

PASCAGOULA RIVERFRONT

A Vision for Renewal

30% SCHEMATIC

PASCAGOULA RIVERFRONT

Masterplan | *a post-katrina vision for renewal on the waterfront*

PASCAGOULA RIVERFRONT

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PASCAGOULA RIVERFRONT

PASCAGOULA RIVERFRONT

Introduction | *executive summary*

The 30% schematic plan is comprised of site analysis, market analysis, and waterfront planning. Existing conditions were mapped, barriers to redevelopment identified, and physical planning priorities defined.

This document is a record of work to date on the schematic plan, including the market study, analysis, and the overall vision plan for the waterfront, which includes three unique district identities, proposed future land, and programmatic goals for each district.

Additionally in this stage, an RFQ was issued for the catalyst site along the riverfront in the Riverwalk District. In “next steps”, relevant city initiatives have been identified for priority planning and design development in the next stage in order to support the RFP site in development efforts to come.

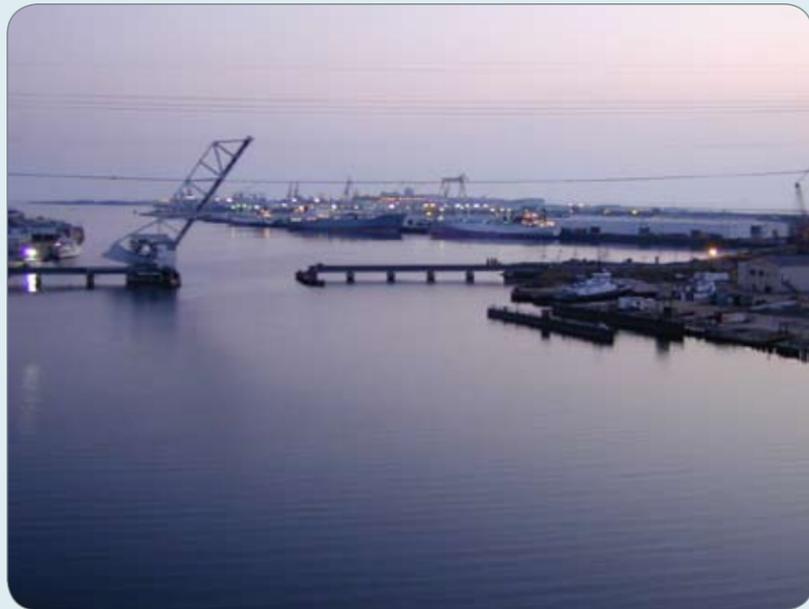


PASCAGOULA RIVERFRONT

A Livable & Working Waterfront



A Livable & Working Waterfront | *history*



THE PASCAGOULA RIVERFRONT

A Historic Center for Marine Industry

Known as the “Flagship City”, Pascagoula serves as Mississippi’s largest and most important shipping port. With an extensive maritime history, the city began as a small fishing village and over time thrived into a prominent shipping port housing major shipbuilders and oil refineries. The introduction of Highway 90 and Interstate 10 gave Pascagoula even more opportunities to grow.

Today, major employers such as Northrop Grumman, Chevron and other maritime-related industries are established businesses in Pascagoula, giving it significant presence in the industry. Other major employers are the NOAA Gulf Coast Research Facility, Signal International, Mississippi Phosphates,

and the Naval Station Pascagoula which is located on nearby Singing River Island.

HURRICANE KATRINA

In the summer of 2005, Pascagoula was in the unfortunate path of Hurricane Katrina. The Category 5 hurricane left a path of devastation along the Gulf Coast. The City was left with serious wind and flood damage to many homes and structures. Much of the city was under several feet of water when the waves surged inland. The physical reconstruction necessary due to storm damage was only the beginning of what would become a challenging road to recovery for the city, including

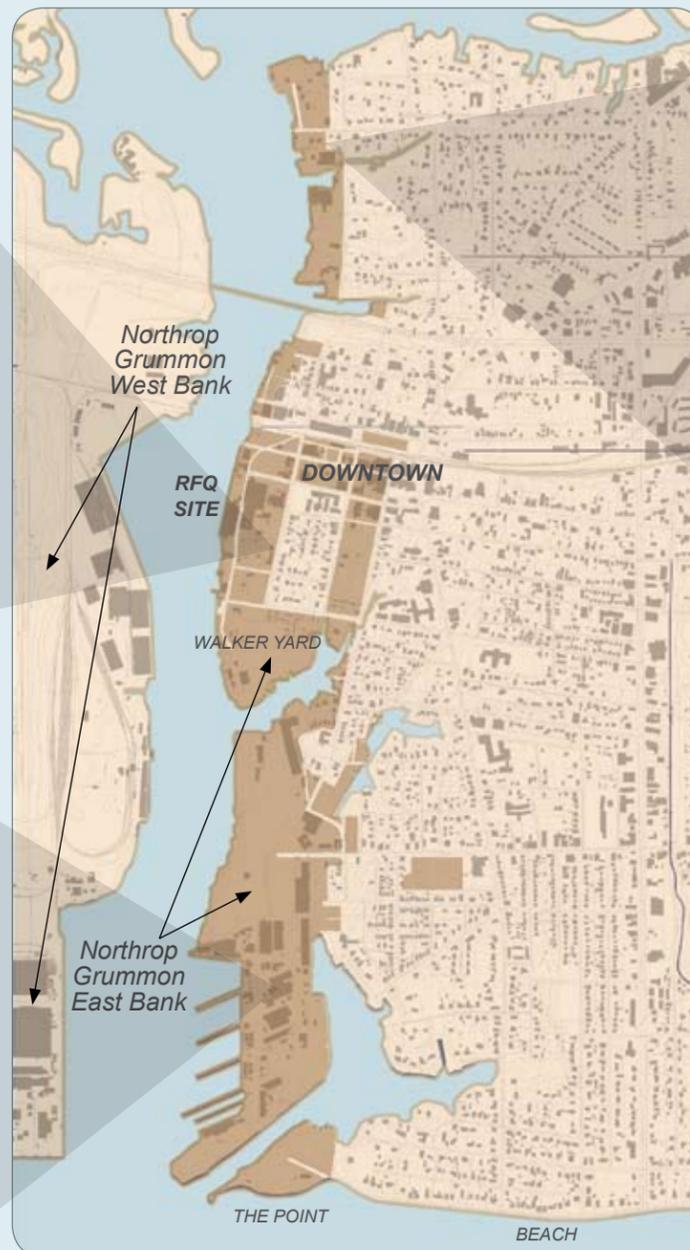
skyrocketing real estate prices due to limited supply, and the flight of some residents to high ground north of I-10 in order to avoid the higher cost of insurance within the critical flood zone. The waterfront is thus the City’s greatest amenity as well as the source of some of its greatest challenges.

Through aggressive redevelopment efforts including federal and state grant applications, zoning amendments, market analysis, and physical planning, the City of Pascagoula is working to rebound from the tragedy by reviving its riverfront into a pleasant and livable environment.

PASCAGOULA RIVERFRONT

A Livable & Working Waterfront

Project Area | *riverfront*



STUDY AREA
Pascagoula River Waterfront

A FOCUS ON THE RIVER

Planning is focused along the entire extent of the east bank of the Pascagoula River. The river has long been a working waterfront, providing an economic engine to the City through military, marine and oil related activities.

Nearly half of the water frontage on the east bank is owned by Northrop Grummon, the city's largest employer. When Northrop Grummon facilities were devastated by Hurricane Katrina, the somewhat outdated east bank properties were not considered valuable enough in the company's operations to undertake the extensive reconstruction that would be required to reclaim them. Instead, the company is expanding their west bank operations with a link to Singing River Island. These former industrial sites are suspected brownfields; however, the extent and type of pollution affecting these parcels is yet to be determined.

River frontage north of Walker Yard is owned by several parties and requires assembly in order to undertake regeneration. Zoning along the waterfront is entirely industrial, however the City expects to achieve zoning change to mixed use by the Spring of 2008.

Project Area | *the city's vision*



2006 VISIONING CHARETTE

The City of Pascagoula and EDAW undertook a visioning charette focusing on defining city initiatives for grant proposals in September 2006.

The process culminated in a vision plan and a series of MDA grant submittals, outlined below.

VISION STATEMENTS

Celebrating the Waterfront - A Working Heritage

Downtown Pascagoula the "Heart" of the Community

These two vision statements are from the City of Pascagoula's 2005 Strategic Plan. They serve as the guideposts for the revitalization of the city.

PROJECT PRIORITIES IDENTIFIED

The projects identified by the City of Pascagoula as candidates for the Mississippi Development Authority (MDA) grant program represented strategic catalyst projects that were intended to spur private investment, provide economic development opportunities, and promote mixed uses within the downtown and riverfront area.

Proposed projects were identified through a rigorous examination of the city's current conditions, market opportunities, and previous planning efforts, which include Pascagoula's Comprehensive Plan, the Strategic Plan, and the Governor's Commission Plan.

Collectively, the project initiatives were intended to establish the city's revitalization framework. Each of the projects represent direct and tangible implementation actions that support the city's vision to create a viable and attractive downtown and riverfront for the citizens of Pascagoula

The MDA grant projects that impact the waterfront plan include:

- Streetscape Extension & Implementation
Re-establishes vital corridor and pedestrian connections to downtown and the riverfront
- Historic Pathway Enhancements
Creates linkages to major riverfront redevelopment sites and to downtown and highlights cultural resources
- Heinz Property Redevelopment
Critical riverfront redevelopment site that offers substantial economic development opportunity
- Front Street Reconnection + Riverwalk Promenade
Re-establishes the missing north/south access link along the riverfront, provides public access to the Pascagoula River adjacent to downtown areas and enhances the economic development opportunities along the riverfront for Project 3a
- Hevae Glove Shipping Property Redevelopment
Critical riverfront redevelopment site adjacent the south side of Projects 3a & 3b that will provide residential development, public access to the riverfront and a park for the south end of the riverwalk.

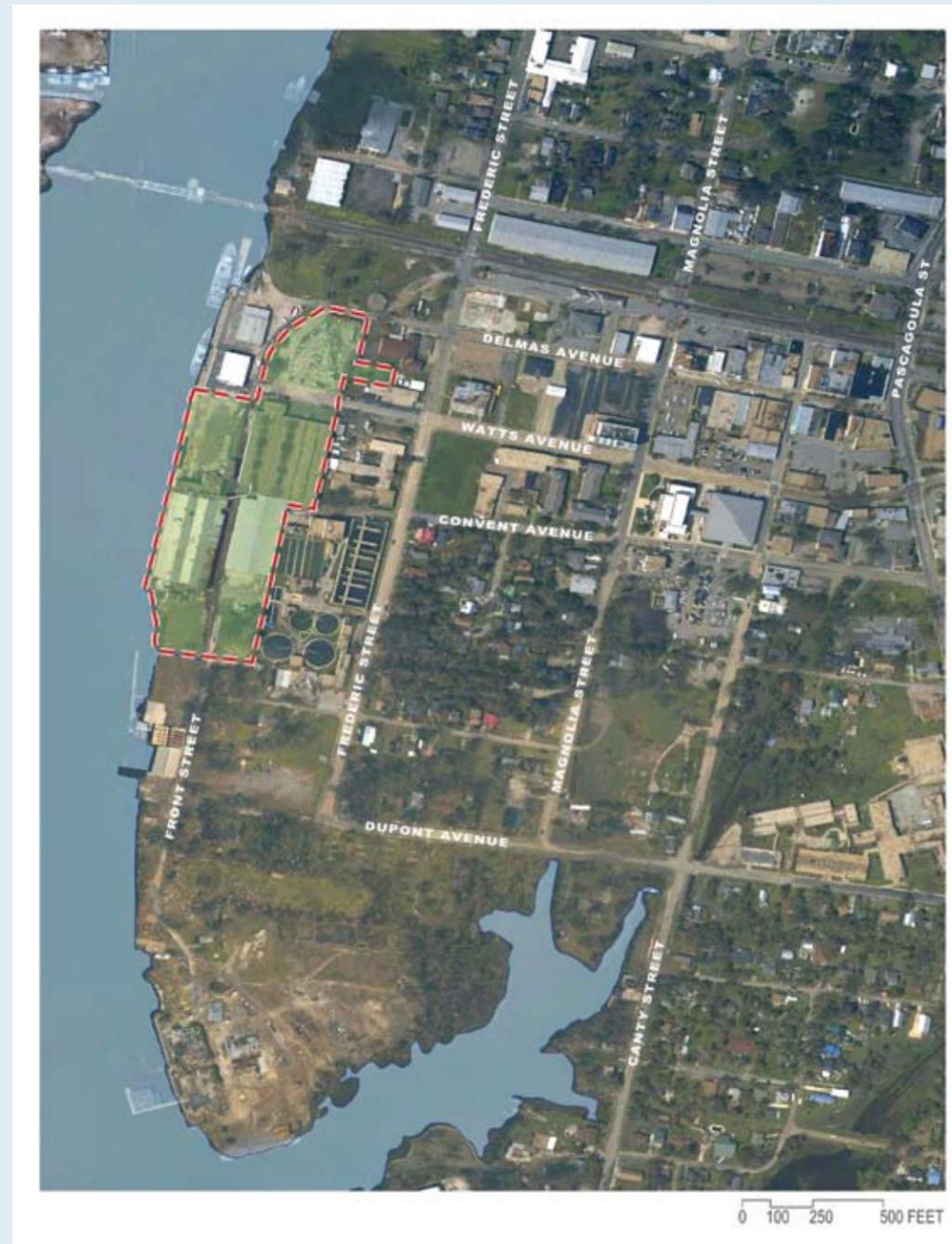
FUNDING SECURED & PLAN MOVING FORWARD

The MDA grant process culminated in a vision plan focusing on near term redevelopment goals. The catalyst move will be to reconnect downtown Pascagoula to the riverfront.

In addition to commissioning the 30% schematic design document in hand and undertaking an RFQ for its catalyst riverfront site, the City has successfully obtained over \$9 million in MDA funds to forward its projects, which will be dedicated to initiatives supporting the riverfront revitalization effort in the downtown area.



Project Area | *the city's vision*



CATALYST SITE: RFQ/RFP INITIATIVE

The City of Pascagoula assembled a 7.9 acre tract of land along the riverfront and issued an RFQ. Public investment in the site will ultimately be comprised of the following projects:

- land acquisition, demolition of existing warehouses, and preparation of a development-ready pad
- extension of Front Street to Delmas Avenue linking the waterfront to downtown with a new roadway
- streetscaping along Delmas, Watts, and Front Street
- visually mitigating the wastewater treatment plant abutting the site with screening plants and walls
- building open space amenities including a park, waterfront promenade, and historic pathway
- rezoning the area to allow for mixed use development

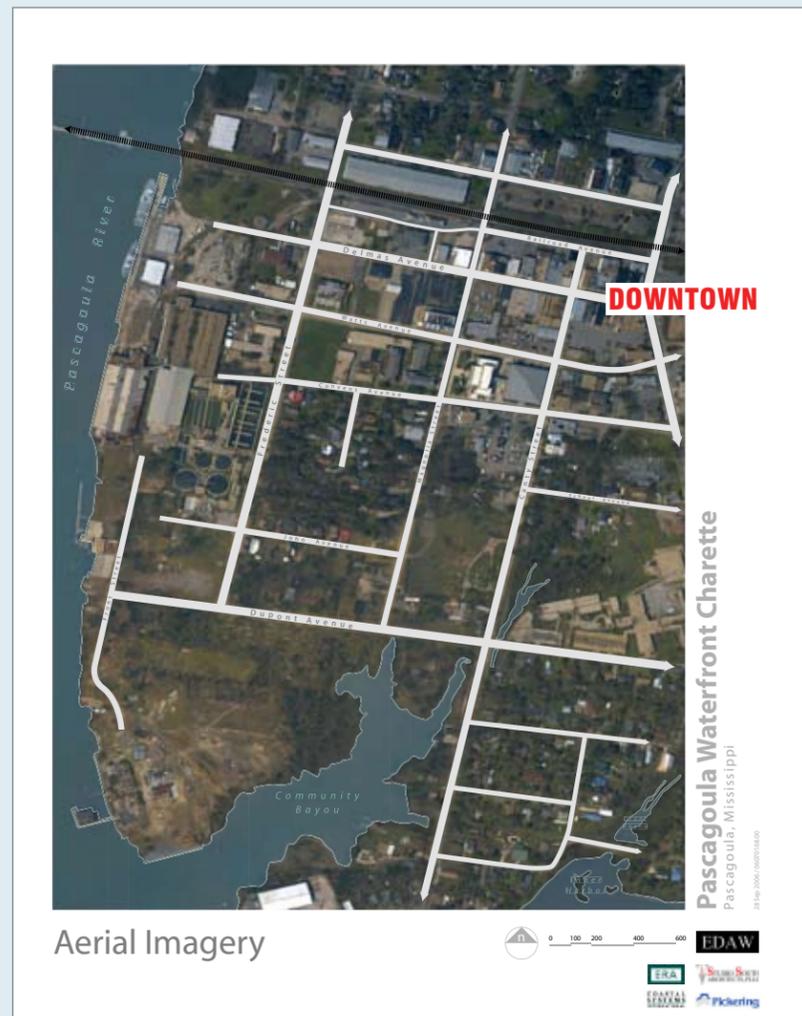
The City has secured funding to improve the RFQ/RFP site and its surrounds. The City completed an RFQ process at the end of 2007 and as a result has prequalified select respondents for the RFP.

The City is now moving forward into the RFP process, which will be an open call. The City is seeking a development partner who shares the City's vision and has the capacity to activate the riverfront with vibrant retail, hospitality, office, housing and public space.

Project Area | *the city's vision*

EXISTING CONDITIONS

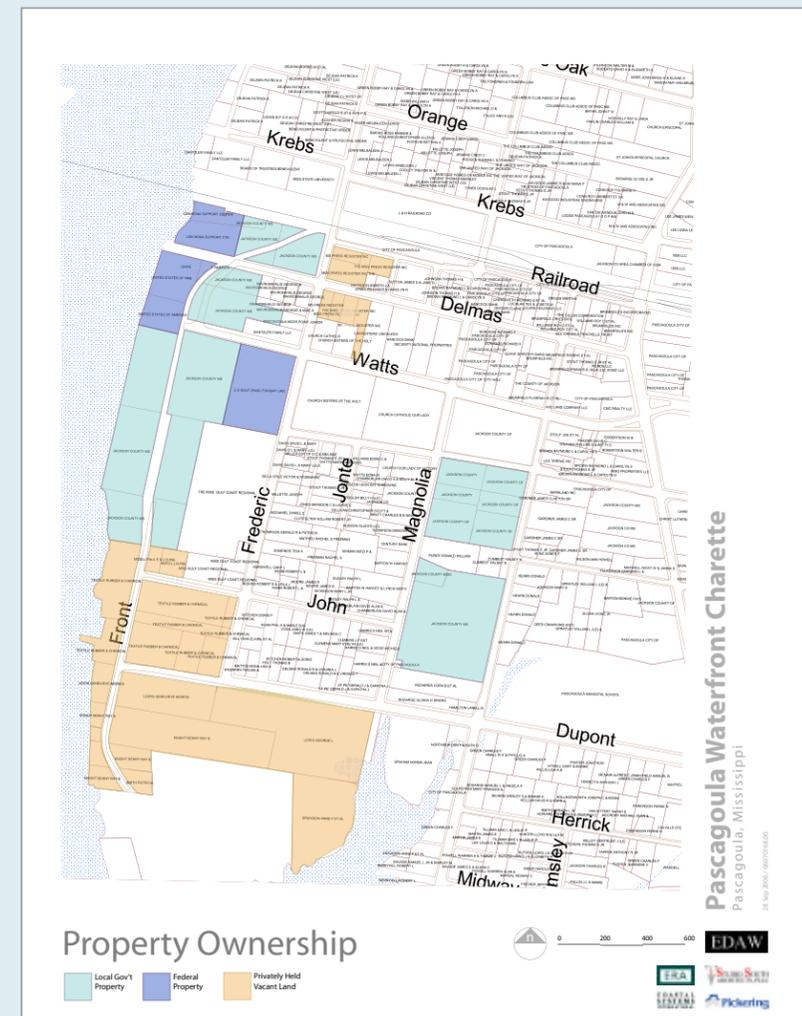
The initial move to reconnect the City of Pascagoula to its waterfront will be to establish a strong link between downtown and the Pascagoula River. Currently, old industrial sites act as a barrier, and although the water is only blocks away from downtown, it has no presence in the City. The focus of the initial planning effort is to bring the river into downtown and downtown to the river through redevelopment, roadway extension, greening, rezoning, promoting new mixed use development, and encouraging infill development. Ultimately, a district identity will emerge that creates a strong awareness of proximity to the Pascagoula River.



