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# MASTER PLAN

## Phase II

09.10.2013





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## Executive Summary

In early 2013, the City of Hattiesburg made an important decision; it authorized the development of a future land use plan for Twin Forks Rising (TFR). This plan will provide the foundation for community-founded and meaningful improvements in Ward 2.

The plan is a result of a nine-month collaboration with community leaders, elected and appointed officials, and citizens of TFR. The planning team led a series of meetings of the working group, a committee of citizens who provided invaluable context, content and input as only the residents of TFR can. The working group developed this plan.

In addition to the working group, two townhall meetings were held, during which the general public was invited to listen, participate, and assist in the development of the plan. More than 300 people participated in the town hall meetings.

After listening to the aspirations and desires of resi-

dents and coming to grips with the challenges that face TFR, the planning team developed a series of future land use options. A consensus was achieved and the preferred plan was agreed to by both the working group and the general public.

The preferred plan is purposefully ambitious, creating a series of water features to address both the real and the perceived threat of flooding in TFR. These features, based on the Dutch philosophy of embracing flood waters, incorporate two important redevelopment catalysts: 1) to serve as a basis of flood zone revisions and 2) to provide redevelopment opportunities based on a public amenity.

Another important element of the plan is that it provides options for improved and enhanced transportation and livability on an east and west basis in TFR. Chain Park is a great asset for TFR but getting to it, except by car, is not easy or safe. The plan calls for the City to continue to implement the Complete Streets Policy on east-west arteries so that residents

will have appropriate access to Chain Park, potentially one of TFR's greatest amenities.

Yet another important element of the plan is to embrace William Carey University (WCU), located in the southern portion of TFR. WCU is a growing institution and one that can act as a serious investor and economic engine. The plan calls for educational enterprise zones around the university to encourage organic growth in TFR and expansion of WCU.

The TFR plan calls also for the redevelopment of the quality of life within TFR. A key feature of the plan is the creation of a community development corporation (CDC) to guide future growth and finance its vision. The CDC invests in the community first, and then reinvests dollars earned on subsequent projects in the district. This reinvestment provides continuous return, creating a loop of prosperity.

Lastly and perhaps most importantly, the plan calls for the development of human capital. Peo-

ple, not places, are the future of TFR. People live, work, and raise families here. People must be the ultimate foundation, because their actions to invest, move, live, and work will make or break the future of TFR. They must have the skills and opportunities for meaningful jobs as redevelopment and new investment occurs. The CDC, through both financial incentives and lending decisions, can help provide the needed opportunities.

The people of Twin Forks Rising can be proud of its past. The challenge is to make the most of TFR's assets and to implement this ambitious plan for its future. TFR will realize its potential as a great community through the persistence and the efforts of its people.



## Chapter One

### Introduction

The City of Hattiesburg has a rich, diverse, and proud history. As the City has prospered over time it has grown into a series of wards. Ward 2, also known as Twin Forks due to the fork created by the meeting of the Bouie and Leaf Rivers, encompasses approximately 4,220 acres and 8,352 people.

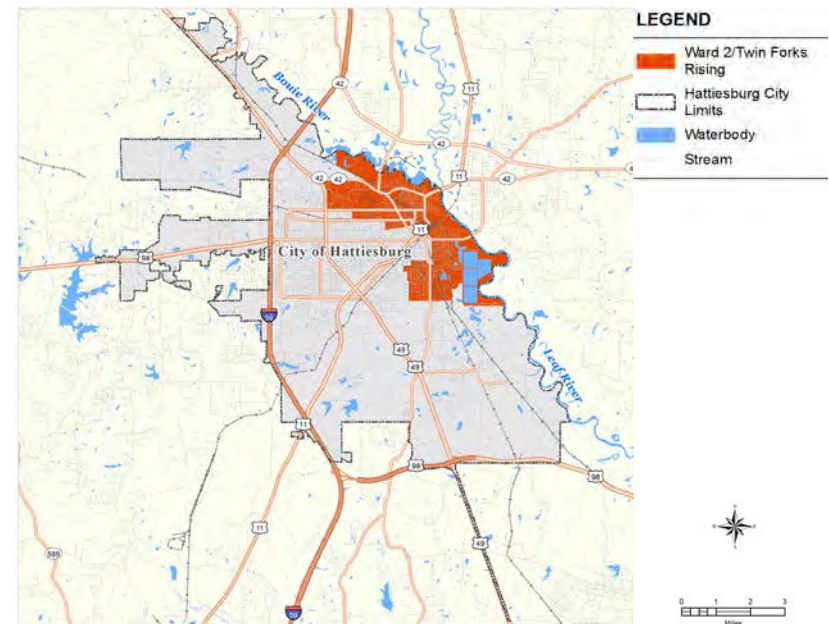
This project, known as Twin Forks Rising (TFR), is an effort to map out a prosperous future, one that creates opportunity for all and provides a blueprint for positive change for Ward 2. In general terms, the limits of the study mimic the current political lines of Ward 2.

The City retained the services of an outside planning team to assist in the development of the TFR plan. The team is led by Thompson Engineering, partnered with Billes Partners. This professional

team led the process, and with significant input from residents and stakeholders helped to formulate strategies and preferences.

In addition to pure planning the project also includes an analysis of infrastructure in Ward 2; this companion effort is to merge the future plan with infrastructure upgrades for efficient implementation of the plan. Furthermore, the infrastructure components are broken down into segments including construction cost estimates. This level of detail will make it easier for the City to budget for infrastructure projects each year that implement the plan and make the future vision a reality.

#### Location Map









## Chapter Two

### *Planning Process*

Planning for the future is as much art as it is science. For any planning project to be embraced by the public and local leaders the process must be public, participatory, and transparent. This philosophy was applied to the TFR Master Plan.

The process started with the appointment of a 13 member working group. This group would act as a community resource to identify issues, solidify goals and objectives, provide input on draft plans and ultimately vote to endorse the preferred plan.

The planning team first undertook a listening phase. This portion of the project included understanding the history of Ward 2, how it got to where it is, and a photographic survey of the Ward. The pictures were divided into “likes”, “dislikes”, and “unsure.” This process broke through communication barriers and served to start conversation on both positives and negatives of Ward 2.

The overall planning process with the working group was punctuated by strategic Town Hall meetings. The Town Hall meetings were held at the Depot in an effort to garner participation and provide a forum for citizens of Ward 2 to offer input, critiques, and comments, and ultimately to choose the preferred plan. The first Town Hall meeting on March 5, 2013 gathered approximately 180 people. The second Town Hall meeting on June 13, 2013 had approximately 80 attendees.

The planning process required the team to develop three future land use alternatives for consideration. The team defined these options as easy, moderate and ambitious (see Appendix B). The three options were presented to members of the working group who provided feedback that guided the preferred plan. The preferred plan presented later in this document takes the best aspects of the moderate and ambitious alternatives and blends them together.



Ultimately, the planning process concludes with the “formal” adoption of the plan by the City Council. Once adoption takes place, the effort shifts to implementation; the portion of the plan that is the most difficult, yet yields the greatest rewards. This plan focuses on the importance of implementation by spelling out achievable, manageable projects.





## Chapter Three

### Goals and Strategies

#### Chapter 3. Goals and Strategies

Goals are general statements that describe how community residents want Twin Forks Rising to evolve in the future. Strategies are statements describing the steps needed to achieve these goals. As discussed in the previous chapter, the goals and strategies for Twin Forks Rising were developed in the Phase I stage of the master planning process. In Phase II, these statements were further validated through the results of a voting exercise at the first Town Hall meeting and discussions with the working group. (See Appendix A.)

#### Goal 1: Devise flood control strategies that would encourage growth and ensure a safe and stable community

- Improve the city's flood mitigation system to minimize risk to the community
- Educate residents on current floodplain regu-

- lations and provide assistance for compliance activities
- Provide better maintenance of existing storm sewer network
- Encourage site surface treatment and drainage designs that allow storm water infiltration versus storm water runoff

#### Goal 2: Upgrade Infrastructure

- Invest in water and sewer services, storm sewers, curbs and gutters, streets, sidewalks and bikeways and streetlights.

#### Goal 3: Promote development in Twin Forks Rising to improve the quality of life of residents and attract new residents

- Revise the City's Land Development Code to align with Twin Forks Rising Master Plan
- Form a community development corporation to lead the master plan implementation activ-

ities and be the focal point for information and assistance for residents, developers and interested parties

- Conduct a marketing drive and develop incentive packages to attract new investment and residents
- Monitor development in Twin Fork Rising to ensure compliance with the Master Plan
- Encourage new small scale enterprises and support the growth of existing local businesses to increase economic development opportunities
- Promote light industrial activities in designated areas to increase job opportunities

#### Goal 4: Improve housing conditions and opportunities for existing and new residents

- Work with enforcement agencies to report violations and enforce building standards to remove and replace substandard housing
- Assist home improvement efforts by establishing need-based home improvement funds, and

working with local banks and credit unions to increase the availability of low or no interest loans for home repairs, renovations and additions

- Develop affordable housing guidelines for new construction and encourage diversity in housing types relative to age of occupant, household size and price point
- Increase density around commercial and transportation hubs and areas of historic significance

**Goal 5: Provide community support and services to increase job opportunities and further enhance residents' quality of life.**

- Provide family services such as parenting skills classes, childcare and after school and summer programs
- Offer adult education programs dealing with increasing job skills, GED training, money management classes, homeownership workshops and healthy cooking classes
- Promote neighborhood associations, foster social networking in neighborhoods and promote affiliation between organizations
- Provide community space for recreation and meetings
- Promote healthy lifestyles through increasing the availability of fresh foods, providing healthy cooking classes and promoting physical exercise for adults and children
- Invest in parks and recreation facilities, community centers, public spaces and walking trails

**Goal 6: Promote safety and security of residents in neighborhoods**

- Remove dilapidated and vacant structures promptly to discourage use by criminal elements
- Upgrade streetscapes with sidewalks and streetlights to encourage more pedestrian activity and eyes on the street
- Increase police presence
- Promote Neighborhood Watch initiatives
- Utilize neighborhood associations for communicating news, events, concerns and announcements
- Design and implement children's playgrounds that are safe
- Provide adequate separation from railroad tracks and reduce on-grade crossing points.

**Goal 7: Encourage sustainable (green) design and lifestyles to reduce maintenance costs and promote a healthy environment**

- Provide opportunities to live, work and play within Ward 2
- Promote sustainable design and construction methods, especially in the area of efficient energy consumption to achieve low utility bills
- Reuse instead of rebuild where possible
- Provide better public transportation and enhance the use of existing services by increasing housing density around stops and nodes
- Promote community gardens



## Chapter Four

### *Character of Ward 2: Physical, Social and Economic*

#### 4.1 Development History and Historic Resources

##### History

The area encompassed by the Twin Forks Rising district, also known as Ward 2 of the City of Hattiesburg, includes a variety of neighborhoods and commercial areas that represent broad and diverse patterns of development in the Hub City. The midpoint of the district is represented by East Hardy Street, which radiates from the eastern and western boundaries of the Central Business District. The area directly north of East Hardy Street consists of sparse neighborhoods that now exist in flood-prone areas. Farther north, along the northern boundary of the district, is Highway 42, a major east/west corridor that provides access to the north terminus of Mobile Street. Mobile Street is a north/south corridor originally home to a thriving African-American commercial district, as well as a mix of residential properties. Similarly, Bouie Street represents a north/south corridor that is more industrial in nature but historically



*African-American-owned Drug Store on Mobile Street, c1950*

had a modest number of residences. Both Mobile Street and Bouie Street connect to the northeast quadrant of the Central Business District.

The earliest pockets of development within the TFR District are in close proximity to the Central Business

District, which is now listed on the National Register of Historic Places. Hattiesburg's railroad and timber industry spurred aggressive development during the late eighteenth and early nineteenth centuries. As commerce and industry grew, so did the need for additional neighborhoods. The areas directly north and south of the downtown represent the neighborhoods with the highest density of residences, due to their proximity to the downtown and other commercial corridors.

William Carey University, founded in 1911 as Mississippi Woman's College, also drew more development to the south, especially along Edwards Street, James Street, and Dabbs Street.

The north portion of the TFR District contains a primarily residential section of North Main Street as well as a group of neighborhoods that developed around the Hercules Refinery, a major industry that employed nearly 1,000 workers at its peak. The northwest portion of the District was developed



*An early postcard view of Mississippi Woman's College (known today as William Carey University)*

primarily post-World War II as traditional neighborhoods gave way to suburbs. Grace Christian School was constructed on West 7th Street to serve pupils in this area of town, which lies due east of U.S. Hwy. 49 and due north of West 4th Street.

### **Architectural Assessment**

The buildings in the district vary widely, due to the broad patterns of development. In the core of the district, one will find primarily residential structures, small- to modest-sized, single-family units. The commercial buildings are a mixture of traditional row-style buildings with facades at the sidewalk line, and smaller, stand-alone buildings constructed mostly of sheet metal or brick. The exception is a handful of businesses that operate from buildings that were originally constructed as single-family residential buildings.

The prominent architectural style in the residential areas can be best described as “Minimal Traditional.”

There are also examples of the Craftsman Style as well as some Folk Victorian influences. Along North Main Street, several two-story residences exhibit high style architecture, such as Neoclassical Revival and Queen Anne. The post-WWII neighborhoods in the northwest area of the district are a mixture of Minimal Traditional cottages, Ranch Style houses, and modern vernacular designs. The commercial buildings in this area are sparse and tend to be stand-alone, one-story brick or sheet metal structures.

There are also a number of church buildings in the district, most of which exhibit Gothic or Neoclassical influences. The schools in the district also represent a variety of styles, due to their varying construction dates. The old Hattiesburg High School, on North Main Street, is one of the only examples of Jacobethan Revival in the state. Jefferson Davis School on West 7th Street is a good example of Spanish Eclectic architecture. The E. 6th Street U.S.O. building, now known as the African-American Military History Museum, is a vernacular designed building that holds a particular significance, not just for Hattiesburg but also on a nationwide level. It is the only African-American U.S.O. building remaining in the United States.

Overall, there is a moderately high level of architectural and historic integrity throughout the Twin Forks Rising District. The district contains many important resources that not only tell the story of the Hub City's growth and development over 120 years, but also serve to retain Hattiesburg's unique architectural and cultural identity. The most evident preservation need is in housing maintenance



*Residence at 634 Mobile St.*

and rehabilitation. Also, following the damage inflicted by the tornado of February 10, 2013, a thorough evaluation of commercial districts and a plan for their preservation would be prudent.

### **Historic Districts, Requirements and Incentives**

Twin Forks Rising contains portions of three locally-designated historic districts, referred to as “conservation districts”: North Main Street Historic District, the Newman-Buschman Historic District and the Hattiesburg Historic District. It also includes portions of the Hub City Historic District, Hattiesburg Historic Neighborhood District, and the North Main Historic District, all listed on the National Register of Historic Places.

All building owners holding real property within the boundaries of a designated conservation district are subject to the following requirements:

- Obtain a Letter of Compliance from the City of Hattiesburg Historic Preservation Planning Office if the proposed work is routine in nature





*Residence at 215 Mobile St.*

and involves repair without change in design, form, materials and color. This process does not require a public hearing.

- Obtain a Certificate of Appropriateness from the City of Hattiesburg Historic Preservation Planning Office if the proposed work involves making any exterior alterations to any building features or site elements, including removal of trees over 6" in diameter.

The City of Hattiesburg, through City ordinance (Ord. 2193), has created the Hattiesburg Historic Conservation Commission (HHCC) to oversee the "conservation districts." The HHCC is a 9-member board of citizen volunteers who are appointed by the Mayor, with approval of the City Council, to guide the historic preservation process. The Commission meets monthly on the second Wednesday to review applications for Certificates of Appropriateness. The review process is guided by the Historic Conservation Ordinance and the Hattiesburg Design Guidelines Manual, based on the U.S. De-



*E. 6th Street U.S.O. Building  
(now known as the African-American Military History Museum)*

partment of the Interior Standards for Rehabilitation for Historic Preservation Projects. However, the HHCC does not maintain review over the National Register Districts within the City.

