (ESAs) and other technical reports. Moreover, US EPA officials also made a number of site visits to assess brownfield assessment progress during the three year grant period. Brian Gross, Physical Scientist, Environmental Protection Agency-Region 4, provided direct technical and public outreach support.

## 2.0 GRANT-SPECIFIC TASK DESCRIPTIONS

The following provides a narrative description of the tasks completed for both the petroleum and hazardous substance grant funded activities.

### 2.1 **PROJECT MANAGEMENT & REPORTING**

Activities conducted under this task include compliance with EPA reporting requirements, development of requests for proposals for environmental consultants, management of the site assessment process, participation in Florida's Brownfields Redevelopment Program, managing brownfield related issues, assisting with site access negotiations for privately held property, and internal capacity building activities.

#### 2.1.1 **CONTRACTOR PROCURMENT**

Consultants were procured in accordance with 40 CFR Part 31 Uniform Administrative Requirements for Grants and Cooperative Agreements. Also, in accordance with provisions of the Florida Consultants Competitive Negotiation Act, a request for qualifications was prepared and advertised to obtain professional services to perform environmental site assessments and assist with grant management and reporting requirements. From the environmental consulting firms that responded to the solicitation, ECT was selected to conduct environmental site assessments under the hazardous substances and the petroleum grant components.

#### 2.1.2 **KICKOFF MEETING REPORTING REQUIREMENTS**

After selection of the consultant, members of the city project team and the EPA Project Manager conducted an on-site project kickoff meeting on August 15, 2013 to orient the participants to roles and responsibilities, work schedules, and expected project outcomes to ensure that everyone understood what was needed from the respective parties to ensure full participation.

#### 2.1.3 **REPORTING REQUIREMENTS**

Twelve quarterly progress reports and associated disadvantaged business reports were submitted in accordance with EPA reporting requirements beginning with the quarter ending December 31, 2012. Property specific information about the parcels assessed under the hazardous substances and petroleum grants was submitted and regularly maintained via the on-line Assessment Cleanup Redevelopment Exchange System (ACRES) database.

#### 2.1.4 **DOCUMENT REPOSITORY**

Grant related documents, including technical and programmatic reports, were placed in the FAMU Law School Library, located at 201 Beggs Avenue, Orlando, Florida, and posted in the online repository at: [www.cityoforlando.net/city-planning/2015/04/07/city-brownfield-program-updates/](http://www.cityoforlando.net/city-planning/2015/04/07/city-brownfield-program-updates/).

## **2.2 COMMUNITY OUTREACH AND ENGAGEMENT**

Key stakeholders, including business owners, concerned residents, and representatives of community-based groups, who are connected to the area and/or have an interest in facilitating a healthy environment and redevelopment of the targeted brownfields area, were identified as being critical to the implementation of the city's brownfields assessment grant. The following sections present the City's efforts to involve the community.

### **2.2.1 CITIZEN PARTICIPATION PLAN**

The City prepared and distributed a Citizen Participation Plan (CPP) in September 2013, and with revisions in early January, 2014. The purpose of the CPP was allow people living and working in the Parramore Neighborhood as well as other interested citizens to contribute to the brownfield assessment decision-making and planning process. Gaining community understanding and general consensus was essential to achieving a successful brownfield program and to reflect the goals and vision of the community members for their neighborhood. The keys to gaining community consensus were:

- Including citizens throughout the planning process;
- Providing opportunities for meaningful and collaborative input, dialogue, and information sharing;
- Respecting the various opinions brought to the table;
- Managing expectations in a realistic and honest manner when discussing and presenting what is possible from a planning perspective by providing accurate and complete information as available; and
- Developing and maintaining a brownfield advisory committee (BAC).

A copy of the CPP is provided in **Appendix B**.

### **2.2.2 BROWNFIELD ADVISORY COMMITTEE**

Members of the BAC met regularly to assess interest in supporting the grant and committee activities. Various City and ECT personnel were designated as spokespersons for community outreach. Information about the City's brownfields program was disseminated through public notices and through the city's website. Additionally, meetings were held at community venues to inform and solicit input on potential sites that should be targeted for assessment. Public involvement efforts sought to truly involve residents, listen to and be respectful of, ideas and concerns, and document and incorporate input received during the planning process to ensure that the resulting assessment program reflects the diverse values and needs of the Parramore community. Meetings that provided information on the brownfield program are summarized in the following Table 1.

**Table 1  
Summary of Community Outreach and Engagement Meetings**

2013	Event	Location
October 7, November 4, December 5	Scheduled BAC meeting	Orlando City Hall
December 5	Community Meeting	Jackson Center
2014	Event	Location
January 6, February 3, March 3, April 7, May 5, June 2, July 7, August 3, September 8, October 6, November 3, December 1	Scheduled BAC meeting	Orlando City Hall and Wastewater Treatment Plant
June 21	Juneteenth Community Health Fair	Ivy Lane Recreational Park
July 14	Community Meeting	Dr. J. B. Callahan Neighborhood Center
December 1	BAC meeting to discuss entering into BSRA's	City Hall
2015	Event	Location
January 5, February 2, March 2, April 6, May 4, June 8, July 6, August 3, September 14, and December 12	Scheduled BAC meeting  Grant close-out educational activity	Orlando City Hall and Wastewater Treatment Plant  Parramore Community Garden

BAC - brownfield advisory committee  
BSRA - brownfield site rehabilitation agreement

Other meetings, sessions, or workshops\* that were supported, sponsored, or attended by the City and/or community are listed below:

- Florida Brownfields Association (FBA) - October 27-30, 2013 (Ft. Lauderdale, FL), October 4-7, 2015 (Tampa, FL)
- 1<sup>st</sup> Annual Southeast Brownfield Conference October 28-31, 2014 (Orlando, FL)
- Environmental Justice (EJ) workshop August 27, 2014 (Orlando, FL), August 19, 2015 (Orlando, FL)

*\*NOTE: BAC members also presented at local events.*

### **2.3 SITE INVENTORY**

A Brownfield Site Inventory is a valuable planning tool for communities looking to identify and prioritize areas for redevelopment. ECT developed the brownfields site inventory in an effort to identify and rank brownfield sites in the Parramore Community with the greatest potential for redevelopment and put the community in an advantageous position to obtain future funding for assessment and streamlined remediation activities. ECT's approach to developing the site inventory considered the objectives of the U.S. Environmental Protection Agency (EPA) Integrated Approach for Brownfields Redevelopment Study. These include:

- Create investment opportunities in urban areas that ultimately provide increased tax revenues and jobs;
- Reduce human health effects and environmental risk; and
- Provide benefits to low income and minority populations by revitalizing their neighborhoods

ECT's inventory approach and reproducible methodology can serve as a reference to substantiate requests for assistance from the many federal and state Brownfield programs that are readily available. The following is a brief summary of the inventory process.

#### **2.3.1 TARGET INDIVIDUAL SITES**

A practical method to site selection is to focus attention on sites that are eligible for various grants that provide funds to assess and remediate brownfields sites. Therefore, sites eligible for these grants would have potential funding for redevelopment in the future. Using the EPA Brownfields Assessment and Cleanup Grant guidelines, private property owners liable or affiliated with contamination that are designated on certain regulatory records are ineligible for grant funding. Consequently, these listed sites and those that have owner liability issues are less desirable for redevelopment.

#### **2.3.2 TARGET GEOGRAPHIC AREAS**

An approach to identify brownfields sites with a potential for successful redevelopment is to focus on sites located in commercial/industrial neighborhood business areas and mixed-use geographic areas. According to the EPA's Integrated Approach for Brownfield Redevelopment Study, brownfields redevelopment located within these types of geographic areas is most likely to be successful. In addition, characteristics of these geographic areas may assist in achieving objectives for brownfields redevelopment projects. For example, redevelopment in a mixed-use area could address Environmental Justice (EJ) issues related to low income and minority populations by providing economic and social benefits through the revitalization of the neighborhood. Redevelopment in commercial/industrial/neighborhood business areas can create economic benefits associated with increased tax revenues and jobs creation.

### **2.3.3 CHARACTERIZE MARKETABILITY OF TARGET SITES**

To assess the marketability of potential brownfields sites, the site's business incentives and economic characteristics, along with any geological or geographic conditions that can be readily obtained, are evaluated.

### **2.3.4 USE OF LOCAL KNOWLEDGE IN SITE PRIORITIZATION**

It is extremely useful to take into account any local knowledge that exists within the community when prioritizing brownfields redevelopment sites. Understanding the goals of local officials as well as residents and other stakeholders will provide opportunities to add or remove sites from the priority list. For example, a city or town may have an existing Master Plan or a Downtown Development Plan where specific geographic areas are identified in which the city or town would like to focus future economic development.

ECT initially utilized the Downtown Orlando Community Venues Master Plan dated November 13, 2006, along with other sources of planning information, to assist with prioritization and site selection. The Parramore Comprehensive Neighborhood Plan and Project DTO added additional information during the latter part of the grant period.

### **2.3.5 DEVELOPING THE INVENTORY**

The following data collection techniques were implemented to assist with determining the design and content of the Site Inventory:

- Partner Queries;
- Windshield surveys;
- Review of public databases including:
  - Contamination Locator Map (CLM);
  - Florida Department of Environmental Regulation OCULUS website;
  - Environmental Data Resources, Inc. (EDR);
  - Orange County Property Appraisers website;
  - Department of Health EH Water website;
  - Aerial photographs; and
  - Sanborn maps.

Information gathered from the above referenced sources was provided in the Initial Site Inventory Report dated October 2013. A copy of this report can be downloaded from the city's website at [www.cityoforlando.net/city-planning/2015/04/07/city-brownfield-program-updates/](http://www.cityoforlando.net/city-planning/2015/04/07/city-brownfield-program-updates/).

A third-party data record search was generated by Environmental Data Records (EDR) for both the brownfield assessment grant application and the site inventory. The EDR report identified more than 450 registered facilities within the Parramore community. Several of these facilities had already, or were undergoing, some sort of site rehabilitation through various cleanup programs offered through the EPA or the State of Florida. Some

sites were also undergoing voluntary assessment and cleanup. After a thorough review of documents available, 32 privately-owned sites, and 115 sites owned by the city, were identified as potential candidates for Phase I/II assessment activities using brownfield grant funding. The following 7 ranking criteria were used to assign point values to each site in order to determine the highest priority ranked sites:

- Within a designated brownfield area – 0-5 points;
  - Within a Community Redevelopment Area or Enterprise Zone – 0-5 points;
  - For sale or proposed redevelopment – 0-10 points;
  - Blight (as assigned by the community) – 0-10 points;
  - Potential health issues (as determined by the community and/or Orange County; Health Dept.) – 0-10 points;
  - Proposed greenspace – 0-5 points; and
  - Site access – 0-10 points
- (Note: A maximum score would be 55 points.)*

Table 2 summarizes the ranking criteria, and the following 8 sites that were ranked as the highest priority locations where brownfield assessment funding should be focused.

**Table 2  
Inventory Ranking Summary**

FINAL SITE INVENTORY			RANKING CRITERIA							
SITE ID	SITE NAME	ADDRESS	Within a Designated Brownfield Area (0-5 points)	Within a CRA/EZ (0-5 points)	For sale or proposed redevelopment (0-10 points)	Blight (0-10 points)	Health Issues (0-10 points)	Proposed greenspace (0-5 points)	Access (-10 - 10)	TOTAL
1	ORL REC CTR/CREATIVE VILLAGE	649 BENTLEY	5	5	10	0	5	3	10	38
2	ORLANDO ARENA (CREATIVE VILLAGE)	630 W AMELIA	5	5	10	0	5	3	10	38
3	PROPOSED MAJOR LEAGUE SOCCER STADIUM	607 W CHURCH	5	5	10	5	0	3	10	38
4	PARRAMORE COMMUNITY GARDEN	654 W. ROBINSON	5	5	0	0	8	5	10	33
5	VACANT COMMERCIAL	709 W CENTRAL	5	5	5	0	0	0	10	25
6	MT. ZION BAPTIST CHURCH	107 N. TERRY	5	5	0	0	5	0	10	25
7	PEABO CHILD CARE CENTER	815 HILLS	5	5	0	0	5	0	10	25
8	VACANT COMMERCIAL (MUNICIPAL)	641 OSSIE	5	5	2	0	0	0	10	22

**2.4 SITE CHARACTERIZATION**

Table 3 summarizes the list of sites where characterization and evaluation for recognized environmental conditions (RECs) were performed.

**Table 3  
Site Characterization Summary**

<b>SITE ID</b>	<b>SITE NAME</b>	<b>ADDRESS</b>	<b>Phase I ESA</b>	<b>Phase II ESA</b>	<b>Site Specific QAPP</b>	<b>Site Specific HASP</b>	<b>ABCA</b>	<b>Ruse Planning</b>	<b>Size (acres)</b>
1	ORL REC CTR/CREATIVE VILLAGE	649 BENTLEY	X	X	X	X	X		26.81
2	ORLANDO ARENA (CREATIVE VILLAGE)	630 W AMELIA		X	X	X			8.72
3	PROPOSED MAJOR LEAGUE SOCCER STADIUM	607 W CHURCH						X	7.56
4	PARRAMORE COMMUNITY GARDEN	654 W. ROBINSON	X	X	X	X			0.15
5	VACANT COMMERCIAL	709 & 717 W CENTRAL	X						0.62
6	MT. ZION BAPTIST CHURCH	107 N. TERRY	X						1.36
7	PEABO CHILD CARE CENTER	815 HILLS	X						0.13
8	VACANT COMMERCIAL (MUNICIPAL)	641 OSSIE	X						0.25

QAPP - Quality Assurance Project Plan  
 HASP – Health & Safety Plan  
 ABCA – Analysis of Brownfield Cleanup Alternatives  
 P/H – petroleum/hazardous

Information on these sites was entered into the Assessment, Cleanup and Redevelopment Exchange System (ACRES). Project profiles are provided in **Appendix C**.

In addition to the sites listed in Table 3, other potential sites / concerns were identified and discussed in the monthly meetings of the BAC. Available information regarding these sites / concerns was reviewed and discussed, but not elevated to the level of a Phase I/II ESA. These sites / concerns are summarized in Table 4.

**Table 4  
Site Characterization Summary**

SITE NAME	ADDRESS	CONCERN
BECMAR BUILDING	1221 W. COLONIAL DRIVE	UNRESOLVED GROUNDWATER IMPACTS <sup>1</sup>
CARVER PARK	GORE STREET	UNRESOLVED SOIL IMPACTS <sup>2</sup>
HISTORIC MUCK ISSUE	WASHINGTON STREET	HOUSES BUILT ON FORMER MUCK POND <sup>3</sup>
OPD FUEL TANK SITE	100 S. HUGHEY AVENUE	UNRESOLVED PETROLEUM IMPACTS <sup>4</sup>
SCHOOL BUS EMISSIONS	PARRAMORE COMMUNITY	UNHEALTHY AIR EMISSIONS FROM SCHOOL BUSES <sup>5</sup>
TRULY NOLAN	1000 W. AMELIA AVENUE	UNRESOLVED PESTICIDE IMPACTS <sup>6</sup>

<sup>1</sup>Outside of the Parramore area-no further action issued by the EPA

<sup>2</sup>Soils addressed during previous redevelopment activity

<sup>3</sup>No historical evidence could be located

<sup>4</sup>Environmental concerns addressed by the responsible party

<sup>5</sup>Insufficient grant funding to address concern

<sup>6</sup>Site identification through 3<sup>rd</sup> party Phase I ESA. No action pursued.

**2.5 COMMUNITY HEALTH MONITORING PLAN**

A community health monitoring plan was prepared by ECT and the City in December 2013. Asthma Friendly School Assessments were to be performed at several elementary, middle and high-schools located within and near Parramore community. Throughout the grant period, several meetings were completed, and several attempts were made, to coordinate access to several different Orange County Public Schools (OCPS). Due to scheduling and school calendar requirements, access to OCPS did not occur, so the Asthma Friendly School Assessments were focused on day-care facilities. Staff, with support of David Overfield, Administrator, Environmental Health, Department of Health-Orange County, was contracted to perform the assessments. Monetary incentives (\$50/person up to \$400/center) were provided to increase participation. A copy of the community health monitoring plan and the final report prepared by DOH – Orange County is provided in **Appendix D**.

**3.0 GRANT EXPENDITURES**

Quarterly reports documenting total and cumulative costs incurred throughout this 3-year brownfield assessment are posted in the online repository at: [www.cityoforlando.net/city-planning/2015/04/07/city-brownfield-program-updates/](http://www.cityoforlando.net/city-planning/2015/04/07/city-brownfield-program-updates/). Budget amendments were approved only to shift funds between tasks. Task expenditures are summarized in Table 5 and site-specific project expenditures are summarized in Table 6.

