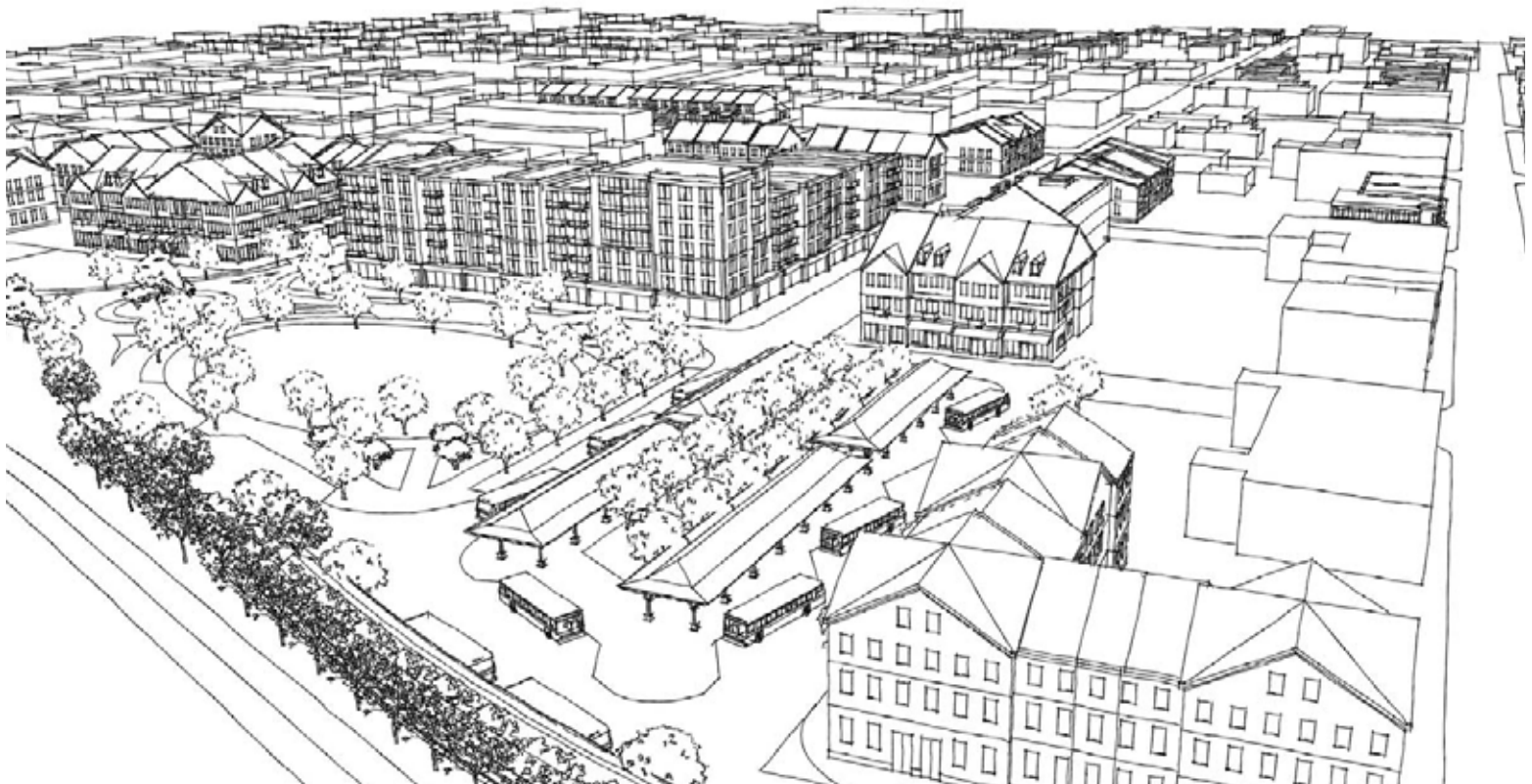


GREATER LAFAYETTE, INDIANA

CityBus

RIEHLE PLAZA ARCHITECTURAL PLAN



Memorandum

MEMORANDUM

Background

The Greater Lafayette Public Transportation Corporation (CityBus) retained Glatting Jackson for guidance on the re-design of Riehle Plaza and its existing transit center along with a redevelopment strategy of the area surrounding the new transfer center.