Properties listed on the National Register, either individually or as contributing elements of a district, do not have the level of review and oversight found in local historic districts. However, under certain circumstances, such as federally-funded projects, these properties will undergo review through Sec. 106 of the National Preservation Act. National Register-listed properties are also eligible for federal and state tax incentives if the owners wish to offset the cost of building rehabilitation in a manner that maintains the historic integrity of the property. While federal tax credits apply to structures used for business only, state tax credits are available for both business and residential properties. These incentives may total up to 45% of the total cost of construction. The proposed scope of work has to be



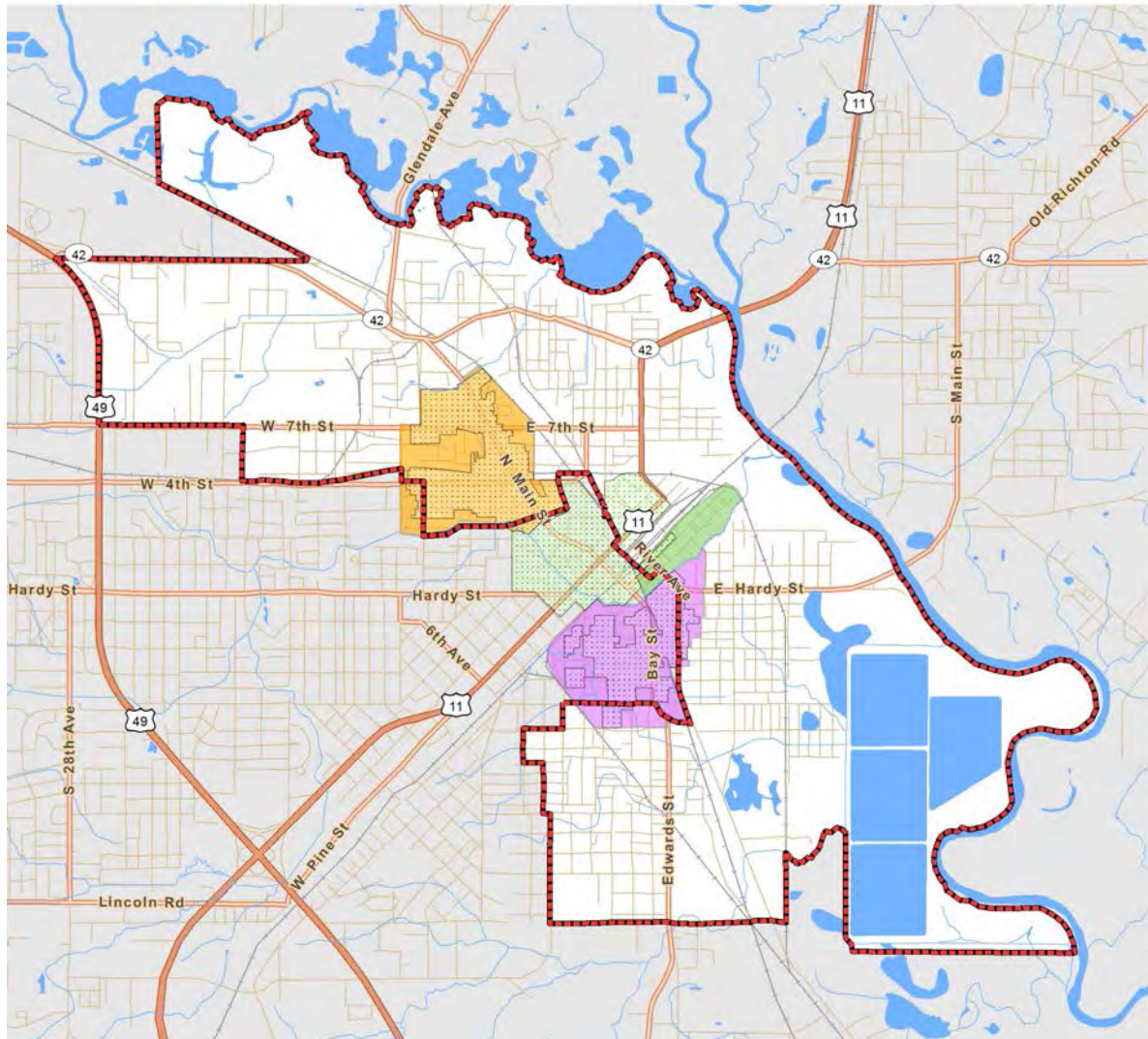
*Recently Restored Hattiesburg Depot, built in 1910 in the Italian Renaissance style*

approved by National Park Service and the Historic Preservation Division of the Mississippi Department of Archives and History.






*Church at 601 Pine St.*

## Historic Districts






### LEGEND

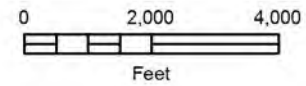
#### National Register Historic Districts (NRD)

-  Hattiesburg NRD
-  Hub City NRD
-  North Main NRD

#### Local Historic Districts (HD)

-  Hattiesburg HD
-  Newman-Buschman HD
-  North Main HD

-  Ward 2
-  Waterbody
-  Stream





## 4.2 Population and Economy

The TFR population is currently estimated to be 8,352 (City of Hattiesburg GIS Department, 2013). This population is less than it could be for a variety of reasons. For example, the 2010 US Census Block information for TFR indicates there are 740 vacant housing units. This means that the population of TFR could increase by 1,480 people just by occupying the current vacant units. This would bring the population total to 9,832, which does not include vacant lots now owned by the City or in private ownership. While no trustworthy dataset could be found to support an ultimate population including vacant lots, it is well within reason to expect that a fully occupied and utilized TFR district could easily accommodate a total population in excess of 11,000 people.

A growing or stable population is important for TFR. It is important because it contributes to the sense of place and vitality and because it represents prosperity and opportunity. It is also important because it contributes to the basic elements of TFR - successful and vibrant neighborhoods that are safe and pleasant places to live.

The decline in population in TFR over time has resulted in serious challenges. This plan is a tool to reinvigorate TFR and attract new people and new investment. In large part this planning document and its subsequent implementation is about repopulating TFR. It is about a return to prosperity and vitality.

### Economy

The economic conditions of TFR can be characterized as challenging. The per capita income in TFR is \$10,770, 40% below the City of Hattiesburg figure of \$18,361.

The existing commercial community in TFR generally can be considered light industrial. Industrial supply, contractors and similar types of businesses are predominant.

There are numerous locally owned retail outlets, but there is a notable lack of professional services, national retail and grocery outlets. Additional information can be found in Phase 1 of the TFR Master Plan.

The current economic conditions in TFR are derived from two primary categories:

1. Employment
2. Property values

Creating meaningful employment opportunities for the residents of TFR is a critical piece of the future puzzle. Currently, unemployment of TFR is approximately 77%, roughly 650 people. This is a high number and can be attributed to many factors. The main point, however, is that employment must be addressed for the future of TFR. Employment opportunities can be the result of outside investments but can also be organically grown from within TFR. While it is clear that many residents would prefer the organically grown approach, outside investment is welcomed.

Property values in TFR are also a significant issue.

Low property values are a reflection of the existing housing stock and desirability of the district. Depressed property values reinforce a broader perception of TFR as an undesirable place for investment. Property values are based on many factors, including physical characteristics, location, appearance, maintenance and supply and demand. In order to increase property values, the equation must be changed. By taking one piece of the value proposition and redeveloping it for the better, the values can change. Fundamentally, people and entrepreneurs must perceive TFR as a desirable place. That will require marketing and advertising, in addition to physical changes to property and infrastructure. TFR must position itself to compete for business dollars.





## Chapter Five

### *The Natural Environment*

#### 5.1 Floodplains and Waterways

The City of Hattiesburg has two rivers, the Bouie and Leaf, that form its northern and eastern city limits. These two rivers also form the boundaries of Twin Forks Rising, i.e. Ward 2. In fact, the name Twin Forks Rising (TFR) derives from the historic name of the first settlement of the City of Hattiesburg at the confluence of the two rivers. These rivers are very scenic and serve as a popular recreational destination. They also serve as part of the discharge system for the city's wastewater treatment system.

In addition to these two major water bodies, TFR is traversed by numerous creeks, such as Burketts Creek, Gordon's Creek and Greens Creek. The creeks are currently mainly used as part of the storm water drainage system for the area. Some have been partially covered while others are open with hard-surface bank stabilization structures installed.

The major risk presented by these water bodies is

flooding. The main flood hazard in Hattiesburg comes primarily from The Leaf River and its tributary creeks, i.e.; Gordon and Burkett, which are within the Pascagoula River Basin. Floods in Hattiesburg are of relatively short duration. After an intense rainfall floodwaters can rise at a rate of two to three feet per hour and reach maximum stage in two hours or less. Floodwaters in some areas of the city can attain substantial velocities. The last flood involving major river flooding with a river stage of 29.19 ft., and more than 32 million dollars in damage occurred on April 6, 1983.

The Federal Emergency Management Agency's (FEMA) flood zone map shows 31.3% of the area of Twin Forks Rising as a high risk area (AE Zone). The zone is defined as an area that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood. The National Flood Insurance Program mandates flood insurance for build-



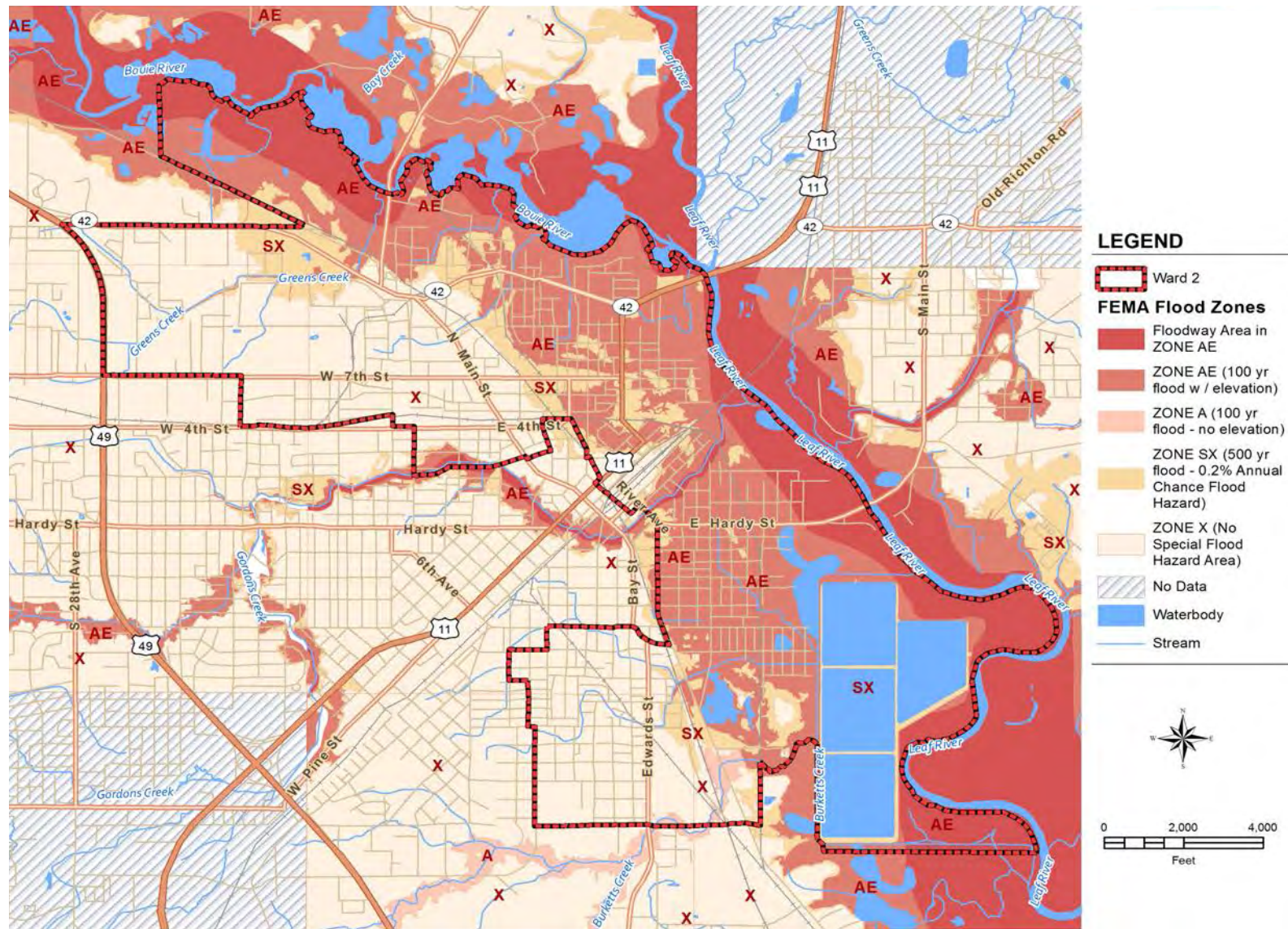
*Boat Access to Leaf River at Old Highway 42 Bridge*

ings located in this zone. New structures or existing structures with cumulative substantial improvement plans must be elevated above the designated base flood elevation.

Of the total Ward 2 area, 14.8% is designated as a floodway area with even higher restrictions on de-

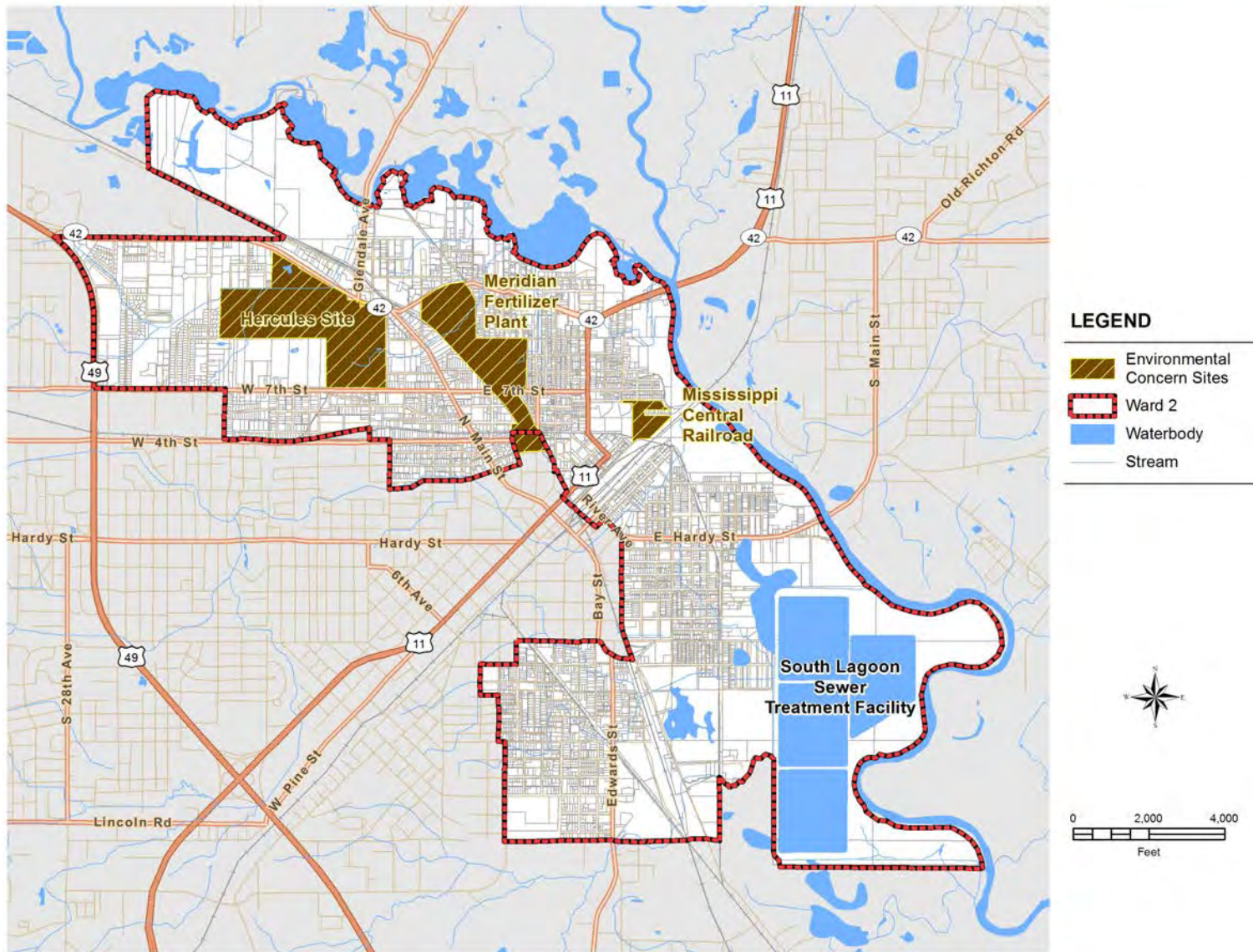


## FEMA Flood Zones





## Areas of Environmental Concern



velopment. A floodway is defined as the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations.

## 5.2 Brownfields and Environmental Issues

### Brownfields

The Comprehensive Plan 2008-2028 of the City of Hattiesburg identifies two brownfield sites in TFR: the Mississippi Central Railroad site and the former Meridian Fertilizer Plant site. Since the publishing of the Comprehensive Plan, an additional brownfield site has been identified: the Hercules Inc. site. The current status of these sites is as follows:

Mississippi Central Railroad Site - Listed as Illinois Central Railroad – Hattiesburg on the Mississippi Department of Environmental Quality (MDEQ) Brownfields List as an active site. However, according to MDEQ, the assessment of this site was only initiated due to its proximity to the Shemper and Sons Site and no contamination was discovered during the assessment. A Letter of No Further Action has not been requested by the City of Hattiesburg or the property owner. According to the Comprehensive Plan 2008-2028 of the City of Hattiesburg, this site is proposed to be a passive recreational site adjacent to Chain Park.

Former Forrest County Co-op and Meridian Fertilizer Plant - This team was not able to get updated

information on this site. According to the Comprehensive Plan 2008-2028 of the City of Hattiesburg, MDEQ had finished Phase 1 of its investigations and was planning to move into Phase 2 which would have involved drilling soil samples for testing purposes.

Hercules Inc. Site - This site has been issued a Restricted Use Order Agreement (RUOA) by MDEQ. The primary contaminant listed is Carbon Tetrachloride. According to MDEQ, this site is under an Environmental Protection Agency order for additional assessment and remediation.

### Environmental Issues

TFR is currently the home of the South Lagoon Wastewater Treatment Facility. An open air facility, the site totals approximately 400 acres. It is made of 4 cells that are approximately 90 acres each. The facility in conjunction with the 18 acre North Lagoon (located outside TFR) handle the total wastewater output of the city. Located adjacent to the Leaf River, the facility treats and discharges wastewater into the river. There are also concerns regarding the pollution of the river by facilities such as USA Yeast that discharge wastewater into the lagoon. The area is a source of heavy disagreeable odors that affect a large portion of southern and eastern TFR.

In order to meet current MDEQ standards on the type and level of contaminants released into the river, the City of Hattiesburg has had to make decisions on how to overhaul its treatment system. The City is currently moving forward with a combination of land application and mechanical method of wastewater disposal that would allow it to meet the

requirements. The land application will be implemented on properties located in Forrest and Lamar Counties with a combined acreage of approximately 1,100 acres. The project also involves diverting non-household wastewater to a mechanical system on one of the land application properties. Wastewater from Marshall Durbin, the yeast plant and other similar commercial entities will be directed to the sites located outside of the City. Removing this waste stream from facilities located in TFR will remove the noxious odors and issues associated with them.

The existing site will be re-purposed to be utilized for wastewater treatment, but the intensity and the nature of the operation will be significantly altered. The operations will include using the existing cells for pre-treatment of wastewater prior to land application and for storage of treated effluent. Additionally, the City is actively exploring alternative ways to remove the sludge from the treatment process, which not only incurs expense for the City but also contributes to smell issues.

In summary the changes coming regarding wastewater treatment in Hattiesburg should mitigate some of the negatives of having the existing lagoon system in TFR. The lagoon will remain as part of the wastewater treatment process, but its primary role will be diminished.