**Table 5  
Task Expenditures**

TASK	PETROLEUM GRANT	HAZARDOUS GRANT
SITE INVENTORY & CHARACTERIZATION	\$7,547	\$7,496
QUALITY ASSURANCE PROJECT PLAN	\$2,504	\$2,493
PHASE I/II ASSESSMENTS	\$85,712	\$105,164
REMEDIATION/REUSE PLANNING	\$40,001	\$38,000
COMMUNITY OUTREACH	\$14,753	\$15,194
PROGRAMMATIC SUPPORT	\$14,962	\$10,499
HEALTH MONITORING	\$15,003	\$9,499
SUBTOTALS	\$181,481	\$188,346
CITY OF ORLANDO EXPENDITURES	\$19,519	\$11,654
TOTALS (rounded)	\$200,000	\$200,000

**Table 6  
Site-Specific Project Expenditures**

SITE ID	SITE NAME	ADDRESS	PROJECT EXPENDITURES
1	ORL REC CTR - CREATIVE VILLAGE	649 BENTLEY	\$126,407
2	ORLANDO ARENA - CREATIVE VILLAGE	630 W AMELIA	\$30,687
3	PROPOSED MAJOR LEAGUE SOCCER STADIUM	607 W CHURCH	\$85,950
4	PARRAMORE COMMUNITY GARDEN	654 W. ROBINSON	\$10,913
5	VACANT COMMERCIAL	709 & 717 W CENTRAL	\$3,657
6	MT. ZION BAPTIST CHURCH	107 N. TERRY	\$3,712
7	PEABO CHILD CARE CENTER	815 HILLS	\$3,801
8	VACANT COMMERCIAL (MUNICIPAL)	641 OSSIE	\$3,749

**3.1 VOLUNTARY CLEANUP TAX CREDIT**

Brownfield Site Rehabilitation Agreements (BSRAs) were entered into by the City and the FDEP in 2014. Voluntary Cleanup Tax Credits (VCTCs) were applied for by the City for the sites listed below, along with other project specific information:

Site ID 1 & 2: Creative Digital Village

BF Site ID No. BF480401007

Total site rehabilitation costs incurred in 2014: \$129,066.33

Total Assessment Grant expenditures in 2014: \$129,066.33

VCTC application amount for 2014: \$64,533.17

Site ID 3: Proposed Major League Soccer Stadium

BF Site ID No. BF480101008

Total site rehabilitation costs incurred in 2014: \$561,092.99

Total Assessment Grant expenditures in 2014: \$71,848.91

VCTC Application amount for 2014: \$280,546.50

VCTC applications will be submitted for cost incurred in 2015 by January 31, 2016.



*Seeding Food in Neighborhoods:  
Community and Market Gardens*

*Mary-Stewart Droege, AICP*

*Good Food Central Florida-City of Orlando BAC*

*City of Orlando-Overlook Room*

*Environmental Justice Workshop-Florida Brownfields Association*

*8/19/2015*

PowerPoint slide from a City of Orlando BAC Member Presentation

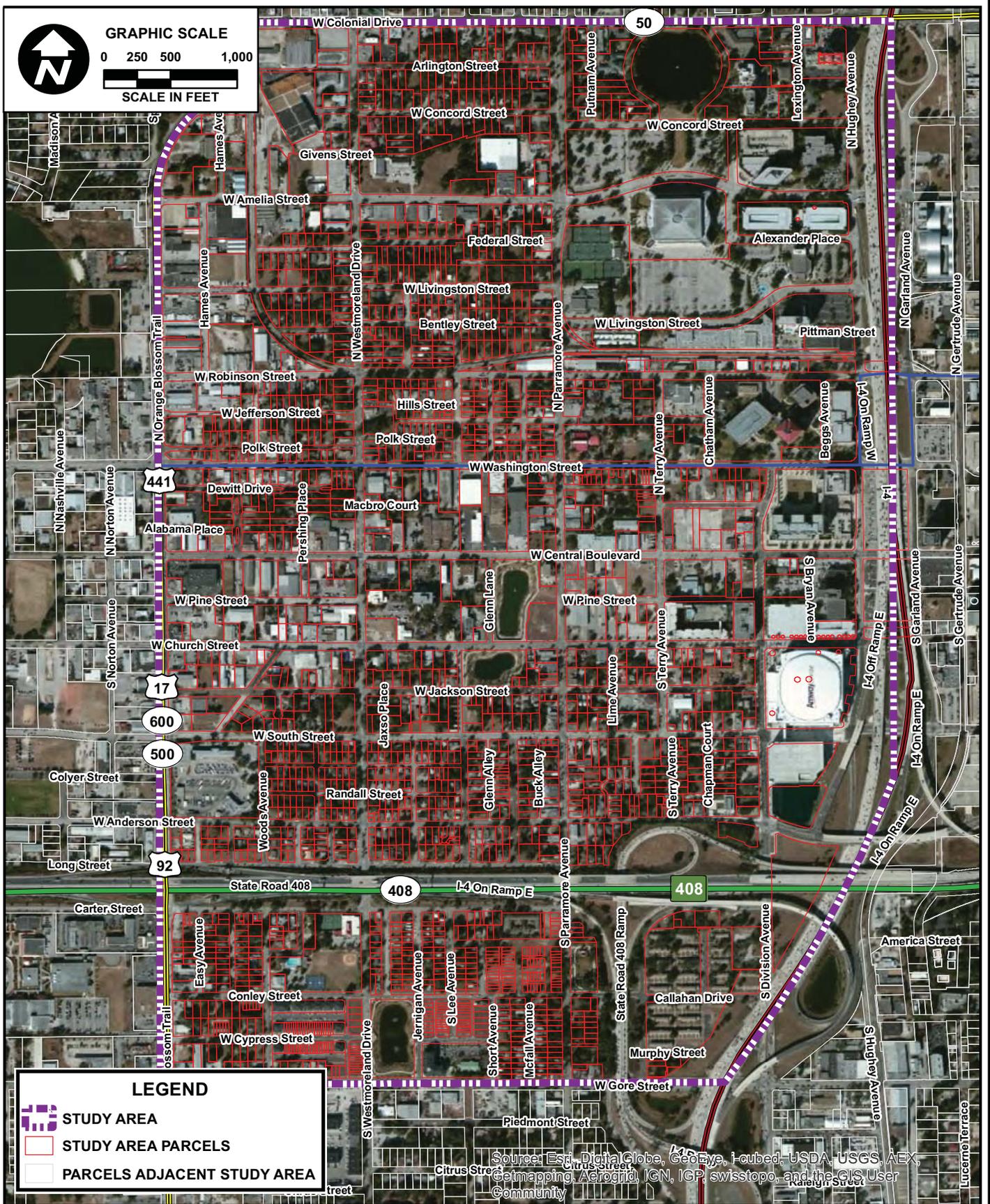
**FIGURES**



**GRAPHIC SCALE**

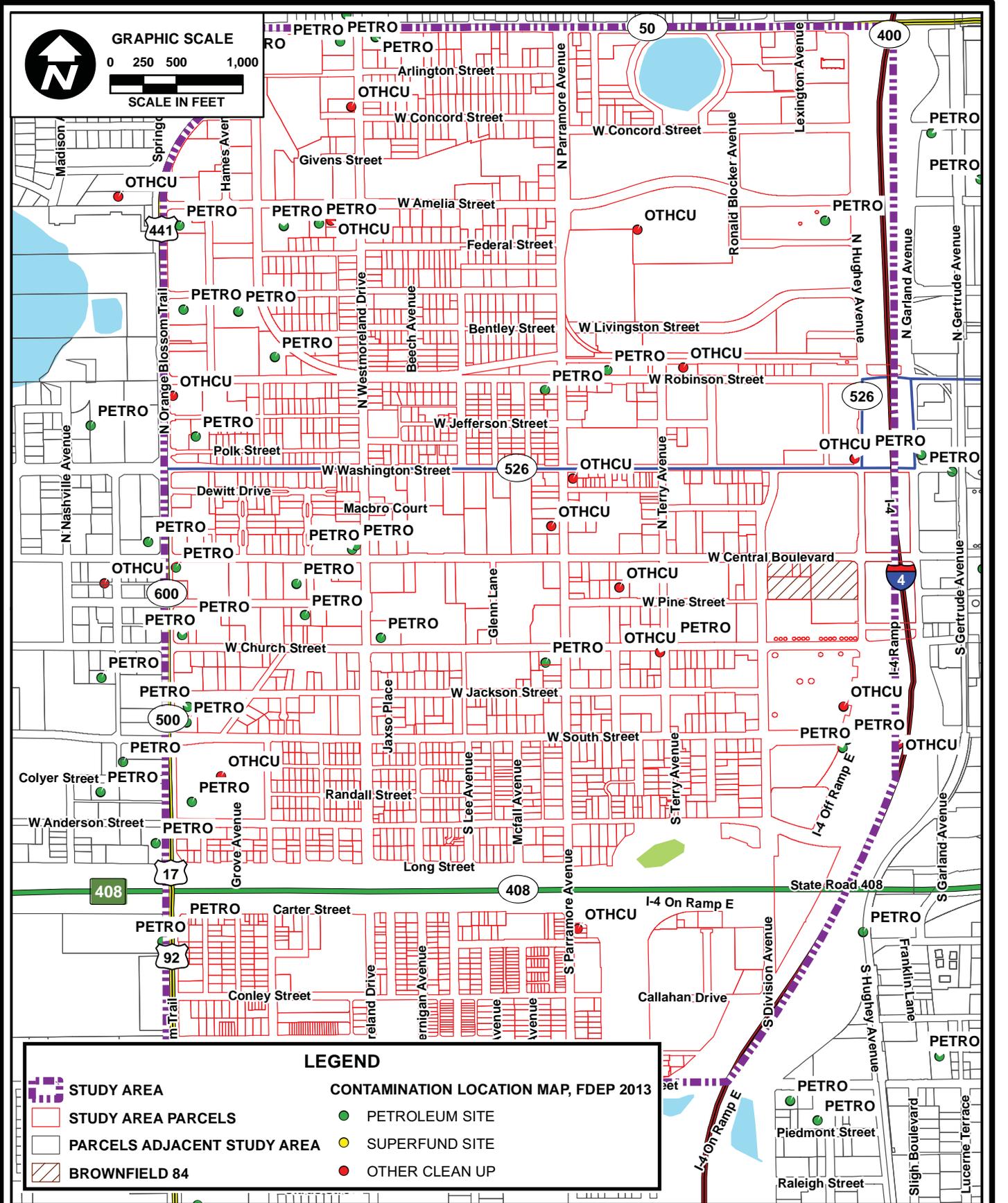
0 250 500 1,000

SCALE IN FEET



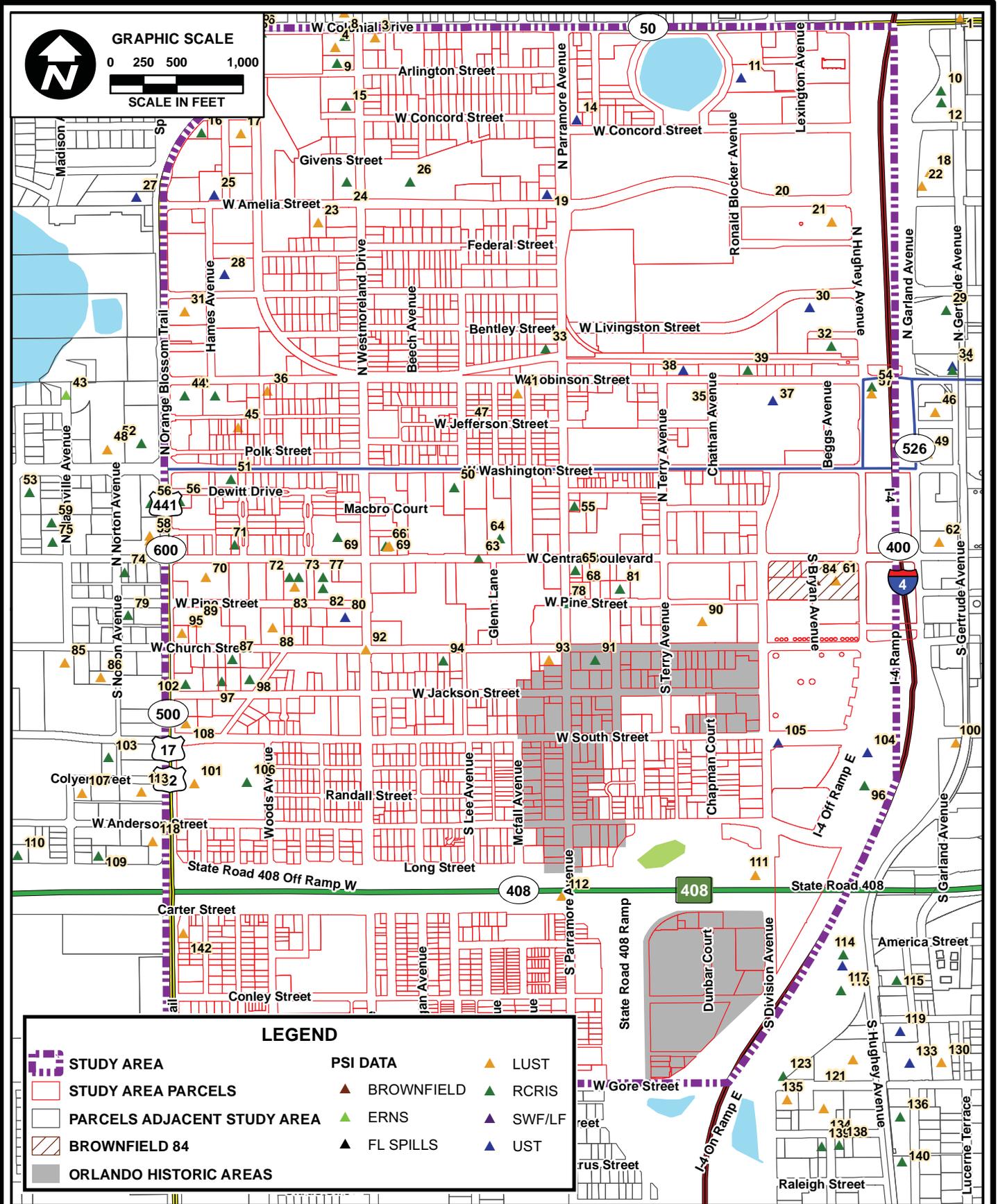
# PARRAMORE NEIGHBORHOOD Sitemap





# PARRAMORE NEIGHBORHOOD Contamination Location Map





# PARRAMORE NEIGHBORHOOD

## Historic Structures and Historic District

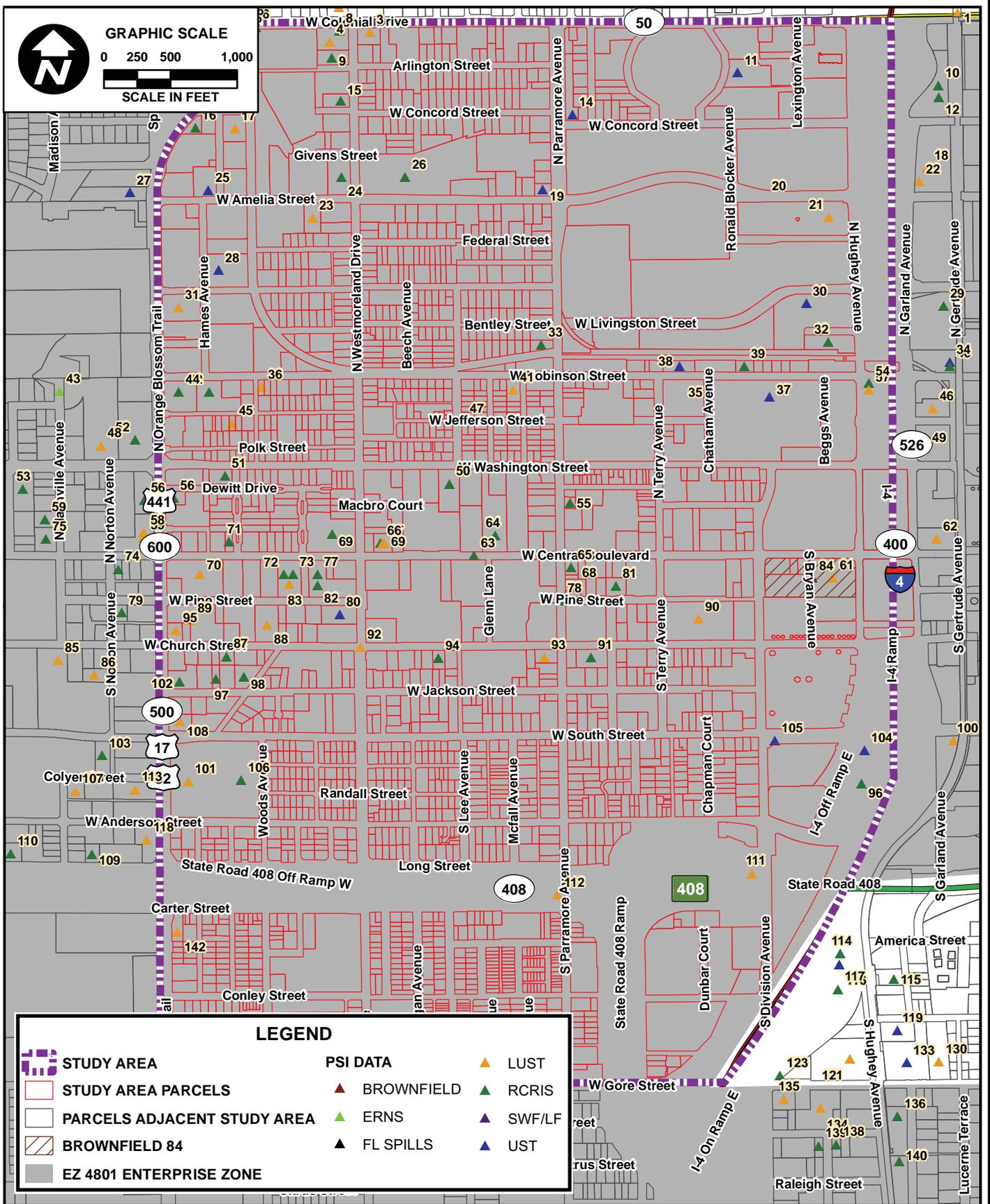




**GRAPHIC SCALE**

0 250 500 1,000

SCALE IN FEET



**LEGEND**

- |                             |            |        |
|-----------------------------|------------|--------|
| STUDY AREA                  | BROWNFIELD | LUST   |
| STUDY AREA PARCELS          | ERNS       | SWF/LF |
| PARCELS ADJACENT STUDY AREA | FL SPILLS  | UST    |
| BROWNFIELD 84               |            |        |
| EZ 4801 ENTERPRISE ZONE     |            |        |