FOCUS AREA
Downtown, Riverfront, and Walker Point



FIGURE GROUND
Fabric of "Missing Teeth" & Old Industry



OWNERSHIP
Parcel Map Prior to City Acquisitions



PASCAGOULA RIVERFRONT

Economic Analysis



Market Study | *economic conditions & marketplace*

Jurisdiction	1970	1980	1990	2000	30-Year Ann'l Avg.	Forecasts			30-Year Ann'l Avg.
						2010	2020	2030	
Jackson County	88,781	118,000	115,078	131,880	1,400	142,210	155,188	169,658	1,900
George County	12,556	15,357	16,697	19,200	200	22,474	25,623	29,051	300
Harrison County	135,686	158,263	165,488	189,663	1,800	204,485	227,413	252,663	2,100
Total:	237,023	291,620	297,263	340,743	3,500	369,169	408,224	451,372	3,700
As % of Total									
Jackson County	37%	40%	39%	39%		39%	38%	38%	
George County	5%	5%	6%	6%		6%	6%	6%	
Harrison County	57%	54%	56%	56%		55%	56%	56%	
Compound Annual Growth Rates									
	1970-80	1980-90	1990-2000			2000-10	2010-20	2020-30	
Jackson County		2.9%	-0.3%	1.4%		0.8%	0.9%	0.9%	
George County		2.0%	0.8%	1.4%		1.6%	1.3%	1.3%	
Harrison County		1.6%	0.4%	1.4%		0.8%	1.1%	1.1%	

Source: Woods & Poole; Economics Research Associates, 2007

Table 1. Regional Population Trends & Projections, 1970-2030

	1990	As % of County	2000	2006	2011	As % of County	Compound Annual Growth Rates		
							1990-2000	2000-06	2006-11
Pascagoula	25,900	22.5%	26,200	23,124	26,294	18.5%	0.1%	-2.1%	2.6%
Moss Point	17,792	15.4%	15,851	15,828	15,905	11.2%	-1.1%	0.0%	0.1%
Ocean Springs	15,346	13.3%	17,225	17,982	18,602	13.1%	1.2%	0.7%	0.7%
Jackson County	115,243	100.0%	131,420	131,351	141,860	100.0%	1.3%	0.0%	1.6%
Mississippi	2,573,216		2,844,658	2,941,205	3,084,687		1.0%	0.6%	1.0%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 2. Population Trends & Projections for Selected Municipalities, 1990-2011

Jurisdiction	1970	1980	1990	2000	30-Year Ann'l Avg.	Forecasts			30-Year Ann'l Avg.
						2010	2020	2030	
Jackson County	24,915	37,780	40,572	47,874	800	53,176	58,592	63,168	800
George County	3,619	4,853	5,789	6,785	100	8,175	9,408	10,504	100
Harrison County	37,957	52,467	59,856	71,647	1,100	79,852	90,027	98,739	900
Total:	66,491	95,100	106,217	126,306	2,000	141,203	158,027	172,411	1,500
As % of Total									
Jackson County	5%	4%	3%	3%		3%	2%	2%	
George County	66%	72%	68%	67%		67%	65%	64%	
Harrison County	10%	9%	10%	9%		10%	10%	11%	
Compound Annual Growth Rates									
	1970-80	1980-90	1990-2000			2000-10	2010-20	2020-30	
Jackson County		4.3%	0.7%	1.7%		1.1%	1.0%	0.8%	
George County		3.0%	1.8%	1.6%		1.9%	1.4%	1.1%	
Harrison County		3.3%	1.3%	1.8%		1.1%	1.2%	0.9%	

Source: Woods & Poole; Economics Research Associates, 2007

Table 3. Regional Household Trends & Projections, 1970-2030

MARKET STUDY OVERVIEW

A market study was undertaken by Economics Research Associates. The report in its entirety will not be included in this document, however the executive summary which follows summarizes key findings on demographic characteristics, housing trends, and employment trends and forecasts for Pascagoula and Jackson County based on ERA's research to date. This information is illustrated in the accompanying tables (Tables 1—17) and charts.

Demographic Characteristics

Population & Households (Tables 1-4)

- Historical growth patterns reveal that Jackson, George, and Harrison Counties added a combined total of more than 103,700 new residents between 1970 and 2000, reflecting a sustained pace of growth in the range of 3,500 new residents on an annual basis. According to population forecasts prepared by Woods & Poole, Inc., a demographic forecasting service based in Washington, D.C., the pace of growth in the three-county region is expected to increase over the next 30 years—with the addition of almost 3,700 new residents yearly by 2030.
- In Jackson County, population growth has fluctuated since 1970, with strong growth during the 1970s (at a compound annual growth rate of 2.9 percent per year), a loss of almost 3,000 residents during the 1980s as growth leapfrogged to outlying counties, and a return to growth during the 1990s (of almost 17,000 new residents) with solid economic expansion. During this time, Jackson's proportion of the region's total increased from 37 percent to 39 percent.
- Over the next 30 years, the pace of growth in Jackson is forecast to increase slightly—with population growth expected to add about 1,900 new residents annually—for a 2030 population of more than 169,600.

	1990	As % of County	2000	2006	2011	As % of County	Compound Annual Growth Rates		
							1990-2000	2000-06	2006-11
Pascagoula	9,770	24.2%	9,878	9,033	10,305	19.4%	0.1%	-1.5%	2.7%
Moss Point	5,976	14.8%	5,714	5,796	5,901	11.1%	-0.4%	0.2%	0.4%
Ocean Springs	5,770	14.3%	6,650	6,878	7,168	13.5%	1.4%	0.6%	0.8%
Jackson County	40,454	100.0%	47,676	48,663	53,245	100.0%	1.7%	0.3%	1.8%
Mississippi	911,374		1,046,434	1,104,463	1,174,238		1.4%	0.9%	1.2%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 4. Household Trends & Projections for Selected Municipalities, 1990-2011

- By comparison, population growth in both George and Harrison counties followed similar patterns, with the highest rates of growth occurring during the 1970s, followed by a slowing, albeit still positive growth during the 1980s and 1990s. In 2000, George County comprised only six percent of the regional total, while Harrison County (which includes the cities of Biloxi and Gulfport) accounted for fully 56 percent of the three-county total.
- Through 2030, Harrison County's population is forecast to increase by more than 2,100 new residents on an annual basis—to 252,700. George County is expected to have the greatest compound rate of growth—in the range of 1.3 percent per year—resulting in a 2030 population of about 29,000 residents.

As a means of further understanding growth and development trends, Table 2 depicts population growth for selected municipalities between 1990 and 2011. (ERA notes that long-term forecasts through 2030 for individual municipalities such as Pascagoula are not available).

- Based on trends and forecasts prepared by ESRI Business Analyst, the population of Pascagoula remained stable during the 1990s in the range of 26,000 residents. Not surprisingly, as a result of Hurricane Katrina, the city's population declined in 2006 by some 3,200 residents, according to the latest estimates. Over the next five



Market Study | *economic conditions & marketplace*

	Pascagoula			Jackson County			Mississippi		
	2006	2011	% Change	2006	2011	% Change	2006	2011	% Change
0-4	7.8%	7.9%	0.1%	7.2%	7.2%	0.0%	7.4%	7.3%	-0.1%
5-9	6.8%	6.9%	0.1%	6.7%	6.7%	0.0%	6.9%	6.8%	-0.1%
10-14	6.7%	6.6%	-0.1%	7.4%	6.9%	-0.5%	7.2%	7.1%	-0.1%
15-19	7.1%	6.6%	-0.5%	7.0%	6.7%	-0.3%	7.1%	7.2%	0.1%
20-24	9.3%	9.3%	0.0%	7.0%	6.5%	-0.5%	7.7%	7.0%	-0.7%
25-34	13.8%	13.6%	-0.2%	13.4%	13.6%	0.2%	13.8%	13.2%	-0.6%
35-44	12.8%	12.0%	-0.8%	14.6%	13.3%	-1.3%	13.7%	13.1%	-0.6%
45-54	13.9%	13.3%	-0.6%	14.6%	15.1%	0.5%	14.0%	14.3%	0.3%
55-64	9.7%	11.2%	1.5%	10.7%	12.1%	1.4%	10.2%	11.8%	1.6%
65-74	6.4%	6.7%	0.3%	6.8%	6.9%	0.1%	6.5%	6.5%	0.0%
75-84	4.3%	4.3%	0.0%	3.5%	3.8%	0.3%	4.0%	4.0%	0.0%
85+	1.5%	1.7%	0.2%	1.1%	1.3%	0.2%	1.6%	1.7%	0.1%
Median Age	33.9	34.3	1.2%	36.0	37.0	2.8%	34.9	36.1	3.4%

	Moss Pointe			Ocean Springs		
	2006	2011	% Change	2006	2011	% Change
0-4	6.6%	6.3%	-0.3%	6.0%	6.1%	0.1%
5-9	6.4%	6.5%	0.1%	5.8%	5.7%	-0.1%
10-14	8.2%	6.9%	-1.3%	6.8%	6.2%	-0.6%
15-19	6.8%	7.6%	0.8%	7.1%	5.9%	-1.2%
20-24	6.6%	5.9%	-0.7%	6.2%	5.8%	-0.4%
25-34	12.6%	12.1%	-0.5%	11.5%	13.5%	2.0%
35-44	11.7%	11.9%	0.2%	14.9%	12.1%	-2.8%
45-54	14.9%	14.1%	-0.8%	16.0%	16.3%	0.3%
55-64	12.0%	14.2%	2.2%	11.4%	13.6%	2.2%
65-74	8.2%	8.1%	-0.1%	7.6%	7.7%	0.1%
75-84	4.5%	4.7%	0.2%	4.9%	5.1%	0.2%
85+	1.4%	1.7%	0.3%	1.7%	2.0%	0.3%
Median Age	37.6	38.9	3.5%	40.2	41.0	2.0%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 5: Distribution of Population by Age, 2006-2011

years, prognostications for Pascagoula suggest that, while this relocated population is expected to return, the city's population is likely to return to pre-storm levels in the range of 26,300 residents (i.e., reflecting no net gain).

- As a result, the city's share of the region's population is likely to shrink—from 23 percent to 19 percent—during this time. Moss Point's population is forecast to remain stable in the range of 15,900 residents through 2011. This reinforces the importance of a 'pre-emptive strike' to attract investment and new development to Pascagoula.
- Conversely, other communities such as Ocean Springs as well as outlying, unincorporated parts of Jackson County are forecast to capture the lion's share of new population growth. In fact, forecasts suggest a gain of more than 3,500 new residents in Ocean Springs between 1990 and 2011. However, as a result of escalating growth in the unincorporated parts of Jackson County, Ocean Springs' regional share is likely to remain constant in the range of 13 percent

ERA also examined trends in household size and formation, which is a better predictor of demand for new housing units. These findings are highlighted below.

- Consistent with national trends, average household size in Pascagoula has decreased steadily since 1990—from 2.6 persons per household in 1990 to 2.45 persons per household by 2011.
- Table 3 illustrates household trends and projections for the three-county region for 1970 to 2030. Consistent with population growth during the 1970s, the number of households in Jackson County increased at a compound annual rate of 4.3 percent during the 1970s. Since that time, however, the pace of household growth has slowed during the 1980s and 1990s. By 2000, Jackson County contained almost 47,900 households.
- According to Woods & Poole, Jackson County is expected to add roughly 800 new households per year on a sustained

annual basis for the 30 years between 2000 and 2030—for a total of 63,200 households.

- George and Harrison counties have exhibited consistent and similar growth patterns as that of Jackson County since 1970. As the region's largest jurisdiction, Harrison County has added 1,100 new households every year over the past 30 years. According to ESRI, the rate of new household growth is forecast to slow over the next 30 years, to a slightly more moderate pace of 900 new households per year in Harrison and 100 new households annually in George County.
- As illustrated in Table 4, Pascagoula lost 845 households between 2000 and 2006, as a result of displacement caused by Hurricane Katrina. Between 2006 and 2011, the number of households in the city is expected to increase; in fact, there is likely to be a net gain produced by returning households (displaced by the storm) as well as new households generated by new residential development and smaller-sized households because of an aging population. Nonetheless, as a proportion of the regional total, the city's share of households is expected to diminish—from 24 percent in 1990 to 19 percent in 2011.
- By comparison, while the number of households in Moss Point and Ocean Springs increased between 2000 and 2006 (generated by new residential development), these trends are expected to moderate over the next five years.

Age Cohorts (Table 5)

ERA examined five-year forecasts in age distribution, which will inform our analysis of market potentials for new housing along Pascagoula's waterfront. Key findings are summarized below:

- This review indicates that Pascagoula's largest age bracket is the 45-54 year-old cohort—which is typically comprised of residents in their peak earning years and empty nesters. Based on ESRI forecasts, over the next five years this cohort is expected to decline only slightly, while the number of city residents ages 25-34 and 55-64 will increase.

Market Study | *economic conditions & marketplace*

	1990	2000	2006	2011	Compound Annual Growth Rates		
					1990-2000	2000-06	2006-11
Pascagoula	\$24,935	\$32,233	\$32,315	\$34,962	2.6%	0.0%	1.6%
Moss Point	\$21,258	\$32,085	\$35,233	\$39,012	4.2%	1.6%	2.1%
Ocean Springs	\$30,668	\$45,873	\$50,627	\$55,481	4.1%	1.7%	1.8%
Jackson County	\$26,444	\$39,083	\$42,174	\$46,247	4.0%	1.3%	1.9%
Mississippi	\$20,136	\$31,371	\$35,376	\$39,310	4.5%	2.0%	2.1%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 6. Median Household Income, 1990-2011

	Pascagoula			Jackson County			Mississippi		
	2006	2011	% Change	2006	2011	% Change	2006	2011	% Change
< \$15,000	25.7%	23.9%	-1.8%	16.2%	14.9%	-1.3%	22.5%	20.1%	-2.4%
\$15,000 - \$24,999	14.7%	14.1%	-0.6%	11.4%	10.6%	-0.8%	13.8%	13.0%	-0.8%
\$25,000 - \$34,999	12.6%	12.0%	-0.6%	12.8%	11.0%	-1.8%	13.2%	11.9%	-1.3%
\$35,000 - \$49,999	16.7%	16.1%	-0.6%	18.3%	17.4%	-0.9%	16.6%	16.1%	-0.5%
\$50,000 - \$74,999	13.9%	14.8%	0.9%	19.3%	19.6%	0.3%	16.4%	16.9%	0.5%
\$75,000 - \$99,999	8.5%	8.3%	-0.2%	11.3%	11.1%	-0.2%	8.9%	9.7%	0.8%
\$100,000 - \$149,999	5.1%	7.2%	2.1%	7.7%	10.7%	3.0%	5.7%	8.1%	2.4%
\$150,000 - \$199,999	1.1%	1.6%	0.5%	1.6%	2.4%	0.8%	1.3%	2.0%	0.7%
\$200,000 +	1.5%	1.9%	0.4%	1.5%	2.2%	0.7%	1.6%	2.1%	0.5%

	Moss Point			Ocean Springs		
	2006	2011	% Change	2006	2011	% Change
< \$15,000	22.6%	20.7%	-1.9%	11.2%	10.3%	-0.9%
\$15,000 - \$24,999	13.3%	12.1%	-1.2%	10.6%	9.7%	-0.9%
\$25,000 - \$34,999	13.8%	12.4%	-1.4%	12.6%	10.5%	-2.1%
\$35,000 - \$49,999	18.4%	17.8%	-0.6%	15.0%	14.6%	-0.4%
\$50,000 - \$74,999	16.7%	17.7%	1.0%	18.9%	18.8%	-0.1%
\$75,000 - \$99,999	7.4%	8.1%	0.7%	13.4%	11.6%	-1.8%
\$100,000 - \$149,999	5.4%	7.6%	2.2%	12.3%	15.3%	3.0%
\$150,000 - \$199,999	1.0%	1.8%	0.8%	3.3%	5.0%	1.7%
\$200,000 +	1.4%	1.9%	0.5%	2.7%	4.2%	1.5%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 7. Households by Income, 2006-2011

	Pascagoula	Moss Point	Ocean Springs	Jackson County	Mississippi
Less than 9th Grade	5.2%	7.0%	2.9%	4.9%	9.6%
9th-12th Grade, No Diploma	16.4%	20.2%	8.5%	14.1%	17.5%
High School Graduate	31.3%	33.9%	24.3%	32.1%	29.4%
Some College, No Degree	24.9%	20.6%	23.9%	24.5%	20.9%
Associate's Degree	6.7%	6.4%	9.9%	7.9%	5.7%
Bachelor's Degree	10.0%	8.3%	19.2%	10.7%	11.1%
Masters/Prof/Doctorate	5.6%	3.6%	11.3%	5.8%	5.8%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 8: Population 25+ by Educational Attainment

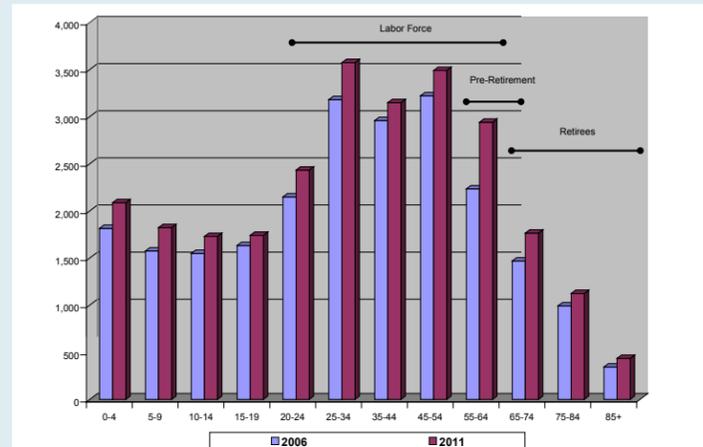


Figure 1: Pascagoula Population by Age, 2006-2011

- These short-term trends should bode well for potential market support for new housing in downtown Pascagoula and along the riverfront, as these cohorts are frequently attracted to new, quality residential development in emerging areas. A key challenge to ensuring the marketability of new development on the waterfront will be the degree to which the city can attract new job growth as well as leverage investment in the public realm to attract private development.
- Consistent with national trends, the median age in each municipality is increasing. The largest rate of increase is expected in Moss Point, where the median age is forecast to increase from 37 in 2006 to 39 in 2011. Overall, the median age in Pascagoula is lower than that of Jackson County and the state.

Household Incomes (Tables 6 & 7)

Table 6 illustrates median household incomes for Jackson County and selected municipalities for 1990-2011. Relevant trends are highlighted below:

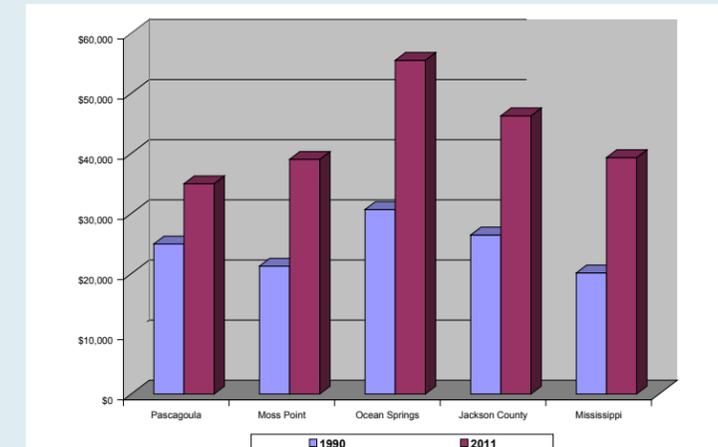
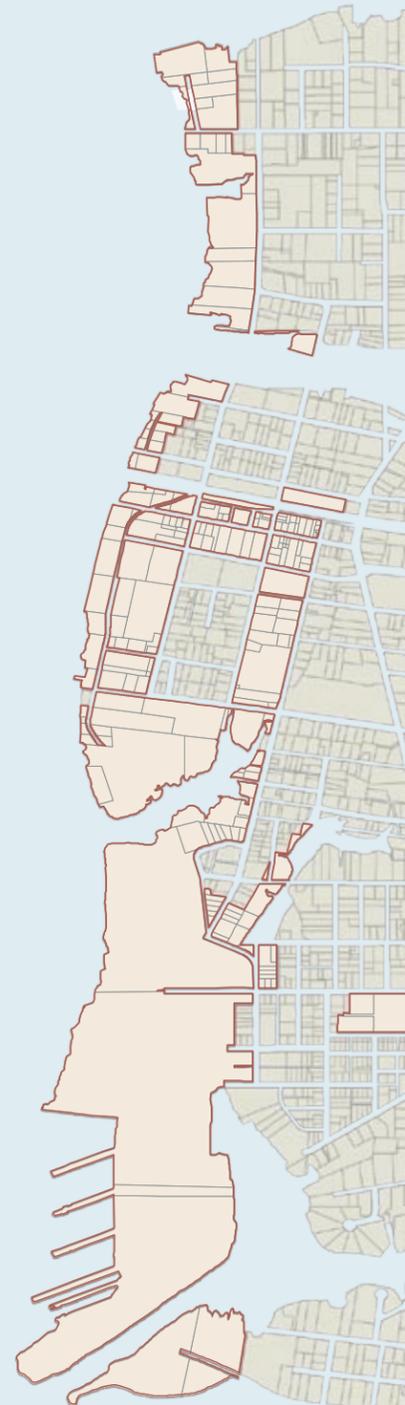


Figure 2: Median Household Income, 1990-2011

- As is true of most jurisdictions across the United States, median household income along Mississippi's Gulf Coast has increased since 1990. In fact, the largest jump in median incomes occurred in Moss Point and Ocean Springs, which grew at a sustained annual rate of four to five percent per year, consistent with the state as a whole. Median incomes in Ocean Springs were almost \$51,000 in 2006.
- Notably, the rate of growth in household incomes in the City of Pascagoula during this period was significantly lower—in the range of 2.5 percent per year during the 1990s. Interestingly, between 2000 and 2006 there was no change in incomes; with no real growth, this suggests that household buying power actually declined among Pascagoula's households.
- Between 2006 and 2011, however, household incomes in Pascagoula are expected to grow, albeit moderately and not likely beyond the rate of inflation (i.e., no real growth). By 2011, median incomes are forecast to be almost \$35,000 per household, and roughly 60 percent of the region's most affluent community, Ocean Springs.

