BROWN'S MASTER PLAN TOWN OF CLARKSVILLE







INTRODUCTION

- 06 Introduction
- 07 Project Purpose
- 07 Project Goals
- 08 Planning Process

EXISTING CONDITIONS

- 12 Introduction
- 12 Land Use
- 13 Connectivity
- 14 Traffic Growth
- 14 Speed Study
- 16 Travel Time
- 16 Safety
- 18 Transit Considerations

TRANSPORTATION RECOMMENDATIONS

- 22 Introduction
- 23 Road Diet
- 24 Access Management
- 24 Median Treatments
- 25 Roundabouts
- 26 Carter Avenue and Bowne Boulevard Roundabouts
- 26 Lewis and Clark Parkway Signalized Intersection







URBAN DESIGN RECOMMENDATIONS

- 30 Introduction
- 30 Standard Cross-Section
- 31 Corridor Enhnacements
- 32 Wayfinding Treatments
- 34 Street Trees
- 36 Enhanced Plantings
- 40 Pedestrian Circulation Improvements

NEXT STEPS

- 46 Introduction
- 46 Short-Term Improvements
- 46 Long-Term Improvements
- 47 Construction Cost Estimates

APPENDICES

- A References
- B Public Engagement
- C Meeting Minutes
- D Traffic Modeling and LOS
- E Traffic Counts
- F Speed Study
- G Travel Time
- H McCullough Pike Bridge Inspection Report

PAGE INTENTIONALLY LEFT BLANK.

INTRODUCTION

01.

- 06 Introduction
- 07 Project Purpose
- 07 Project Goals
- 08 Planning Process



CHAPTER ONE INTRODUCTION

INTRODUCTION

The Brown's Station Way Master Plan is a transportation study that spans from the intersection with I-65 to Silver Creek (Fig. 1-1). Brown's Station Way is a major corridor on the edge of south Clarksville connecting east and west Clarksville. It is primarily located in the Town of Clarksville, IN and is approximately 1.8 miles in length. The goal of the study is to provide recommendations for improving safety, reducing speed, and providing better neighborhood and trail connectivity while balancing the needs of pedestrians, bicyclists, and transit.

The study includes the following:

- An evaluation and analysis of existing and projected traffic conditions
- A safety analysis at intersections along the corridor
- An analysis of demographic and transportation conditions
- Recommendations for future needs
- A prioritized list of potential projects with planning-level cost estimates
- Potential right-of-way impacts
- Public involvement



FIG. 1-1

The Brown's Station Way Master Plan is a transportation study that spans from the intersection with I-65 to Silver Creek.

PROJECT PURPOSE

The purpose of the Brown's Station Way Master Plan is to improve corridor safety, mobility, and connectivity for the residents of Clarksville. The Master Plan includes a series of transportation and urban design recommendations that address function and create a sense of place.

The study was developed with the aim of identifying short and long-term improvements which will increase mobility and connectivity and create a sense of place, integrate pedestrian traffic, and improve quality of life for residents living along the corridor.

PROJECT GOALS



Safety

Improve safety for all road users include pedestrians, bicyclists, and motorists along the corridor by providing improved connections to Brown's Station Way.



Community

Create a strong neighborhood feel that fits the context of the Town of Clarksville community by improving safety, reducing speed, and incorporating design elements that create a unique sense of place.



Multi-Modal Transportation

Establish infrastructure that facilitates a network of transportation options to offer people alternatives to driving, including walking, bicycling, and public transit.



Identity

Create a recognizable brand that is uniquely Clarksville for the Brown's Station Way corridor and gateways.



Maintenance

Reduce long-term maintenance costs on Brown's Station Way through improved road design.



Connectivity

Prioritize improvements that support connections to north and south Clarksville and Brown's Station Way, as well as key destinations along the corridor such as employment opportunities, educational institutions, public transit facilities, medical services, grocery stores, shopping and entertainment, and recreation centers.

PLANNING PROCESS

The planning process began with a series of project team meetings and an analysis of future conditions, where a demographic snapshot and projects were developed based on readily available data sources. This included an analysis of the demographic, housing, and economic data of Brown's Station Way, as well as an analysis of traffic and accident data, including traffic counts.

A public open house was hosted on October 7, 2019 at the Clarksville branch of the Jeffersonville Township Public Library. Residents were invited to learn more about the planning process and provide input on what the future of the corridor should look like (Fig. 1-2). They were asked to participate in identifying the issues and big ideas to be considered in this study. This workshop used a variety of exercises and input opportunities to determine the desires of residents for how the corridor should function and welcome visitors.

After the public meeting, a series of conceptuallevel design alternatives were developed for primary gateways, secondary gateways, and corridor urban design. Primary gateways include the Lewis and Clark Parkway and Randolph Avenue, while secondary gateways include entrances to the River Heritage Conservancy project (Grand Park). Gateway concepts incorporate elements such as plantings and signage that provide a unified character that is crafted for the context of the Town of Clarksville. The corridor's urban design utilizes a series of elements that visually unify the corridor and provide visual continuity between the gateways, including corridor branding, signage, plantings, lighting, and pedestrian access points.

The project team worked with the Town of Clarksville to develop recommendations that respond to project goals and objectives. The potential impacts of proposed recommendations were analyzed and adjusted to best balance safety, connectivity, and experience. The recommendations were refined based on feedback from the Town of Clarksville staff. The Town of Clarksville was presented with the draft plan to provide comments and feedback before the release of the final plan at the end of January 2020.



FIG. 1-2

Residents were invited to a public open house to learn more about the planning process and to provide input. PAGE INTENTIONALLY LEFT BLANK.

PAGE INTENTIONALLY LEFT BLANK.

02.

EXISTING CONDITIONS

- 12 Introduction
- 12 Land Use
- 13 Connectivity
- 14 Traffic Growth
- 14 Speed Study
- 16 Travel Time
- 16 Safety
- 18 Transit Considerations



INTRODUCTION

An inventory and analysis of existing conditions along Brown's Station Way was conducted to better understand the characteristics and context of the corridor. Existing conditions, including land use and traffic conditions, were examined during this process.

Land use patterns, including residential, commercial, industrial, and institutional areas, were evaluated along the corridor and walkshed areas. Existing and proposed facilities and their destinations were reviewed to interpret future origins and destinations. Traffic data was collected and reviewed, and a traffic count was conducted to establish a baseline of current motorized use and safety conditions.

LAND USE

An inventory of existing land use along the Brown's Station Way corridor was conducted at the end of June 2019. Four types of land use were found, including residential, commercial, industrial, and institutional land uses (Fig. 2-1 - 2-2).