**PARRAMORE NEIGHBORHOOD**  
EZ 4801 Enterprise Zone

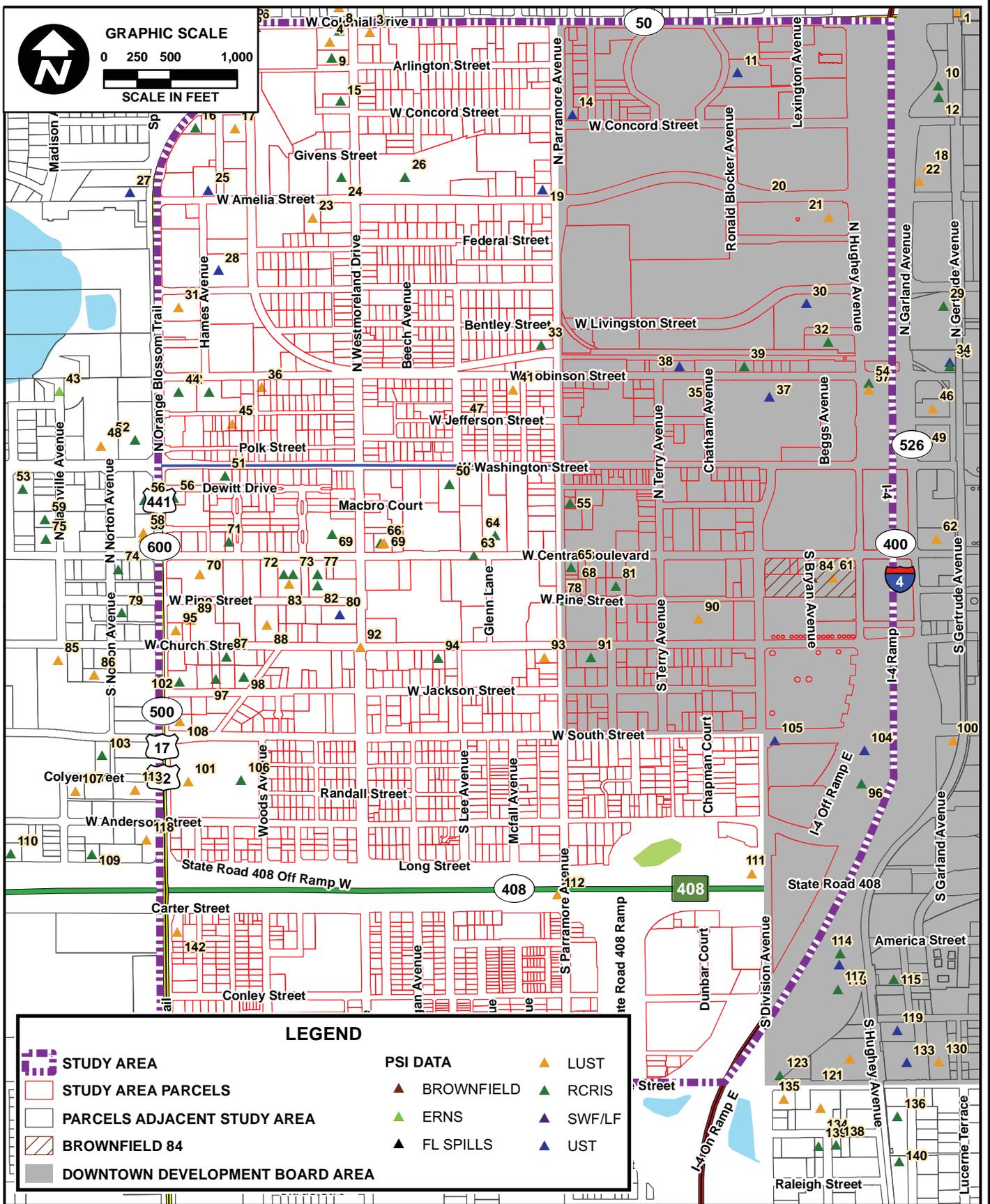




**GRAPHIC SCALE**

0 250 500 1,000

SCALE IN FEET



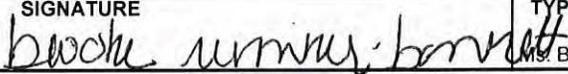
**LEGEND**

	STUDY AREA		PSI DATA		LUST
	STUDY AREA PARCELS		BROWNFIELD		RCRIIS
	PARCELS ADJACENT STUDY AREA		ERNS		SWF/LF
	BROWNFIELD 84		FL SPILLS		UST
	DOWNTOWN DEVELOPMENT BOARD AREA				

**PARRAMORE NEIGHBORHOOD  
Downtown Development Board Area**



**APPENDIX A**

	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b> Cooperative Agreement	<b>GRANT NUMBER (FAIN):</b> 95498212 <b>MODIFICATION NUMBER:</b> 0 <b>PROGRAM CODE:</b> BF	<b>DATE OF AWARD</b> 09/13/2012
		<b>TYPE OF ACTION</b> New	<b>MAILING DATE</b> 09/20/2012
		<b>PAYMENT METHOD:</b> ACH	<b>ACH#</b> 40234
<b>RECIPIENT TYPE:</b> Municipal		<b>Send Payment Request to:</b> Las Vegas Finance Center	
<b>RECIPIENT:</b> City of Orlando P.O. Box 4990 Orlando, FL 32802-4990 EIN: 59-6000396		<b>PAYEE:</b> City of Orlando P.O. Box 4990 Orlando, FL 32802-4990	
<b>PROJECT MANAGER</b> Dean Grandin P.O. Box 4990 Orlando, FL 32802-4990 E-Mail: dean.grandin@cityoforlando.net Phone: 407-246-2120		<b>EPA PROJECT OFFICER</b> Brian Gross 61 Forsyth Street Atlanta, GA 30303-8960 E-Mail: gross.brian@epa.gov Phone: 404-562-8604	<b>EPA GRANT SPECIALIST</b> Laura Fowler Grants Management Office E-Mail: fowler.laura@epa.gov Phone: 404-562-8427
<b>PROJECT TITLE AND DESCRIPTION</b> Brownfields Assessment and Cleanup Cooperative Agreements  This action approves an award in the amount of \$400,000 to the City of Orlando, Florida. The City will use these funds to conduct community-wide assessments at Brownfields sites potentially contaminated with hazardous substances and/or petroleum products; to develop a site inventory, prioritize sites and conduct Phase I and/or Phase II assessments along with public outreach, community involvement, and cleanup/reuse planning activities.			
<b>BUDGET PERIOD</b> 10/01/2012 - 09/30/2015	<b>PROJECT PERIOD</b> 10/01/2012 - 09/30/2015	<b>TOTAL BUDGET PERIOD COST</b> \$400,000.00	<b>TOTAL PROJECT PERIOD COST</b> \$400,000.00
<b>NOTICE OF AWARD</b>  Based on your application dated 06/18/2012, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$400,000. EPA agrees to cost-share 100.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$400,000. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.			
<b>ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)</b>		<b>AWARD APPROVAL OFFICE</b>	
<b>ORGANIZATION / ADDRESS</b>  61 Forsyth Street Atlanta, GA 30303-8960		<b>ORGANIZATION / ADDRESS</b>  U.S. EPA, Region 4 Resource Conservation and Recovery Act (RCRA) Division 61 Forsyth Street Atlanta, GA 30303-8960	
<b>THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY</b>			
Digital signature applied by EPA Award Official Shirley White Grayer - Grants Management Officer			<b>DATE</b> 09/13/2012
<b>AFFIRMATION OF AWARD</b>			
<b>BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION</b>			
<b>SIGNATURE</b> 	<b>TYPED NAME AND TITLE</b> Ms. Brooke Rimmer-Bonnett, Director of Economic Development		<b>DATE</b> 10/4/12

## EPA Funding Information

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$	\$ 400,000	\$ 400,000
EPA In-Kind Amount	\$	\$	\$ 0
Unexpended Prior Year Balance	\$	\$	\$ 0
Other Federal Funds	\$	\$	\$ 0
Recipient Contribution	\$	\$	\$ 0
State Contribution	\$	\$	\$ 0
Local Contribution	\$	\$	\$ 0
Other Contribution	\$	\$	\$ 0
Allowable Project Cost	\$ 0	\$ 400,000	\$ 400,000

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.818 - Brownfields Assessment and Cleanup Cooperative Agreements	CERCLA: Sec. 101(39) CERCLA: Sec. 104(k)(2)	40 CFR PART 31

Fiscal									
Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
-	1204VT2027	12	E4	04V2AG7	301D79	4114	G400NY00		200,000
-	1204VT2027	12	E4	04V2AG7	301D79XBP	4114	G400OR00		200,000
									400,000

Budget Summary Page: City of Orlando assessment budget

<b>Table A - Object Class Category (Non-construction)</b>	<b>Total Approved Allowable Budget Period Cost</b>
<b>1. Personnel</b>	\$10,600
<b>2. Fringe Benefits</b>	\$9,400
<b>3. Travel</b>	\$5,000
<b>4. Equipment</b>	\$0
<b>5. Supplies</b>	\$6,000
<b>6. Contractual</b>	\$369,000
<b>7. Construction</b>	\$0
<b>8. Other</b>	\$0
<b>9. Total Direct Charges</b>	\$400,000
<b>10. Indirect Costs: % Base</b>	\$0
<b>11. Total (Share: Recipient <u>0.00</u> % Federal <u>100.00</u> %.)</b>	\$400,000
<b>12. Total Approved Assistance Amount</b>	\$400,000
<b>13. Program Income</b>	\$0
<b>14. Total EPA Amount Awarded This Action</b>	\$400,000
<b>15. Total EPA Amount Awarded To Date</b>	\$400,000

**APPENDIX B**



# City of Orlando

## US EPA Brownfield Assessment Program in the Parramore Neighborhood

Grant Number: 95498212



### Citizen Participation Plan (CPP)

First created in September 2013  
Revised-January 2014

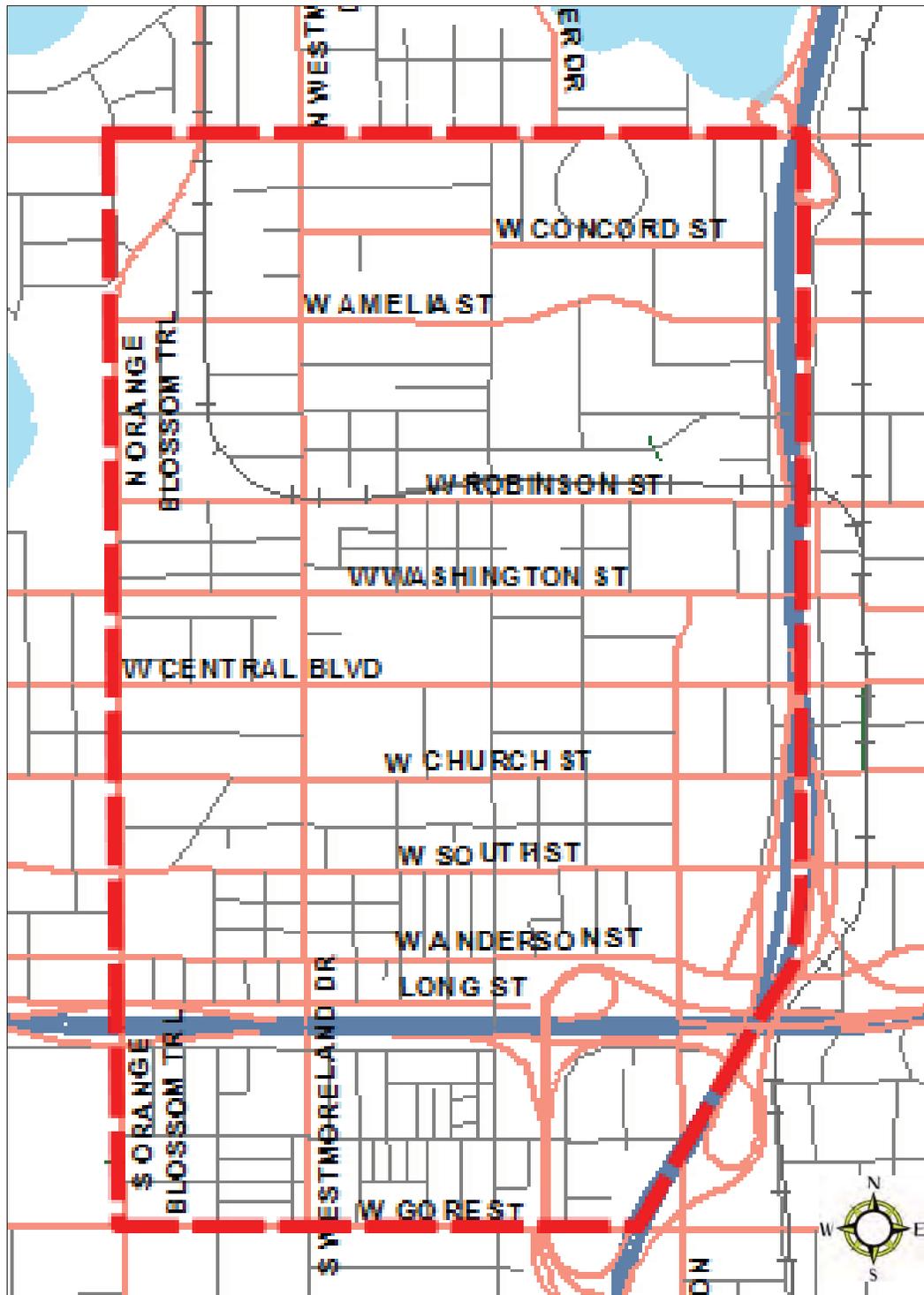
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<b>Brownfield Assessment Area</b>	1



1.

**Figure 1. Parramore Neighborhood**



The Parramore Neighborhood, as shown above outlined in red, is the designated Brownfield Assessment Area.

## 2.

### 1.0 INTRODUCTION

In late May 2012, a \$400,000 US EPA grant was awarded to the City of Orlando. In early October of that same year, a related cooperative grant agreement with US EPA was approved by Orlando City Council. The Consultant, Environmental and Consulting Technology Inc. (ECT) was subsequently selected through a competitive Request for Qualifications Statement (RQS) process during the summer of 2013 and after selection worked with City staff to finalize the many grant start-up activities through early fall 2013.

The grant subject area is the older established Parramore Neighborhood which is bounded to the north by Colonial Drive, to the south by Gore Street, to the west by Orange Blossom Trail, to the west by Division Avenue and I-4 and is approximately 1.3 square miles in area. As detailed in the approved cooperative agreement, grant funded program activities is divided into two areas: \$200,000 for hazardous substances and \$200,000 for petroleum contamination. Also, as required by the agreement, the program will be substantially completed by the end of September 2015.

The Citizen Participation Plan (CPP) details the general approach that the City will employ to inform Parramore residents, community stakeholders, and the public about the implementation of the program. The City Brownfield Assessment Program will not only rely on the expertise of ECT, but will substantially rely on partners such as local residents, businesses, faith based groups, local stakeholders, non-profits, agencies, planner, public health officials, engineers, government official, staff and other community members for input and feedback.

Due to the inclusive nature of this grant, the goal of the Citizen Participation Plan (CPP) is to foster communication among the various interested parties to support the primary purpose of the grant program, which is to enhance the environmental quality of the Parramore Neighborhood and through these efforts foster economic growth.

The EPA Brownfield Program has been specifically designed to capture and support public input through a number of activities, including the formation of a Brownfield Advisory Committee (BAC), creation of an electronic and physical Informational Repository (IR), neighborhood public meetings, educational sessions and on-site visits. In particular, public meetings are to be held at key project milestones and include a variety of communication methods-such as mapping exercises, PowerPoint, oral presentations and one-to-one discussions. The details of the Brownfield Project components are further discussed through the various sections of the Citizen Participation Plan (CPP).



### 3.

#### 2.0 BROWNFIELD ASSESSMENT PROGRAM BACKGROUND

The goal of the City of Orlando Brownfield Assessment Program is to complete activities that will encourage the redevelopment and reuse of abandoned, deteriorated, and underutilized properties in the Parramore Neighborhood where expansion or redevelopment is complicated by real or perceived environmental contamination. It is hoped that through the completion of this program, the City and its citizens will have a better understanding of the distribution, quantity and condition of certain Brownfield sites in the Parramore Neighborhood. It is also anticipated that by removing uncertainty associated with certain Brownfield sites that the large-scale reuse of abandoned, deteriorated, and/or underutilized properties will be encouraged and provide support for the on-going economic redevelopment and health-related planning efforts such as the Enhance Central Florida Parramore Plan.

**Program Goals and Objectives:** In implementing the EPA Brownfield Assessment Program, emphasis will be placed on addressing Brownfield sites as a mechanism to realize the following goals and objectives:

- Strategize limited grant funding investment through the creation of an inventory of regulated sites in the Parramore Neighborhood, rank these sites according to potential of future reuse, and from these efforts establish a site priority list
- Support existing community assets and future redevelopment and economic growth, as well as foster the establishment of a healthy community carrying out an area-wide generic Quality Assurance Project Plan (QAPP), site specific QAPPs, Phase I and II environmental site assessments, as well as Analysis of Brownfield Clean up Alternatives (ABCA's) addressing prioritized sites; brownfields by carrying out public outreach and involvement to educate citizens and other interested parties about both the US EPA Brownfield program, the City's assessment program and related economic and health promotion activities.
- Improve community health by addressing chronic conditions often triggered or exacerbated by environmental factors; ie: asthma among children through the creation of a health monitoring plan and program.



