



Threshold Criteria (See Appendix A)

Ranking Criteria.

1. Community Need

a. Health, Welfare and Environment

i) **Number & Effect of Brownfields on the Community.** The City of Orlando is located in Orange County, Central Florida and serves as the County seat. Incorporated in 1885, Orlando began its history in cattle ranching and as a major exporter of citrus fruits to the northern markets. Today, the City is the center of the 6<sup>th</sup> largest metropolis in the southeast, encompasses over 111 square miles and is home to 238,800 City residents (Census 2010) with over 2 million in the greater metro area. The community is as diverse as they come with 14 colleges and universities, over 115 public parks, 21 community centers, 100 + top-rated golf courses, major league sports teams, a wide array of the nation's top employers and abounding cultural opportunities. Easily accessible, the City is connected by the Florida Turnpike, Interstate 4 and the East-West Expressway to anywhere in the state and to the rest of the world by Orlando International Airport, the 13<sup>th</sup> busiest in the United States.

Not all areas within the City are prosperous, however. The Parramore Community is a 1.4 square mile neighborhood adjacent to the Central Business District and is the focus of this application. **The historic hub of Orlando's African American community, the Parramore community is the poorest, most economically disadvantaged area in the City.** Over time, this once vibrant community has become an area of disinvestment with great social and economic needs. Elevated crime, high school dropout, poverty and unemployment rates have plagued the community for decades, and have resulted in a fragile, high risk population.

Over the years, the Parramore community has been home to a coal gasification plant, numerous bulk petroleum facilities, insecticide and chemical manufacturing facilities, gasoline service stations and automobile repair facilities, dry cleaners and three historical USDA Bureau of Entomology Research Laboratories. In addition to brownfields, a number of other cumulative social and environmental issues have resulted in a disproportionate impact on Parramore. The community was bisected in the 1960's by the construction of Interstate 4 and then again by the East/West Expressway in the 1970's. The construction of these highways severed Parramore from the rest of the downtown and introduced yet another source of air, noise, water, and soil pollution to the community. Home to the City's poorest residents, the Parramore community is also the most environmentally at risk population in the City living in the oldest, most dilapidated housing and in the closest proximity to the remnants of the City's heaviest commercial and industrial uses. Over half of the current housing stock within Parramore was constructed prior to 1960. The existing infrastructure in Parramore includes an old and outdated surface transportation and underground utility network, built to support the now demolished professional sports arena (Amway Arena), which is at the very heart of the Parramore Community. The site of the arena and surrounding surface parking lots effectively act as a no man's land between Orlando's lowest income neighborhood and the Central Business District (CBD).

Since 1999, the City has been working diligently to remedy the ills of the past. The City has several efforts underway to address the social and economic needs of this community. In 2005, the City launched Pathways for Parramore, a comprehensive effort to revitalize this historic, although terribly blighted neighborhood. The City has worked extensively with citizens, business owners, civic groups, schools and non-profit agencies to develop a cohesive vision for the future of this community. The Pathways for Parramore addresses five main components including; Housing, Public Safety, Business Development, Quality of Life and Children & Education. Through the establishment of Parramore Kids Zone (PKZ), significant social and academic progress has been made. PKZ project evaluators have documented an 81% decline in juvenile arrests and across the board increases in math and reading proficiency scores since program inception. Clearly through this process, the City has solidified many of the partnerships necessary to make this dream into a reality. The Creative Village Development was born of this effort, an all-encompassing plan to redevelop 68 City-owned



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acres in the heart of Parramore into a multi-modal, mixed-use planned development. However, before the City can effectively market these properties to end users, environmental concerns must be properly addressed and the stigmas associated with these sites removed.

An inventory of environmental data was recently conducted for the Parramore Community through Environmental Data Resource Inc. (EDR). The report revealed 454 regulatory listed sites. The number of sites identified is dramatic when considering the limited size of the search area, just 1.4 square miles. **This figure equates to an average of 324 regulatory listed sites per square mile within Parramore**, including 137 underground storage tanks, 125 leaking underground storage tank sites, 6 priority dry cleaning facilities, 2 documented landfills, 3 superfund sites, and a manufactured gas plant. The report findings are illustrated in the table below.

Parramore		#	Source (through EDR)
UST	Registered Underground Storage Tank Sites	137	FDEP Storage Tank Database
LUST	Leaking Underground Storage Tank Sites	125	FDEP Tank Facility Discharge Database
LAST	Leaking Aboveground Storage Tank Sites	11	FDEP Tank Facility Discharge Database
RCRA	EPA Resource Conservation & Recovery		
LQG	RCRA Large Quantity Generator	2	EPA RCRA Database
SQG	RCRA Small Quantity Generator	48	EPA RCRA Database
CESQG	Conditionally Exempt SQG	51	EPA RCRA Database
Non-Generator	RCRA Non-Generator (accumulation) Site	68	EPA RCRA Database
SWF/LF	Solid Waste/Landfill Facility	2	State/tribal Database
CERCLIS	Typically Superfund Sites	3	EPA RCRA Database
MGP	Manufactured Gas Plant	1	EPA RCRA Database
Priority DC	Priority Dry Cleaner (documented impacts)	6	FDEP Dry Cleaning Program
<b>Total Regulatory Listed Sites</b>		<b>454</b>	

The groups most at risk for exposures and health risks associated with brownfields are the most sensitive among the human population. The Parramore community is home to a number of these sensitive populations, including minorities, children, and women of child bearing age, as well as low income persons and the elderly. These population groups are particularly and disproportionately subject to higher rates of poverty and subsequently are at greater health risk from environmental factors. This is largely because they are more likely to live in older, substandard housing units and have higher hazard, lower skilled employment opportunities. This is particularly true in Parramore.

**Minorities:** Parramore has a predominantly minority population. According to Census 2010 figures, 83% of residents are African American, 7% are Hispanic and 2% are comprised of other non-white races and multiracial persons. The area has many Haitian immigrants, comprising 13% of the population.

**Poverty Rates:** Parramore has a much higher rate of poverty than the nation, state and City. According to Census estimates, 51% of the community's population lives below the poverty level. Worst still are the figures for the children in the community; 73% of all residents under 18 are impoverished. Per capita income for the community is just \$12,677, about half that of the City and State figures. Over 5% of the population is reported to receive public assistance.

**Children and Pregnant Women:** An estimated 2,066 children under 18 reside in Parramore, accounting for over 28% of the community's population. The population is comprised of 53% women, of which 34% are of child bearing age. The Community also has dramatically higher rates of child abuse, juvenile arrest, and teen pregnancy than state and national averages.

**Elderly:** Approximately 13% of Parramore's residents are over 65 years of age.

**Unemployment:** The community's labor force of 2,807 residents over the age of 16 has only a 52% participation rate. Low educational attainment within the community and limited transportation availability



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drastically hinders employment options for Parramore residents. An estimated 32% of residents are unemployed.

**Educational Attainment:** The limited educational attainment of Parramore residents makes job diversification and reemployment much more challenging. Of the area's adult residents over age 25, 90% are lacking a college degree, 47% have not completed High School and 17% have less than a 9<sup>th</sup> grade education. Only 5% of residents hold bachelor's degrees or higher.

**Transportation Disadvantaged:** Over 44% of all households within Parramore have no personal vehicle available for transportation needs. Approximately, 47% of residents rely on public transportation and carpooling as their primary means to work.

Evidence that environmental contamination has affected the community's residents is abundant when one examines the environmental health data of the population. The following table represents data provided by the Orange County Health Department.

**Orange County's Health Facts**

	Orange County	Florida	US		Orange County	Florida	US
Adults who currently smoke	13.3%	17.1%	17.3%	Residents below 100% poverty	18.7%	16.5%	15.1%
Stroke age-adjusted death rate/100,000	33.3	30.3	42.2	Colorectal cancer age-adjusted death/100,000	14.9	14.9	16.9
Breast cancer age-adjusted death rate/100,000	23.9	20.0	22.9	Breast cancer age adjusted incidence rate/100,000	117.6	113	120
Prostate cancer age-adjusted death/100,000	24.8	19.3	23.5	Prostate cancer age-adjusted incidence rate/100,000	135	137.7	156.9
Adults who have been diagnosed with asthma	8.6%	8.3%	9.1%	Low birth weights (<2500 grams)	9.3%	8.7%	8.2
Premature births (<37 weeks)	14.9%	13.8%	12.3%	Neonatal death rate/1,000	5.5	4.8	4.5
Adults who are overweight or obese	63.3%	65%	63.9%				

The Community's health risk factors are higher than both state and national figures in ALL categories. This vulnerable population is also likely to be uninsured relying on public assist for health care or go without access to basic health care. **Over 41% of residents in Central Florida are either uninsured or underinsured—twice the national average.** A dominance of low-wage, part time and temporary jobs without benefits has resulted in a health care coverage crisis for the region. Additionally, high rates of unemployment have caused many residents to lose health care access. Insurance premiums for the state are disproportionately higher than in other areas of the nation and are simply not affordable for most citizens without the benefit of employer contributions. The health disparities for those without insurance and those in the lowest income brackets are tremendous. These groups suffer higher incidence rates and poor outcomes in nearly all categories.

**b. Financial Need**

i) In Central Florida, the recent recession has lowered the standard of living for thousands of residents. Unemployment, underemployment, part-time work, cutbacks on wages and hours, and two-income families reduced to one paycheck all have contributed to the drop in median household income, according to the U.S. Census Bureau. 2010 Census figures reflect the devastating toll inflicted on Central Florida families since the recession officially began in December 2007. Since 2007, the median household income has declined 16 percent in Orange County. The drop in median income mirrors the rise in poverty. The counties with the



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largest drop in household income had the largest increase in the poverty rate from 2007 to 2010, according to census figures. The percentage of poor in Orange County grew from 12 percent to 16 percent.

Nowhere has been harder hit by the economy than the Parramore community, the most distressed area in downtown Orlando. Dissected in the 1960's by the construction of Interstate 4 and then again by the East/West Expressway in the 1970's, Parramore was severed from the rest of the downtown. While the area has been the target of far reaching initiatives to address the needs of area residents and substantial progress has been made, the Parramore community continues to exhibit significant economic and social distress. Subject to the highest crime, poverty, unemployment and high school drop-out rates. Home ownership in the community is much lower than in surrounding areas and the majority of homes are renter-occupied. The presence of brownfields such as the subject site have proven an additional obstacle to redevelopment efforts and have further exacerbated efforts to revitalize this struggling community. The table below highlights the demographic data for the Parramore Community:

**Demographic Data Comparison**

	<b>Parramore Community</b>	<b>City of Orlando</b>	<b>Orange County</b>	<b>State of Florida</b>	<b>United States</b>
<b>Population</b>	7,347 <sup>1</sup>	238,300 <sup>1</sup>	1,145,956 <sup>1</sup>	18,801,310 <sup>1</sup>	308,745,538 <sup>1</sup>
<b>Unemployment</b>	32% <sup>2</sup>	8.7% <sup>2</sup>	10.6% <sup>2</sup>	8.8% <sup>2</sup>	8.2% <sup>2</sup>
<b>Poverty Rate</b>	51% <sup>1</sup>	16.6% <sup>3</sup>	18.7% <sup>3</sup>	16.5% <sup>3</sup>	15.1 % <sup>3</sup>
<b>Percent Minority</b>	83.7% <sup>1</sup>	42% <sup>1</sup>	36.0% <sup>1</sup>	25.% <sup>1</sup>	26.7% <sup>1</sup>
<b>Per Capita Income</b>	\$12,677 <sup>1</sup>	27,334 <sup>1</sup>	26,551 <sup>1</sup>	24,490 <sup>1</sup>	28,742 <sup>1</sup>
<b>Median Household Income</b>		\$38,098 <sup>3</sup>	\$45,140 <sup>3</sup>	\$47,661 <sup>3</sup>	\$49,445 <sup>3</sup>

<sup>1</sup>2010 U.S. Census data <http://www.census.gov/>. <sup>2</sup>Bureau of Labor Statistics and is available at [www.bls.gov](http://www.bls.gov) <sup>3</sup>2009 American Community Survey [http://www.census.gov/newsroom/releases/archives/income\\_wealth/cb10-144.html](http://www.census.gov/newsroom/releases/archives/income_wealth/cb10-144.html)

Often properties identified within a community as being brownfields have a stigma attached due to the potential economic burden and environmental concerns. Businesses relocate and residential communities follow in their path. As a result, a once thriving industrial or commercial center weakens and eventually withers. This is the case in Parramore. There is a strong perception within the community that many vacant and underutilized sites are contaminated and little has been done to determine the real extent of contamination in the community due to the lack of funding to address the problem. This condition has only been exacerbated by the recent downturn in economy, where business closures, bankruptcies and bank seizures are all too commonplace.

Like many communities, recent economic events have drastically impacted the City of Orlando's budget. Over the last 5 years, property valuations within the City have declined \$6,806,802,747 resulting in property tax losses of \$36,920,098. During the same time period, property tax reforms enacted by the State legislature reduced the City's property tax revenues by \$17,515,000. The resulting net decline of \$54,435,098 in operating revenue has constrained City finances. The City's tax base has contracted over 8.5% since FY2007/2008.

If awarded, this EPA Cleanup grant will greatly benefit the people of Orlando's poorest neighborhood, Parramore, through the remediation of one of the key properties in the City's Creative Village Development project. The City believes that this project will acts as economic catalyst for other high caliber economic redevelopment projects within this distressed community. Additionally the removal of toxic substances will offer the people of this community improved public health and protection of the environment, Residents of the



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City desperately need the jobs that this redevelopment effort would offer. The City would greatly benefit from the increased tax base and renewed economy.

**Project Description and Feasibility of Success**

**a. Project Description**

**i) Existing Conditions & Proposed Redevelopment.** The City is requesting \$200,000 in cleanup funds to begin cleanup activities at the city-owned subject property. The proposed funding will be used to address cleanup activities at the site, including the development of a Generic Quality Assurance Plan and Site-Specific QAPP and a site health and safety plan, preparation of a remedial action plan, excavation of contaminated soils, back fill of clean soil and confirmatory soil sampling.