RESIDENTIAL

Residential areas include single-family dwellings, multi-family housing, and mobile homes. Most of the homes along the Brown's Station Way corridor are detached single-family homes. The residential character is that of midcentury or later construction on approximately 0.25 acre lots. The largest residential areas are on the north side of Brown's Station Way. Small pockets of housing are concentrated on the northeast and southwest terminus of the corridor. Further north in Clarksville. Multifamily residential housing appears near Eastern Boulevard.

COMMERCIAL

Commercial areas include professional offices and retail businesses, such as medical offices, real estate, insurance, and tax agencies, grocery, department, or hardware stores, banks, gas stations, and hotels. Most of the commercial areas along Brown's Station Way are single-story, stand-alone, and attached buildings of chain and independently-owned businesses. Commercial areas are clustered on the northeast and southwest terminus of the corridor and adjacent to the Lewis and Clark Parkway. Retail centers, inclduing the Green Tree Mall, appear along Greentree Boulevard.

INDUSTRIAL

Industrial areas include light and heavy industrial uses and utilities. Light industrial uses are those involved in the storage, wholesaling, or manufacturing of goods supplied to the site. Heavy industrial uses are those involved in the manufacturing, processing, or extraction of raw materials. Most of the industrial areas along the Brown's Station Way corridor are light industrial uses, including automotive, recycling,



Photo Credit: Google



Commercial Land Use

FIG. 2-1

Residential (top) and commercial (bottom) land uses are found in the project area.



Industrial Land Use



Institutional Land Use

FIG. 2-2

Industrial (top) and institutional (bottom) land uses are found in the project area.

and transit-oriented businesses such as GHK Truss, J&J Pallet, and Red Ball Recycling. One of the largest industrial areas along the corridor is occupied by the Clarksville Wastewater Treatment facility. The Town of Clarksville is currently developing plans to add a public works facility. Industrial areas are concentrated on the on the side of the street nearest to the Ohio River.

INSTITUTIONAL

Institutional areas are those predominated by educational institutions serving the community, including elementary, middle, and high schools. There are four schools located near the Brown's Station Way corridor, including Clarksville Elementary, Middle, and High Schools and Our Lady of Providence Jr./Sr. High School. The Clarksville Elementary, Middle, and High Schools are part of the Clarksville Community Schools Corporation, while Our Lady of Providence Jr./ Sr. High School is a private institution.

CONNECTIVITY

Brown's Station Way is a limited access highway that stretches from the east end of New Albany to I-65. It connects to one of the main roadways in the Town of Clarksville, the Lewis and Clark Parkway, which runs southwest to northeast and connects major residential and commercial areas. Further, it established connections between Eastern Boulevard and the through streets of Bowne Boulevard and Carter Avenue, which helps better connect the residents of Clarksville with civic and commercial uses.

A study of peak hour traffic on Brown's Station Way was conducted to understand how people are moving through the corridor. It was observed in the traffic data that at least 70% of the traffic traveling in the westbound peak hour is driving through Brown's Station Way to the City of New Albany. This traffic is contributing to the costs associated with maintenance and accidents along the corridor without providing an economic benefit to the Town of Clarksville.

RIVER HERITAGE CONSERVANCY

Brown's Station Way will serve as the gateway to 400-acres of revitalized and rehabilitated waterfront lands of the Ohio River, spearheaded by the River Heritage Conservancy.

TRAFFIC GROWTH

A traffic growth analysis of Brown's Station Way was provided on September 5, 2019. An annual traffic growth rate of 0.25% was provided by KIPDA on September 5, 2019. Current traffic counts along the corridor were obtained on August 13th, 2019 and September 19th, 2019. This analysis was used to inform transportation and urban design recommendations for the corridor. The full results of these counts are included in the appendices.

SPEED STUDY

A speed study was conducted on August 13, 2019 at 5 different locations along the corridor by Gewalt Hamilton and Associates (Fig. 2-4). The study indicated that most of the traffic exceeds the posted speed limit, with many vehicles recorded traveling in excess of 70 mph (see Table 2-1).

According to the Federal Highway Administration (FHWA) in their 2010 Pedestrian Safety Program Strategic Plan, travel speed is a major indicator of crash severity (Fig. 2-3). At higher speeds, drivers are less likely to see pedestrians or stop in time to avoid a collision. 9 out of 10 pedestrians will survive when hit by a vehicle traveling at 20 mph, while only 1 out of 10 pedestrians will survive when hit by a vehicle traveling at 40 mph. Lowering the speed limit and enforcing traffic regulations is critical to reducing the number and severity of pedestrian/ vehicular conflicts.

Location Section	Speed Limit		% of Traffic Above Speed Limit		85th Percentile Speed (MPH)	
	WB	EB	WB	EB	WB	EB
01. Silver Creek Bridge	30	45	99%	50%	53	56
02. Lewis and Clark Interchange	45	45	52%	52%	52	52
03. Bridge over old CSX corridor	45	45	72%	82%	54	55
04. North Clark Blvd.	45	45	8%	39%	44	49
05. East of Randolph	40	40	37%	53%	45	46





FIG. 2-4 A speed study was conducted on August 13, 2019 at 5 different locations along the corridor by Gewalt Hamilton and Associates.

CHAPTER TWO EXISTING CONDITIONS

TRAVEL TIME

In the afternoon peak hour, it currently takes drivers traveling Brown's Station Way an average of 3 minutes and 54 seconds to get from Randolph Avenue to the Silver Creek bridge.

SAFETY

The 5-year collision history along the corridor from 2014 to 2018 was obtained on June 28th, 2019. There were 112 collisions recorded, with 25 involving injury and 5 involving fatalities (Fig. 2-5). The primary collision types listed in the police reports are most often associated with excessive speeding. Other types of collisions included head-on collisions, collisions with the Lewis and Clark bridge, right-angle collisions from traffic trying to cross 4 lanes, and left turns. The recommended improvements along the corridor will decrease the frequency and severity of these collisions.

REPORTED TRAFFIC COLLISIONS





FIG. 2-5 The 5-year accident history along the corridor from 2014 to 2018 was obtained on June 28th, 2019. There were 112 accidents recorded, with 25 involving injury and 5 involving fatalities.