In order to obtain additional federal funding to construct the transit center, CityBus needed design work depicting what the redesigned transfer station would look like and how it will best interface with the surrounding neighborhood in order to foster opportunities for transit-oriented developments to take place in the area. The approach focused on looking at the study area in a context-sensitive manner and coming up with ideas that would maximize the value of public infrastructure investments in order for them to leverage redevelopment opportunities.

The approach to the Riehle Plaza project was to match the street design with the existing land uses or the desired land uses on the redevelopment sites. The idea was to create great addresses, maximize retail friendliness, increase walkability and beauty, and maximize the area's public spaces for the local and greater community.

The transfer center plan and surrounding redevelopment plan was developed through an interactive community-driven process. The process was designed to excite community leaders, serve stakeholder needs, and empower the public to take ownership and responsibility for the plan's vision and continued implementation.

The main objectives established for this project were:

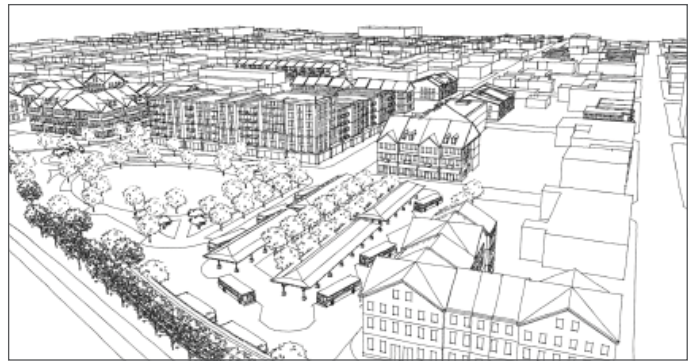
- Identify CityBus' long-range vision for the transfer station and the surrounding areas;
- Provide guidance on the saw tooth re-design of the transfer center to accommodate enough buses for its existing operations and accommodating potential growth;
- Provide design recommendations and multiple graphics that depict what the redesigned center and the surrounding redevelopment blocks adjacent to Riehle Plaza would look like; and
- Help gain partner agencies, stakeholders and local neighborhood buy-in for the new transit station design and proposed redevelopment.



The above images depict Citybus' existing operations at Riehle Plaza.

TRANSFER CENTER

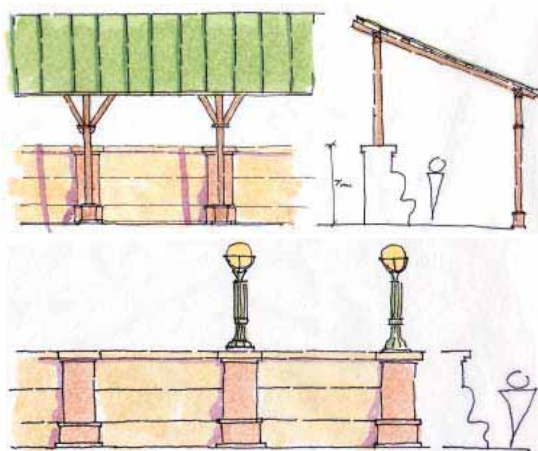
To help CityBus' transfer center and Riehle Plaza, the preliminary saw-toothed design was incorporated into a wider vision for the surrounding area. This important transit hub involving CityBus, Greyhound and commuter rail (Amtrak), deserved a much more ceremonial, civic, attractive, and multifunctional design. This would benefit transit users and downtown overall. Making the transfer center a flexible civic space, anchored by a public park, adds value to transit facilities and to the whole area. This value advantages redevelopment opportunities for transit-oriented development on blocks within a ten-minute walk from the transit center. This results in a great use of public infrastructure investments to stimulate private sector investment in the area and enhance the quality of the built environment and public spaces in the downtown.