## Chapter Six

### *Analysis of Barriers to Investment*

Twin Forks Rising (TFR) has historically been a predominantly African-American portion of the City of Hattiesburg and for many many years was a vibrant and thriving district. Home to families, businesses, professional and social services in the past, TFR has significantly changed and now only resembles a vestige of its former self.

Early in the planning process it became clear that TFR sorely needs investment in businesses and opportunities in structures, and infrastructures and especially in its people. While the City and the State can have an impact on the public realm, much of what needs to take place must come from the private sector.

Investment decisions are largely based on perception:

- Is the neighborhood well kept, is it attractive?
- Do I have a preconceived opinion based on what I heard?
- Is this a good place to live, is the future bright?

- Can a person or business get financing for a project in TFR?

For answers to these questions, the planning team interviewed the presidents of several local banks. While the name of the institutions and interviewees will be kept in confidence, their responses were insightful and provided a great deal of support to the direction of the TFR Master Plan.

Two common themes resulted from the interviews:

1. Increase home ownership
2. Change the flood zone lines

#### **Increase Home Ownership:**

Increasing home ownership is a very powerful tool not only for an individual's future economic well-being, but also for creating stability in TFR. Making TFR a stable, family-oriented, predominantly single-family neighborhood would increase the desirability of TFR over time as a place to live,

work, and fuel new job opportunities. In the local banking perception, there is a real danger that significant amounts of rental properties could be amassed because properties are affordable; that poses a substantial threat to the re-evolution of TFR. Creating stable, single-family neighborhoods is of paramount importance to the future of TFR.

#### **Change Flood Zone Lines:**

Flood zone lines represent the single largest issue, and the most complex issue facing TFR. The area has always been known to flood. The flooding doesn't happen frequently, but TFR is labeled with a Base Flood Elevation on the FIRM Flood Maps. The City of Hattiesburg participates in the National Flood Insurance Program, which requires that the City enforce BFE requirements as directed and depicted on the FIRM maps.

While this federal program is generally considered positive for homeowners, in TFR it has become a burden and has contributed significantly to its de-

terioration in recent years.

Many of the structures in TFR were constructed before the BFE was established and changed (increased) over time. The NFIP allows for investment in a non-conforming structure up to 50% of the value of the structure. Because structure values in the flood zones are low it is quite easy to arrive at the 50% value of the structure with a singular improvement project. This would then require that the structure be elevated. This is a significant disincentive to investment in existing structures.

Additionally as a result of severe and repetitive loss programs, the City has acquired significant amounts of property in TFR. These acquisitions make sense from a NFIP perspective, yet from a neighborhood stability perspective this creates significant voids in the neighborhood fabric and impacts stability, longevity, and viability. Furthermore, these acquisitions communicate to potential investors that these properties are not good places to make an investment reinforcing the perception that TFR is not stable or desirable.

Information provided by local bankers indicated that on several occasions commercial and residential investment in TFR halted due to the perception of the flood regulations and the regulations themselves. This comment was made on several occasions; while specific project losses were not detailed, the fact that investment is continually diverted in TFR is an issue.

On a more positive note, local bankers commented on the fact that loan successes in TFR were as good

if not better than loans from other areas of the City. They reported making financial decisions based on the individual projects and feasibility rather than the “red-lining” of a portion of the City. There were no outright comments that TFR is a bad place or not worthy of investment; rather local lenders appeared to position themselves as willing partners in the re-evolution of TFR. They recognized the fact that a growing and economically viable Hattiesburg must include the regeneration of TFR.





## Chapter Seven

### *Land Use and Development*

#### 7.1 Existing Land Use and Plans

##### Existing Land Use

Located in the area –immediately surrounding the downtown, Twin Forks Rising is mainly composed of older building stock with mainly residential uses mixed with business, entertainment and public service facilities.

The majority of residences in Twin Forks Rising are single family homes. There are some apartment complexes, such as the Briarfield and Robertson public housing apartments, as well as several mobile home parks. The vicinity of William Carey University has some student and staff housing; however, the majority of the college community either lives on campus or outside TFR. The condition of homes in TFR ranges from excellent to moderately maintained to severe disrepair. As highlighted in Chapter 4.1, the area has a high concentration of buildings of significant architectural character. Businesses in the area range from small neighbor-



*Historic homes in the Newman - Buschman Historic District*

hood businesses to pharmacies, gas stations and restaurants on major roads. Warehouses and industrial uses are located along major thoroughfares and close to rail tracks. A logging operation and an auto recycling business are some examples. There are also vacant manufacturing plants such as the Hercules Plant and Big Yank site.



*Briarfield Homes Apartments, built in 1941 with the assistance of the U.S. Department of Housing and Urban Development*

Police and fire departments as well as a juvenile detention center are located in TFR. Schools and numerous churches are located in the neighborhoods. Most churches appear to be in good condition, usually standing out from the surrounding area of



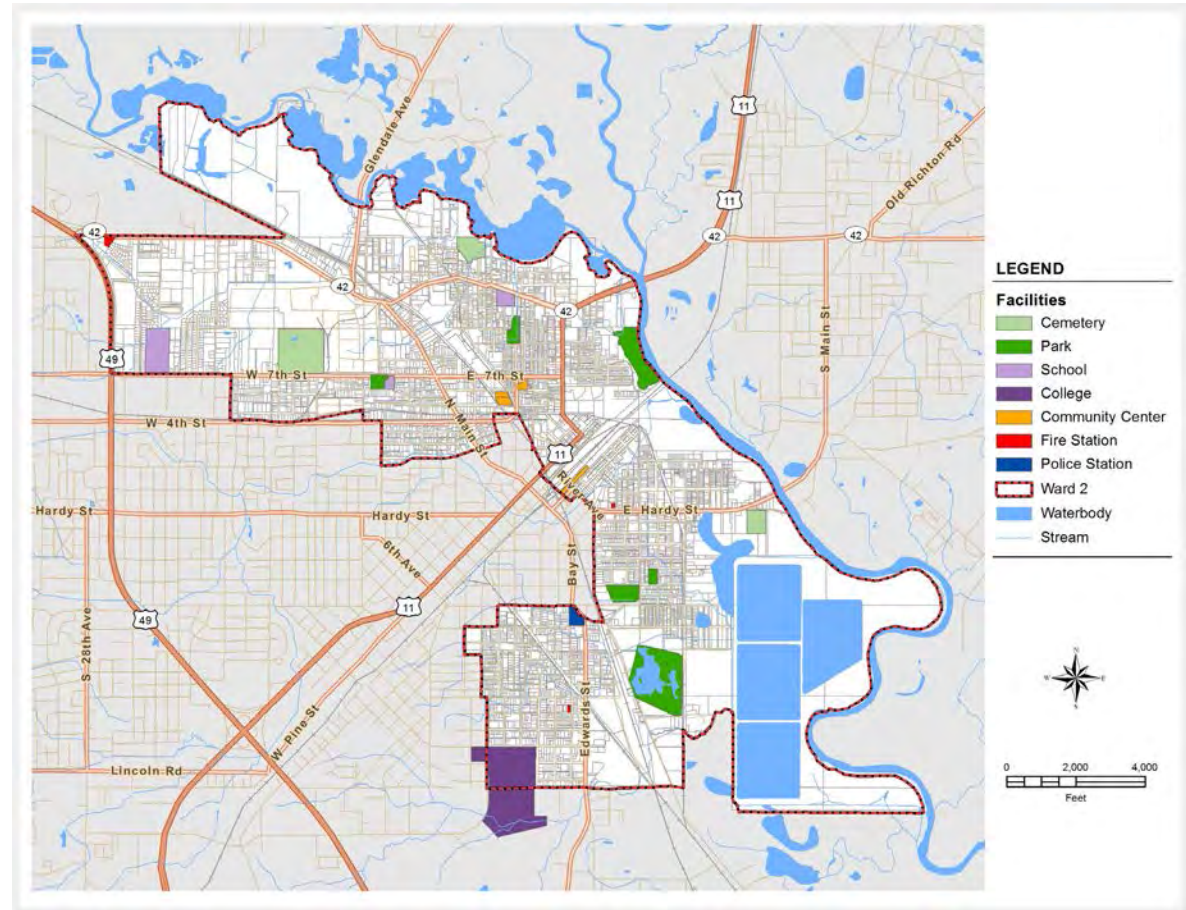
Logging operation in TFR



An occupied home adjacent to a home in disrepair

moderate to poor condition homes. Parks are distributed in the district and appear to be well maintained. Duncan Lake Park and the Leaf and Bouie Rivers provide additional recreational spaces.

## Distribution of Existing Public Facilities



Few streets have sidewalks, even less have provisions for bikes or streetlights. Storm water drainage in residential neighborhoods is mainly managed with open ditches along street sides. There is a problem of storm water flooding in low-lying areas

which is compounded by the lack of maintenance of the open ditches.



About a third of the area of Twin Forks Rising is located in a flood zone and has historically experienced repetitive flood damage. Over the years, policies have been put in place to encourage residents to relocate rather than rebuild. This policy has resulted in neighborhoods that are sparsely populated by residents determined to stay who are surrounded by empty lots and abandoned homes. Many occupied homes also suffer from severe disrepair making blight a major issue.

### Existing Plans and Studies

#### *Comprehensive Plan 2008-2028 of the City of Hattiesburg – Land Use*

The Comprehensive Plan 2008-2028 of the City of Hattiesburg lists the majority of TFR as a Neighborhood Conservation District 1- Downtown/Historic Neighborhoods, which consists of mainly residential, older, denser developments adjacent to Downtown. This district is characterized by “moderate-density single-family residences or residential lands along the city’s original street system; certain two family and multi-family uses constructed to the character of the surrounding neighborhood; buildings with shallow front and side yards; certain neighborhood business land uses that are compatible in design to the surrounding residential areas; and a higher overall density of development than modern or suburban neighborhoods.” Exceptions to this district in TFR are: specific corridor areas, designated as Regional, Neighborhood or Community Business Districts; east downtown, designated as Downtown District; newer developments in the northwest end of TFR at US 49 and 7<sup>th</sup> St., designated as Neighborhood Conservation District 2 – Suburban; and small sections in the south adjacent to

### Future Land Use Plan of the City of Hattiesburg Comprehensive Plan 2008- 2028

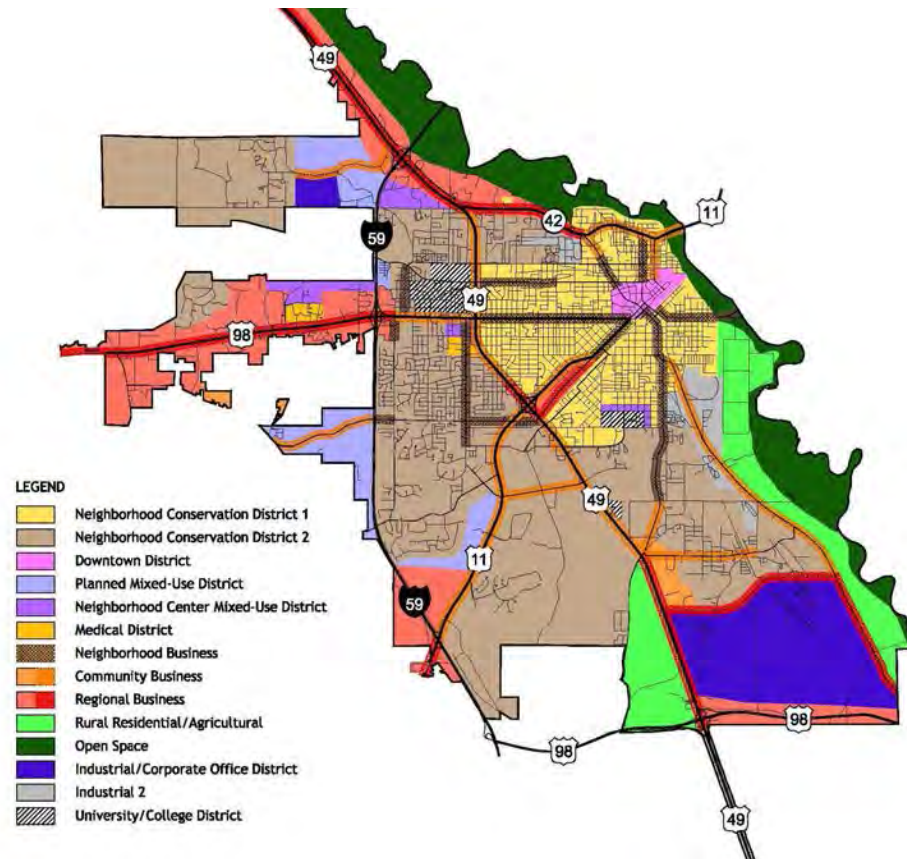


Image Source: City of Hattiesburg Comprehensive Plan 2008-2028, p. 104

the South Sewer Lagoon and the former Hercules plant site in the northwest designated as Industrial 2 District.

The Downtown District is the historic central busi-

ness district. It is characterized by a mix of uses that “are constructed to the front property line and share common walls with adjacent buildings; on-street parking areas or shared parking in public lots; mixed land uses, including residential uses, within

the same building; a higher percentage of publicly-owned buildings and lands; public parks and small private courtyards and green spaces; and an overall higher density of development.”

The Comprehensive Plan recommends the following uses in the various districts:

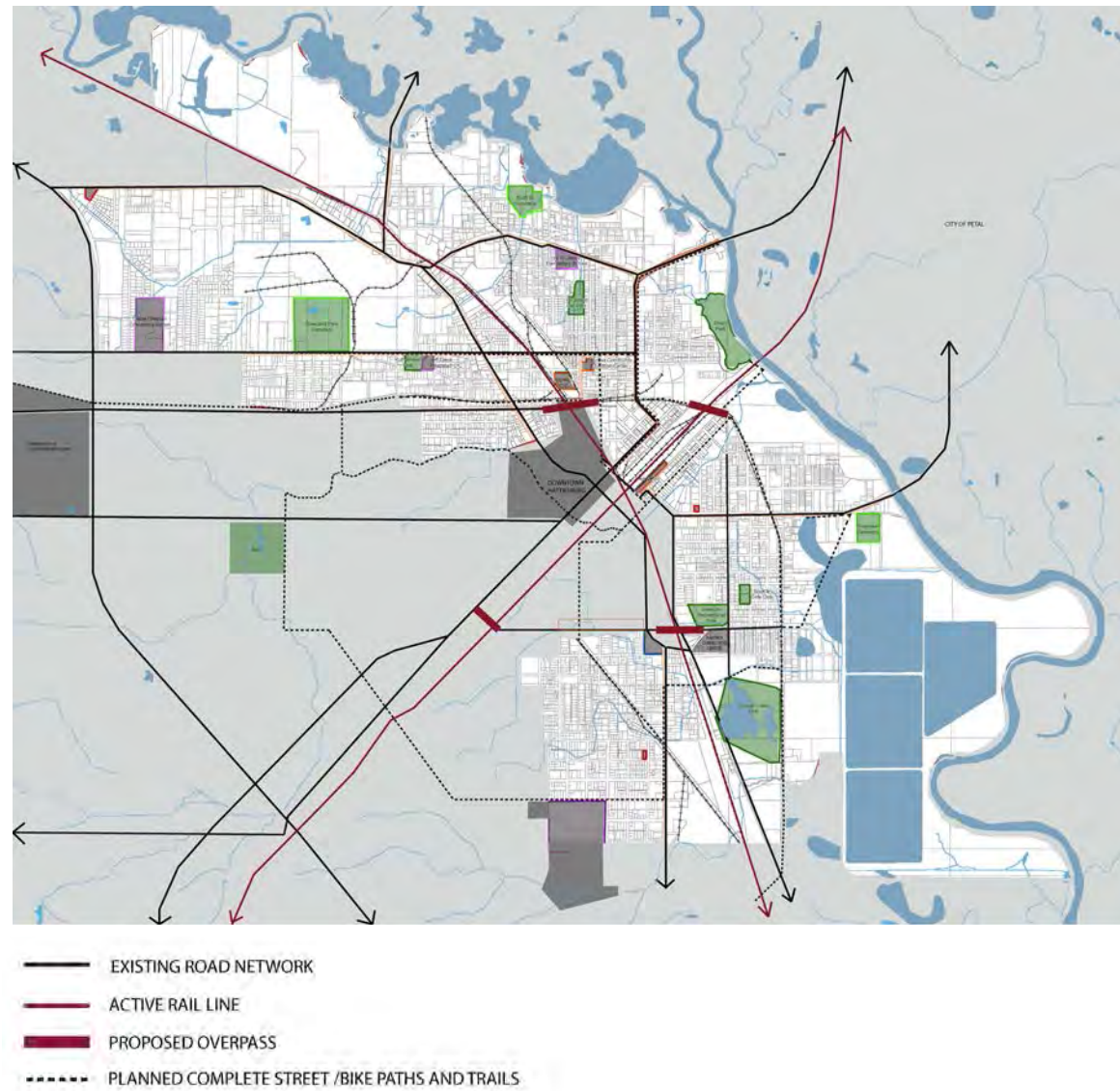
**Neighborhood Conservation District 1** - single-family residential uses; certain two-family and multi-family residences, subject to use, density, and design guidelines; public and quasi-public uses, such as churches and schools; and small offices and retail uses clustered along collector streets or at the edges of neighborhoods and constructed to the same character as the surrounding residences.

**Neighborhood Conservation District 2** - single-family residential uses; public and quasi-public uses, such as churches and schools; small neighborhood parks and tot lots.

**Downtown District** - various types of retail and service businesses, such as specialty shops and restaurants; anchor businesses, such as grocery stores, that draw residents to the district; public uses, such as city, county, state and federal offices, public parks and community centers; higher density residential uses, including condominiums and second-floor apartments; arts-related businesses, museums and cultural centers; and offices and employment centers.

**Neighborhood Center Mixed-Use District** - single-family residential uses; accessory apartments; small townhome developments (six to eight units

## Existing Planned Projects





per acre; development sizes no greater than two acres); second-floor apartments over retail or service businesses; smaller, low-intensity retail and service businesses, such as specialty shops, delis and cafes; public and quasi-public uses, such as churches, schools and public offices; arts-related businesses; and small offices in converted residences or new buildings constructed to the same character as the surrounding neighborhood.

