

LAFAYETTE IN A CENTURY **BIKEWAY PLAN**

1.0 Introduction

One objective of the Lafayette IN a Century Comprehensive Master Plan (LINC) is to develop strategies to accommodate and encourage bicycle traffic throughout Lafayette Parish. To meet this objective, guidelines should be established for the construction of bicycle facilities in conjunction with with new development. Also, guidelines should be set for construction along existing roadways and along identified bikeway corridors. Incorporating bikeways into Lafayette's landscape will be challenging. In order to incorporate bikeways we must find creative solutions that are both environmentally and economically feasible.

This portion of the LINC Bicycle Plan will provide the Planning Commission a methodology for developing a cohesive bicycle plan for Lafayette Parish. The first step of the LINC Bicycle Plan as outlined in this document, identifies the various types of bicycle facilities and associated design standards. Bikeway corridors are also identified. The second step of the process involves the application of the recommended implementation strategies.

1.1 Issue Defined

Bicycling and walking are safe and sustainable forms of transportation that increase the livability of our neighborhoods and improve public and environmental health. A goal of the bikeway plan is that the Lafayette community will recognize bicycling as a primary transport mode rather than a purely recreational activity – i.e., most trips are for a purpose (shops, work, school, visiting friends, recreational/leisure venues. In most locations within the parish, the problem is the low number of bikeways. Lafayette Parish has followed a typical sprawl development pattern, a form that lowers residents' propensity for walking and biking, and discourages healthy habits. While bicycle and walker-friendly facilities are necessary for enticing people to choose non-motorized modes, they alone are not enough. Mixed land use contributes to the likelihood that bike and pedestrian options will be utilized but without a safe and convenient non-motorized system, mixed land use may do little to invite people out of their cars. A quality urban environment includes safety, proximity, and access.

1.2 Prior Planning and Current Related Planning Efforts

The Lafayette Metropolitan Planning Organization (MPO) has an approved 2030 Bikeway Plan, which is being updated to establish the 2035 MPO Bikeway Plan. The 2035 MPO Bikeway Plan was utilized to develop the guidelines for the LINC Bikeway Plan, which addresses bicycle access in proposed developments, along proposed and existing roadways and along bicycle corridors.

2.0 Purpose

The LINC Bikeway Plan has four major goals:

1. Establishing consistent standards for bikeway facilities Parish-wide
2. Establishing a safe, interconnected and efficient bikeway transportation system by identifying bikeway corridors.
3. Coordinating the Bikeway Plan with other development portions of the LINC Plan
4. Utilizing bikeways as infrastructure investment in targeted LINC areas

3.0 Design Factors

When evaluating bikeway facility needs, two important elements to consider are the type of bicyclist expected to use the facility and the type of bikeway facility.

3.1 Types of Bicyclists

When designing a bikeway system, an important consideration is that there are several types of cyclists. Attention must be given to the type of cycling group the bikeway is planning to accommodate. The Federal Highway Administration classifies bicyclists into three groups:

Advanced Cyclists	Riders in this group are generally adults who are experienced in riding in urban traffic conditions.
Basic Cyclists	Riders in this group (adult and teenage) have less developed riding skills, requiring more maneuvering room and preferring lower volume streets.
Children	Riders in this group prefer minor streets or well-defined bicycle facilities with good separation from motorized traffic.

3.2 Types of Facilities

The American Association of State Highway Transportation Officials (AASHTO) has identified four types of bicycle facilities in its *1999 Guide for the Development of Bicycle Facilities*. These designations will also be used in the LINC Bikeway Plan.

3.2.1 Signed Shared Roadway

Signed shared roadways are designated by bike route signs and serve to either provide continuity to other bicycle facilities (usually bike lanes) or designate preferred routes through high-demand corridors. Signing of shared roadways should indicate to bicyclists that particular advantages exist to using these routes compared to alternative routes. A signed shared roadway indicates that responsible agencies have taken actions to assure that these routes are suitable as shared routes and will be maintained in a manner consistent with the needs of bicyclists. Signing also serves to advise vehicle drivers that bicycles are present.

3.2.2 Bike Lane or Bicycle Lane

Bike lanes are separate lanes for bicycle traffic that are established with appropriate pavement markings and signing along streets in corridors where there is significant bicycle demand and there are distinct needs that can be served by them. Bike lanes are intended to delineate the right of way assigned to bicyclists and motorists and to provide for more predictable movements by each.

3.2.3 Shared Use Path

Shared use paths are separate facilities used by bicyclists, pedestrians, and other non-vehicular traffic. They are usually constructed in corridors not served by streets and highways, generally along utility easements, adjacent to rivers or within or between parks.