Bird's Eye Sketches of Proposed Transfer Center and Park

Transfer Center Architectural Character

Shelter Detail

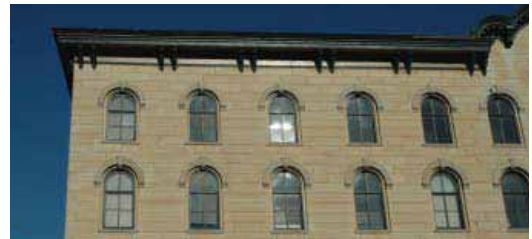
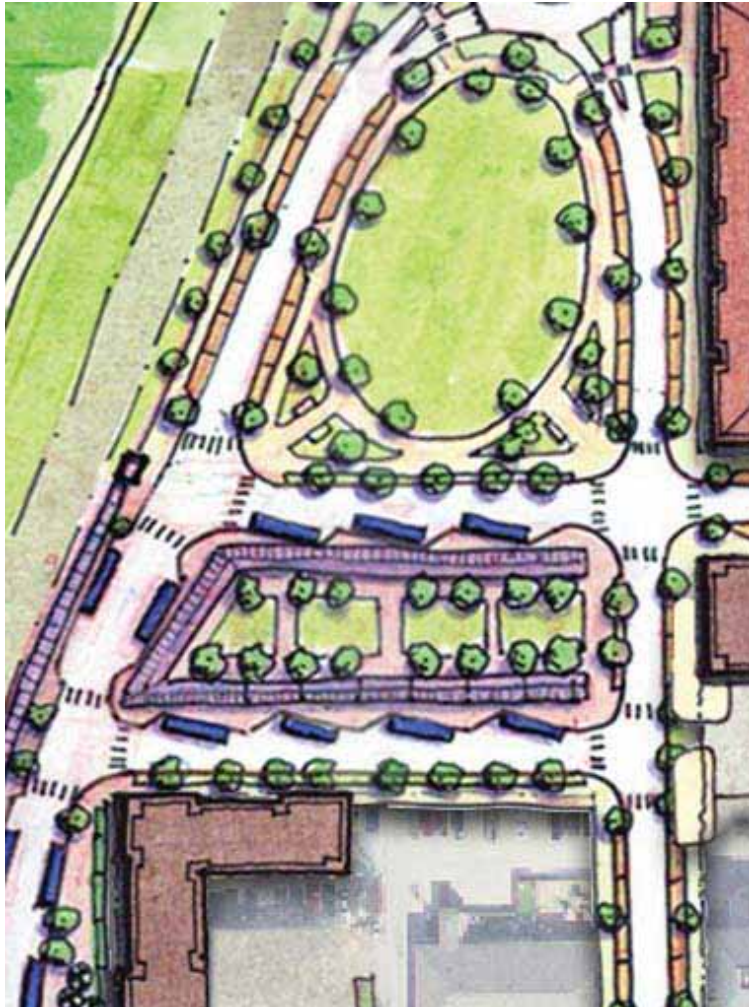


Decorative/Safety wall next to rail line



The transit shelters should employ architecture and design details that are respectful of the historic station (as shown) while also providing "shelter". Next to the rail line, a decorative wall and bench would create a nice and protected edge for the transit facilities.

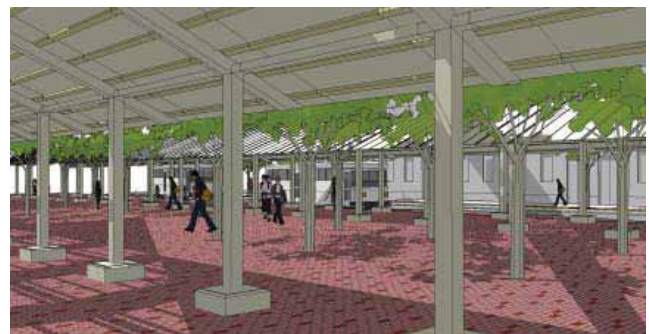
TRANSFER CENTER



Maintaining the existing architectural character of the city is important. Attention should be given to the design and architectural elements of the transfer center in an effort to maintain a common design vocabulary with the existing building fabric in and around downtown.