**Regional Business District** - high-density residential uses; public and quasi-public uses; hotels and motels; general indoor and outdoor retail uses; heavy commercial and light industrial uses; service and office land uses; and light industrial campuses and corporate offices.

**Community Business District** - residential uses; public and quasi-public uses, such as churches and schools; and general indoor retail, service and office land uses that do not require the outdoor storage of goods or equipment.

**Neighborhood Business District** - single-family residential uses; two-family and multifamily residences, subject to use, density, and design guidelines; public and quasi-public uses, such as general indoor retail, specialty retail, service and office land uses that do not require the outdoor storage of goods or equipment.

**Industry and Corporate Office District or Industrial District 1** - general industrial uses; industrial parks; light industrial and corporate office campuses; and certain residential, public, retail, service and office land uses.

### Proposed Location of Overpasses at Railroad Intersections



Image Source: City of Hattiesburg, Engineering Department

**Industrial District 2** – manufacturing, production or assembly activities and related businesses including warehousing and wholesaling activities, businesses with outdoor storage of products and materials, and uses that produce noises, vibrations, dust and odors that are not typically found in neighborhoods or business districts.

Comprehensive Plan 2008-2028 of the City of Hattiesburg also has provisions for infrastructure improvement which include implementation of a 'bikes and trails' network that would provide multi-modal accessibility to all major amenities in the city; and expansion of the road network, including a new Gulfport Parkway traversing the East Jerusalem neighborhood.

#### *Proposed Rail Road Overpasses*

The City of Hattiesburg has active two rail lines passing through the Train Depot located in Downtown. These very busy lines section the city into four quadrants, and due to the use of at grade road crossings along the line, present a challenge in terms of accessibility through the city and safety to residents. Currently the city is in the process of considering the construction of road overpasses at four railway crossings to:

- Reduce accidents at on-grade crossings
- Enable the provision of emergency services to the eastern and southern sections of the city at all times
- Reduce the cost of time spent by travellers at closed crossings in the course of a day

The location of these proposed overpasses are:

1. E. 4th St. Overpass NS line and Gordon's Creek

on 4th St. from Bouie St. to East Hardy

2. E. 4th St. Overpass CN line on 4th St. between Main St. and Mobile St.
3. Hall Ave. Overpass CN line and Williams St. on Hall Ave. between Bay St. and S. Tipton St.
4. Hall Ave. Overpass NS line on Hall Ave. between Pine St. and M.L. King Ave.

#### **SUMMARY**

The intent of this plan is to develop solutions for the specific challenges faced by Twin Forks Rising (TFR). Based on the analysis of issues and opportunities identified specific to Twin Forks Rising in the previous chapters, the planning team developed the goals and strategies to be addressed in the future land use plan. The Comprehensive Plan 2008-2028 of the City of Hattiesburg remains applicable to the Twin Forks Rising area with the additional provisions of the Twin Forks Rising Land Use Plan complementing the Comprehensive Plan provisions for targeted areas.

## 7.2 Future Land Use

Based on the analysis of issues and opportunities identified in the previous chapters, the planning team developed the following goals and strategies to be addressed in the future land use plan.

### a. Flood Mitigation

One of the biggest hurdles to the future of Twin Forks Rising is the risk of flooding and associated regulatory requirements. In order to ensure a stable and vibrant future, it is imperative to determine means to eliminate or reduce the flood risk. The solution needs not only to avert a flood event, but also to be comprehensive enough to warrant the revision of the Federal Emergency Management Agency's Flood Zone Map to allow no or minimal restrictions on development in all of Twin Forks.

Toward this end, the planning team researched strategies used by other communities as appropriate precedents that would correlate to the Twin Forks situation. Jumping to the forefront was a series of workshops called the Dutch Dialogues conducted in New Orleans after Hurricane Katrina and organized by David Waggoner, a New Orleans architect, and Dale Morris, from the Royal Netherlands Embassy. The Dutch Dialogues workshops were a collaborative platform for the interaction of engineers, landscape architects, city planners and other experts practicing in two cities famously impacted by the threat of flooding: Amsterdam and New Orleans. The workshop's aim was to adopt the extensive, successful experience of Dutch professionals in water management to solve the flooding challenges faced by New Orleans.



*Type 1: Neighborhood relation to water retention structures. Example at E. Hardy St. and Leaf River*

*Image Source: Meyer, H., Morris, D., and Waggoner, D. (2009). Dutch Dialogues: Common Challenges in Urbanized Deltas. 67*

After reviewing the different methodologies utilized in these workshops, the planning team selected the concept of increasing the water retention capacity of Twin Forks as the appropriate strategy. This would entail the construction of immense water retention structures that would serve as spillways to divert excess river/creek water. These structures, in addition, would be designed and constructed to be easily accessible to the community and serve as attractive neighborhood amenities as well. At normal times, these structures would serve as parks or other recreational areas with integrated, permanent

water features. At times of high water load, water would be released into the park to relieve the rivers and creeks, performing its retention function.

To apply this concept, the planning team sought to find locations for these man-made water retention parks. The criteria for the location of these structures are:

- Geographic distribution to attain maximum flood area coverage
- Availability of publicly or privately owned vacant land, or identification of areas that would pose relatively minimal challenges of reloca-





Type 2: Neighborhood relation to water retention park at varying levels of inundation. Example Gordon's Creek at Newman-Buschman neighborhood

Image Source: Meyer, H., Morris, D., and Waggoner, D. (2009). Dutch Dialogues: Common Challenges in Urbanized Deltas. 76

tion for properties

- Availability of existing connection to a river/creek

Accordingly, the following locations were selected:

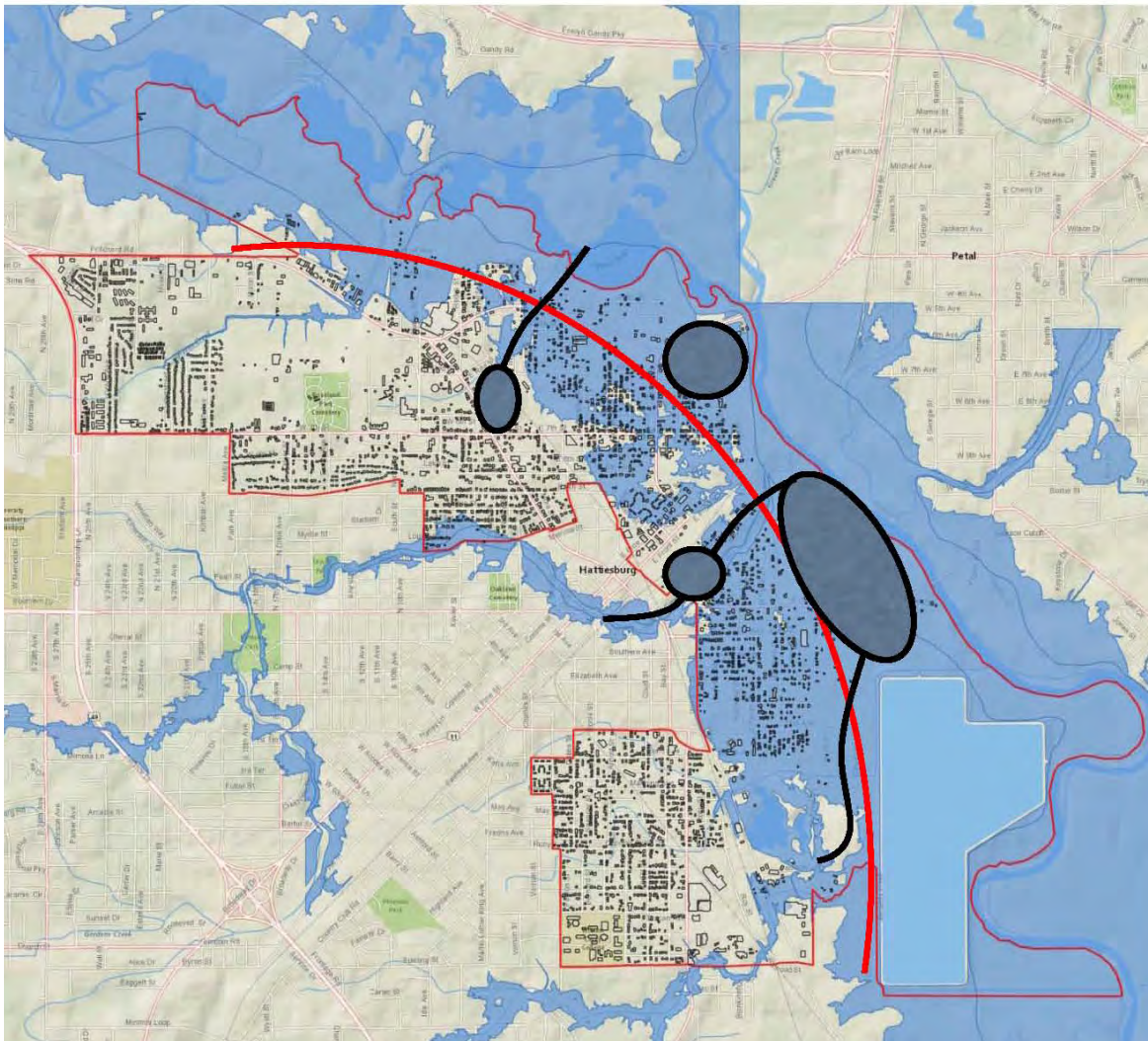
- North of Chain Park at Old Highway 42 at the two rivers' confluence
- East of Canadian National Rail Line and 7th St., to the west of the Mobile/Bouie neighborhood. Structure will relieve flow to the Bouie River through a widened existing creek that passes by Scott St. Cemetery
- Expansion of Gordon's Creek south of Newman-Buschman neighborhood
- Southeast of E. Hardy St. and west of the Leaf River

### b. Neighborhood Amenity Enhancement

Most neighborhoods in Ward 2 have seen very little investment in the past decades and suffer from dwindling population, blight, or lack of amenities. An attraction is needed to trigger redevelopment as well as motivate current owners and developers to improve and redevelop properties. The four water retention parks described in the previous section provide such an amenity (see character sketches Type 1 & 2 on this page and the previous page) that will bring high value to local and regional residents and may potentially transform into economic development opportunities in the vicinity. Other amenities introduced in this plan are a neighborhood park in the Katie/Dabbs neighborhood as well as the promotion of neighborhood business uses that supply community needs within neighborhood blocks.



## Location of Proposed Water Retention Parks



### c. Increasing Accessibility to Existing Amenities

Currently, there are very good existing amenities in and around Ward 2. However, accessibility to these amenities has been very limited. This plan addresses this issue by improving streets, converting them into “complete streets” or creating bike/pedestrian trail connections to Chain Park, Dunbar Lake Park and Downtown Hattiesburg. In addition, the plan improves local streets in neighborhoods adjacent to Chain Park and Duncan Lake Park to activate repopulation around these attractive amenities.

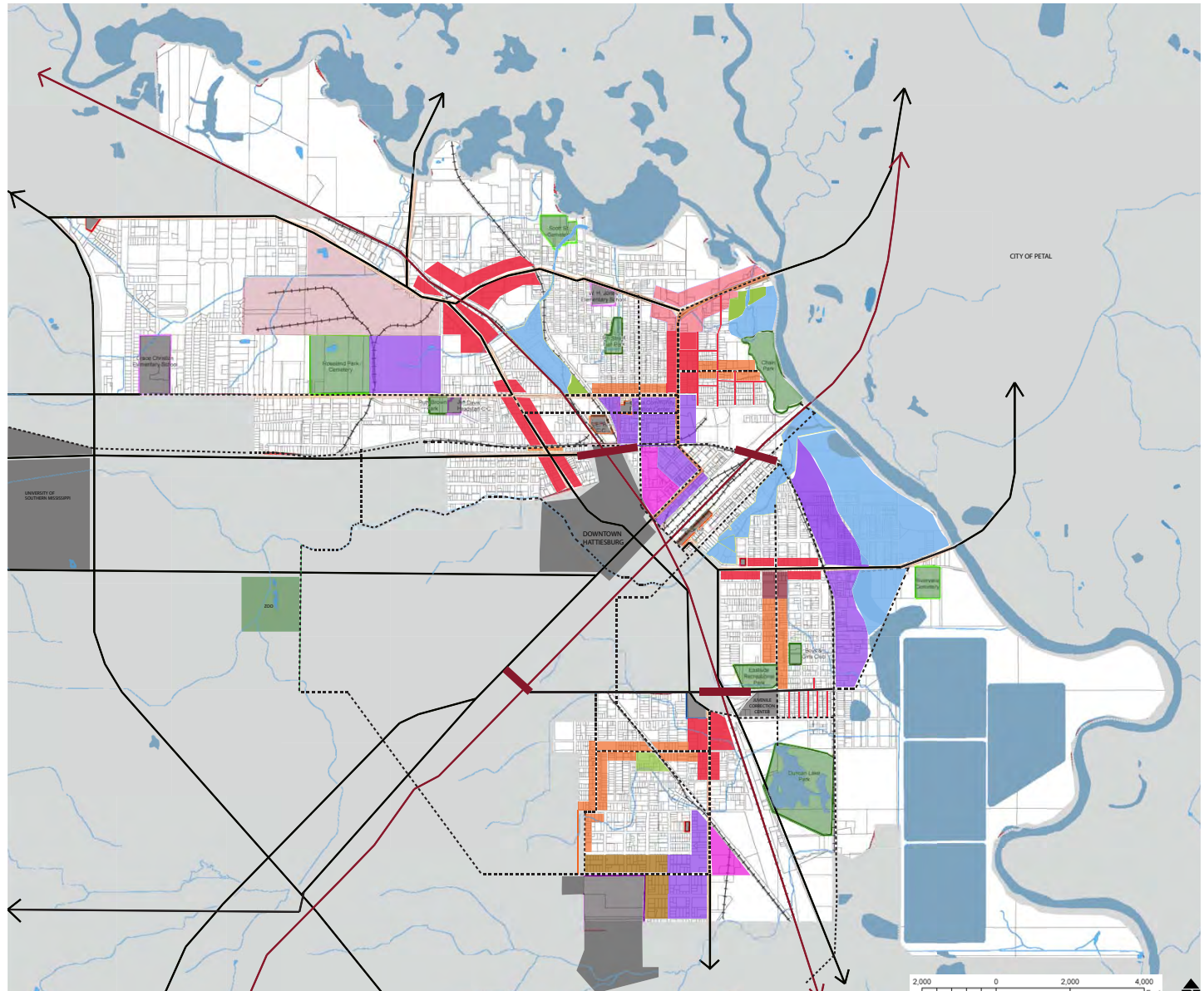
### d. Development of Neighborhood Nodes and Corridors

Based on an analysis of the proposed land use plan of the Comprehensive Plan of City of Hattiesburg 2008-2028 and the four proposed railroad overpasses at 4th St. and Hall Ave., this plan promotes the creation of nodes and corridors of economic development and neighborhood services. These are located at Edwards St. commercial node at James St., Old Highway 42 Corridor at Main St., E. Hardy St. Corridor, Dabbs St. and Milton Barnes neighborhood corridor, Tipton neighborhood corridor, and 8th St. corridor at Chain Park.

### e. Development of East Downtown

The East Downtown area is located east of the Canadian National Rail Line tracks in Downtown. This district is already on the National Register of Historic Districts and therefore is eligible for up to a 45% tax incentive. The area’s proximity to Downtown, its history as a vibrant African-American commercial district along Mobile Street and the current availability of funding in the form of tax incentives all make this area ‘low hanging fruit’ for immediate development into an expansion of Downtown with

## Land Use Plan





entertainment and mixed-use districts.

#### f. Redevelopment of Hercules Site

Twin Forks residents have expressed significant concern in regard to the contamination and lack of vision about the site's future. The site is currently undergoing testing for contaminants to satisfy MDEQ requirements. Once the site has been cleared, the site is proposed to be divided into two uses: mixed-use in the section close to 7th St., and light industrial for the larger tract adjacent to US 42.

#### g. Maximizing WCU Potential

Located partially in Ward 2, William Carey University (WCU) is one of its significant assets. The University is currently undergoing an expansion program, acquiring properties in the surrounding blocks. WCU possesses numerous properties two blocks north of Tuscan Ave. and one block east of Cherry St.. With the intent of streamlining redevelopment efforts of the University and providing opportunities for other compatible economic and educational endeavors, the plan creates an educational enterprise zone around WCU surrounded by mixed-use zones.

### 7.3 Land Use Category or 'District' Definitions

As discussed in the Existing Plans and Studies section of this document (see pages 27-30), the Future Land Use Plan of the Comprehensive Plan 2008-2028 of the City of Hattiesburg remains applicable to the TFR area with the additional provisions of the TFR Land Use Plan complementing the Comprehensive Plan provisions for targeted areas.

**Commercial District:** The Entertainment District


corresponds with the 'Community Business District' as defined in the City's Comprehensive Plan. (See page 29).

**Mixed Use District:** The Entertainment District corresponds with the 'Neighborhood Center Mixed-Use District' as defined in the City's Comprehensive Plan (see page 28). In addition, it is envisioned to include anchor businesses such as grocery stores, movie theaters, and department stores. Where located close to water features and parks, it may also include boardwalk developments and public or private indoor and outdoor performance venues.

**Entertainment District:** The Entertainment District corresponds with the 'Downtown District' as defined in the City's Comprehensive Plan (see page 28). In addition, it is envisioned to be a geographic area where food, music, productions, and cultural events are concentrated in TFR. This concept embraces the creation of restaurants that provide music and adheres to the City's noise ordinances. The intent is to help create a viable, attractive, and safe nightlife scene where activity and investment is made in TFR. This concept does not embrace just the development of bars. During the day, it may also serve as a "lunch crowd" destination and offer cultural resources, such as an art center, potters and similar crafts.