Z.L. Riley Park in the Parramore Neighborhood

**Specific Program Outcomes:** The following are the anticipated program outcomes:

- Environmental conditions within the community are evaluated;
- Environmental risks associated with brownfields are understood by community members;
- Assessment of environmental conditions is completed on sites within the community;

## 4.

- Assessed properties are ready for cleanup and/or redevelopment; and
- Environmental justice is pursued, as part of the program, in the Parramore Community.

### 3.0 SCOPE OF THE BROWNFIELD ASSESSMENT PROGRAM

The Brownfield Assessment Program for the City of Orlando is comprised of the following components:

Task 1: Brownfield Site Inventory and Site Selection

Task 2: Phase I and Phase II Environmental Assessment Activities;

Task 3: Remediation and Reuse Planning

Task 4: Public Outreach and Involvement

Task 5: Public Health Monitoring

Each of these tasks is briefly defined below.

#### 3.1 Task 1 – Brownfields Inventory and Site Selection

The first task associated with this program is to develop a community-wide inventory of properties situated within the subject area. ECT will take the lead in putting together a list that can be reviewed by the Brownfield Advisory Committee, community members and the general public. Information from local, state and federal data bases will be used to compile this list along with field work by ECT and City staff and input from the community. Once a list is compiled it will be provided at a public meeting for review and comment and guidance on site selection ranking. This information will be available in the public information/document repository (IR) which is both on-line and at Parramore's FAMU Law school.

#### 3.2 Task 2– Brownfield Phase I Activities

The Brownfield Program identified that a certain number of Phase I's will be completed as part of this community wide program (See Appendix for copy of activities). An environmental site assessment (ESA) or Phase I is a report prepared for a real estate holding that identifies recognized environmental concerns (RECs). The Phase I ESA is generally considered the first step in the environmental due diligence process. Phase I ESA standards have been promulgated by the US EPA and include American Society for Testing and Materials (ASTM) Standard E1527-13.

The actual sampling of air, soil, groundwater and/or building materials is typically not conducted during a Phase I ESA. If a site has a REC, a Phase II environmental site assessment (ASTM Standard E1903) may be conducted and involves an investigation and chemical analysis for hazardous substances and/or petroleum products.

#### Typical Phase I Scope Includes:

- Performance of an on-site visit to view present conditions.
- Evaluation of adjacent properties and their impacts upon the subject property.
- Review of federal, state, and local records as specified by the ASTM 1527 and AAI Standards (ie: up to 1 mile depending on the database).
- Interview of persons knowledgeable about the history of the property (current and past owners, site manager, present tenants, and neighbors).
- Examine City planning and permitting files to verify zoning, prior land usage and permits granted.

## 5.

- Conduct public agency file searches which have oversight relative to water quality and soil contamination issues.
- Examine historic aerial photography of the site and surrounding area.
- Review current USGS maps to evaluate topography and patterns of drainage.
- Examine chain-of-title for Environmental Liens and/or Activity and Land Use Limitations (AULs).

Other items that may be explored primarily through visual inspection include asbestos, lead-based paint and radon. A report is then written and RECs are identified. It is at this point the decision is made whether to move forward and do a Phase II ESA.

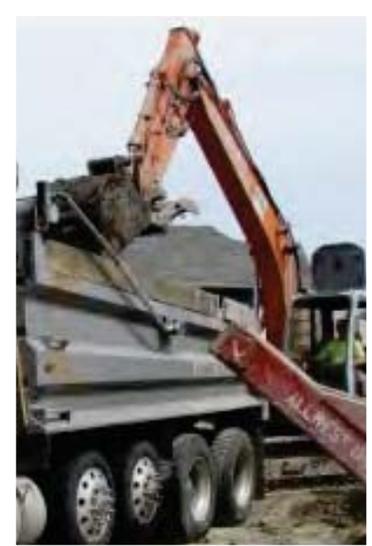
### **Task 3.2 Task 2 –Brownfield Phase II Activities**

The City’s Brownfield Assessment grant also identified doing a certain number Phase II activities. If a Phase I ESA identifies a REC of the site, a Phase II ESA may be conducted. The Phase II ESA includes sampling and laboratory analysis to confirm the presence, nature, and magnitude of the contamination. Some of the tests that may be performed include:

- Soil and water samples;
- Subsurface soil borings;
- Groundwater monitoring well installation, sampling, and analysis (may be appropriate on neighboring properties as well to determine the presence of contamination);
- Drum sampling (if any were left on the property);
- Sampling of dry wells, floor drains and catch basins;
- Transformer/capacitor sampling for Polychlorinated Biphenyls (PCBs);
- Geophysical testing for buried tanks and drums; and
- Test of underground storage tanks.

Depending on the results of the samples, the Phase II ESA should outline additional site investigation needs, and potential remedial actions that may be required to meet regulatory cleanup standards. All Phase II reports be placed in the IR at the FAMU Law School.

Redevelopment planning will occur on a site by site basis as determined by professional, staff and citizen input.



### **Task 3.3 Task 3 –Quality Assurance and Health and Safety Plans**

The City will develop a Generic Quality Assurance Project Plan (QAPP) document for their Brownfield Program. Upon successful completion of Phase I ESAs, the City of Orlando will provide Site Specific Quality Assurance Project Plan addenda and Health and Safety Plans conducted in accordance with EPA requirements.

For sites requiring further investigation which may include soil and groundwater sampling, QAPPs will be created for EPA review, comment and ultimate approval. In the event that modifications are required to a QAPP, a QAPP addendum will be submitted. An OSHA compliant Health and

6.

Safety Plan for the sites requiring further investigation will also be proposed. Copies of QAPPs and OSHA-compliant Health and Safety Plans will be available in the IR.

### **Task 3-4 Remediation and Reuse Planning**

The City’s Brownfield Assessment grant also identified remediation and reuse planning. Brownfields may include underused or abandoned sites contaminated by hazardous substances and/petroleum products. Improper reuse of these sites may have negative health consequences. With proper cleanup and reuse strategies, brownfields can become sites of opportunities—community gardens, urban farms, parks, trails, playgrounds and community recreation areas, rain gardens, affordable housing sites, and other community amenities.

In the event that selected sites require remediation, the City may provide remediation and reuse planning to facilitate the productive reuse of environmentally-impaired properties. The City will work cooperatively with the Florida Department of Environmental Protection (FDEP) to determine necessary activities, as applicable. The City will complete necessary remediation planning under the EPA terms and conditions but recognizes that FDEP’s requirements also must be met. The City may also utilize funding under this task to perform reuse plans to determine the potential for reuse for brownfield sites and the feasibility of proposed end uses for brownfield properties.

### **Task 3.5 Public Health Monitoring-Asthma Study**

Under this assessment grant, health monitoring is envisioned as a public health practice and includes the collection and analysis of identifiable health data for the purpose of protecting the health of parramore Neighborhood. A community health monitoring plan addressing asthma will be developed and provided to residents and stakeholders for review and comment. The Orange County Health Department will also participate in this program.

The plan will include an overview on asthma, prevalence, factors associated with asthma, living with asthma. Emergency room visits , hospitalizations and mortality data will also be discussed.



7.

#### **4.0 Citizen Participation Activities**

The Citizen Participation Plan will allow people living and working in the Parramore Neighborhood and other citizens to contribute to the brownfield assessment decision-making and planning process. Gaining community understanding and general consensus is essential to achieving a successful brownfield program and reflects the goals and vision of the community members for their neighborhood. The keys to gaining community consensus are:

- Including citizens throughout the planning process,
- Providing opportunities for meaningful and collaborative input, dialogue, and information sharing,
- Respecting the various opinions brought to the table, and
- Managing expectations in a realistic and honest manner when discussing and presenting what is possible from a planning perspective and by providing accurate and complete information to the best of our ability.

Public involvement efforts will seek to truly involve residents, listen to and be respectful of ideas and concerns, and document and incorporate input received during the planning process to ensure that the resulting assessment program reflects the diverse values and needs of the Parramore community.

#### **4.1 Brownfield Advisory Committee (BAC) Development**

As part of the grant application process, the grant group reached out to various nonprofits, faith based and other groups (ie: Parramore Garden) to assess interest in supporting the grant and committee activities. If possible, the committee should involve representatives from these groups, as well as businesses and m residents.

#### **4.2 Public Meetings**

Public meetings should be held through-the grant program. These meeting should be held in accessible public spaces such as community center, public housing authority meeting spaces or churches. Display and informational materials will be distributed at the meetings.

#### **4.3 Public Notification Procedures**

Notification may be provided in the form of flyers, mailings, email, or on-line postings. The grant application process involved formal public outreach through published public notice. Given response to outreach public meeting notification, different methods can be introduced. Under [www.cityoforlando.net/planning](http://www.cityoforlando.net/planning) under announcements, brownfield activities are posted and a link is provided to the City Brownfield website. (<https://sites.google.com/site/orlandobrownfieldsprogram/>). All public media inquiries will be addressed by the City's public information officer.

#### **4.4 Information Repository (IR)**

The Phase I (and Phase II) reports will be placed in the FAMU Law School Library (201 Beggs



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Ave.) or posted on-line at: [www.cityoforlando.net/planning](http://www.cityoforlando.net/planning) under announcements. Other archived documents include grant files, agreements, future remediation planning documents, site specific QAPP (Quality Assurance Program Plan) as well as a generic QAPP which guides the nature and extent of all brownfield activities.

Last updated January 2014.

9.

#### **4.6 Local, State and Federal Contacts**

**Jeff Peters**

**Environmental Consulting and Technology, Inc. (ECT) (selected contractor)**

3660 Maguire Blvd., Suite 107

Orlando, Florida 32803

407-903-0005

jpeters@ectinc.com

**Dan Dastaki, Director of the City's US EPA Brownfield Program**

**Public Works Manager**

Department of Public Works

City of Orlando

400 S. Orange Avenue

Orlando, Florida 32801

Phone:407-246-2664

Email:dan.dashtaki@cityoforlando.net

**George Houston II, P.G.**

**Brownfields Coordinator, Central District**

**Florida Department of Environmental Protection**

3319 Maguire Boulevard, Suite 232

Orlando, Florida, 32803-3767

Phone: (407) 897-4322

Fax: (850) 412-0465

E-mail: george.houston@dep.state.fl.us

**Brian Gross**

Brownfields Project Officer

USEPA Region 4, RCRA Division

Brownfields Section

61 Forsyth Street, SW

Atlanta, GA 30303-8960

(P) 404.562.8604

gross.brian@epa.gov

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## **5.0 APPENDICES**

**(See attached)**



# **Brownfields 2012 Assessment Grant Fact Sheet**

## **Orlando, FL**

### **EPA Brownfields Program**

EPA's Brownfields Program empowers states, communities, and other stakeholders to work together to prevent, assess, safely clean up, and sustainably reuse brownfields. A brownfield site is real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. In 2002, the Small Business Liability Relief and Brownfields Revitalization Act was passed to help states and communities around the country cleanup and revitalize brownfields sites. Under this law, EPA provides financial assistance to eligible applicants through four competitive grant programs: assessment grants, revolving loan fund grants, cleanup grants, and job training grants. Additionally, funding support is provided to state and tribal response programs through a separate mechanism.

### **Contacts**

For further information, including specific grant contacts, additional grant information, brownfields news and events, and publications and links, visit the EPA Brownfields Web site (<http://www.epa.gov/brownfields>).

EPA Region 4 Brownfields Team  
(404) 562-8789  
EPA Region 4 Brownfields Web site  
(<http://www.epa.gov/region4/rcra/bflr/brownfields.html>)

Grant Recipient: City of Orlando, FL  
407-246-2120

The information presented in this fact sheet comes from the grant proposal; EPA cannot attest to the accuracy of this information. The cooperative agreement for the grant has not yet been negotiated. Therefore, activities described in this fact sheet are subject to change.

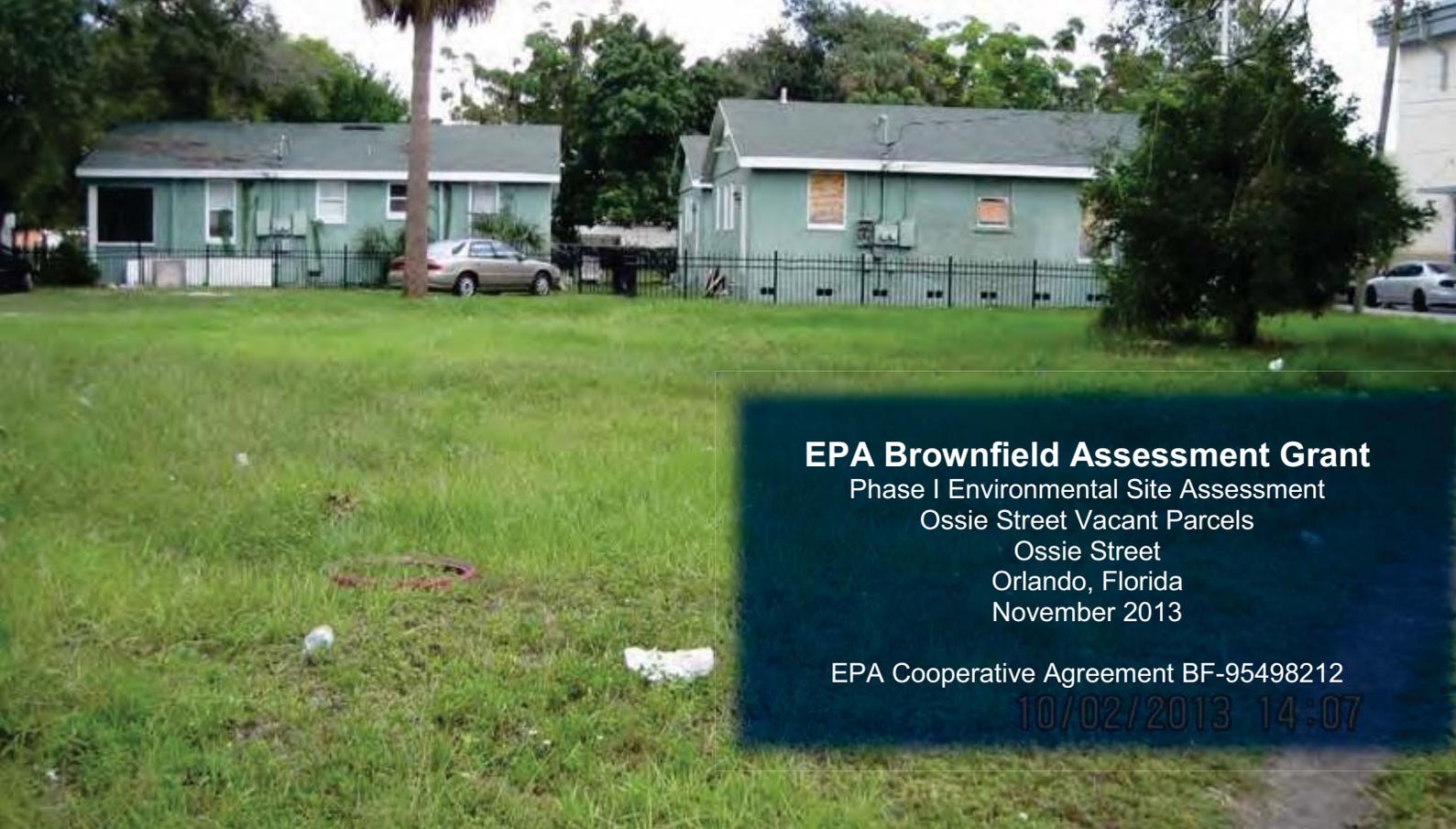
### **Assessment Grants**

***\$200,000 for hazardous substances***

***\$200,000 for petroleum***

EPA has selected the City of Orlando for two brownfields assessment grants. Community-wide hazardous substances and petroleum grant funds will be used to conduct an inventory of sites, perform up to 20 Phase I and eight Phase II environmental site assessments, and develop up to four cleanup plans. Grant funds also will be used to support community outreach activities and develop a public health monitoring plan. The city plans to focus assessment efforts on the Parramore Community.

**APPENDIX C**



## EPA Brownfield Assessment Grant

Phase I Environmental Site Assessment  
Ossie Street Vacant Parcels  
Ossie Street  
Orlando, Florida  
November 2013

EPA Cooperative Agreement BF-95498212

10/02/2013 14:07

The Ossie Street parcels are located near the intersection of West Washington Street and Parramore Avenue. These five parcels have the following addresses: 640 W. Washington Street, 647 Ossie Street, 641 Ossie Street, 637 Ossie Street, and 633 Ossie Street, Orlando, Florida. Collectively, these five parcels comprise the Site. The Site is located in the Parramore Historic District and collectively total approximately 0.25 acres. The Phase I ESA revealed evidence of one recognized environmental condition (REC) and one Business Environmental Risk associated with the Site.

The Sanborn Fire Insurance Map from 1956-1973 identified an AUTO REPAIR FACILITY located on parcel 26-22-29-0000-00-030, which is at the current address of 640 W. Washington Street. Past waste disposal practices or undocumented discharges could have occurred at this location, with no regulatory documentation. For this reason, AUTO REPAIR FACILITY was considered a REC for parcel 26-22-29-000-00-030.