The subject property is substantially covered by asphalt and concrete and includes a road network that became disjointed after the construction of the Amway Arena in 1988, which has recently been demolished. Various underground utilities travel into and through the project area to provide service to the uses on site, as well as to the surrounding residential neighborhood to the west and north and the City's Downtown to the east. The uses occupying the overall Creative Village project area include the now demolished Amway Arena (formerly home to the NBA Orlando Magic), the Bob Carr Performing Arts Center, Nap Ford Charter School (K-5), the University of Central Florida (UCF) Center for Emerging Media, the Downtown Orlando Tennis, Community Recreation Center and associated parking garages.

Multiple assessments have been performed at the subject property. Although purchased in 1979, well in advance of current CERCLA requirements, the City affirms that it conducted reasonable and customary investigation of the property prior to purchase. This investigation included a title search, survey and review of property history typical of the era. In July 2005, Professional Service Industries (PSI) performed a Phase 1 ESA of the subject property for the City of Orlando. The Phase 1 ESA identified several recognized environmental conditions (REC's) in connection with the site. In November 2006, PSI performed a Phase II assessment to further evaluate the RECs for the City on both soil and groundwater contaminants. The soil contamination detected at the Armory site consisted of arsenic in excess of the State Commercial/Industrial Direct-Exposure (C/I) Soil Cleanup Target Level (SCTL) as referenced in Chapter 62-777, Florida Administrative Code (FAC). In addition, four of the carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) were detected in one soil sample, and the subsequently calculated benzo(a)pyrene (BaP) equivalents concentration exceeded the Residential Direct-Exposure SCTL (R-SCTL). The pesticide dieldrin was detected in excess of the Groundwater Cleanup Target Level (GCTL), referenced in Ch., 62-777 FAC, in the groundwater sample from one temporary well location on the Armory site.

The site is planned to be redeveloped as part of the mixed use, multi-modal Creative Village Development, a public-private partnership with the City of Orlando. The intended mixed of uses proposed within the clean-up grant area as part of the Creative Village project include new public infrastructure (roads, drainage, water, sewer, irrigation, telecommunication, street lighting and streetscape improvements), vertical construction totaling 275,000 square feet of office space, 550 affordable and mixed income multifamily housing units, 40,000 square feet of commercial retail space and a community park. The City is confident that the Creative Village redevelopment will serve as an economic catalyst and will result in the improvement of environmental quality of one of its oldest, most historic communities, making it more attractive to future developments of equal caliber.

**ii) Proposed Cleanup Plan.** Environmental Site Assessments (ESAs) conducted on the property identified multiple areas with recognized environmental conditions (RECs). Subsequent Phase II ESA sampling and analysis identified concentrations of arsenic, petroleum-related constituents (benzo(a)pyrene and other carcinogenic PAH's), and the pesticide dieldrin. Former uses included a former Florida Army National Guard Armory, former dry cleaner, and former USDA Bureau of Entomology Research and Testing facilities. Surrounding historic uses that may have also impacted the site include numerous nearby automotive repair/retail gas stations, dry cleaners, coal gasification plant and industrial/chemical manufacturing sites. The



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site, which is located in the City's Parramore community, is slated to be transformed into a key component of the City's Creative Village Development, a mixed use, multi-modal project including residential, recreational and commercial components. Concentrations of the target parameters for heavy metals, pesticide/herbicides and petroleum contaminants of concern (COC's) must be reduced to acceptable FDEP regulatory cleanup target levels for subsequent residential and commercial development.

The City anticipates soil excavation and offsite disposal followed by confirmatory testing as the primary soil remedial strategy, to achieve its remedial goal of meeting FDEP Soil Cleanup Target Levels (SCTLs) for Direct Exposure risks to humans under the Residential Scenario (DE-Res). The impacted soil will be transported and disposed at an approved landfill; manifests will be maintained for all material removed from the site. Clean fill material brought onto the property will be compacted and the property will be restored as close as possible to its original surface elevation. Any fill material brought to the site will adhere to the recently released FDEP guidance which addresses sampling of fill material before transport and placement on a site undergoing remedial measures. These guidelines provide procedures to eliminate use of fill material that does not meet the state's guidelines for "clean fill." Upon completion of soil remediation activities at the property, soil samples will be collected from the remediated areas and laboratory analyzed to confirm the soil is within state SCTLs for Residential Scenario. Furthermore, soil samples will be collected and analyzed for COCs using the appropriate EPA SW-846 analytical methods determined to best evaluate the potential presence of the previously detected or anticipated contaminants on the property. Upon receipt of laboratory data, a Source Removal Report will be prepared to include manifests of material removed from the site, confirmatory laboratory data, figures with sampling locations and area remediated, summary tables and figures.

The City will consider the recommended in-situ chemical reduction (ISCR) via direct injection of a treatment product such as EHC from Adventus as the primary remedial strategy for the pesticide impacts to groundwater. EHC is a combination of controlled release carbon and zero-valent iron (ZVI) particles used for stimulating reductive dechlorination of otherwise persistent organic compounds (such as dieldrin) in groundwater. Post-injection groundwater samples will be laboratory analyzed for COCs using the appropriate SW-846 analytical methods determined to best evaluate the potential presence of the previously detected or anticipated contaminants on the property. Multiple injection events may be required to achieve FDEP Groundwater Cleanup Target Levels (GCTLs).

In the event that the extent and magnitude of contaminant impacts exceed anticipated project funding, additional grant funds or other funds will be leveraged to address the identified concerns. The use of engineering controls and/or institutional (EC/IC's) are not currently anticipated; however, the use of EC/IC's will be evaluated if necessary.

**b. Budget, Tracking & Measuring Progress, and Leveraging Other Resources**

**i) Budget**

Budget Categories	Project Tasks					
	QAPP	ABCA/ Remedial Action Plan	Cleanup Activities & Confirmatory Sampling	Outreach	Programmatic Support	TOTAL
Personnel			\$15,000	\$10,000	\$10,000	\$35,000
Travel				\$3,000		\$3,000
Supplies				\$1,500		\$1,500
Contractual	\$5,500	\$10,000	\$185,000			\$200,500
<b>Total – Hazardous Substances</b>	<b>\$5,500</b>	<b>\$10,000</b>	<b>\$200,000</b>	<b>\$15,000</b>	<b>\$10,000</b>	<b>\$240,000</b>



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(Total budget consists of \$200,000 in grant funds and \$40,000 in matching funds and in kind services)

**TASK 1: Development of a Generic Quality Assurance Plan and Site Specific Quality Assurance Project Plan and a Site Health and Safety Plan** \$5,500 has been budgeted for the preparation of a Generic Quality Assurance Plan and Site-Specific Quality Assurance Project Plan (QAPP) and a Site Health and Safety Plan (HASP), consistent with EPA QAPP guidelines and the new FDEP Standard Operating Procedures..

**TASK 2: Analysis of Brownfields Cleanup Alternatives (ABCA)/FDEP Approved Remedial Action Plan (RAP).** \$10,000 is budgeted in this category for the completion of a final EPA Analysis of Brownfields Cleanup Alternatives (ABCA), a draft of which has been submitted with this application in Appendix E, and the completion of a FDEP Remedial Action Plan under the Florida Brownfields Cleanup Criteria Rule, Chapter 62-785, Florida Administrative Code. The City will finalize the ABCA outlining the cleanup alternatives for remediating the soil and groundwater at the subject property to comply with the FDEP CTLs for Residential Scenario. The RAP will include calculations on the overall extent of the surface soil contamination, calculations on the amount of material that will be removed and replaced and calculations on the volume of treatment chemicals necessary to address identified groundwater impacts.

**TASK 3: Remedial Activities & Confirmatory Sampling.** \$200,000 is budgeted in this category for remedial activities in accordance with the Florida Brownfields Cleanup Criteria Rule, Chapter 62-785, Florida Administrative Code.

**TASK 4: Community Relations Plan & Community Outreach.** \$15,000 has been budgeted for the development of strategic partnerships and community involvement; dissemination of information and comments to/from the community and stakeholders, as well as community meetings and printed materials. \$3,000 in travel funds is budgeted here for attendance at national and regional brownfields-related training conferences/workshops. Additionally, \$1,500 is budgeted for printing/reproduction of materials that will be used in outreach efforts. Another \$10,000 is budgeted to hold workshops pertaining to brownfields redevelopment opportunities, project replicability for other social services agencies, and to inform/educate the public concerning the brownfields project.

**TASK 5: Programmatic Support.** \$10,000 budgeted for programmatic support includes assistance in completing EPA quarterly reports, MBE/WBE forms, EPA property profile forms, ACRES reporting, EPA work plans and other activities necessary to maintain compliance with EPA cooperative agreement terms and conditions.

**ii) Describe your plan for tracking and measuring your progress towards achieving the expected short-term and long-term project outcomes and outputs.** The City of Orlando will track the following outcome and output measures in the EPA acres database for progress in achieving the expected project outcomes on a quarterly and cumulative basis:

- Completion of Community Relations Plan
- Completion of RAP
- Completion of Generic & Site Specific QAPPs
- Completion of Site Health and Safety Plan (HASP)
- Completion of FDEP interim source removal proposal
- Completion of FDEP interim source removal
- Completion of installation of required remediation equipment
- Effectiveness of remedial activities
- Amount of funds leveraged toward remediation of site
- Amount of total project funds leveraged for completion of project
- Amount of green space created
- Number of construction jobs leveraged at brownfields redevelopment sites
- Outreach to other service agencies regarding brownfields tools and redevelopment opportunities



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- Number of workshops held and public meetings attended
- Non-EPA assessment/cleanup dollars leveraged

Quarterly reports generated throughout the project period will aid the City in tracking the achievement of these outcomes throughout the project.

**iii) Leveraging.** The City of Orlando will utilize the award of this EPA Brownfields Cleanup Grant as one component in a multi-layered incentive approach to implement successful redevelopment within the Parramore community. The City's leveraging strategy, detailed below, includes City funds, state/federal tax incentives from the City's designated Enterprise Zone, federally sourced grant funds, private corporate contributions, as well as incentives provided by the Florida Brownfields program and FDEP assistance programs. Additionally, the City will seek additional grant funds to supplement Brownfield Program activities, and the resulting redevelopment.

**Public/Private Partnership.** The City has secured a public-private partnership for the approximately 68-acre City-owned Creative Village – Moving Parramore Forward development, which includes the 8.2 acre subject property. The project will utilize a combination of federal grant awards, utility, City and corporate funds. The development is uniquely positioned to enhance the Orlando region's position as a leader in education, cutting edge media innovation and to support the region's corporate base, in particular, the global family entertainment industry which brings both substantial foreign investment and international tourism to the United States. The City has chosen a team headed by the Banc of America Community Development Corporation, the nation's largest community development corporation among financial institutions, and Ustler Development, a pioneering and highly successful Orlando based developer, to partner in this development.

**TIGER II.** The City received a TIGER II award in the amount of \$10,000,000 to fund the expansion and enhancement of a Downtown Bus Rapid Transit (BRT) loop connecting the residents of Parramore to the LYNX Central Station and in 2013 the SunRail system, a light passenger railway system currently under development. In addition to providing BRT service, the project will provide enhancements to public infrastructure and improve bicycle and pedestrian connectivity within the community in the form of a series of sidewalks, and pedestrian and bike pathways.

**Enterprise Zone.** Orlando will take full advantage of the opportunity to leverage EPA funds with state and federal economic incentive programs for eligible projects. The City will work closely with economic and community development staff to fully explore incentive programs for eligible projects. State Designated Enterprise Zone (EZ) incentives include:

Jobs Tax Credit for Corporate Income Tax	Business Equipment Sales Tax Refund	Jobs Tax Credit for Sales & Use Tax
Sales Tax Refund for Business Machinery & Equipment	Sales Tax Refund for Building Materials	Sales Tax Exemption for Electrical Energy Used
Property Tax Credit	Community Contribution Tax Credit	Capital Investment Tax Credit
Qualified Target Industry Tax Refund	Qualified Defense & Space Contractor Tax Refund	High Impact Performance Incentive Grant (HIPI)
Quick Response Training Incentives	Incumbent Worker Training Program	Economic Dev. Transportation Fund

**Florida Brownfields Program.** The City will explore opportunities to leverage its EPA grant dollars with the incentives offered through the Florida Brownfields, including: **FDEP Voluntary Cleanup Tax Credit Program** (up to 50% tax credits for cleanup and assessment); **Brownfields Building Materials Sales Tax Refund** (refund of sales tax for overall affordable housing/redevelopment projects); **Brownfields Job Bonus Refund** (\$2500 tax refund/each new job created); **Brownfields Loan Guarantee Program** (up to 50% loan guarantee for brownfields projects, 75% for brownfield projects with affordable housing component or health care); and **Brownfields Liability Protections** (as provided statutorily). These state incentives are intended to encourage





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redevelopment of environmentally stigmatized properties, make redevelopment feasible, and result in positive financial impact on many redevelopment projects.

**Florida Department of Environmental Protection.** The City will coordinate with FDEP to access **FDEP CERCLA 128(a) Site Specific Activities/Targeted Brownfields Assessment Assistance** for assessment/source removal activities. Orlando will promote private sector development and facilitate existing incentive programs and provide assessment/future remedial funding resources to encourage redevelopment of environmentally impaired properties.

**Additional Grant Funding.** Orlando will aggressively seek funding from federal agencies to augment the requested funds. The City has recently been awarded a \$2,400,000 **2011 HUD Sustainable Communities** Grant in partnership with the East Central Regional Florida Planning Council. Creative Village is the subject of the application.