**Cottage Business and Residence District:** The Cottage Business and Residence District corresponds with the 'Neighborhood Business District' as defined in the City's Comprehensive Plan (see page 29). In addition, it is envisioned to allow people in their homes to own and operate small scale busi-

#### Legend

	PROPOSED STREET INFRASTRUCTURE IMPROVEMENT PROJECTS
	EXISTING ROAD NETWORK
	ACTIVE RAIL LINE
	PROPOSED OVERPASS
	PLANNED COMPLETE STREET/BIKES & TRAILS
	EXISTING COMMERCIAL
	NEW COMMERCIAL
	MIXED USE
	ENTERTAINMENT
	COTTAGE BUSINESS/RESIDENCES
	NEW WATERFEATURE/PARK
	EXISTING WATERBODY
	EXISTING FACILITIES
	EDUCATIONAL ENTERPRISE ZONE
	NEW PARKS
	EXISTING PARKS/CEMETRIES
	SOCIAL SERVICES
	LIGHT INDUSTRIAL

ness ventures. This may be professional in nature or may be service oriented. Clients or customers may come and go, but the noticeable increase in residential traffic would be minimal. Examples may include a home based beautician, artist, writer, graphic designer, real estate agent, personal trainer, and other similar type occupations. These occupations may be operated out of their homes or in accessory buildings located on residential property.

**Water Features/Parks:** The Water Features proposed by this plan serve a multitude of purposes. First and foremost, they serve as a means of storm-water management and flood attenuation. Secondly, they service as a public amenity and a means to create private investment. It is envisioned that the design will include a combination of water body and green area that would serve as spillway for increased water retention capacity as needed. These structures may also accommodate compatible uses such as water parks and other revenue generating uses that would not affect their primary performance on water retention.

**Educational Enterprise Zones:** The Education Enterprise Zone seeks to facilitate and capitalize on the growth of William Carey University (WCU). WCU is partially located in TFR and is a tremendous asset that is currently growing and investing in itself and in the community. The Educational Enterprise Zone seeks to provide great flexibility to William Carey in the expansion of the campus. It would allow educational uses, mixed-use buildings, higher residential densities to accommodate student apartments and dorms, surface parking, allow museums and art space as well as restaurants, food service and pro-

fessional office space.

**Social Services District:** The Social Services District seeks to provide resident services to the community at a geographically defined location with easy public transportation access. Uses would include outreach ministry locations, medical and health clinics, family planning, training centers, socially orientated government services and similar types of activities.

**Light Industrial District:** The Light Industrial District corresponds with the 'Industry and Corporate Office District' as defined in the City's Comprehensive Plan. (See page 29).



## Chapter Eight

### *Infrastructure*

The Phase I report for the planning effort detailed and inventoried much of the existing infrastructure in Ward 2. In general, however, the infrastructure for purposes of this phase is defined as city owned and operated, and can be classified as in poor shape requiring rehabilitation.

The City is, however, undergoing a significant reinvestment in water and sewer lines, most notably on the northern side of TFR. These large and expensive projects will result in the reconstruction of streets as well. These projects, which are all booked and scheduled, will provide considerable upgrades for the residents and businesses in TFR. Additionally, parts of the TFR district, Mobile St. for example, have had significant streetscape improvements. Mobile St. now provides two-way traffic with a dedicated bicycle lane. Mobile St. also has new curbs, gutters and sidewalks with attractive pedestrian scale street lighting. Mobile Street is an example of the improvements that the City can create and implement within the public realm.

Besides the projects relating to water and sewer upgrades, the major area of concern in TFR relates to poor or inadequate drainage. Much of the failure of the infrastructure can be directly or indirectly attributed to drainage issues. Many of the streets in TFR were simply paved dirt roads. When they were originally paved stormwater was not part of the project and, thus, many of the residential areas in TFR have small open ditches and the streets have little to no formalized stormwater management. The lack of a formalized system in conjunction with maintenance needs results in standing water, inadequate drainage, and a variety of other issues. This water, over time, breaks down roadway stability leading to further deterioration of the paved dirt roads.

The planning team took considerable effort to evaluate the infrastructure in TFR from a variety of perspectives. The prism used to evaluate the infrastructure was based on what is the benefit or burden to the quality of life and investment in TFR. Based on

these two primary criteria the team embarked on a comprehensive effort in an attempt to identify infrastructure projects that would provide a solid basis for the re-evolution of TFR.

Because much of the evaluation of the infrastructure and the analysis needed to arrive at sound engineering projects was needed, the planning team created a “sister” team of engineers that ran on a parallel tract during the development of the future plan. This engineering team evaluated current conditions, met with City staff, collected data, and performed field inspections. The team participated in Town Hall and Working Group meetings. The future master plan, as outlined in this document, was coordinated with the engineering team so that project scopes and recommendations implement the vision and desire that the master plan seeks to create.

The engineering team worked diligently to create a series of projects that implement the plan, are affordable for the City to implement, and are ranked

according to priority. The project “fly sheets,” or project descriptions, also provide a scope and a real world engineering based cost estimate. Some of the projects are quite easy to implement and others will require the appropriate amount of engineering in order to be implemented. It is the hope and desire of this project and effort that these infrastructure projects will simply be “inserted” for funding into the City of Hattiesburg Capital Improvements Plan and future maintenance plan efforts. It is important to note that the size of the projects was purposefully kept reasonable so that single projects can be executed on a year-over-year basis. This approach provides flexibility allowing multiple projects to take place at once if funding is appropriately applied.



## Chapter Nine

### *Human Capital Development*

#### Human Capital Development

Perhaps the greatest, and the most underutilized, asset in TFR are the people that call Ward 2 home. These residents represent the future of Ward 2, while bearing its current struggles. This TFR Master Plan is intended to provide a roadmap to help spur investment, opportunity and also to improve the quality of life. A vital portion of the equation for success is for the residents in Ward 2 to also improve economically speaking.

The strategies suggested in this chapter are more germane to the local Community Development Corporation (CDC) proposed to be created, rather than for other agencies. It is envisioned that the CDC will secure an initial capital base from which to

operate. This capital will be used by the CDC to help fund private and economic redevelopment projects. The CDC acts similar to a bank in that it lends capital and then uses those returns to make further lending decisions. This model and similar strategies have proven to be successful across the country.

The purpose of human capital development is to increase opportunity and break the cycle of poverty. The CDC, through its use of capital, incentives and other efforts, can contribute significant positive impacts.

Suggested strategies include:

1. Financial Incentives - The CDC through lending to commercial enterprises may require a cer-

tain percentage of workers in all earning strata to come from TFR.

2. Education Cooperative – The CDC should have the ability to leverage resources and opportunity by partnering with other institutions such as USM, Pearl River Community College, and WCU to foster educational opportunities. It has been proven over the course of time that education and workforce development skills play a primary role in the ability to earn income.
3. National Emergency Grants – Hattiesburg is located geographically in an area that can be impacted by severe weather. When these situations unfortunately occur, National Emergency Grants can provide localized temporary recovery jobs. These jobs range from manual labor to more professional services. While these jobs

are temporary and short-term, it does present an opportunity for the CDC in both the short-term and long-term. On a short-term basis the CDC can advocate for residents of TFR and facilitate awareness of employment opportunities. In the long-term, the CDC can utilize the pool of employees as a targeted resource for further education and workforce development training.

4. Business Incubator – The CDC may want to consider creating a business incubator in TFR for residents. There are many great examples of business incubators around the country and even in Mississippi. For example, the residents of Moss Point, MS have an opportunity to participate in just such a local incubator. In fact, one of the businesses supported by the incubator recently won local, state and even national recognition for its success story.
5. Middle Class Express – This is a program utilized by states that focuses on the long-term path to prosperity. It involves multiple strategies to increase life skills, education, financial literacy and other opportunities. The program requires a multi-year commitment and involves “sweat-equity” from the participant. While a program such as this may be beyond the administrative core of the CDC, the CDC can certainly provide resource assistance and facilitate other aspects of the program. It is important to note that the MCE program requires partners to be a success and the CDC could play a vital partnership role.
6. Improving Graduation Rates – Education is critical to success and young people must graduate from high school in order to ever have an

opportunity to become successful. The CDC may be able to partner with the school system and other social institutions such as churches to provide suitable counseling, tutoring, transportation and maybe even childcare so a GED or graduation can take place. Efforts such as these invest in the individual, which is a cornerstone of future success.

7. Crime Watchers – The CDC can partner with the Police Department to facilitate a crime watch program. A local neighborhood based program fosters civic pride and social accountability with the obvious goal of reducing crime. Simply requesting additional police protection when local government budgets are strained may not prove to be useful in the long run. Facilitating this program engages citizens and ensures they are part of the solution.
8. Adopt-A-Street Program – The CDC in partnership with public works can facilitate local Adopt-A-Street maintenance programs. Routine activities such as mowing grass, litter patrol, and in the long-term, landscaping can build relationships and improve the neighborhoods.

In closing: The CDC can become an influential organization for positive change in TFR. It can become influential through financial resources, building partnerships, and politically. The CDC needs to be careful to not become schizophrenic and attempt to do too much too early. At first the CDC must demonstrate success to the community, to its partners and to the City. Success builds legitimacy and the CDC must be careful not to be overly aggressive.





## Chapter Ten

### *Implementation*

This chapter provides guidance on what actions need to be taken as well as when they need to be taken to fully realize this master plan. The actions are listed as strategies under each planning element and also designated as short, medium or long-term actions. In addition, a general phasing plan holistically divides Ward 2 into geographic sections of priority activities.

This chapter also contains a breakdown of costs for the infrastructure portion. Each individual project is described and listed by priority in accordance with the overall phasing plan developed. However, it does not include estimates for the proposed water retention parks. This is because in-depth analyses and feasibility studies as well as preliminary designs need to take place before costs can be generated.

### 10.1 implementation Strategies

INFRASTRUCTURE	TIME FRAME		
	SHORT	MEDIUM	LONG
Define a plan to develop new waterfront features according to Master Plan:			
- north of Riverview Cemetery		X	
- east of Train Depot		X	
- north of Chain Park		X	
- adjacent railway just northwest of CE Roy CC		X	
Enhance pedestrian connections across the new overpass bridge by providing a dedicated and separated pedestrian / bicycle travel lane	X		
Promote the overall character of Twin Forks Rising through low-maintenance design of streetscapes and other public spaces:	X		
- Coordinate highway improvements with Mississippi Department of Transportation’s plans for the highway within Twin Forks Rising		X	X
- Implement Complete Streets Policy	X		
Expand street infrastructure to serve infill and newly developed areas:			
- adjacent to Chain Park		X	
- adjacent to juvenile correction center			X
For infrastructure improvement projects, consider the viability of upgrading as many utility elements simultaneously as possible to reduce duplication of efforts and impact on neighboring uses	X		
Promote opportunities for all travel modes, while preserving the character of Twin Forks Rising:			
- Encourage multi-modal connections, specifically pedestrian and bicycle, between all neighborhoods	X		
- Require that all transportation projects, whether developer or government initiated, consider pedestrian and bicycle level of service as part of the analysis	X		

ECONOMIC DEVELOPMENT	TIME FRAME		
	SHORT	MEDIUM	LONG
Promote and facilitate new commercial development according to Master Plan:			
- at Edwards St and James St intersection		X	
- along E. Hardy St.		X	
- along Bouie St.	X		
- along Main St.	X		
- northeast of Hercules brownfield			X
Promote Cottage Business development according to Master Plan:			
- along Dabbs St. and Milton Barnes Ave.	X		
- along Tipton St., south of E. Hardy St.		X	
- along E. 8 <sup>th</sup> St. at Chain Park entrance		X	
- along E. 7 <sup>th</sup> St., north of downtown Hattiesburg			X
Promote mixed-use development according to Master Plan:			
- east of William Carey University	X		
- east of new Gulfport Parkway			X
- northeast of downtown Hattiesburg	X		
- east of Roseland Park Cemetery			X
Promote entertainment development according to Master Plan:			
- east of William Carey University	X		
- northeast downtown Hattiesburg		X	
Develop and promote Educational Enterprise Zone according to Master Plan:			
- north and east of William Carey University	X		
Create incentives to increase homeownership	X	X	X
Encourage appropriate light industrial development to occur along Highway (at existing Hercules Inc. brownfield site):		X	

ECONOMIC DEVELOPMENT	TIME FRAME		
	SHORT	MEDIUM	LONG
- Create a program to assist property owners in financing and planning for the rehabilitation or redevelopment of their property	X	X	X
- Encourage the creation of business through technical support and educational information regarding finance, capital, marketing, sales, etc.		X	X
- Develop a Twin Forks Rising business brochure to promote local business	X		
Allow for community oriented development to occur adjacent to the downtown district to enhance the existing town center atmosphere and build on the existing character			X
Ensure that new development is reflective of the small town scale, character, and architectural vernacular:	X		
- New construction should reflect the context of historic and existing buildings, respecting regional architectural expression while also allowing for change within the traditions		X	X
- Identify opportunities for technical support or regulatory streamlining for projects that adaptively reuse or rehabilitate existing structures and projects that use green building practices, such as energy efficiency	X		
- Encourage quality building design and materials that promote longevity and adaptability of buildings and developments over time		X	X
Ensure the future character and contribution to the community through quality development that is appropriate in its context:			X
- Identify properties for clean-up and improvement as well as infill development opportunities	X		
- Design to support the Master Plan			X
Provide opportunities to mix compatible land uses within Twin Forks Rising and better integrate supporting uses among adjacent developments:			
- Convenience stores into neighborhood hubs	X		
- Design for diversity and mixed-use	X	X	X
- Encourage mixed-use development to promote coordination and collaboration among	X	X	X

ECONOMIC DEVELOPMENT	TIME FRAME		
	SHORT	MEDIUM	LONG
institutions			
- Include new housing in development	X	X	X
- Offer diverse housing types	X	X	X
- Increase density at commercial hubs and along Mobile Street	X	X	X
Establish and/or implement overlay standards for non-residential areas	X		
Assess and revise the current zoning code for consistency with the plan	X		
Enhance the highway commercial corridor, which leaves a lasting impression on visitors and residents of the community:			
- Develop a physical improvement and urban design plan for the highway corridor			X
- Require all public improvements be reviewed and recommended by the Planning Commission	X	X	X
- Review individual development plans and require improvements be consistent with any specific plans addressing the highway corridor			X

ENVIRONMENTAL QUALITY	TIME FRAME		
	SHORT	MEDIUM	LONG
Remediate and redevelop brownfield areas:			
- Facilitate evaluation and remediation processes for areas identified as brownfields in conjunction with relevant authorities such as EPA, MDEQ	X	X	X
- Facilitate court proceedings where lawsuits are in motion for a final determination	X		
- Market areas to site selection consultants and real estate developers to secure new users per designated land use		X	
- Facilitate site control for new users		X	X
- Develop a fast-track review and approval process for development proposals	X		
- Provide the necessary infrastructure support for planned redevelopments	X	X	X
- Improve the South Lagoon Wastewater Treatment facility			X
Consider financing arrangements on brownfield sites			X



HISTORIC	TIME FRAME		
	SHORT	MEDIUM	LONG
Support Twin Forks Rising as an intergenerational community:			
- Provide events for residents and visitors of all ages	X		
- Review ordinances for the ability to develop homes that accommodate an older population as well as new families		X	
Protect and preserve historic homes and properties:			
- Promote existing historic districts	X		
- Create programs for recognizing or featuring specific exemplary properties		X	X
- Create and promote a list of qualified local / regional professionals for referrals on rehabilitation or routine maintenance projects	X		
- Maintain and monitor inventory of public and private grants to promote historic preservation policies			X
- Assist property owners with applications for Hattiesburg Historical Society and National Historic Landmark dedication	X		
Encourage the investment and revitalization of neighborhoods and homes:			
- Promote infill housing that respects the development pattern and character of Twin Forks Rising	X	X	X

SOCIAL SERVICES	TIME FRAME		
	SHORT	MEDIUM	LONG
Develop a Social Services Center at Tipton St. and E. Hardy St. to serve the East Jerusalem neighborhood:			
- Prepare the vacant Eaton School site for development as a professional services building or remove it	X		
- Facilitate the development of adjacent blocks as office/professional services buildings		X	
- Secure available funding such as historic tax credits and new market tax credits to support development			X
- Coordinate with public and private services to place tenants (e.g. urgent care, day care, job placement assistance center)			X

FLOOD CONTROL	TIME FRAME		
	SHORT	MEDIUM	LONG
Prevent flooding caused by overflow of water bodies:			
- Work with other municipal, state and federal government agencies on initiatives to conduct regional stormwater master plans	X	X	X
- Review and update development regulations to allow for low impact development standards that mitigate stormwater runoff	X		
- Implement low impact design standards for streets that collect and filter water through a natural stormwater treatment system	X	X	X
- Reduce flooding by slowing down the flow of water and increasing pervious areas		X	X
Implement water retention parks as per master plan:			
- Develop preliminary designs and analysis	X	X	X
- Complete environmental impact studies		X	X
- Determine preliminary cost estimates	X		
- Research implementation funding options	X	X	X
- Develop partnerships			X
Reduce non-point source pollution through natural stormwater treatment methods:			
- Educate and encourage property owners to make improvements to their property that could reduce volume and treat stormwater runoff (i.e. best management practices)	X		
- Make improvements to public rights-of-way and open spaces that serve aesthetic functions as well as helping to treat and retain stormwater runoff		X	
- Review and change site design standards to promote site designs that minimize impervious surfaces and prioritize infiltration of stormwater	X		
Improve storm sewers as part of infrastructure re-development plan	X		

HOUSING	TIME FRAME		
	SHORT	MEDIUM	LONG
Form or identify a community housing development organization to lead the development task as a master developer:	X		
- Identify affordable housing goals		X	
- Market and advertise Ward 2 as a location of choice	X		
Improve the existing housing stock:			
- Educate property owners on funding opportunities for energy efficient products	X	X	
- Develop an acquisition process such as the Road Home program to address blighted and vacant properties			
- Develop a program such as the Lot-Next-Door program to allow existing residents to redevelop adjacent blighted properties		X	
- Enforce and coordinate the current property adjudication process to enter affected properties into programs listed above		X	
- Pending the installation of proposed water retention parks, facilitate the revision of the FEMA floodplain map and development guidelines to remove or reduce minimum requirements			X
Develop infill single-family housing on vacant or blighted properties:			
- Identify a pilot neighborhood to commence projects	X		
- Identify sites for development and assess site control options	X		
- Develop design guidelines to maintain neighborhood character		X	
- Promote sustainable design and energy cost saving design strategies	X		
- Conduct infill housing development in pilot neighborhood		X	
- Evaluate pilot success and prepare to replicate in other neighborhoods		X	
- Implement infill development projects in all Ward 2 neighborhoods		X	X
Develop new multi-family housing:			
- Identify priority development zones and develop incentive packages	X	X	
- Promote sustainable design and energy cost saving design strategies	X	X	
- Implement strategy in all Ward 2 neighborhoods		X	

