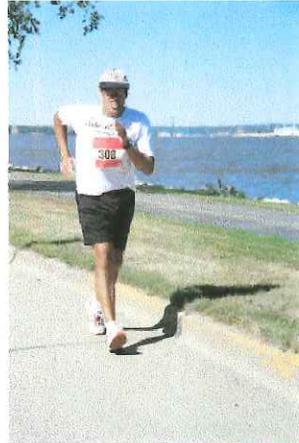


CITY OF MANDEVILLE

BICYCLE AND PEDESTRIAN MASTER PLAN - UPDATE 2007



Prepared by:

MEYER ENGINEERS, LTD.

A/E Project 9737A
For the City of Mandeville, LA
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I. Executive Summary

The City of Mandeville has been very proactive in making the community bicycle and pedestrian friendly. Becoming a more pedestrian and bicycle friendly community was a stated goal in the 1989 "City of Mandeville Comprehensive Land Use Plan". It was reinforced in 1998 with the adoption of the "City of Mandeville Bicycle and Pedestrian Master Plan." That plan recommended numerous actions, projects and policy changes to implement the stated goals. The most visible were the nearly \$4.6 million in recommended bicycle and pedestrian infrastructure improvements throughout the City. Many of these recommended projects have been built or implemented. To keep this momentum going, Mayor Eddie Price and the Mandeville City Council authorized this update of the 1998 plan.

As with the 1998 Bicycle and Pedestrian Master Plan, this update relies heavily on the input and work of the Bicycle and Pedestrian Advisory Committee (BIPAC). Many of the original members are still on the committee with several new members added in 2005. With the help of BIPAC, City staff and Council members, this updated plan makes several new recommendations for projects, programs and policies. The total costs for the six top priority projects are just under \$4.6 million. The biggest price tag is for the crossing of Bayou Chinchuba near West Causeway Approach and the boardwalk connecting Sunset Point Park and Lakeshore Drive. Not included in this cost is the recommendation the City continue its policy of repairing and installing sidewalks whenever possible as part of the Streets Program. Sidewalks are an important component of the bicycle and pedestrian network in the City, one that until recently was often not a high priority.

Funding of these projects and programs can be very expensive. This plan update identifies funding sources and ways that the recommendations can be implemented. Many of these sources have been used successfully by the City of Mandeville for past projects. However, many programs, including the Governor's Office of Community Programs and TEA-21, have undergone changes in recent years and may not be the revenue sources they have been in the past for the City. There are also numerous programs and initiatives that the City can participate in, such as Safe Routes to School. This report also lists many resources and organizations that can be used to facilitate and improve the City of Mandeville's already successful bicycle and pedestrian programs.

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II. Introduction

The benefits of bicycling and walking as healthy modes of transportation, or as purely recreational activities, span across many aspects of our lives. They can be expressed in terms of the health of the environment, as well as the health of individuals who are more physically active. A transportation system that is conducive to bicycling and walking can reap many benefits in terms of reduced traffic congestion and improved quality of life. Economic rewards both to the individual and to society are also realized through reduced health care costs and reduced dependency on auto ownership, including the resulting insurance and maintenance costs. There are other economic benefits of bicycling and walking that are more difficult to measure, such as the increased economic vitality of communities that have emphasized bicycle and pedestrian mobility.

Better conditions for bicycling and walking have both tangible and intangible benefits to the quality of life in cities and towns. In a growing number of communities, bicycling and walking are considered indicators of a community's livability – a factor that has a profound impact on attracting businesses and workers as well as tourism. In cities and towns where people can regularly be seen out bicycling and walking, there is a noticeable sense that these are safe and friendly places to live and visit.

This recognition that bicycling and pedestrian friendly communities contribute to a positive quality of life are recognized by the “City of Mandeville Comprehensive Land Use Plan”, adopted in August 1989 and recently updated in January 2007. The 1989 Comprehensive Land Use Plan was amended in 1998 when the “City of Mandeville Bicycle and Pedestrian Master Plan” was adopted as part of the Comprehensive Plan. This Bicycle and Pedestrian Master Plan update will likewise be adopted as part of the new Comprehensive Land Use Plan. The implementation of these plans has been an ongoing success story as project after project has been built and recommended programs and policies implemented. The success is evident when a tour of the City shows bicyclists, walkers and joggers in strong numbers using the Tammany Trace, the Lakefront path, the West Causeway Approach path and the Jackson Street path.

In 2004, Mayor Eddie Price and the Mandeville City Council authorized Meyer Engineers, Ltd. to update the Bicycle and Pedestrian Master Plan, to set new goals for the City. There were some unfortunate delays caused by Hurricane Katrina in August 2005. This update is the result of a very inclusive public process with continuous work and input by members of the Bicycle and Pedestrian Advisory Committee (BIPAC), who were so involved in the formulation of the 1998 Bicycle and Pedestrian Master Plan.

III. Bicycle and Pedestrian Master Plan – 1998

In 1997, even though Mandeville residents fit the demographic profile of the typical bicyclist and walker, as established by several national and statewide surveys, the City of Mandeville had few facilities dedicated to bicycling or pedestrian activities. Except for the Tammany Trace, a jogging and walking path on part of the Lakefront, and a few old sidewalks in disrepair in old Mandeville, bicyclists, joggers and walkers had to blaze their own trails. In order to address these needs, Meyer Engineers, Ltd. was authorized by Mayor Eddie Price and the City Council to prepare a “Mandeville Pedestrian and Bicycle Route Master Plan”. Frederic R. Harris, Inc. assisted Meyer Engineers, Ltd. in this project, which was completed and adopted by the City in 1998.

The goal of the 1998 plan was to provide the City with a recommended course of action to make the City of Mandeville more bicycle and pedestrian friendly. To determine the needs of the bicycling and pedestrian community and ways to address these needs, the consultants used a variety of methods, including field observation, review of previous and related plans and studies, and, especially, public participation. Citizen input was achieved through surveys, personal interviews, public meetings, civic association meetings, and most importantly, the Mandeville Bicycle and Pedestrian Advisory Committee (BIPAC).