Table 7 summarizes households by incomes. Notable trends are highlighted as follows:



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	1970	1980	1990	2000	2005	2010	2015	2020	2025	2030
Mining	140	86	81	33	32	34	36	38	40	41
Construction	3,101	6,089	3,199	6,390	6,670	6,956	7,248	7,542	7,839	8,137
Manufacturing	16,065	19,172	19,233	17,576	15,141	15,476	15,813	16,152	16,493	16,837
Transport, Comm. & Public Util	868	1,565	1,685	1,375	1,795	1,676	1,557	1,436	1,315	1,192
Wholesale Trade	490	1,182	880	841	788	783	778	773	768	764
Retail Trade	3,999	6,841	7,954	10,876	10,065	10,702	11,346	11,992	12,638	13,284
Finance, Ins. & Real Estate	1,230	2,116	1,738	2,662	2,928	3,013	3,097	3,182	3,266	3,350
Services	4,558	6,355	8,453	12,312	12,043	12,971	13,915	14,869	15,831	16,798
Government	5,361	8,466	9,440	12,456	13,002	13,864	14,729	15,595	16,462	17,332
Total Employment:	36,432	52,657	53,705	65,800	63,626	66,670	69,747	72,841	75,948	79,067

	Compound Annual Growth Rate (CAGR)								
	1970-80	1980-90	1990-00	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30
Mining	-4.76%	-0.60%	-8.59%	-0.61%	1.22%	1.15%	1.09%	1.03%	0.50%
Construction	6.98%	-6.23%	7.16%	0.86%	0.84%	0.83%	0.80%	0.78%	0.75%
Manufacturing	1.78%	0.03%	-0.90%	-2.94%	0.44%	0.43%	0.43%	0.42%	0.41%
Transport, Comm. & Public Util	6.07%	0.74%	-2.01%	5.48%	-1.36%	-1.46%	-1.60%	-1.75%	-1.94%
Wholesale Trade	9.20%	-2.91%	-0.45%	-1.29%	-0.13%	-0.13%	-0.13%	-0.13%	-0.10%
Retail Trade	5.52%	1.52%	3.18%	-1.54%	1.23%	1.18%	1.11%	1.05%	1.00%
Finance, Ins. & Real Estate	5.57%	-1.95%	4.36%	1.92%	0.57%	0.55%	0.54%	0.52%	0.51%
Services	3.38%	2.89%	3.83%	-0.44%	1.50%	1.41%	1.34%	1.26%	1.19%
Government	4.68%	1.09%	2.81%	0.86%	1.29%	1.22%	1.15%	1.09%	1.04%
Total Employment:	3.75%	0.20%	2.05%	-0.67%	0.94%	0.91%	0.87%	0.84%	0.81%

Source: Woods & Poole; Economics Research Associates, March 2007

Table 9: Jackson County Employment Trends and Projections, 1970-2030

	2002	2012	New Jobs	CAGR
Total	60,830	71,710	10,880	1.66%
Management	3,820	4,440	620	1.52%
Business and Financial Occupations	1,510	1,800	290	1.77%
Computer and Mathematical Occupations	560	670	110	1.81%
Architecture and Engineering	2,140	2,500	360	1.57%
Life, Physical, and Social Sciences	300	320	20	0.65%
Community and Social Services	420	520	100	2.16%
Legal	480	580	100	1.91%
Education, Training, and Library	3,580	4,440	860	2.18%
Art, Design, Entertainment, Sports, and Media	410	460	50	1.16%
Healthcare Practitioners and Technical Occupations	2,710	3,590	880	2.85%
Healthcare Support	1,200	1,640	440	3.17%
Protective Service	1,170	1,430	260	2.03%
Food Preparation and Serving	4,210	4,840	630	1.40%
Building and Grounds Cleaning and Maintenance	1,480	1,740	260	1.63%
Personal Care and Service	1,420	1,710	290	1.88%
Sales and Related	5,560	6,580	1,020	1.70%
Office and Administrative Support	8,830	9,510	680	0.74%
Farming, Fishing, and Forestry	690	880	190	2.46%
Construction and Extraction	5,910	7,350	1,440	2.20%
Installation, Maintenance, and Repair	3,440	4,020	580	1.57%
Production	6,910	8,090	1,180	1.59%
Transportation and Material Moving	4,090	4,580	490	1.14%

Source: Mississippi Department of Employment Security; Economics Research Associates, 2007

Table 10: Pascagoula MSA Employment Forecasts

- In 2006, over half of Pascagoula household had median annual incomes of less than \$35,000 per year. By comparison, 40 percent of Jackson County households and 35 percent of Ocean Springs households had incomes below \$35,000.
- While household incomes in Pascagoula are projected to increase by 2011, the majority of households are expected to continue earning less than \$35,000. About 10 percent of the city's households are expected to earn over \$100,000 per year by 2011.

Education (Table 8)

Educational attainment—a key tenet of the ability of a jurisdiction to promote economic development—is another element of the demographic profile. Table 8 illustrates educational attainment for Jackson County residents.

- Over 30 percent of County residents hold high school diplomas; another 16.5 percent hold a Bachelor's Degree or higher.
- Not surprisingly, Ocean Springs outperforms the County and State, with strong levels of degree attainment at all levels, which is consistent with the town's higher income levels.
- The proportion of residents in Pascagoula that obtained Associate's Degrees is higher than the State-wide average.
- At the other end of the spectrum, Moss Point has the highest percentage of residents who have not completed high school.

Economic & Employment Characteristics

Changes in the labor force are a fundamental index of overall economic development and are a key "driver" of demand for various types of real estate. As such, ERA has prepared a profile of occupational and employment characteristics in Pascagoula and Jackson County as a means of understanding how the City and the County's economy has performed in the past, how it performs today, and where it appears to be heading.

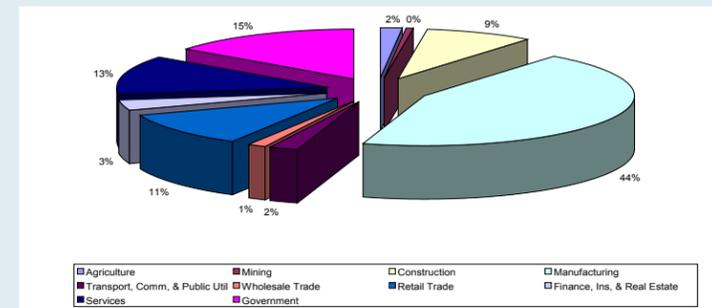


Figure 3: Jackson County Employment Mix, 1970

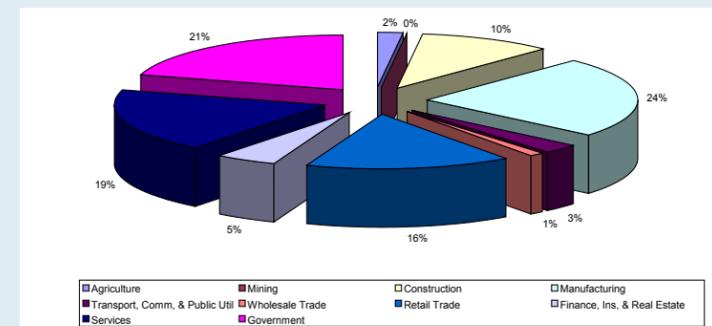


Figure 4: Jackson County Employment Mix, 2006
Employment (Tables 9 & 10)

Employment trends are illustrated in Table 9 and Table 10. Over the past 30 years, the County has added an average of 1,000 new jobs each year. However, Hurricane Katrina in 2005 resulted in the loss of more than 2,200 jobs in Jackson County, thus slowing the rate of new job growth between 2000 and 2005 to 450 new jobs each year. Today, Jackson County contains almost 65,000 jobs.

- Fully one-quarter (24 percent) of Jackson County's employment is in manufacturing, dominated by the Chevron refinery, Northrup Grumman/Pascagoula Shipyard and their associated industries. SAs seen in Figure 3, while in 1970 almost 45 percent of employment was in this industry, Jackson County has seen increases in the services industry and government, with employment increases between

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Employer	City	Number of Employees
1 Northrop Grumman Ship Systems	Pascagoula	10,000
2 University Hospitals & Clinics	Jackson	7,000
3 Nissan North America Inc	Canton	6,300
4 Greek Orthodox Church of Holy	Biloxi	6,138
5 Mississippi State University	Mississippi	4,000
6 Beau Rivage Resort & Casino	Biloxi	3,500
7 Forrest General Hospital	Hattiesburg	3,400
8 Ashley Upholstery	Ecru	3,000
9 Baptist Medical Ctr	Jackson	3,000
10 Grand Casino Hotel	Biloxi	3,000
11 Heart Center at Baptist	Jackson	3,000
12 Mississippi Baptist Med Ctr	Jackson	3,000
13 Mississippi State University	Mississippi	3,000
14 University of Southern MS	Hattiesburg	3,000
15 Health Dept	Jackson	2,700
16 State Health Dept	Jackson	2,700
17 Horseshoe Casino	Robinsonville	2,500
18 Mississippi Band-Choctaw Indns	Philadelphia	2,500
19 St. Dominic Jackson Meml Hosp	Jackson	2,500
20 University of MS Med School	Jackson	2,500

Source: Careerinfonet, www.acinet.org; Economics Research Associates, March 2007

Table 11: Largest Employers in Mississippi

1970 and 2005 of 7,500 and 7,100 employees, respectively. Therefore, as seen in Figure 4, though manufacturing remains a strong industry, employment has decreased by approximately 20 percent between 1980 and 2005.

- The next largest sector, government, comprises 20 percent of the total with 13,000 jobs.
- As seen in Figure 5, with the exception of the wholesale trade and the transportation, communication, and public utilities industries, employment is generally on the rise.
- ERA utilized employment forecasts prepared by Woods & Poole, Inc., which is the only data service nationwide that forecasts job growth in five-year increments through 2030 for each county in the United States.
- ERA notes Woods & Poole's forecasts include both part-time and self-employed positions.

Table 10 illustrates the Pascagoula Metropolitan Statistical Area (MSA) employment forecasts for 2012 prepared by the Mississippi Department of Employment Security.

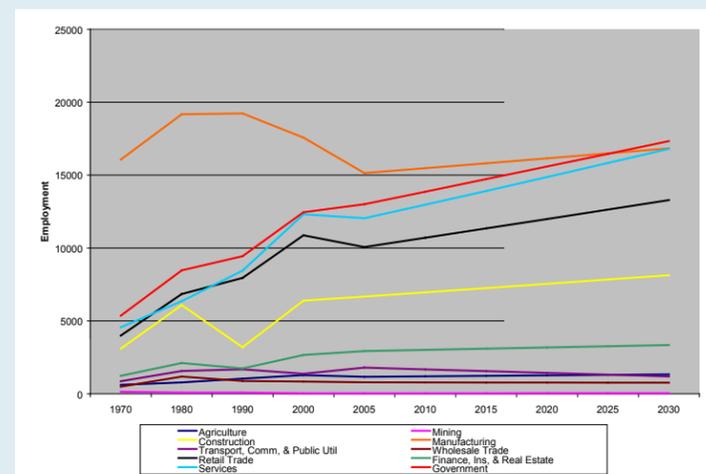


Figure 5: Jackson County Employment Trends by Industry, 1970-2030

	Pascagoula MSA	MS	US
Total, all Occupations	\$30,150	\$23,270	\$29,430
Management	\$61,560	\$55,260	\$77,630
Business and Financial	\$44,150	\$40,270	\$51,760
Computer and Mathematical	\$56,000	\$44,310	\$63,940
Architecture and Engineering	NA	\$47,860	\$60,200
Life, Physical, and Social Science	\$51,720	\$41,390	\$51,540
Community and Social Services	\$31,490	\$29,380	\$34,360
Legal	\$40,800	\$43,570	\$62,890
Education, Training, and Library	\$31,380	\$32,190	\$39,600
Arts, Design, Entertainment, Sports, and Media	\$36,900	\$27,710	\$36,830
Healthcare Practitioner and Technical	\$38,440	\$40,360	\$49,570
Healthcare Support	\$18,960	\$17,100	\$22,140
Protective Service	\$27,690	\$22,960	\$31,200
Food Preparation and Serving Related	\$13,410	\$13,790	\$16,070
Building and Grounds Cleaning and Maintenance	\$15,870	\$16,270	\$19,760
Personal Care and Service	\$15,880	\$15,210	\$18,490
Sales and Related	\$17,440	\$17,890	\$22,140
Office and Administrative Support	\$23,750	\$22,480	\$27,240
Farming, Fishing, and Forestry	\$13,650	\$20,540	\$17,490
Construction and Extraction	\$34,930	\$25,800	\$34,650
Installation, Maintenance, and Repair	\$35,550	\$29,170	\$35,870
Production	\$38,260	\$23,280	\$26,850
Transportation and Material Moving	\$21,690	\$22,130	\$24,750

Source: Occupational Employment Statistics, www.bls.gov; Economics Research Associates, March 2007

Table 12: Median Annual Wages, May 2005

- Over 10,000 new jobs were added in the Pascagoula MSA between 2002 and 2012, or approximately 1,000 new jobs a year. This is almost 10 times the annual new jobs added County-wide during this time period. The Pascagoula MSA includes Jackson and George County.
- The largest increases were experienced by construction and extraction occupations, production occupations, and sales and related occupations (1,440, 1,180, and 1,020 new jobs, respectively).
- The smallest increases were experienced by life, physical, and social sciences occupations and art, design, entertainment, sports, and media occupations (20 & 50 new jobs, respectively).

As a means of understanding the distribution between public and private employment in Mississippi, ERA gathered information on the largest employers in the State. As illustrated in Table 11, the largest employers range from Northrop Grumman to hospitals to casinos. Other findings are summarized below:

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	Pascagoula		Moss Point		Jackson County	
	2001	2006	2001	2006	2001	2006
Civilian Labor Force	10,950	10,570	5,960	6,510	60,890	61,310
Unemployed	750	990	570	590	3,480	5,720
Unemployment Rate	6.8	9.4	9.6	9.1	5.7	9.3

Source: Mississippi Department of Employment Security; Economics Research Associates, 2007

Table 13: Unemployment, 2001-2006

Industry	Mississippi Statewide	Jackson County
NAICS 11 Agriculture, forestry, fishing and hunting	1.71	ND
NAICS 21 Mining	1.09	ND
NAICS 22 Utilities	1.8	2.01
NAICS 23 Construction	0.9	0.81
NAICS 31-33 Manufacturing	1.58	3.16
NAICS 42 Wholesale trade	0.77	0.18
NAICS 44-45 Retail trade	1.15	0.92
NAICS 48-49 Transportation and warehousing	1.15	0.62
NAICS 51 Information	0.59	1.09
NAICS 52 Finance and insurance	0.71	0.5
NAICS 53 Real estate and rental and leasing	0.71	0.61
NAICS 54 Professional and technical services	0.57	0.64
NAICS 55 Management of companies and enterprises	0.7	0.12
NAICS 56 Administrative and waste services	0.72	0.85
NAICS 61 Educational services	0.5	0.06
NAICS 62 Health care and social assistance	0.92	0.55
NAICS 71 Arts, entertainment, and recreation	0.83	0.36
NAICS 72 Accommodation and food services	1.28	0.95
NAICS 81 Other services, except public administration	0.7	0.67
NAICS 99 Unclassified	NC	NC

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

Source: US Census, www.bls.gov, 2005; Economics Research Associates, March 2007

Table 14: Location Quotients by 2-Digit NAICS, 2005

- The largest employer in the State, Northrop Grumman, is located in Pascagoula and employs approximately 10,000 employees. The Beau Rivage and the Grand Casino hotel located in Biloxi employ a combined total of 6,500 employees.
- Hospitals located in Jackson, Mississippi employ over 18,000 employees. In addition, the University of Mississippi Medical School employs an additional 2,500 employees and the Health Department and State Health Department employ an additional 5,400 employees.

As illustrated in Table 12, median total annual wages in the Pascagoula MSA tend to be higher than wages across the State as well as the United States. Findings from this research indicate the following:

- Median annual wages in the Pascagoula MSA were 30 percent and 2 percent higher than State and national wage rates, respectively.
- Median annual wages were higher in the State than in the MSA for legal; education, training, and library; healthcare practitioner and technical; food preparation and serving; building and grounds cleaning and maintenance; sales; farming, fishing, and forestry; and transportation and material moving occupations.
- The largest difference is exhibited in the production sector and the computer and mathematical sector, where median annual wages in the MSA are 64 percent (\$15,000) and 26 percent (\$11,700), respectively, more than State wages.

As seen Table 13, the unemployment rate in Pascagoula and Jackson County increased 2.6 percent and 3.6 percent, respectively, between 2001 and 2006. This surge in unemployment is likely caused by Hurricane Katrina. While the unemployment rate in Moss Point decreased 0.5 percent during this time period, the overall unemployment rate in Moss Point is consistent with the rates in Pascagoula and the County.

Location Quotients

A location quotient is an economic indicator that shows the relative concentration, based on employment, of an “industry cluster” in a particular geography. Location quotients greater than one suggest that the industry is more highly concentrated in the area as compared to national averages. Table 14 compares the relative strengths of specific sectors in Jackson County and the State against the national averages.

- Notably, Jackson County exhibits significant strength in manufacturing and utilities, with location quotients of 3.16 and 2.01, respectively.
- However, the County is significantly weaker in educational services and management of companies and enterprises, with location quotients of 0.06 and 0.12, respectively.
- The County is on par (i.e., performing “equally”) to Mississippi as a whole in other industries, including construction, professional and technical services, and real estate and rental and leasing. This suggests the importance of differentiation in economic development initiatives.
- Finally, the State is outperforming the County in wholesale trade, transportation and warehousing, and management of companies and enterprises.

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	Pascagoula	Jackson County	MS
Apparel and Services	\$11,981,772	\$73,654,059	\$1,470,529,897
Entertainment & Recreation	\$18,848,905	\$123,734,416	\$2,528,522,856
Food	\$49,706,729	\$310,722,155	\$6,489,688,852
Home	\$78,683,152	\$551,166,688	\$10,701,199,276
Household Furnishings	\$7,128,885	\$47,181,534	\$935,903,898
Household Operations	\$9,518,580	\$62,550,084	\$1,278,513,332
Transportation	\$50,576,478	\$342,185,645	\$7,442,463,722
Travel	\$7,377,868	\$47,350,108	\$908,901,694
Total	\$153,284,963	\$1,050,434,059	\$21,266,981,922
Apparel and Services	\$1,326	\$1,514	\$1,331
Entertainment & Recreation	\$2,087	\$2,543	\$2,289
Food	\$5,503	\$6,385	\$5,876
Home	\$8,711	\$11,326	\$9,689
Household Furnishings	\$789	\$970	\$847
Household Operations	\$1,054	\$1,285	\$1,158
Transportation	\$5,599	\$7,032	\$6,739
Travel	\$817	\$623	\$823
Total Per Household	\$25,885	\$31,678	\$28,752

Expenditure data are derived from the 2001, 2002 and 2003 Consumer Expenditure Surveys, Bureau of Labor Statistics.
Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 15: Retail Spending

Retail Spending

Another barometer of potential retail demand includes consumer spending (also known as household “buying power”). ERA estimates that Pascagoula households spend fully \$80.5 million per year on apparel and services, entertainment and recreation, and food. Table 15 illustrates total retail spending and average amount spent per household for Pascagoula, Jackson County, and the State.

- In every category except for travel, retail spending per household was lower in Pascagoula than spending County-wide and State-wide. Significant differences were experienced in the home and transportation categories, where the amount spent per household in Pascagoula was 30 percent and 26 percent lower, respectively, than the amount spent per household County-wide. Home spending includes mortgage payments, maintenance and remodeling, and utilities. Transportation spending includes vehicle purchases, gas, and maintenance.
- Amount spent per household on travel was higher in Pascagoula than the amount spent per household on travel County-wide. Travel includes airfares, vehicle rentals, lodging, and food on trips
- With the exception of travel, spending per household was consistently higher County-wide than State-wide.

Housing Trends

ERA has also reviewed housing trends in Pascagoula and Jackson County as part of this Task as a means of understanding the impacts of the housing market on the City and County’s overall economic development picture. The Jackson County 2006 Comprehensive Plan Update states that the Jackson County Planning Department estimates that approximately 1,400 housing units in the County were destroyed by Hurricane Katrina. The Rand Corporation

	1990	2000	2006	2011	1990-2000 CAGR	2000-2006 CAGR	2006-2011 CAGR
Pascagoula	\$49,007	\$68,273	\$66,875	\$75,345	3.37%	-0.34%	2.41%
Moss Point	\$43,057	\$58,443	\$59,587	\$67,155	3.10%	0.32%	2.42%
Ocean Springs	\$61,664	\$96,880	\$102,655	\$119,214	4.62%	0.97%	3.04%
Jackson County	\$50,893	\$75,388	\$78,928	\$90,247	4.01%	0.77%	2.72%
Mississippi	\$45,553	\$64,672	\$80,141	\$96,774	3.57%	3.64%	3.84%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 16: Median Home Values, 1990-2011

estimated that 31,386 housing units or 61 percent of the County’s total housing stock was impacted in some way by either coastal surge or flooding during the Katrina. Specific measures of performance, such as housing values and tenure (occupancy) are highlighted below.

Housing Values

As illustrated in Table 16, generally, median home values have been increasing in Jackson County and Pascagoula. ERA assembled various data to ascertain trends.

