



Pine Hills Site Analysis and Recommendations

UCF PAD5337 Urban Design – Fall 2016

In collaboration with:
The Pine Hills Neighborhood Improvement District
The Neighborhood Preservation & Revitalization Division

Roberta Fennessy M.S, B.D.A.
Justin Baumann
Jamie Elbert
Dimitre Guenov
Gregory Hines
Sara Iman
Juan Lugo
Marellys Moreno
Krishanna Newton



TABLE OF CONTENTS

Project Overview	Page 3
Site Location	Page 4
Information Gathering, Analysis & Field Audit	Page 6
Urban Design Goals & Strategies	Page 7
Methodology	Page 10
Urban Design Recommendations	
- Area 1: Crime Prevention	Page 11
- Area 2: Current and Future Land Use	Page 15
- Area 3: Parks, Trails & Public Spaces	Page 17
- Area 4: Streetscaping & Transportation	Page 21
- Area 5: Sustainability	Page 26
Conclusions	Page 29
Appendix of Additional Images	Page 31
References	Page 33

PROJECT OVERVIEW

This report contains the class' recommendations for urban design strategies and improvements to the project site as presented to the Pine Hills NID. It is divided into five (5) thematic sections that cover the proposed recommendations. As a part of our class entitled Introduction to Urban Design (UCF Course PAD 5337), Professor Roberta Fennessy collaborated with the Pine Hills Neighborhood Improvement District (NID) to find suitable sites for a final project in the course. Consensus was reached that the class, consisting of eight (8) students, would work on a series of recommendations for the Pine Hills "Town Center" concept, to assist the Pine Hills Neighborhood Improvement District in preparing a vision for future development.

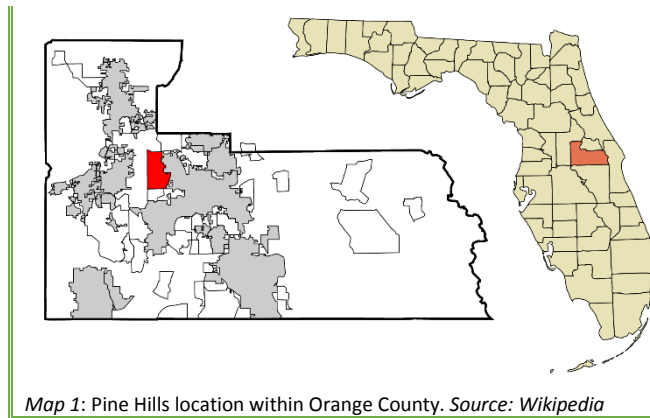
The 6-week long project began on Thursday, October 20, 2016 with a meeting with the NID representatives and Orange County staff to get perspective on the project. A general overview of the history of Pine Hills, along with the NID and its future, was provided. We had a chance to pose initial questions about the direction the NID saw the "Town Center" as proceeding in based on their previous studies, reports, and developments. Copies of these studies and reports were made available to the class. Our first site visit occurred on Thursday, October 27th, 2016. We were given a guided tour around the community and the site that was intended to be the future "Town Center" by representatives of the NID. We were given the opportunity to roam around the sites, document areas using photography, and speak with a few members of the community.

After the initial data gathering, we began discussing preliminary ideas in the classroom and divided team members into groups based on their interests to begin researching and developing more concrete ideas. We began by creating image boards of roughly twenty (20) images to solidify our initial ideas and chart a path forward together that ensured all the ideas were on the same page and revolving around similar ideological concepts. Representatives from the class attended a Safe Community meeting on November 10th, 2016 where they gave some initial information on the project development and

solicited ideas from the community. These comments were collected and digitized for collaboration among our group through our online portal. Our group finally attended a meeting with additional Orange County Planning Division representatives on November 17th, 2016 to answer larger questions regarding development in both Pine Hills and Orange County.

SITE LOCATION

Pine Hills is a census-designated place (CDP) in unincorporated Orange County, located 3 miles west of the city of Orlando. Pine Hills has a population of 60,076 as of the 2010 U.S. Census, although today this figure is estimated as being roughly



Map 1: Pine Hills location within Orange County. Source: Wikipedia

70,000. For a population comparison with other large population centers in the area, see Table 1 below. The sheer size of Pine Hills in comparison to some official cities in the area makes it a prime location for development and investment (Pine Hills Neighborhood, 2015).

Table 1: Population Comparison.

Area	Estimated Population
Pine Hills	70,000
City of Orlando	270,934
Winter Park	29,203
Altamonte Springs	41,920
Winter Garden	34,568
DeLand	29,237
Sanford	58,111
Lake Mary	13,822
Ocoee	39,172

One of the first suburbs of Orlando, Pine Hills began as a bedroom community in the 1950s for the employees of the Martin Marietta Corporation, now Lockheed Martin. It consisted of mostly upper-

middle class residents and contained a country club called Silver Pines. Pine Hills continued to expand throughout the 1960s and 1970s to include many new neighborhoods. Community efforts resulted in the creation of schools, a post office branch, fire department, thriving retail, and other services. The Pine Hills neighborhood began to decline in the 1980s and 1990s when Silver Pines Country Club closed and newer residential developments sprung up in the neighboring areas to the southwest such as MetroWest and Dr. Phillips. Continued neglect by Orange County and its Commissioners, coupled with the areas economic decline, resulted in higher crime rates, poverty, and overall community decay. Recent efforts, including the “Pine Hills Safe Neighborhood Partnership” among others, are helping to revitalize the area by building partnerships with residents and local agencies to help reduce crime, poverty, and to improve the quality of life in the Pine Hills area. The NID was created to help redevelop the economic centers of Pine Hills into viable, modern places of business for both local and national businesses. A focus for the NID is the “Town Center” concept for Pine Hills (Pine Hills Neighborhood, 2015).