**c. Programmatic Capability and Past Performance**

**i) Programmatic Capability.** Orlando's Grants Management is under the direction of Chief Financial Officer (CFO), Rebecca W. Sutton, CPA, who has 30+ years state/local experience. Prior to joining the City, Ms. Sutton was Deputy CFO for the State of Florida. Grants received by Orlando support important programs and services which the city provides to the community such as economic development, social services, public safety, recreation, and infrastructure improvement and maintenance, among others. Because these funds allow the city to leverage resources, the impact of grant funding upon the community is significant, with the process of grants administration and management is a critical and important function. For FY 2010/11, Orlando expended \$24,586,739 through 49 federal awards. The audit for FY 2010/11 indicates Orlando complied in all material aspects with grant/award requirements. Orlando fosters exceptional stewardship of the public trust via rigorous adherence to ethical/professional standards associated with grant activities.

The City has appointed Mr. Dean Grandin as Brownfields Director/Manager. Mr. Grandin has been working with the City of Orlando for over a decade, currently serving as Planning Official and City Planning Division Manager within the Economic Development Department. Dean brings thirty-six years of professional planning experience to the City. Prior to Orlando, he held the position of Planning Director/Deputy Director of Development for the City of Miami Beach, Florida. Before that he was the Planning Director for the City of Yonkers, New York. Dean's professional affiliations include, but are not limited to, membership in the American Institute of Certified Planners (AICP), the American Planning Association (APA) and the Florida Chapter of the APA, the National Trust for Historic Preservation, the Congress for the New Urbanism and the Urban Land Institute. He has held many other professional affiliations throughout his career and currently serves as the Chairman of the UCF Planning Advisory Board. He has served as the City's past Brownfield Advisory Board Liaison and is intimately familiar with the technical, environmental and social aspects of brownfield redevelopment.

Assisting Mr. Grandin in managing the brownfields program will be Brownfields Coordinator, Ms. Mary-Stewart Droege. Ms. Droege has been a planner for over 11 years at the City of Orlando. Ms. Droege has a background in health, federal funds administration as it relates to community redevelopment and is a true champion of the Brownfields Program and Creative Village Development project. Possessing both LEED-AP and AICP certifications, she is also the Physical Environment and Policy Committee Chairperson for Get Active Orlando (GAO), a successful and innovative City initiative which serves to implement policies and practices that will strengthen community capacity to support healthy lifestyle behavior.

The project staff identified above has a combined total of 33 years with the City and an average tenure of 11 years. The staff members selected for this program have been identified as the true champions of the City's Brownfields program and they are truly dedicated to a successful outcome. While turnover is unlikely to occur, the City's project management processes include systematic staff overlap to control the effect of such an event on its grant programs. If the Director were to leave his post, the City is fully confident that the project would not be adversely impacted and would continue to be properly administered.



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In order to ensure the highest level of expertise, Orlando will contract the services of a qualified environmental engineering firm to perform its Brownfields work. The selected consulting firm will have extensive experience in brownfields programs throughout the state and have assisted numerous other Cities with successful Brownfields cleanups. The City's consultants will be procured in full compliance with the state's competitive procurement process and federal procurement procedures as required by 40 CFR 30. The City will provide extensive support at its own expense through in kind services to oversee the consultants, conduct community involvement, and administer the funds. All of the requested grant funds (\$200,000) are allocated to contractual services for cleanup activities to ensure the federal dollars awarded to its program achieve the maximum possible in measurable outputs.

ii) **Adverse Audits.** The City affirms that it has had no adverse audit findings. The most recently completed audit was conducted in September 2011. The City's auditors deemed the City a "low-risk" entity.

iii) **Past Performance**

1. **Currently or Has Ever Received an EPA Brownfields Grant.** The City of Orlando received a 2012 EPA Brownfields Community Wide Assessment Grant,

2. **Has Not Received an EPA Brownfields Grant.** Although the City of Orlando has received an EPA Brownfields Grant, it was only just awarded and the City has not yet begun to expend these funds. In 2011, Orlando expended \$24,586,739 through 49 federal awards and \$17,693,426 through 23 state awards. The City has maintained a successful history of managing these and other agreements, meeting and complying with reporting requirements, submitting final acceptable technical reports, and reporting on its progress and results under these agreements. The following table represents the five most recent, substantial awards received by the City.

Assistance Program	Awarding Agency	Amount Awarded	Funds Remaining	Date Awarded	Grant Accomplishments
Community Development Block Grant (FY2011/2012)	HUD	\$2,046,622	\$2,046,622	October 1, 2012	Public Facilities Improvements' & acquisition, minor rehabilitation and social services (15%)
HOME Investment Partnerships (FY2011/2012)	HUD	\$1,227,244	\$1,227,244	October 1, 2012	Housing Rehabilitation and Home Ownership Assistance.
Housing Opportunities for Persons with AIDS (FY2011/2012)	HUD	\$3,640,338	\$1.95 million	October 1, 2012	Services and housing for persons with HIV/AIDS.
US DOT; FDOT (Church Street East Phase)	Metroplan	\$5, 219, 418	\$0	June 25, 2012	Purpose: Roadway and Pedestrian Improvements
US DOT; FDOT (Church Street West Phase)	Metroplan	\$2,400,000	\$0	June 25, 2012	Purpose: Roadway and Pedestrian Improvements

3. **Community Engagement and Partnerships**

a. **Involving the affected community.** The City of Orlando is committed to involving all members of the affected community. In order to ensure the proper community involvement and a continuous line of communication, the City will develop a Community Relations Plan and submit to EPA for review upon award. The City has a Brownfields Advisory Committee (BAC) in place, previously established in June 2007 for its state designated brownfields areas. The BAC's goal is a broad-based grassroots involvement of community



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members from the targeted community. It is the City's hope that the membership of the community-based organizations on the BAC will increase participation from all interested groups. Public meetings are held to monitor progress and inform the public of progress and results of assessment, cleanup and redevelopment activities. Meetings are advertised on the City's website and open to the public. The City will utilize the Brownfield Advisory Committee to address the issues and concerns the community has about this site, the overall cleanup plan, and community involvement in the cleanup process.

The proposed communications strategy is multifaceted, involving press relations and releases for local/community newspapers, newsletters and broadcast media, web postings, brochures, social media networking, public meetings; presentations to county/city commissions, community organizations (i.e., service and civic clubs, local neighborhood improvement organizations, chambers of commerce, realtor and builder associations, and with individuals/groups of stakeholders). The City has a full-time Public Information Officer and distributes a weekly newsletter, highlighting activities within the City. These resources will be available for use in the communication strategy developed for the Brownfields Cleanup Program.

The City will make the draft Cleanup documents an EPA ABCA and a FDEP RAP available for review and comment by the surrounding community. The City will also receive and address comments by the community to be incorporated in a revised ABCA and RAP documents. These documents will be posted on the City's website. Additionally, the City will develop an administrative record for all project files to provide accessibility to the general public for review.

English is the language indigenous to the region; however, due to the fact there are large Hispanic and Haitian populations who may be impacted by any assessment, cleanup and redevelopment efforts, the City will ensure they are included in all discussions with bilingual printed materials available. The City will utilize bilingual City staff and consultants as translators at community meetings.

**b. Partnerships.** Orlando is committed to continuing strong partnerships with a variety of stakeholders, including environmental, health and government agencies, as well as local job training programs. Working together with local groups and programs, the City has built a network of resources with the ability and motivation to realize its vision for brownfield redevelopment. Orlando has developed partnerships with the following extensive list of local, regional, state, and federal agencies to ensure successful redevelopment of the subject site.

**Local & State Environmental & Health Agencies.** As an integral part of its Brownfield Program, Orlando will work extensively with the central district of the **Florida Department of Environmental Protection (FDEP)** to ensure the appropriate assessment and cleanup measures are being achieved. Orlando will be leveraging its EPA grant dollars with state incentives offered through the Florida Brownfields Redevelopment Program. The City will participate in the FDEP's Voluntary Cleanup Tax Credit Program, Brownfields Building Materials Sales Tax and Brownfields Job Bonus Refund Programs, the Brownfields Loan Guarantee Program and Brownfields Liability Protections (as provided statutorily). These state incentives are intended to encourage redevelopment of environmentally stigmatized properties, make redevelopment feasible, and result in positive financial impact on many redevelopment projects. Additionally, The City will coordinate with FDEP to access FDEP CERCLA 128(a) Site Specific Activities/Targeted Brownfields Assessment Assistance for assessment/source removal activities. The City will partner with the **Orange County Health Department** in the formation of its Public Health Monitoring Plan. The City will coordinate these efforts with the **Florida Department of Health**.

**Relevant State & Federal Agencies.** Orlando acknowledges that the proposed funding will not be adequate to accomplish all of the city's Brownfield redevelopment objectives within the Parramore Community. It will seek partnerships with federal and state agencies to identify and secure additional grant funding, loan opportunities and technical assistance for its program. Currently, the City has grant applications pending for the **EDA Investments for Public Works & Economic Development** program and the **HUD Sustainable Communities** Grant Program. The Creative Village redevelopment project is the subject of both of these grant applications.

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**Local Job Training Program.** The City will coordinate with local job training group, **WorkForce Central Florida** in order to implement a strategy to link job seekers within the community to potential employment opportunities in brownfield assessment, cleanup or redevelopments that result from the City's brownfield program. Locally based **Simeon Resource & Development Center for Men, Inc.**, which provides employability skills training and job placement services for individuals residing in distressed communities in Central Florida, has pledged support to the Parramore project. Additionally, the City will consider the pursuit of an EPA job training grant if awarded.

**Supporting Financial & Implementation Partners**

**Creative Village Development LLC (CVD)** the joint venture partnership of Banc of America CDC and Creative Village Orlando LLC/Ustler Development, Inc. will manage the horizontal and master development of the project. Banc of America CDC, a wholly owned subsidiary of Bank of America, NA is the banking community's largest community development corporation with a stated goal of \$1.5 trillion invested in housing and economic development activities between 2005 and 2015. Ustler Development is widely considered Orlando's most innovative commercial developer with several successful mixed use projects in downtown Orlando including Thornton Park Central and 801 North Orange. Orlando Utilities Commission (OUC) is providing underground utilities including chilled water. Harris Corporation (NYSE: HRS) is providing technology infrastructure. Valencia College and Ustler Development, Inc. have committed to complete higher education facilities, office space and housing.

**Support Partners in higher education** include Valencia Community College, University of Florida, and University of Central Florida. All of these institutions already have a presence in the Parramore community and are looking to expand program offerings and facilities.

**Support Partners in Government** include METROPLAN ORLANDO, Orange County, FDOT, and the region's Congressional delegation have all provided strong support to this project.

**Support by industry leaders** include The Metro Orlando Economic Development Commission, Walt Disney World, Universal Studios and the Orlando Magic.

**Partners in the Community** include the Callahan Neighborhood Association, Parramore Kids Zone, the Nap Ford Community School, the NAACP and the Central Florida Urban League.

**c. Community-based organizations.** The City of Orlando is fortunate to have the dedicated support of a large number of community based organizations. The following table summarizes the supporting roles of organizations pledged in the letters attached in Appendix C.

Community Based Organization	Contact Person	Support Role Pledged
Orange County Health Department	Kevin Sherin, MD	Include updates in its Parramore neighborhood project meetings Provide environmental health staff to serve on advisory boards
Community Food and Outreach Center, Inc.	Keith Theriot	Public outreach through social media, website, bulletin boards, emails and newsletters. Serve on advisory boards
Harry P. Leu Gardens	Robert Bowden	Provide meeting space; Serve on advisory Boards
Orlando Housing Authority	Vivian Bryant	
Orlando Community & Youth Inc.	Lisa Early	
Health council of East Central Florida	Ken Peach	Public Outreach Serve on Advisory Boards
Coalition for the Homeless of Central Florida	Brent Trotter	Public Outreach
Parramore Community Garden	Lynn Nicholson	Marketing; Serve on Advisory Boards
Our Whole Community	Leah Nash	General Support
Nonprofit Housing Roundtable	John Hazelroth	Marketing



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of Central Florida		Foster Partnerships
Central Florida Urban League	Allie Braswell	Public Outreach; Serve on Advisory Boards
Orlando Chapter of USA Dance	John Davis	Public Outreach; Serve on Advisory Boards

#### 4. Project Benefits

a. **Welfare and/or Public Health.** The City anticipates the following environmental, social and public health benefits will be realized as a result of the award of this cleanup grant:

- Removal of identified contaminants and reduction of public exposure;
- Installation of measures to ensure the prevention of future pollution, reducing the risk of future exposures;
- Improved health and welfare of residents through public health efforts;
- Removal of blight and the current stigma associated with contaminated properties resulting in an improved community image and a renewed sense of community pride;
- Increased recreational facilities and promotion of healthy activities and exercise;
- Increased opportunities for the provision of quality, affordable housing;
- Improved public infrastructure, including street lighting and sidewalks promoting public safety; and,
- Increased access to health insurance coverage through enhanced employment opportunities.
- Promotion equitable development principles.

A primary public health benefit to the citizens of Parramore is the removal of present environmental threats. Cleanup efforts will reduce the risk of exposure to hazardous substances thereby improving the quality of life for area residents. While the City has completed assessments for the subject property, cleanup and remediation activities are still needed. It is only through this remediation that health risks of these sites can be eliminated.

In addition, the City will use its brownfields redevelopment efforts to promote the reduction of blighted conditions within its most distressed community. The Creative Village development, which includes the subject site, includes the development of recreational amenities, affordable housing and jobs. Enhanced employment opportunities created through the redevelopment of this site have social impacts such as the provision of employer health benefits that increase access to quality health care.

Environmental cleanup activities conducted under the proposed funding will include health and safety plans to ensure that sensitive populations and workers performing field activities are protected from potential exposure to contaminants from these activities. Additionally, workers will be OSHA 1910.120 "Hazardous waste operations and emergency response" certified. Every practical precaution will be taken to isolate the general public from areas to be remediated, including fencing and barricades where necessary. Further, all IDW (investigative derived wastes) will be properly containerized, stored, and disposed of in an expedited manner. The City will work closely with FDEP to ensure all engineering/institutional controls that result from brownfields remediation and redevelopment activities are entered into the FDEP Engineering/ Institutional



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Controls registry so that this information is available to the general public and to stakeholders concerned with or implementing ongoing redevelopment issues within the area.