- Median home values in Pascagoula have generally been increasing since 1990. However, between 2000 and 2006, median home values decreased by almost \$1400. This is likely due to Hurricane Katrina. ESRI Business Analyst projects Pascagoula median home values to increase in 2011 to \$75,345. This translates into a 2.41 percent annual increase between 2006 and 2011.
- Jackson County, Moss Point, and Ocean Springs also experienced the smallest increase in median home values between 2000 and 2006, with annual increases of 0.77 percent, 0.32 percent, and 0.97 percent, respectively. Specifically in Ocean Springs, this is dramatically lower than annual increases experienced between 1990 and 2000 and 2006 and 2011 (4.62 percent and 3.04 percent, respectively). This trend is also apparent in median home values in Moss Point and Jackson County.



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	1990	2000	2006	2011
Pascagoula				
Owner-Occupied	52.4%	51.3%	47.5%	51.8%
Renter-Occupied	36.0%	39.1%	38.2%	40.7%
Vacant	11.6%	9.6%	14.3%	7.5%
Moss Point				
Owner-Occupied	69.9%	67.9%	66.2%	69.0%
Renter-Occupied	20.3%	23.7%	24.5%	24.7%
Vacant	9.8%	8.4%	9.3%	6.3%
Ocean Springs				
Owner-Occupied	62.0%	67.9%	67.0%	68.9%
Renter-Occupied	30.5%	26.1%	26.1%	26.3%
Vacant	7.5%	6.0%	6.8%	4.8%
Jackson County				
Owner-Occupied	65.3%	68.8%	67.8%	70.4%
Renter-Occupied	23.5%	23.5%	23.2%	23.9%
Vacant	11.2%	7.7%	7.7%	5.7%
Mississippi				
Owner-Occupied	64.5%	65.1%	65.3%	65.1%
Renter-Occupied	25.7%	24.9%	24.6%	24.8%
Vacant	9.8%	9.9%	10.2%	10.1%

Source: ESRI Business Analyst; Economics Research Associates, March 2007

Table 17: Housing Tenure

As seen in Figure 6, State-wide, median home values have increased at a fairly constant rate between 1990 and 2011, more than doubling between 1990 and 2011. With home values increasing approximately 3.7 percent annually during this time period, it could be assumed that Hurricane Katrina did not affect State-wide housing prices.

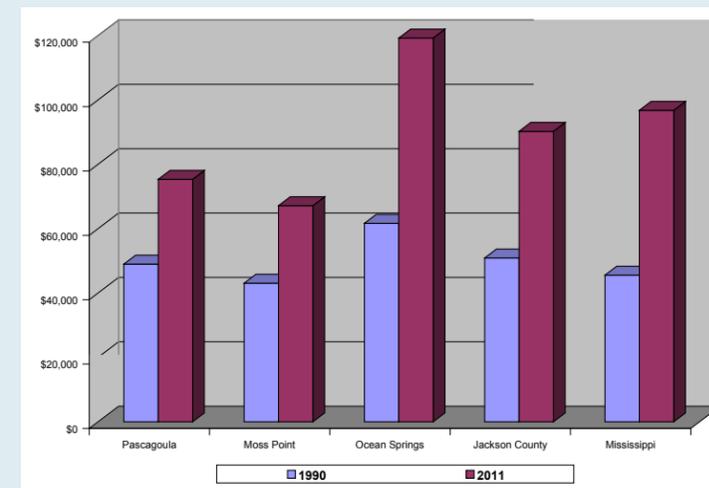


Figure 6: Median Home Values, 1990-2011

Tenure

Table 17 illustrates trends and forecasts in housing tenure (i.e., renter versus owner) for the County and key municipalities for the 1990-2011 period. Inconsistent with the increasing homeownership around the United States as a result of historic low interest rates and a strong economy, homeownership in Pascagoula, Jackson County, and Mississippi has remained fairly constant between 1990 and 2011.

- Ownership rates in Jackson County, Pascagoula, Moss Point, and Ocean Springs declined between 2000 and 2006, likely a result of Hurricane Katrina. While the percentage of renter-occupied units increased or remained stable during this time period in Moss Point, Ocean Springs, and Jackson County, it decreased in Pascagoula by almost one percent. Because

both the home-ownership and renter-occupied percentage decreased in Pascagoula, it indicates that Hurricane Katrina displaced residents, which is illustrated by the increase in vacancy rates by almost five percent.

- State-wide, there have been little fluctuations in home-ownership and vacancy rates between 1990 and 2011. During these years, home-ownership hovers around 65 percent, while the vacancy rate is approximately ten percent.
- The largest increase in home-ownership was experienced in Ocean Springs, where there was a five percent increase between 1990 and 2006. In addition, home-ownership is expected to increase another two percent by 2011.

PASCAGOULA RIVERFRONT

Site Analysis



Site Challenges | *barriers to redevelopment*



Wastewater Treatment Plant



Brownfields



SITE ANALYSIS

Barriers to Redevelopment



REMNANTS OF AN INDUSTRIAL WATERFRONT

Because Pascagoula's waterfront has always been a working waterfront, it has some challenging characteristics that must be overcome in order to regenerate the area:

Brownfields

The Northrop Grummon properties are likely brownfields. Due to the relative certainty of this fact and the liability that would follow its discovery, the company has yet to allow significant testing of the land for pollutants. Half of the east bank of the Pascagoula River therefore remains in limbo as the City seeks options for moving forward with Northrop Grummon on future acquisition and remediation of the land, which could cost over \$100 million.

Wastewater Treatment Plant

Near downtown, an existing wastewater treatment facility is still in operation. The proximity of this plant to future mixed use waterfront development poses significant hurdles and has dissuaded some developers from considering the site for a project. Relocating the plant could cost upward of \$80 million, and would depend on finding consensus with the county.

Barrier Property

At the terminus of Delmas Avenue is a NOAA facility. The City cannot acquire this property, which is the natural terminus of a strong downtown link to the river. A future continuous public waterfront will also face this challenge, as NOAA's active dock cannot be interrupted by the insertion of a public promenade.

Barrier Infrastructure

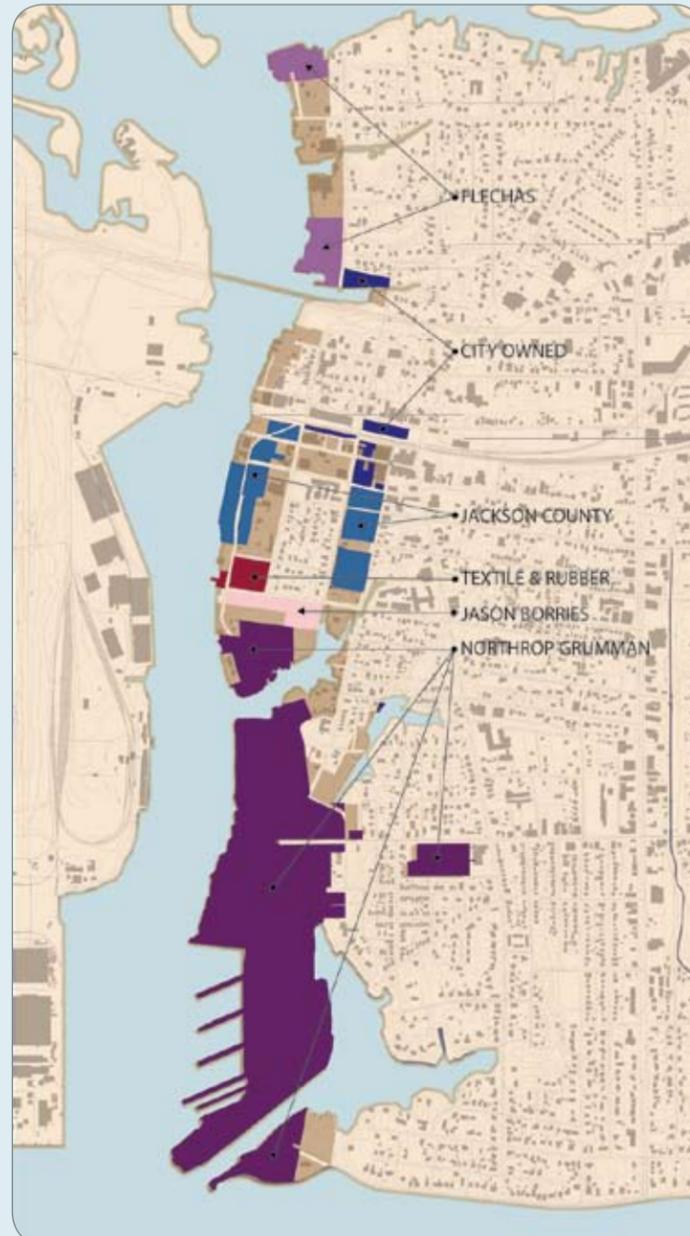
North of downtown there are two major pieces of infrastructure that must be considered in the planning of the waterfront: the CSX railroad bridge and the Highway 90 bridge north of it. Creative solutions are needed in order to improve the pedestrian environment around these bridges and provide strong links passing beneath them.

Site Opportunities | *land assembly*



STUDY AREA

Public, Private, Commercial Owners



PARCEL ANALYSIS

Large Landholders, Easier Assembly

LAND ACQUISITION & THE PLANNING PROCESS

Parcel ownership along the waterfront has been identified and acreages logged. Significant portions of the waterfront redevelopment area are either in public ownership (city or county) or held by large landholders - the largest being Northrop Grummon.

In the first stages of redevelopment, the City will focus on publicly owned land, which is concentrated near downtown. Because of the relative ease of acquiring land from the County (as opposed to numerous private owners), these “blue” properties are the natural focus point for initial stages of redevelopment.

In future phases, the City may focus on acquisitions from large landholders where assembly of large tracts can occur with only a few transactions.

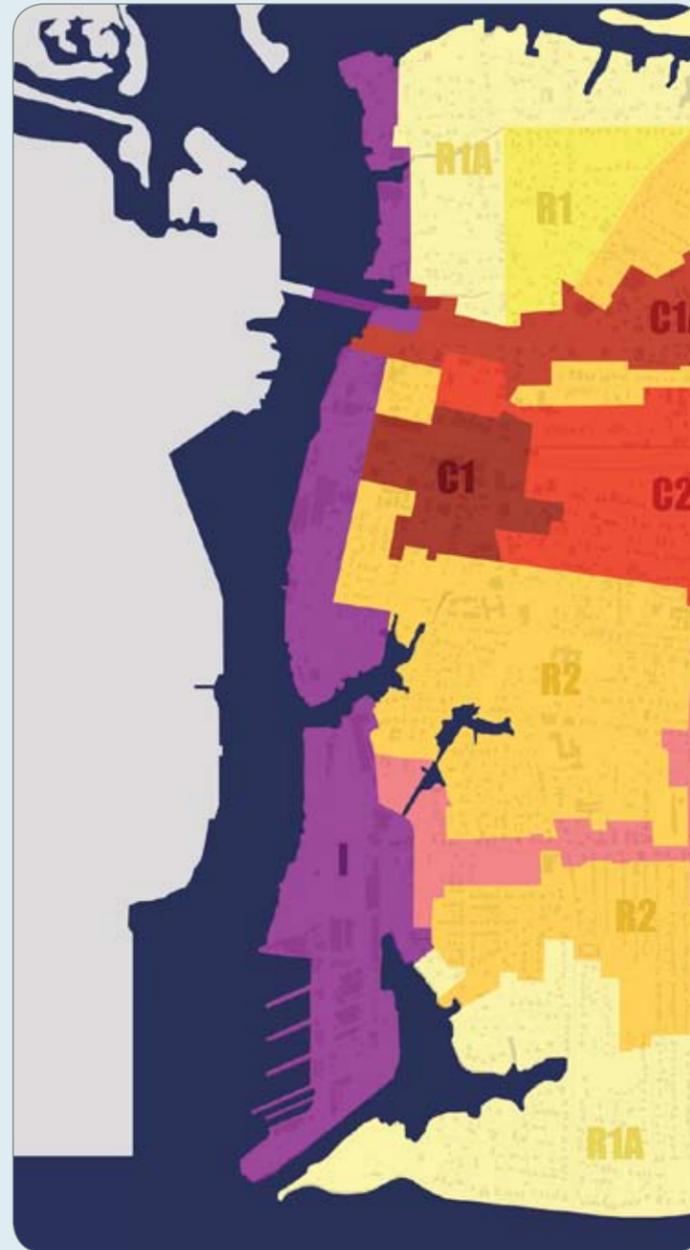
Rather than imagining that the City will ultimately acquire the entire waterfront, the City is taking a much more strategic position of catalyzing private development with select public investments.



Land Use & Environmental Conditions | *existing conditions*



STUDY AREA
Aerial



STUDY AREA
Existing Zoning

INDUSTRIAL WATERFRONT

Current zoning along the waterfront is industrial. Physical conditions along the waterfront reflect its industrial heritage as well as significant remaining damage from Hurricane Katrina.

Rezoning

The City is currently rezoning the waterfront for mixed use, and expects that process to be complete by Spring 2008.

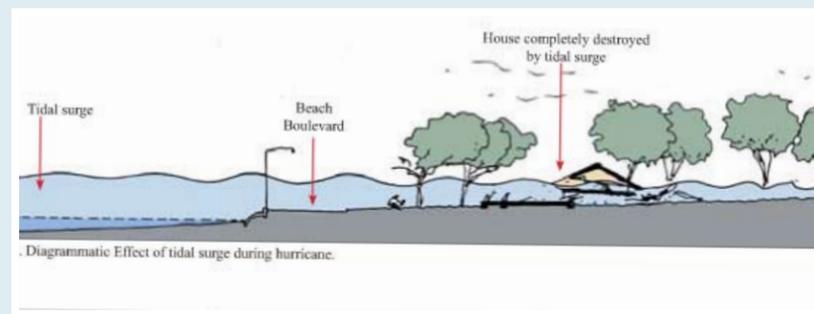
The planned conversion of the waterfront to new residential and commercial uses will require reconsideration of infrastructure, parceling, services, and public space.



Land Use & Environmental Conditions | *flood zone*



FEMA Map of Katrina storm surge extents in Pascagoula, MS



From Pascagoula: The Flagship City Renewed (Mississippi Development Forum, October 2005 Charette)



SITE ANALYSIS
FEMA Flood Zones

FLOOD-RELATED CONSTRAINTS

The planning area lies within the FEMA flood hazard area. During Hurricane Katrina, the area was inundated by the storm surge and suffered significant damage. Redevelopment along the waterfront is therefore governed by building elevation and floodplain management standards.

In the initial redevelopment effort abutting downtown (the RFQ/RFP site), the following standards apply for base building elevation (first occupiable floor):

- West of Front Street, the required elevation is 19 to 20 feet above mean sea level. The average ground elevation west of Front Street is 4 to 6 feet.
- East of Front Street, to Frederic, the required elevation is 17 to 18 feet above mean sea level. The average ground elevation east of Front Street to Frederic is 6 to 10 feet.

There are also FEMA and local requirements governing the planned construction of a riverfront promenade in the surge area. The City has provided the following language:

- Floodplain management regulations in a surge area are subject to local control, interpretation, and application. The City of Pascagoula might allow a natural edge or the City might require a formal seawall (or observe other criteria) based on a specific project proposal. There is no standing requirement, no established benchmark, that a seawall be constructed. Whether to include such a structure is a design-specific decision.
- While the inclusion of a structural seawall within a design scheme certainly should not be considered an inappropriate or unnecessary element (particularly in relation to construction as substantial as the placement of a pedestrian promenade in a high hazard area), the requirement for such a component



Land Use & Environmental Conditions | *flood zone*

within a scheme would be driven by the overall design proposed.

3. There are no specific City building codes affecting waterfront promenade.

SECTION E

The City has also referred the project team to Reference Article 5, Section E, Coastal high hazards area, of City of Pascagoula Floodplain Management Ordinance:

Section E. Coastal high hazard areas.

Located within areas of special flood hazard and advisory flood hazard areas established in article 3, section B are coastal high hazard areas, designated as zones V1-V30, adjacent A1-30 zones, coastal A zones, or any B zones, SFHA or advisory flood hazard areas south of Washington Avenue. These areas have special flood hazards associated with high velocity waters from surges and, therefore, in addition to meeting all provisions in this ordinance, the following provisions shall also apply:

(1) All new construction and substantial improvements in coastal high hazard areas shall be elevated on pilings and columns so that:

a.) The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the elevation stipulated for that parcel as determined by the Pascagoula Floodplain Management Map.

b.) The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in a given year (100-year mean recurrence interval).

(2) A registered professional engineer or architect shall develop or review the structural design, specifications and

plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of article 3, section F.

(3) Obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures in coastal high hazard areas. The building official shall maintain a record of all such information.

(4) All new construction shall be located landward of the reach of mean high tide.

(5) Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with nonsupporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than ten and no more than 20 pounds per square foot. Breakaway wall enclosures will not exceed 300 square feet. Use of breakaway walls that exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

a.) Breakaway wall collapse shall result from water load less than that which would occur during the base flood; and

b.) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum wind and water loading values to be used in this determination shall

each have a one percent chance of being equaled or exceeded in any give year.

(6) If breakaway walls are utilized, such enclosed space shall be usable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

(7) Prohibit the use of fill for structural support of buildings.

(8) Prohibit manmade alteration of sand dunes that would increase potential flood damage.

(9) All manufactured homes to be placed or substantially improved within coastal high hazard areas on sites:

a.) Outside of a manufactured home park or subdivision;

b.) In a new manufactured home park or subdivision;

c.) In an expansion to an existing manufactured home park or subdivision; or

d.) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood; meet the standards of article 5, section E (1) through (8) and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within coastal high hazard areas meet the requirements of article 5, section B(4)(a) through (b).

(10) Recreational vehicles placed on sites within coastal high hazard areas either:

a.) Be on the site for fewer than 180 consecutive days;

b.) Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

c.) Meet the requirements of article 4, section B (permit procedures) and article 5, section B and section F.

(Ord. No. 2-2006, § 7, 2-21-2006)

PASCAGOULA RIVERFRONT

Initial Concept Development



PASCAGOULA RIVERFRONT

Core Area | *strategy*



City Owned Land
The Starting Point



Strategic Acquisitions
Possible Catalyst Sites



Downtown Core
Key Connection

PASCAGOULA RIVERFRONT

Core Area | *strategy*



Growth Toward the River
Front Street Extension



Growth Toward Future Marina Site
Pedestrian Centered Environment



Establish Links to the Water
Piers and Promenade

PASCAGOULA RIVERFRONT

Core Area | *strategy*



Streetscaping
Long Term Goals



Green Network
Publicly Accessible Waterfront



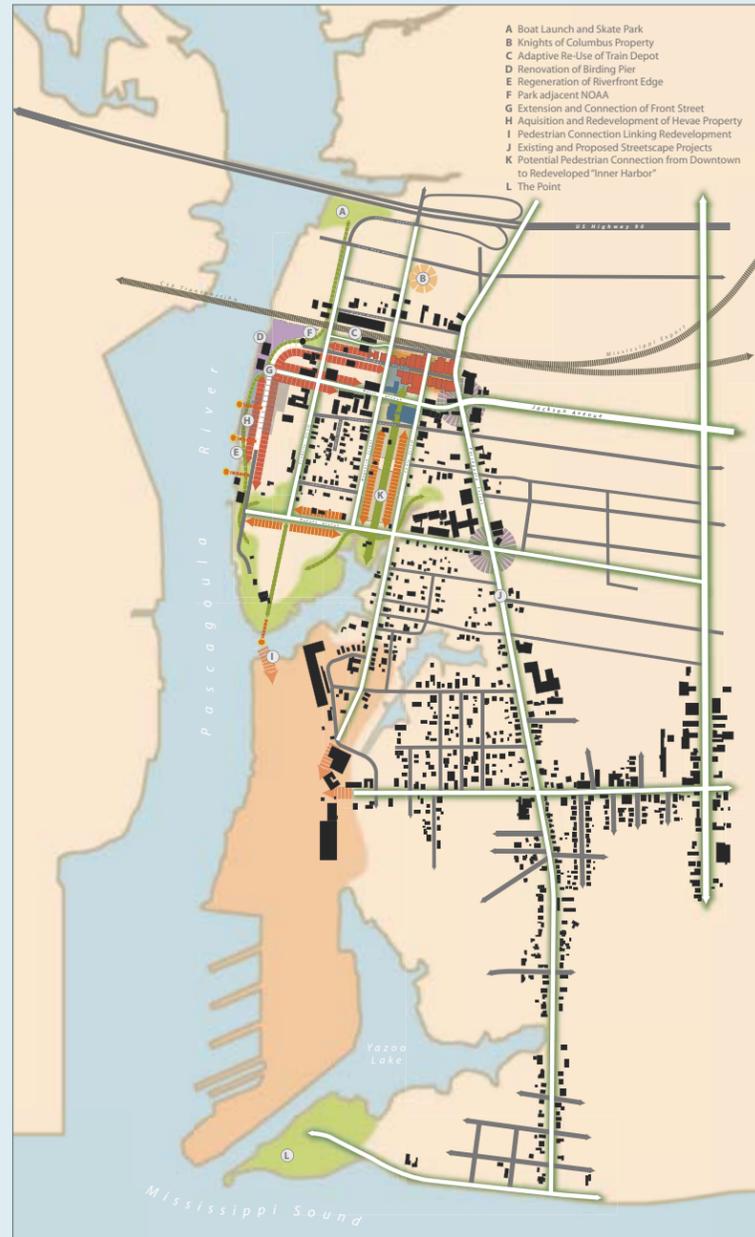
Composite
District Strategic Plan

PASCAGOULA RIVERFRONT

Core Area | *strategy*



Context
Riverwalk District Location on Riverfront



Context
Key East Bank Site



PASCAGOULA RIVERFRONT

Core Area | *strategy*



Revised District Strategic Plan
Program for Catalyst Site on the Riverfront

CATALYST SITE PLANNING

The riverfront that links to downtown is viewed as the catalyst site for reconnecting the city to the river. Development on the site will be supported by the following city actions in the near term:

- demolition of existing warehouses and preparation of a development-ready pad
- extension of Front Street to Delmas Avenue linking the waterfront to downtown with a new roadway
- streetscaping along Delmas, Watts, and Front Street
- visually mitigating wastewater treatment plan abutting the site with screening plants and walls
- building open space amenities including the Delmas Avenue park, waterfront promenade, and historic pathway
- rezoning the area to allow for mixed use development
- administering the RFP process focused

In a charrette attended by the City, Studio South, ERA, and EDWA in May 2006, a program was defined for the RFQ site based on market realities (right).