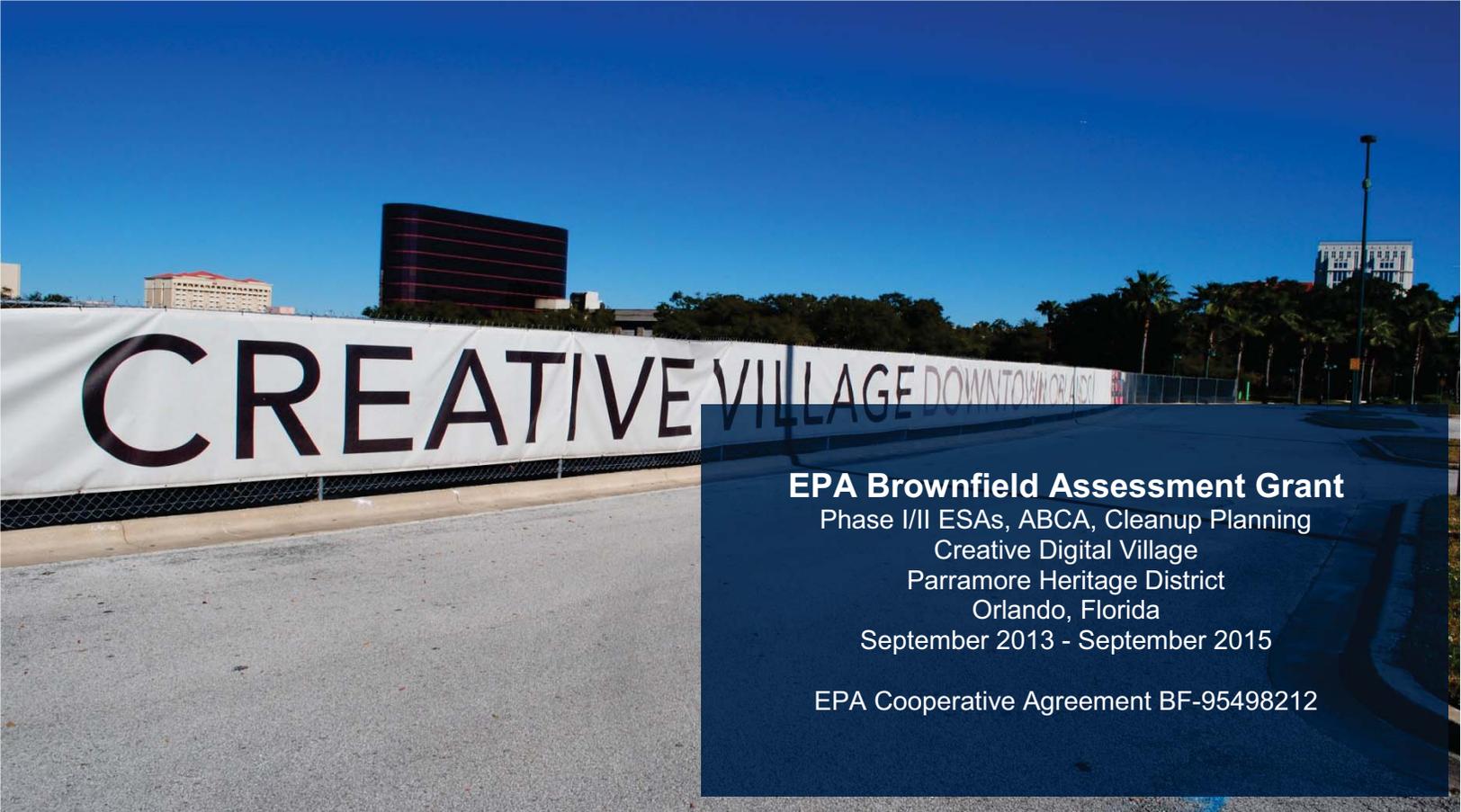
The Environmental Data Research (EDR) report identified a historical auto station located at 37 N Parramore Avenue, from 1933-1939, currently referred to as PATTERSON CALVIN (C). This site is at a higher elevation than the TP, and the potential for any non-recorded illicit or undocumented discharges to the groundwater have the potential to migrate towards the Site. The existence of this facility through Sanborn Maps or aerial photographs could not be confirmed. For this reason, PATTERSON CALVIN (C) was

considered a Business Environmental Risk for the Site.

### Project Highlights

- Completed ASTM 1527-13 Phase I ESA
- Review of public records
- Completion of a Site reconnaissance to identify visual signs of environmental conditions on or adjoining the Site.
- Interviews with local officials or individuals knowledgeable about the Site
- Review of Sanborn Fire Insurance Maps
- Review of technical documents for adjoining sites
- Identification of a REC
- Identification of a Business Environmental Risk





## **EPA Brownfield Assessment Grant**

Phase I/II ESAs, ABCA, Cleanup Planning  
Creative Digital Village  
Parramore Heritage District  
Orlando, Florida  
September 2013 - September 2015

EPA Cooperative Agreement BF-95498212

Located within the Parramore Neighborhood, Creative Village builds upon the success of Orlando's digital media industry by transforming the former Amway Arena site into a 68-acre mixed-use, transit oriented, urban infill neighborhood in the heart of downtown Orlando. The vision for Creative Village focuses on creating a true "live, learn, work, and play" urban destination through a development plan that supports a synergistic and dynamic mix of uses including office/creative studios, higher education, K-12 education, mixed-income residential, retail/commercial, and hotel.

A Phase I/II Environmental Site Assessment (ESA) was completed at the Orlando Recreation Center, which is an 8.2 acre site within Creative Village. The Phase I ESA identified multiple recognized environmental conditions (RECs) associated with the Site, including a former Florida Army National Guard Armory, former underground storage tank, and former USDA Bureau of Entomology Research and Testing facilities. Historic land uses in the vicinity of the project site that may have contributed to the soil and groundwater impacts include numerous surrounding automotive repair/retail gasoline stations, dry cleaners and industrial/chemical manufacturing sites. An Analysis of Brownfield Cleanup Alternatives (ABCA) was also prepared, along with the implementation of a \$200,000 brownfield cleanup grant awarded to City in 2014.

A Phase II ESA was also completed at the site of the former Amway Arena, along with performing remediation and reuse planning with the City of Orlando

as new roads and bus routes are being designed throughout Creative Village.

### **Project Highlights**

- Completed ASTM 1527-13 Phase I ESA
- Review of public records
- Completion of a Site reconnaissance to identify visual signs of environmental conditions on or adjoining the Site.
- Interviews with local officials or individuals knowledgeable about the Site
- Review of Sanborn Fire Insurance Maps
- Review of City Directories
- Identification of an environmental concern
- Completed ASTM 1903-11 Phase II ESA
- Site eligibility determination outline
- Completed a site-specific quality assurance project plan (SSQAPP)
- Completed a site specific health and safety plan (HASP)
- Completed soil boring installation, field-screening for soil organic vapors, and soil sampling
- Monitoring well installation and groundwater sampling
- Laboratory analyses for target analytes
- Data evaluation and interpretation
- Public outreach and engagement
- Voluntary Cleanup Tax Credit application





## EPA Brownfield Assessment Grant

Phase I Environmental Site Assessment

Mt. Zion Baptist Church

535 W. Washington Street

Orlando, Florida

June 2014

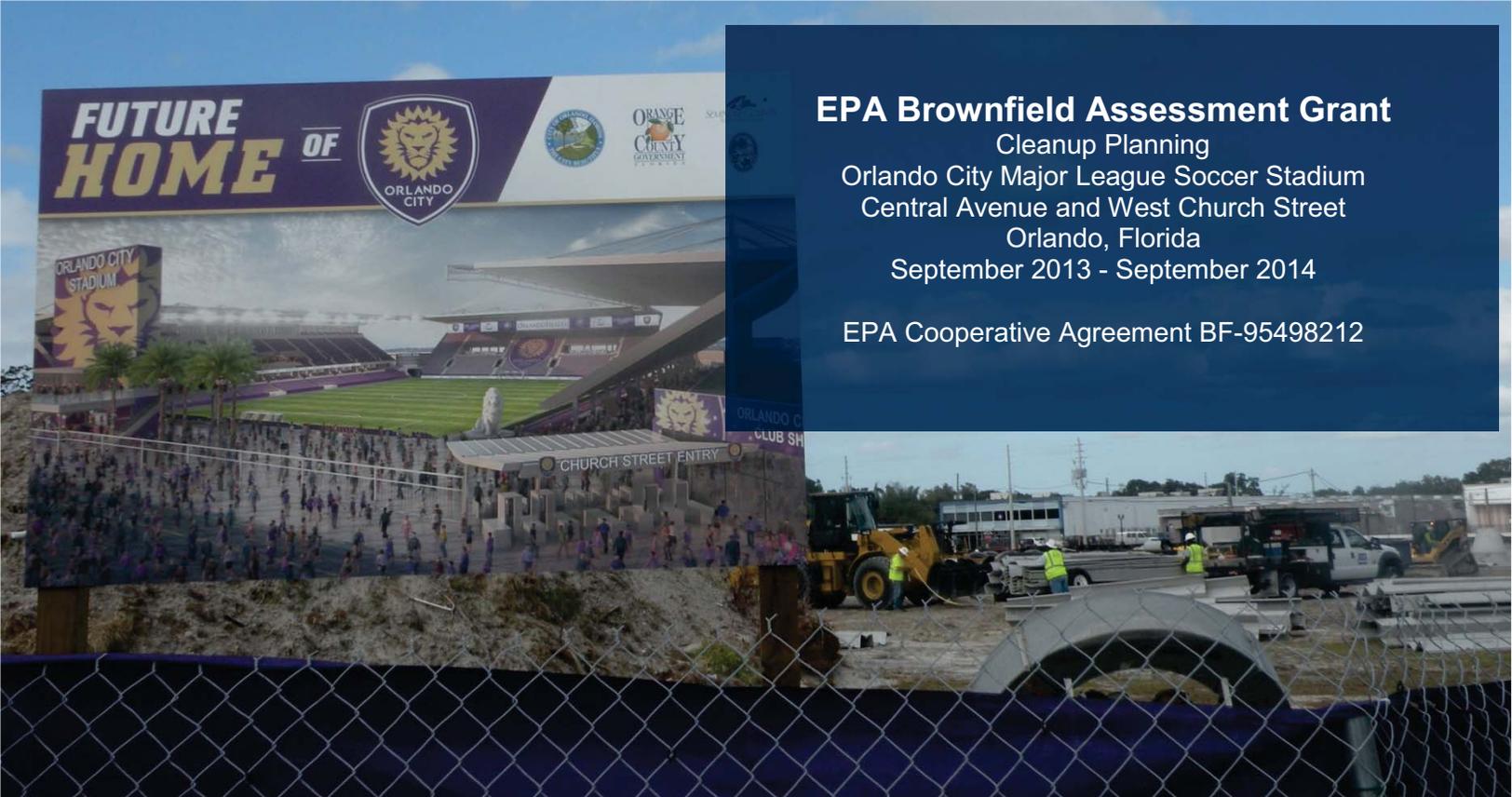
EPA Cooperative Agreement BF-95498212

The Mt. Zion Baptist Church is located in the Parramore Neighborhood and consists of one parcel totaling approximately 1.36 acres. Sanborn Fire Insurance Maps document the Mt. Zion Baptist Church being on Site since 1913. The Environmental Data Research (EDR) report identified the former Orlando Gasification Plant on the abutting property under a number of regulatory databases, including CERCLIS. The CERCLIS database contains hazardous sites that are either on the US EPA National Priorities List (NPL), proposed to be on the NPL, or are undergoing studies to determine if the site should be listed. Considerable studies have been conducted at the Orlando Gasification facility and adjoining properties. Contaminants were not documented as being present at the Site and previous environmental investigations have depicted contaminant migration away from the Site in a north-northeast direction. No Recognized Environmental Conditions (RECs) were identified for this Site.

### Project Highlights

- Completed ASTM 1527-13 Phase I ESA
- Review of public records
- Completion of a Site reconnaissance to identify visual signs of environmental conditions on or adjoining the Site.
- Interviews with local officials or individuals knowledgeable about the Site
- Review of Sanborn Fire Insurance Maps
- Review of technical documents for adjoining sites





## EPA Brownfield Assessment Grant

Cleanup Planning

Orlando City Major League Soccer Stadium

Central Avenue and West Church Street

Orlando, Florida

September 2013 - September 2014

EPA Cooperative Agreement BF-95498212

A Remediation/Reuse Planning Study for two City blocks in downtown Orlando between West Central Boulevard and West Church Street, and South Terry Avenue and South Parramore Avenue (Site) was completed between September 2013 and September 2014. This area is the location for the new Orlando City Major League Soccer stadium.

The site is a consolidation of several properties, consisting of both residential and commercial properties. The commercial properties consisted of a turbine engine repair facility, an automotive repair shop, a junk yard, an insecticide manufacturing company, a battery and radiator repair shop, used car sales, scrap metal and metal shop, iron works, and a gasoline station. Between 2006 to 2014, the former commercial structures were demolished and the properties were consolidated for the soccer stadium.

The objective of the Remediation/Reuse Planning Study was to determine if soil and groundwater impacts associated with the recognized environmental conditions (RECs) investigated during the Phase II environmental site assessment (ESA) investigations performed by others were present at the perimeter of the Site, and if present, if these impacts could pose an unacceptable risk to human health and the environment to the Parramore community.

Soil contamination associated with the RECs were identified during the field investigations. The soil contamination identified was addressed through the redevelopment process by either engineering or institutional controls

(EC/IC), excavation/removal, in-situ stabilization, or a combination of these remedial alternatives. Groundwater contamination associated with the RECs was also identified during the field investigations. The groundwater contamination was addressed through the redevelopment process by either engineering or institutional controls (EC/IC), pump-and-treat technology, in-situ remediation, or a combination of these remedial alternatives.

Following implementation of these actions, the soil and groundwater contamination identified on the perimeter of the Site is not expected to pose an unacceptable risk to human health or the environment to the Parramore community.

### Project Highlights

- Monitoring well installation and groundwater sampling
- Soil boring installation and soil sampling
- Contaminant classification
- Hazardous waste identification
- Public outreach and engagement
- Voluntary Cleanup Tax Credit application





## EPA Brownfield Assessment Grant

Phase I & II Environmental Site Assessment  
 Parramore Community Garden  
 654 West Robinson Street  
 Orlando, Florida  
 June - September 2014

EPA Cooperative Agreement BF-95498212

The +/-0.15 ac. Parramore Community Garden is located at 654 W. Robinson St. in the Parramore Neighborhood. A 1950 Sanborne Map identified the abutting eastern property as a paint factory. Follow up research revealed that the 1939 through 1948 City Directories identified the abutting property as the Burkes Tropical Paint Co. Paint Factory, while the 1953 City Directory identified it as the Morris Paint and Varnish Company. Due to the proximity of the site to the paint manufacturing related uses and the unknown practices associated with them, there was sufficient evidence to qualify it as an environmental concern.

A Phase II ESA was conducted to investigate the potential presence of soil contamination along the eastern border of the Site. The presence of contaminated soil could pose an unacceptable risk to human health and the environment if there were direct exposure routes.

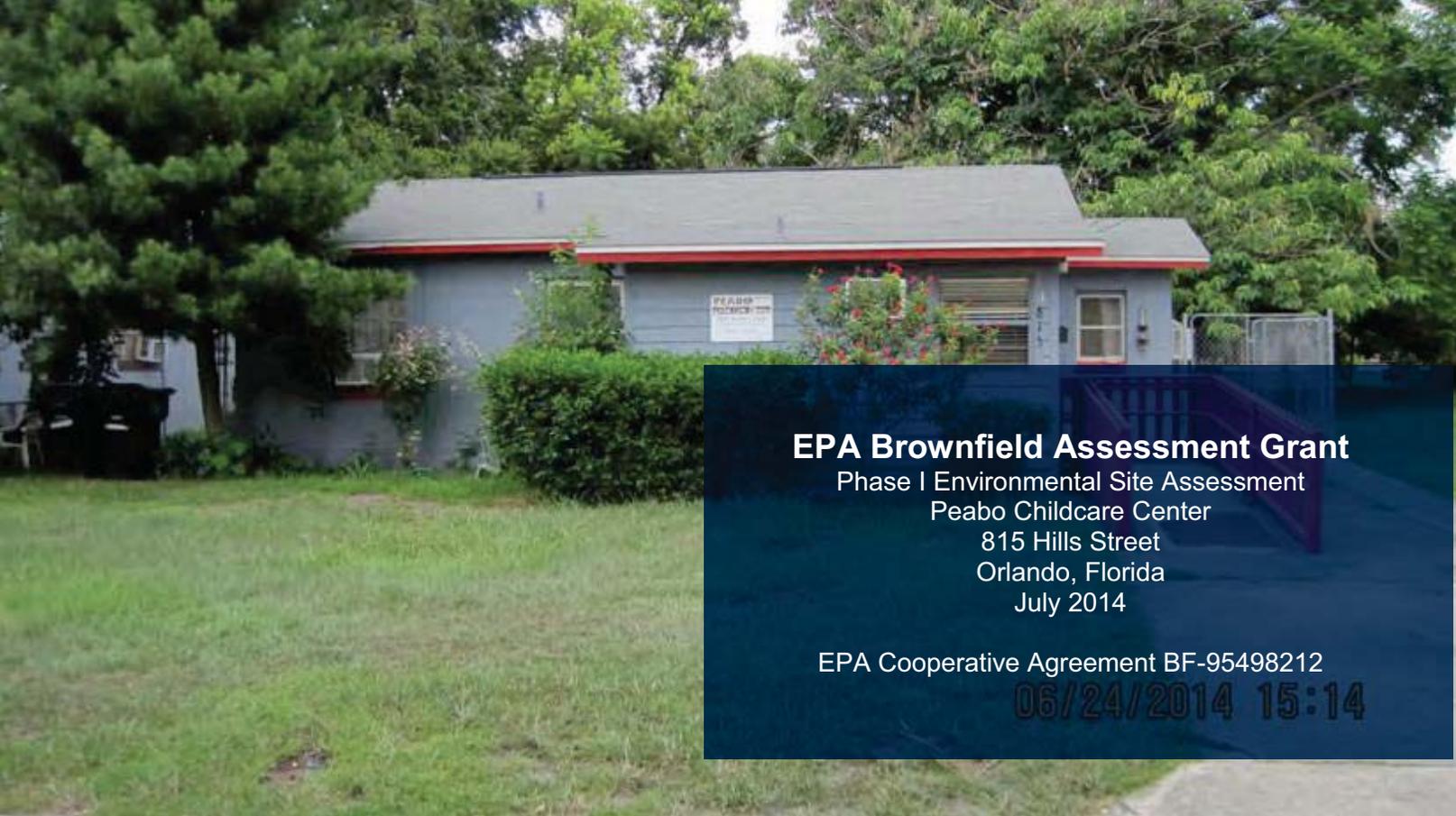
From the data collected from the Phase II ESA, it was concluded that:

- No organic vapors were detected in the soils screened with the OVA/FID;
- No target analytes were detected in excess of applicable FDEP direct exposure residential soil cleanup target levels in the soil samples.