**b. Economic Benefits and/or Greenspace**

**i) Economic benefits.** The subject site represents an +/- 8.2 acre portion of the City's Creative Village Development, a 68 acre project focused on job creation, education, housing, commercial & public open space in an area of desperate unemployment and rampant poverty. The overall project involves the replacement of aging and obsolete public infrastructure currently in place to support the City-owned Orlando Centroplex venue. The improvements included as part of the overall project will implement the City's vision for this area and allow for the rejuvenation of this area as a live, work, learn and play mixed-use community built around a foundation of technology based employment and educational opportunities, mixed-income and attainable housing, neighborhood commercial and public open spaces. The technology-based employment and educational expansion opportunities at Creative Village will help expand the regional Orlando economic cluster of tech-based, digital media production, modeling and simulation industries. The renowned economic firm, Fishkind & Associates, performed a **job creation analysis, which projects that over 4,800 permanent jobs will be created by the proposed redevelopment at full build-out.** At completion, the Creative Village project will result in a high quality, new urban neighborhood to support a diverse and dynamic mix of uses, including 900,000 – 1,000,000 square feet of office space, 300,000 – 500,000 square feet of higher education space, 25,000 square feet of k-12 education space, 1,200 – 1,500 affordable residential units, 125,000 – 150,000 square feet of retail space, 150-200 hotel rooms and six parks providing public space for hosting civic events, festivals and community markets. The City is confident that the Creative Village redevelopment will serve as an economic catalyst and will result in the improvement of environmental quality of one of its oldest, most historic communities, making it more sustainable and attractive to future developments of equal caliber.

The intended mixed of uses of the 8.2 +/- acre subject property include new public infrastructure (roads, drainage, water, sewer, irrigation, telecommunication, street lighting and streetscape improvements), vertical construction totaling 275,000 square feet of office space, 550 affordable and mixed income multifamily housing units, 40,000 square feet of commercial retail space and a community park.

**ii) Other non-economic benefits** of the proposed project include increases to the City's total green space acreage, increased recreational amenities, expansion of the City's extensive trail system, and improved air and water quality resulting from the addition of green and open spaces.

The City considers long term use and management of natural resources a major issue in determining appropriate brownfields projects. Competitive uses of elements of the natural system will impact long term regional development. Development effects could include deterioration of water quality, deterioration of air quality, loss of wildlife habitat, reduced public access to recreational amenities, and public safety concerns due to development in flood prone areas. There is limited undeveloped land in the community and it is important to protect a portion of these lands. City leaders understand the merit of preservation of green space. To promote a high quality of life, the City believes land use decisions must properly address open and green spaces.

The City prides itself on the preservation of its natural resources and has made tremendous effort to prioritize greenspace and recreational facilities within its community. The City has invested heavily in their park system with 1,723 acres of public and private recreational facilities including over 115 parks, playgrounds, picnic areas, ball fields, 21 community and recreation centers, tennis complexes, and more than 250 miles of bicycle trails. Six parks are included in the CV redevelopment plan, providing public space for hosting civic events, festivals and community markets. The redevelopment of the subject property includes the installation of a community park, \_\_\_\_\_ acres in size.

**c. Environmental Benefits from Infrastructure Reuse/Sustainable Reuse.** The City of Orlando anticipates a number of environmental benefits, beyond the assessment and remediation of contaminants, associated with the sustainable redevelopment of the subject site.

- Reuse of existing infrastructure for redevelopment with lower infrastructure costs



- Enhanced energy efficiency and use of alternative, renewable energy sources
- Reductions in runoff and improved stormwater management
- Improved pollution control and air quality
- Reduced water usage
- Increased greenspaces in the community
- Sustainable development such as the use of recycled construction materials

Sustainable redevelopment and smart growth principles are at the core of the proposed project. The project is located adjacent to two major highways and just west of the City's Lynx Central Station, a multi-modal transportation apex which offers access to multiple bus routes and SunRail's commuter rail service by 2014. The community's planned bicycle and pedestrian corridor is currently under development thanks in large part to its recently awarded \$10 million TIGER II grant. The Parramore community is ideally positioned for transit oriented, mixed use redevelopment. The Creative Village redevelopment is focused to be just that, developing LEED certified buildings, enhancing exiting infrastructure and expanding access to public transit.

The City is recognized for implementing the Leadership in Energy & Environmental Design (LEED) Green Building Rating System rating system in its community and will make every effort to employ environmentally sensitive practices while redeveloping the subject site. Orlando will consider ways to conserve water by incorporating high efficiency water fixtures and toilets; the promotion of water conservation techniques and sustainable practices through Low Impact Development (LID) or Storm Water Retention; and a storm water management plan to prevent untreated storm water from washing contaminants from the site into waterways. The City will also consider Green Remediation which includes ways to reduce harmful air emissions, minimize water consumption, reduce land and ecosystem impacts during the cleanup and reduce material consumption and waste generation. Wherever possible, pollution prevention and waste minimization methods will be employed during site redevelopment through the use of recycled products and recycling of discarded materials.

Awaiting figures on the following:

- Tonnage of steel material to be reused elsewhere
- Tonnage of concrete material to be recycled onsite and reused.



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**TABLE OF APPENDICES**

- A THRESHOLD CRITERIA**
- B LETTER OF SUPPORT – STATE ENVIRONMENTAL AUTHORITY**
- C LETTERS OF SUPPORT – COMMUNITY BASED ORGANIZATIONS**
- D COMMUNITY NOTIFICATION**
- E ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES (ABCA)**
- F SPECIAL CONSIDERATIONS**

**APPLICANT IS A RECIPIENT OF A HUD/DOT/EPA PARTNERSHIP FOR  
SUSTAINABLE COMMUNITIES GRANT**



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# **APPENDIX A**

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**Appendix A – Threshold Criteria**

**1. Applicant Eligibility**

- a. **Eligible Entity** - The City of Orlando, Florida, is eligible to apply for the EPA Brownfields Assessment Grant as a local government as defined under 40 CFR Part 31.3.
- b. **Site Ownership** - The City of Orlando affirms that it is the sole owner of the subject property.

**2. Letter from the State or Tribal Environmental Authority** – See Attachment B.

**3. Site Eligibility and Property Ownership Eligibility**

- a. **Basic Site Information.** (a) Name – Western portion of the former Centroplex property; (b) Address – NE corner of W. Livingston Street and N. Parramore Avenue, Orlando, FL, 32805; (c) Current Owner - City of Orlando; and (d) Date to Acquire - The City acquired the site May 22, 1979.

b. **Status and History of Contamination at the Site.** (a) The subject site is primarily contaminated with hazardous substances with some comingled petroleum product contamination; (b) The subject site comprises approximately 8.2 acres in Downtown Orlando, Florida located in Section 26, Township 22 South, Range 29 East at the NE corner of W. Livingston Street and N. Parramore Avenue. The site is bounded to the north by West Amelia Street, to the west by North Parramore Avenue, to the south by West Livingston Street and to the east by a parking lot and the eastern portion of the vacant, former Amway Arena; the western portion of the arena is located on the northeastern portion of the area defined as the subject property. Previous uses of the property were identified through research conducted as part of a Phase I Environmental Site Assessment (ESA) conducted for the subject site in July 2005 and research conducted during an October 2011 Phase I ESA for the former Amway Arena site (the western portion of which is located on the subject site). Non-residential, historical land uses of significance on the subject site are as follows:

- A USDA Bureau of Entomology laboratory was identified at 602 West Amelia Avenue (currently West Amelia Street) from 1915 until sometime prior to 1923 (northeastern portion of the site).
- The western portion of the former Amway Arena (1989-Present) is located on the northeastern portion of the site.
- A USDA Bureau of Entomology laboratory was identified at 415 North Parramore Avenue from 1933 until sometime prior to 1958 (central portion of western perimeter of the subject site).
- A USDA Bureau of Entomology research laboratory was identified at 419 North Parramore Avenue from 1953 until prior to 1958 (central portion of western perimeter of the subject site).
- A former dry cleaner was identified at 441 North Parramore Avenue from 1963 until prior to 1983 (north portion of west perimeter of the subject site).
- A potential gasoline station (Jackson's Minit Market/Majik Market No. 20) was identified at 439 North Parramore Avenue from 1963 until sometime prior to 1983 (north-central portion of the western perimeter of the site).
- A Former Florida National Guard Armory/ Naval Reserve Training Center was identified at 655 West Livingston Street (southwest corner of the subject site) from 1948 until 1973. The address shifted to 649 West Livingston Street in approximately 1978, with the property then listed as the Orlando Recreation Department with various sub-listings including the Orlando Tennis Center, Downtown Recreation Complex and Nap Ford Community School noted between 1978 and present.

(c) Based on the Recognized Environmental Concerns (RECs) identified in the July 2005 Phase I ESA, a Phase II



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**Appendix A – Threshold Criteria**

ESA was conducted (by others) in November 2006. Soil samples and both shallow and deeper interval groundwater samples were collected from portions of the site correlating to identified RECs. The results of the Phase II ESA identified soil and groundwater contamination at the former National Guard Armory/Naval Reserve Training Center (Armory) site. This location was also referred to as a USDA facility in both the 2005 Phase I ESA and 2006 Phase II ESA, but it appears based on subsequent research conducted as part of the October 2011 Phase I ESA that the USDA facilities were located north of the areas assessed during the 2006 Phase II ESA.

The soil contamination detected at the Armory site consisted of arsenic in excess of the State Commercial/Industrial Direct-Exposure (C/I) Soil Cleanup Target Level (SCTL) as referenced in Chapter 62-777, Florida Administrative Code (FAC). In addition, four of the carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) were detected in one soil sample, and the subsequently calculated benzo(a)pyrene (BaP) equivalents concentration exceeded the Residential Direct-Exposure SCTL (R-SCTL). The pesticide dieldrin was detected in excess of the Groundwater Cleanup Target Level (GCTL), referenced in Ch. 62-777 FAC, in the groundwater sample from one temporary well location on the Armory site. No other soil or groundwater impacts associated with historical property use were identified during the November 2006 Phase II ESA and no subsequent sampling is known to have occurred. (d) It is believed that the contamination of this site is from historic operations as an armory and USDA Bureau of Entomology research laboratory. Other historic uses that may have also impacted the site include a dry cleaner, gas station and two other separate USDA entomology laboratories. Environmental Site Assessments (ESAs) conducted on the property identified multiple areas with recognized environmental conditions (RECs). Subsequent Phase II ESA sampling and analysis identified concentrations of arsenic, petroleum-related constituents (benzo(a)pyrene and other carcinogenic PAH's), and the pesticide dieldrin.

**c. Sites Ineligible for Funding.** The City affirms that the site is not listed or proposed for listing on the National Priorities List; is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA; and is not subject to the jurisdiction, custody, or control of the United States government.

**d. Sites Requiring a Property-Specific Determination.** The subject property does not require a site-specific determination.

**e. Environmental Assessment Required for Cleanup Proposals.** An ASTM E1903-11 Phase II site assessment report was completed on the subject property by PSI, Inc. in November 2006.

**f. CERCLA §107 Liability.** The City affirms that it should be exempt from CERCLA liability as an innocent landowner or bona fide prospective purchaser because when it acquired the property in 1979, it conducted reasonable and customary inquiries into the history of the property prior to purchase, and the City was in no way responsible for the generation or disposal of the substances which caused the contamination at the subject property. Since acquisition, the City has minimized exposure to the general public to any subsurface contamination by paving the area.

**g. Enforcement or Other Actions.** The City is not aware of any ongoing or anticipated environmental enforcement or other actions related to the subject site. The City is not aware of any inquiries or orders from federal, state, or local government entities on the subject property.



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**Appendix A – Threshold Criteria**

**h. Information on Liability and Defenses/Protections.**

**i) Information on the Property Acquisition.** The City acquired the property by Quit Claim and Warranty Deed from the Central Florida Fair, Inc., a not for profit agency on May 22, 1979 and holds sole ownership of the site and fee simple title to the property. The City affirms it had no familial, contractual, corporate, or financial relationships or affiliations with any prior owners or operators (or other potentially responsible parties) of the property (including the person or entity from which it acquired the property).

**ii) Timing and/or Contribution Toward Hazardous Substances Disposal.** All disposal of hazardous substances at the site occurred before the City acquired the property. The city neither caused nor contributed to any release of hazardous substances at the site. The City further affirms that it has not, at any time, arranged for the disposal of hazardous substances at the site or transported hazardous substances to the site.

**iii) Pre-Purchase Inquiry.** Multiple assessments have been performed at the subject property. Although purchased in 1979, well in advance of current CERCLA requirements, the City affirms that it conducted reasonable and customary investigation of the property at the time of purchase. This investigation included a title search, survey and review of property history. In July 2005, Professional Service Industries (PSI) performed a Phase I ESA of the subject property for the City of Orlando. The Phase I ESA identified several recognized environmental conditions (REC's) in connection with the site. In November 2006, PSI performed a Phase II assessment to further evaluate the RECs for the City.

Professional Service Industries (PSI) performed the Phase I and Phase II environmental site assessments. Professional Service Industries, Inc. (PSI) is an industry-leading engineering, consulting and testing firm with 125 offices nationwide and a successful history of serving clients dating back to 1881. With more than 2500 staff, PSI is one of the nation's largest firms providing engineering, scientific, technical and management solutions to public and private sector clients involved with site selection, design, construction and property management.

**iv) Post-Acquisition Uses.** Since the City acquired ownership in May 1979 the property has been utilized as a portion of the Amway Arena, associated surface parking lots and by the Orlando Recreation Department with various sub-listings including the Orlando Tennis Center and Downtown Recreation Complex noted between 1978 and present.

**v) Continuing Obligations.** The City has significant efforts to take appropriate care with respect to hazardous substances found at the site. One measure of appropriate care was to limit exposure to any subsurface and subsurface contamination by paving the area. In order to prevent/limit exposure to any previously released hazardous substances, the City will work to remove contaminants through a state approved cleanup plan as quickly as possible and will limit public access to the property during its remediation efforts to limit exposure. The City confirms its commitment to comply with all land-use restrictions and institutional controls; assist and cooperate with those performing the cleanup and provide access to the property; comply with all information requests and administrative subpoenas that have or may be issued in connection with the property; and provide all legally required notices.