Charette Sketch
City, EDWA, and ERA

PASCAGOULA RIVERFRONT

Core Area | strategy



CATALYST SITE PROGRAM

Retail, restaurant, hotel, conference, and office space are envisioned on this site along the waterfront by the project team, but the market study indicates that substantial public investment will be required to realize this first phase of development.

The envisioned program within the RFQ area is as follows:

- restaurant, retail, and residential along the riverfront
- commercial and office east of the Front Street extension
- residential and retail frontage on the curving street linking downtown to the riverfront
- parking provision abutting NOAA property and the rail line

Specific city investments on or in this property include:

- extension of Front Street to Delmas Avenue
- demolition & site preparation
- design & construction of a waterfront promenade
- visual mitigation of the wastewater treatment plant

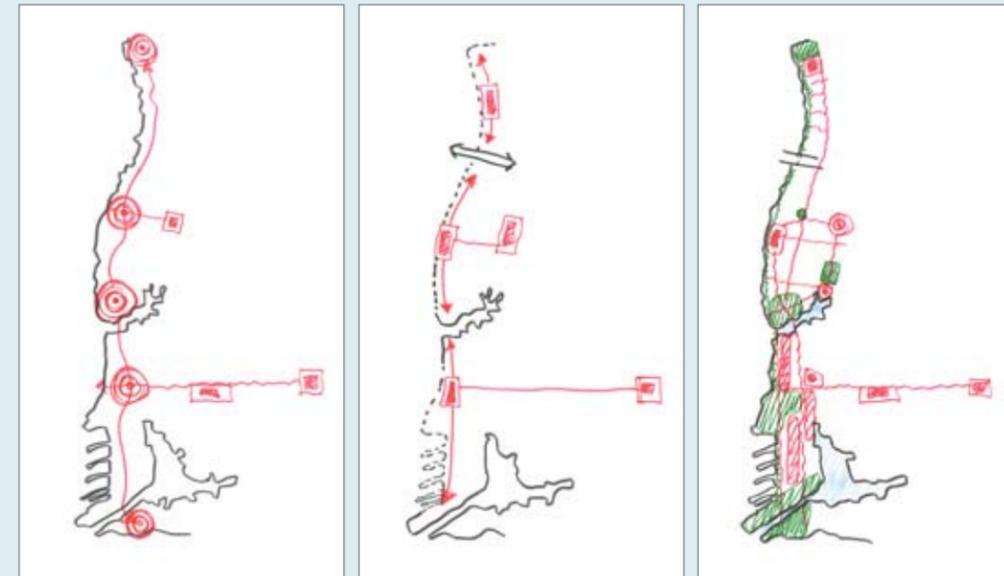
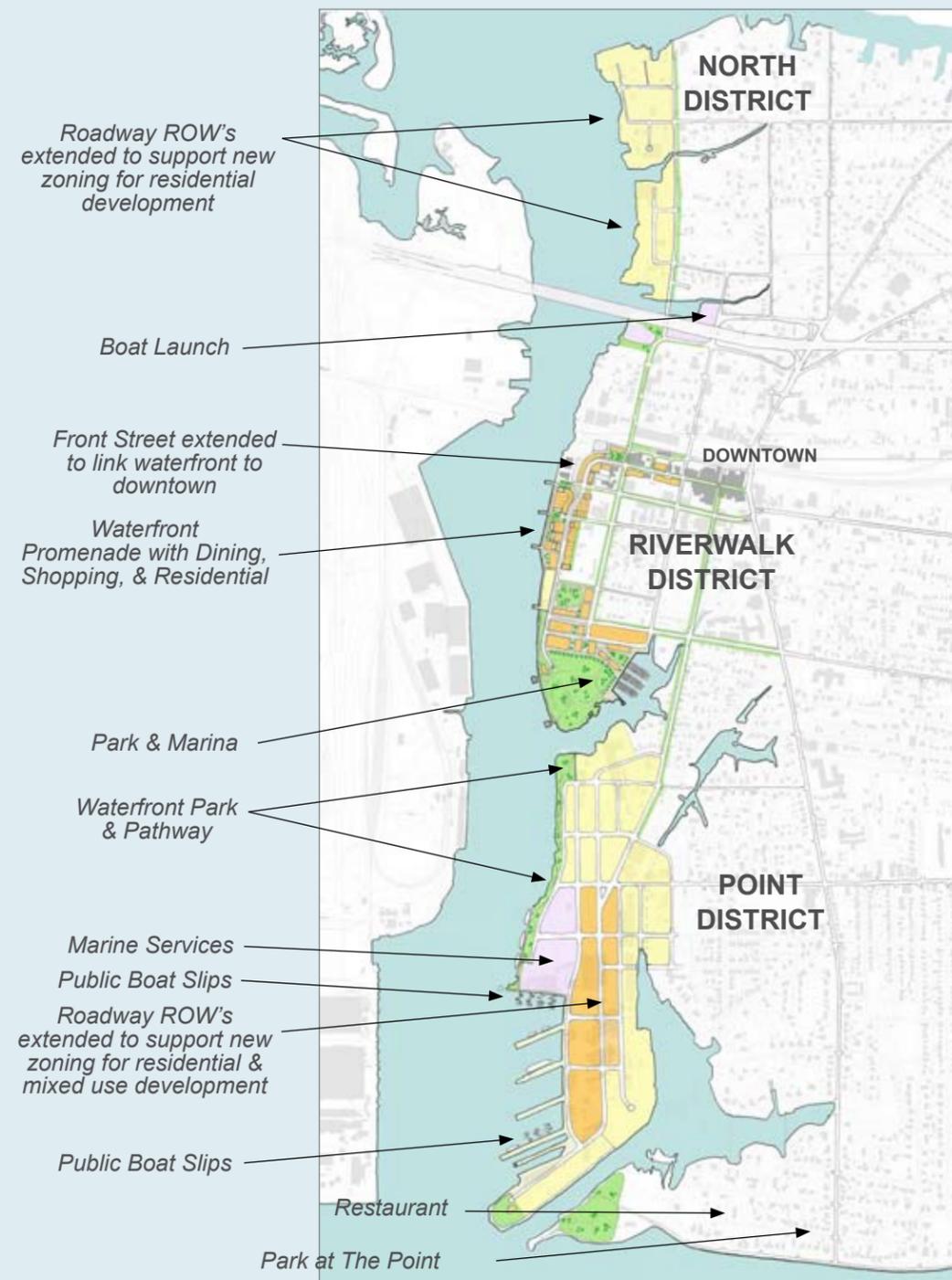
Future efforts will include implementation of district identity initiatives such as the historic pathway project, providing wayfinding measures and informational kiosks, promoting infill development in downtown, and focusing on increasing quality of life in the district through public space provision.



Core Area | *riverwalk district: initial concepts*



Riverfront Districts | *initial concepts*

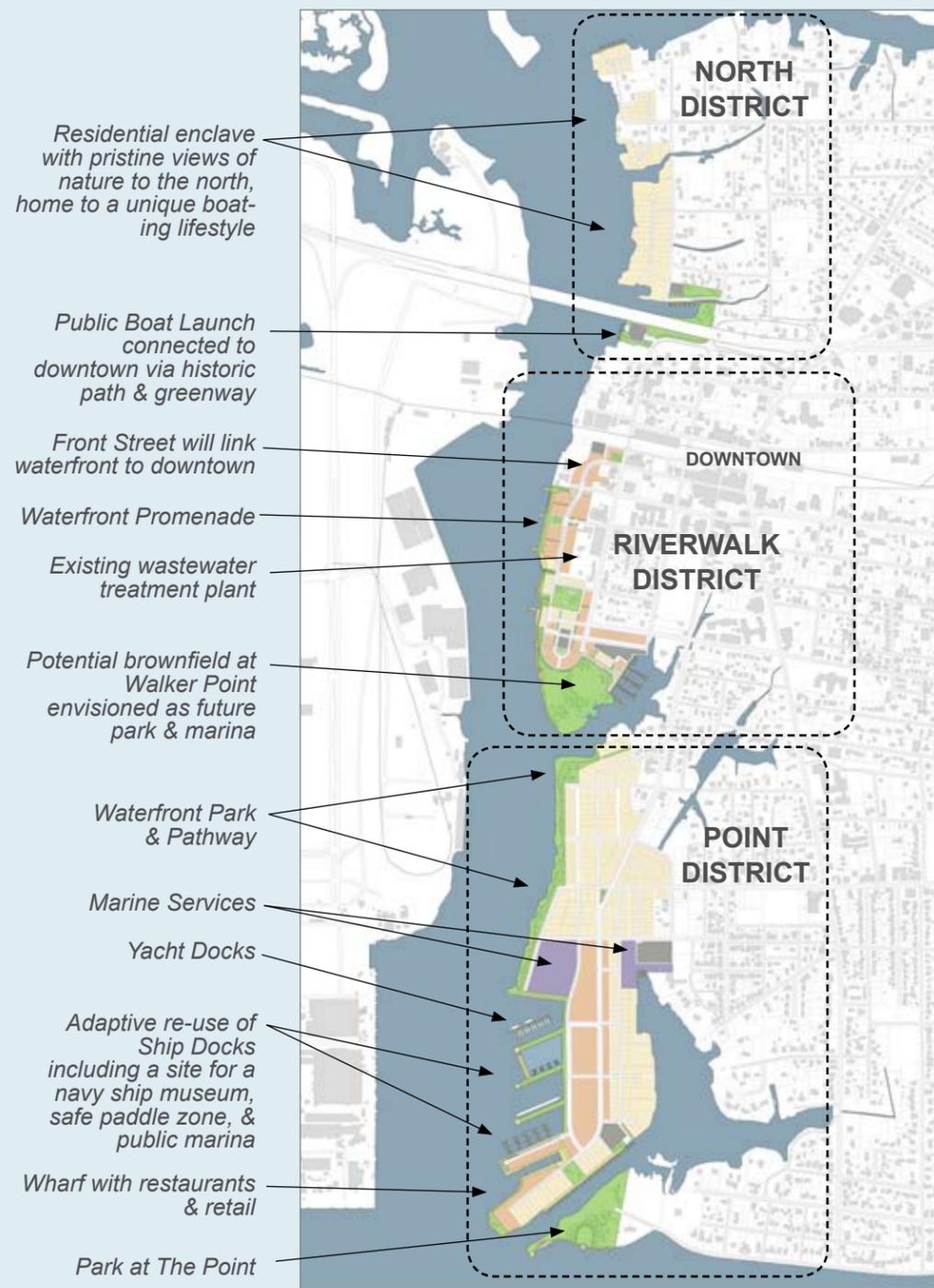


PASCAGOULA RIVERFRONT

Masterplan Development



Vision | *riverfront districts*



DEFINING THE DISTRICTS

The Pascagoula riverfront is defined by three major districts: the North District, the Riverwalk District, and the Point District. There are physical and perceptual barriers between the districts that lead to each having its own unique sensibility and feel. These differences are embraced by the masterplan.

North District

The North District lies at the southern edge of an enormous natural system of marshes, lakes, and bayous through which the Pascagoula River meanders on its way north. The district is separated from downtown Pascagoula by the Highway 90 bridge, a water inlet, and the CSX rail bridge, giving it the feeling of being something of an enclave. It isn't a "pass-through" district, but a destination.

Currently the North District waterfront is characterized by marine-related industries which don't take full advantage of the area's natural assets. The North District waterfront is envisioned in the masterplan as a future residential enclave with a unique quality of life organized around private waterfront access. In order to achieve this end, the City will need to reconsider both zoning and parcel structure in the waterfront area. Better vehicle access serving a more explicit block or cul de sac structure is needed, which may be a City initiative or the work of a private developer with City approval.

Currently the City has two significant projects affecting the North District,:

- the boat launch under the Highway 90 Bridge
- the historic pathway which links the district to downtown via Frederic Street

Riverwalk District

The Riverwalk District lies between the Highway 90 bridge and the southern tip of Walker Point. The Riverfront District is currently characterized by the downtown and government center core, large defunct industrial uses and marine-related industries on the water, and some residential fabric.

The area has the potential to reflect and celebrate Pascagoula's civic and historic identity, but it currently suffers from the presence of industrial remnants including an existing wastewater treatment plant near the water, a general lack of pedestrian connectivity, environmental issues on the Walker Point brownfield, and significant areas of vacant land.

Much of the story of Pascagoula's rediscovery of the river as an amenity will be told through redevelopment efforts in the Riverwalk District. Where the City once turned its back on the river, it will now celebrate it with a lively mix of waterfront uses. Where there was once limited access to the industrial riverfront, a wealth of new vehicle and pedestrian options will be introduced in order to maximize consciousness of the river throughout the district. The Riverwalk District is envisioned in the masterplan as a mixed use public waterfront and historic district with a strong link to downtown.

Currently the City has six significant projects affecting the Riverwalk District:

- administering the RFQ & RFP process including land assembly, demolition, site preparation
- building the Front Street extension linking riverfront to downtown
- building a park on Delmas Avenue
- implementing the historic pathway project
- administering the waterfront promenade design & construction
- streetscaping on Delmas, Watts, & Front Street

Point District

The Point District lies to the south of the Walker Point bayou at the convergence of the Pascagoula River and the Gulf of Mexico. Comprising of nearly half of the east bank of the Pascagoula Riverfront in Pascagoula, the formerly industrial site is a suspected brownfield that has been recently vacated by its owner, Northrup Grummon. Because of liability



PASCAGOULA RIVERFRONT



NORTH DISTRICT

- ▶ One active city project
- ▶ A large landholder
- ▶ City-owned land on the water
- ▶ Remoteness from activity centers
- ▶ Multiple barriers separating this zone



RIVERWALK DISTRICT

- ▶ Several active city projects
- ▶ Multiple large landholders
- ▶ City-owned land on the water
- ▶ Proximity to downtown
- ▶ Historic sites with study area
- ▶ Link to Jackson streetscape
- ▶ Wastewater treatment plant
- ▶ Fragmented parcels, lengthy assembly



POINT DISTRICT

- ▶ Single large landholder
- ▶ Proximity to beach
- ▶ Marina potential
- ▶ Generous acreage for large mixed use development
- ▶ Brownfield requires remediation

issues related to industrial brownfields and environmental responsibility stemming from federal legislation, the company has hesitated to allow testing to confirm brownfield status and reveal the extent of the problem. Depending on the extent and type of pollution discovered, the cost of remediation could exceed \$100 million.

In order to proceed with redevelopment in the Point District, the City must address the concerns of Northrop Grummon, determine the extent and type of brownfields present, and seek federal assistance in implementing a remediation plan.

Because of the significant size and excellent location of the East Point property, the planning team feels that it is a key component to the overall success of the riverfront masterplan's ultimate success.

The Point District is envisioned as a future residential and mixed use district with a unique maritime quality, excellent views, and water frontage on three sides.

The upper Point District is imagined as an extension of Pascagoula's residential fabric, adopting the block structure and pattern of the existing city.

The lower Point District is imagined as a dynamic mixed use district with marine services catering to commercial and private boaters including yachts of all sizes.

The old Northrop Grummon docks would be reimagined as public space, while public and private marinas and boat slips would pepper the district. A ship museum may be sited here on the former navy vessel U.S.S. Ticonderoga.

A boat club, boat launches, and waterfront parks will celebrate the Pascagoula River and the Gulf. Where the Riverwalk District may emerge as the civic center of Pascagoula, the Point District and its proximity to the beach may present opportunities for more regional destinations and tourism.

Entertainment, cultural facilities such as the ship museum, beach and yacht-related activities, restaurants, and similar uses may coexist with new residential fabric suitable for the employees of Pascagoula's largest corporate tenants: Northrop Grummon and Chevron.

Currently the City has one significant project affecting the Point District, which is the park and boat launch that is envisioned at The Point.

PASCAGOULA RIVERFRONT

Vision | *riverfront districts: riverwalk district existing conditions*



RIVERWALK DISTRICT: EXISTING TOPOGRAPHY

This district lies within the FEMA flood hazard area. Redevelopment is governed by building elevations and flood plain management standards. The existing topography in the Riverwalk District ranges from 2-4' above mean sea level at the water's edge to 12' at more inland locations.



RIVERWALK DISTRICT: FEMA FLOOD BASE ELEVATIONS

This district lies within the FEMA flood hazard area. Redevelopment is governed by building elevations and flood plain management standards. The Base Flood Elevations in the Riverwalk District range from 18-20' above mean sea level at the water's edge to 15' at more inland locations.

PASCAGOULA RIVERFRONT

Vision | *riverfront districts: point district existing conditions*



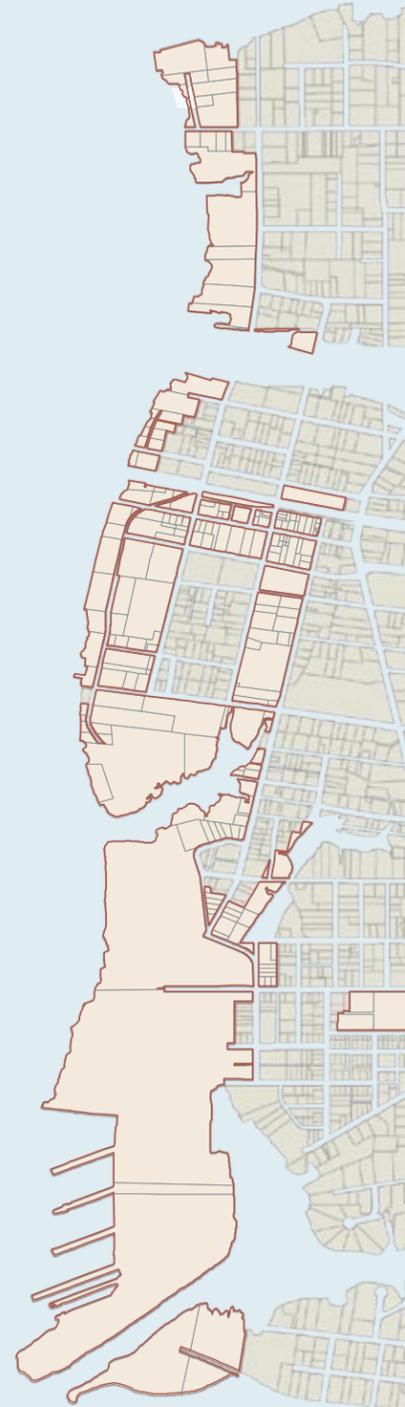
POINT DISTRICT: EXISTING TOPOGRAPHY

This district lies within the FEMA flood hazard area. Redevelopment is governed by building elevations and flood plain management standards. The existing topography in the Point District ranges from 2-4' above mean sea level at the water's edge to 10' at more inland locations.



POINT DISTRICT: FEMA FLOOD BASE ELEVATIONS

This district lies within the FEMA flood hazard area. Redevelopment is governed by building elevations and flood plain management standards. The Base Flood Elevations in the Point District range from 20' above mean sea level at the water's edge to 16' at more inland locations.