3.2.4 Shared Roadway (No Bikeway Designation)

Currently most bicycle travel occurs on streets and highways without bikeway designations. While these streets and highways are not designated as bikeways, the bicyclist should always be considered when designing and maintaining these roadways.

4.0 Design Standards

The construction and signing of bikeway facilities should follow guidelines established by AASHTO and meet all applicable American with Disabilities Act (ADA) requirements. Each bikeway facility type has distinctive design elements.

4.1 Signed Shared Roadway

Signed shared roadways are those that have been identified by signing as a preferred route. The following criteria should be considered prior to designating a route as a signed shared roadway:

- The route provides through and direct travel in bicycle demand corridors.
- The route connects discontinuous segments of shared use paths, bike lanes and/or other bike routes.
- An effort is enforced to adjust traffic control devices (e.g. stop signs, signals) to give greater priority to bicyclists on the route, as opposed to alternative streets. This effort could include placement of bicycle-sensitive detectors where bicyclists are expected to stop.
- Street parking is removed or restricted in areas of critical width to improve safety.
- A smooth surface is provided (e.g., adjust utility covers to grade, install bicycle-safe drainage grates, fill potholes, etc.)
- Maintenance of the route is sufficient to prevent accumulation of debris (e.g., regular street sweeping).
- Wider curb lanes are provided compared to parallel roads.
- Curb lanes share 14 – 15 feet wide.
- Paved shoulders are a minimum of 4 – 5 feet wide.

Signing for shared roadways should be in accordance with the *Manual on Uniform Traffic Control Devices* and should also include supplemental destination plates when leading to high demand destinations such as downtown.

4.2 Bike Lane

Bike lanes are separate signed and striped lanes for bicycle use. The following criteria should be considered when evaluating roadways with bike lanes:

- Bike lanes should be one-way facilities that carry bike traffic in the same direction as the adjacent traffic.
- The following guidelines should be used to establish bike lane widths:
 - For roadways with no curb and gutter, the minimum bike lane width should be four feet.
 - In areas where parking is permitted, the bike lane should be a minimum of five feet wide.
 - The recommended bike lane width is five feet from the face of a curb or guardrail to the bike lane stripe.
 - Along rural roadways, bike lanes located along a paved shoulder should have a minimum width of four feet with a desirable width of five feet.
- Signing and striping for bike lanes should be in accordance with the *Manual on Uniform Traffic Control Devices*. The following guidelines should be used for bike lane striping and signing:
 - A bike lane should be delineated from the motor vehicle travel lanes with a 6-inch solid white line.
 - An additional 4-inch solid white line can be placed along the outside edge of the bike lane.
 - Bike lane striping should not be installed across any pedestrian crossing, nor should it continue through any street intersections.
 - Pavement markings identifying bike lanes should be installed along the bike lane route.
 - Signing should also include supplemental destination plates when leading to high demand destinations such as downtown.
- Bike lanes should be designed to provide adequate drainage to prevent ponding and debris accumulation. Drainage grates should be bicycle safe.

4.3 Shared Use Paths

Shared use paths are usually two-way facilities on exclusive right of way with minimum cross flow by motor vehicles. Shared use paths should be thought of as a complementary system of off-road

transportation routes for bicyclists and others that serve as an extension of the roadway network. The following criteria should be considered when evaluating shared use paths:

- Shared use paths immediately adjacent to roadways have unique operational challenges. These are outlined in the *1999 AASHTO Guide for the Development of Operational Facilities*. The key factors addressed are:
 - One-way/two-way operational issues
 - Operations at intersections
 - Even with an adjacent shared use path, some bicyclists may opt to use the roadway and be harassed by motorists.
 - When two-way shared use paths are located less than five feet from an adjacent roadway, a physical barrier with a minimum height of 42 inches is recommended.
- The recommended pavement width for a shared use path is 10 feet with a minimum 2-foot wide graded area adjacent to both sides of the path. In instances where bicycle or pedestrian traffic is expected to be low, 8 foot wide shared use paths may be adequate.
- In areas where shared use paths may need to provide access for large maintenance vehicles, a path width of 12 – 14 feet may be desirable.
- Design standards as well as signing and striping guidelines included in the *1999 AASHTO Guide for the Development of Bicycle Facilities* should be followed for all shared use path designs and construction.

4.4 Shared Roadways

Shared roadways are roadways used by bicyclists that are not signed or designated as bike routes. In general, roadways should be designed with the bicyclists in mind. This includes a wider curb lane; bicycle friendly drainage grates and paved shoulders in rural areas.