QUALITY OF LIFE	TIME FRAME		
	SHORT	MEDIUM	LONG
Provide convenient access to existing amenities:			
- Upgrade streets for better pedestrian and bike access from Ward 2 to Chain Park	X		
- Upgrade streets for better pedestrian and bike access from William Carey University to Downtown	X		
- Upgrade streets for better pedestrian and bike access from Dabbs/Katie and East Jerusalem neighborhood to Duncan Lake Park	X		
- Provide convenient access to Leaf River for recreational use		X	
- Finalize approval and design processes for the City's proposed railroad overpass projects	X		
- Facilitate the installation of railroad overpasses	X		
Develop new neighborhood parks and outdoor recreation:			
- At Milton Barnes Ave. and old rail bed		X	
- At E. 7 <sup>th</sup> St and Canadian Central Railroad		X	
- Develop water retention parks that serve as flood water storage ponds and neighborhood amenities	X	X	X
- Facilitate the development of regional and neighborhood attractions in proximity to the water retention parks	X	X	X
Provide neighborhoods with access to fresh foods:			
- Form or identify community-based organizations to run farmers' markets within neighborhoods	X	X	X
- Facilitate the application of SNAP food benefits (food stamps) at farmers' markets	X		
- Encourage the formation of community gardens by neighborhood residents and allow them on city property	X	X	X
- Form or identify community-based organizations to run cooperative food stores within neighborhoods	X	X	
- Consider and implement edible landscaping projects	X	X	

CITY POLICY	TIME FRAME		
	SHORT	MEDIUM	LONG
Develop and adopt a capital improvements need-based program that coordinates and budgets for necessary improvements in the district	X	X	X
Develop a five-year plan for all city operations including addition of personnel and new technology as the need arises to implement master plan recommendations		X	
Link annual comprehensive plan reviews and decisions to the town budget and new capital improvements program to ensure logical implementation of the plan through a variety of practices and processes			X
Continue to monitor and enforce traffic violations as a means to reduce potential incidences along roads:	X		
- Inform residents of how to identify and document violations	X		
- Continue to support patrols in Twin Forks Rising	X		
- Develop a long range plan regarding police protection			X

## 10.2 Plan Phasing

As is usually the case, this master plan addresses a vast area in need of intervention, while chances are that available funds will be limited at any given time. In order to have the maximum return from any public or private investment, it is necessary that projects be linked geographically or conceptually in order to take advantage of synergetic advantages and achieve maximum impact. A geographically focused intervention will also provide maximum

visibility of successes and therefore generate more interest and momentum.

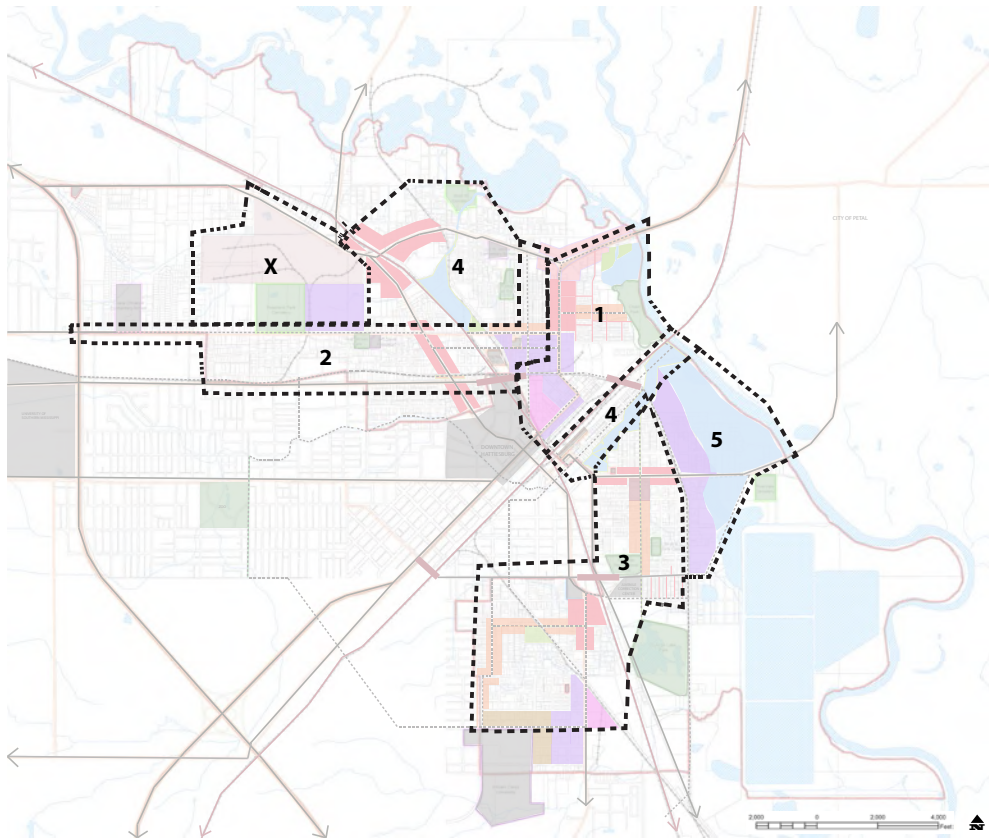
The following phasing plan first focuses projects around utilizing existing amenities and available funding opportunities optimally. Next, it focuses on neighborhood revitalization efforts that would provide the greatest value for residents. At the same time, primary design, feasibility studies, permitting and financing activities should take place for projects that require extensive public/private investment. The final phase consists of the implementa-

tion of projects requiring extensive public/private investment.

It is important to note that this phasing plan is only intended to be a starting point for analysis for the implementing agency of this master plan. A closer look at specific projects may lead to the discovery of other factors that determine the order of projects. This section is, therefore, intended to serve only as a general guide on how to prioritize areas for intervention and investment.



## Phasing Plan



## LEGEND

- PHASE 1** PROMOTE EAST DOWNTOWN EXPANSION BY TAPPING AVAILABLE TAX CREDITS AND PROVIDING INCENTIVE PACKAGES  
IMPROVE ACCESS TO EXISTING AMENITIES, I.E. CHAIN PARK, EAST DOWNTOWN  
PROMOTE RESIDENTIAL DEVELOPMENT AROUND CHAIN PARK  
DEVELOP WATER RETENTION PARK AT CHAIN PARK, IMPLEMENT GATEWAY DESIGN AT OLD HIGHWAY 42 BRIDGE AT LEAF RIVER
- PHASE 2** EXPAND IMPROVED ACCESS FROM WESTERN SECTION OF WARD 2 TO EXISTING AMENITIES, I.E. CHAIN PARK, EAST DOWNTOWN
- PHASE 3** DEVELOP CURRENT EATON SCHOOL AND VICINITY INTO A SOCIAL SERVICES NODE  
IMPROVE ACCESS TO EXISTING AMENITIES, I.E. CHAIN PARK, DOWNTOWN, DUNCAN LAKE, NEW COMMERCIAL AND SOCIAL SERVICES NODES  
PROMOTE IMPROVEMENT AND NEW DEVELOPMENT IN EAST JERUSALEM, KATIE-DABBS AND ADJACENT NEIGHBORHOODS PER MASTER PLAN  
DEVELOP NEW PARK ALONG MILTON BARNES AVE, PROMOTE COTTAGE BUSINESSES AND FRESH FOOD VENUES ALONG DABBS ST. AND TIPTON ST.  
PROMOTE CAMPUS EXPANSION AND MIXED USE DEVELOPMENT AROUND WILLIAM CAREY UNIVERSITY, PROVIDE CONVENIENT PEDESTRIAN AND BIKE ACCESS FROM UNIVERSITY TO DOWNTOWN
- PHASE 4** DEVELOP WATER RETENTION PARKS ALONG GORDON'S CREEK AND FORMER MERIDIAN FERTILIZER PLANT SITE  
PROMOTE IMPROVEMENT AND NEW DEVELOPMENT IN MOBILE/BOUIE AND OTHER NEIGHBORHOODS ADJACENT TO MAIN ST., RAILROAD LINES AND OLD HIGHWAY 42
- PHASE 5** DEVELOP WATER RETENTION PARK ALONG LEAF RIVER  
PROMOTE IMPROVEMENT AND NEW DEVELOPMENT ADJACENT TO WATER RETENTION PARK PER MASTER PLAN  
DEVELOP NEW GULFPORT PARKWAY  
IMPLEMENT GATEWAY DESIGN AT E. HARDY ST. AND LEAF RIVER
- PHASE X** PRIORITY DEVELOPMENT SITE AFTER APPROPRIATE REMEDIATION ACTIVITIES ARE COMPLETED

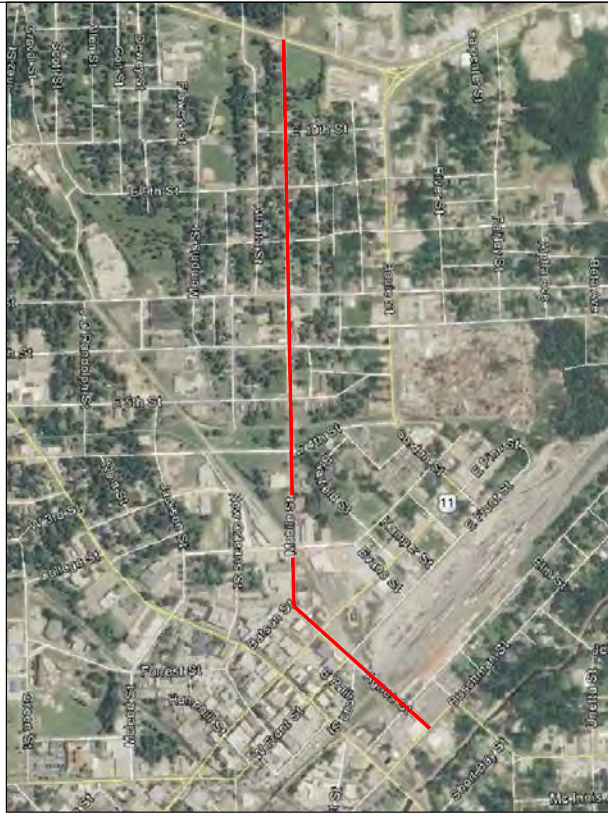
### 10.3 Infrastructure Project Cost Estimate

Priority	Project Name	Total Cost
1	Bouie Street	\$ 679,630.00
2	Mobile Street	\$ 809,970.00
3	Gordon Street/Front Street	\$ 663,215.00
4	East 4th Street	\$ 338,360.00
5	West 7th Street	\$ 958,160.00
6	East 6th Street/East 7th Street	\$ 840,560.00
7	West 4th Street	\$ 932,064.00
8	East Short 7th Street/East 8th Street/East Short 9th Street/East 9th Street	\$ 193,760.00
9	Fairley Street/River Street/Alpha Avenue/Beta Avenue	\$ 239,680.00
10	Tuscan Avenue/Penton Street/Dabbs Street/Ronie Street	\$ 1,423,660.00
11	Manning Avenue/Edwards Street/James Street/Bikeway	\$ 1,323,860.00
12	Southeast Drainage Canal/Old Hwy 49-Manning Street	\$ 182,000.00
13	Central Drainage Canal	\$ 525,000.00
13	Tipton Street	\$ 840,560.00
15	Greely Street/Lincoln Street/Sullivan Street/Webster Street/McKinley Street/Alcorn Street/Hall Avenue/Klondyke Avenue	\$ 446,110.00
16	Gulfport Street/Buschman Street	\$ 1,909,110.00
17	Proposed Hall Avenue Extension	\$ 330,960.00

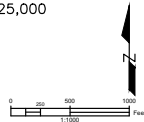
\$ 12,636,659.00







6250 LF @ 24' WIDE = 16,700 SY = 1840 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (16,700) = \$50,100  
 PAVING = 1840 TONS @ \$80 PER TON = \$147,200  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 7200 LF = \$156,250  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 6250LF (2) = \$225,000  
 DRAINAGE = \$231,420  
 TOTAL ESTIMATE = \$809,970



MOBILE STREET

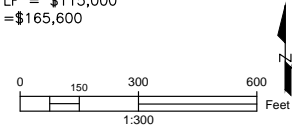


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4600 LF @ 24' WIDE = 12,300 SY = 1350 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (12,300) = \$36,900  
 PAVING = 1350 TONS @ \$80 PER TON = \$108,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 4600 LF = \$115,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 4600 LF (2) = \$165,600  
 DRAINAGE = \$170,200  
 TOTAL ESTIMATE = \$595,700



GORDON STREET  
 FRONT STREET

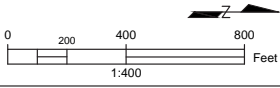


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3000 LF @ 24' WIDE = 8000 SY = 880 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (8000) = \$24,000  
 PAVING = 880 TONS @ \$80 PER TON = \$70,400  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 3000 LF = \$75,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 3000LF (2) = \$108,000  
 DRAINAGE = \$110,960  
 TOTAL ESTIMATE = \$388,360



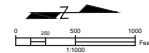
EAST 4TH STREET



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7400 LF @ 24' WIDE = 19,800 SY = 2175 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (19,800) = \$59,400  
 PAVING = 2175 TONS @ \$80 PER TON = \$174,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 7400 LF = \$185,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 7400LF (2) = \$266,000  
 DRAINAGE = \$273,760  
 TOTAL ESTIMATE = \$958,160

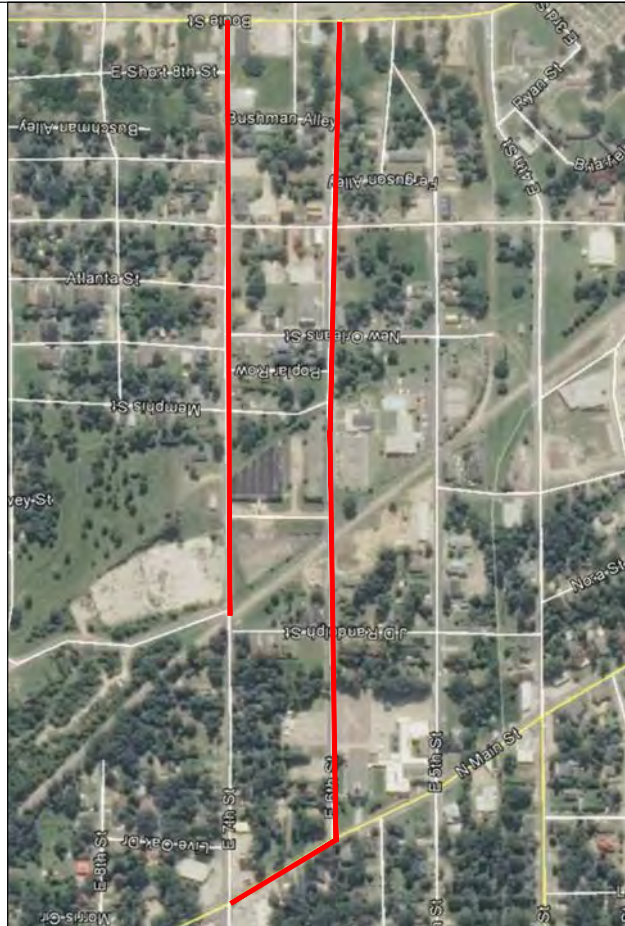


W 7th STREET

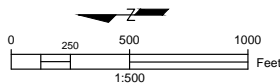


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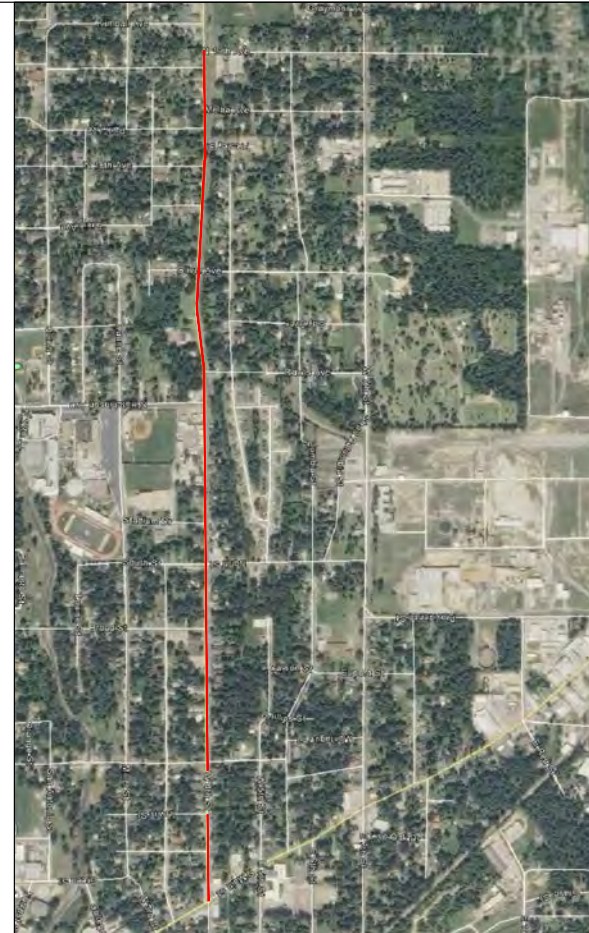
6500 LF @ 24' WIDE = 17,300 SY = 1900 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (17,300) = \$51,900  
 PAVING = 1900 TONS @ \$80 PER TON = \$152,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 6500 LF = \$162,500  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 6500LF (2) = \$234,000  
 DRAINAGE = \$240,160  
 TOTAL ESTIMATE = \$840,560