Vision | *riverwalk district*

Continuous frontage along Front Street extension connecting downtown to the waterfront

NOAA to plant trees & place a public easment on their property to create gateway to the promenade

Pedestrian Arrival Plaza

"Vista" Residential Over Shopping, Dining, and Waterfront Promenade

Central Park & Vehicle Arrival / Parking Entry

"Vista" Residential Over Shopping, Dining, and Waterfront Promenade

Cafe Seating & Plaza

Attached Rowhouses Face Waterfront & Park

Historic Restoration of Homes & Creation of Event-Ready Park & Plazas

Waterfront Park Abutting Historic Path

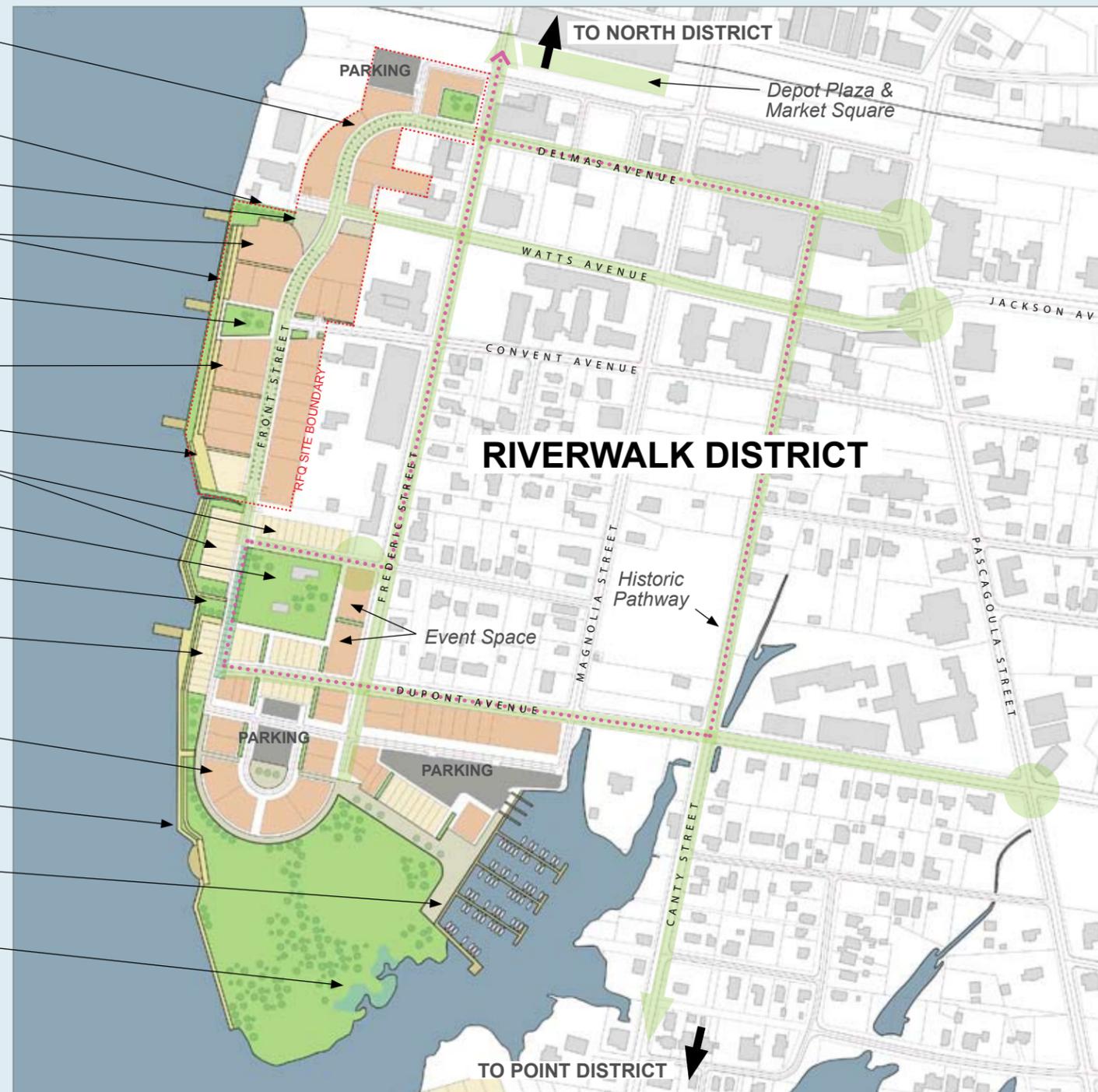
Attached Rowhouses

Mix of Uses, with Restaurants Facing the Park and Waterfront Edges

Waterfront Promenade & Piers from tip of Walker Point to NOAA property

Marina with Private Slips, Charters, Recreational Rentals, & Marine Services

Regenerated Natural Landscape



VISION

The City seeks to re-establish the riverfront as a lively, pleasant environment that provides residential and retail opportunities.

The Riverwalk District is envisioned in the masterplan as a mixed use public waterfront and historic district with a strong link between downtown, the district neighborhoods, and the riverfront.

It is essential that the presence of the river be perceived as a component of the district identity, as this is the district where hearts and minds will be changed. Because Pascagoula has traditionally turned its back on the working waterfront, it is difficult for residents to imagine a new Pasacagoula, where river and people are intimately connected - visually, programmatically, and through lifestyle.

Phases

Work on the riverfront will occur in phases. Initial efforts are directed at the RFQ site in the northwest quadrant of the district, including the park on Delmas Avenue, the Front Street extension, and the first section of the waterfront promenade. Future phases include the southwest quadrant including the small park to be developed around the historic renovation of homes abutting John Avenue and the Walker Point park and marina.

City Initiatives

The City must succeed at its key initiatives affecting the Riverwalk District:

- administering the RFQ & RFP process on the riverfront catalyst site including land

PASCAGOULA RIVERFRONT

Vision | *riverwalk district*

assembly, demolition of derelict structures, & site preparation, leading to the ultimate redevelopment of the catalyst site by a private developer

- building the Front Street extension linking existing Front Street to Delmas Avenue and downtown
- building a park on Delmas Avenue in accordance with the masterplan
- implementing the historic pathway project utilizing greening, wayfinding, and historic markers to increase awareness of history in the district
- administering the waterfront promenade design & construction process to ensure that residents' relationship with the river is enhanced, and hearts and minds are changed
- establishing design guidelines that ensure careful selection of site furniture, banners, lighting, paving, and trees throughout the district
- implementing streetscaping on Delmas, Watts, & Front Street utilizing greening, wayfinding, and district branding strategies
- implementing a visual screening solution around the wastewater treatment plant

Initial Program & Incentives

The first phase riverfront development, focused the RFQ/RFP site, is regarded as the most central redevelopment opportunity for the city, and will provide an opportunity to change public perception about Pascagoula's relationship to the river.

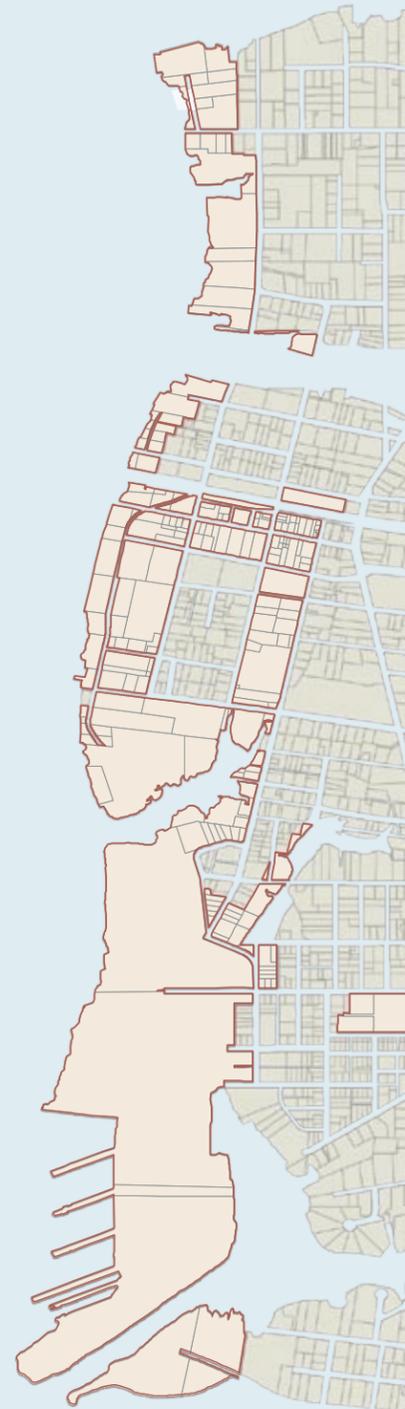
The plan for the RFQ/RFP site envisions retail, restaurant, hotel, conference, and office uses along the waterfront, but the

market study indicates that substantial public investment will be required to realize these first phase uses.

Development incentives could include tax relief, reducing developer costs through provision of land at a low cost, or public partnership in the redevelopment (shared risk). Incentives already planned include public provision of infrastructure, provision of public open space amenities, provision of a development-ready pad, and regulatory relief.

Next Steps

- Proceed with RFP process
- Establish developer incentive strategy
- Develop guidelines for water access and interface points including piers, wharfs, marinas, natural edges, seawalls, docks, and promenades.
- Develop a plan and guidelines for historic pathway
- Complete schematic design of the waterfront promenade
- Initiate schematic design of the Delmas Avenue Park
- Complete site preparation of RFQ/RFP site, providing a development-ready pad at the end of the RFP process
- Design and implement a screening strategy around the wastewater treatment plant



Vision | *riverwalk district: character*

Lower Level Riverwalk



2

Observation Point



4

Mixed Use District



5



1

Riverfront Gateway: A Sense of Arrival

Natural Edge along River



3

Riverfront Event Space

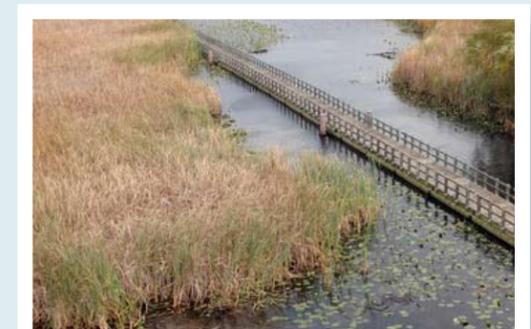


6



9

Marina Activity



8

Regeneration of Natural Resources



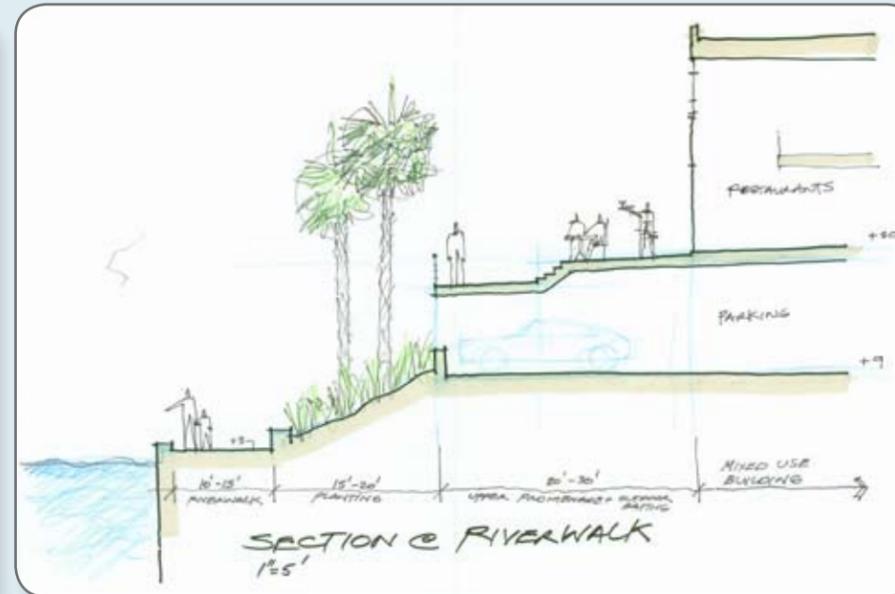
7

Park & Recreation Experience

Vision | *riverwalk district: waterfront promenade*

Public Promenade

The City of Pascagoula will build a riverfront promenade abutting the subject site, along the Pascagoula riverfront.



First Phase of Riverwalk Construction

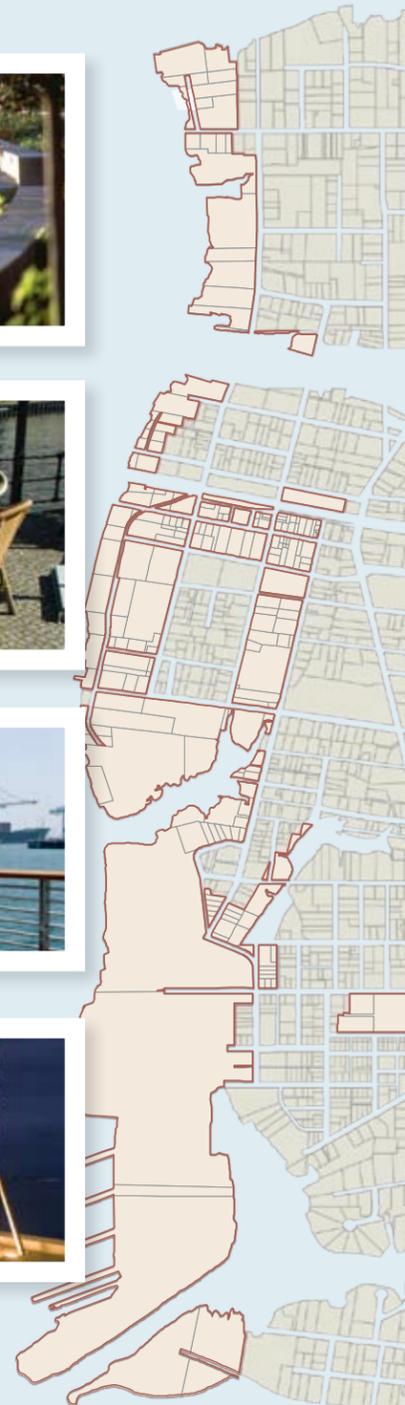
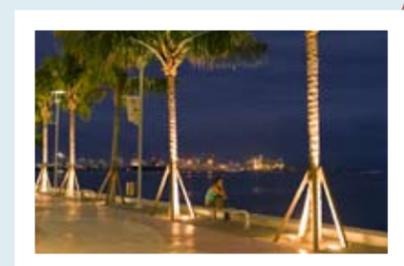
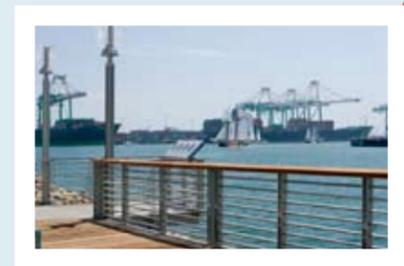


Dynamic Mixed Use Riverfront

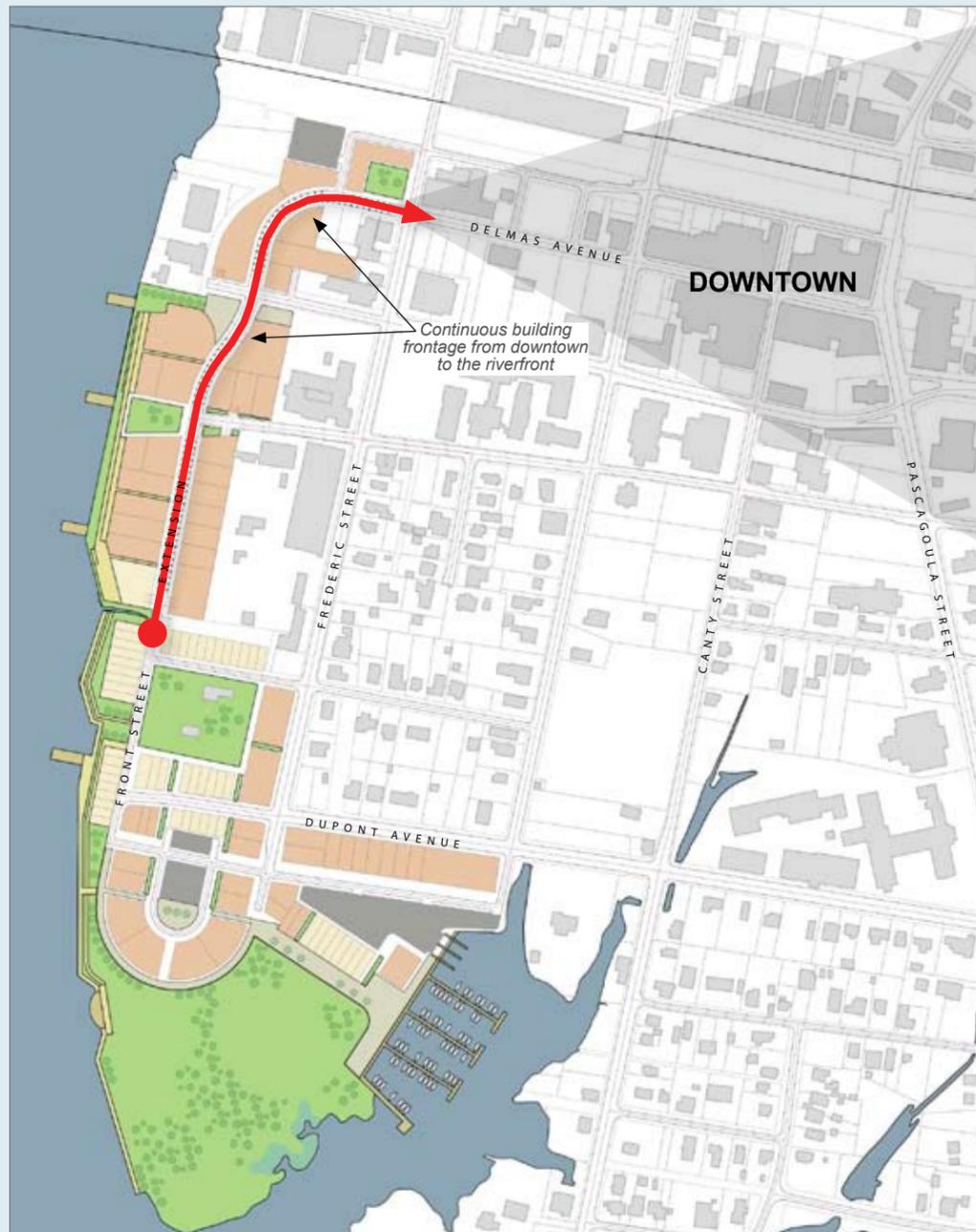
A dynamic mix of retail and market rate residential will engender an active riverfront district.

Commercial, conference, and hospitality uses line the east side of Front Street while new housing, restaurants, and retail take advantage of dramatic vistas along the waterfront.

Public space at the heart of the district provides recreation and lunchtime gathering space for residents, employees, & visitors.



Vision | *riverwalk district: Front Street extension*



A Picturesque Curving Street for Cafes, Shopping & Quaint In-town Residences

The Front Street extension will link existing Front Street to Delmas Avenue and downtown. The new street provides an opportunity for the City to create a unique sense of place, shaping the experience of arrival for visitors to the Pascagoula riverfront.

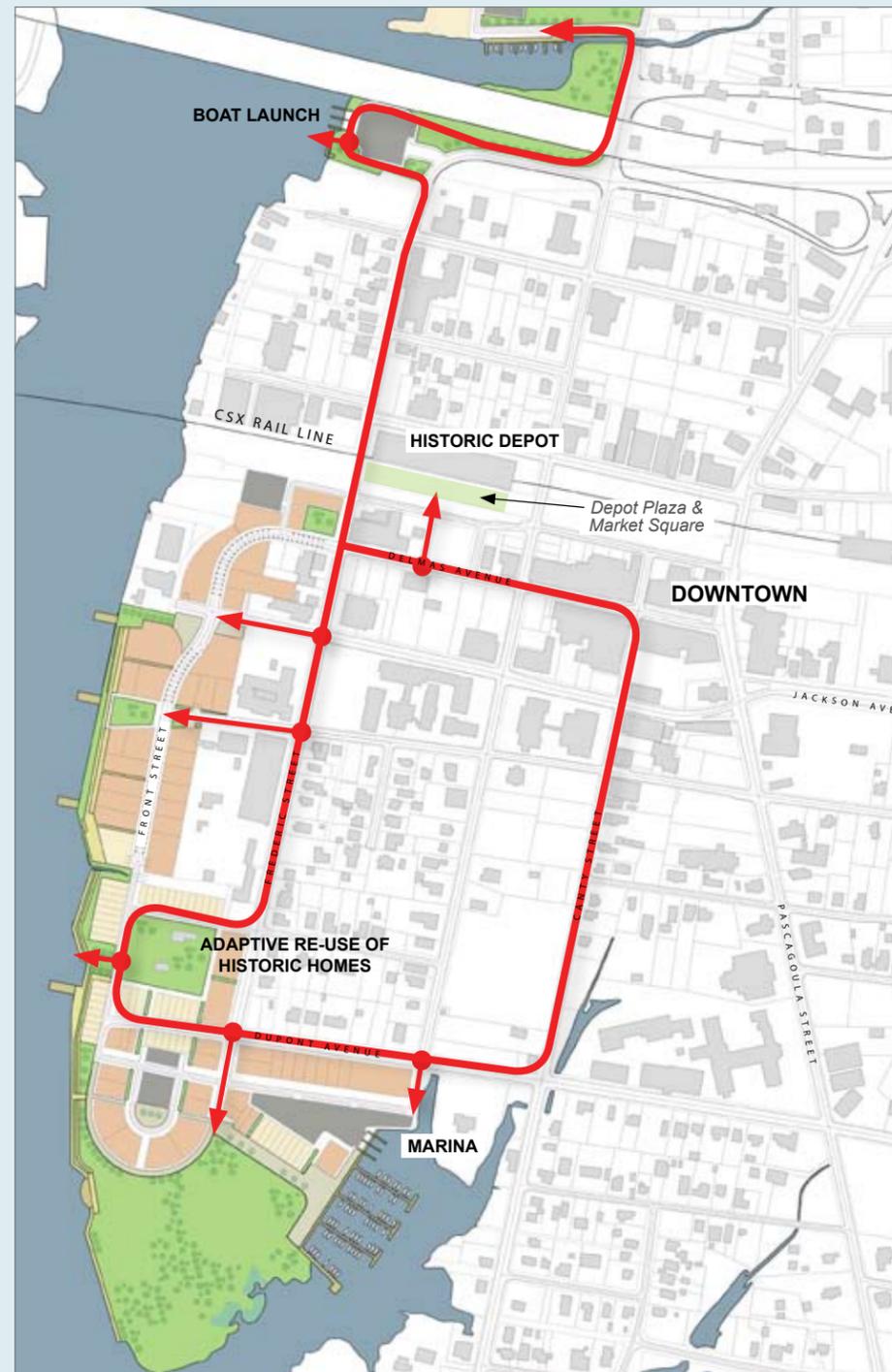


The street unfolds as a gently curving form edged by retail ground floor shops with residential above. Visitors approaching the water will pass through the lively curving facades, emerging suddenly at a spectacular vista and public space with access to the riverfront promenade.