CHAPTER TWO EXISTING CONDITIONS

TRANSIT CONSIDERATIONS

The Transit Authority of River City (TARC) does not have any stops along Brown's Station Way. If transit is desired along Brown's Station Way. the Town of Clarksville can coordinate with TARC to identify routes and stops to better serve Clarksville (Fig. 2-6). The new boulevard configuration would allow for the construction of protected bus pull-outs along the corridor. The reduced travel speed would make it safer for transit riders to access and easier for buses to pull away from their stops. Existing TARC routes located near Brown's Station Way include Route 71 (Jeffersonville - Louisville -New Albany), Route 72 (Clarksville), and Route 82 (New Albany - Clarksville - Jeffersonville Crosstown)(Fig. 2-7).



FIG. 2-6

If transit is desired along Brown's Station Way, the Town of Clarksville can coordinate with TARC to identify routes and stops to better serve Clarksville.



FIG. 2-7 Existing TARC routes located near Brown's Station Way include Route 71 (Jeffersonville - Louisville - New Albany), Route 72 (Clarksville), and Route 82 (New Albany - Clarksville - Jeffersonville Crosstown).

PAGE INTENTIONALLY LEFT BLANK.

TRANSPORTATION RECOMMENDATIONS

(03.)

- 22 Introduction
- 23 Road Diet
- 24 Access Management
- 24 Median Treatments
- 25 Roundabouts
- 26 Carter Avenue and Bowne Boulevard Recommendations
- 26 Lewis and Clark Parkway Signalized Intersection



CHAPTER THREE TRANSPORTATION RECOMMENDATIONS

INTRODUCTION

The current design of Brown's Station Way functions as a highway, with cars speeding through the corridor. The proposed design of the corridor takes steps to redesign the road to better serve the community of Clarksville. If no improvements were made between now and the design year of 2040, traffic on Brown's Station Way will continue to operate at similar speed and capacity as it does today. However, with the increase in traffic volumes and without steps taken to reduce speed or improve the unsignalized intersections, the corridor will continue to experience accidents that are severe and fatal.

Brown's Station Way traffic was modeled with various lane and intersection configurations (Fig. 3-1). A summary of the recommendations and how they will be applied to the corridor is described in the following sections.

MORNING PEAK HOUR TRAFFIC

The same methodology was applied in the morning peak hour to traffic traveling eastbound from Silver Creek to Randolph, where travel time will increase by 2 minutes and 6 seconds. Traffic traveling outside of the peak hour will experience slightly longer commute times due to the reduction in speed limit.



FIG. 3-1

Brown's Station Way traffic was modeled with various lane and intersection configurations.

ROAD DIET

A road diet is a traffic calming measure that provides space for multi-modal transportation opportunities. They are an efficient and effective tool to reduce speeds and increase safety. Road diets decrease the number of travel lanes and narrow lane widths in order to accommodate other uses, such as pedestrians, bicyclists, and transit riders. The Federal Highway Administration (FHWA) observed that other road diet conversions reduced the total number of crashes by 19% to 47% when installed on a previously four-lane undivided facility.

Several features of road diets contribute to safety improvements, including:

- Reduce traffic speeds
- Reduce left-lane conflicts and weaves, where drivers cross into other travel lanes to avoid obstacles, pass other vehicles, or turn
- Reduce the number of travel lanes for pedestrians to cross, shortening the amount of time pedestrians are exposed to traffic
- Provide dedicated space for pedestrians and bicyclists, which can improve driver awareness

The Average Daily Traffic (ADT) of the Brown's Station Way corridor is below the threshold for a four-lane road, making a road diet a viable



FIG. 3-2

The road diet on Brown's Station Way will improve safety and provide extra space that can be utilized for improved sidewalks, planted medians, and multi-use paths.

design tool. The road diet on Brown's Station Way will improve safety and provide extra space that can be utilized for improved sidewalks, planted medians, and multi-use paths (Fig. 3-2). Further, the reduced pavement area also means lowering long-term maintenance costs for repaving and treating the roads for snow and ice.

ROAD DIET CONVERSIONS

In a study conducted by the Federal Highway Administration (FHWA), road diet conversions reduced the total number of crashes by 19% to 47% when installed on a previously four-lane undivided facility.

CHAPTER THREE TRANSPORTATION RECOMMENDATIONS

ACCESS MANAGEMENT

The access along Brown's Station Way is inconsistently controlled by a mix of unsignalized intersections, an interchange, and a signalized intersection. Accidents occurring on Brown's Station Way are often serious and may be directly attributed to inconsistent access, high travel speeds, and side-angle collisions from traffic trying to cross four lanes of traffic at unsignalized intersections.

The benefits of access management include improved through traffic movements, reduced number of crashes, and fewer vehicular conflicts. In order to achieve a consistent access management strategy along the corridor, the following improvements will be made:

- Unsignalized access along Brown's Station Way will be closed, including the intersections of Emery Crossing, Leuthart Drive, and North Clark Boulevard.
- The McCullough Pike interchange will be converted into an at-grade intersection.

- Randolph Avenue will remain signalized until funds can be allocated for roundabout construction (Fig. 3-3).
- Single-lane roundabout intersections will be constructed at Carter Avenue and Bowne Boulevard.
- Left-turn lanes not located at signalized intersections will be eliminated.
- Traffic will be separated by a landscaped median.

MEDIAN TREATMENTS

A raised, landscaped median will separate opposing traffic on Brown's Station Way. Median treatments for roadways are one of the most effective means to regulate access. The safety benefits of median improvements have been the subject of numerous studies and syntheses. Studies of the corridor and comparative research on different types of median treatments indicate the significant safety benefits from median treatments.

RAISED MEDIANS

According to an analysis of crash data in seven states, raised medians reduce crashes by over 40 percent in urban areas and over 60 percent in rural areas.



FIG. 3-3 Randolph Avenue will remain signalized until funds can be allocated for roundabout construction.

ROUNDABOUTS

Single-lane roundabout intersections will be constructed at Carter Avenue and Bowne Boulevard. Roundabouts are raised islands placed in unsignalized intersections around which traffic circulates. Approaching motorists yield to motorists already in the roundabout. Roundabouts require motorists to slow to a speed that allows them to comfortably maneuver around them.

Roundabouts save money on long-term maintenance costs since they require no signal equipment and less pavement. They increase community value through quieter operation, and can be functionally and aesthetically pleasing. They reduce congestion during peak hours and other times of day, and typically have less delay than standard signalized intersections. They reduce pollution and fuel use, since fewer stops and hard accelerations are made, and less time is spent idling.

Roundabouts have limited impacts on roadways with on-street parking and access, except for access points immediately adjacent to the intersection. They may draw additional traffic, but with reduced delays and traffic queues.