The site for the future “Town Center” is located at the intersection of Pine Hills Road and Silver Star Road (S.R. 438). The study area for the “Town Center” is a quarter (1/4) mile buffer around the center of the intersection. Areas parcels include the Silver Pines Shopping Center, Silver Hills Station Shopping Center, and parcels around Evans High School on the northeast corner, among others.



Map 2: Location of study area within Pine Hills with an approximately ¼ mile buffer in white. Source: Bing Maps

INFORMATION GATHERING, ANALYSIS & FIELD AUDIT

The community of Pine Hills, Florida is a tight knit diverse community that already exudes a strong walking and biking culture. Access to major roads with significant street proximity allows for multiple transportation options including the Lynx bus system, which connects the community easily to downtown Orlando and other employment

centers such as Universal Orlando Resort and Walt Disney World through a dense network of stops and routes along the major corridors in the area.

While the community has strong cultural ties, it suffers from a slew of security issues including poor building quality resultant from age degradation, traffic congestion, poor lighting, excess of utility visibility, consistent garbage / litter issues, and low density sprawl. Holistically, this leads the area to exude a generally unappealing / uninviting demeanor due to the multiple landscape and urban design issues, even though their multi-cultural community showcases strong community engagement. This disconnect is one of the issues that contributes to the community's negative reputation in the area. However, there are key opportunities that are readily noticeable based on our team's preliminary



Image 1: Illustrates the proximity of plazas and parking to the major roads.



Image 2: Shows the state of degradation buildings are in and the quantity of utility lines

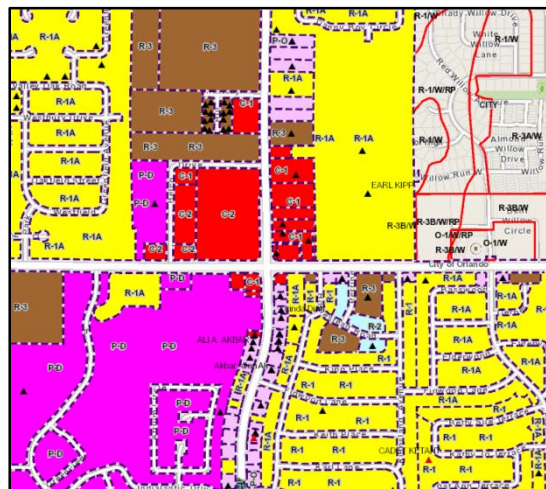
analysis. Currently there are many vacant, derelict, underused vacant lands and property, or out-of-code buildings that when coupled with new development could lead to the creation of the community's focal goal of a "town center" and destination branding. The

community has a strong walking / biking culture despite lack of dedicated path or signage, which is a simple and positive fix that lends itself to realistic first step actions. Rezoning, promoting a safer environment through the concept of “eyes on the street,” greenspaces, and better land uses can all



Image 3: Primary Site for the Future Town Center

lead towards the additional goal of increasing densities, which also works towards the Orange County’s longitudinal plan. Map 3, presented below, highlights the current land uses for the area, highlighting the limited uses that are available.



Map 3: Current land uses within the study area of Pine Hills. Source: Orange County GIS Zoning Map

URBAN DESIGN GOALS & STRATEGIES

When the team initially began looking at concepts for this project, we began with people oriented philosophies and goals. Many residents mentioned in their comments the need for more “eyes” and density. The team turned to the social activist Jane Jacobs’ works and some of the principles and ideas of New Urbanism that took root here in Florida first.

Jacobs (1978) says that for a street to successfully handle strangers, there must be three main qualities: 1) clear demarcation between public and private space, 2) “eyes” on the street by those that live and work there, and 3) large numbers of continuous users. Crime and the fear of crime are pervasive and endemic concerns in society and current systems are clearly failing to tackle both issues as it relates to the built environment. A key element of the current Pine Hill Neighborhood Improvement Plan 2015-2045 is implementing Crime Prevention Through Environmental Design (CPTED) standards. For this project, we will focus on three key principles of the CPTED which consist of natural surveillance, natural access control, and maintenance or management of the Pine Hills built environment. A major element that must be considered is how to effectively employ different crime prevention measures to help the community thrive. CPTED is an essential tool to use and it can be applied to both short and long-term goals.

Through the social tenants of New Urbanism, we also found guiding principles for our project. The Charter of New Urbanism outlines broad ideas such as the “reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts” which are “diverse in use and population...designed for the pedestrian and transit as well as the car...and design that celebrate[s] local history, climate, ecology, and building practice.” It requires a look at the holistic picture as “physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health...without a coherent and supportive framework.” (Congress for New Urbanism,2015).

The New Urbanism advocates for a variety of recreational areas that offer green space to residents and visitors. Such green spaces are typically maintained by the local government, but are capable of being outsourced to a private sector company. Common elements include playgrounds, gardens, hiking, running / fitness trails / paths, sports and recreational fields, or picnic areas based on the available budget and natural amenities of the area. Parks, both urban, rural, state, and national, will

only have their value increase “as we head towards a future destined for significant challenges,” populations are modeled to steadily rise with concurrent increases in demands for construction, water, fuel, food, and woody materials to fuel this growth.” (Centennial Parklands, 2015). These demands will continue to pressure natural ecosystems globally, both sources and sinks, that are already experiencing pressures from anthropogenic climate change. Parks allow for populations to experience and connect and protect the biodiversity of the planet while also serving as areas of recreational activity. Additionally, they strengthen multiple levels of the economy and act as catalyst for cultural activity in an area, which makes them essential as community pillars.