Vision | *riverwalk district: historic pathway*



HISTORIC PATHWAY
Pedestrian Experience



VISION

The proposed Historic Pathway serves as an important unifying feature for the downtown and the riverfront while providing opportunities for the discovery of city history. The pathway connects critical redevelopment sites along the river thereby contributing to the potential economic viability of the riverfront. The pathway will tie directly into the city's proposed boat launch, creating an important linkage between the downtown areas currently separated by the CSX rail line.

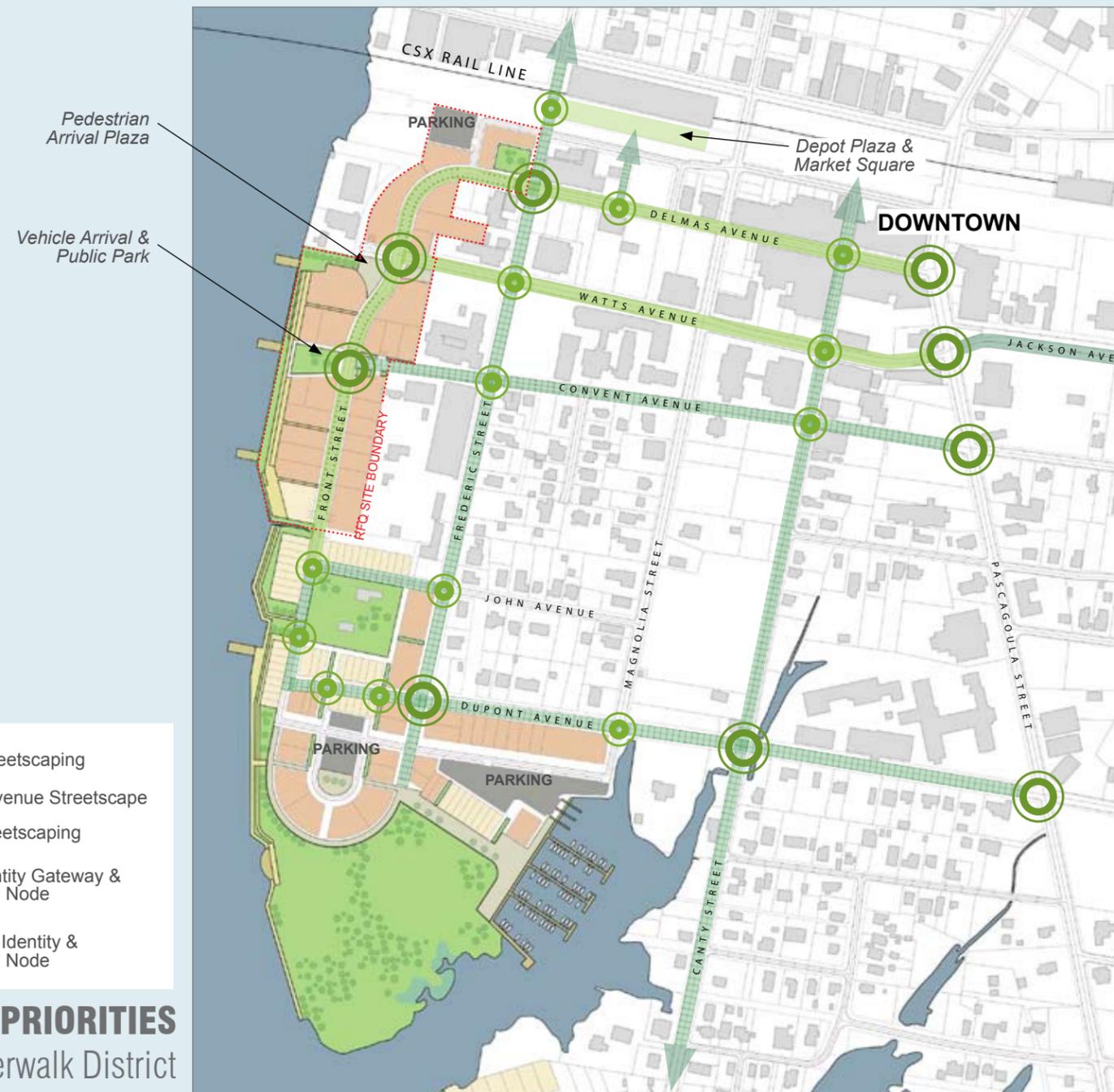
The city has current designs for the proposed pathway (below). The historic pathway was identified as an implementation project the city's strategic plan. The Governor's Commission Plan also notes the importance of creating pedestrian linkages in downtown. The historic pathway presents the unique concept of an interpretative recreational path that effectively connects existing and proposed elements of the downtown.



HISTORIC PATHWAY SECTION
Current City Proposal



Vision | *riverwalk district: streetscaping & district identity*



LINKING RESIDENTS TO THE RIVER

The comprehensive plan for the City of Pascagoula and the Governor's Commission Plan both envision a revitalized downtown and waterfront. The current plan reinforces that goal, and proposes that a key component of revitalization is streetscaping, as it will have an enormous impact on district identity and perceptions of connectivity to the river.

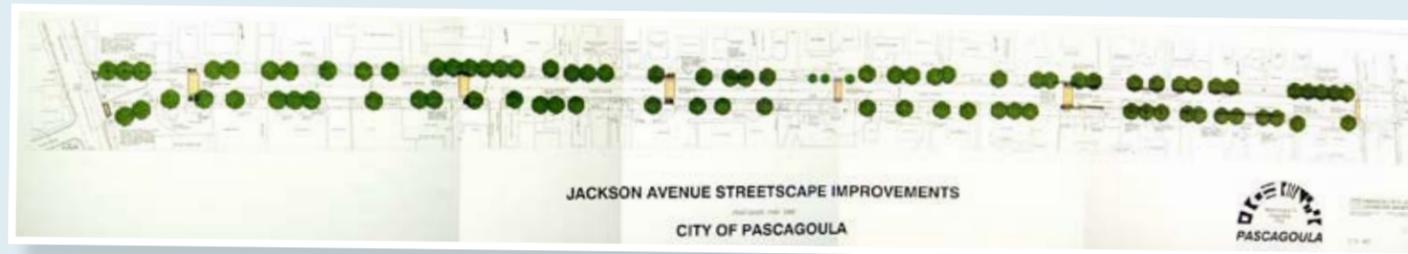
The proposed streetscape plan builds upon (1) the City of Pascagoula's existing streetscape plan developed in 2002 for the east/west corridor Jackson Street, and (2) the proposed MDA streetscape projects developed in 2006.

The 2002 Jackson Avenue plan links the civic core of downtown Pascagoula to the professional office area east of downtown.

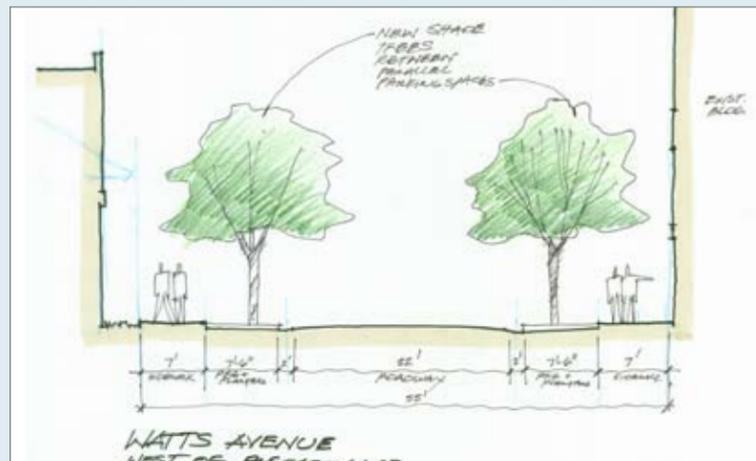
The 2006 proposed MDA grant streetscape project was comprised of two phases. Phase 1 proposed planning streetscapes along Delmas Avenue and Watts Avenue, which were identified as key linkages between the Pascagoula civic and emerging retail core and the riverfront. Phase 2 proposed the actual implementation of the streetscapes for Jackson Avenue, Delmas Avenue, and Watts Avenue.

PASCAGOULA RIVERFRONT

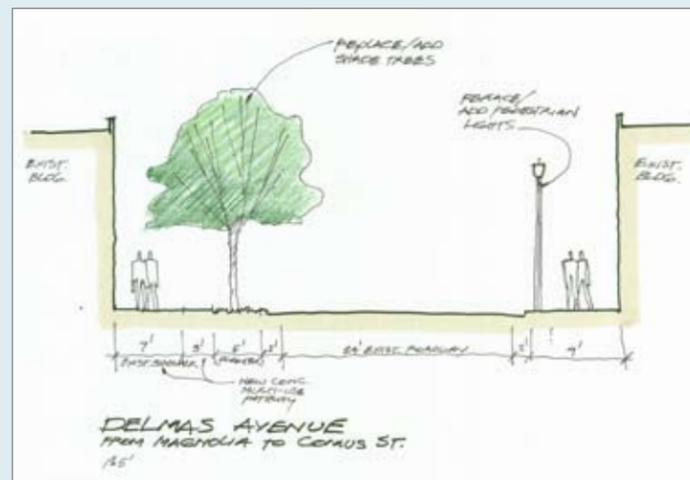
Vision | *riverwalk district: streetscaping & district identity*



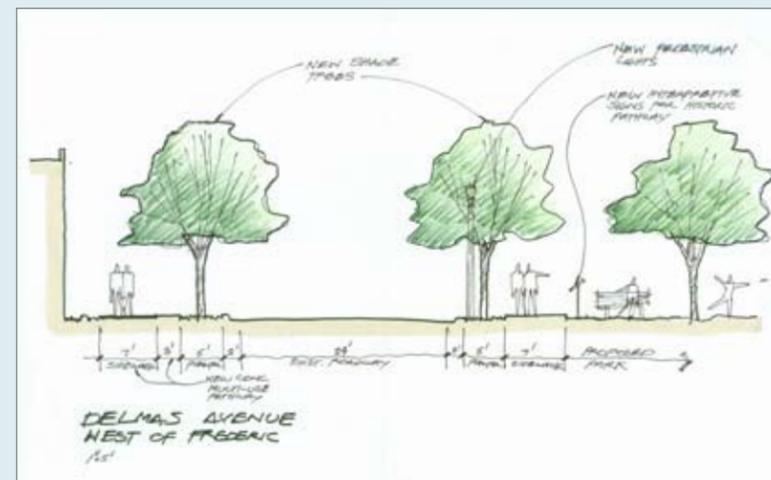
JACKSON AVENUE
2002 City Streetscape Proposal



WATTS AVENUE



DELMAS AVENUE
East of Frederic



DELMAS AVENUE
West of Frederic

GOALS OF THE CURRENT PLAN

The proposed master streetscape plan adopts these assumptions and expands them to address future streetscaping needs in light of future development envisioned by the waterfront masterplan, including future streetscaping along Canty which will become a future connector between downtown and the Point District.

Streetscape Features

Defining features and improvements along streetscape corridors will include:

- Street trees
- Lighting
- Sidewalks & district-specific paving elements
- Site furniture consistent with district identity

District Identity & Wayfinding Nodes

Additionally, the plan proposes district identity and wayfinding nodes. These are points at which signage should direct visitors to key destinations, historic pathway linkages are made, informational kiosks will be found, and district-wide identity features should be sited.

Defining features of gateway and wayfinding nodes will include:

- Informational kiosks
- Historical markers
- District identity features such as banners, bollards, and a distinctive material and vegtal palette
- Wayfinding measures such as signage & landmarks

Phasing

Phasing priority is given in the plan to those streets that will directly affect the catalyst riverfront project site, defined by the RFQ/RFP boundary. This includes Delmas Avenue, Watts Avenue, and the Front Street extension.

Priority streetscapes *must* be improved in step with new riverfront development in order to support that effort as well as generate a strong sense of new hope in the city's relationship to the river.



Vision | *point district*

- Waterfront housing with view to Marina & Park
- Public Park with natural river's edge & paths
- Attached rowhousing along the waterfront facing the park
- Reintroduction of city street grid & residential block structure
- Residential infill
- Boathouse & Club
- Marine Services
- Mega Yacht & Large Boat Dock
- Piers converted to Parks
- Possible Navy Ship Museum
- Public Marina
- Wharf created through land reclamation between two piers
- Restaurant & Retail
- Residential with Private Slips
- The Point



VISION

The masterplan envisions the Point District as a mixed use neighborhood characterized by residential, civic, maritime and leisure activities.

The key public investments in this district include the creation of a public park and boat launch at the Point, which lies at the convergence of the Gulf and the Pascagoula River; and the possible creation of a ship museum aboard the USS Ticonderoga, a 565-foot Navy cruiser.

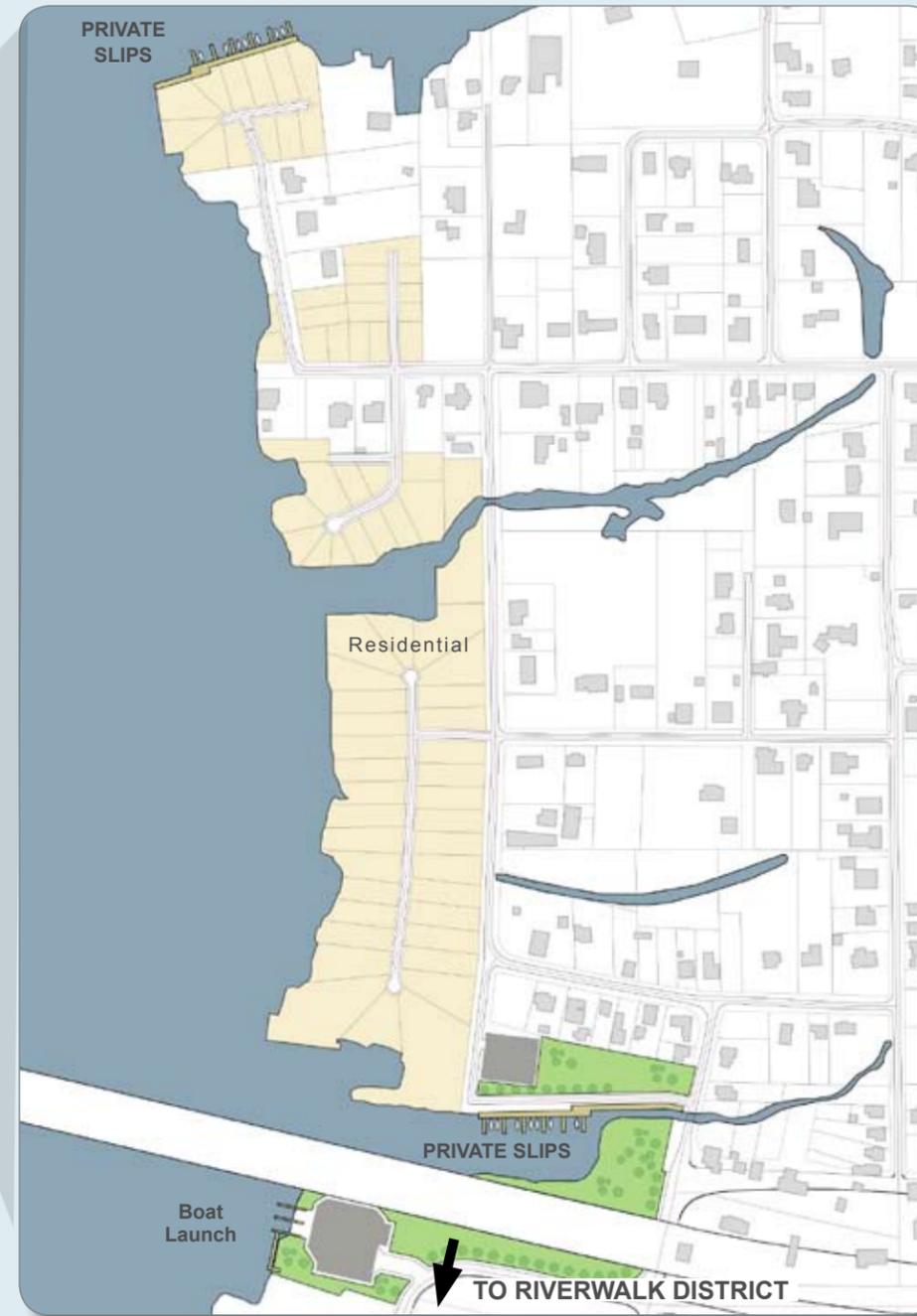
The upper Point District will be characterized by residential infill tying this area strongly to the existing city fabric through the extension of existing streets and block patterns. The riverfront along the upper point district is envisioned as a soft, natural park-like waterfront with winding paths and passive recreation.

The lower Point District will be characterized by an active recreational waterfront and commercial wharf, marine-related industries including services for yachts & mega-yachts, civic & cultural landmarks, a large city park with beach access, and residential lots with water access and private docks.



USS TICONDEROGA

Vision | *north district*



VISION

The masterplan envisions the north riverfront as a residential enclave geared toward a boating and leisure lifestyle.

The key public investment in this district is the planned boat launch beneath the Highway 90 bridge, and rezoning to accommodate the new use.

Future efforts may include creation of new roadway right of ways to support the smaller residential lot sizes, reparceling to allow for individual purchase of residential lots, and eventual streetscaping and public realm improvements.

The City should remain open to larger land acquisition by a single developer who may see this area as an opportunity for infill development.

Private dock construction is recommended along residential properties in order to promote a boating lifestyle. Residents of the north district will have the opportunity to take their boats down the river and dock in public marinas in the riverwalk district or along the wharf in the Point District, where they may shop, dine, run errands, or simply stroll the waterfront.



Land Use Options | *development features: pedestrian & bike network*



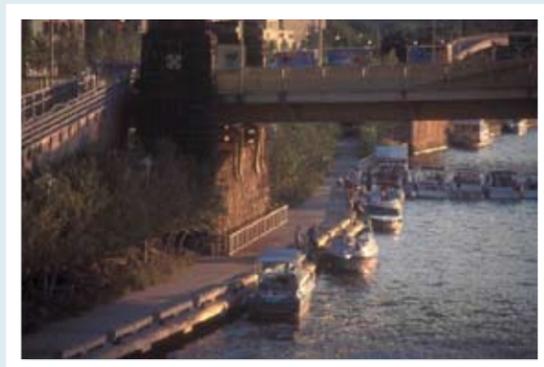
PEDESTRIAN & BIKE NETWORK

The City has defined historic pathways throughout Pascagoula, and the masterplan reflects a larger pedestrian network via streetscaping and parks that will occur in addition to this initiative.

Pedestrian pathways will provide a circuit for bikes and pedestrians linking them to significant destinations throughout the river districts. The paths, which may be along a street, through a park, or along the waterfront, may have distinct characteristics depending on their context and role in the greater masterplan.

PASCAGOULA RIVERFRONT

Land Use Options | *development features: landscape framework*



- Park & Boat Launch
- Delmas Avenue Park
- Pedestrian Arrival Plaza & Access to Riverfront Promenade
- Riverfront Promenade & Piers
- Pedestrian & Vehicle Arrival: Park & Plaza, Access to Riverfront Promenade
- Historic Landscape Restoration
- Mid-block Green Linkages
- Marina & Boat Launch
- Riverfront Event Deck
- Park, Regeneration of Nature
- Greenway Linkage
- Public Parkland
- Yacht Dock
- Safe Paddle Area
- Public Promenade, Public Marina
- Wharf Riverwalk
- Park & Boat Launch
- Public Parkland

LANDSCAPE FRAMEWORK

Districts will be structured around a strong hierarchy of public spaces with a clear material and vegetal palette.

Major open space features in each district are envisioned, including park design and construction, historical landscape restoration, natural waterfront regeneration in both the Point District and Riverwalk District, and cutting and filling along the water's edge to build a wharf in Point and create a marina in Riverwalk. Strategies for planning, financing, and maintaining planned landscape projects will be necessary.

The system of open spaces, greenways, and paths will be the backbone of all future development, and should be protected by applying guiding principles to the physical plans of all district development. Location of building entries, parking, and services must consider and respect this green network. Identifying and maintaining key views should also be considered.



PASCAGOULA RIVERFRONT

Land Use Options | *development features: connections to water*



CONNECTIONS TO WATER

Each district will have numerous features that underscore the relationship between people and the river. Piers, wharfs, marinas, private docks, boat launches, boat storage, marine services, yacht moorings, public space along the waterfront, and areas of regenerated marshes or soft waterfront edges will all be important contributors to character in the riverfront districts. Establishing guidelines for these points of interface between people and their waterfront will be a key component of the complete schematic masterplan.