Roundabouts represent a potential solution for intersections with many conflict points. Though not appropriate for all situations, roundabouts reduce vehicle movements across traffic. One study of intersections that were replaced with roundabouts in Maryland found a drop in crashes between 18 and 29 percent



FIG. 3-4

Single-lane roundabout intersections will be constructed at Carter Avenue and Bowne Boulevard. Roundabouts are raised islands placed in unsignalized intersections around which traffic circulates.

and a reduction in injury crashes between 63 and 88 percent. The cost of crashes at these locations – one measure of severity – was also reduced by 68 percent. Overall crashes on roundabouts were more minor than those at left turn locations. Another study of roundabouts in several locations found a 51 percent reduction in crashes, including a 73 percent reduction in injury crashes and a 32 percent reduction in property-damage-only crashes for single-lane roundabouts.

CHAPTER THREE TRANSPORTATION RECOMMENDATIONS

CARTER AVENUE AND BOWNE BOULEVARD ROUNDABOUTS

Clark Boulevard runs parallel to Brown's Station Way and operates similarly to a frontage road on a freeway. This creates an abrupt end to the Town of Clarksville's urban street network to the east, forces traffic entering Brown's Station Way to use a single access point, and creates underused land that could be utilized by the Town of Clarksville.

The proposed reconfiguration would extend Bowne Boulevard to a roundabout intersection with Brown's Station Way (Fig. 3-5). Bowne Boulevard is a wide street lined with private residences, with sidewalks on both sides of the street. Creating an intersection at Brown's Station Way and Bowne Boulevard will provide a connection to Eastern Boulevard and reconnect the Clarksville neighborhoods that were bifurcated during the construction of old SR 62.

Carter Avenue would also be extended to Brown's Station Way. The intersection at Clark Boulevard and Brown's Station Way would be removed, and Clark Boulevard between Carter Avenue and Bowne Boulevard would be removed and replaced with greenspace. Leuthart Drive will be closed and access to the public works facility will be achieved via the roundabout at Carter Avenue.

One aim of this study is to develop ways to transform Brown's Station Way from a high-speed thoroughfare to an urban street that supports active transportation and development while servicing the adjacent neighobrhoods. Extending the traditional street grid from the east to Brown's Station Way at this location helps tie the corridor into the urban network. Additionally, increased access points along Brown's Station Way, combined with reduced speed limits, will act as a traffic calming measures. This reconfiguration will make it easier for motorists to access and navigate the Town of Clarksville from Brown's Station Way while creating opportunities for increased pedestrian and bicyclist use by developing more green space and making street crossings more manageable.

LEWIS AND CLARK PARKWAY SIGNALIZED INTERSECTION

Reconfiguring the Lewis and Clark Parkway/ McCullough Drive interchange to an at-grade intersection with Brown's Station Way was modeled both as a signalized intersection and as a two-lane roundabout. In both cases, the intersection operates at an acceptable level of service.

A roundabout is more efficient at moving traffic volumes through the intersection. However, during the public meeting, there was concern about the complexity of using a multi-lane roundabout. Given the town's preference for a full road diet with one travel lane in each direction on Brown's Station Way, a signalized



FIG. 3-5

The proposed reconfiguration would extend Bowne Boulevard to a roundabout intersection with Brown's Station Way.

intersection at Lewis and Clark Parkway became the preferred configuration as a single-lane roundabout would not have had the capacity to operate effectively. Additional considerations were made for the large westbound and southbound volumes in the PM peak period at Lewis and Clark Parkway. The elevation of Brown's Station Way will be graded up to better match the connection to the Lewis and Clark Parkway and the Ohio River levee to the south. A traditional signalized intersection will satisfy the operational needs of the intersection and will complement the proposed road diet along Brown's Station Way (Fig. 3-6). It will also allow for safe bike and pedestrian crossings from the northside of Brown's Station Way.

LEWIS AND CLARK BRIDGE

The Lewis and Clark bridge over Brown's Station Way is in poor condition and will soon require significant upgrades and repairs according to the most recent bridge inspection report. The report recommends major rehabilitation within 3 years to replace the deteriorated piers and substructure. The bridge may soon need to be posted for load limit due to the substructure. Further, the bridge is an oversized facility that is more appropriate for a highway setting. A secondary benefit of converting the Lewis and Clark Parkway to an at-grade intersection is the removal of this bridge, thereby eliminated the need for costly repairs, future maintenance, and annual inspection costs.



FIG. 3-6

The elevation of Brown's Station Way will be graded up to better match the connection to the Lewis and Clark Parkway and the Ohio River levee to the south.

PAGE INTENTIONALLY LEFT BLANK.

URBAN DESIGN RECOMMENDATIONS

04.

- 30 Introduction
- 30 Standard Cross-Section
- 31 Corridor Enhnacements
- 32 Wayfinding Treatments
- 34 Street Trees
- 36 Enhanced Plantings
- 40 Pedestrian Circulation Improvements



CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

INTRODUCTION

Urban Design recommendations work together with roadway recommendations to improve safety, increase connectivity, and create a gateway to south Clarksville. The design recommendations in this section reinforce roadway recommendations by adding pedestrian infrastructure and placemaking features like gateways, plantings, and corridor branding.

The urban design recommendations for Brown's Station Way focus on infrastructure improvements that increase safety, reduce speed, provide better neighborhood and trail connectivity, and balance the needs of pedestrians, bicyclists, motorists and transit riders. The following sections outline each component of the roadway environment, including standard cross-section, roadway improvements, gateway treatments, and pedestrian circulation improvements to provide an environment where people want to live, work and play.

STANDARD CROSS-SECTION

The standard cross-section for Brown's Station Way includes two 16-foot travel lanes, a median, two 5-foot buffer zones, a 10-foot multi-use path, and 5-foot sidewalk (Fig. 4-1).

Median widths and materials vary throughout the corridor. Areas less than 4-feet wide will be a concrete median. In areas greater than or equal







to 4-feet, the median will be planted. At key intersections, gateways, and nodes, enhanced plantings will be used. Enhanced plantings may include ornamental trees, shrubs, native grasses and/or perennials.

Grass buffer zones separate pedestrian and vehicular traffic along the street edge. Street trees and street lights located in the buffer zone act as vertical delineators between modes of travel. Pedestrian paths provide designated routes to separate modes of travel and improve safety for all roadway users. A 10-foot multi-use path on the south and west sides of the street will be asphalt, while a 5-foot concrete sidewalk will be on the opposite side of the street. Where feasible, new paths should tie into existing sidewalks on adjoining streets to extend the pedestrian network. Priority should be given to sidewalks in high-traffic, pedestrian areas of commercial and residential zones to achieve the greatest benefit.