Another method to promote change is tactical urbanism. It allows for incremental, small-scale improvements and is used to test certain ideas before investing substantial funds to a project. It is great tool when redevelopment efforts are desired but the community lacks the funding to accomplish immediate, large goals, as is the situation in Pine Hills. The concept is useful in rallying the community behind redevelopment strategies as it allows for participatory planning and increased transparency. As New Urbanism has undertones of being considered “expensive”, this provides an alternate method to assist with the perceived costs.

Green spaces do not always have to be entirely green. Both hard and soft spaces are required, such a skate park. A skate park is defined as a purpose-built recreational environment made not only for skateboarding but includes BMX, scooter, wheelchair, and inline skating. Typically, they include half-pipes, quarter pipes, handrail, funboxes, banked ramps, bowls, and pools. Within urban design there are different ways to approach meeting the needs of skaters or populations who participate in “hazardous recreational activities” (HRA). The first focuses on providing designated areas, such as skate parks, that allow a safe delineated space for skating to occur, which is a popular method for most municipalities. However, the second, which is to create an urban landscape that allows for pedestrian walkability equity

to be shared with skaters. This can be done through transitioning public art or sculpture to having ramps and rails, etc. intertwined within the public space.

Based on these definitions and principles, the team went ahead with our design efforts and created a list of several recommendations for NID to consider in their pursuit of a “Town Center” for Pine Hills.

METHODOLOGY

Using our knowledge and research of Urban Design Goals and Strategies, the team came up with several recommendations that were sorted and filtered into short-term, as well as long-term goals and visions. The team identified five (5) topical areas of study that were relevant to the goals and strategies of both NID and Orange County. We determined urban design recommendations in 1) Crime Prevention, 2) Current and Future Land Use, 3) Parks, Trails, and Public Spaces, 4) Streetscaping and Transportation, and 5) Sustainability. The team recognized that large change is incremental in nature and the resources available to the Pine Hills community are limited. Of importance was the looming vote on a referendum to provide funding by taxing the businesses within the NID. The recommendations were therefore filtered into short-term and long-term recommendations with focus on those that did not require intensive capital (or had potential dedicated revenue funding sources) since the vote had not occurred as of the report’s publication.

URBAN DESIGN RECOMMENDATIONS

AREA 1: CRIME PREVENTION

There has been consistent development over the past decades with growing interest in the possibility of using the physical environment as a means of preventing and reducing criminal activity. It has long been recognized by the police that the physical setting of the crime is the key component. City data on crime rates can pinpoint specific areas where and when crimes typically occur. Pine Hills has been dubbed “Crime Hills” by the media over the past decade. Pine Hills struggles with the perception that crime plagues the community and it is not safe. Although Pine Hills might experience more crime than other areas in Orange County, crime throughout the community is steady decreasing. Recent data from the Orange County Sheriff’s Office shows an 8% decrease in overall criminal activity (Pine Hills Neighborhood, 2015). The reduction of crime is attributed to the Orange County Sheriff’s Office and other community partners like The Neighborhood Preservation and Revitalization Division and Pine Hills Neighborhood Improvement Council. This project utilizes three core principles from the CPTED which is illustrated in Table 1.

Table 1: CPTED principles and examples.

Natural Surveillance	Natural Access Control	Maintenance and Management
Windows (“Eyes on the Street”)	Streetscaping	Debris / Trash Removal and Control
Lighting Consistency and Placement	Signs	Sight Lines
Visibility	Entrances and Exits	Activity Generators

Many commentators have suggested that the “natural surveillance” of public spaces can have important social consequences such as preventing or deterring crime. A model of natural surveillance in public space which uses visibility, window, and lighting influences our design recommendations. The initial short-term goals of CPTED should be applied to the most commonly traffic areas in the Pine Hills

community which includes the park, the walking trail, and the Pine Hills Road, Silver Star Road, and SR 50 corridors. By installing street lighting in these areas, the community of Pine Hills can help deter crime and make the areas that are more commonly traveled safer for both residents and visitors. The areas such as the walking trail should be properly lighted and lighting posts should be placed at pedestrian level height to allow for adequate lighting coverage along the walkway. By improving the perception of increased natural surveillance, CPTED would allow these areas that are mostly travel by visitors and residents alike to have a reduction in the level of crime (National Crime Prevention Council, 2003). Focus can then be shifted to other areas such as residential communities and other corridors in the community.

Crime prevention methodology illustrates that a main focal point of community crime prevention is the placement and maintenance of windows on structures. Windows help provide a natural surveillance and allow for there to be “eyes on the street” constantly. Studies also indicates that the proper placement and design of windows, lighting, and landscaping increases the ability of those who care to observe intruders, as well as regular users, thus providing the opportunity to challenge inappropriate behavior. An important element that can be worked on in the short-term is to enhance and improve the landscaping of the built environment through tree planting and other green landscaping measures. Urban Design studies have shown that trees have a multitude of effects on the built environment which include helping to reduce crime, increase street safety, encourage walkability, act as buffer between traffic and pedestrians, and promote the natural environment (National Crime Prevention Council, 2003).

Natural access control involves using different techniques and methods to deny access to a crime target and to create a perception of risk to potential offenders. Research strongly supports that common areas of interaction for community engagement should be placed as centrally as possible to major circulation paths and remote areas should be avoided when possible (City of Virginia Beach,

2000). Our vision for Pine Hills is to help make the area safer. The location of focal areas such as the park, the walking trail, and the business district make



Image 4: Possible streetscaping solutions that add natural access control.

accomplishing this goal simple due to their proximity. The need for signage makes it easier for residents and visitors to locate areas and make it less likely that crime will occur due to the area being designated with a use. Properly designed entrances, exits, fencing, landscaping, and lighting can subtly direct both foot and vehicular traffic in ways that decreases criminal opportunities (National Crime Prevention Council, 2003).