- Public Pier
- Public Wharf
- Riverfront Promenade
- Natural River Edge
- Public Marina / Boat Launch
- Private Docks / Boat Launch
- Public Beach
- Safe Paddle Area

PASCAGOULA RIVERFRONT

Land Use Options | *development features: wayfinding*

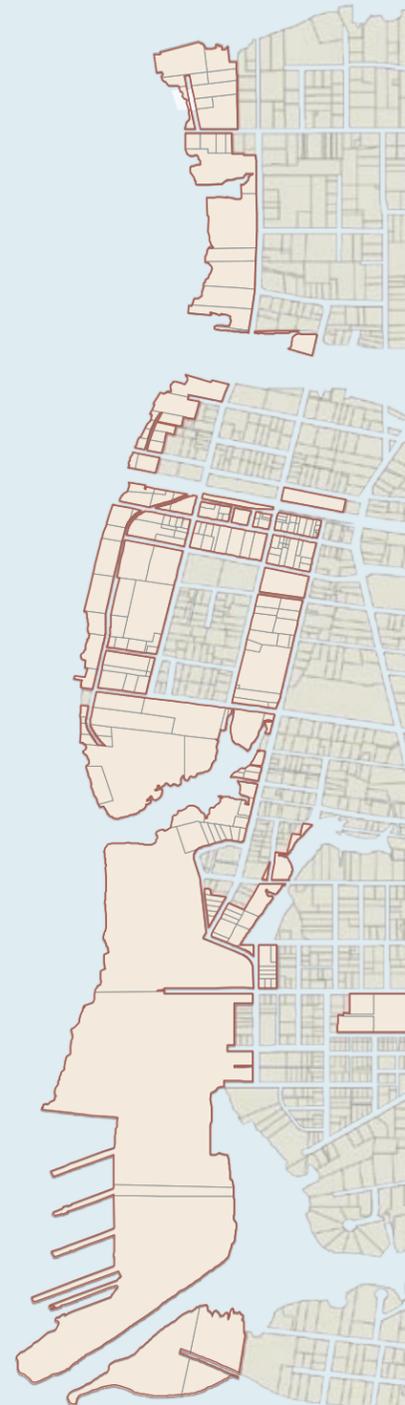


KIOSKS, MARKERS, & WAYFINDING

The Riverwalk and Point Districts will be characterized by educational features that allow visitors to learn about the history of Pascagoula. These features will be primarily associated with the historic pathway, adaptive re-use structures, historic landmarks, and the presence of industrial remnants or views to the west bank reflecting the Pascagoula River's role in the city's marine industrial history.

Kiosks and markers should be located at district identity nodes (see streetscape plan), and should provide a sense of the area's history. Appropriate sites, themes, and characteristics must be defined for the final masterplan.

Each district will incorporate a system of wayfinding that builds and enhances district identity. Banners & signage should work together to create a clear sense of place and to reinforce the presence of water through district. A sensibility of one's proximity to the waterfront and marina should be everpresent.



PASCAGOULA RIVERFRONT

Land Use Options | *development features: character guidelines*



CHARACTER GUIDELINES

Each district will incorporate design guidelines to enhance district identity. Site furniture, paving, planting, and materials should work together to generate a spirit of place. Because each district is unique, the guidelines will have to adapt to each area. The North District is a residential enclave; the Riverwalk District is a civic and mixed use hub with a public waterfront; the Point District is a mixed use & cultural wharf district with potential regional attractions. Guidelines will be generated according to placemaking goals for each district.

PASCAGOULA RIVERFRONT

Land Use Options | *development features: character guidelines*



NORTH DISTRICT

Future development in this district is envisioned as a residential enclave organized around private waterfront access.

Character Guidelines

- The layout of structures within this District shall preserve views of the river to the greatest extent possible.
- New residential development should be compatible with existing structures in terms of massing and scale. These are predominantly single and double story single lot dwellings.
- The density pattern of new development should compliment the adjacent structures and the unique historic waterfront environment. This district is home to Old Spanish Fort, La Pointe Krebs House - a 225 year old structure that has been converted to a museum.
- The existing character found in this district defined by quiet residential neighborhoods with single family housing, large oak trees, and natural landscaping. A neighborhood park and an elementary school are also located within this district.

• Architectural styles found in this district that

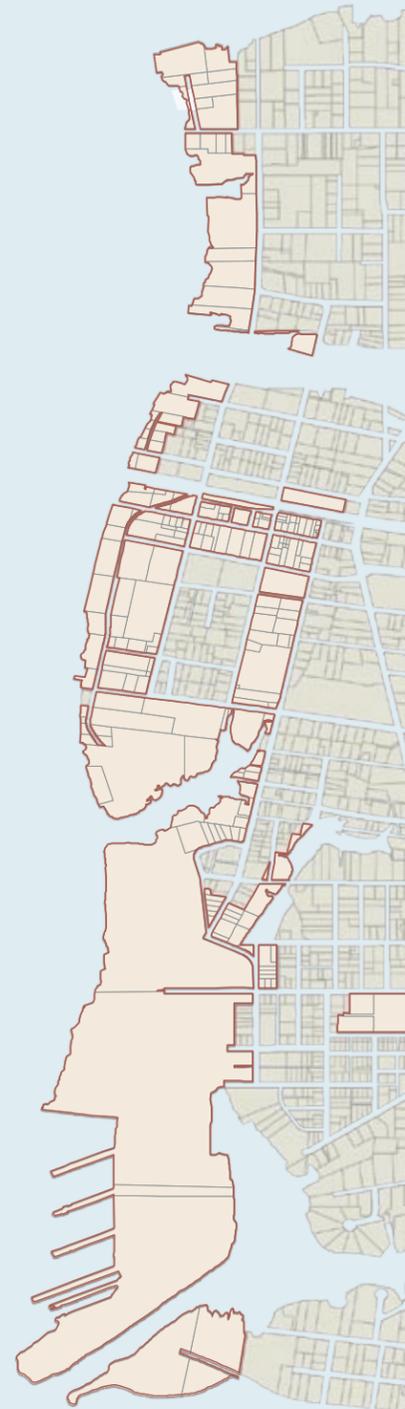
Design Elements to be Considered

- Prominent porch elements (recommended minimum porch depth is 8'-0")
- High ceilings with vertically proportioned wall openings.
- Hipped or gabled roofs.
- Other design elements found in this district include: wood shutters, decorative entry doors with transoms, dormers, ornamental railings at porches, wood picket and wrought iron

fencing, and private fishing piers and boat docks.

Materials to be Considered

- Siding: smooth finish wood, fiber-cement or composition board siding with 4-6" exposure.
- Roofing: asphalt or composition shingles, standing seam metal, or slate.
- Doors / Windows: wood, wood clad, or vinyl
- Exterior Porch Ceilings: beaded board, smooth surface, or plank and beam



PASCAGOULA RIVERFRONT

Land Use Options | *development features: character guidelines*



RIVERWALK DISTRICT

This district is envisioned as a mixed-use public waterfront and historic district with a strong physical connection to owtown.

Character Guidelines

- New mixed-use development is encouraged to celebrate civic and historic identity while maximizing awareness of the working riverfront.
- The layout of structures within this district shall preserve views of the river to the greatest extent possible.
- Massing is to be two or three stories and placed to street frontage alignment. Lower floors should be considered for active uses such as restaurants, shops, and other retail uses - especially when adjacent to public spaces.
- Mixed-use buildings along the Gulf Coast typically have parapet wall facades with a decorative cornice to articulate the parapet and add interest.

Design Elements to be Considered

- Storefront design with large windows and glass doors at lower level.
- Multi-story buildings with individual expression at ground level.
- Front facades with parapet walls and unique cornice expression.
- Upper story balconies with decorative railing or continuous gallery.

Materials to be Considered

- Siding: Brick, Stucco, or horizontal lap siding with 4"-6" exposure
- Roofing: membrane roofing or shallow pitch gable hip roof behind parapet wall with composition shingles
- Windows: wood, aluminum clad or aluminum
- Storefronts: prefinished aluminum, aluminum clad or decorative metal with clear glazing display windows.
- Exterior Ceilings: beaded board, smooths surface, or plank and beam
- Cornice & Trim: wood, composite, stucco or cast stone
- Signage: painted / screen raised individual letters on glass storefront; perpendicular signs suspended from brackets, exposed neon tubing mounted inside window or decorative canvas awning.

PASCAGOULA RIVERFRONT

Land Use Options | *development features: character guidelines*



POINT DISTRICT

This district is envisioned as a future residential and mixed-use area with a unique maritime quality and excellent views to the river. This area may also offer opportunities for more regional destinations and tourism.

Character Guidelines

- The upper point area is an extension of its neighboring residential fabric and should be compatible with the existing structures in terms of massing and scale. These are predominantly single-story stick frame structures.
- The lower point area should be characterized by more mixed-use retail and residential with public parks, boat slips, and marinas.
- New development should be compatible with adjacent future parks and greenspace and also encourage opportunities

Design Elements to be Considered

- Prominent porch elements (recommended minimum porch depth is 8'-0")
- High ceilings with vertically proportioned wall openings.
- Hipped or gabled roofs on residential structures and parapet wall facades on mixed-use buildings.
- Multi-story structures in mixed-use areas with individual expression at ground level and front facades with parapet walls.

Materials to be Considered

- Siding: smooth finish wood, fiber cement or composition board siding with 4-6" exposure.
- Roofing (residential): asphalt or composition shingles, standing seam metal, or slate.
- Roofing (mixed-use): membrane roofing or shallow pitch gabled hip roof behind parapet wall with composition shingles.
- Windows: wood, aluminum clad, or aluminum
- Storefronts: prefinished aluminum, aluminum clad or decorative metal with clear glazing display windows.
- Exterior Ceilings: beaded board, smooth surface, or plank and beam
- Cornice & Trim: wood, composite, stucco, or cast stone.
- Signage: painted / screen raised individual letters on glass storefront; perpendicular signs suspended from brackets; exposed neon tubing mounted inside window or decorative canvas awning.



Land Use Options | *public-private partnerships*



KEY CONNECTION ABUTS NOAA SITE

Goal: to Ensure Public Access to Water



WASTEWATER FACILITY

Goal: to Mitigate with Visual Screening

NOAA

A key link to the waterfront will occur on the boundary between the riverfront redevelopment area and NOAA's property on the waterfront. The City seeks to ensure that this connector is well designed and provides a positive experience of arrival to the riverfront promenade. The space will provide a new "front door" for the NOAA facility, and as such NOAA may partner with the city to make improvements to their property in support of the plan.

WASTEWATER TREATMENT PLANT

One of the greatest site challenges is posed by the existing wastewater treatment facility in the district. Until such time as

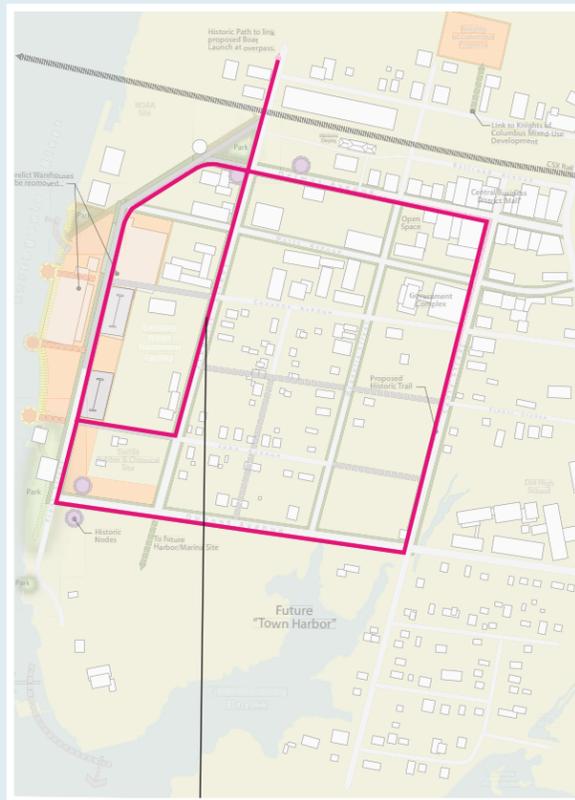
funds and a process are in place to relocate this facility, the City seeks to mitigate its impact through screening. A screening strategy should be created in partnership with the plant owners and operators.

DEVELOPMENT PARTNER

The City may choose to enter into a public-private partnership with developers in the riverwalk district. Public goals in the area include provision of public space, increased accessibility to the water through good circulation and parking provisions, and an expanded identity for Pascagoula based on its relationship to the river.

Land Use Options | *city initiatives*

HISTORIC PATHWAY
Pedestrian Network



THE POINT
Park & Boat Launch



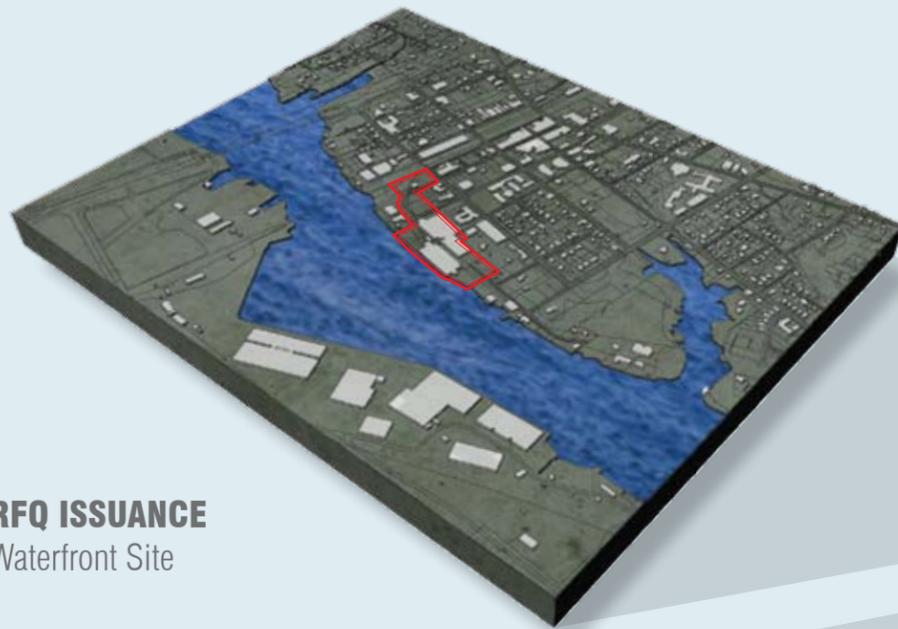
ONGOING CITY PROJECTS
Public Initiatives

KEY CITY PROJECTS

- Waterfront Redevelopment Masterplan
- Rezoning effort
- Boat Ramp north of downtown
- Front Street Extension
- Waterfront Promenade
- City Park & Boat Ramp on The Point
- RFQ/RFP site demolition & development-ready pad preparation
- Streetscaping on Delmas, Watts, and Front
- Delmas Avenue Park
- Historic Pathway implementation



Land Use Options | *city initiatives*



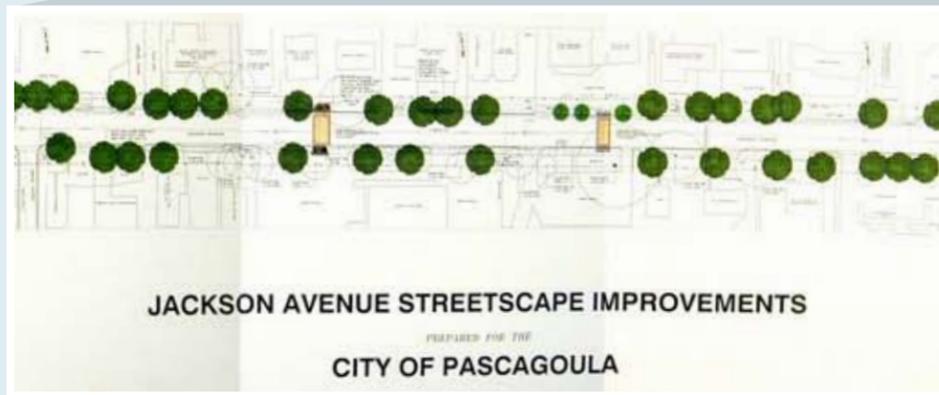
RFQ ISSUANCE
Waterfront Site



ONGOING CITY PROJECTS
Public Initiatives



BOAT LAUNCH
Abutting Highway 90 Bridge
North of Downtown



STREETSCAPING
Key Corridors



SMART CODE
City of Pascagoula

PASCAGOULA RIVERFRONT

Implementation



Phasing & Priorities | *next steps*

The 30% schematic plan is comprised of site analysis, market analysis, and waterfront planning. The overall vision plan for the waterfront includes three unique district identities and future land use and programmatic goals for each district.

Additionally in this stage, an RFQ was issued for the catalyst site along the riverfront in the Riverwalk District. Relevant city initiatives have been identified for priority planning and design development in the next stage in order to support the RFP effort to come.

Of particular importance for implementation are those initiatives that will (1) support and enhance the RFP site, (2) transform the public consciousness with regard to the riverfront, and (3) connect downtown to the river. These projects include demolition and site preparation of the tract in question, implementing the Front Street extension as well as streetscaping along Delmas, Watts, and Front in order to improve connectivity to the site, building the waterfront promenade where it abuts the RFQ/RFP site, and designing and building the Delmas Avenue park.

These priorities reflect the importance of the initial move to reconnect the City of Pascagoula to its waterfront. Priority projects are intended to establish a strong link between downtown and the Pascagoula River and to incentivize additional development. Currently, although the water is only blocks away from downtown, it has no presence in the City. Ultimately, a district identity will emerge that creates a strong awareness of proximity to the Pascagoula River.

In light of the extent of redevelopment required to transform the entire riverfront, the process has only just begun. In order to continue to progress toward implementation across the extent of the study area, the project team has identified the following key components of success.

Catalyst Public Investments

- Infrastructure improvements
- Public space improvements - promenade, streetscaping, open space provisions, pedestrian & bike network
- Marina(s) & boat launches
- Land acquisition/assembly
- Brownfield remediation (>\$100 million, 3-5 years)
- Wastewater plant relocation (>\$80 million, 3-5 years)

Implementation

- RFQ/RFP process - public/private partnership
- Priorities for funding
- Financing plan, including a revenue stream dedicated to the city redevelopment process (e.g. MDA grants, strategies for permanent financing through debt)
- Development incentives strategy (tax or other incentives)
- Rezoning
- Funded public redevelopment authority?
- Brownfield task force, wastewater relocation task force
- Strategic partnerships with federal, state, and private entities to facilitate cleanup & development

Removal of barriers to development

- Wastewater treatment plant (COST>\$80 million)
- Brownfields (COST>\$100 million)
- Strategy for Flood Zone context (building elevations defined, insurance issues addressed)
- FEMA regulations

Identity-building development types

- Marina (could provide public revenue, could be regional or supra-regional destination, builds civic identity)
- Mixed use center (could be regional destination, builds civic identity)
- Public parks (private development framework, could provide quality of life benefits to locals, builds civic identity)
- Entertainment destination such as sports venue or event stage (could be regional destination, builds civic identity)

Preliminary Estimates | *riverwalk district*

STREETSCAPING

Improvements along these corridors will include:

- Street trees
- Lighting
- Sidewalks
- Site furniture

Preliminary Cost Estimate

Delmas Avenue – 2400' x \$357/ft	\$0.86 m
Watts Avenue – 2800' x \$460/ft	\$1.29 m
Jackson Avenue - 2600' x \$410/ft	\$1.07 m
John Avenue - 462' x \$357/ft	\$0.16m
Dupont Avenue - 2600' x \$410/ft	\$1.07 m
Project Total	\$4.45 m

Estimated Project Timeline,

Project Design/Construction Documentation, for Delmas, Watts, Front, Jackson: 4 Months

Project Implementation: 6 – 12 Months

Note: Canty Street is not included here as it is a far future phase of streetscaping linked to East Point redevelopment

FRONT STREET EXTENSION

Improvements will include:

- Roadway construction
- Street trees
- Lighting
- Sidewalks
- Site furniture

Preliminary Cost Estimate

Extension & streetscape 1100' x \$800/ft	\$0.9 m
Project Total	\$0.9m

Estimated Project Timeline

Infrastructure coordination: 6 Months

Project Design/Construction Documentation: 3 Months

Project Implementation: 6 – 18 Months

WATERFRONT PROMENADE

Improvements will include:

- Pedestrian promenade
- Piers into the river
- Trees & edge plantings
- Lighting
- Site furniture

Preliminary Cost Estimate

Promenade construction, 1st ph* 22,000'sq x 100/sqft: \$2.2 m	
Design development fees	\$0.2 m
Project Total	\$2.4 m

**This phase includes only the promenade area that is abutting the RFP site in the Riverwalk District; the promenade extends from the edge of the NOAA property in the north to the southwestern edge of the RFP site.*

Estimated Project Timeline

Project Design/Construction Documentation: 3 Months

Project implementation: 6 – 12 Months

HISTORIC PATH

Improvements along these corridors will include:

- Pathway
- Shade trees
- Lighting
- Interpretative sign
- Site furniture

Preliminary Cost Estimate*

Refinement of existing design	\$0.11 m
Construction 15,400' x \$92/ft	\$1.42 m
Project Total	\$1.53 m

**This phase includes only the historic path within the Riverwalk District, including the segment that begins at the boat launch abutting Highway 90, goes south on Frederic to John Avenue,*

goes west to Front Street, south to Dupont, east to Canty, north to Delmas, and west to Frederic.

Estimated Project Timeline

Project design refinement: 3 Months

Project implementation: 6 – 12 Months

DELMAS AVENUE PARK

Improvements will include:

- 10 shade trees
- Garden & Lawn
- Site furniture

Preliminary Cost Estimate

Project design & documentation	\$0.11 m
Construction 15,000' sq x \$10.00/sqft	\$0.15 m
10 shade trees @ \$500 ea	\$0.05 m
Project Total	\$0.31 m

Estimated Project Timeline

Project design refinement: 6 Months

Project implementation: 6 – 12 Months

WASTEWATER PLANT SCREENING

Improvements will include:

- Shrub screens
- Walls

Preliminary Cost Estimate

Project design & documentation	TBD
Construction 1100' x \$40/ft	\$0.4 m
Project Total	TBD

Estimated Project Timeline

Project design: 3 Months

Project implementation: 6 Months

FUTURE RIVERWALK DISTRICT: Hevae acquisition, restoration, and design; Historic Depot & plaza projects; Canty streetscaping; Knights of Columbus parcel strategy; balance of riverwalk; Walker Point acquisition, remediation, and park design; Marina construction; future developable land site preparation

PASCAGOULA RIVERFRONT

PROJECT TEAM

City of Pascagoula, MS

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Steve Mitchell, Building Official

John Lewis, City Planner

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