CORRIDOR ENHNACEMENTS

Corridor improvements are visual elements placed along the corridor to complement street functions, unify character through visual continuity and provide site amenity. Visual elements include street lights, corridor branding, and accent lighting.

STREET LIGHTS

The installation of street lights is recommended along Brown's Station Way to improve safety for drivers and pedestrians (Fig. 4-2). They should effectively illuminate travel lanes and pedestrian paths on both sides of the street. Low-intensity LED lighting should be used to maintain visibility and minimize light pollution. Street light spacing distance is to be determined by appropriate lighting photometrics.

The street lighting chosen for the corridor by the Town of Clarksville is an aluminum, downward facing pendant light with a non-glare, diffused glow. Light fixtures would be mounted on 16foot tall, round, tapered poles in double-head configurations with the vehicular lighted fixture sitting 16-foot above the roadway and the pedestrian lighted fixture sitting 12-foot above the path.

CORRIDOR BRANDING

Branding will be used to establish a positive association between the corridor and the Town of Clarksville, creating an identity and enhancing sense of place. The branding character seen in renderings of this document reflect Clarksville's existing branding palette. However, installed elements should match the branding palette that is to be determined at a later date by the Town of Clarkesville. Brand character should be applied to various forms of signage – from primary, secondary, and tertiary gateway elements to light pole banners and adjacent pedestrian elements - along the street to maintain visual continuity.



FIG. 4-2

The installation of street lights is recommended along Brown's Station Way.

ACCENT LIGHTING

There are few locations where lighting is proposed to be used for any purpose other than functionality along Brown's Station Way. While street lighting – focusing on safety, visual clarity, and orientation - should be chosen with aesthetic appeal in mind, the two gateway wayfinding treatments should use lighting to accentuate design elements. The script on the pedestrian bridge signage should employ a backlight feature to make the overhead sign legible during dark hours. The inscription on the off-street, limestone outcropping should be illuminated with an uplight feature, also making the sign legible during dark hours (Fig. 4-3).



FIG. 4-3 The inscription on the off-street, limestone outcropping should be illuminated.

CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

WAYFINDING TREATMENTS

Wayfinding treatments include gateways, intersections and roundabouts that standalone as important nodes along the Brown's Station Way corridor, but come together to provide a unified character that is uniquely Clarksville.

GATEWAYS

There are two proposed gateway treatments along the Brown's Station Way corridor. The first is a signage application on the pedestrian bridge that spans over the corridor, welcoming travelers into the Town of Clarksville from New Albany. The pedestrian bridge will be reconstructed within the footprint of the former bridge, adjoining West Brook Avenue and McKinley Avenue, and sit above the street at a higher elevation that its predecessor.

Suspended over the roadway (attached to the upper rail) would be a sign, following the appropriate branding set by the town, with script that reads "Welcome to Clarksville". The second proposed gateway is an off-street planting bed that contains an upright, vertical limestone outcropping with the inscription "Welcome to Clarksville". It would be located just north of Silver Creek, welcoming travelers into the Town of Clarksville from Jeffersonville (Fig. 4-4). In addition to roadway elements such as street trees, street lights and corridor branding, the gateways should also include enhanced plantings and accent lighting.



FIG. 4-4

The second proposed gateway is an off-street planting bed that contains an upright, vertical limestone outcropping with the inscription 'Welcome to Clarksville".

SIGNALIZED INTERSECTIONS

There are two proposed intersection treatments at the junctures of Lewis and Clark Parkway with Brown's Station Way and Randolph Avenue with Brown's Station Way (Fig. 4-5). Aesthetically, both intersections rely on a four-corner application of varying shape and size limestone outcroppings nestled amongst plantings to convey prominence. In addition to roadway elements such as street trees, street lights and corridor branding, the intersections should also include enhanced plantings and crosswalks.

ROUNDABOUTS

There are two proposed roundabout treatments at Bowne Boulevard with Brown's Station Way and Carter Avenue with Brown's Station Way. Aesthetically, both roundabouts contain plantings that surround an upright, horizontally linear limestone outcropping (Fig. 4-6). In addition to roadway elements such as street trees, street lights and corridor branding, the roundabouts should also include enhanced plantings and crosswalks. The varying use of limestone, in all three wayfinding treatments, provides continuity and a strong design language along the corridor. Other common components of wayfinding treatments include enhanced plantings and crosswalks.







One proposed roundabout treatment is at the juncture of Bowne Boulevard with Brown's Station Way. Aesthetically, both roundabouts contain plantings that surround a linear limestone outcropping.

FIG. 4-6

CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

STREET TREES

Currently, Brown's Station Way lacks a street tree canopy. Street trees are important urban design elements that provide a multitude of environmental, economic and social benefits. Street trees filter pollutants, improve air quality, reduce stormwater runoff, provide shade, improve property values and define spaces where people gather and spend time.

A consistent street tree canopy is recommended along Brown's Station Way (Fig. 4-7). Street trees should be planted in 5-foot grass buffers on both sides of the street. Trees should be located to avoid conflicts with above and below ground utilities, while maintaining a consistent design aesthetic. A diversity of tree species is recommended to increase resilience and safeguard against pests and diseases. Species should be tolerant of tough urban conditions where heat, drought, air pollution, salt spray and root compaction are common. Suggested tree species are grouped by size at maturity and can be found in Tables 4-1 and 4-2.



Large Trees (50' and Over)				
Scientific Name	Common Name	Native	Height	Spread
Gymnocladus dioicus 'Espresso'	Espresso Kentucky Coffee Tree	Yes	50'	35'
Liriodendron tulipifera 'JFS-Oz'	Emerald City Tulip Tree	Yes	55'	25'
Ulmus americana 'Jefferson'	Jefferson American Elm	Yes	60' - 80'	30' - 50'

TABLE 4-1Suggested Tree Species: Large Trees (50' and Over).

Medium Trees (35' - 50')				
Scientific Name	Common Name	Native	Height	Spread
Acer x freemanii 'Jeffersred'	Autumn Blaze Freeman Maple	Yes	40' - 60'	20' - 40'
Liquidambar styraciflua 'Hapdell'	Happidaze Sweetgum	Yes	45'	25'
Nyssa sylvatica	Black Gum	Yes	30' - 50'	20' - 30'

 TABLE 4-2
 Suggested Tree Species: Medium Trees (35' - 50').

FIG. 4-7A consistent street tree canopy is
recommended along Brown's Station Way.