The primary result of these investigations, surveys and public meetings was an identification of destinations in and out of the City limits and proposed routes intended to link these nodes. The recommended routes were a combination of sidewalks, separated paths, paved street shoulders signed and striped for bicycle use, or streets simply signed as bike routes. A five-kilometer (5-K) signed jogging route in old Mandeville was also recommended. These different types of routes constituted a priority list of capital improvements that were viewed as necessary to make the City of Mandeville a pedestrian and bicycle friendly community.

A total of 38 projects were identified in the 1998 Master Plan as projects necessary to link various public and private destinations throughout the City. Some were short stretches of sidewalks, others were major capital projects, such as a tunnel under U.S. Highway 190 at the Tammany Trace. The plan identified a number of projects thought to be easily achievable in a short period of time so these 22 projects were identified in the “Three-Year Implementation Plan.” Many of these projects were built, including a pedestrian bridge on Lakeshore Drive and the Tunnel on the Trace at U.S. Highway 190, within the three-year period.

Despite the City’s success in implementing many of the recommendations of the plan, there were a number of projects that proved to be more difficult to accomplish. The choices faced with these unimplemented projects were: 1) Reevaluate them to

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determine if they were still necessary to the overall goals of the City and therefore keep them as goals, or 2) possibly disregard these ideas in favor of other goals. That is one of the tasks of this update.

The biggest project identified in the 1998 plan that remains unrealized is a bicycle and pedestrian crossing over Bayou Chinchuba on West Causeway Approach. The primary reason it remains unrealized is simply the cost. One option is to attach a pedestrian bridge to the side of the existing roadway span, or, if and when the Causeway Commission replaces the span, design the new span to accommodate pedestrian and bike lanes. Technical issues and costs make these options unlikely in the near future. The most feasible option in the near term is to construct a separate pedestrian bridge just downstream of the existing vehicular span.

Other projects not built include several striping and signing of road sharing routes. Those proposed on North, East and West Causeway Approaches, which are owned by the Causeway Commission, were deemed neither appropriate nor safe for bicycles and pedestrians by the Commission. The 1998 plan also suggested education and safety programs, though was not specific as to how or who would implement these programs. These are discussed further later in this plan update.



The path on the south side of West Causeway Approach was a recommendation of the 1998 Plan. It is well used by the public. A similar path is being proposed for the north side of West Causeway.

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IV. New Conditions and New Issues

Like almost all things in this world, Mandeville has changed since the 1998 Bicycle and Pedestrian Master Plan was adopted. It has grown, new development has taken place, more residents have moved in and around the City. What these changes are and how they affect the City's goals for becoming a more bicycle and pedestrian friendly community are important.

a. Mandeville & St. Tammany Population Growth

St. Tammany Parish – Population Growth

	<u>Population</u>	<u>Growth</u>
1970 Census	63,585	---
1980 Census	110,869	74.40%
1990 Census	144,508	30.30%
2000 Census	191,268	32.40%
2003 Estimate	202,203	5.7%
2006 Estimate		
Post Katrina	230,603	8.8%

Sources: U.S. Census Bureau and Claritas Demographics

City of Mandeville - Population Growth

	<u>Population</u>	<u>Growth</u>
1990 Census	7,083	
2000 Census	10,489	32.5%

(Source: U.S. Census Bureau. No Post Katrina population estimates are available just for City of Mandeville)

Much of the explosive growth rate in the unincorporated areas of St. Tammany Parish is occurring on the west side of the Parish. This puts pressure on the City of Mandeville in many ways, not the least of which is the increased traffic. This increased vehicular traffic adds to the conflict between cars and trucks and those who are trying to walk or ride their bikes. The City of Mandeville growth can be attributed to several new subdivisions, infill development in subdivisions already in the City limits, and to new areas annexed into the City. Hurricane Katrina has pushed many new residents into Mandeville and St. Tammany Parish from New Orleans area communities that were severely flooded. These new residents, whether temporary or permanent, have certainly impacted the vehicular traffic situation. It is unclear how many of these new residents will be using the pedestrian and bicycle network.

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V. Bicycle and Pedestrian Advisory Committee (BIPAC)

The Mandeville Bicycle and Pedestrian Advisory Committee (BIPAC) is made up of citizens who are bicycle users, pedestrian and bicycle advocates, professional planners, engineers, as well as local public officials. Formed to assist in the development of the 1998 Master Plan, BIPAC became that plan's driving force. Though it was intended to be an active body, BIPAC did not meet on a regular basis once the 1998 Master Plan was completed. But, because of the valuable input during the planning process for the 1998 plan, it was essential that BIPAC be reconvened and re-established as part of the updating process. The 2005-2006 BIPAC member list is very similar to the original member list. Original members were contacted to determine interest in reestablishing their membership on the committee. Those interested in being on the committee were joined by several new members. Most significant of the new members was Officer Paul Bourque of the Mandeville Police Department, who is in charge of bicycle safety programs for that department.

Members serving on the BIPAC committee as part of this 2007 update are:

Trilby Lenfant	Mandeville City Council, Mayor Pro Tem
Louissette L. Kidd, AICP	City of Mandeville, Director of Planning
David DeGeneres	City of Mandeville, Public Works Director
Paul Bourque	City of Mandeville, Police Department
Lenney Pfleider	City of Mandeville, Police Department
Nancy Clark	Jeff Bernard
Barry Brupbacher	Lynn Mitchell, AIA
Steve Phillippi	Ellen Pierce
Nixon Adams	John Crosby
Tim Jackson, AICP (Meyer Engineers, Ltd.)	

VI. Goals & Issues Identified

- a. Goals – A wide range of ideas for pedestrian and bicycle improvements were identified to help improve pedestrian and bicyclist mobility in Mandeville. The overall goals of the City and BIPAC can be summarized in the following four categories:
 - i. **Planning and design:** Modifying the transportation system to encourage safe and convenient bicycling and walking and to link important destinations.
 - ii. **Encouragement:** Working to raise society's awareness of the benefits of bicycling walking and the rights of riders and pedestrians.
 - iii. **Education and awareness:** Training and encouraging bicyclists, pedestrians and motorists to share the road network in a safe and cooperative manner.