## Project Highlights

- Completed ASTM 1527-13 Phase I ESA
- Review of public records
- Completion of a Site reconnaissance to identify visual signs of environmental conditions on or adjoining the Site.
- Interviews with local officials or individuals knowledgeable about the Site
- Review of Sanborn Fire Insurance Maps
- Review of City Directories
- Identification of an environmental concern
- Completed ASTM 1903-11 Phase II ESA
- Site eligibility determination outline
- Completed a site-specific quality assurance project plan (SSQAPP)
- Completed a site specific health and safety plan (HASP)
- Completed soil boring installation, field-screening for soil organic vapors
- Soil sampling
- Laboratory analyses for metals commonly associated with paint pigments (target analytes),
- Data evaluation and interpretation





## EPA Brownfield Assessment Grant

Phase I Environmental Site Assessment

Peabo Childcare Center

815 Hills Street

Orlando, Florida

July 2014

EPA Cooperative Agreement BF-95498212

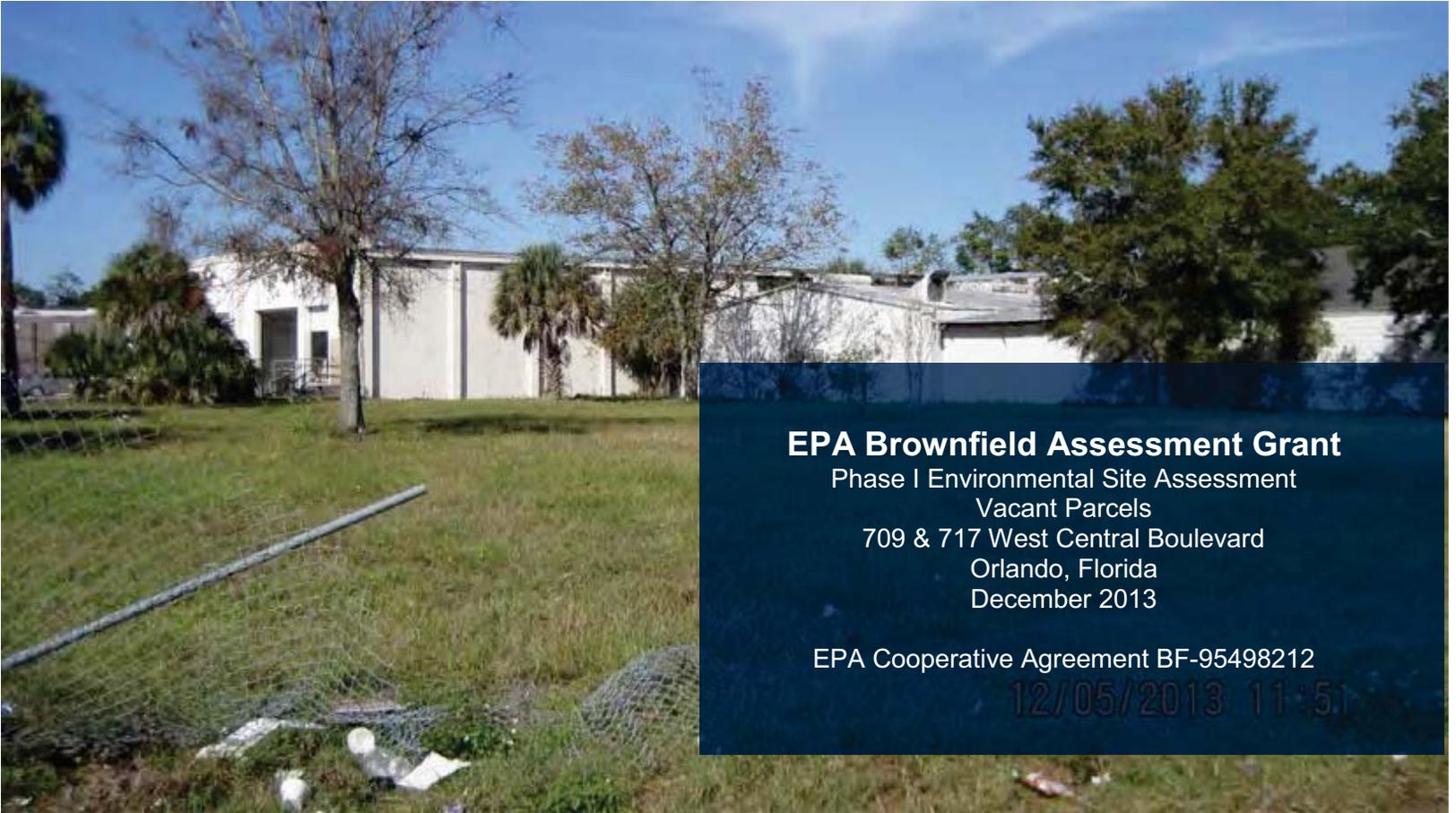
06/24/2014 15:14

The Peabo Childcare Center is located in the Parramore Neighborhood and consists of one parcel totaling approximately 0.13 acres. A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The records are designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate. The Phase I ESA investigation revealed no evidence of RECs associated with the Site.

### Project Highlights

- Completed ASTM 1527-13 Phase I ESA
- Review of public records
- Completion of a Site reconnaissance to identify visual signs of environmental conditions on or adjoining the Site.
- Interviews with local officials or individuals knowledgeable about the Site
- Review of Sanborn Fire Insurance Maps





## EPA Brownfield Assessment Grant

Phase I Environmental Site Assessment

Vacant Parcels

709 & 717 West Central Boulevard

Orlando, Florida

December 2013

EPA Cooperative Agreement BF-95498212

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The vacant parcels located at 709 & 717 West Central Boulevard, are located in the Parramore Neighborhood and collectively total approximately 0.62 acres. The City Directory from 1967 identified that Roth's Small Engine Company Repair Shop previously existed at the Site. There were no documented discharges or compliance violations associated with this facility; however, past waste disposal practices or undocumented discharges could have occurred, with no regulatory record. A Phase II ESA completed for the Site in 2003 could not be validated since no site maps/sample locations were provided and, at the time of the Phase II ESA, a building was present at the Site thereby limiting access to soil and groundwater. For this reason, Roth's Small Engine Company Repair Shop was considered a potential concern and a REC.

### Project Highlights

- Completed ASTM 1527-13 Phase I ESA
- Review of public records
- Completion of a Site reconnaissance to identify visual signs of environmental conditions on or adjoining the Site.
- Interviews with local officials or individuals knowledgeable about the Site
- Review of Sanborn Fire Insurance Maps
- Review of historical technical documents for the Site
- Identification of a REC
- Identification of an environmental concern



**APPENDIX D**

# Community Health Monitoring Plan

Prepared for:



The City of Orlando  
Economic Development Department  
400 S. Orange Avenue  
Orlando, Florida 32802-4990  
EPA Brownfield Cooperative Agreement BF-95498212

Prepared by:



1408 N. Westshore Blvd. , Suite 115  
Tampa, Florida 33607

ECT No. 130591  
December 2013



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### Attachments

- A. Florida Department of Health Asthma Program Fact Sheet
- B. Burden of Asthma in Florida, September 2013
- C. Asthma-Friendly Schools Checklist/Application
- D. Florida Asthma-Friendly Schools 2013-2014 Application Guide
- E. American Lung Association’s Asthma 101 Program Instructions
- F. Asthma and Allergy Foundation of America Free CE and CRCE Asthma Management and Education Online Training Instructions
- G. Asthma Awareness Posters



## 1. Introduction

### **Brownfield Grant Funding**

In September 2012, the City of Orlando received two US EPA Community-wide Brownfield Assessment grants to provide support in the City's efforts to perform community-wide hazardous substance and petroleum environmental site assessments on multiple properties located within the Parramore community.

The Small Business Liability Relief and Brownfields Revitalization Act provides opportunities for communities to consider the health impacts of brownfields by providing funds in Brownfield Assessment Grants to conduct community health monitoring activities. The Act allows local governments to spend up to 10% of a brownfields grant for community health monitoring. Health monitoring has the ability to provide an opportunity to create safer, healthier communities through the redevelopment process and use of smart growth principles. Redevelopment focused on improving health may increase recreational or green space creation to encourage physical activity, community gardens and restful public spaces that encourage interaction while also reducing the effects of heat islands and improving stormwater management.

The City of Orlando has elected to utilize 10% of their assessment grant funds to conduct Asthma-Friendly School Assessments\* at several elementary, middle and high-schools located within and near Parramore community.

### **Asthma in School Aged Children**

The number of school aged children with asthma is on the rise in Florida and across the nation. Schools are increasingly burdened by the poor outcomes resulting from the disease, namely increased absenteeism, decreased academic performance, and limitations on participation in physical activity. The recently released fact sheet from the Florida Department of Health (FDOH) Asthma Program, provides data on the impact of asthma on Florida students (see Fact Sheet in Attachment A). Additionally, the September 2013 report from the Florida Department of Health titled "Burden of Asthma in Florida, 2013" highlights the burden of asthma in Florida and assists stakeholders, policymakers, and other interested parties in their efforts to reduce asthma emergency department visits and hospitalizations, associated costs, and improve the health of Floridians with asthma (see Attachment B).

Asthma is the most common chronic disease in children under 18, affecting more than 5 million children in the U.S. It is the leading cause of school absenteeism due to chronic disease. Each day, in the U.S., over 40,000 people miss school or work due to asthma. When a child misses school, a parent also misses work. Research has shown there is a direct connection between the prevalence of asthma and poverty. In the Parramore community nearly 51% of families live below the poverty level. While the cause of asthma is unknown, it can be controlled and episodes can be avoided by knowing the warning signs of an episode, staying away from things that trigger an episode, and following the advice of a doctor. The Asthma-Friendly School Award is an opportunity for participating school staff to receive asthma training, provide support to children and their families who are dealing with asthma, and



## Community Health Monitoring Plan

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manage and control asthma triggers in the school setting. Furthermore, in addition to having an opportunity to be recognized for their efforts to become a more Asthma Friendly School, staff will be educated and equipped to provide a comprehensive asthma management program for benefitting all enrolled children with asthma. By partnering with parents, schools can help to improve the quality of life for a child with asthma, reduce missed school days and reduce missed days of work for parents.



## 2 Asthma-Friendly School Recognition

### Collaboration With the Florida Asthma Coalition

The Florida Asthma Coalition (Coalition) is a statewide coalition that was established in 2009 to eliminate asthma disparities, improve quality of life, and reduce costs. It is comprised of volunteers and several local coalitions in Florida working to improve asthma outcomes within their areas. Members promote asthma awareness and disease prevention at the community level and work to expand and improve the quality of asthma education, management, and services through system and policy changes. In collaboration with the Centers for Disease Control and Prevention (CDC) and the FDOH Asthma Program, the Coalition has developed a comprehensive Program to reduce asthma attacks in children that attend an Asthma-Friendly School. The Florida Asthma-Friendly School Award (Award) was developed to recognize schools that meet criteria for excellence in asthma management. Schools that achieve recognition are schools where administrators, staff, nurses, faculty, families, and clinical partners are working together to help students with asthma properly manage their disease. Coalition partners include the American Lung Association, the Florida Department of Health, the Center for Disease Control and four local asthma coalitions.

### Award Recognition Process

The Coalition has developed a systematic process that will help schools assess current asthma management activities and take steps to receive an Award. Award winners enjoy a healthier student body and opportunities to show off their school's success through local and state marketing efforts. With the goal of improving student health, attendance, and academic achievement, the Florida Asthma Coalition established a voluntary recognition opportunity to acknowledge schools with exceptional asthma management programs. The award is offered at four levels (bronze, silver, gold, and platinum) based on the number and type of criteria achieved by each school. These four levels of recognition are based on national, evidence-based guidelines.

The most basic and essential activities fall under the Bronze level. Successive recognition levels include additional activities and require more effort, resulting in progressively stronger programs and culminating in a Platinum level recognition. The recognition levels represent points of progress toward a goal of improved asthma management, because every small step makes a difference. For the purposes of this grant funding, a Bronze Award will be the goal of participating schools. Participating schools will be encouraged to achieve a higher level of Award by completing additional activities.

### Florida Asthma Coalition Bronze Award

1. A school based Asthma Leadership Team is established (may align with an existing health team).
2. School nurses, faculty, and staff participate in asthma training at least every other school year.

*Percentage of participants increase by award level:*

Award Level	Bronze	Silver	Gold	Platinum
Required Percentage	More than 25%	More than 50%	More than 75%	More than 75%



**Community Health Monitoring Plan**

- 3. School ensures immediate access to asthma medications per Florida statute.
- 4. School provides student centered asthma management support (includes identifying children with asthma at the beginning of the school year and having asthma action plans on file for students with known asthma).

*Percentage of children with asthma with an asthma action plan increases by award level:*

Award Level	Bronze	Silver	Gold	Platinum
Required Percentage	More than 25%	More than 50%	More than 75%	More than 90%

- 5. School posts asthma posters in high-traffic areas.
- 6. Physical education and activity opportunities meet needs of children with asthma.

**Asthma-Friendly School Award Target Schools**

The following schools are either located in the Parramore community or receive children from the District and will be targeted for the Program. Five out of six of the schools listed are Title 1 (No Child Left Behind) schools. Research studies completed over the last 30 years show conclusively that schools with high concentrations of economically disadvantaged students generally demonstrate lower levels of achievement than do schools with lower concentrations of economically disadvantaged students. Under Title 1, schools with the highest concentrations of poverty receive supplemental federal funding from the U.S. Department of Education to meet school educational goals.

Name	Address	Title 1 School?	Percent Poverty
<b>Elementary Schools</b>			
Nap Ford Community School	648 W. Livingston Street	yes	89.57%
Rock Lake Elementary	408 North Tampa Avenue	yes	95.51%
Orange Center Elementary	621 S. Texas Avenue	yes	97.86%
Princeton Elementary	311 W. Princeton Street	no	
<b>Middle School</b>			
Howard Middle School	800 E. Robinson Street	yes	75.78%
<b>High School</b>			
Jones High School	801 S. Rio Grande Avenue	yes	86.69%

**Project Approach**

The City will utilize the Brownfield Assessment Grant funding and the program developed by the Florida Asthma Coalition to conduct the activities listed below. There are six main steps to becoming an Asthma-Friendly School:

- 1. Establish a Leadership Team
- 2. Professional Development for School Nurses, Faculty, and Staff on Asthma Management
- 3. Access to Asthma Medication
- 4. Student Centered Asthma Management Support
- 5. Awareness Posters
- 6. Physical Education and Activity



**Bronze Criteria 1. Asthma Leadership Team**

An Asthma Leadership Team and designated a leader for that team, the “Asthma Champion” will be established for each school. The success of a school-based asthma effort is strongly linked to having the right people to plan, lead, and monitor the effort. It is important to get Administrative buy-in and then build a team of enthusiastic staff to support the initiative.

The purpose of the Asthma Leadership Team is to assess current efforts, conduct planning for improvement, and monitor asthma management activities at the school on a continual basis. Creating and sustaining an asthma-friendly school effort is a long-term proposition. The Asthma Leadership Team will provide the creative and resourceful thought, cooperation, and facilitate action among the range of individuals and organizations needed to achieve success. Identifying a school based asthma champion is frequently cited in the literature as key to becoming a more asthma-friendly school. Members of the Asthma Leadership Team will have multiple responsibilities, therefore it is critical that one leader, or champion, is clearly defined to ensure and facilitate ongoing communication, implementation, and system improvement.

**Sign up for an Asthma-Friendly School Mentor**

The first step in establishing a school’s asthma leadership team is signing up for an Asthma-Friendly School Mentor. Mentors are located across Florida and are available to answer questions or provide support and technical assistance as the Team works through the application process. Mentors are trained on the Asthma-Friendly School criteria and are familiar with the evidence-based clinical asthma guidelines and tools for school-based asthma management.