Bird's Eye Sketch of Proposed Transfer Center



Eye-level Sketch of Transfer Center shelters

GENERAL DESIGN PRINCIPLES FOR POTENTIAL REDEVELOPMENT

BUILDINGS FORM THE SPACE OF THE STREET

One of the most important aspects of street design is the location of buildings along the street. In fact, the street environment extends from building face to building face across the street. Buildings are in essence walls that, with the street, create a shared public “room”. The character and scale of the walls determine the character of the room. Continuous building frontage with active uses on the street creates a welcome and attractive space that supports pedestrian and economic activity. Building placement plays a key role in establishing a clear definition of public and private spaces.

BUILDING HEIGHT

The street will have a more cohesive, pedestrian feel if contiguous buildings are of similar heights. In other words, it is better to have two three-story buildings next to each other than a two-story building next to an eight-story building. New buildings in the area are recommended to match adjacent building heights to be inkeeping with the scale of the proposed streets, the buildings are recommended to be at between two and three stories in height.

ENVIRONMENTAL SUSTAINABILITY

In addition to environmental benefits, “green” buildings can cost less, improve worker productivity, enhance marketing efforts, and help to create a district identity. Buildings should respond to the site, be efficient in water and energy use, be constructed of sustainable materials, and create healthy environment for the occupants. The Leadership in Energy and Environmental Design (LEED) Reference Guide for New Construction and Major Renovation, Version 2.2 is a valuable resource for guidance on green building techniques, practices and standards.

PARKING & ACCESS

Parking and access to parking should be located off of the side streets and alleys. Curb cuts along primary streets such as 2nd, 3rd, 4th and 5th Street should be discouraged. Surface parking lots should be screened and separated from public rights-of-way. Surface lots should be located behind or beside buildings and they should be landscaped, screened from the public street, and be highly shaded.

SERVICE

Service and deliveries should be accommodated on side streets, alleys, or in designated pull-out locations. All dumpsters and refuse collection areas should be located behind the buildings.

LIGHTING

Building and site lighting should be designed in such a way as to eliminate light trespass and minimize light pollution. The best lighting schemes will generally lower lighting levels, maximize uniformity and eliminate glare. Lighting for pedestrians is an important consideration and should be designed to maximize visibility, and comfort, especially around the transit center. The Illuminating Engineering Society of North American (IESNA) Recommended Practice Manual: Lighting for Exterior Environments (IESNA RP-33-99) is a valuable

resource for guidance on best lighting practices.

SIGNAGE

The scale of signage should be designed with pedestrians in mind. Signs on awnings, in windows, and on the face of the building are permitted. No new stand alone commercial signs should be allowed.

LANDSCAPING

Street trees are encouraged along all streets. Landscaping should be designed to provide shade for pedestrians and generally improve the aesthetic environment of the area. Impervious surfaces should also be shaded to mitigate urban heat island effects. Extra attention should be given to the selection of appropriate species.

PRIMARY AND SECONDARY STREETS

One of the most important elements of any development plan is the structure and organization of the streets and blocks. In addition, the design of these streets plays a critical role in the character of development and the behavior of drivers.

Primary Streets, such as 2nd, 3rd, 4th, 5th, North St, and Cincinnati Street are the primary address streets for development in this area. These streets are intended to be pedestrian-friendly streets with limited curb cuts and driveways, high level landscape treatments, and comfortable pedestrian amenities. These streets are usually kept narrow and capped to a maximum number of lanes; they usually include on-street parking to support commercial and retail uses.