STREET TREES



TOWN OF CLARKSVILLE

CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

ENHANCED PLANTINGS

Enhanced plantings at gateways, intersections and roundabouts will include ornamental trees, shrubs, native grasses and/or perennials. The layered and more traditional planting arrangement along the corridor will be soften by the mixed massing of native plant material. This layering exists as a foreground of mixed herbaceous material – Echinacea, Rudbeckia and Sporobolus – against an evergreen (Juniper) or dark-leafed (Physocarpus) midground, all grounded with a tall grass (Panicum) backdrop. Within the Panicum backdrop, ornamental tree groupings of Amelanchier, Carpinus and Cercis will provide an edge definition and accentuate important locations along the corridor.

Shorter plants will be used at intersections so drivers can see. The use of locally-grown nursery stock is encouraged to help achieve a low-maintenance, sustainable landscape that blends with its surroundings. Suggested plant palettes for enhanced plantings at gateways are provided in Tables 4-3 - 4-6.

Ornamental Trees (Under 35')					
Scientific Name	Common Name	Native	Height	Spread	
Amelanchier x grandiflora	Apple Serviceberry	Yes	15' - 25'	15' - 20'	
Carpinus caroliniana 'JFS-KW6'	Native Flame American Hornbeam	Yes	30'	20'	
Cercis canadensis 'Hearts of Gold'	Hearts of Gold Redbud	Yes	20' - 25'	18'	

TABLE 4-3Suggested Tree Species: Ornamental Trees (Under 35').

Shrubs				
Scientific Name	Common Name	Native	Height	Spread
Juniperus chinensis 'Armstrongii'	Armstrong Juniper	No	4' - 5'	4' - 5'
Physocarpus opulifolius 'Donna May'	Little Devil Ninebark	Yes	4'	4'
Viburnum prunifolium	Blackhaw Viburnum	Yes	12' - 15'	8' - 12'

TABLE 4-4Suggested Shrub Species.

ORNAMENTAL TREES & SHRUBS



CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

Grasses				
Scientific Name	Common Name	Native	Height	Spread
Panicum virgatum 'Cloud Nine'	Cloud Nine Switchgrass	Yes	8'	4' - 6'
Panicum virgatum 'Heavy Metal'	Heavy Metal Switchgrass	Yes	3'	2' - 3'
Schizachyriuum scoparium 'Standing Ovation	Standing Ovation Little Bluestem	Yes	2' - 3'	2'
Sporobolus heterolepis	Prairie Dropseed	Yes	2' - 3'	2' - 3'

TABLE 4-5

Suggested Grass Species.

Perennials				
Scientific Name	Common Name	Native	Height	Spread
Coreopsis verticillata 'Moonbeam'	Moonbeam Threadleaf Tickseed	Yes	2'	2'
Echinacea purpurea	Purple Coneflower	Yes	2'	2'
Nepeta x faassenii 'Walkers Low'	Walker's Low Catmint	Yes	2'	2' - 3'
Rudbeckia fulgida	Black-Eyed Susan	Yes	2'	2'

TABLE 4-6Suggested Perennial Species.

GRASSES & PERENNIALS



CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

PEDESTRIAN CIRCULATION IMPROVEMENTS

As the corridor currently exists, there are no pedestrian amenities along the corridor, only remnants of the former pedestrian bridge. The proposed design addresses this issue, adding a sidewalk and trail system along the corridor edges and bringing back the functional bridge. These are important design elements that provide for a safe, accessible and enjoyable experience while traversing the Brown's Station Way corridor. The three pedestrian circulation improvement elements are further explained in the following sections.

SIDEWALK

Sidewalks provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. Sidewalks are physically separated from the roadway by a curb or unpaved buffer space. A 5-foot concrete sidewalk is proposed for the side of the corridor closest to downtown Clarksville (Fig. 4-8). The scale matches the aesthetic of the neighborhood and commercial districts, where a 5-foot concrete walk is typical. It is recommended that the walk is scored every 5 feet, creating 5-foot by 5-foot sections, and that a light to medium broom finish be applied. Fine exposed aggregate from a local quarry will be used that is reminiscent of the limestone being used along the corridor.



FIG. 4-8

A 5-foot concrete sidewalk is proposed for one side of Brown's Station Way.

MULTI-USE PATH

A 10-foot asphalt multi-use path is proposed for the side of the corridor closest to the Ohio River (Fig. 4-9). This is a cost-effective material to use for a wider path, acting as a trail along the edge of commercial, municipal and River Heritage Conservancy-owned land. It is envisioned to be a multi-use path, engaging pedestrians (walkers andrunners) and non-motorized transit (bicycles, scooters, skateboards, etc.). The multi-use path

would serve community members in day-to-day travel, between residential, commercial, and public locations, as well as recreational travel. It would provide the opportunity to strengthen north/south pedestrian movement, tying to the Clarksville Heritage Trail, which subsequently connects to the Ohio River Greenway.



FIG. 4-9

A 10-foot asphalt multi-use path is proposed for one side of Brown's Station Way.

CROSSWALKS

Crosswalks should be marked at all intersections where pedestrians are expected to cross the street (Fig. 4-10). Crosswalks may express variations in detail that distinguish areas of high importance, improve aesthetics and increase pedestrian safety by visually separating pedestrian and vehicular traffic. Hardscape enhancements, such as pavers and concrete scoring patterns, add unique textures that generate visual interest and bring the crosswalk to the attention of both pedestrians and drivers. Ramps with detectable warnings must be provided at all crosswalks where sidewalks meet vehicular travel lanes.

PEDESTRIAN BRIDGE

A pedestrian bridge previously spanned Brown Station Way from Brooks Avenue to McKinley Avenue. This bridge was destroyed by a crash on January 11, 2018 by a recycling truck with its boom up in the air. The bridge height was 14' 6". Public comments and input from the Town of Clarksville explained that prior to the bridge being destroyed, children used it to walk to the Clarksville Middle and High Schools. The bridge was also used by pedestrians that parked at the schools to get to the riverfront for Thunder over the Ohio. It also severed the only pedestrian crossing connecting the neighborhoods that were bifurcated during the construction of old SR 62.



FIG. 4-10

Crosswalks should be marked at all intersections.

One option considered for a pedestrian crossing on Brown's Station Way was the Randolph Avenue intersection. In order to cross Brown's Station Way at Randolph Avenue, pedestrians would have to travel 90' and cross 5 lanes of traffic. There are no sidewalks or curb ramps at this intersection, so right-of-way and infrastructure upgrades would be necessary along with modernizing the signals to include pedestrian indicators if this intersection was to be utilized for pedestrian crossings. Due to the length of the proposed crosswalk and westbound traffic approaching the intersection in speeds in excess of 50 mph, this option was not pursued. The proposed pedestrian bridge,

CHAPTER FOUR URBAN DESIGN RECOMMENDATIONS

adjoining West Brook Avenue and McKinley Avenue, is an integral component to achieving successful pedestrian circulation (Fig. 4-11). Reconstructed within the footprint of the former bridge, but sitting above the street at a higher clearance elevation, the bridge would offer a safe haven for crossing the highly trafficked corridor.