Schools are encouraged to have their Asthma Leadership Team overlap or align with an existing school wellness team or healthy school team. In addition, consideration is made to make the Team part of an existing committee that is required by schools. Types of individuals to invite to the Asthma Leadership Team include:

- Parent of a child with asthma
- Students
- School Advisory Council Member
- District Health or Wellness Coordinator
- School Wellness Coordinator
- Health Department Personnel
- Health Educator
- Local clinicians
- Pulmonologist or Allergist
- Respiratory Therapist
- Certified Asthma Educator
- Administrator
- PTA Representative
- Nurse
- Physical Educator
- School Social Worker
- School Psychologist
- Teachers
- School Counselor
- Support Staff
- American Lung Association

**Using Data to Gain and Maintain Support**

Several studies have shown the value of using data to document the need for asthma education among students and staff. Gathering and presenting the types of data below can be used to engage new team members, including the administrator:



## Community Health Monitoring Plan

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- Number and percent of students with asthma in the school.
- Number of days of absenteeism for students with asthma.
- Number of students with asthma medication at school.
- Number of students with permission to carry or self-administer asthma medication.
- Number of students with asthma action plans on file.
- Number of nurse visits due to asthma symptoms.
- Number of 911 calls or calls to parents for students with asthma.

These data points will also be useful for monitoring and evaluating improvements in asthma outcomes based on the overall asthma-friendly school initiative.

### **Facilitating Team Meetings and Maintaining Momentum**

Once the mentor is assigned and the leadership team membership is decided, the team will need to establish a process and timeline for working together. It is important to schedule a meeting with the school administration (principal or assistant principal) to obtain support and ensure collaboration in achieving the desired level of recognition. The first meeting may serve as an orientation to members and help them understand the levels of recognition and the steps needed to achieve them. This is also the time to assess what the school already has in place for asthma management using the Asthma-Friendly Schools Checklist/Application (see Attachments C and D). Once the team knows what is already in place, a timeline for completing the remaining criteria can be established. Using the list of unmet criteria, the team can talk with school staff to determine the order for achieving the remaining criteria.

An early priority for the team is to decide on the level of recognition that the team would like to achieve and the timeframe for achieving higher levels. For example, a school may make take a multi-year approach, with the goal of achieving higher levels of recognition in later school semesters or years. Once the team agrees on the timeline and goals, meetings will be ongoing to identify problems, plan next steps, discuss progress using data, and ensure consistent implementation.

### **Bronze Criteria 2. Professional Development for School Nurses, Faculty, Staff - Asthma Management**

School nurses or their equivalent will participate in a free online asthma education program that aligns with their background, role, and skill sets within 3 months. In addition, other school faculty and staff members will participate in basic asthma education through the American Lung Association's (ALA) Asthma 101 course. See Attachment E for the American Lung Association's Asthma 101 Program Instructions.

#### **Professional Development for Nurses**

School Nurses have a special role in asthma management. In accordance with the Standards of Practice and Professional Performance for School Nursing, they provide care to students as wells as provide support and education to those around them on asthma management. To support school nurses in their important role, they will be given professional development opportunities that are appropriate to their



## Community Health Monitoring Plan

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nursing training and skill sets. It is recommended that school nurses complete both of the free trainings listed below. However, only one is required to achieve all levels of recognition.

The Asthma Management and Education On-line Training from the Asthma and Allergy Foundation of America is a recommended training for school nurses because it is an interactive web-based course structured around the National Heart, Lung, and Blood Institute's "Four Components of Asthma Management." This free program consists of 12 self-paced study modules and has been approved for 7 CE hours for nurses and 7 CRE hours for regulatory therapists. The program is found at [www.aafa.org](http://www.aafa.org) and Online Training Instructions are found in Attachment F.

The School Nurse Online-Module from "Teaming up for Asthma Control" and the Children's Hospital University of Missouri Health Care free online training program provides school nurses with a 2-hour web-based course utilizing the Expert Panel; Report 3: Guidelines for the Diagnosis and Management of Asthma (EPR3-2007) and provides clear, evidence-based approaches for improving asthma care. <http://video.esgn.tv/player.php?p=z80240ko>.

### **Professional Development for School Faculty and Staff**

Faculty and staff training is critical for effective asthma management in Florida schools. The ALA's Asthma 101 course provides faculty and staff with the knowledge to support students with asthma and to prevent and respond to asthma emergencies. For the Bronze award more than 25% of school faculty and staff must have participated in an Asthma 101 program (or comparable approved course) within the past 24 months. Therefore, training under this initiative of 35% of school staff will occur within 3 months after the project is initiated with the first meeting of the Asthma Leadership Team. Participating staff will be drawn from the health services staff, teachers, physical education teachers, coaches, cafeteria workers, bus drivers, administrators, playground supervisors and anyone who may be the adult first responding to an asthma episode. The ALA's Asthma 101 program is recommended for all school staff because it is an evidence-based, evaluated curriculum that meets the needs of adult learners and covers knowledge areas that are critical safeguards to preventing asthma crises at a school. This program is delivered in a one-time 60- to 90 minute session and prepares faculty and staff to support students with asthma and improves their confidence in dealing with and preventing asthma-related incidents at school. Free or low cost in person trainings may be available from the ALA. A free online version of ALA's Asthma 101 is available at: <http://flasthma.files.wordpress.com/2013/11/asthma101-instructions1.pdf>.

<b>Bronze Criteria 3. Access to Asthma Medication</b>
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To achieve criterion number three, schools must ensure students with asthma have immediate access to appropriate medications before and during events. According to Florida State Statute Title XLVIII K 20-1002.20(3) (h) schools must have a policy or process that enables students with parent and physician approval to carry and self-administer metered dose inhalers.



## Community Health Monitoring Plan

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The school's plan for medication management and administration must be in compliance with state regulations and nursing practice standards. Having a plan will help ensure students have immediate access to all medications as approved by the pediatrician/primary care provider and parents, regardless of the availability of the school nurse. This includes self-carry and self-administration of medication as appropriate.

Access to "quick relief" or "rescue" medication is critical, as these will immediately open the airways during an asthma episode. The longer it takes to administer quick-relief medications, the worse the episode may become. Assuring immediate access to medications will help prevent asthma emergencies by allowing students to manage their asthma as their physician prescribes. The school is responsible for having a plan or process that assures true immediate access. For example, medications cannot be locked in the school nurse's desk, with only the nurse and a few staff members having access to the medications. Such a situation could result in a lack of access to the medication in an emergency, should those few individuals not be in the school and available at the time of an asthma attack.

If self-carry/self-administration is not the school policy, the school is responsible for having a plan that assures true immediate access. Through this training the school will develop a School Medication Policy.

### **Bronze Criteria 4. Student Centered Asthma Management Support**

Providing student centered asthma support involves collaboration between all school staff with the leadership of the school nurse. To achieve criterion number four, schools must carry out the following five actions / processes – many of which are already part of their routine school health services. School nurses are at the center of providing student health care services, but they can't do it alone. Nurses carry out activities in accordance with the Standards of Practice and Professional Performance for School Nursing and in accordance with the Florida Department of Health's Guidelines for the Delegation of Care for Students with Asthma. By carrying out the activities described below, school nurses, individuals delegated to provide care, and other school faculty and staff can be very effective in helping children with asthma manage and control their symptoms. The steps for providing student support include:

- Identify and track students with asthma.
- Have an Asthma Action Plan on file for all students with an asthma diagnosis, or known asthma. The required percentage of students with Asthma Action Plans on file increases with the increasing award levels.
- Have a standard emergency protocol for students that don't have an Asthma Action Plan.
- Maintain a positive partnership between school staff, parents, students, pediatricians, and other primary care providers.
- Provide linkages to medical care or insurance for children in need.

#### **Identify and Track Children with Asthma**



## Community Health Monitoring Plan

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It is important for schools to know which students have asthma in order to ensure they have what they need to keep asthma under control and not miss school due to symptoms. The process of identifying students with asthma should be done annually (at minimum) and ideally at the beginning of each school year. Research suggests focusing attention on identifying those students with asthma diagnoses, particularly those who are experiencing symptoms due to uncontrolled asthma. Children with asthma like symptoms that do not have a diagnosis may be referred to a healthcare provider for consultation, but school nurses and staff should be sure to keep a focus on students with a diagnosis. The school nurse or delegated staff may consider one or all of the factors below when identifying children with asthma:

- A healthcare provider diagnosis of asthma (including exercised-induced asthma) and current asthma medication prescription.
- A provider diagnosis and symptoms in the past 12 months (as reported by parents, nurse visits, or directly by older students).
- A parent report of asthma or wheezing and provider-prescribed asthma medication for recurrent symptoms in the past 12 months.
- Students with diagnoses of reactive airway disease, wheezy bronchitis, or similar diagnoses for which an authorized individual has prescribed albuterol or a controller medication treatment.
- Students who have any asthma medication or medication orders sent to school.

This type of information may be gathered through multiple channels such as annual emergency cards, school entry physical examination forms, medication administration forms, and health room visits. Steps should be taken to build relationships with the family and health care provide so that the child can be properly assessed according to the EPR-3-2007 Guidelines.

### **Have an Asthma Action Plan on File for Students with Asthma**

Once students with asthma are identified, schools will focus attention on obtaining Asthma Action Plans, developing Individual Health Care Plans (if needed) and tracking students with asthma to make sure their asthma is under control.

An Asthma Action Plan is a written plan to help monitor and control asthma. It is typically developed by the doctor or primary care provider with input from the parents. The Asthma Action Plan shows the student's daily asthma treatment plan, such as what kind of medicines the student should take, specific doses, and when to take them. If a doctor prescribes medicine for the student to take every day (also known as controller medicine), it is because the student experiences asthma symptoms too often. The student must take the medicine every day to stay well, even on days they are not experiencing any symptoms. Daily medications won't prevent every asthma attack but if they are used every day, the student won't have attacks as often. The Asthma Action Plan should also describe the student's asthma triggers and provide instructions for how to handle worsening asthma symptoms or episodes – including when to call the parents and when to call 911.

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### **Bronze Criteria 5. Awareness Posters**

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Achieving criterion number five is as simple as printing and posting the recommended Asthma Awareness posters in high-traffic areas at the school. The outreach effort aligns with Next Generation Sunshine State Standards. Posters serve as easy reminders to staff, parents, and students about what to do in an emergency and how to avoid asthma triggers. Schools are encouraged to post them in areas that are frequently visited by the target audience and near the health room in addition to other high-traffic areas. See Attachment G for copies of awareness posters.

**Bronze Criteria 6. Physical Education and Activity**

To achieve criterion number six, physical education (PE) teachers need to have participated in the Asthma 101 course. In addition, PE teachers must sign up to receive free air quality alerts so they can make decisions about when to avoid conducting activity outside. They also need to have a plan in place for alternative indoor activities on poor air quality days. Signing up for the alerts is easy from this EPA website: [www.airnow.gov](http://www.airnow.gov). These steps will help PE teachers ensure that students with asthma are given the opportunity to participate in physical education fully, safely, and in accordance with their Asthma Action Plan.

**Applying for Recognition**

Seeking recognition is easy once asthma management processes are in place. To complete the Asthma-Friendly School Application, school staff or members of the Leadership Team must provide the information as requested on the form and the school administrator/principal must provide his or her signature where indicated for verification. Once the application is complete, schools will submit a scanned version and the necessary attachments to the Florida Asthma Coalition. The application will be reviewed by members of the Coalition and once the application is approved a certificate will be presented and the school will be listed on the Florida Asthma Coalition's website.



### 3 Plan Implementation

This Florida Asthma-Friendly Schools program has been developed working in collaboration with and utilizing the Application Guide provided by the Florida Asthma Coalition. The table below provides a timeline for implementation of the program in four elementary, one middle and one high school that serve children from the Parramore community.

Name	Address	Start Date
<b>Elementary Schools</b>		
Nap Ford Community School	648 W. Livingston Street	30 days after school district approval
Rock Lake Elementary	408 North Tampa Avenue	45 days after school district approval
Orange Center Elementary	621 S. Texas Avenue	60 days after school district approval
Princeton Elementary	311 W. Princeton Street	75 days after school district approval
<b>Middle School</b>		
Howard Middle School	800 E. Robinson Street	60 days after school district approval
<b>High School</b>		
Jones High School	801 S. Rio Grande Avenue	90 days after school district approval

#### Initial Visit

- Introduction, administrative, registration
- Explanation of the program, processes, advantages
- Assessment of current asthma management practices and staff training
- Identification of Asthma Champion
- Identification of staff to receive training
- Roster of students with asthma
- Review of environmental triggers in the school environment
- Distribute ALA Asthma 101 worksheet to facilitate access to free training module
- Provide school nurse with a copy of the Asthma-Friendly School Resource Guide, educational posters and brochures provided by the Asthma Coalition

#### Second Visit

- Identification and welcome to Asthma Leadership Team
- Distribute ALA Asthma 101 worksheet to facilitate access to free training module for additional staff
- Discussion of environmental trigger assessment and asthma triggers observed at the School with Champion
- Provide copies of the Asthma-Friendly School Resource Guide, educational posters and brochures as needed
- Encourage school/parent communication and the use of Asthma Action Plans for asthmatic children enrolled in the school



**Third Visit**

- Distribute ALA Asthma 101 worksheet to facilitate access to free training module for additional staff
- Provide educational posters and brochures for educational purposes
- Review list of students with asthma and inventory Asthma Action Plans on file
- Develop list of staff who have received ALA Asthma 101 training
- Help school prepare the Asthma-Friendly School Application



## Additional Resources

**ALA's Asthma-Friendly School Toolkit:** <http://www.lung.org/lung-disease/asthma/creatingasthma-friendly-environments/asthma-in-schools/asthma-friendly-schools-initiative/aboutasthma-friendly-schools-initiative/educate-school-staff.pdf>

Includes the following:

- Background on the need for school staff education,
- A sample district policy requiring asthma education,
- Michigan State Board of Education's Policy on the Management of Asthma in Schools,
- Sample letter to school districts about the need for asthma education, and
- Outlines for presentations to PTA/PTO or School Board and Administrators.

**NAEPP: Asthma Basics for Schools:** These PowerPoint slides provide updated information about the problem of asthma among school-age youth, the causes, signs and symptoms of asthma, the impact of asthma on student learning, asthma triggers, the control of asthma, assessing how asthma-friendly is your school, and how to handle an asthma episode.

[http://rover.nhlbi.nih.gov/health/prof/lung/asthma/basics\\_schools/](http://rover.nhlbi.nih.gov/health/prof/lung/asthma/basics_schools/)

\*This plan has been developed in collaboration with the Florida Asthma Coalition Florida Asthma-Friendly Schools Recognition Program.

**ASTMA-FRIENDLY CHILDCARE MENTORING  
PARRAMORE HERITAGE DISTRICT  
ORLANDO, ORANGE COUNTY, FLORIDA**

**Prepared for:**



**The City of Orlando  
Public Works Division  
5100 L.B. McLeod Road  
Orlando, Florida, 32811  
EPA Brownfields Cooperative Agreement BF-95498212**

**and:**

***ECT*** **Environmental  
Consulting &  
Technology, Inc.**

[www.ectinc.com](http://www.ectinc.com)

**3660 Maguire Boulevard, Suite 107  
Orlando, Florida 32803**

**ECT Project No. 150232**

**Prepared by:  
Esther Haugabrooks  
Health Educator Consultant  
Florida Department of Health in Orange County  
800 N Mercy Dr. Suite #1  
Orlando, Florida 32808**

**August 2015**

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## 1.0 INTRODUCTION

The Florida Department of Health (DOH) and the Florida Asthma Coalition (FAC) has been educating and training childcare centers in the State of Florida to become Asthma-Friendly since 2010. Environmental Consulting Technology, Inc. (ECT) has partnered with DOH in Orange County to provide Asthma-Friendly Childcare Mentoring services to childcare centers in the Brownfield Parramore Heritage District, using EPA Brownfield grant funding from Cooperative Agreement BF-95498212. The services contract between ECT and Florida DOH-Orange requested two deliverables:

1. Progress reports documenting project development and services provided to be submitted with an invoice for each center receiving mentoring and/or recognition from the Florida Department of Health.
2. Reports shall include the following items:  
Spreadsheet listing name of participating center, number of employees trained, number of children enrolled with asthma, environmental trigger assessment score and milestones.