5.0 Existing Bikeways

There are few bikeway facilities in Lafayette Parish. The 2035 Lafayette MPO Bikeway Plan includes an inventory of existing bikeway facilities. The main existing bikeway facilities in Lafayette Parish are a bike lane along Johnston Street and a shared use path along Cajundome Boulevard

6.0 Bikeway Corridor Identification

The next step in developing a LINC Bikeway Plan is to identify corridors for future bikeway facility development. These corridors link the municipalities in Lafayette Parish, and residential areas with employment areas, schools, and recreational areas. The bikeway corridors were identified along the urban corridors as well as in areas providing access to the various LINC Nodes. While the bikeway corridors may be shown along existing roadways, the actual facility may be constructed along a utility or drainage easement, or some other right of way.

Interconnecting the existing bikeway network should include the development of a parish-wide plan and fostering action from the various municipalities. The parish-wide plan should include identification of proposed bikeway corridors linking municipalities, employment areas, development nodes and recreation areas. In general, these links will be along major arterials as identified.

On the community level, each municipality is encouraged to develop and implement a bikeway program to connect and expand the existing bikeway network. Each municipality's bikeway program should provide links to the bikeway corridors identified.

6.1 New Development

As new development progresses in Lafayette Parish, the construction of bicycle facilities should be encouraged. In an effort to encourage "smart" growth in Lafayette Parish, the General Advisory Panel

(GAP) has developed a matrix for evaluating future residential development. Sidewalks and shared use paths in developments are encouraged through a rating system. The GAP development matrix should be applied to all new residential development in Lafayette Parish. As new roadways are built or existing roadways reconstructed, the addition of bike lanes or shared use paths ought to be included in the roadway design.

The MPO Functional Classification cross sections adopted by the Lafayette MPO includes either bike lanes or mixed-use paths on all major and minor arterial and collector roadways. It is recommended that Lafayette Consolidated Government and the municipalities in Lafayette Parish adopt these cross sections.

6.2 ADA Requirements

Bikeway facilities, particularly shared use paths must comply with Americans With Disabilities Act (ADA) requirements. Using the guidelines of the *Manual on Uniform Traffic Control Devices*, signing and striping guidelines should be implemented. These evaluations will determine the need for wheelchair ramps, crosswalk signing and striping and possible adjustments at signalized intersections.

6.3 Safe Routes to School Program

The Safe Routes to School program provides funding for improving pedestrian and bicycle access to schools. All schools in Lafayette Parish should be encouraged to develop a school access plan evaluating pedestrian and bicycle access within a one-mile radius of the school. These plans should include existing and proposed sidewalks, bike facilities, pedestrian crossings, school signing and crossing guard locations.

7.0 Coordination with LINC Development Plans

The LINC Bikeway Plan should also work in concert with other portions of the LINC development plans. Bicycle access is a complement to each of these plans.

7.1 LINC Land Use Plan

The LINC Land Use Plan calls for growth to be encouraged along major arterials and at development nodes (intersections of major and minor arterials). Including a bikeway network in these growth patterns will help to provide a systematic method to expand the bikeway network. The proposed development plan should be considered when prioritizing proposed bikeway construction.

The LINC Land Use Plan identifies the urban core, including downtown Lafayette, as an area of concentrated growth. This area should be taken into account when prioritizing proposed bikeway construction. The other municipalities in Lafayette Parish can also adopt the methodology of constructing bikeways from the city center outwards.

7.2 LINC Drainage Plan

The LINC Drainage Plan will identify floodplain areas and drainage corridors. Some of these areas may provide opportunities to develop bikeway facilities. Bikeway corridors along drainage easements or within flood plains could be used as connectors for neighborhoods and parks and as an alternative to bikeway facilities adjacent to roadways.

8.0 Atakapas-Ishak Trail

One example of a bikeway facility is the current development of the Atakapas-Ishak Multipurpose Trail. Ultimately, the trail will connect downtown Lafayette with Lake Martin, Ruth Canal, Breaux Bridge and St. Martinville. The trail will include the four types of bike facilities and will traverse urban and rural areas of Lafayette and St. Martin Parishes.

The Atakapas-Ishak Trail consists of a trail system that is developed in segments. Each segment will have specific identified uses and design standards.

9.0 Implementation Strategies

The recommendations for the LINC Bikeway Plan include:

1. Identify bikeway corridors that link the municipalities in Lafayette Parish, and residential areas with employment areas, schools, and recreational areas.
2. Identify bikeway corridors along the urban corridors as well as in areas providing access to the various LINC Nodes.
3. Connect the existing bikeway network.
4. Coordinate bikeway facilities with the LINC Land Use Plan and Nodal development.
5. Include bikeway facility evaluation in Safe Routes to School programs.
6. Encourage bikeway facility construction within new developments and along new or reconstructed roadway.
7. Establish and adopt consistent design standards for the various types of bikeway facilities for Lafayette Parish.
8. Adopt the MPO Functional Classification cross sections that include bikeway facilities.