Ultimately, it was decided that the location of the former bridge is best for a new pedestrian bridge. It should include accessible ramps to ascend and descend, safety rails, and pedestrian lighting. The design should capitalize on the idea that the bridge can double as a monumental gateway, welcoming residents and visitors to the Town of Clarksville. As such. design detail should be considered, including the use limestone as the main structural material (carrying through the entire corridor). the application of a lighted sign along the upper rail, and the incorporation of appropriate Town of Clarksville branding in graphic and form components. The old approach ramps will be removed.

The bridge will be constructed to current ADA standards and have a vertical clearance of 17' 6". The approach ramps will have a maximum grade of 5% and a total running length of 400' by either a continuous approach or a series of switchbacks. Architectural enhancements will be incorporated into the pedestrian bridge to act as a gateway to the Town of Clarksville.



FIG. 4-11

The proposed pedestrian bridge, adjoining West Brook Avenue and McKinley Avenue, is an integral component to achieving successful pedestrian circulation.

PAGE INTENTIONALLY LEFT BLANK.

PAGE INTENTIONALLY LEFT BLANK.

NEXT STEPS

05.

- 46 Introduction
- 46 Short-Term Improvements
- 46 Long-Term Improvements
- 47 Construction Cost Estimates



CHAPTER FIVE NEXT STEPS

INTRODUCTION

Improvement options for Brown's Station Way address safety concerns throughout the corridor, while also considering congestion, mobility, access management, roadway network connectivity, drainage, concerns, transit, bicycle, and pedestrian needs, and other related issues. The include both short-term and long-term improvements.

Short-term improvements are those than can be implemented in the short term (0-5 years). They include relatively low-cost improvements that can be implemented by agencies in the near future. They may include alternatives such as signalization/signal modifications, signage, striping, drainage structure improvements, the addition of turn lanes, bike lanes, and sidewalks

Long-term improvements are those that can be implemented in the long term (6+ years). They may include alternatives listed under shortterm improvements, as well as projects that may be more complex, costly, and difficult to implement.

SHORT-TERM IMPROVEMENTS

They include relatively low-cost improvements that can conceivably be implemented by governing agencies in the near future. They may include alternatives such as signalization/ signal modifications, signage, striping, drainage structure improvements, the addition of turn lanes, bike lanes, and sidewalks. Due to lack of safe pedestrian access across Brown's Station Way, it is recommended the replacing the pedestrian bridge be the first improvement along the corridor. The design for the pedestrian bridge will be configured to account for future improvements along Brown's Station Way and provide a gateway to the Town of Clarksville. The estimated cost of replacing the pedestrian bridge is \$3,350,000.

Due to the deteriorating condition of the Lewis and Clark Bridge, it is recommended that the conversation of this interchange to an at-grade intersection be completed within the next 3 years. According to the bridge inspection report, bridge loads may soon need to be restricted and major rehabilitation will be necessary within 3 years. Replacing this bridge will cost in excess of \$2.5 million. The Emery Crossing intersection would be closed as part of this contract, eliminating the left-turn and side-angle collisions at this location. Th estimated cost of this work is \$4,050,000.

LONG-TERM IMPROVEMENTS

Constructing the roundabouts at Carter Avenue and Bowne Boulevard in a single construction contract provides the most efficiencies with respect to maintain traffic and economies of scale. The intersections of North Clark Boulevard and Leuthart Drive would be closed as part of this project. Due to the cost and impacts of maintaining traffic to construct the roundabouts, it is recommended that the work associated with replacing the pavement and constructing the road diet between Randolph Avenue and Lewis and Clark Boulevard take place at the same time as the roundabout construction. Construction of the shareduse path, sidewalk, and corridor lighting will also take place during this contract. The lanes approaching Randolph Avenue from the east will need to be re-striped to restrict traffic down to a single lane as it enters the corridor, so coordination with the Indiana Department of Transportation (INDOT) will be necessary. This work will cost \$10,435,000.

Constructing the road diet between Lewis and Clark and the City of New Albany could happen in conjunction with the work to the east of Lewis and Clark, or it could be constructed as a separate construction contract. The bridge over Silver Creek will be reduced from 4 lanes to 2 lanes, with a barrier being constructed on the outside lanes to accommodate bike and pedestrian traffic. Coordination with Clark County and the City of New Albany will be necessary to make these improvements. The estimated cost of this work is \$2,000,000.

The final improvement to the corridor will be the conversion of the Randolph Avenue intersection to a roundabout. This modification is not necessary to complete the road diet, but it would improve travel time by removing the signalized intersection, act as a traffic calming feature for vehicles entering the corridor, and offer the opportunity for landscaping and other gateway improvements as an entrance to the Town of Clarksville. It is estimated that this work will cost \$1,500,000.

CONSTRUCTION COST ESTIMATES

Based on the transportation and urban design recommendations explored earlier in the plan, construction cost estimates have been provided for both the pedestrian bridge and the road diet (Fig. 5-1).

PEDESTRIAN BRIDGE

All modifications to the location of the pedestrian bridge will be coordinated with the Town of Clarksville prior to design. The goal in aligning this structure was to avoid residential relocations and minimize right-ofway acquisition. There is adequate existing right-of-way on the north side of the corridor to reconstruct the approach without impacts. On the south side of the corridor, a small parcel acquisition may be necessary to accommodate the ramp approach. One challenge to the construction of the pedestrian bridge is the location of the Duke Energy power pole on the south side of Brown's Station Way. The power distribution lines attached to this pole run parallel to Brooks Avenue and the lines running parallel to Brown's Station Way are communications. For the south approach ramp to be constructed in the new location, relocating the pole will be necessary. If this relocation work is reimbursable to the utility, it could cost up to \$470,000 and take up to 1 year to relocate this pole. Once the topographic survey is complete, the project team will understand how the approach ramps can be constructed with minimal impact to properties and utilities. The estimated cost to replace the pedestrian bridge, relocate utilities, acquire right-of-way and provide architectural enhancements is \$3,350,000. A detailed cost estimate in construction year 2020 is provided in Table 5-1.