Secondary Streets, such as Brown Street are the secondary address streets for development. These streets provide access to parking and can include driveways. In this concept, planting strips allow for “green” spaces within the street section. This creates a “green” street concept that creates attractive connections to the proposed open and gathering spaces.

WALKABILITY

Walkability is the cornerstone of an efficient and pleasant urban area's ground transportation system. Every trip begins and ends with walking. Walking remains the least expensive form of transport for all people. The construction of a walkable community provides the most affordable transportation system any community can plan, design, construct, and maintain. Walkable places put urban environments back on course towards sustainability (both natural and economic) and lead to more social interaction, physical fitness, diminished crime, and fewer social problems. Walkable communities are more livable communities, leading to healthier lives for the people who reside in them.

On average, a pedestrian can travel approximately 1/4 of a mile in 5 minutes, and a 1/2 mile in ten minutes. A ten-minute walk is a reasonable distance that people will walk to get to public transit such as the bus service provided by Citybus. Radial diagrams show us that much of the study area is within a ten-minute walk of the train and bus stations. A short walk to transit positions these neighboring blocks for redevelopment that is for less car dependent than far-way developments.

We are introducing a range of design components, in the redevelopment strategy for the study area, which can be included in the land development codes that will regulate the development patterns within the downtown area.



LANE WIDTH

High vehicle speeds are a well-understood impediment to walkability. Reconfiguration of the roadway in a way that benefits the pedestrian, the bicyclist, and the community is the most effective means of controlling speeds. Lane width is an important dimension of roadway design in determining vehicle speed and overall safety. Lane widths of ten feet satisfy the needs of moving vehicles on urban streets, allowing ample separation for both cars and trucks. Eleven-foot lane widths are acceptable, though twelve-foot widths should be avoided on urban streets.

Many urban streets have been designed to the specifications of rural roads and highways, namely with wider lanes and higher design speeds. While these oversized streets may pass through urban areas with lower 'posted speeds', they nonetheless offer the motorist the space and comfort needed to drive at higher speeds. Only by seeking consistency between 'posted speeds' and road 'design speeds' can motorist speeds be lowered to make streets more walkable and safer. Controlling and reducing excessive travel lane width allows the same roadway to accommodate additional functions, such as wide sidewalks or on-street parking to enhance viability and access to land uses along the street.



UPDATED CROSS-SECTION

Streets should be celebrated places that accommodate pedestrians, cyclists, transit, and cars. The key is a good cross-section (e.g., the number of lanes, the width of the lanes, the material choices, the edge treatments, the on-street parking, street trees, sidewalks, lighting, etc.) Through the clever design of the cross-section, the street can reflect and contribute to its context (e.g., the area’s history, the topography, the climate, the land uses along the sides, the community’s goals and objectives, etc.) A good cross-section can encourage desirable behaviors and feelings (e.g., desired speeds for motor vehicles, social contact and exchange for pedestrians, a feeling of safety, identity, etc.).

The main traffic calming measures for the streets in the downtown and the adjacent neighborhoods were built into the cross-sections. They encourage slower speeds and safety, and accommodates pedestrians. The proposed street cross-section suggests a 20-foot wide street with on-street parking bays, six and a half-foot planting zones, six-foot sidewalks, additional street trees, and 25-30 mph design and posted speeds. The pedestrian environment includes sidewalks with opportunities for street furniture such as bike racks, benches, and tree plantings. These elements encourage shops and cafes to open onto the street, creating a place that is walkable, vibrant, and full of activity.

60’ Section - 2 Lanes - Residential



60’ Section - 2 Lanes

60’ Section - 2 Lanes - Urban / Commercial



60’ Section - 2 Lanes

STREET TREES

Street trees provide a sense of enclosure which can promote slower vehicle speeds. In addition, street trees contribute to the character of the streetscape. Within downtown Lafayette, street trees also contribute to pedestrian comfort by establishing a shaded space for walkers. The shade also reduces asphalt temperatures. The open area for growing trees contributes to the absorption of rainwater. To create a unique sense of identity, the potential tree planting design to be used on redeveloping sites should at a minimum be i) of a similar species, form, and habit; ii) provide shade; iii) be hearty for local conditions; and iv) require minimum maintenance after an establishment period.