**i. Petroleum Sites.** Not applicable.

**4. Cleanup Authority and Oversight Structure**



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## Appendix A – Threshold Criteria

**a. Cleanup Oversight.** In January 2007, the City designated Enterprise Zone property as the Orlando Economic Enhancement District and as a designated Brownfield Area. The subject site is located within this district. The City of Orlando will enter the subject site into a voluntary BSRA under the Florida Brownfields Redevelopment Act, Chapter 376.77-376.85, Florida Statutes with the Florida Department of Environmental Protection (FDEP). This voluntary agreement provides the framework and schedule for remaining remediation activities including confirmatory sampling. The site will also be remediated under authority of Chapter 62-785, Florida Administrative Code, Brownfields Cleanup Criteria. The City will comply fully with federal procurement procedures as required by 40 CFR 31.36 in contracting a qualified environmental engineering firm (familiar with brownfields assessment and remediation process within the state of Florida) for remedial activities at this location. A detailed scope of work will be developed upon notification of award of this grant.

The City will develop a generic Quality Assurance Project Plan and a Site-Specific Quality Assurance Project Plan as required by EPA Region IV prior to initiating any confirmatory sampling activities on the site. The City will provide general project oversight and environmental coordination through a qualified environmental engineering firm. The City's Brownfields Advisory Board was identified in the BSRA to provide overall project review and enhanced public involvement associated with the project. FDEP will provide technical review of all assessment and remedial documents.

**b. Impact to adjacent or neighboring properties.** The City will work closely with the community to develop a site access plan to minimize inconvenience to neighboring residents and businesses. The City will hold an information meeting for surrounding businesses and residents prior to commencement of cleanup activities in order to receive input on site access issues and to receive recommendations on this topic. The subject property is city owned and located on a major thoroughfare with considerable opportunities for site access. It is not anticipated that remedial activities or installation of remediation equipment will cause disruptions to area business or lack of access to adjacent properties. If site access is required of adjacent properties, the City will enter into site access agreements outlining locations of equipment and remedial activities and conditions agreeable to adjacent property owners. An OSHA health and safety plan will be developed to insure that potential health and safety issues will be addressed for workers under OSHA 1910.120 and the surrounding community.

**5. Cost Share.** The City understands that cleanup grant recipients are required to provide a 20 percent cost share of the total federal cleanup funds awarded.

i) The City is requesting \$200,000 in Cleanup funds and will provide a \$40,000 match; \$5,000 in contractual services and \$35,000 through in-kind services.

ii) Not applicable – The City is not requesting a hardship waiver of the cost share.

**6. Community Notification.** The City of Orlando understands that community engagement is the cornerstone of the Brownfields Program and in ensuring successful cleanup and redevelopment of brownfields projects. As part of its cleanup activities, the City will complete a Community Relations Plan and submit to the EPA for review. The City held a public meeting to provide the community with notice of its intent to apply for an EPA Brownfields Cleanup grant and allow the community an opportunity to comment on the draft proposal on Monday, October 29, 2012 at 6:30 pm at the J.B. Callahan Neighborhood Center. A newspaper ad notifying the public of the meeting and soliciting comments on the draft proposal was published in the Orlando Sentinel on October 21, 2012. Additionally, the City placed an announcement on its website. The ads clearly indicated that a copy of the draft proposal would be made available for public review at the meeting or by contacting the City's Planning Department. The draft proposals provided to the public included, as an attachment, a draft analysis of brownfield cleanup alternatives



**City of Orlando**  
**FY13 USEPA Brownfields Cleanup Grant Application**  
**Creative Village Development**

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**DRAFT**

**Appendix A – Threshold Criteria**

(ABCA) which summarized information about the site and contamination issues, cleanup standards, applicable laws, cleanup alternatives considered, and the proposed cleanup. The draft ABCA also included information on the effectiveness, the ability of the grantee to implement each alternative, the cost of each proposed cleanup alternative and an analysis of the reasonableness of the various cleanup alternatives considered, including the one chosen. A copy of the ABCA is contained in Appendix E. Documentation of advertisements, meeting agenda, sign in sheet, comments and responses is provided as Attachment D.

**DRAFT**

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# **APPENDIX B**

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November 1, 2012

Environmental Management Support, Inc.  
Mr. Don West  
8601 Georgia Avenue, Suite 500  
Silver Spring, MD 20910  
Phone 301-589-5318

**DRAFT**

Dear Mr. West:

The City of Orlando, Florida is pleased to submit the enclosed application to the FY 13 US EPA Brownfields Program for a site- specific cleanup grant in the amount of \$200,000. The site has former uses including a Florida Army National Guard Armory, dry cleaner, and USDA Bureau of Entomology Research and Testing facilities. Surrounding historic uses that may have also impacted the site include numerous nearby automotive repair/retail gas stations, dry cleaners, coal gasification plant and industrial/chemical manufacturing sites. The site, which is located in the City's Parramore community, is slated to be transformed into a key component of the City's Creative Village Development, a mixed use, multi-modal project including residential, recreational and commercial components. Concentrations of the target parameters for heavy metals, pesticide/herbicides and petroleum contaminants of concern (COC's) must be reduced to acceptable FDEP regulatory cleanup target levels for subsequent residential and commercial development.

The Parramore Community is a 1.4 square mile neighborhood adjacent to the Central Business District and is the focus of this application. **The historic hub of Orlando's African American community, the Parramore community is the poorest, most economically disadvantaged area in the City.** Over time, this once vibrant community has become an area of disinvestment with great social and economic needs. Elevated crime, high school dropout, poverty and unemployment rates have plagued the community for decades, and have resulted in a fragile, high risk population.

The City is requesting \$200,000 in cleanup funds to begin cleanup activities at the city-owned subject property. The proposed funding will be used to address initial cleanup activities at the site, including development of a Site-Specific QAPP and a site health and safety plan, preparation of a remedial action plan, excavation of contaminated soils, back fill of clean soil and confirmatory soil sampling.

The intended mixed uses of the 8.2 +/- acre subject property include new public infrastructure (roads, drainage, water, sewer, irrigation, telecommunication, street lighting and streetscape improvements), vertical construction totaling 275,000 square feet of office space, 550 affordable and mixed income multifamily housing units, 40,000 square feet of commercial retail space and a community park.

The subject site represents an +/- 8.2 acre portion of the City's Creative Village Development, a 68 acre project focused on job creation, education, housing, commercial & public open space in an area of desperate unemployment and rampant poverty. The overall project involves the replacement of aging and obsolete public infrastructure currently in place to support the City-owned Orlando Centroplex venue. The improvements included as part of the overall project will implement the City's vision for this area and allow for the rejuvenation of this area as a live, work, learn and play mixed-use community built around a foundation of technology based employment and educational opportunities, mixed-income and attainable housing, neighborhood commercial and public open spaces. The technology-based employment and educational expansion opportunities at Creative Village will help expand the regional Orlando economic cluster of tech-based, digital media production, modeling and simulation industries. **Job creation analyses project over 4,800 permanent jobs at full build-out.** At completion, the Creative Village project will result in a high quality, new urban neighborhood to support a diverse and dynamic mix of uses, including 900,000 – 1,000,000 square feet of office space, 300,000 – 500,000 square feet of higher education space, 25,000 square feet of k-12 education space, 1,200 – 1,500 affordable residential units, 125,000 – 150,000 square feet of retail space, 150-200 hotel rooms and six parks providing public space for hosting civic



# DRAFT

events, festivals and community markets. The City is confident that the Creative Village redevelopment will serve as an economic catalyst and will result in the improvement of environmental quality of one of its oldest, most historic communities, making it more sustainable and attractive to future developments of equal caliber.

Required Information	
<b>a. Applicant Information:</b>	The City of Orlando, Florida 400 S. Orange Avenue Orlando, FL 32802
<b>b. Applicant DUNS Number:</b>	0703436400000
<b>c. Funding Request:</b>	<b>i. Grant type:</b> Cleanup <b>ii. Federal Funds Requested:</b> \$200,000 <b>iii. Contamination:</b> Hazardous Substances \$100,000 and Petroleum \$100,000
<b>d. Location:</b>	City of Orlando, Florida
<b>e. Site Locations:</b>	Former Centroplex Site – Western portion 600 Amelia Avenue Orlando, FL 32803
<b>f. Contacts:</b>	<b>i. Project Director:</b> Brooke R. Bonnett, Director Economic Development Department; City of Orlando; 400 S. Orange Avenue; 6th Floor; PO Box 4990; Orlando, FL 32802; 407-246- 2719; brooke.bonnett@cityoforlando.net <b>ii. Highest Ranking Elected Official:</b> Buddy Dyer, Mayor; P.O. Box 4990; Orlando, FL 32802-4990; 407.246.2221; buddy.dyer@cityoforlando.net
<b>g. Date Submitted:</b>	November 19, 2012
<b>h. Project Period:</b>	Three years
<b>i. Population:</b>	City of Orlando, FL: 238,300 US Census 2010
<b>j. Special Considerations:</b>	See attached

The City appreciates the opportunity to apply for FY 13 EPA Brownfields Assessment funding to support environmental justice efforts and restoration of economic vitality in its communities. If you have any questions, please do not hesitate to contact the persons above.

Sincerely,

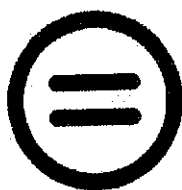
Buddy Dyer  
Mayor, City of Orlando, FL

**DRAFT**

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# **APPENDIX C**

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# Central Florida Urban League

**Empowering Communities.  
Changing Lives.**

October 24, 2012

## **BOARD OF DIRECTORS**

### **Officers**

#### **Chairman**

*Yolanda Cade  
AAA*

#### **Secretary**

*Reagan Rick  
Fifth Third Bank*

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*William Land  
CFUL Young  
Professionals*

*Eddie Francis  
Lowndes, Drosdick,  
Doster, Kantor & Reed*

*Wesley Harris  
UPS*

*Derek Jones  
Wells Fargo Bank*

*Linda Landman-Gonzalez  
Orlando Magic*

#### **President/CEO**

*Allie L. Braswell, Jr.*

Ms. Brooke R. Bonnett  
Director  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue  
6th Floor  
PO Box 4990  
Orlando, FL 32802

Dear Ms. Bonnet:

On behalf of the Central Florida Urban League, please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

The service footprint of the CFUL is broad, diverse and stretches across a critical seven-county region of the state of Florida. Our mission, as an affiliate of the National Urban League, is to assist all Central Floridians in achieving social and economic equality. For more than 33 years, we have served as a critical link to hope and opportunity for those communities which are often overlooked or underserved.

In support of the City of Orlando's Brownfield Program, the Central Florida Urban League will do Public Outreach Broadcasts of Brownfield Designated Area meetings (via social media (Facebook, Twitter, Foursquare, other), notice postings on community bulletin boards, meeting/project status announcements, internet broadcasts, emails, website notices, etc.)

Further, Central Florida Urban League is willing to serve on advisory boards or committees that are developed in support of this grant and brownfields redevelopment in our community.

Please feel free to contact Central Florida Urban League so that we may demonstrate further support of this US EPA Brownfields Assessment grant application.

Sincerely,

*Allie L. Braswell, Jr.*  
President/CEO



#### OFFICERS

Bill L. Warren  
*Chairman*  
Timothy R. Baker  
*Vice Chairman*  
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*Secretary*  
Brian P. Buwalda  
*Treasurer*  
Brent A. Trotter  
*President/CEO*

#### BOARD OF DIRECTORS

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Laura L. Pooser  
Ty G. Roofner  
John D. Ruffier  
John. R. Schooler  
Douglas M. Spencer  
Scott R. Stahley  
Samuel C. Stephens, III  
Barbara Larson Stuart  
Charles Tews  
Richard G. Wack  
Robert F. Wagner  
Thomas J. Wilkes  
Brian T. Wilson  
James D. Wright  
Aaron L. Zandy

October 22, 2012

Ms. Brooke R. Bonnet  
Director, Economic Development Dept  
City of Orlando  
400 S Orange Ave, 6<sup>th</sup> Flr  
PO Box 4990  
Orlando, FL 32802-4990

Dear Ms. Bonnet:

On behalf of Coalition for the Homeless of Central Florida, Inc., please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the northeast section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

The mission of Coalition for the Homeless of Central Florida is to transform the lives of homeless men, women and children by providing crucial services to end their crisis of homelessness. We serve approximately 650 individuals daily from the Central Florida area, including single men and women as well as families with children. The Creative Village will help revitalize the downtown area by bringing much-needed jobs to the community.

In support of the City of Orlando's Brownfield Program, Coalition for the Homeless of Central Florida will help provide public outreach broadcasts of Brownfield designated area meetings via our social media sites, such as Facebook and Twitter.

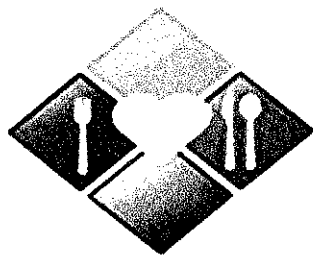
Sincerely,

Brent A. Trotter  
President/CEO  
Coalition for the Homeless of Central Florida  
[brent.trotter@cflhomeless.org](mailto:brent.trotter@cflhomeless.org)

BT/cwt

With support from:





## **Community Food & Outreach Center**

Providing Food & Hope in Central Florida

October 8, 2012

Ms. Brooke R. Bonnett, Director  
City of Orlando Economic Development Department  
400 S. Orange Avenue, 6th Floor  
Orlando, FL 32802

Dear Ms. Bonnet:

On behalf of the Community Food and Outreach Center, Inc. (CFOC) please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

The CFOC Mission is to provide a hand-up for those in need, helping them to break free from poverty by offering hunger relief, crisis care, transformative education, and employment training opportunities. Every week CFOC provides food and crisis assistance to over 500 low-income families in the Orlando area. Because the high volume of families utilizing the services at our facility are from the Parramore/Holden area, and our proximity to the Creative Village site, CFOC could provide support of the City of Orlando's Brownfield Program through Public Outreach Broadcasts of Brownfield Designated Area meetings via social media, by posting notices on our community bulletin board and website, and by provide meeting/project status announcements via emails and newsletters.