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iv. **Enforcement:** Making rules that treat bicyclists and motorists fairly and working to make sure the laws are enforced.

b. Issues – Specific issues and problems identified that can influence or hinder the achieving of the goals above include:

i. Connectivity – The 1998 “City of Mandeville Bicycle and Pedestrian Master Plan” identified numerous destinations within the city – schools, parks, commercial areas, neighborhoods and others. One of the overall goals of that plan and this update is to connect those destinations as much as possible with alternate transportation modes, particularly bike paths and routes and sidewalks. Although much has been done in the City since the 1998 original Master Plan began implementation, there are a number of missing links in the City’s network of paths and sidewalks.

1. The City of Mandeville bicycle and pedestrian network is still split into east and west halves by N. Causeway Blvd. More connections are needed
2. There needs to be another connection linking north and south Mandeville, the areas bordering and south of East Causeway Approach with Brookside.
3. More connections are needed into the subdivisions and commercial areas along West Causeway Approach and Highway 22.
4. To the east is Fountainbleau State Park and Pelican Park, currently not in the City Limits but certainly important destinations for Mandeville residents.

ii. Sidewalks – Parts of the City have a relatively complete network of sidewalks for safe pedestrian activity. There are still many areas that have no sidewalks and parts of the City, including old Mandeville, have many sidewalks in serious need of repair or replacement.

iii. Safety – Although there have been relatively few incidents involving pedestrians and bicyclists in Mandeville, it is necessary to stress safety, rules of the road, enforcement, helmet usage and safety education.

VII. Proposed New Projects, Programs and Policies

In order to implement the goals and specific issues identified by the City, BIPAC and local citizens, this Master Plan is recommending the following projects, programs and policies:

a. Projects - Prioritized

The projects listed below represent several specific needs identified during the planning process. Except for “Sidewalks”, the last item, these are listed in order of priority as identified by BIPAC. Sidewalks, especially in old Mandeville, should be considered a high priority but, because the sidewalk needs are not in one identifiable spot but rather scattered throughout the City, it is difficult to put a specific label or price tag on them.

- i. Bayou Chinchuba Bridge Crossing near West Causeway Approach
– As the picture below shows, there is no shoulder where a pedestrian or bicyclist can safely cross Bayou Chinchuba in either direction. The recommendation is to construct a separate pedestrian and bicycle bridge just downstream to the existing West Causeway Approach span over Bayou Chinchuba, or, if and when the Causeway Commission replaces the existing span, include lanes for bikes and pedestrians in the new bridge design. The estimated total project cost for a separate span with connecting paths is approximately **\$500,000**.



West Causeway Approach over Bayou Chinchuba – no shoulder makes pedestrian and bicycle travel very dangerous. A separate pedestrian and bicycle bridge just downstream of West Causeway Approach is proposed.

- ii. Monroe St. and N. Causeway Intersection - Signalization Improvements - In order to connect the east and west sides of the City, divided by N. Causeway, the most cost efficient and easiest project is signalization and intersection improvements at N. Causeway and Monroe Street. The picture below shows the vast and intimidating expanse for pedestrians and bicyclists to cross, made even more daunting by the high traffic volumes at this intersection. There are already sidewalks on either side as well as in the median of Causeway. Improving the intersection with better, more visible street markings, more signage for pedestrians and bikes as well as vehicles, and a push button activated pedestrian crossing signal would be a significant and relatively inexpensive start to linking the two halves of the City. The estimated total project cost for these improvements is approximately **\$75,000**.



Intersection of N. Causeway at Monroe Street, looking east down Monroe

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A push button crossing signal, like this one, is recommended at N. Causeway and Monroe St.

- iii. North Causeway - East Service Road to Highway 190 Connection – This project was also recommended in the 1998 plan. There are numerous commercial destinations along this strip. It is also near Forest Park Estates and the large apartment complex along St. Ann Drive, the Botanica. A similar path was constructed in 2001 along Lover’s Lane, which serves as the west service road. This connection is approximately 3,700 feet long and would be a 5 or 6-foot wide concrete sidewalk. This project should also include signage and striping across N. Causeway to connect to the path on the west side by Lovers Lane. It is estimated that this path would cost approximately **\$172,500**.

- iv. Heaven’s Drive and Garden Ave. - Separated Path, Sidewalks and Signed Route – This project combined several previously conceived projects into one. Heaven’s Drive has a very wide right of way that can easily accommodate a separated bike path, similar to the one on Jackson Avenue. This would connect residential areas, the commercial corridor along Highway 22, and the Neighborwoods project. The proposed path would be a 10-ft. wide asphalt path, approximately 4,800 feet long. Garden Avenue recently has had culverts installed, replacing the open ditch drainage. This now gives adequate space to put a sidewalk for pedestrians and signage for bicyclists. The estimated total project cost is approximately **\$421,000**.

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- v. CLECO Right of Way from Mandeville High Blvd. to the Sanctuary – Utility rights of way are natural avenues for bicycle and pedestrian paths. CLECO has a large right of way that runs roughly east – west behind Mandeville High School and through Woodstone, the Sanctuary and Chateau Village residential neighborhoods and would connect to the “Neighborhoods” project and the proposed path at the end of Heaven’s Drive. This path would be a 12-foot wide asphalt path, with base material, and the estimated cost is approximately **\$367,000**.

- vi. West Causeway Approach Pathway, North Side – The path on the south side of West Causeway, built several years ago, has proven to be very popular with area residents. A similar path needs to be constructed on the north side of West Causeway Approach to link the subdivisions and residential areas with schools, churches and the commercial areas. To complete the link, several crossings across West Causeway Approach, with appropriate signage and signalization should be identified and built. The estimated total project cost is **\$690,000**.

- vii. Sunset Point Park to the West End of Lakeshore Drive Connection- Both Sunset Point Park and Lakeshore Drive are major destinations for bicyclists and pedestrians. To get from one to the other, citizens must go to Monroe Street and cut over. A shorter route suggested by a number of people would be to build a boardwalk across the shoreline connecting Lakeshore Drive to Sunset Point. As part of the facility, which could wind through part of the wetlands area, educational displays could be established. These displays would exhibit the ecological and cultural resources of the area while providing a beautiful setting for pedestrian travel. The distance is approximately 1,100 feet. The estimated total project cost, for the connection and displays, is approximately **\$1,547,000**. Another phase of this project should be the restoration of the cypress swamp itself, which has experienced slow but steady erosion. The restoration could also be part of the educational displays along the proposed boardwalk. The cost of the restoration project is undetermined at this time.