The most important aspect of CPTED measure involves maintenance and management of the community. This is related to the neighborhood's sense of "pride of place" and territorial reinforcement. The more dilapidated an area, the more likely it is to attract unwanted activities (National Crime Prevention Council, 2003). Currently, there is a large quantity of undesirable debris that is strewn along the main corridor of



Image 5: Example of a way to add maintenance and management to the community.

Pine Hills. The placement of trash receptacles will make it easier to dispose of trash and will reduce the likelihood of trash being dumped on the street. The creation of activity generators, such as social events, will also help to keep crime down and work to strengthen pride in the community. Benches and seating areas should also be utilized for the entire plan. Pedestrian oriented activities should be encouraged in high and medium density areas. Increased density generally attracts more people, however may create



Image 6: Another example of maintenance and natural access control.

more anonymity and a sense of fear among residents. Overall, there are many positive effects to the implementation of CPTED (National Crime Prevention Council, 2015).

Table 2: Summary of Recommendations in Crime Prevention

Short-Term Recommendations

- Have local businesses remove window coverings to allow for open vision along the center corridor for CPTED visibility, i.e., “eyes on the street.”
 - Begin streetscaping and lighting consistency along main corridor.
 - Begin trash / debris removal and controlling removal of waste.
- Use community partnerships to begin activity generation for better social cohesion.

Long-Term Recommendations

- Review and alter placement of signage for local businesses.
- New street light placement along the main corridor for better visibility.
- All new building development would adhere to applied CPTED principles.

AREA 2: CURRENT AND FUTURE LAND USE

The site that will serve as the future site of the “Town Center” faces several land use and zoning challenges that present both unique opportunities and challenges to getting developers on board. The majority of the “Town Center” is zoned for Commercial or Office uses with some Institutional / Public Recreation to the west. The Silver Pines Shopping Center is zoned for Planned Development (PD). The site owner can choose to construct housing on the site. The owner has expressed interest in adding about one-hundred thirty (130) units of multi-family housing to be integrated with the future development of the site. As Pine Hills is one of the more densely populated places in the county, it provides an opportunity to adjust the housing density of the area. The relatively large swaths of commercial designation prevent mixed use from occurring in the “Town Center” area. Many of the residents requested mixed usage in the community meeting where feedback was solicited. The northeast corner’s fragmented ownership and decaying state makes redevelopment challenging, as does the southeast corner’s different sized lots and mostly single family home conversions. Almost the entirety of the NID is designated as brownfield development that could be eligible for brownfield incentives from the state of Florida.



Image 7: Short-term vision for land use development.

In order to achieve a vision for the “Town Center” as expressed by the residents, there are several land use and zoning recommendations that could be made for the short-term. Much of the development in the short-term will need to be incremental and include items such as streetscape

improvements, re-zoning of future development areas to the intended usage (such as mixed use, etc.), utilization of brownfield improvement incentives to lure developers for the long-term, incentives to get the planned development designation to be dropped, upgrade ageing infrastructure with renewal or

improvements, increase the housing density of the area, and find designated funding sources for these projects through some kind of taxation. These incremental improvements will be part of the preparatory long-term process and vision. Without them, any potential development may deviate from the vision of community and result in mismatched uses, looks, and viability.



Image 8: Long-term vision with mixed use development and landscaping mixes.

As the “Town Center” short-term improvements are implemented, the long-term vision of mixed use spaces with a consistent urban design, a mixture of primarily hardscapes and not

softscapes (due to the brownfield designation), higher quality services, and land uses that complement the needs of the residents can be better implemented. By broadening the zoning designations for the sites within the “Town Center,” the NID can provide greater flexibility for developers to create compelling and consistent designs. With Orange County attempting to reform the zoning code, there is an opportunity for the NID to work together with Orange County. With the shift to more of a form-based code, this provides a long-term opportunity to get the area designated for special zoning to suit the use cases for the future “Town Center”. This allows the incremental improvements in the short-term to occur in a reasonable time-frame preparing the land for its future usage.

Table 3: Summary of Recommendations in Land Use

Short-Term Recommendations	
<ul style="list-style-type: none"> • Add softscape and hardscape elements such as trees, public seating, and pathways. <ul style="list-style-type: none"> • Start brownfield redevelopment program. • Attract businesses and developers to the area through utilization of brownfield redevelopment incentives offered by state and federal government,. 	
Long-Term Recommendations	
<ul style="list-style-type: none"> • Reform the zoning code. • Foster implementation of mixed-use development and increase density. 	

AREA 3: PARKS, TRAILS & PUBLIC SPACES

Currently, the municipality of Pine Hills does not have adequate green space, especially considering their population size, and the space they do have is not properly highlighted with signage, which reduces awareness and use. Working with the Florida Greenway Project, Pine Hills is in the process of clearing and preparing a new site. Image 9 illustrates a proposed design based on the observed needs and gaps within the community while additionally factoring in affordability. The design focuses on intertwining with requirements of the Florida Greenway while also clarifying and working towards the needs of the community to have a place to unify them culturally and recreationally. The park will host a skate park, basketball court, recreational section (with a pavilion), and a path circling the park with a covered breezeway section.



Image 9: Concept Design for the Pine Hills Park in Conjunction with the Florida Greenway Project.