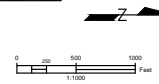
EAST 6TH STREET  
 EAST 7TH STREET



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7200 LF @ 24' WIDE = 19,200 SY = 2112 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (19,200) = \$57,600  
 PAVING = 1540 TONS @ \$80 PER TON = \$168,960  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 7200 LF = \$180,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 7200LF (2) = \$259,200  
 DRAINAGE = \$266,304  
 TOTAL ESTIMATE = \$832,064



WEST 4TH STREET



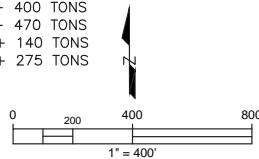
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E SHORT 7th STREET: 1375' MILLING AND PAVING - 3700 SY + 400 TONS  
 E 8th STREET: 1675' MILLING AND PAVING - 4500 SY + 470 TONS  
 E SHORT 9th STREET: 475' MILLING AND PAVING - 1275 SY + 140 TONS  
 E 9th STREET: 900' MILLING AND PAVING - 2400 SY + 275 TONS

4425 LF @ 24' WIDE = 11,875 SY = 1285 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (11,875) = \$35,600  
 PAVING = 1285 TONS @ \$80 PER TON = \$102,800  
 DRAINAGE = \$55,360  
 TOTAL ESTIMATE = \$193,760



E SHORT 7th STREET  
 E 8th STREET  
 E SHORT 9th STREET  
 E 9th STREET



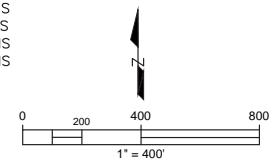
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FAIRLEY STREET: 2500' MILLING AND PAVING - 6700 SY + 740 TONS  
 RIVER STREET: 1575' MILLING AND PAVING - 4200 SY + 470 TONS  
 ALPHA AVENUE: 800' MILLING AND PAVING - 2150 SY + 240 TONS  
 BETA AVENUE: 500' MILLING AND PAVING - 1350 SY + 150 TONS

5375 LF @ 24' WIDE = 14,400 SY = 1600 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (14,400) = \$43,200  
 PAVING = 1600 TONS @ \$80 PER TON = \$128,000  
 DRAINAGE = \$68,480  
 TOTAL ESTIMATE = \$239,680



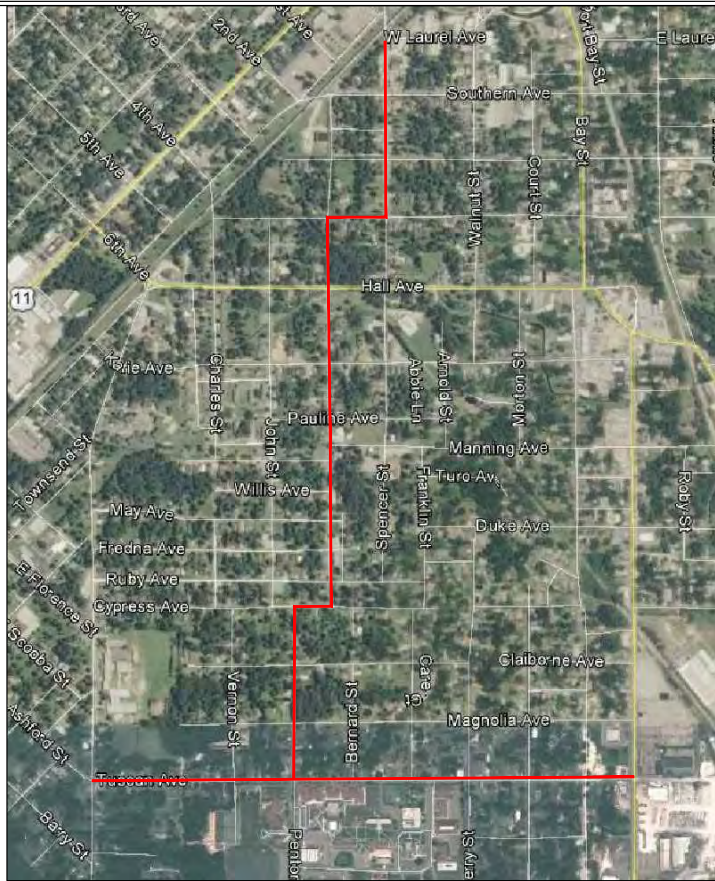
FAIRLEY STREET  
 RIVER STREET  
 ALPHA AVENUE  
 BETA AVENUE



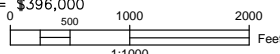
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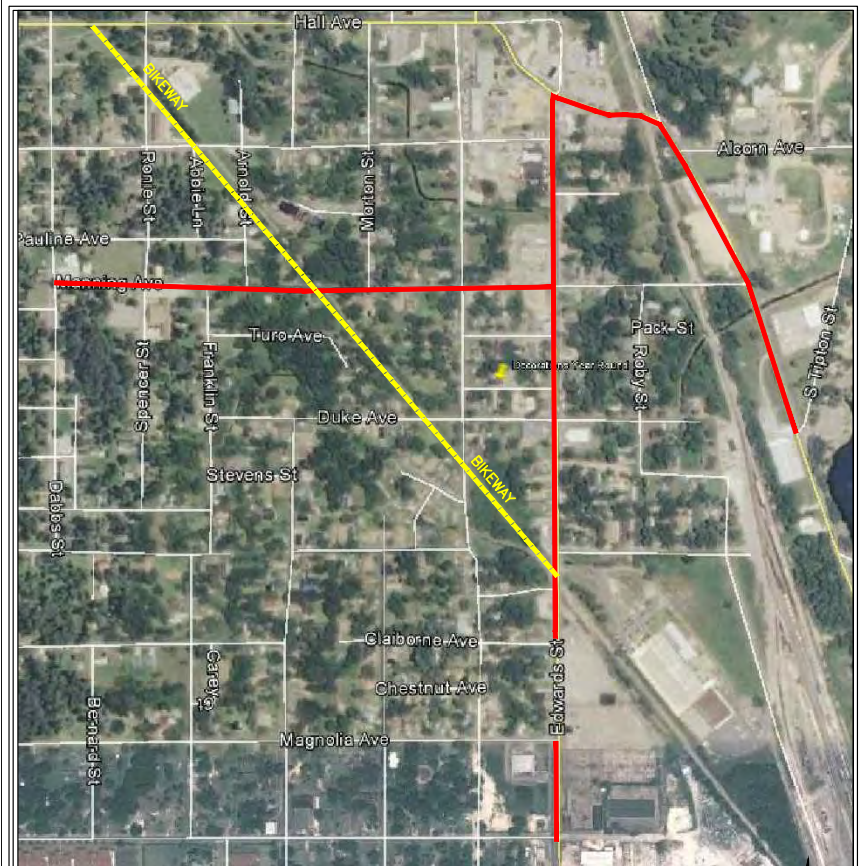
11,000 LF @ 24' WIDE = 29,300 SY = 3225 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (29,300) = \$87,900  
 PAVING = 3225 TONS @ \$80 PER TON = \$258,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 11,000 LF = \$275,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 9500 LF (2) = \$396,000  
 DRAINAGE = \$406,760  
 TOTAL ESTIMATE = \$1,423,660



TUSCAN AVENUE  
 PENTON STREET  
 DABBS STREET  
 RONIE STREET



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8600 LF @ 24' WIDE = 23,000 SY = 2525 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (23,000) = \$69,000  
 PAVING = 2525 TONS @ \$80 PER TON = \$202,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 8600 LF = \$215,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 8600LF (2) = \$309,600  
 DRAINAGE = \$318,240  
 BIKEWAY - 3000LF @ 10' WIDE= 3300 SY = 365 TONS  
 PAVING = 365 TONS @ \$80 PER TON = \$29,000  
 TOTAL ESTIMATE = \$1,323,860

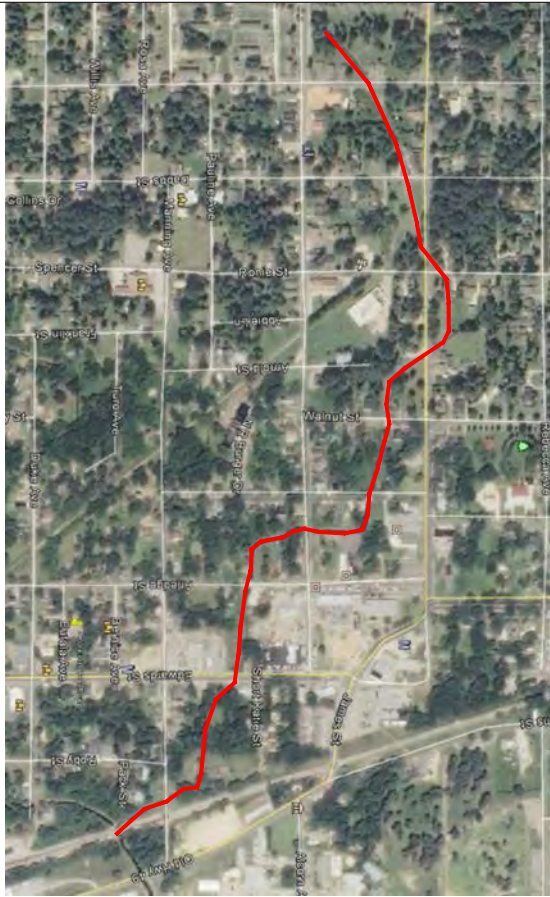


MANNING AVENUE  
 EDWARDS STREET  
 JAMES STREET  
 BIKEWAY

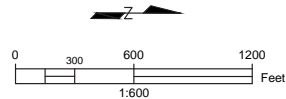


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5200 LF @ \$35 PER FOOT  
TOTAL ESTIMATE = \$182,000

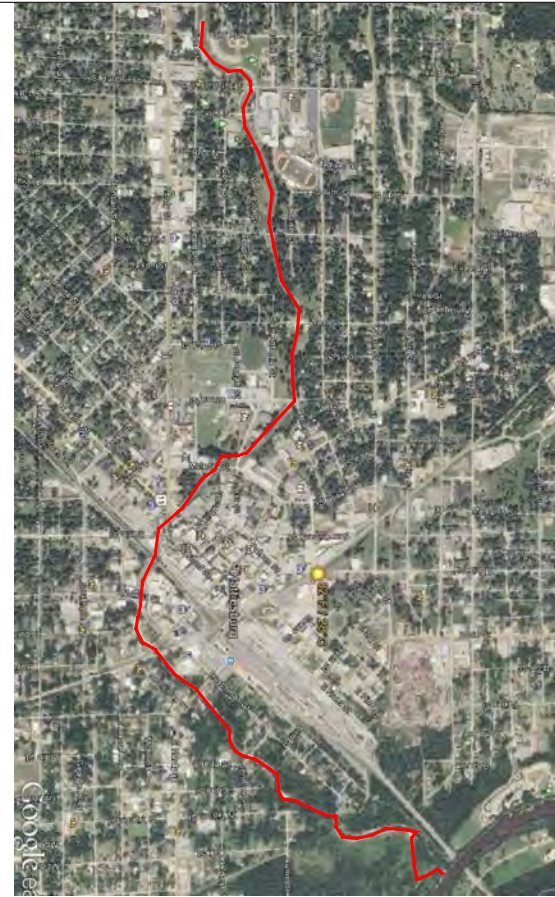


SOUTHEAST DRAINAGE CANAL  
OLD HWY 49 - MANNING AVENUE

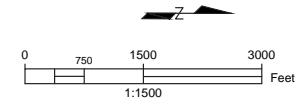


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15,000 LF @ \$35 PER FOOT  
TOTAL ESTIMATE = \$525,000

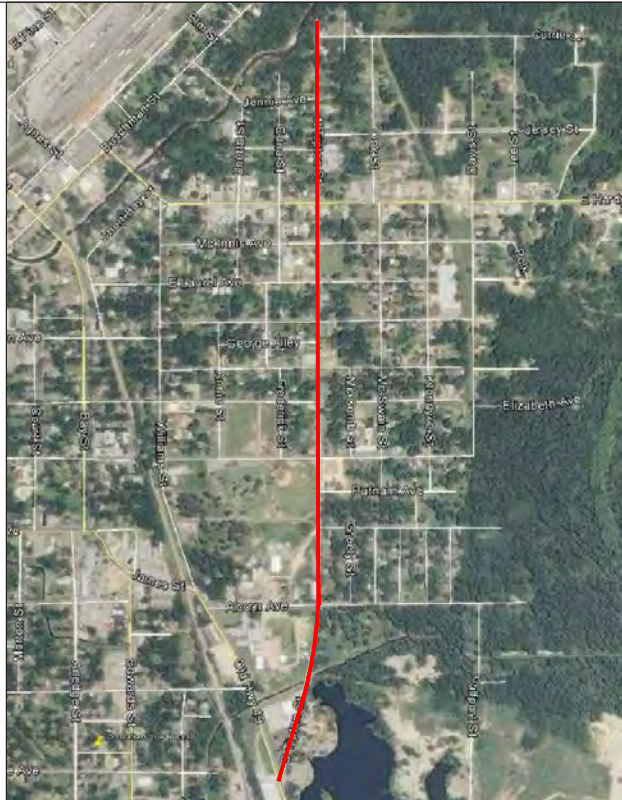


CENTRAL DRAINAGE CANAL

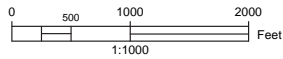


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6500 LF @ 24' WIDE = 17,300 SY = 1900 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (17,300) = \$51,900  
 PAVING = 1900 TONS @ \$80 PER TON = \$152,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 6500 LF = \$162,500  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 6250LF (2) = \$234,000  
 DRAINAGE = \$240,160  
 TOTAL ESTIMATE = \$840,560



TIPTON STREET



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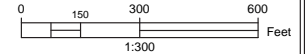
GREELY STREET: 650' MILLING AND PAVING  
 LINCOLN STREET: 650' MILLING AND PAVING  
 SULLIVAN AVENUE: 650' MILLING AND PAVING  
 WEBSTER AVENUE: 650' MILLING AND PAVING  
 MCKINLEY STREET 650' MILLING AND PAVING

ALCORN STREET: 3550' MILLING AND PAVING  
 HALL AVENUE: 2600' MILLING AND PAVING  
 KLONDYKE AVENUE: 580' MILLING AND PAVING



650 LF @ 24' WIDE = 1750 SY = 200 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (1750) = \$5250  
 PAVING = 200 TONS @ \$80 PER TON = \$16,000  
 TOTAL ESTIMATE PER STREET = \$21,250 (5)  
 DRAINAGE = \$42,500  
 TOTAL ESTIMATE = \$148,750

6730 LF @ 24' WIDE = 18,000 SY = 1980 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (18,000) = \$54,000  
 PAVING = 1980 TONS @ \$80 PER TON = \$158,400  
 DRAINAGE = \$84,960  
 TOTAL ESTIMATE = \$297,360



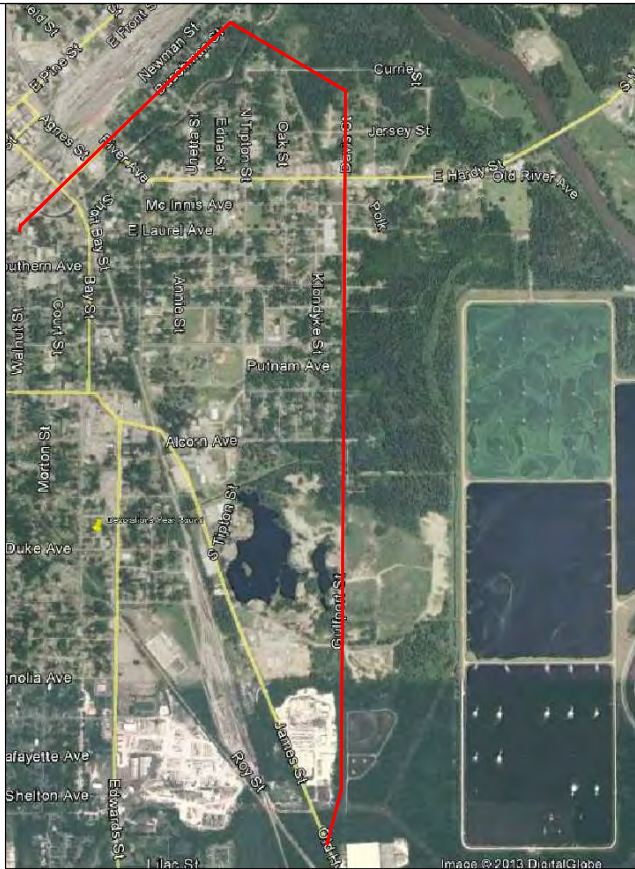
GREELY STREET  
 LINCOLN STREET  
 SULLIVAN STREET  
 WEBSTER STREET  
 MCKINLEY STREET



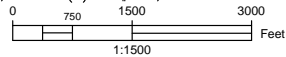
CITY OF HATTIESBURG  
 TWIN FORKS COMMUNITY IMPROVEMENTS  
 FORREST COUNTY  
 MISSISSIPPI

PROJECT NO: 132118.0003 DATE: JULY, 2013





14,750 LF @ 24' WIDE = 39,300 SY = 4325 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (39,300) = \$117,900  
 PAVING = 4325 TONS @ \$80 PER TON = \$346,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 14,750 LF = \$368,750  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 14,750 LF (2) = \$531,000  
 DRAINAGE = \$545,460  
 TOTAL ESTIMATE = \$1,909,110