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The cypress swamp looking east from Sunset Point Park toward Lakeshore Drive - two projects are being proposed for this area, a boardwalk path connecting Sunset Point to Lakeshore Drive and a restoration of the cypress swamp

- viii. Golden Glen Subdivision to Brookside Drive Connection – Bayou Chinchuba also forms a barrier that divides the City north and south on the east side of North Causeway Blvd. Golden Glen Subdivision backs up to the Bayou on the south side and Brookside and other developments border the Bayou on the north side. There seems to be opportunities to make the connection and provide a crossing in this area. The difficulty is that some agreement to do so must be made with several private property owners to provide a servitude of access. There is a right of way near the Glen Shores Club but the north side will require an agreement with private property owners. It is difficult to determine costs for this without knowing exactly where and under what physical conditions the crossing will face but it will likely include a bridge crossing with an asphalt path on either side to connect to Katherine Parkway in Golden Glen to Brookside Street. The estimated total project cost for a separate span with connecting paths is approximately **\$315,000**.

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- ix. Mandeville High Blvd. – The west side of the Mandeville High School right of way is wide enough for a sidewalk to connect West Causeway Blvd. with the Mandeville High School parking lot and the proposed path on the CLECO right of way (see “v.”, above). This path should be 6-feet wide and will be approximately 1,200 feet long. The estimated cost is **\$65,000**.

- x. Pelican Park Connection to the Tammany Trace - Though not currently within the Mandeville City limits, Pelican Park is nonetheless the primary recreational facility for organized sports for Mandeville residents. An Enhancement application was apparently approved several years ago to pave a link between the Tammany Trace and Pelican Park. Apparently, the project is caught in res tape and/or revisions to the approved plan. In either case, this is an important project in the Mandeville-area network and City officials should lobby St. Tammany Parish and appropriate DOTD officials to get this project completed.

- xi. Sidewalks – Though listed last, that is not to say sidewalks are eleventh on the priority list. Rather, sidewalks should be considered in a category by themselves is a lack of continuous sidewalks throughout the City and many existing sidewalks, especially in old Mandeville, are in generally poor condition. Other than a few major thoroughfares (the south side of West Causeway Approach for instance), most streets do not have sidewalks or a curb-and-gutter drainage system. These streets provide a narrow asphalt surface that is just wide enough for two cars to pass and a ditch on one or both sides for storm water drainage. In these cases, pedestrians and cyclists are forced into the street, or when cars are approaching, into the ditch.

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Many subdivisions have no sidewalks, forcing pedestrians to walk in the street.

The width of existing sidewalks throughout the City varies greatly – anywhere from 4 feet to as little as 2 feet. Maintenance is also an issue. At times the sidewalk is broken up, or ceases altogether, leaving a ‘goat trail’ for pedestrians to maneuver through until the sidewalk begins again. At other times parking lots absorb the sidewalk, blocking it with vehicles. Sidewalks do not consistently meet ADA standards.

Suggested sidewalk improvements include a variety of recommendations from simple maintenance of existing sidewalks, upgrading existing sidewalks to a minimum standard of 4 feet in width, and providing ADA ramps. In general, Mandeville can be made more pedestrian friendly by following the guidelines below:

1. **Pedestrian crossings:**
 - **Enhancement of existing intersections** – Striping, well-oriented dustpan ramps, push buttons, flashing lights, advance walk signals at major intersections.
 - **New crossings at intersections** – Striping, dustpan ramps, push buttons, flashing lights, advance walk signals at busy intersections.
 - **New mid-block crossings** – Install new mid-block crossings where there are key destinations that people are trying to reach and/or where the distance between signals is

greater than 500' (striping, dust pan ramps, push buttons, flashing lights, advance walk signals).

- **New signalized intersections** – This plan is recommending signalization at the intersection of North Causeway at Monroe Street. There may be other intersections where signalization could be effective.

2. Sidewalk improvements:

- Provide **wider** sidewalks on major streets where possible.
- Provide **continuous** sidewalks on major streets
- Provide improved **street lighting**/illumination on dark streets.

- 3. Sidewalk Priorities** - As Exhibit "C" illustrates, the City of Mandeville has many gaps in its sidewalk inventory. Many important public and private destination nodes are not connected to the pedestrian network, including many schools and recreation areas. Some of these destinations may be linked by existing paths or sidewalks or by the other projects proposed here. In order to make more efficient use of limited funding, new sidewalks and repair of existing sidewalks to and from identified destinations have been prioritized below:

1. Public Facilities

- i. Mandeville Trailhead
- ii. Mandeville Community Center
- iii. Mandeville City Hall
- iv. Post Office
- v. Fire Station
- vi. Causeway Commission Headquarters
- vii. Mandeville Park and Ride

2. Schools & Churches

- i. Mandeville Elementary School
- ii. Mandeville Junior High School
- iii. Mandeville High School
- iv. Our Lady of the Lake Church and School
- v. Woodlake Elementary School
- vi. Cedarwood Elementary School
- vii. Tchefuncte Middle School
- viii. Pontchartrain Elementary School

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3. Recreational Areas

- i. Lamarque Street Playground
- ii. Tammany Trace
- iii. Neighborwoods
- iv. Fountainbleau State Park
- v. Nature Center
- vi. Pelican Park (though not currently in the City limits, there has been discussions of annexation. Whether or not this occurs, a link should be made between the Park and the Tammany Trace.

- 4. Commercial Areas** - Many of the commercial areas fronting along U.S. Highway 190 will have new sidewalks as part of the DOTD widening project currently underway. Gerard Street has relatively new sidewalks servicing many businesses in old Mandeville. It is important to link these sidewalks with adjoining residential areas and other destinations.

b. Programs

Most programs address safety and education issues. These are important components in a community's overall goals and objectives. The "Louisiana Statewide Bicycle and Pedestrian Master Plan" reports that from 1991 to 1994 there were just over 3,600 bicycle accidents reported around the state. During this same four-year period, there were over 5,600 accidents involving pedestrians in the state. Mandeville reported very few incidents

- i. Safety / Helmet Awareness – The Bicycle Helmet Safety Institute (BHSI) reports 720 bicyclists died in crashes with motor vehicles in the US in 2005. About 540,000 bicyclists visit emergency rooms with injuries every year. Of those, about 67,000 have head injuries, and 27,000 have injuries serious enough to be hospitalized. Bicycle crashes and injuries are under reported, since the majority of these incidents are not serious enough for emergency room visits.