Further, CFOC is willing to serve on advisory boards or committees that are developed in support of this grant and brownfields redevelopment in our community. Please feel free to contact me if you have any questions regarding our support of this US EPA Brownfields Assessment grant application.

Sincerely,

Keith Theriot, Community Food and Outreach Center, Inc. Regional Programs Director  
[keith@harvestfoodoutreach.org](mailto:keith@harvestfoodoutreach.org)  
407-797-1040

150 West Michigan Street, Orlando, Florida 32806

Office 407.650.0774

<http://communityfoodoutreach.org/>

October 5, 2012

Ms. Brooke R. Bonnett  
Director  
Economic Development Department City of Orlando  
400 S. Orange Avenue 6th Floor  
PO Box 4990  
Orlando, FL 32802

Dear Ms. Bonnet,

On behalf of the Orange County Health Department, please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

The mission of the Orange County Health Department (OCHD) is to protect, promote & improve the health of all people in Florida through integrated state, county, & community efforts. We serve all 1.5 million citizens and visitors to Orange County with a variety of public health services and believe that supporting the application for a Brownfield cleanup in the creative village will improve public health.

We have worked extensively in the Parramore neighborhood to address chronic disease, childhood obesity and the social determinants of public health and trust that the synergistic effects of combining our efforts with those of the City of Orlando will result in even more improvements in this community. The County Health Department has long considered the City of Orlando a great partner and we are looking forward to collaborating with you on this project.

In support of the City of Orlando's Brownfield Program, the Orange County Health Department will include updates from this initiative in our other projects in the Parramore neighborhood and will make Environmental Health staff available to serve on advisory boards or committees that are developed in support of this grant and the redevelopment of brownfields in our community.

Please feel free to contact the Orange County Health Department regarding our support of this US EPA Brownfields Assessment grant application at (407) 858-1400.

Sincerely,



Kevin Sherin, MD, MPH, MBA  
Director  
Orange County Health Dept

6101 Lake Ellenor Drive  
Orlando, FL 32809



(407) 858-1400 • Fax (407) 858-5519  
www.orchd.com • www.orchd.mobi

*Protecting Your Health...It's What We Do*



*Provide research, program development and evaluation services that enable community-based health organizations to improve population health.*

October 12, 2012

Ms. Brooke R. Bonnett, Director  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue, 6th Floor  
PO Box 4990  
Orlando, FL 32802

Dear Ms. Bonnet:

Please accept this letter of support from the Health Council of East Central Florida for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

The Health Council of East Central Florida, Inc. (HCECF) is a private, non-profit healthcare planning agency providing research, education and program support to improve healthcare delivery and outcomes. The East Central Florida District VII encompasses the four counties of Brevard, Orange, Osceola and Seminole. HCECF has partnered with community organizations to address planning projects through the Health Assessment Improvement process. A current initiative involves our facilitation of the "Building a Healthy Parramore Coalition" designed to reduce childhood obesity in the Parramore community. The City's efforts are in line with the goals of our Coalition by providing a healthy environment for Parramore residents.

In support of the City's Brownfield Program, the Health Council will provide assistance with public outreach through our meetings and partnerships. Further, the Health Council is willing to serve on advisory boards or committees that are developed in support of this grant and brownfields redevelopment in our community.

The Health Council is happy to offer our support for the City of Orlando for the US EPA Brownfields Assessment grant application.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Peach".

Ken Peach  
Executive Director  
407-977-1610 x222



Received

OCT - 5 2012

Economic Development  
Department

October 1, 2012

Ms. Brooke R. Bonnett  
Director  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue  
6th Floor  
PO Box 4990  
Orlando, FL 32802

Dear Ms. Bonnet:

On behalf of Harry P. Leu Gardens, please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

The mission of Harry P. Leu Gardens is to help people appreciate and understand plants, the environment of Central Florida and the Gardens' historic significance. We host activities and programs for more than 160,000 guests from around the world annually.

In support of the City of Orlando's Brownfield Program, Harry P. Leu Gardens will provide meeting space and act as meeting host to as many meetings as needed to assist in the project. The financial value is \$1,000 per use.

Further, staff of Harry P. Leu Gardens is willing to serve on advisory boards or committees that are developed in support of this grant and brownfields redevelopment in our community.

Please feel free to contact me so that we may demonstrate further support of this US EPA Brownfields Assessment grant application.

Sincerely,

HARRY P. LEU GARDENS  
Robert Bowden, Executive Director  
Harry P. Leu Gardens  
407-246-2625

1920 N. Forest Avenue • Orlando, FL 32803-1537  
Phone 407.246.2620 • Fax 407.246.2849 • [www.leugardens.org](http://www.leugardens.org)



CITY OF ORLANDO



## **Nonprofit Housing Roundtable of Central Florida**

**P.O. Box 948006  
Maitland, FL 32794-8006  
(407) 645-1129  
Fax: (407) 645-1158**

**October 18, 2012**

**Ms. Brooke R. Bonnett  
Director  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue  
6th Floor  
PO Box 4990  
Orlando, FL 32802**

**Dear Ms. Bonnet:**

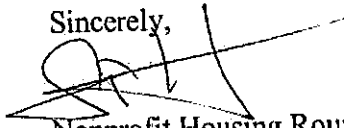
**On behalf of Nonprofit Housing Roundtable of Central Florida, please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.**

**The Roundtable is a membership organization that has been serving Central Florida since 1995. The organization is made up of housing professionals from both the nonprofit and profit sectors. Our mission is to increase the supply of decent affordable housing provided by nonprofit organizations to low and very low income families through coordination among nonprofits to enhance capabilities, expand funding opportunities, maximize training, and develop new partnerships. At the heart of our purpose is actively supporting projects and activities such as that being proposed by the City of Orlando.**

**In support of the City of Orlando's Brownfield Program, the Nonprofit Housing Roundtable of Central Florida will assist the City in bringing together key players and fostering partnerships, as well as the dissemination of materials and information.**

Please feel free to contact John Hazelroth at 407-645-1129 or at [jph@iag.net](mailto:jph@iag.net) to further discuss both our support and participation in this worthwhile activity.

Sincerely,

A handwritten signature in black ink, appearing to be 'JH', is written over a horizontal line. The signature is stylized and somewhat abstract.

Nonprofit Housing Roundtable of Central Florida  
John Hazelroth  
Coordinator



October 22, 2012

To Whom It May Concern:

This letter serves as a letter of support for the City of Orlando's Economic Development Department in pursuing a 2013 EPA Brownfields Cleanup grant for Creative Village sites in Parramore. Our Whole Community is a firm supporter of initiatives that both promote protection of the environment and helps the community.

Our Whole Community is a 501(c)(3) non-profit Christian corporation, comprised of a group of faith-based organizations collaborating on community health initiatives to produce intergenerational wholeness and healthy lifestyle outcomes in the Central Florida area. For more information on Our Whole Community, please visit [ourwholecommunity.org](http://ourwholecommunity.org).

Please feel free to contact me at [owc\\_ed@me.com](mailto:owc_ed@me.com) or 407 758 5324.

Thank you!

Sincerely,

A handwritten signature in black ink that reads 'Leah Nash'.

Leah Nash  
Executive Director



Ms. Brooke R. Bonnett, Director  
Economic Development Department  
City of Orlando  
400 South Orange Avenue  
6<sup>th</sup> Floor  
P.O. Box 4990  
Orlando, Florida 32802

October 11, 2012

Dear Ms. Bonnet:

On behalf of the Orlando Community and Youth Trust, Inc. (Trust), please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

In support of the City's Brownfield Program, the Trust will provide assistance with public outreach through our meeting with neighborhood residents, and will also provide assistance in the identification of potential redevelopment projects in the area. Further, the Trust is willing to serve on advisory boards or committees that are developed in support of this grant and brownfield redevelopment in our community.

Please feel free to contact Ms. Brenda March, President of the Orlando Community and Youth Trust, so that we may demonstrate further support of this project.

Sincerely,

Lisa Early  
Board Chair



October 15, 2012

Ms. Brooke R. Bonnett, Director  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue, 6th Floor  
PO Box 4990  
Orlando, FL 32802

RE: Letter of Support for City of Orlando U.S. EPA Brownfields Cleanup Grant

Dear Ms. Bonnet:

The Orlando Housing Authority (OHA) is pleased to provide this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We applaud the City's effort to support the revitalization and redevelopment of our community.

Established in 1938, the Orlando Housing Authority is responsible for the successful operation and maintenance of approximately 1,475 public housing units and 483 units of affordable (non-public) housing throughout the City of Orlando and Orange County, Florida. The mission of the Orlando Housing Authority is "to offer a choice of safe and affordable housing options and opportunities for economic independence for residents of Orlando and Orange County."

The Orlando Housing Authority is recognized as a leader in the affordable housing industry in Central Florida. From management of public housing, administration of the Housing Choice Voucher program, and development of market-rate and senior housing, OHA continues to demonstrate its capacity as a force in providing quality affordable housing options for residents of the City of Orlando and Orange County.

Over the past 12 years the Orlando Housing Authority has undertaken massive revitalization of its distressed traditional public housing and transformed it into vibrant, quality mixed-income communities. The Orlando Housing Authority has a proven capacity and expertise in the implementation of multifaceted development initiatives in both housing and delivery of supportive services for residents impacted by modernization or large-scale revitalization efforts. OHA expanded its mission as provider of affordable housing, to take on a broader role as a leader in neighborhood revitalization beyond the boundaries of existing public housing.



Through its public housing, affordable housing and housing choice voucher programs, The OHA serves more than 5,000 households through Orlando and Orange County, Florida. Griffin Park Apartments public housing development and two public housing/tax credit developments are located within the southern portion of the Parramore district. The OHA also co-owns, Jackson Court and Division Oaks directly adjacent to the Amway Center.


In April 2012, the Orlando Housing Authority and Creative Village Development jointly prepared an application to the U.S. Department of Housing and Urban Development "HUD" for funding of a Planning Grant under HUD's Choice Neighborhoods Initiative Grant. Although HUD did not fund the OHA's Choice Neighborhoods application, the OHA remains a strong supporter of the Creative Village development effort. Of primary interest is the inclusion of affordable housing for families and individuals as part of the development plan. The OHA is also interested in job and training opportunities associated with the planning and construction of the Creative Village as well as job opportunities for local residents within the Creative Village post construction.

In support of the City of Orlando's Brownfield Program, the Orlando Housing Authority will:

- disseminate information on meetings related to the Brownfield Program to residents
- post notices on community bulletin boards, meeting/project status announcements
- participate in Brownfield Area Tours, if applicable
- work with youth in student environmental education projects related to the Brownfield Designated Area
- Serve on advisory boards or committees that are developed in support of this grant and Brownfields redevelopment in our community.

Please feel free to contact Gaile Plowden at (407) 895-3300, Extension 4002, for additional information so that we may demonstrate further support of the City of Orlando's U.S. EPA Brownfields Assessment grant application.

Sincerely,

  
Vivian Bryant, Esq.  
President/CEO

**PARRAMORE COMMUNITY GARDEN  
ORLANDO, FLORIDA**

October 22, 2012

Ms. Brooke R. Bonnett  
Director  
Economic Development Department  
City of Orlando  
400 S. Orange Avenue  
6th Floor  
PO Box 4990  
Orlando, FL 32802

Dear Ms. Bonnet:

On behalf of the Parramore Community Garden, please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the north-east section of the Parramore Neighborhood. We are fully supportive of the City's efforts to revitalize and redevelop our community.

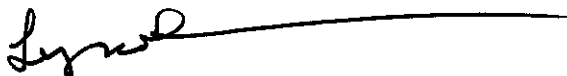
Created through a multi-agency effort, the Parramore Community Garden is divided into over 15 plots that are maintained and harvested by local families or youth groups. Low-income, inner city communities like Parramore often have limited access to fresh fruits and vegetables. The Parramore Community Garden is succeeding in addressing this lack of access to fresh, affordable, healthy foods.

The Parramore Community Garden is located within walking distance of the Creative Village site. We are very interested in the improvements contemplated through the Brownfield Cleanup grant application and fully support the City's efforts in cleaning up the Creative Village site through Brownfields funding. We will be willing to post information on our garden bulletin board to inform gardeners about the Brownfield program as well as keep gardeners up-to-date on site visits.

Further, the Parramore Community Garden is willing to serve on advisory boards or committees that are developed in support of this grant and brownfields redevelopment in our community.

Please feel free to contact the Parramore Community Garden so that we may demonstrate further support of this US EPA Brownfields Assessment grant application.

Sincerely,



Mr. Lynn Nicholson  
Garden President  
lynnnicholson@att.net



Orlando Chapter of USA DANCE A non-profit 501 (C) (3) Organization

October 21, 2012

Ms. Brooke R. Bonnett, Director  
Economic Development Department, City of Orlando  
400 S. Orange Avenue, 6th Floor  
PO Box 4990, Orlando, FL 32802

Dear Ms. Bonnet:

On behalf of the Orlando Chapter of USA DANCE, please accept this letter of support for the City of Orlando's application for a 2013 EPA Brownfields Cleanup Grant for the Creative Village site, located in the northeast section of the Parramore Neighborhood

Since 1991, our organization has promoted the many benefits – Health, Social, Exercise - of Ballroom Dancing throughout the Greater Orlando area, through dance programs to the general public, to Special Needs individuals, to visually-impaired individuals, and to Parramore-area youth, partnering with the City of Orlando's Summer Recreation Program, with sponsorship from Get Active Orlando and The Blue Foundation.

We particularly like the Creative Village concept, because we consider ballroom dancing to be a creative/performance art form. We hope that we can be of service to the City of Orlando with dance programs, exhibitions, and performances in the Creative Village of the future, which we usually provide as in-kind services donations. And of course, we will promote Creative Village programs through our publicity programs: newsletter, website, social media, and news releases.