It is recommended that Pine Hills employ the practice of “tactical urbanism” when redesigning the Pine Hills Town Center and retention pond park to have incremental, functional solutions that can

make use of the limited available budget. The residents of Pine Hills greatly desire open space for community gatherings and recreation, but are concerned that the youth and transient members of society will use the space for loitering and antisocial behavior. Because of this concern, it is recommended that Pine Hills incorporate the concept of “defensive” urban architecture into the permanent furnishings of the proposed retention pond park. While we are not advocating for more extreme uses of



Image 10: Example of defensive architecture.

defensive architecture such as “anti-homeless spikes,” made notorious in South London (Petty, 2016), we feel that the concept would be advantageous in seating around the park. Benches modeled after defensive architecture ensure that the structure is unusable for any purpose other than sitting. This is made possible using armrests that prevent lying down, individual seats without backrests, and/or backrests that are slightly angled to make sitting for long periods of time uncomfortable (Quinn, 2014). The benches would function as intended, for people to enjoy the open space for recreation and community gathering activities, but deter those who seek to misuse the space. Table 4 illustrates the estimated costs of the design based on national sq. ft. estimates based on the dimensions in Image 4.

Table 4: Cost Estimation for Pine Hills Park.

Section	Cost per Sq. Ft.	Estimated Costs
Skate Park	40 sq. ft.	\$13,200
Basketball Court	6 sq. ft. (Concrete) 2 Goals (Avg. \$1,000)	\$1,728 (Concrete) \$4,000 - \$6,000 (Avg. Labor) \$6,728 - \$8,728 (Total)
Pathway	3,400 – 3,800 sq. ft.	\$14,611.40
Pavilion	20 ft. x 40 ft. (Steel Roof)	\$25,000 (Avg.)
Benches	\$300 per bench	\$3,000 (10 benches)
Miscellaneous Chain Link Fencing (Suggested to border Skate Park)	\$6.04 per 200 sq. ft.	\$1,208
Bulletin Board	\$400 per board	\$400
Picnic Tables	\$98 per table	\$588 (6 tables)
Total:		\$66,587 (High Estimation)

The goal is to utilize various funding avenues to implement the above design with the purpose of providing a cultural and recreational core green space for the residents of Pine Hills. To accomplish this, incremental planning must be used. It is recommended that development of the park occur in phases to assist with spreading out the cost and encourage continued development in the park.



Image 11: Breezeway concept idea.

- Phase 1: Lay down the concrete path circling the pond and provide a community bulletin board.
- Phase 2: Construct the basketball court and provide benches.
- Phase 3: Construct pavilion and supply with picnic tables.
- Phase 4: Construct skate park (suggested to border with fencing).
- Phase 5: Construct a breezeway. No cost estimation currently provided.

Barnett Park is the only public recreational facility in the area, and, although sufficient sidewalks exist to accommodate pedestrians, they do not have a protective buffer to make them safe. In addition, it is possible to find unused parking lots, disjointed recreational spaces throughout the neighborhood, and no amenities that enhance pedestrian activities. Another greenspace strategy to complement the construction of the park is a Pavement to Plaza program. This would serve as an immediate redesign tool for the Pine Hills Town Center on the corner of Silver Star Road and Pine Hills Road. This strategy would include the use of temporary materials such as folding chairs, standalone awnings, painted asphalt, artificial grass, inexpensive planters, tables, and outdoor movie theater equipment for use during community events. These temporary elements are inexpensive and would allow planners to test out certain designs and locations of possible long term additions. This program would transform the

underutilized plaza parking lot into open space where the community could hold gatherings, without having to wait for long term planning and financing (Lydon, 2012).

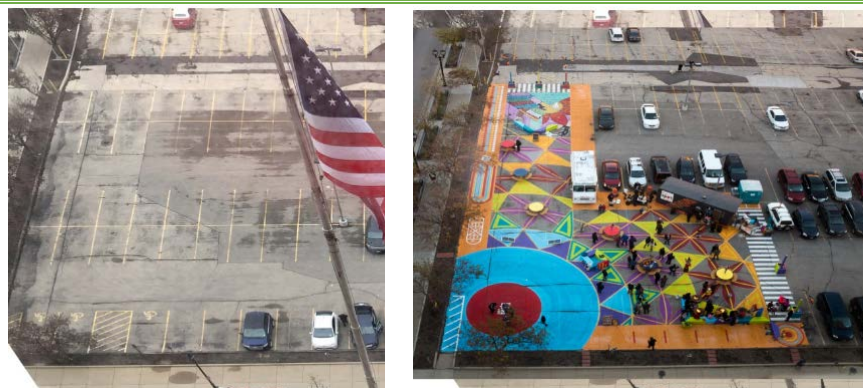


Image 12: A before and after view of a parking lot transformed by tactical urbanism.

By incorporating pinpointed interventions in Pine Hills, it would be possible to revitalize the neighborhood. Another Pavement to Plaza program

proposes to transform the parking lot of the Silver Pines Shopping Center into a flexible public space that allows to support a wide variety of activities where farmers' markets can be held. Farmers markets offer a powerful alternative for effectively reaching low-income communities. With relatively low startup costs, they allow fresh food options to enter communities where affordable food choices may not previously have existed (Project for Public Spaces, 2016). To complement the idea of utilizing the farmers' markets, there is an opportunity to brand the area as a food destination by including a food festival that can be celebrated once a month. This allows the NID to work with local artists to design the space and coordinate community-oriented activities. This also includes inviting community members to participate in the design and painting of the space to create a sense of belonging. Tactical urbanism can also be utilized with this

concept to serve as an incubator for new businesses, including locally-based food producers, food vendors, retailers and



Image 13: Two examples of possible Food Trail wayfinding.

community partners. This “food trail” can be offered as a complement to the existing pedestrian / biking trail, including matching signage and connections.

Table 4: Summary of Recommendations in Parks, Trails, and Public Spaces

Short-Term Recommendations
<ul style="list-style-type: none"> • Build the basic frame of the park including paths, benches, pavilions, picnic tables, community boards, and the basketball court. • Create a flexible public space where farmers’ markets and food festivals can be held to brand Pine Hills as a food destination. • Partner with local artists or students to develop the flexible public space including solutions such as painting the parking lot.
Long-Term Recommendations
<ul style="list-style-type: none"> • Construct the non-essential community activators of the skate park and breezeway. <ul style="list-style-type: none"> • Create a food train and include proper wayfinding for visitors.