Helmet use in the US varies by orders of magnitude in different areas and different sectors of our society. Studies indicates white-collar commuters probably reach 80 per cent, while inner city kids and rural kids would be 10 per cent or less. Overall,

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BHSI's estimate is that the national average is probably no more than 25 per cent wear helmets. Sommers Point, NJ, where a state helmet law is in effect, found that only 24 of the 359 students who rode to school in one week of the winter of 2002 wore helmets (6 per cent) until the School District adopted a helmet rule.

Local helmet laws apparently don't achieve results on their own. Education programs, especially coordinated through local schools, produce the best results. The Mandeville Police Department does some bike and helmet safety outreach programs. This program should be expanded and coordinated or partnered with local schools, particularly the elementary schools.

- ii. "Safe Routes to School" - Among the SAFETEA-LU bill's most important new programs is the Safe Routes to School program. The initiative will receive \$612 million over the life of the law to make it safer for children to walk or bicycle to school. Funding for Safe Routes to School will be distributed to states in proportion to the number of primary and secondary school students in the state, with no state receiving less than \$1 million annually. Communities will be able to use the funds to fix hazards and slow traffic on roads, pathways or trails near schools while increasing safety through focused enforcement and education programs. Each state is being directed to create a position of a Safe Routes to School coordinator, and the bill also provides funds for a national Safe Routes to School clearinghouse. Each state must set aside between 10 and 30 percent of its Safe Routes allotment for non-infrastructure activities to encourage walking and bicycling. It is unclear at this point how and by whom this will be implemented at the state level.
- iii. Declare the month of May "National Bike Month" - The City can demonstrate its commitment to the bicycle and pedestrian community by declaring May to be "National Bike Month" and to designate a week in May to be "Bike to Work Week". This is a recognition established by the League of American Bicyclists and countless cycling organizations (www.bikeleague.org). Participating communities can receive information and recognition for their efforts to promote bicycling as a transportation choice.

c. Policies

- i. Streets Program - The City of Mandeville Streets Program utilizes dedicated sales tax funds to finance an annual program of street overlay and maintenance. The City should aggressively implement

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its current policy that, whenever possible, includes sidewalk construction or rehabilitation as part of its street improvement program. Set aside 10% of the annual funds allocated to this program and dedicate that 10% to new routes, paths and sidewalks that are high on the project priority list in the “Projects – Prioritized” section above.

- ii. Coordination with Public Works and Capital Projects program - For the best results, bicycle planning and program work must be integrated into the overall transportation planning and design process, as well as relevant programs, policies, and standards. This includes considering sidewalk construction or maintenance in the Streets Program, mentioned above, as well as reviewing items such as bicycle-friendly drain grates and other possible improvements for bicycles and pedestrians.
- iii. Subdivision Regulations – Articles 11 and 13 of the City’s Comprehensive Land Use Regulations Ordinance (CLURO), which includes the Subdivision Regulations, requires the construction of sidewalks as part of a new subdivision. For a time, the City routinely granted waivers to this requirement but, since the adoption of the 1998 Bicycle and Pedestrian Master Plan, has strictly enforced this requirement. It should continue to do so. A number of developments were built with those waivers in hand and now there are quite a few areas where residents do not have sidewalks. These areas should be a priority for the city to build new sidewalks. Sidewalk construction standards should also be established and be adopted as part of the Subdivision Regulations.
- iv. Bicycle Parking - Businesses should be encouraged, or required, to install bicycle parking. This requires the cooperation of such groups as the Chamber of Commerce, business associations, and shopping center managers. Required bicycle parking can be made a part of the zoning ordinance.
- v. Standards – The City should adopt a standardized set of pavement markings to be used on the streets, paths and sidewalks and make using those markings required as a part of the Streets Program, new street construction in subdivisions, and other street improvement programs. The City should also develop sidewalk construction standards that includes recommended widths for certain areas, ADA compliant corner ramps, crossings, and signage for pedestrian and bicycle facilities.

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- vi. Enforcement – Enforcement of bicycle and pedestrian regulations is a multi-task function. Zoning and subdivision regulations enforcement by the Department of Planning and Development is important to force developments to provide sidewalks, bike racks and other facilities. It is also important for the safety of bicyclists and pedestrians in areas where there are no sidewalks for the Police Department to enforce speeding laws for cars and trucks.
- vii. Coordinate With St. Tammany Parish and other Agencies – Because there is so much development around the City that falls outside the City limits, the City should coordinate with the Parish and encourage the Parish to prepare a bicycle and pedestrian master plan for the unincorporated areas of the Parish, especially in the areas near Mandeville city limits. While there is a history of cooperation regarding the Tammany Trace, St. Tammany Parish has lagged behind Mandeville in terms of planning for an entire network of bicycle and pedestrian friendly communities. Likewise, the City of Mandeville should continue to coordinate with the Regional Planning Commission, the Causeway Commission and LA DOTD on the many alternative transportation issues and opportunities.

VIII. Potential Funding Sources

Funding is often the primary obstacle to implementing plans and programs. Many communities are faced with limited budgets but ever-increasing needs and demands. There are a number of ways to finance bike trails, bike and pedestrian routes and related facilities and programs. Some of these methods have been used by the City of Mandeville in the development of the existing routes, paths and sidewalks. The City has been successful in obtaining funding from these sources, primarily because the City has plans in place ready for implementation. Unfortunately, many communities request funding for projects that are not planned properly, are poorly conceived and have no realistic cost estimates. Below are some potential financing methods and how they possibly relate to the recommended projects in this report.

a. Federal Funding Sources

The Federal government, especially since the passage of ISTEA legislation, discussed below, has traditionally had the deepest pockets for the financing of infrastructure and facilities for bicycles and pedestrians. As mentioned earlier in this report, the Tammany Trace was financed through ISTEA funds. It should be mentioned that each state is allocated a limited amount of money and only a certain percentage is dedicated to bicycle and pedestrian programs and facilities and competition for these dollars by local governments has

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become keen. However, the applicant that has planned for these facilities and where bicycling and pedestrian activities have become institutionalized are generally the most successful in receiving grants. This is a summary of possible federal funding sources.