ROUNDABOUTS

Roundabouts are one of the most underutilized intersection designs. In many cases, roundabouts offer advantages over signalized intersections, including reduced collision rates, reduced severity of collisions, less pollution by motor vehicles, easier crossings for pedestrians, and improved aesthetics. Roundabouts do not require periodic signal timing adjustments and they do not stop operating when the power goes out.

Roundabouts are relatively new in the U.S. and many communities express concern when they are first proposed. However, once built, residents embrace them and recognize that they are safer, quieter, more attractive and efficient than signalized intersections. While traffic engineers often recommend roundabouts because they are more efficient than a typical stop-controlled or signalized intersection, the lower speeds and more predictable vehicular movement also make them safer for pedestrians and bicyclists. The following are some factors to consider when designing roundabouts:

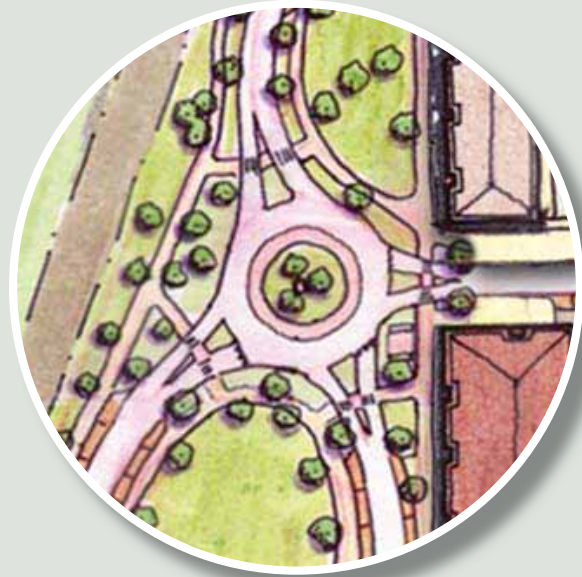
- A typical 4-way intersection has 32 vehicle-to-vehicle conflicts. At a roundabout, these conflicts are reduced to 8. Roundabouts have proven to reduce personal injury crashes 80-90% (compared with signal or stop sign controlled).
- Roundabouts control corridor speed. Signals tend to speed motorists up as they approach intersections, while roundabouts uniformly reduce speed to 15-20 mph at these critical locations.
- Properly designed roundabouts in urban areas are designed to bring vehicle speeds down to 15-20 mph, speeds at which motorists are much more likely to yield to pedestrians.
- The splitter islands on the approaches to the roundabout provide a refuge for pedestrians as they cross the street and simplifies the crossing by letting them focus on vehicles traveling in only one direction.



- Because roundabouts are typically more efficient at moving traffic than signals it is often possible to use a one lane roundabout instead of widening an intersection and road to four or more lanes. A 4-lane intersection might require pedestrians to cross over 50 feet. A one-lane roundabout breaks the crossing into two 12-14 foot legs.

- Roundabouts also work well for bicyclists. Most bicyclists at roundabouts simply take the travel lane since vehicles are circulating at a comfortable bicycle speed. Less confident bicyclists can be provided a ramp on the approach to the roundabout so they can share the pedestrian facilities.

- Roundabouts can be designed for infrequent and long or wide vehicles (such as wide-load trucks or large agricultural tractors) with a mountable truck apron to allow space for wheels or equipment to pass over for turning movements.



A modern roundabout is being proposed at the intersection of Brown Street, 2nd and 3rd Street. This roundabout would encourage lower and safer speeds and enhance the ability of pedestrians and bicyclists to safely cross the streets when accessing the proposed park and trail system. The roundabout will have well marked crosswalks with splitter islands that function as pedestrian refuges. The roundabout at this location would also function as a landmark or gateway feature to the area.