RECOMMENDATION AREA: STREETSCAPING & TRANSPORTATION

There are several major thoroughfares running through the Pine Hills community including Colonial Drive and Silver Star Road (from east to west) and Pine Hills Road (from north to south). Several of them are in need of both infrastructure and streetscaping improvements in order to help increase the community’s image, promote a continued walking / biking culture, deter crime, and raise property values helping to lead to increased private investment. These strategies look mainly at the improving the large arterial roads to support the “Town Center”.

Traffic calming is focused on design and management strategies to balance the use of streets that have become automobile dominated into something that has better balance with other needs and functions. To work with Jacobs’ ideas of street life, traffic calming’s goal is to “preserve a sense of place...for people to work, stroll, look, gaze, meet, play, shop, and even work alongside cars – but not [be] dominated by them.” (Project for Public Spaces, 2016). Some of the traffic calming solutions are simple and done with minimal expense, while others require construction and dedicated funding. To that end, the recommendations focus their efforts on the developing office corridor along Pine Hills

Road. Many successful suburban conversions into more dense areas have usually started with the street to successfully set up the plots for development, as detailed by Image 14 below.



Image 14: A street conversion from traffic circulator to fully integrated street in several manageable phases. Source: Duany Plater-Zyberk & Co.

This same phased streetscaping, traffic calming, and development preparation could be done along Pine Hills Road to provide many benefits and alternatives in both the short-term and long-term. A

few projects along this trajectory are already complete along Pine Hills Road, such as having the presence of a bike lane, reducing the number of needed phases to rehabilitate the road. The first recommended phase would be the addition of a parallel parking along Pine Hills Road and a treescaping and lighting project that would begin adding immediate benefits. Parallel parking would further the goal of establishing the area as an office corridor by enabling developers and businesses to opt-out of parking requirements and providing a potential source of revenue for the area through parking meters and fines. It would also reduce the speed at which traffic is currently zooming through the corridor and the expanded space would bring the lots closer to the road, allowing for denser development and remove some of the parking space currently in front of many business that promotes loitering, improperly parked vehicles, and a vacant appearance to the community which increases the perception of crime and decay. The Project for Public Spaces recommends diagonal parking instead of parallel, as an alternate consideration. Such parking can create “40% more parking space” (Project for Public Spaces, 2016), increasing driver awareness, and is relatively simple and inexpensive the tree scaping and lighting project would provide a more welcoming atmosphere for both businesses and pedestrians. The feedback that was gained from the community mentioned lighting and treescaping improvements a lot, so they are seen both as a crime deterrent and an aesthetic improvement. The trees would be placed every certain number of parallel parking spaces to act as aesthetic buffers and traffic calming barriers forcing drivers to unconsciously slow down due to the narrowing appearance of the road.

The next phase would include a sidewalk project to make it more appealing to pedestrian and business usage through treatments such as cobblestone, borders, colors, etc. This will help delineate the areas where the development starts and those where the road begins. It will promote the corridor for pedestrian and street related activities by emphasizing its community priority through its differentiated aesthetics (City of Virginia Beach, 2000). Another recommendation would be the addition of a landscaped median to further traffic calm Pine Hills Road. This will prevent the usage of the “suicide

lane” for cutting through, making illegal turns, and passing. It will also eliminate the need for the front parking lot or driveway along many businesses since access will be limited to vehicles coming from one direction (City of Tallahassee, 2016).

These improvements could come in two distinct phases, but require a dedicated funding source to happen, which could come in the form of impact fees on businesses to improve the streetscaping and lighting of the area. Many of these recommendations made for Pine Hills Road could occur along the portions of Silver Star Road closest to the “Town Center” to create a unified look to the area. It would provide the much-needed options for pedestrians and cyclists to utilize (and feel safer being able to do so).

Being just a few miles from downtown Orlando, many residents of Pine Hills make the commute for both work and play activities. The neighborhood features the Pine Hills Trail, a multi-purpose trail making up approximately 8 miles of Orange County’s Trails Master Plan (Orange County Government, 2012). Improvements of the Pine Hills Trail are set to be complete by January 2018 and will offer even more opportunities for transportation and recreation in Pine Hills (Florida Department of Transportation, 2016). Because of the thriving cycling community and amenities Pine Hills offers, it is recommended that, as a long-term goal, the neighborhood incorporate a bike share program to encourage further use by residents and visitors of the greater Orlando area.

The City of Orlando has a successful bike share partnership with Social Bicycles, branded “Juice.” It is recommended that Orange County attempt to negotiate a partnership with the City of Orlando to allow Juice to extend to the Pine Hills neighborhood. The nearest Juice station to Pine Hills is located at College Park South on 2100 Edgewater Drive, approximately 4 miles away from Pine Hills Town Center (Google, n.d.). Currently, Juice has over 30 locations in the city of Orlando and surrounding

neighborhoods (Orlando Bike Share, 2016) so it is likely the city of Orlando will be receptive to partnering with Orange County’s Pine Hills.



Image 15: A Juice bike station around Downtown Orlando.

If negotiations are successful, it is recommended that the first phase include a Juice station at the proposed retention pond park as the location presents a few desirable features. The Pine Hills Trail cuts directly through the park, which offers a convenient starting and stopping point for

those using Juice bicycles. Renovations of Pine Hills Trail includes a pedestrian crosswalk on Silver Star Road at the pond, making this location safe for those traveling to and from the station (Orange County Government, 2012). In addition, a new LYNX station is potentially being considered at this site, so a bike share station would function as a “last mile” connector to get LYNX transit users closer to their final destinations. It is recognized that for the bike share station to function as a “last mile” connector at this location, additional stations would be needed in longer term planning efforts. In the short-term, and in relation to the NID, it is recommended that the bike share station at the retention pond park be the sole test station. If successful, it is recommended that additional bike share stations be placed throughout Pine Hills neighborhood as seen fit.