- i. “The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users” (SAFETEA-LU) - In 1991, the United States Congress passed the Intermodal Surface Transportation Efficiency Act, otherwise known as “ISTEA”. This program uses federal gasoline tax collections to finance transportation programs. Where this program differs from previous federal funding distribution is the emphasis on better management of existing facilities, planning, giving the states more of the power to decide which projects to fund, and an emphasis on multi-modalism, including bicycle paths and facilities.

On April 1, 1998, the U. S. House of Representatives approved the renewal of this legislation, called “TEA-21” (Transportation Equity Act for the 21st Century). TEA-21 authorized a record \$200 billion over the next 6 years for transportation expenditures. On August 10, President Bush signed the Safe, Accountable, Flexible, and Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) into law. The \$286.4 billion new law reauthorizes federal surface transportation programs through 2009. The new law comes after twelve temporary extensions of the previous authorization, TEA-21, which officially expired on September 30, 2003. As the new law’s acronym implies, safety programs receive particular attention in reauthorization. Among the bill’s most important new programs is the Safe Routes to School program. The initiative will receive \$612 million over the life of the law to make it safer for children to walk or bicycle to school. Funding for Safe Routes to School will be distributed to states in proportion to the number of primary and secondary school students in the state, with no state receiving less than \$1 million annually. Communities will be able to use the funds to fix hazards and slow traffic on roads, pathways or trails near schools while increasing safety through focused enforcement and education programs. Each state is being directed to create a position of a Safe Routes to School coordinator, and the bill also provides funds for a national Safe Routes to School clearinghouse. Each state must set aside between 10 and 30 percent of its Safe Routes allotment for non-infrastructure activities to encourage walking and bicycling. The law continues funding of the vital Transportation Enhancements program. Enhancements are funded through a set aside of either 10

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percent of Surface Transportation Program funds or the amount set aside in FY 2005, whichever is greater.

Several projects in Mandeville have been funded totally or in part with Enhancement funds under ISTEA and TEA-21. These projects include the Highway 190 / Tammany Trace Tunnel, the Jackson Street Path and most of the Tammany Trace. The application process for SAFETEA-LU funds is likely to be much the same as the process for TEA-21 funds. Local governments will be required to match federal funds, generally 20% for the Enhancement program, to finance eligible items. La DOTD approves TEA-21 enhancement grants in Louisiana and projects are funded based on a priority rating score and compete with other projects throughout the state. The ideal project size appears to be \$150,000 to \$250,000. There is stiff competition for limited funds by local governments and there is no guarantee applications will be successful even for worthwhile projects.

There are several sections TEA-21 that have funds available for the development of bike and pedestrian paths and facilities. The following categories can fund bicycle and pedestrian projects are:

- **The "National Highway System" (NHS)** – A state may obligate funds for "construction of bicycle transportation facilities on land adjacent to any highway on the national highway system (other than the Interstate System)."
- **The "Surface Transportation Program" (STP)** is a broadly defined program giving states the flexibility to invest in a wide variety of transportation activities, including highways, transit and pedestrian and bicycle facilities. STP funds can be used for "construction of pedestrian walkways and bicycle transportation facilities and for carrying out non-construction projects related to safe bicycle use."
- **"Transportation Enhancements Activities" (TEA)** - Ten percent (10%) of STP funds must be allocated to a range of 10 specific "Transportation Enhancements Activities". This section is one of the more popular sections of the act since the construction of pedestrian and bicycle facilities and the preservation of abandoned railway corridors and their conversions for use as bike or pedestrian ways are eligible. This was a major component of the Tammany Trace "rails to trails" project, as well as several Mandeville projects, including

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the Jackson Street Path and the Trace Tunnel under Highway 190.

- **Congestion Mitigation and Air Quality Improvement Program (CMAQ)** – These funds can be used for “construction of pedestrian walkways and bicycle transportation facilities and for carrying out non-construction projects related to safe bicycle use.”
- **Federal Lands Highway Funds (FLH)** – The agency charged with the administration of these funds may use them for “construction of pedestrian walkways and bicycle transportation facilities in conjunction with such trails, roads, highways and parkways.” Planning processes for FLH has to be coordinated with the MPO of the area.
- **Federal Transit Administration (FTA)** - Under Sections 3, 9 18 and 25 of the Federal Transit Act, projects that improve the access of bicycles and pedestrians to transit facilities, that provide parking and/or shelter for bicycles in and around transit facilities are eligible. St. Tammany Parish has several "Park and Ride" projects in various phases of development located on or very near to the Tammany Trace that are financed with FTA funds. One site is on Koop Road, where Parish offices are located. Two other sites in Mandeville that are under consideration for park and ride facilities are the City's Public Works "Barn" site adjacent to the proposed Mandeville Trailhead site and the Lafayette Street Playground. Both sites provide commuter parking during the workweek and have direct access to the Tammany Trace. These park and ride sites in Mandeville will also be available for bicyclists and pedestrians on the Tammany Trace on weekends, the busiest time for recreational users of the Trace.
- **Interim Scenic Byways Program** - Grant money can be used for the “construction along highways of facilities for the use of pedestrian and bicyclists...”
- **Section 402 Highway Safety Grant Program** – Bicycle and pedestrian programs are on the list of eligible activities.
- **National Recreational Trails Fund** – Funds can be used to create trails for use by motorized and/or non-motorized users.

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- b. Clean Air Act – 1990 - In the past, this act worked in conjunction with certain sections of ISTEA to fund projects and programs that contribute to the attainment of national air quality standards. ISTEA Section 1008 "Congestion Mitigation and Air Quality Program" funded projects and facilities, \$1 billion each year, to help meet the air quality standards set by the Clean Air Act. These projects included constructing trails for non-motorized vehicles but also contained programs for promotional, public education and safety for the use of these facilities. It is not yet clear how TEA-21 fits into this funding picture, although it is anticipated to be at roughly the same levels as ISTEA. However, the eligible applicants for this pot of money would most likely be larger cities having air quality compliance problems.
- c. Department of the Interior - Rivers, Trails and Conservation Assistance Program - The National Park Service, of the U.S. Department of the Interior administers this program. It provides technical assistance in the planning, development and management of recreational facilities, including bike trails. The National Park Service is currently developing a recreational corridor for the Westwego to Harvey Canal Hurricane Protection Levee Corridor. One of the components of this plan may be the establishment of bicycle trails along the levee corridor eventually linking the Barataria Preserve of Jean Lafitte National Historical Park and Preserve with Bayou Segnette State Park in Westwego. This is indicative of how the National Park Service is trying to incorporate trails for bikes, as well as the traditional pedestrian trails, in their development plans.
- d. Congressional Appropriation - It is sometimes possible to obtain specific appropriations for trails or related projects. The City of Mandeville provides an excellent example of this with the appropriation of \$1 million for the Mandeville Trailhead/Interpretive Center project. Funding came from the Community Development Block Grant (CDBG) program at HUD and the \$1 million will go a long way towards the development of the Trailhead, and of the Trace, in Mandeville.