Our leadership is willing to serve on committees to support this grant and brownfields redevelopment in our community..

Sincerely,

*John G. Davis*

John G. Davis, President of the Orlando Chapter of USA DANCE  
219 Zachary Wade St, Winter Garden, FL 34787



**DRAFT**

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# **APPENDIX D**

---

# Orlando Sentinel

**Proof**

Oct. 16, 2012

**Agency:**  
**Customer:** City Of Orlando  
**Address:** 400 S ORANGE AVE  
**City:** ORLANDO  
**State:** FL 32801-3360  
**Phone no:** (407) 246-2251  
**Account ID:** 1023535

**Order ID:** 1209699  
**Caller name:** Carolyn Skuta  
**Fax no:**  
**Sales rep:** Stephen Janes

**Purchase order no:**

**Payment type:**

## Newspaper Classified

Title	Class Name	Begin Date	End Date	Size (col x lines)	Color
Orlando Sentinel	Public Hearing Notices	10-21-2012	10-21-2012	1 x 49	No

**NOTICE OF PUBLIC MEETING:** On Monday, October 29, 2012, the City of Orlando will hold a public workshop at the Dr. J.B. Culligan Neighborhood Center, South Multipurpose Room, 101 North Parramore Avenue, Orlando, Florida 32801 (407-246-4432) commencing at 6:30 a.m. on Monday, October 29, 2012 until no later than 7:30 p.m. This workshop will allow citizens to review a U.S. Environmental Protection Agency (EPA) Brownfields Cleanup Grant application, a draft of the accompanying "Analysis for Brownfields Cleanup Alternatives (ABCA)" and offer time for questions and comments. The City of Orlando is currently applying for one (1) U.S. Environmental Protection Agency (EPA) Brownfields Cleanup Grant for \$200,000 to assist with remediation efforts at a City owned site, situated in the Parramore neighborhood, generally located north of West Livingston St., south of West Amelia St., and east of North Parramore Ave. Inquiries and comments can be submitted electronically by addressing an e-mail to Mary-Stewart Droege, Economic Development Department, City of Orlando at mary-stewart.droege@cityoforlando.net. Please place "US EPA Brownfields Cleanup Grant" in the subject line of the e-mail. Paper copies of the application and the ABCA will be available at the public meeting or can be obtained in electronic format on-line at <http://www.cityoforlando.net/elected/venues/creativeupdate/index.htm> after October 18, 2012. Qualified persons with disabilities needing auxiliary aid or service, or other assistance, so they can participate equally in this meeting should contact Mary-Stewart Droege at 407-246-3276 as soon as possible but no later than 48 hours before the meeting.

COR1209699

10/21/2012

**Gross price:** \$ 183.75  
**Discounts:** \$ 0.00  
**Net price:** \$ 185.75  
**Prepaid amount:** \$ 0.00  
**Amount due:** \$ 0.00

**DRAFT**

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# **APPENDIX E**

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**DRAFT**

**Draft Analysis of Brownfields Cleanup Alternatives  
Former Orlando Centroplex Site  
Northeast Corner of the West Livingston Street/North Parramore Avenue  
Intersection  
Orlando, FL**

*Prepared for*



City of Orlando  
400 South Orange Avenue  
Orlando, FL 32802-4990

*Prepared by*



**Shaping the Future**

October 26, 2012

# DRAFT

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1	USGS / Site Vicinity Map
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Table	Description
1	Treatment Alternatives Comparison Table

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A	Phase II ESA (PSI, November 2006)
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## **1.0 Introduction and Background**

### **1.1 Introduction**

The City of Orlando (City) is applying for an Environmental Protection Agency (EPA) Brownfields Cleanup Grant. This draft Analysis of Brownfields Cleanup Alternatives (ABCA) has been prepared in accordance with US Environmental Protection Agency (EPA) FY 2012 Brownfields Assessment, Revolving Loan Fund and Cleanup (ARC) Grant Guideline requirements.

The site is located within the Orlando Economic Enhancement District (OEED) brownfield area originally designated in 2007. The City of Orlando will enter the subject site into a voluntary BSRA under the Florida Brownfields Redevelopment Act, Chapter 376.77-376.85, Florida Statutes with the Florida Department of Environmental Protection (FDEP). This voluntary agreement provides the framework and schedule for the remaining remediation activities including confirmatory sampling. The site will be remediated under authority of Chapter 62-785, Florida Administrative Code, Brownfields Cleanup Criteria. The City will comply fully with federal procurement procedures as required by 40 CFR 31.16 in contracting a qualified environmental engineering firm (familiar with brownfields assessment and remediation process within the state of Florida) for remedial activities at this location. Once the BSRA is executed, the site will be remediated under the authority of Chapter 62.785 FAC, the Brownfields Cleanup Criteria Rule. This draft ABCA is being prepared to demonstrate and document that the appropriate cleanup methods have been evaluated and will be applied at the former Centroplex site.

This ABCA provides information on the following:

- Information about the site and contamination issues (e.g., exposure pathways, identification of contaminant sources, etc.), cleanup standards, applicable laws, alternatives considered, and the proposed cleanup.
- A discussion of the effectiveness, implementability, and cost of the cleanup methods considered.
- An analysis of reasonable alternatives including no action.

The Draft ABCA, once approved, will be placed in an Administrative Record File (ARF) located at the City of Orlando Economic Development Department offices in Orlando, Florida. The document may also be placed in additional locations to facilitate public comment. Public notice will be given that the document is available for review and comment and a written response to significant comments will be provided and included in the ARF.

## **1.2 Background**

The subject site comprises approximately 8.2 acres in Downtown Orlando, Florida located in Section 26, Township 22 South, Range 29 East, as referenced on the U.S. Geological Survey (USGS) "Orlando West, FL", 7.5-minute series Quadrangle map (See Figure 1). The site is bounded to the north by West Amelia Street, to the west by North Parramore Avenue, to the south by West Livingston Street and to the east by a parking lot and the eastern portion of the vacant, former Amway Arena; the western portion of the arena is located on the northeastern portion of the area defined as the subject property. The subject property is located in an urban area developed with municipal and commercial properties and includes the area outlined on Figure 2. Current land use within the area defined as the subject property includes the Downtown Recreation and Tennis Center, the western portion of the vacant former Amway Arena and various asphalt-paved parking lots.

Previous uses of the property were identified through research conducted as part of a Phase I Environmental Site Assessment (ESA) conducted for the subject site in July 2005 and research conducted during an October 2011 Phase I ESA for the former Amway Arena site (the western portion of which is located on the subject site). Non-residential, historical land uses of significance on the subject site are as follows:

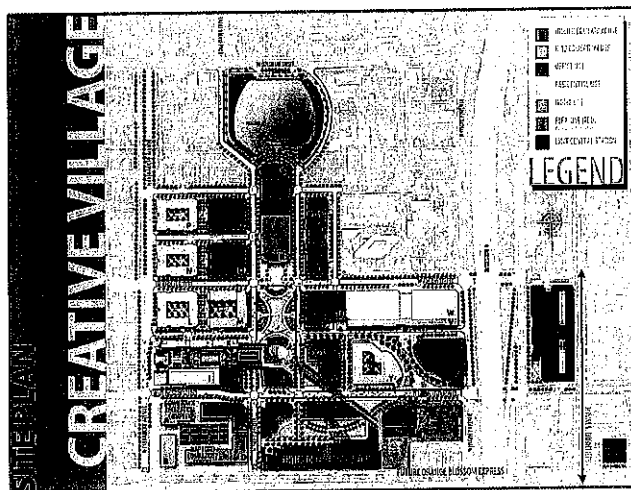
- A USDA Bureau of Entomology laboratory was identified at 602 West Amelia Avenue (currently West Amelia Street) from 1915 until sometime prior to 1923 (northeastern portion of the site).
- The western portion of the former Amway Arena (1989-Present) is located on the northeastern portion of the site.
- A USDA Bureau of Entomology laboratory was identified at 415 North Parramore Avenue from 1933 until sometime prior to 1958 (central portion of western perimeter of the subject site).
- A USDA Bureau of Entomology research laboratory was identified at 419 North Parramore Avenue from 1953 until prior to 1958 (central portion of western perimeter of the subject site).
- A former dry cleaner was identified at 441 North Parramore Avenue from 1963 until prior to 1983 (north portion of west perimeter of the subject site).
- A potential gasoline station (Jackson's Minit Market/Majik Maket No. 20) was identified at 439 North Parramore Avenue from 1963 until sometime prior to 1983 (north-central portion of the western perimeter of the site).
- A Former Florida National Guard Armory/ Naval Reserve Training Center was identified at 655 West Livingston Street (southwest corner of the subject site) from 1948 until 1973. The address shifted to 649 West Livingston Street in approximately 1978, with the property then listed as the Orlando Recreation Department with various sub-listings including the Orlando Tennis Center, Downtown Recreation Complex and Nap Ford Community School noted between 1978 and present.

Based on the Recognized Environmental Concerns (RECs) identified July 2005 Phase I ESA, a Phase II ESA was conducted (by others) in November 2006. Soil samples and both shallow and deeper interval groundwater samples were collected from portions of the site correlating to identified RECs. The results of the Phase II ESA identified soil and groundwater contamination at the former National Guard Armory/Naval Reserve Training Center (Armory) site. This location was also referred to as a USDA facility in both the 2005 Phase I ESA and 2006 Phase II ESA, but it appears based on subsequent research conducted as part of the October 2011 Phase I ESA that the USDA facilities were located north of the areas assessed during the 2006 Phase II ESA.

The soil contamination detected at the Armory site consisted of arsenic in excess of the State Commercial/Industrial Direct-Exposure (C/I) Soil Cleanup Target Level (SCTL) as referenced in Chapter 62-777, Florida Administrative Code (FAC). In addition, four of the carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) were detected in one soil sample, and the subsequently calculated benzo(a)pyrene (BaP) equivalents concentration exceeded the Residential Direct-Exposure SCTL (R-SCTL). The pesticide dieldrin was detected in excess of the Groundwater Cleanup Target Level (GCTL), referenced in Ch., 62-777 FAC, in the groundwater sample from one temporary well location on the Armory site. No other soil or groundwater impacts associated with historical property use were identified during the November 2006 Phase II ESA and no subsequent sampling is known to have occurred.

### 1.3 Project Goals/Reuse Plan

Based on the above findings, corrective actions are required to allow for redevelopment of the property. The follow provides a description of the mixed-use development proposed for the site. Therefore cleanup to residential criteria is selected as the applicable goal for remedial efforts at the site.



The overall Creative Village project involves the replacement of aging and obsolete public infrastructure currently in place to support the 68-acre City-owned Orlando Centroplex venue. The improvements included as part of the overall project will implement the City's vision for this area and allow for the rejuvenation of this area as a live, work, learn and play mixed-use community built around a foundation of technology based employment and educational opportunities, mixed-income and attainable housing, neighborhood commercial and public open



spaces. The technology-based employment and educational expansion opportunities at Creative Village will help expand the regional Orlando economic cluster of tech-based, digital media production, modeling and simulation industries.

The uses currently occupying the overall Creative Village project area include the now vacant Amway Arena (the NBA Orlando Magic's old arena), the Bob Carr Performing Arts Center, Nap Ford Charter School (K-5), the University of Central Florida (UCF) Center for Emerging Media, the Downtown Orlando Tennis and Community Recreation Center and associated parking garages. Currently, the area associated with the clean-up grant is substantially covered by asphalt, concrete and buildings and includes a road network that became disjointed after the construction of the Amway Arena in 1988. Various underground utilities travel into and through the project area to provide service to the uses on site, as well as to the surrounding residential neighborhood to the west and north and the City's Downtown to the east.

The intended mixed of uses proposed within the clean-up grant area as part of the Creative Village project that include new public infrastructure (roads, drainage, water, sewer, irrigation, telecommunication, street lighting and streetscape improvements), vertical construction totaling 275,000 square feet of office space, 550 affordable and mixed income multifamily housing units, 40,000 square feet of commercial retail space and a community park.

## 2.0 Applicable Regulations and Cleanup Standards

The Florida Department of Environmental Protection (FDEP) will provide regulatory oversight of all assessment and remediation conducted at the subject site. Daily direct oversight of assessment and remediation activities will be performed by a State of Florida licensed professional engineer, competent through education and experience to provide direction and oversight throughout the process. Additional review and regulatory oversight will be provided by the EPA Project Officer administering the grant activities. Copies of all reports generated throughout the process will be submitted to both the FDEP and EPA for review and comment. In addition, Quarterly Reports will be submitted to the EPA Project Officer to document progress on the project.

Consistent with criteria specific in Rule 62-785, F.A.C., Brownfield Cleanup Criteria, the lower of the Florida R-SCTL and Leachability Based on Groundwater ( $L_{GW}$ -SCTL) will be the soil contamination screening and remediation standards for this project. Based on data collected during the November 2006 Phase II ESA, the following COCs exceed one or both of the referenced target levels (the appropriate SCTLs from Rule 62-777 F.A.C are provided for reference):

<u>Contaminant</u>	<u>R-SCTL (mg/kg)</u>	<u><math>L_{GW}</math>-SCTL (mg/kg)</u>
Benzo(a)pyrene	0.1	8
BaP Equivalents	0.1	8
Arsenic	2.1	Derive using SPLP

No Applicable or Relevant and Appropriate Requirements (ARARs) for soil were identified as part of this ABCA.

The Florida GCTLs specified in Rule 62-777 F.A.C. will be the groundwater contamination screening and remediation standards for this project. Based on data collected during the November 2006 Phase II ESA, the following COC exceed the referenced target level (the appropriate GCTL from Rule 62-777 F.A.C is provided for reference):

<u>Contaminant</u>	<u>GCTL (<math>\mu</math>g/L)</u>
Dieldrin	0.002

No ARARs specific to groundwater impacts detected at the site were identified as part of this ABCA.