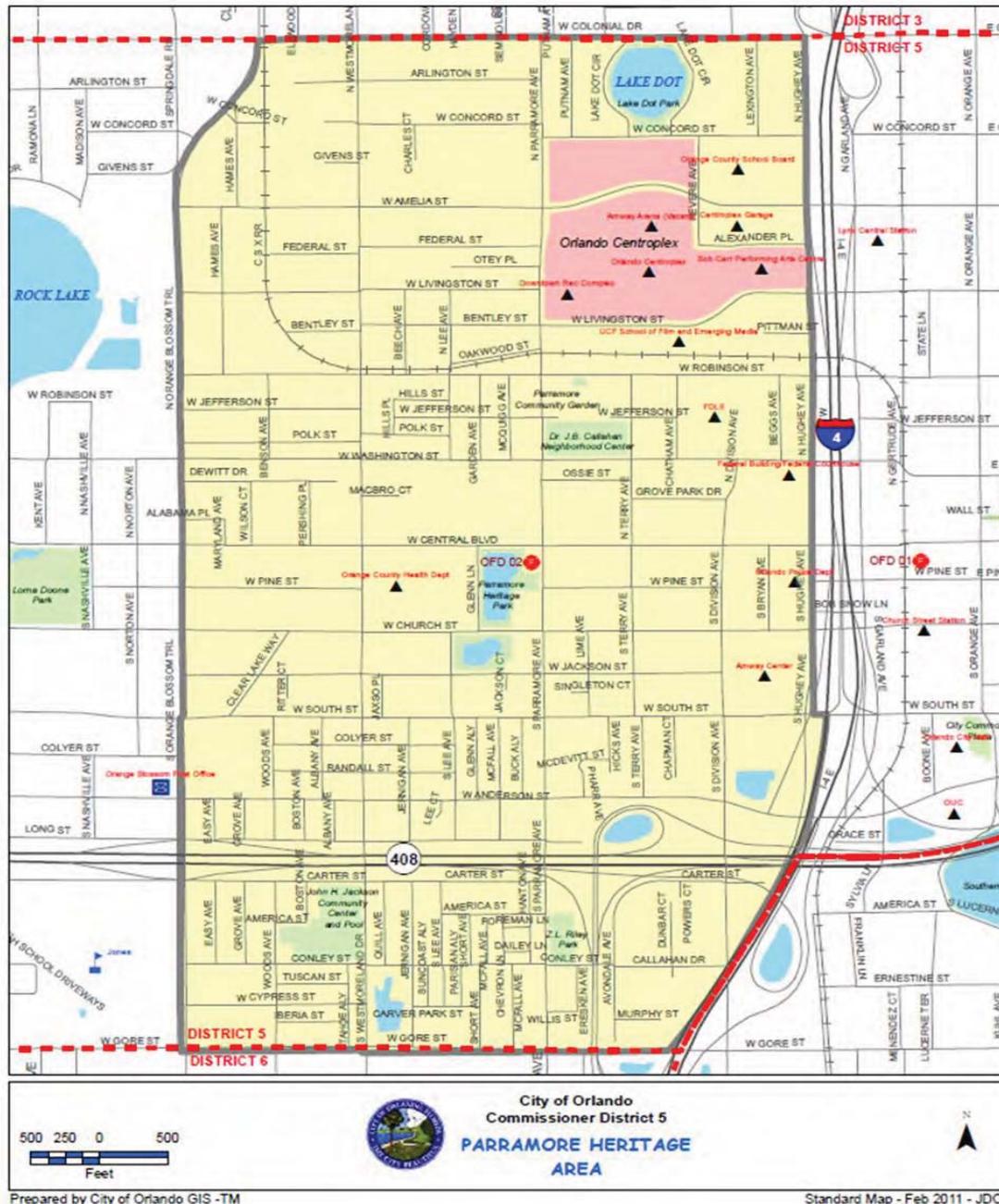
The following report details how these deliverables were accomplished.

## 2.0 PROCEDURES

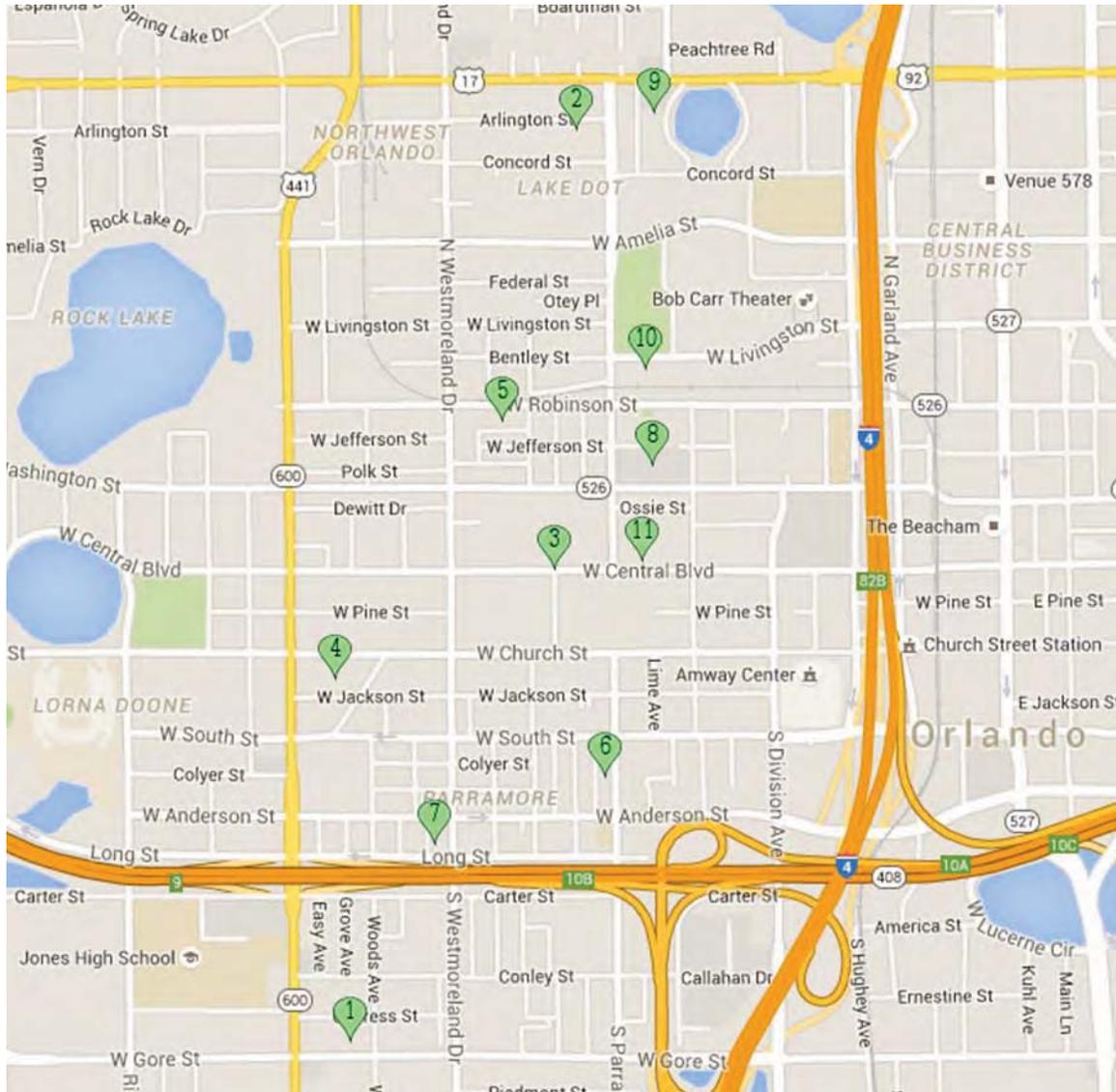
### 2.1 RECRUITMENT

The Parramore area was identified (**Figure 1**) and then childcare centers licensed by the Florida Department of Children and Families were mapped (**Figure 2**).

**Figure 1.** Parramore Heritage District



**Figure 2.** Childcare center in Parramore Heritage area created by Map Customizer <http://www.mapcustomizer.com/map/Parramore%20Heritage>



List of eligible Centers in the Parramore area:

- 1 **Happy Times Learning Academy**  
1215 West Gore Street, Orlando, FL 32805, USA
- 2 **Lee Family Day Care**  
718 Arlington Street, Orlando, FL 32805, USA
- 3 **Little Kings and Queens Learning Center**  
800 West Central Boulevard, Orlando, FL 32805, USA

-  **N2 Kidz and Co.**  
1233 West Jackson Street, Orlando, FL 32805, USA
-  **Peabo Child Care Center**  
815 Hills Street, Orlando, FL 32805, USA
-  **Superstar's Academy Learning Center**  
422 South Parramore Avenue, Orlando, FL 32805, USA
-  **Wells Family Day Care Home**  
517 Albany Avenue, Orlando, FL 32805, USA
-  **Callahan Headstart**  
101 North Parramore Avenue, Orlando, FL 32801, USA
-  **Orlando Day Nursery**  
626 Lake Dot Circle, Orlando, FL 32801, USA
-  **Nap Ford Community School**  
648 West Livingston Street, Orlando, FL 32801, USA
-  **Coalition For the Homeless Childcare Center**  
639 West Central Boulevard, Orlando, FL 32801, USA

Each center was called and a script similar to the below paragraph was followed:

*“My name is {insert here}, I am calling from the Florida Department of Health in Orange County to see if your child care center is interested in participating in the Florida Asthma Friendly Childcare Program. If you are willing, we provide environmental assessments, staff education, and mentoring to facilitate your center in becoming recognized as Asthma Friendly. This program is free to you child care center and when completed, your Asthma Friendly Child Care recognition will be posted for potential Parents of children with Asthma to find on the Florida Asthma Coalition website. Is this something your center would be interested in?”*

## **2.2 TRAINING AND ENVIRONMENTAL ASSESSMENT**

Each center was offered the option of in-person training or online training. Most centers initially opted for in-person training. However, after scheduling conflicts, two centers later decided to try online training. The centers who received in-person training also received a personalized environmental assessment (EA) walk-through by staff from the DOH of Orange County.

## **2.3 FOLLOW-UP**

After five centers were enrolled, dates were set for staff training and EAs to identify asthma triggers. For some centers, several dates were set in efforts to conduct in-person staff training and completion of the EA. All five centers received a call at least once

every two weeks to follow up with their progress. Posters were dropped off to four out of the five childcare centers to encourage them to finish the recognition process.

Centers that did not do in-person staff training were also called and encouraged to finish their recognition process. These centers still received in-person mentoring and follow-up consultation even though they opted out of all other mentoring services (i.e. in-person staff training and EA walk-through).

Childcare Center	Eligible	Enrolled & Mentored	In-person training	Online training	EA's
Happy Times Learning Academy	X	X		X	
Lee Family Day Care	X				
Little Kings and Queens Learning Center	X	X			
N2 Kidz and Co.	X				
Peabo Child Care Center	X	X	X		X
Superstar's Academy Learning Center	X				
Callahan Headstart (refresher training)			X		
Orlando Day Nursery	X	X	X		X
Nap Ford Community School	X				
Coalition for the Homeless Childcare Center	X	X	X		X

**2.4 AWARD RECOGNITION PROCESS**

The FAC has developed a systematic process that will help childcare centers assess current asthma management activities and take steps to receive recognition. Centers awarded asthma-friendly recognition notice an improvement with their children with asthma and receive opportunities to show off their recognition through local and state marketing efforts. With the goal to reduce the asthma burden in the state of Florida, the FAC established a voluntary recognition opportunity to acknowledge childcare centers with exceptional asthma management programs. The recognition is currently offered at four levels (bronze, silver, gold, and platinum) based on the number and type of criteria achieved by each center. These four levels of recognition are based on national evidence-based guidelines.

The most basic and essential activities fall under the Bronze level. Successive recognition levels include additional activities and require more effort, resulting in progressively stronger programs and culminating in a Platinum level recognition. The recognition levels represent points of progress toward a goal of improved asthma management,

because every small step makes a difference. As stated in the *Community Health Monitoring Plan* prepared by ECT for the City of Orlando dated December 2013, a Bronze Award was the minimal goal of participating centers.

The recognition criteria for bronze recognition are as follows:

1. Asthma leadership team established.
2. Staff and administration participate in asthma training.
3. Ensure that at least 50% of children with asthma have Asthma Action Plans on-file. Note: Requirements increase based on award level. Centers with no children with asthma are only eligible for Bronze recognition.
4. Childcare providers utilize daily parent asthma/allergy communication tools as needed.
5. To increase asthma awareness, especially among staff, by hanging three asthma posters in high-traffic areas in childcare centers.
  - a. Steps to follow for an Asthma Episode in Childcare Center.
  - b. Common Asthma Triggers.
  - c. Top Ten Actions to Reduce Asthma Triggers.
6. Complete Environmental Monitoring with at least an 80 percent satisfactory score on Environmental Triggers Assessment.

Two centers (Peabo Child Care Center and Orlando Day Nursery) became Bronze Level recognized through the FAC!



Bronze  
Award



### 3.0 RESULTS AND CONCLUSIONS

#### 3.1 STAFF TRAINING

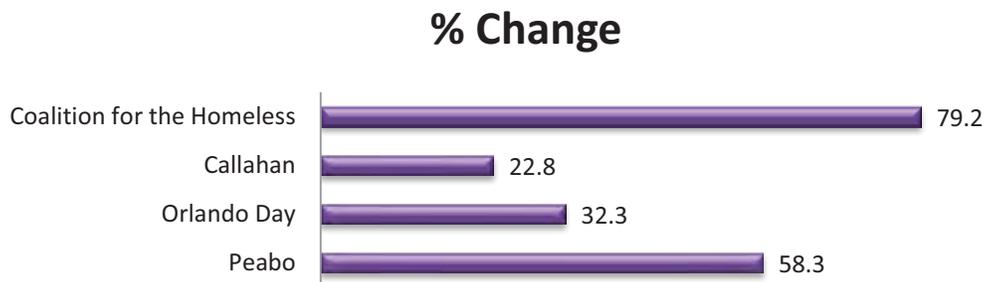
Of the five enrolled centers, four completed in-person training and one completed online training. Both in-person and online training use pre- and post-test as a measure of learning. Pre-test are given to understand each staff personnel’s prior knowledge to asthma friendly childcare. After pre-tests are administered, a presentation is given to explain asthma friendly childcare management. The difference in scores for the enrolled centers is represented in **Figure 3**.

**Figure 3.** Average scores of Asthma-friendly pre-test and post-test within each center.



The percent change was calculated to quantify how staff members learned the asthma friendly information after the presentation (**Figure 4**). Callahan had already been through the training process and received refresher training. This was indicative by a lower percent change in comparison to the other centers.

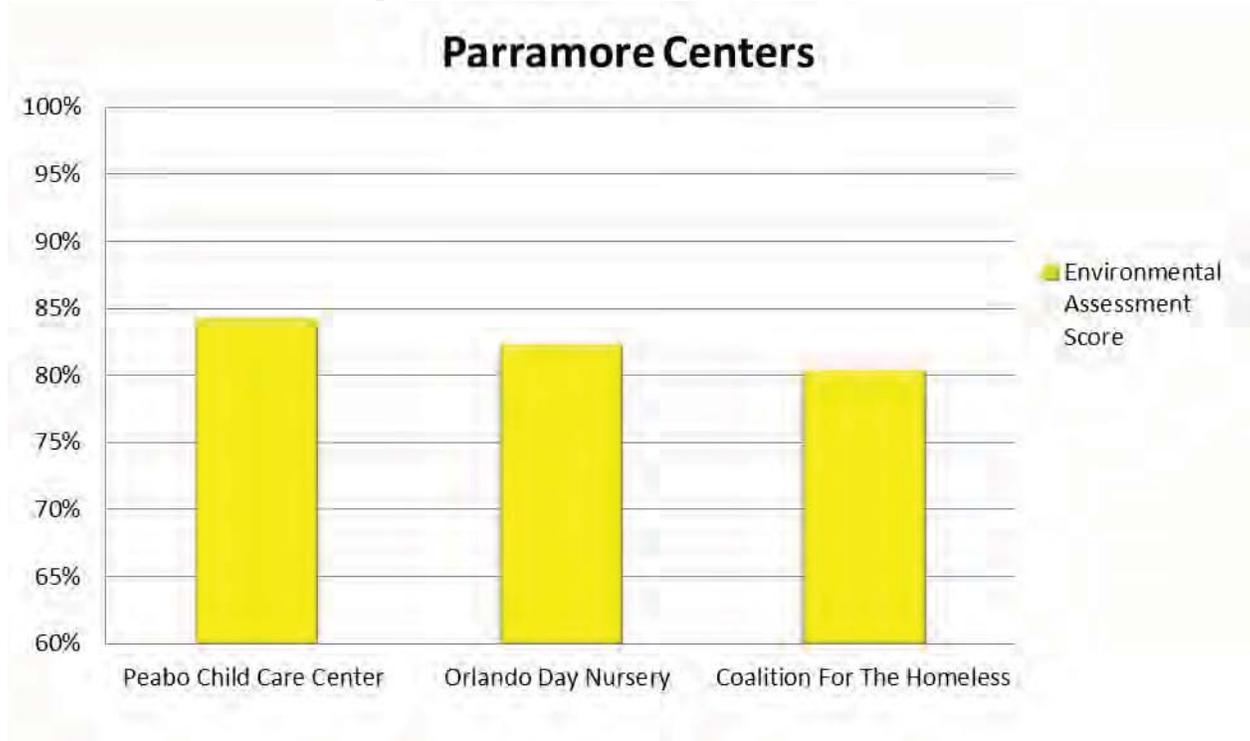
**Figure 4.** Percent change calculated from the difference in post and pre-test scores.



### 3.2 ENVIRONMENTAL ASSESSMENT

Three childcare centers received EA's. Each EA consisted of an interview consisting of 51 questions. To qualify for Bronze recognition, each childcare center needed to correctly answer >80% of 51 questions. The 51 question specifically addressed ways to reduce environmental asthma triggers in childcare centers. The results from each childcare center that completed the environmental assessment are illustrated in **Figure 5**.

**Figure 5.** Environmental Assessment scores for enrolled centers that received in-person training. The other centers opted to conduct their own environmental assessment but never indicated if it was completed or submitted scores.



### 3.3 CONCLUSION

Centers that received in person training were more likely to complete the recognition process. Of the three centers that received in-person training, two became recognized as Asthma-Friendly by FAC before July 31st, 2015. No center that opted for online training received recognition before July 31st, 2015. One of the two centers that opted for online training completed online pre-test and post-test, but neither submitted scores for the environmental assessment. The DOH of Orange County was pleased to help mentor centers in the Brownfield area towards recognition as Asthma-Friendly through FAC. For more information about the City of Orlando Brownfields Program visit <https://sites.google.com/site/orlandobrownfieldsprogram/>