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B. State Funding Sources

1. LA Department of Transportation and Development (DOTD)

LaDOTD has approval power of most bicycle and pedestrian related projects funded through the Transportation Enhancement Program with funds coming to the state via SAFETEA-LU. That process was described earlier under "Federal Funding Sources". Despite SAFETEA-LU's (and ISTEA & TEA-21 before it) emphasis on alternate transportation modes, LaDOTD has not always been receptive to including bike paths in its road projects. The department did, however, commission a "Statewide Bicycle and Pedestrian Master Plan". This plan was completed in 1998, though never officially adopted by DOTD. DOTD officials state the plan will probably be updated soon and hopefully adopted and implemented. Once adopted, DOTD should be compelled to routinely include bike paths in the regular design and construction of road and other projects, such as the widening of U.S. Highways 190 and 22 through Mandeville.

2. Governor's Office of Community Programs - Recreational Trails Program - The Recreational Trails Program is authorized in the SAFETEA-LU program at \$370 million. The funds are distributed to the states where the programs are administered. In Louisiana, the Recreational Trails Program is administered through the Governor's Office of Community Programs. The program provides funds to the states to develop and maintain recreational trails and train-related facilities. New eligible expenditures are authorized, including construction and maintenance equipment, real estate costs, educational costs, and trail assessments. In 2006 the LA State Legislature stopped funding this program. However, it was recently announced that the Louisiana Recreational Trails Program is currently seeking applications (non-motorized and motorized) for the 2007 grant cycle and applications (motorized only) for funding left over from the 2006 grant cycle. The City of Mandeville will apply for funding in this cycle.

3. Governor's Office of Rural Development Grant Program - This program, also administered through the Governor's Office of Community Projects, utilized transportation funds for local projects, including infrastructure, recreation and other public projects. As mentioned, in 2006 the LA State Legislature stopped funding this program. Whether it is a temporary or permanent lack of funding is not yet known but for the time being, this program is not funding projects. Should funding be reinstated, this program could be a funding option for local bike and pedestrian infrastructure projects.

4. Gas and Vehicle Taxes - The price of every gallon of gasoline purchased includes taxes that go to LADOTD for its projects, which could include sidewalks and

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paths associated with road projects, such as the Highway 190 widening. Also, all states have some kind of vehicle registration requirements with appropriate fees. Some states, such as California, Illinois, Iowa and Oregon, have set aside percentages of these funds and earmarked them specifically for bicycle and pedestrian facility improvements.

C. Local Funding Sources

1. General Fund - The City of Mandeville is funding part of the construction of the Trace sections through the City, and other bike and pedestrian paths, by including bike trail construction as part of the street improvement program. The Mandeville Street Program is financed by a 1-% sales tax, part of which in the 1997 budget is used to pave the Trace. This method does not supply a steady source of funds for trails due to limited annual funds and the prioritization of the street projects over the trail projects.
2. Specific Line Item in the Annual Budget - Some members of the Mandeville City Council, and the Administration, are contemplating the funding annually of a specific line item in the budget to fund bike trail and related improvements. This method would add an element of certainty for the City to demonstrate its sincerity to these projects to a sometimes-skeptical public.
3. Special Taxing Districts - This method works like other taxing districts (water districts, school districts, recreation districts, development districts, etc.) and is one being discussed by St. Tammany Parish and the municipalities along the Trace to help fund the operation and maintenance of the Tammany Trace. A designated area likely to reap the benefits of the Trace would be taxed in some way, i.e., a sales tax or property tax millage, with those funds only being used for Trace operations and maintenance.
4. Community Wide Sales or Property Tax (Bond Issues) - Some communities have a sales tax or property tax millage dedicated to recreational and/or bike facilities and programs. Such a tax would require a vote of the public but would demonstrate the willingness, or unwillingness, of the community to pay for its amenities.
5. Recreational Impact Fees - Impact fees are becoming more popular around the country to finance infrastructure improvements. Impact fees are one time fees paid as the proportionate share of the capital costs of providing major facilities and services. Impact fees are not widely used in Louisiana, for a number of reasons, but in high growth states such as

Florida, parks and recreational facilities are some of the more popular uses for impact fees. With so much new development in St. Tammany, Mandeville in particular, a strong case can be made that new recreational facilities are needed to accommodate future residents.

6. Land Use Regulations - Most communities have zoning regulations and subdivision regulations. These can be amended to require developers to provide property or other performance standards related to bike and pedestrian paths. If current regulations address these issues, they should be enforced fully in order to provide the required and desired facilities.

Mandeville's Subdivision Regulations currently require that a developer install sidewalks. However, developers generally request that this provision be waived and the Planning Commission has routinely agreed to do so. This saves the developer money and the new homeowner has a green lawn all the way to the street pavement, even though part of the yard is actually City street right-of-way. The result is that the City now has a lot of new subdivisions with no sidewalks, forcing pedestrians to walk in the street.

Other requirements of Mandeville's Subdivision Regulations require all developments over a certain size dedicate 5% of the total development to green space. This has generally been interpreted to be passive green areas serving as buffers and greenbelt. The City could amend these regulations to provide incentives for the developer to install approved bike routes, trails or sidewalks as part of this green space requirement.

Parking requirements are part of the City's zoning regulations. Commercial developments, as part of the normal parking regulations, should be required to provide a minimum number of bicycle parking spaces, with racks provided by the business.

7. Public Property Leases - St. Tammany Parish is doing this method of raising additional funds for construction and operating and maintenance costs. The Parish is leasing small pieces of the Trace and other Parish property to cellular and PCS providers to locate their towers and other equipment. The lease agreements provide the Parish with a predictable, and fairly substantial, funding source for the life of the lease, usually 10-15 years. The funds are then used to finance operations and maintenance of the Tammany Trace.