In summary, the overriding cleanup objectives for the former Centroplex site will be designed to be protective of human health and the environment, based on anticipated residential/mixed-use assumptions, and will comply with applicable State and Federal laws.

## 3.0 Exposure Analysis

### 3.1 Evaluation

Preparation of an ABCA requires an evaluation be made as to the possible corrective actions and their respective costs to remedy effected areas. Not all remedies are physical or chemical and may include other types of remedies such as institutional controls (e.g. restriction on residential development recorded on the deed). Excess public risk requires four factors, all of which must be present to produce excess risk from contaminants at a site. These are:

- A chemical with sufficient toxicity to do harm (whether acute or chronic),
- A sufficient quantity of the chemical to be toxic and do harm,
- A receptor on which to do harm, and
- A pathway by which a sufficient amount of the contaminant can actually reach a receptor and do harm.

Corrective actions to remedy affected areas rarely eliminate all chemicals of concern. It is generally the intent to remove, treat or immobilize the concentrations of chemicals of concern to levels producing an acceptable risk to human health and the environment. The degree of acceptable risk has to be determined by the public through legislative and regulatory processes. This has been accomplished by the development and implementation of FDEP regulatory programs to implement State standards (Chapter 62-777, FAC, the Contaminant Cleanup Criteria rule).

### 3.2 Exposure Pathways

In order for possible contaminants of concern to do harm to public health or the environment, they must occupy a point of exposure accessible to the population at risk. Compounds to which populations are not currently, or likely to be exposed via complete exposure pathways do not constitute a probable condition of elevated risk.

The three potential receptor populations are:

- Construction worker – persons involved in the redevelopment of the property
- Industrial/commercial worker – persons who occupy the property under conditions of full-time employment
- Residents – persons who reside on or adjacent to the property

Based on assessment data detailed in **Section 1.2**, the primary contaminants of concern (COCs) in soil are arsenic and PAHs. Risk of exposure to the site soils were examined for three potential receptor populations deemed most likely to be exposed to identified contaminants of concern. The primary exposure pathways identified at this site include ingestion of site soils and inhalation of potential fugitive dust emissions during site remediation and redevelopment activities.

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Based on the groundwater data detailed in **Section 1.2**, the primary COC in groundwater is the pesticide dieldrin. No potable wells exist on the subject or adjacent properties, no irrigation wells are planned at the site and potable water is available from the City of Orlando; therefore, a completed pathway for the ingestion of site groundwater does not appear to be present.

## **4.0 Evaluation of Cleanup Alternatives**

### **4.1 Cleanup Alternatives Development**

Based on the evaluation of assessment findings presented in this ABCA and conservative assumptions of future site use for residential/mixed-use development, various alternatives were considered for managing the identified impacts, as discussed below.

### **4.2 Soil Remedial Alternatives**

The alternatives for mitigating the risks associated with identified contaminated soil at the property are summarized and compared in **Table 1**. A brief discussion of each alternative is provided below. For identified soil impacts, the following four remediation alternatives were evaluated for this site.

- No Further Action
- Capping (Engineering Control)
- In-situ Solidification/Stabilization
- Excavation and Offsite Disposal

Each of these alternatives has been evaluated with respect to effectiveness, implementability, and cost. The following sections provide a synopsis of each technology and the final evaluation results.

#### **4.2.1 No Action**

##### **Technology Description**

The No Action option involves leaving the site in essentially its current condition, with no remediation activities being performed prior to development.

##### **Effectiveness**

Because environmental impacts have been documented at the site, this option would result in future exposure potential to impacted media as a result of potential residential/mixed-use development. This potential for exposure does not meet the objectives of this project and this corrective action alternative has been omitted from further consideration.

##### **Implementability**

The No Action alternative would be easy to implement because it requires no significant additional activities be performed on the site. Fencing and/or warning signs may be required if contaminants are left unabated. For the purposes of this ABCA, institutional controls and engineering controls are not considered an element of the No Action alternative.

## **Cost**

There would be minimal cost associated with implementing No Action alternative at the site. If warning signs or other access control measures were considered for portions of the facility, then the cost for signs and fences would be approximately \$22 per linear foot of perimeter.

## **4.2.2 Capping (Engineering Control)**

### **Technology Description**

Capping involves placing an impermeable cover over contaminated materials. Caps do not clean up the contaminated material. Instead, they isolate the contaminated media and keep it in place so it will not come into contact with people or the environment.

### **Effectiveness**

If designed appropriately, a cap can be effective in 1) stopping rainwater from seeping through contaminated material and carrying the contamination into groundwater or surface water features, 2) stopping wind from blowing contaminants throughout the site or off site, and 3) keeping people and animals from coming into direct contact with the impacted material.

### **Implementability**

Cap design can range from the simple placement of a single layer of asphalt over the materials of concern to multilayer systems. The top layer is typically comprised of soil and vegetation to stabilize the site, uptake moisture, and prevent erosion. The second layer is typically comprised of a drainage system (pipes, gravel, etc.) to manage water the seeps through the top layer. A gas venting system is often placed beneath the drainage system, depending on the nature of the waste. The bottom layer is typically impermeable material; either clay or a geotextile barrier.

While construction and maintenance of a cap is generally simple to implement, it is not practical for this property for several reasons. First, the documented impacts to soil do not appear to be significant enough in areal extent to warrant large scale capping. Second, the site re-grading that will be required to complete installation of underground utilities, re-align roads and construct new buildings throughout the site make the construction and maintenance of a cap system impractical.

## **Cost**

Multi-layer capping systems can range from approximately \$80,000 to \$120,000 per acre, depending on the design. While only limited portions of the subject site would be subject to capping, the limitations outlined in the implementability discussion render further consideration of capping impracticable.

## **4.2.3 In-situ Solidification/Stabilization**

### **Technology Description**

Solidification/stabilization is a cleanup method that prevents or slows the release of contaminants from impacted soils or sludge. Due to the presence of arsenic impacts in addition to PAH contaminants, this technology was evaluated over other methods of in-situ treatment

such as bioremediation (which would not address arsenic impacts effectively). This technology does not typically destroy the contaminants; rather, it prevents them from moving into the surrounding environment. Typically, cement or similar binding agents are used to solidify the impacted soil or sludge. Stabilization; however, may only consist of a chemical reagent that binds contaminants to the subsurface media, thereby preventing migration.

## **Effectiveness**

Solidification/stabilization can be effective if future disturbances of the subsurface will not occur. However, changes in water chemistry can often result in leaching of contaminants from solidified/stabilized material, resulting in impacted groundwater or surface water. An institutional control to prevent future contact with and disturbance of the solidified/stabilized material is typically required. In addition, the effectiveness of this technology (particularly stabilization) relies on the injected stabilizer contacting all impacted material, which may prove difficult.

## **Implementability**

Solidification involves mixing impacted soil with a substance (like cement) that causes the soil to harden. Soil mixing can be performed in-situ using large augers (deep) or land farming techniques (shallow), or the impacted soils can be excavated and mixed with binding agents ex-situ. Once the ex-situ mixture dries to form a solid block or granular aggregate, it can be returned to the site (left in place) or removed to another location.

Stabilization typically involves the injection of chemicals that bind with the contaminated material to (in theory) render the material inert or non-leachable. Soils could be left in place beneath planned parking lots; however, leaving solidified soils in areas where residential buildings are to be constructed (including related buried utilities) could be problematic. Also, due to the challenge of ensuring adequate mixing and contact with the solidification/stabilization binding or chemical agents, especially under structures or roadways, effectiveness of the solidification/stabilization activities may be difficult to predict. In addition, on-going obligations in the form of long-term annual groundwater sampling may be required to monitor the effectiveness of the solidification/stabilization. For these reasons, solidification/stabilization is considered impractical for this project.

## **Cost**

The cost to solidify impacted material is directly related to the amount of material being addressed, the nature of the binding agent(s) used, and the final disposition of the solidified material. Additionally, costs for cement-based stabilization techniques may vary according to availability and short term cost variability for concrete, and the chemical nature of the contaminant. Published costs for solidification/stabilization include \$65 to \$105 per cubic yard for shallow applications typical of the subject site. Assuming 2,000 cubic yards of material (includes safety factor for additional soil encountered during work) were solidified or stabilized in-place, the associated cost would be between ±\$130,000 and ±\$210,000.

## 4.2.4 Excavation and Offsite Disposal

### Technology Description

Excavation is digging up impacted soils from a site. Offsite disposal requires detailed characterization of the waste characteristics, contamination levels, identification of the appropriate disposal or treatment facility, and a determination of transportation issues associated with transfer of the material (site access and distance to the disposal or treatment facility).

### Effectiveness

Removal of contaminated material from a site is typically the most effective remediation technology that can be implemented, as it does not rely on chemical processes, dispersion and contact with reagents or binders, or soil conditions and is effective regardless of contaminant type (i.e. VOCs, SVOCs, metals, etc.)

### Implementability

Many factors affect the implementability of a soil excavation project. Access must be available to remove the impacted material and an appropriate treatment or disposal facility must be identified that can manage the levels and types of contamination. Generally, excavation is limited to materials that are unconsolidated and easily removed using backhoes, excavators, and similar equipment. The depths of excavation are also typically limited to approximately 20-ft, unless shoring or benching is implemented to access deeper soils. Shoring can be difficult in some instances, and benching can result in substantially increased volumes of soil being managed.

Lastly, if excavation is extended below the water table, dewatering of the excavation area is required and treatment of impacted groundwater is typically an additional component of the project. These factors can affect the cost and implementability of excavation at a given location.

### Cost

The cost of excavation can vary widely based on the variables discussed above. Additionally, transportation and disposal costs offsite can also vary substantially based on the method of treatment or disposal, fuel costs, and the distance to the final disposal facility. Costs are typically separated based on the following tasks: excavation and staging of material, transportation and disposal, and backfilling and compaction. While costs can vary significantly, the following costs reflect recent excavation from above the water table, and transportation to a permitted disposal facility. Please note that project management, laboratory analysis, and regulatory negotiations are not included in these costs.

<b>Task</b>	<b>Unit</b>	<b>Estimated Unit Price</b>
Mobilization to site	LS	\$4,000
Excavation and staging - (unconsolidated materials only)	Cubic Yard	\$15 - \$22



Transportation & Disposal (non-hazardous)	Ton	\$50 - \$70
(hazardous)	Ton	\$100 - \$130
Fill Material	Cubic Yard	\$12.00 - \$22.00
Fill Placement and Compaction	Cubic Yard	\$10.00 - \$18.00

Limited areas of subsurface impacts have been documented at the subject site and the extent of those impacts has not been fully delineated at this time. In addition, excavation in some untested areas may be required during site grading activities (soils that will be evaluated to determine if they are impacted prior to offsite disposal). Therefore, it is difficult to accurately estimate the volume of impacted soils that may require action at this time and, as a result, the costs associated with excavation and disposal activities. However, for budgetary and comparison purposes a volume of 2,000 cubic yards was used. Using the unit costs provided above, the capital costs would range from  $\pm\$218,000$  to  $\pm\$324,000$ . This cost does not include project management costs, sampling, and laboratory analyses.

### **4.3 Groundwater Remedial Alternatives**

While contaminant impacts to groundwater have been identified in one temporary monitor well at the site, sufficient delineation of the identified impacts has not been conducted to date. Based on this lack of data, a detailed evaluation of remedies is not practical at this time. Additionally, due to a lack of current or proposed future use of the shallow water at the site, active remediation may not be pursued. General cleanup and mitigation options include:

- No Action
- Institutional/Engineering Controls
- Various in-situ & ex-situ options

Preliminary comparison of these alternatives is contained in **Table 1**. The options will be more fully evaluated once sufficient assessment data is available to define the extent and magnitude of the preliminarily identified groundwater impact

## **5.0 Final Remedy Selection**

Based on this Draft ABCA evaluation; excavation with off-site disposal is chosen as the soil remedy best suited to achieve the goals of protecting human health and the environment at this site. This remedy requires no long term monitoring or maintenance and has the best long-term reliability of the methods evaluated. Once the contaminants are excavated and disposed, the areas removed are not subjected to continued releases from the source material or “re-bound” of contaminants as is typical of certain in-situ treatments.

The excavation and off-site disposal will be handled as an interim remedial action to address soil impacts identified to-date. It is anticipated that the FDEP will require additional soil and groundwater assessment that could potential increase the volume/type of impacted soil requiring removal. As previously discussed, the final groundwater remedy is anticipated to include an institutional control to prevent groundwater use. However, this alternative will be further evaluated and a selection made once the extent and magnitude of the groundwater impacts have been fully defined.

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# **APPENDIX F**

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City of Orlando  
FY13 USEPA Brownfields Cleanup Grant Application  
Creative Village Development

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**SPECIAL CONSIDERATIONS CHECKLIST**

COMMUNITY POPULATION IS 10,000 OR LESS

FEDERALLY RECOGNIZED INDIAN TRIBE

UNITED STATES TERRITORY

APPLICANT ASSISTING A TRIBE OR TERRITORY

TARGETED BROWNFIELD SITES ARE IMPACTED BY MINE-SCARRED LAND

TARGETED BROWNFIELD SITES ARE CONTAMINATED WITH CONTROLLED SUBSTANCES

COMMUNITY IS IMPACTED BY RECENT NATURAL DISASTER(S)

COMMUNITY DEMONSTRATES FIRM LEVERAGING COMMITMENTS FOR FACILITATING BROWNFIELD PROJECT COMPLETION BY IDENTIFYING AMOUNTS AND CONTRIBUTORS OF FUNDING IN THE PROPOSAL AND HAVE INCLUDED DOCUMENTATION

COMMUNITY EXPERIENCING PLANT CLOSURES (OR OTHER SIGNIFICANT ECONOMIC DISRUPTIONS), INCLUDING COMMUNITIES EXPERIENCING AUTO PLANT CLOSURES DUE TO BANKRUPTCY

**X APPLICANT IS A RECIPIENT OF A HUD/DOT/EPA PARTNERSHIP FOR SUSTAINABLE COMMUNITIES GRANT**

COMMUNITY IS IMPLEMENTING GREEN REMEDIATION PLANS