Table 4: Summary of Recommendations in Streetscaping and Transportation

Short-Term Recommendations
<ul style="list-style-type: none"> • Treescaping, parallel parking, and lighting improvement project to improve the street life and traffic calming along Pine Hills Road, potentially using impact fees for funding. <ul style="list-style-type: none"> • Bike share program test sites for local usage.
Long-Term Recommendations
<ul style="list-style-type: none"> • Sidewalk renovation project to establish growth areas and designate it as an area for street activity. Development plots would be outlined. • Bike share program partnership and expansion to connect Pine Hills to the Downtown areas.

RECOMMENDATION AREA: SUSTAINABILITY

Orange County has made a strong commitment to sustainability in developing its 2013 Orange County's Sustainability Plan. "Promoting vibrant, livable communities, whether rural or urban, is what good government does – government should make it possible to develop places where people want to live and businesses want to establish roots" (Orange County Government, 2014). In following this vision for Orange County, Pine Hills is in optimal place to incorporate sustainable practices as it begins to redevelop areas within the region.

Like Orange County's efforts in creating its sustainability plan, it is recommended that Pine Hills develop an extension of the county's sustainability plan. This will allow Pine Hills to target area specific goals, focusing on incorporating sustainability efforts into the area, as it begins to redevelop. In creating this area specific plan, the community would need to establish a community committee composed of residents, NID representatives, and business owners, which would allow for equal representation from all aspects of the community. After the establishment of this committee, it would be recommended that it be tasked with establishing a mission and vision for sustainability in Pine Hills, its sustainability brand, and partnerships. Once the area specific targets were identified, partnerships should be developed to ensure these were attainable and accomplished in a reasonable amount of time. Sustainability efforts could also be easily incorporated into other existing efforts like transportation, streetscaping, crime prevention, etc., meaning it would be easier to incorporate these without having to exhaust many community resources. Establishing such a plan would allow Pine Hills to have a clear picture of the future of Pine Hills. Having a clear vision for the areas sustainability efforts would allow Pine Hills to explore possible funding options for helping accomplish these, thus relieving a burden on other funding sources.

Open green spaces are also serve as another opportunity for the "Town Center" of Pine Hills. These spaces attract individuals, meaning they can be used for multiple purposes. A vital use can be a

community gathering center for local events. Therefore, our group is recommending the incorporation of these spaces in the Pine Hills “Town Center” area. These green open spaces could be introduced in



Image 16: An example of a multipurpose green space.

phases, as to not place a burden on the neighborhood to create these spaces in a short amount of time. In its initial phase, the community could create temporary green spaces to determine the specific design needs of these spaces, to accommodate high usage cases like community events or low usage cases like recreational activities. Once the specific needs for which these spaces would be used, more a long-term phase would incorporate these into the redevelopment plans of the area. In both phases, it is recommended these spaces incorporate Florida native plants throughout the spaces and along walkways, decreasing the need for watering. These spaces in the central portion of the “Town Center” and walkways through this area would also encourage higher pedestrian traffic. This is beneficial in that it serves as a way for local businesses and eateries in the area to capture individuals walking by. These spaces would also allow Pine Hills to create an easily identifiable town center, which would greatly compliment the nearby retention pond park.



Image 17: An example of a bike sharing program station.

Bike share programs have been successful in other areas of Orange County and the City of Orlando (Orlando Bike Share, 2016). Having an infrastructure for these throughout the county places Pine Hills in an optimal place to incorporate these into the “Town Center” area. Bikes offer an

alternative mode of transportation for individuals traveling along Pine Hills Road and Silver Star Road.

This would be especially beneficial, as it would help in reducing the number of cars on Pine Hills Road and Silver Star Road, thus relieving some of the burden placed on these two roads. Working with partners like the Social Bikes, more commonly branded as Juice Bikes, would allow for an extension of an existing network within the city. This prevents Pine Hills from having to establish its own network of bicycles, costing more money and effort. The proposed initial location for these would be within the “Town Center” region, by the retention pond park being incorporated (Orlando Bike Share,2016). Over time, this program could be expanded to different areas within Pine Hills. As the program continued to grow, connecting these routes within Pine Hills to those within the City of Orlando or other commonly traveled routes in the surrounding areas could be an option.

In helping build on the existing community bond that exists in the area, it is recommended to establish a Pine Hills Food Donation Program or work with an existing food donation organization. The purpose of this program would be to reduce food waste from eateries. By participating this program, some businesses would also qualify for tax benefits (Food Donation Connection, 2015). Given the proximity from the “Town Center” to the Maynard Evans High School, the program would be beneficial to students wanting to obtain community service hours. The community would be able to work with organizations like the Second Harvest Food Bank of Central Florida to allow businesses in the Pine Hills “Town Center” area to become participants. This would serve as a benefit to the community and to the business owners, while also reducing food waste. This is an addition to relieving some of the burden placed on waste management systems to dispose of food that could be donated.

Table 5: Summary of Recommendations in Sustainability

Short-Term Recommendations
<ul style="list-style-type: none"> • Establish walkways that include Florida native plants. • Create open green spaces that will also serve as community gathering places. <ul style="list-style-type: none"> • Initiate a bike share program and identify suitable locations. • Establish a Pine Hills Sustainability Plan and set a mission and initial goals for the community. • Identify local eateries to participate in a food donation program and initiate partnerships with county food donation programs.