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IX. Resources / Websites

There are numerous online resources for information on bicycling and pedestrian activities and programs, advocacy groups, and potential funding sources. Below is a list of some of these sites. Most of these were used as sources of information for this plan.

1. Government / Planning Sites

City of Mandeville	www.cityofmandeville.org/
Regional Planning Commission	www.norpc.org/
U.S. Environmental Protection Agency	www.epa.gov/smartgrowth
Smart Growth Network	www.smartgrowth.org
LA Department of Transportation and Development	www.dotd.state.la.us
LA Dept. Transportation & Development (Transp. Enhancement Program)	www.dotd.state.la.us/planning/tep/
Governor's Office of Rural Development	www.rurallouisiana.com

2. Private / Non-Profit Organizations

American Planning Association	www.planning.org
LA Chapter – APA	www.louisiana-apa.org
Smart Growth Network	www.smartgrowth.org
International Bicycle Fund	www.ibike.org/
League of American Bicyclists	www.bikeleague.org/
The Pedestrian & Bicycling Info.Ctr.	www.bicyclinginfo.org/
Rails to Trails Conservancy	www.railtrails.org/
Bike Plan Source	www.bikeplan.com/
Pedestrians.org	www.pedestrians.org/
Tammany Trace	www.tammanytrace.org/
Nat. Center for Bicycling & Walking	www.bikewalk.org/
Nat. Transp. Enhancements Clearinghouse	www.enhancements.org/
Bicycle Helmet Safety Institute	www.bhsi.org

X. Maps and Appendices

- a. Existing Bicycle Paths and Routes
- b. Sidewalk Inventory
- c. Proposed Projects
 - i. Map of proposed projects
 - ii. Project List & Probable Costs

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A/E Project No., 9737A, 11/6-Dec-07

PRELIMINARY STATEMENT OF PROBABLE COSTS

1 Bayou Chinchuba Bridge Crossing near West Causeway Approach

	<u>AMOUNT</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
Bridge (12' wide pre-fab, installed)	1	Span	\$ 300,000	\$300,000
Asphalt Path - 10' wide	1500	LF	\$ 100	\$150,000
Drainage and Crossings	1	Lump	\$ 40,000	\$40,000
Striping, Signage, etc.	1	Lump	\$ 10,000	<u>\$10,000</u>
PROJECT TOTAL				\$500,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

2 Monroe St. and N. Causeway Intersection - Signalization Improvements

	<u>AMOUNT</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
Push Button Signalization - lights (2), incl. Installation	1	LUMP	\$30,000	\$30,000
Misc. Sidewalk and Paving Improvements	1	LUMP	\$20,000	\$20,000
Misc. Striping, Signage, Traffic Loops	1	LUMP	\$20,000	\$20,000
Traffic Controls (during construction)	1	LUMP	\$5,000	<u>\$5,000</u>
PROJECT TOTAL				\$75,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

3 North Causeway East Service Road to Highway 190 Connection

	<u>AMOUNT</u>		<u>UNIT PRICE</u>	<u>COST</u>
4" Concrete, 5 ft. x 3,700 ft. Including base material	2,100	S.Y.	\$ 75	\$ 157,500
Striping, signage, etc.	1	LUMP	\$ 15,000	<u>\$ 15,000</u>
PROJECT TOTAL				\$ 172,500

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

4 Heaven's Drive from Hwy. 22 to Neighborwoods - Separated Path
and Garden Drive Sidewalks & Signage

	<u>AMOUNT</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
Asphalt Path, 10' wide w/ base	4800	LIN. FT.	\$55	\$264,000
Sidewalk (Garden Ave.), 5-ft. wide	1610	S.Y.	\$ 75	\$120,750
Minor Drainage	1	LUMP	\$30,000	\$30,000
Striping and Signage	1	LUMP	\$6,000	<u>\$6,000</u>
	PROJECT TOTAL			\$420,750

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

5 CLECO Right of Way from Mandeville High Blvd. to the Sanctuary

	<u>AMOUNT</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
Asphalt Path, 12' wide w/ base	6000	LIN. FT.	\$55	\$330,000
Striping and Signage	1	LUMP	\$7,000	\$7,000
Minor Drainage	1	LUMP	\$30,000	<u>\$30,000</u>
	PROJECT TOTAL			\$367,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

6 West Causeway Approach Pathway, North Side

	<u>AMOUNT</u>		<u>UNIT PRICE</u>	<u>COST</u>
4" Concrete, 10 ft. x 6,500 ft. Including base material	7,200	S.F.	\$ 75	\$ 540,000
Signalization - Ped. Crossing Including striping, signage, etc.	2	EA	\$ 75,000	<u>\$ 150,000</u>
	PROJECT TOTAL			\$ 690,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

7 Sunset Point Park to the West End of Lakeshore Drive - Boardwalk

	<u>AMOUNT</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
Boardwalk, 12 ft. wide	1100	L.F.	\$1,400	\$1,540,000
Displays	2	EA	\$1,000	\$2,000
Misc. Signage	1	LUMP	\$5,000	<u>\$5,000</u>
	PROJECT TOTAL			\$1,547,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc

8 Golden Glen Subdivision to Brookside Street

	<u>AMOUNT</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
Bridge Crossing, 12 ft. wide	50	L.F.	\$1,400	\$70,000
Asphalt Path, 10' wide w/ base	300	LIN. FT.	\$55	\$240,000
Misc. Signage	1	LUMP	\$5,000	<u>\$5,000</u>
			PROJECT TOTAL	\$315,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

9 Mandeville High Blvd. - West Causeway Approach to CLECO ROW

	<u>AMOUNT</u>		<u>UNIT PRICE</u>		<u>COST</u>
4" Concrete, 5 ft. x 3,700 ft. Including base material	800	S.Y.	\$ 75	\$	60,000
Striping, signage, etc.	1	LUMP	\$ 5,000	\$	<u>5,000</u>
			PROJECT TOTAL	\$	65,000

NOTE: All costs include 15% construction contingency, 10% A/E Administration, Testing, etc.

Proposed Projects - TOTAL COSTS **\$4,152,250**