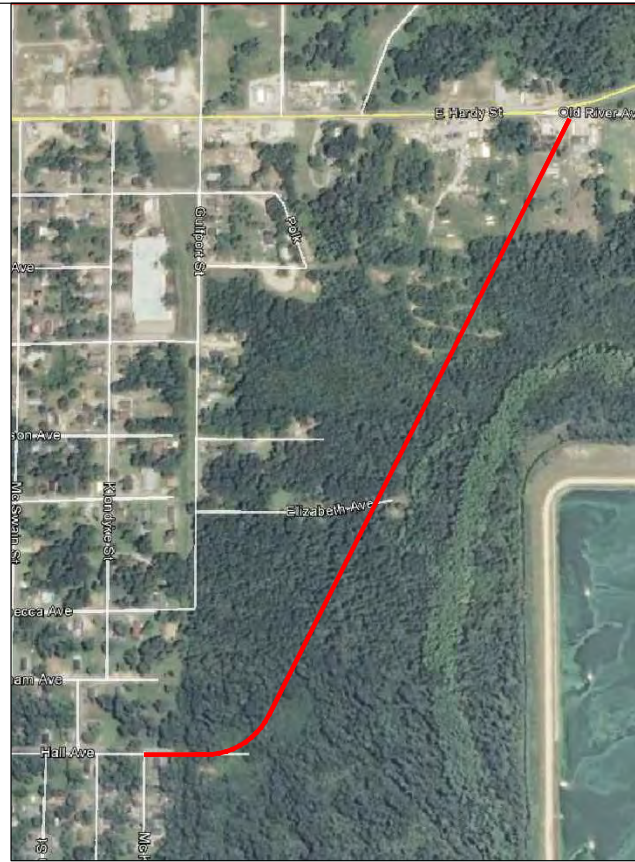


GULFPORT STREET  
 BUSCHMAN STREET

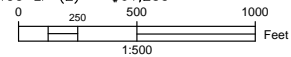


CITY OF HATTIESBURG  
 TWIN FORKS COMMUNITY IMPROVEMENTS  
 FORREST COUNTY  
 MISSISSIPPI

PROJECT NO: 132118.0003 DATE: JULY, 2013



3400 LF @ 24' WIDE = 9100 SY = 1000 TONS  
 MILLING = 2" DEPTH @ \$3 PER SY (3400) = \$10,200  
 PAVING = 1000 TONS @ \$80 PER TON = \$80,000  
 SIDEWALK REMOVAL AND REPLACEMENT @ \$25 PER LF - 3400 LF = \$85,000  
 OPTIONAL CURBING REPLACEMENT: \$18 PER LF - 3400 LF (2) = \$61,200  
 DRAINAGE = \$94,560  
 TOTAL ESTIMATE = \$330,960



PROPOSED HALL AVE. EXTENSION



CITY OF HATTIESBURG  
 TWIN FORKS COMMUNITY IMPROVEMENTS  
 FORREST COUNTY  
 MISSISSIPPI

PROJECT NO: 132118.0003 DATE: JULY, 2013



## Appendices

### **A. Introductory Town Hall Meeting Goals and Objectives Voting Tally**

### **B. Future Land Use Alternatives**

**B.1 Ambitious**

**B.2 Moderate**

**B.3 Easy**

## Appendix A

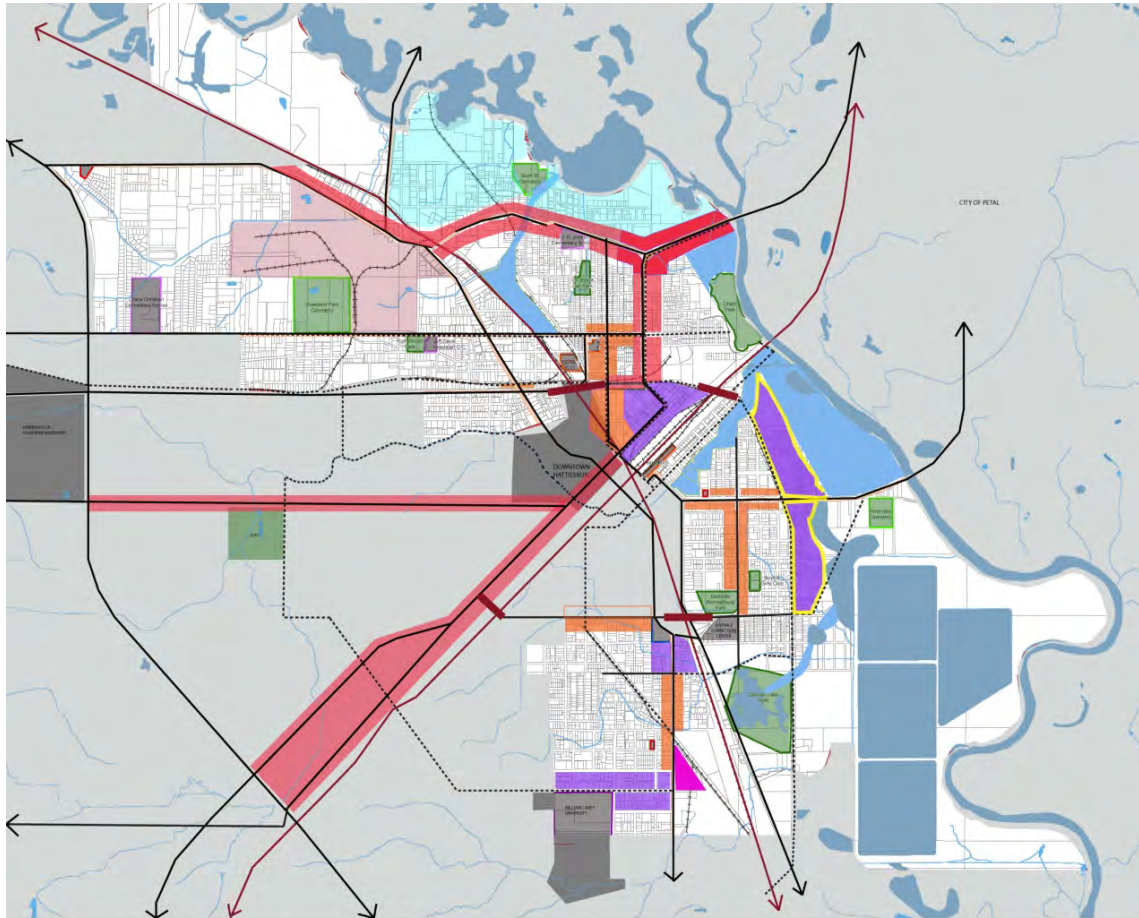
### Introductory Town Hall Meeting Goals and Objectives Voting Tally

<b>Upgrade Infrastructure</b>	<b>Important</b>	<b>6</b>	<b>Not Important</b>	<b>1</b>
Water and sewer service	24		2	
Storm sewers	8		2	
Curb and Gutters	3		3	
Streets	3		2	
Sidewalks	11		2	
Streetlights	4			
<b>Address Flood Control</b>	<b>Important</b>	<b>1</b>	<b>Not Important</b>	<b>1</b>
Buy out homes in flood zone	12		16	
Set minimum elevation for new construction	13		3	
Improve storm sewers	4		1	
<b>Promote Development</b>	<b>Important</b>	<b>8</b>	<b>Not Important</b>	
Revise Zoning	8		7	
Form a District community development Corp.	4			
Design to the Mater Plan	2		4	
Convenience stores into neighborhood hubs	3		14	
Design for diversity and mixed use	1		2	
Include housing in development	16		1	
Strengthen light industrial	2		5	
<b>Provide Community Support and Services</b>	<b>Important</b>	<b>3</b>	<b>Not Important</b>	
Provide family services	2		4	
Offer adult education/ GED	3		10	
Promote neighborhood associations	4		3	
Provide community space for recreation and meetings	5		2	
Improve health care in Ward 2	3		3	
Provide better public transportation	3		9	

<b>Improve Housing</b>	<b>Important</b>	<b>5</b>	<b>Not Important</b>	
Remove and replace substandard housing	11		1	
Decrease density in flood zone	3		4	
Increase density and commercial hubs and along Mobile St	3		2	
Design for diversity	2			
Fund improvements (need based improvement fund)	11			
Offer diverse housing types	1		6	
<b>Promote Safety and Security</b>	<b>Important</b>	<b>5</b>	<b>Not Important</b>	
Increase police presence	9		7	
Neighborhood Watch	1		1	
Communicate via Neighborhood Associations			1	
Remove dilapidated and vacant structures	20		1	
Upgrade streetscape with sidewalks and streetlights	8		1	
Create safe playgrounds	2		4	
Provide separation from RR tracks	1		3	
<b>Think Green</b>	<b>Important</b>		<b>Not Important</b>	<b>1</b>
Reuse instead of Rebuild, where possible	9		2	
Provide needed services in Ward 2	6		2	
Build new construction energy efficient	1		3	
Improve public transportation	3		4	
Create community gardens	2		12	
<b>Total Votes collected -</b>	<b>94</b>	<b>Incorrectly filled (not tallied) -</b>	<b>8</b>	
<b>Correctly filled and tallied</b>		<b>Incorrectly filled by broad goals</b>		
<b>(those with &gt; 10 votes shown in red) -</b>	<b>76</b>	<b>(shown in color filled cells) -</b>	<b>10</b>	

## Appendix B

### B.1 Land Use Plan Alternative 04-24-2013, Ambitious



**FUTURE LAND USE PLAN - OPTION 1**  
APRIL 2013

**TWIN FORKS RISING PHASE II**  
HATTIESBURG, MS

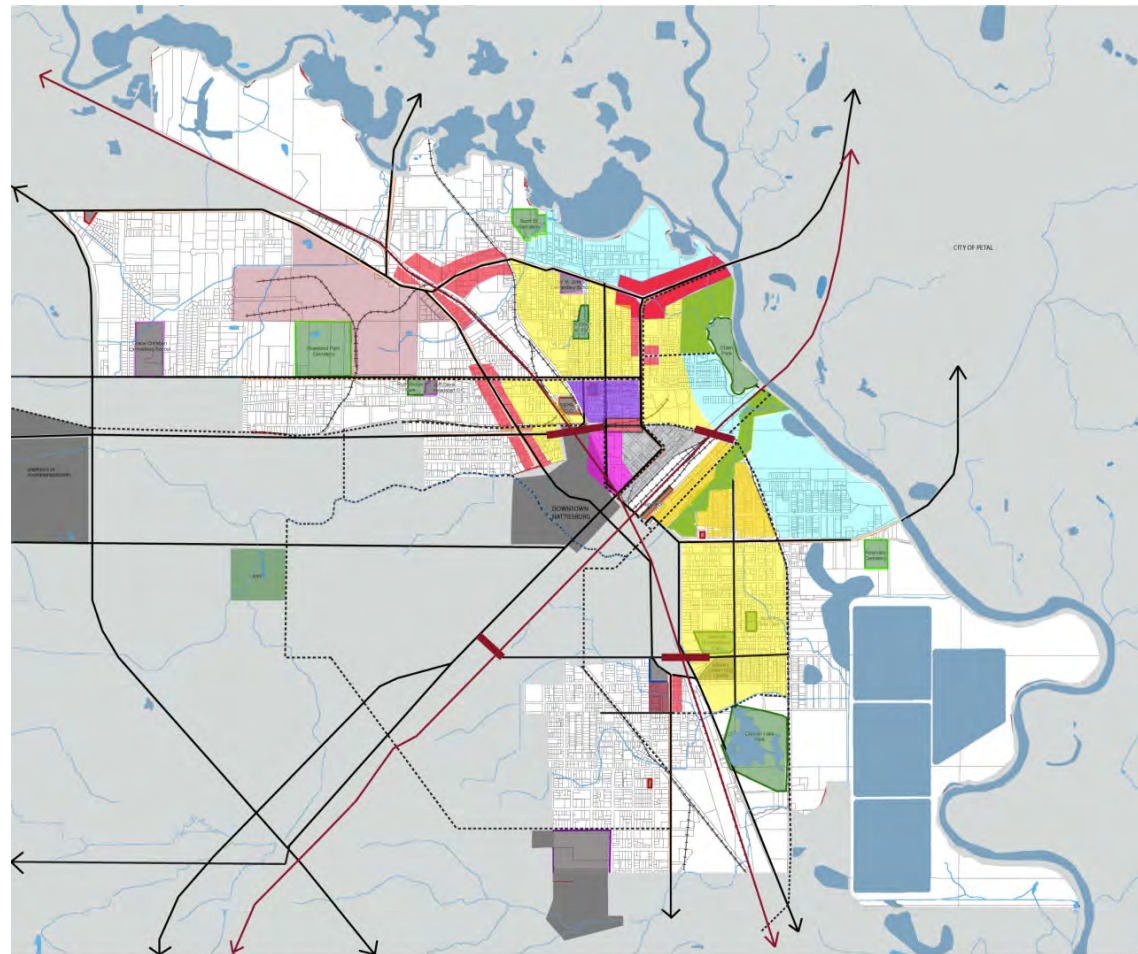
**LEGEND**

— EXISTING ROAD NETWORK	RESIDENTIAL RECEIVER ZONE	NEW PARKS	ENTERTAINMENT/GAME PARK
— ACTIVE RAIL LINE	EXISTING COMMERCIAL	EXISTING PARKS/CEMETRIES	RIVERFRONT MIXED USE DEVELOPMENT
— PROPOSED OVERPASS	NEW COMMERCIAL	NEW WATERFEATURE/PARK	SOCIAL SERVICES
..... PLANNED COMPLETE STREET	MIXED USE	EXISTING WATERBODY	COMPLETE BUY OUTS
	LIGHT INDUSTRIAL	EXISTING FACILITIES	FUTURE UNKNOWN





## B.2 Land Use Plan Alternative 04-24-2013, Moderate



### FUTURE LAND USE PLAN - OPTION 2

APRIL 2013

### TWIN FORKS RISING PHASE II HATTIESBURG, MS

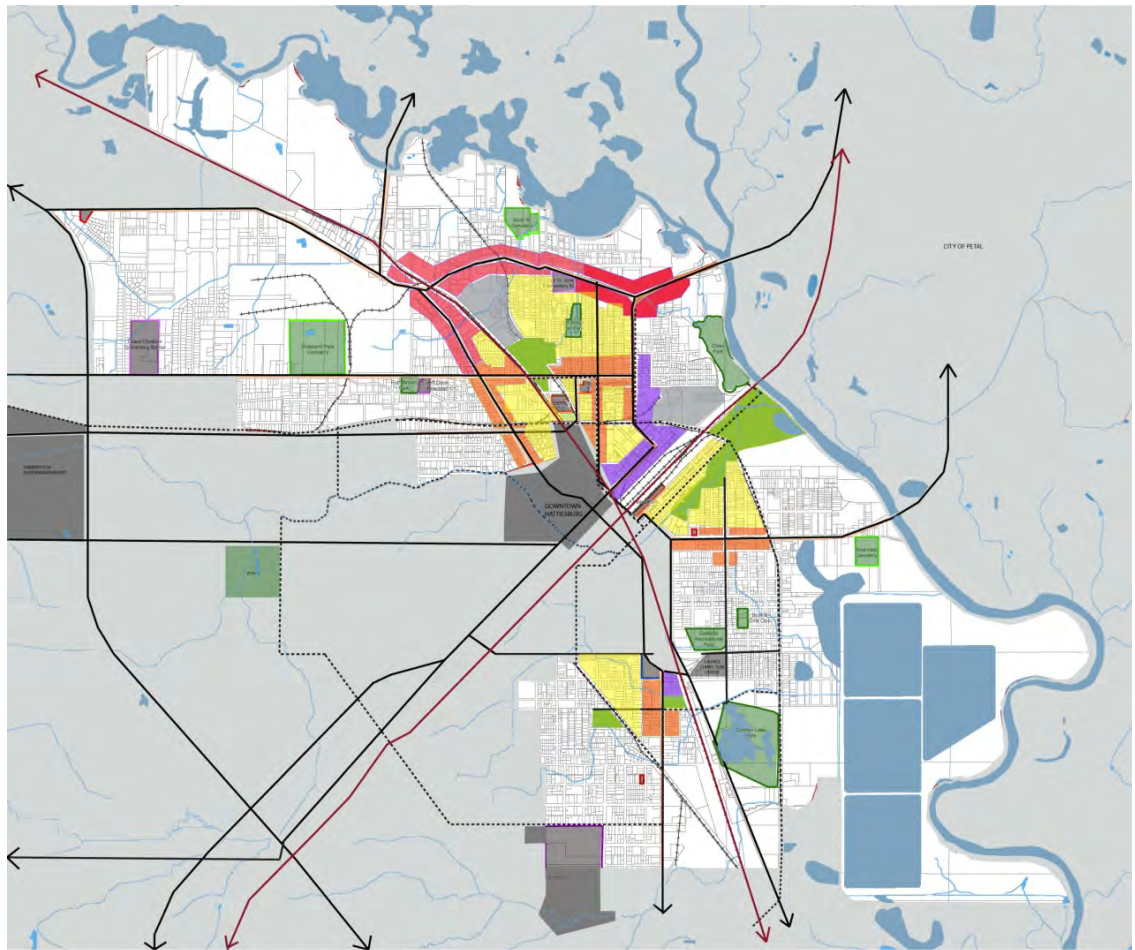
#### LEGEND

- |                           |                             |                            |                             |
|---------------------------|-----------------------------|----------------------------|-----------------------------|
| — EXISTING ROAD NETWORK   | ■ RESIDENTIAL RECEIVER ZONE | ■ NEW PARKS                | ■ ENTERTAINMENT             |
| — ACTIVE RAIL LINE        | ■ EXISTING COMMERCIAL       | ■ EXISTING PARKS/CEMETRIES | ■ CREATIVE 'FUNKY' DISTRICT |
| — PROPOSED OVERPASS       | ■ NEW COMMERCIAL            | ■ NEW WATERBODY            | ■ SOCIAL SERVICES           |
| — PLANNED COMPLETE STREET | ■ MIXED USE                 | ■ EXISTING WATERBODY       | ■ COMPLETE BUY OUTS         |
|                           | ■ LIGHT INDUSTRIAL          | ■ EXISTING FACILITIES      | ■ FUTURE UNKNOWN            |





### B.3 Land Use Plan Alternative 04-24-2013, Easy



**FUTURE LAND USE PLAN - OPTION 3**  
APRIL 2013

**TWIN FORKS RISING PHASE II**  
HATTIESBURG, MS

LEGEND		
 EXISTING ROAD NETWORK	 RESIDENTIAL RECEIVER ZONE	 NEW PARKS
 ACTIVE RAIL LINE	 COTTAGE BUSINESS /RESIDENCES	 EXISTING PARKS/CEMETRIES
 PROPOSED OVERPASS	 NEW COMMERCIAL	 EXISTING COMMERCIAL
 PLANNED COMPLETE STREET	 MIXED USE RESIDENTIAL/ ENTERTAINMENT	 EXISTING WATERBODY
	 LIGHT INDUSTRIAL	 EXISTING FACILITIES