Long-Term Recommendations

- Incorporate green spaces and walkways within the redevelopment plan of the area.
- Grow service area of bike share program to include different intersections with the purpose of connecting Pine Hills to Downtown Orlando.
- Complete the Pine Hills Sustainability Plan and create a campaign, in addition to starting to meet goals and metrics proposed.
- Grow business food donation program to include more businesses to service a larger area within the community.

CONCLUSIONS

The task of creating a redevelopment plan for the culturally diverse town center of Pine Hills provided us with many insights into the planning process and the community. After careful examination of past planning efforts and listening to the resident’s concerns, desires, and visions for the future, we developed an incremental approach to development of the Pine Hills “Town Center”. Our redesign recommendations aim to abolish the negative perception of the Pine Hills community, to encourage the continued cycling and pedestrian culture that already exist within it, and help the community prosper in a sustainable way. Our team suggests an incremental approach to redevelopment by setting short-term and long-term design goals, as well as presenting low risk, tactical urbanism options, due to financial barriers within Pine Hills. By implementing short-term, tactical urbanism methods, the neighborhood of Pine Hills can immediately begin to see positive changes within the community and help set a path for long-term redesign.

Several of the most important take-aways from the recommendations include that 1) there exist multiple opportunities for the development of a “Town Center” due to the vacant, expansive lots and a strongly involved multicultural community, 2) improvements will assist Pine Hills in their continuing efforts to develop and promote the community’s unique branding, and 3) incremental development

provides a step-by-step process to achieve the community's long-term goals without straining limited resources.

We would like to thank those involved with the Pine Hills NID and Orange County for giving us the opportunity to engage in a real world urban design exercise. Many people within these departments have generously given us their valuable time to help lay a foundation for our project and make sure we understood the needs of our "client." We hope our recommendations prove useful in the redesign efforts of the Pine Hills NID and thank everyone involved for the opportunity to contribute. The culturally diverse community of Pine Hills certainly does have one bright future.

APPENDIX OF ADDITIONAL IMAGES



Appendix Image 1: Examples of tactical urbanism in use at a plaza in California for market purposes.



Appendix Image 2: Another example of tactical urbanism converting a plaza to a movie theater.



Appendix Image 3: Different surface treatments that can be applied around trail crossings to promote wayfinding.



Appendix Image 4: An example of a multipurpose green space.

REFERENCES

- Centennial Parklands. (2015). *What value do parks provide for the community?* :Centennial Parklands Blog [Web log post]. Retrieved from <http://blog.centennialparklands.com.au/what-value-do-parks-provide/>
- City of Tallahassee. (2016). *Trees in urban design*. Retrieved from <https://www.talgov.com/planning/treesinurbandesign.aspx>
- City of Virginia Beach. (2000). *Crime prevention through environmental design: General guidelines for designing safer communities*. Virginia Beach, VA: City of Virginia Beach Municipal Center.
- Congress for New Urbanism. (2015). *The charter of the new urbanism*. Retrieved from <https://www.cnu.org/who-we-are/charter-new-urbanism>
- Florida Department of Transportation. (2016). *Improvement program public works engineering and highway construction*. (Report No. November 2016). Orange County, FL: Florida Department of Transportation. Retrieved from <http://www.orangecountyfl.net/Portals/0/Library/Traffic-Transportation/docsCurrent%20Monthly%20Status%20Report.pdf>
- Food Donation Connection. (2015). *United States Tax Benefits*. Retrieved from <http://www.foodtodonate.com/>
- Google. (n.d.). [Google Maps directions for driving from 2100 Edgewater, Orlando, FL, to Maynard Evans High School, Pine Hills, FL]. Retrieved November 29, 2016, from <https://goo.gl/maps/FLV1jPUdbN52>
- Lydon, M. (2012). *Tactical urbanism 2: Short term action, long term change*. New York,, NY: Street Plans Collaborative. Retrieved from https://issuu.com/streetplanscollaborative/docs/tactical_urbanism_vol_2_final

National Crime Prevention Council. (2003). *Crime prevention through environmental design: Guidebook*.

Singapore: National Crime Prevention Council. Retrieved from

[file:///C:/Users/UCF/Downloads/NCPC%20\(2\).pdf](file:///C:/Users/UCF/Downloads/NCPC%20(2).pdf)

Orlando Bike Share. (2016). *FAQ: juice*. Retrieved from <https://orlando.socialbicycles.com/#how-it-works>

Orange County Government. (2014). *Sustainable Orange county plan: Our home for life*. Retrieved from <http://orangecountyfl.net/portals/0/resource%20library/All%20Meeting%20Minutes/Sustainability%20Committee/Final%20Plan/SustainabilityPlanFinal05152014.pdf>

Orange County Government. (2012). *Trails Master Plan*. Parks and Recreation Division. Retrieved from <http://www.orangecountyfl.net/Portals/0/Library/Culture-Recreation/docs/Orange%20County%20Trails%20Master%20Plan.pdf>

Petty, J. (2016). *The London spikes controversy: Homelessness, urban securitization and the question of 'hostile architecture'*. *International Journal for Crime, Justice and Social Democracy* 5(1): 67-81.
DOI: 10.5204/ijcjsd.v5i1.286

Pine Hills Neighborhood Improvement District. (2015). *2015-2045 Neighborhood improvement plan: Many cultures, one bright future!* (Report No. 2015). Pine Hills, FL: Pine Hills Neighborhood Improvement District.

Projects for Public Spaces. (2009). *Traffic calming 101*. Retrieved from <http://www.pps.org/reference/livememtraffic/>

Quinn, B. (2014). *How hostile architecture keeps the unwanted away: New urban design aims to influence public behavior. The Guardian*, 10. Retrieved from <https://www.theguardian.com/artanddesign/2014/jun/13/anti-homeless-spikes-hostile-architecture>