BROWN'S STATION WAY ROAD DIET

The construction cost estimate for the Brown's Station Way road diet was completed at a planning level based on the quantities of the major pay items and similar projects recently completed by Clark Dietz. If the Town of Clarksville desires to construct the corridor in phases, this estimate provides the cost of those improvements in logical contract bid packages. The construction cost for this work includes a 20% contingency and contract lump sum items and is estimated for construction in year 2020. For each year construction of this work is delayed, the estimate should be increased by 3% to account for inflation. The estimated cost of the road diet and related improvements is \$17,985,000. A breakdown of the construction cost is provided in Table 5-2.



Pedestrian Bridge



Road Diet

FIG. 5-1

Construction cost estimates are provided for the pedestrian bridge and road diet.

CHAPTER FIVE NEXT STEPS

Pedestrian Bridge Estimate					
Pay Item Description	Qty	Unit	Unit Price	Cost	
Construction Engineering	1	LS	\$35,000	\$35,000	
Mobilization and Demobilization	1	LS	\$87,000	\$87,000	
Clearing Right of Way	1	LS	\$52,000	\$52,000	
Present Structure, Remove	1	LS	\$50,000	\$50,000	
Structure Backfill, Type 3	2,600	CYS	\$45	\$117,000	
Compacted Aggregate No. 53	275	TON	\$44	\$12,100	
HMA for Sidewalk	150	TON	\$150	\$22,500	
Concrete, A, Substructure	90	CYS	\$1,200	\$108,000	
Concrete, C, Superstructure	60	CYS	\$1,800	\$108,000	
Railing, Pedestrian	1,450	LFT	\$90	\$130,500	
Bridge Steel Truss Pre-Engineered	1	LS	\$265,000	\$265,000	
Modular Block Wall Erection	18,200	SFT	\$30	\$546,000	
Modular Block Wall with Ground Reinforcement	18,200	SFT	\$16	\$291,200	
Maintaining Traffic	1	LS	\$82,600	\$82,600	
Utility Relocation	1	LS	\$470,000	\$470,000	
Right of Way Acquisition	1	EA	\$10,000	\$10,000	
Architectural Items	1	LS	\$400,000	\$400,000	
			Subtotal	\$2,786,900	
			20% Contingencies	\$557,380	
			Total	\$3,350,000	

 TABLE 5-1
 Construction Cost Estimate: Pedestrian Bridge.

Road Diet Estimate					
Improvements	Cost	Notes			
Bowne Blvd Roundabout	\$1,500,000	Cost includes landscaping and lighting			
Carter Ave Roundabout	\$1,500,000	Cost includes landscaping and lighting			
Road Diet from Randolph Avenue to Lewis & Clark Parkway	\$4,000,000	Cost assumes majority of pavement can be re-used and limits full-depth pavement replacement. Cost includes replacing the existing bridges over the old CSX corridor with a box culvert, corridor plantings, landscaping, lighting, and a gateway treatment for the west end of the corridor.			
Shared-Use Path	\$235,000	Cost includes ramp construction			
Sidewalk	\$450,000	Cost includes curb ramp construction			
Corridor Lighting	\$750,000	Decorative poles spaced 150'			
Lewis and Clark Intersection	\$4,050,000	Cost includes removing the existing bridge, signs, signals, and lighting			
Total Corridor Construction Cost	\$12,485,000				

TABLE 5-2 Construction Cost Estimate: Road Diet.

PAGE INTENTIONALLY LEFT BLANK.

APPENDICES

- A References
- B Public Engagement
- C Meeting Minutes
- D Traffic Modeling and LOS
- E Traffic Counts
- F Speed Study
- G Travel Time
- H McCullough Pike Bridge Inspection Report



APPENDIX A REFERENCES

LIST OF FIGURES

Fig. 1-1. The Brown's Station Way Master Plan is a transportation study that spans from the intersection with I-65 to Silver Creek. Photo Credit: Clark Deitz Inc.

Fig. 1-2. Residents were invited to a public open house to learn more about the planning process and to provide input. Photo Credit: TSW Design Group.

Fig. 2-1. Residential (top) and commercial (bottom) land uses are found in the project area. Photo Credits: Google Earth.

Fig. 2-2. Industrial (top) and institutional (bottom) land uses are found in the project area. Photo Credits: Google Earth.

Fig. 2-3. Pedestrian Injury Severity Based on Vehicle Speed. Data Source: Traffic Advisory Unit, 1993.

Fig. 2-4. A speed study was conducted on August 13, 2019 at 5 different locations along the corridor by Gewalt Hamilton and Associates.

Fig. 2-5. The 5-year accident history along the corridor from 2014 to 2019 was obtained on June 28th, 2019. There were 112 accidents recorded, with 25 involving injury and 5 involving fatalities.

Fig. 2-6. If transit is desired along Brown's Station Way, the Town of Clarksville can coordinate with TARC to identify routes and stops to better serve Clarksville.

Fig. 2-7. Existing TARC routes located near Brown's Station Way include Route 71 (Jeffersonville - Louisville - New Albany), Route 72 (Clarksville), and Route 82 (New Albany - Clarksville - Jeffersonville Crosstown). Photo Credit: TARC.

Fig. 3-1. Brown's Station Way traffic was modeled with various lane and intersection configurations.

Fig. 3-2. The road diet on Brown's Station Way will improve safety and provide extra space that can be utilized for improved sidewalks, planted medians, and multi-use paths.

Fig. 3-3. Randolph Avenue will remain signalized until funds can be allocated for roundabout construction.

Fig. 3-4. Single-lane roundabout intersections will be constructed at Carter Avenue and Bowne Boulevard. Roundabouts are raised islands placed in unsignalized intersections around which traffic circulates.

Fig. 3-5. The proposed reconfiguration would extend Bowne Boulevard to a roundabout intersection with Brown's Station Way.

Fig. 3-6. The elevation of Brown's Station Way will be graded up to better match the connection to the Lewis and Clark Parkway and the Ohio River levee to the south.

Fig. 4-1. The standard cross-section for Brown's Station Way includes two 12-foot travel lanes, a median, two 5-foot buffer zones, a 10-foot multi-use path, and a 5-foot sidewalk.

Fig. 4-2. The installation of street lights is recommended along Brown's Station Way.

Fig. 4-3. The second proposed gateway is an off-street planting bed that contains an upright, vertical limestone outcropping with the inscription 'Welcome to Clarksville." It would be located just north of Silver Creek, welcoming travelers into the Town of Clarksville from Jeffersonville.

Fig. 4-4. Proposed intersection treatment at Lewis and Clark Parkway.

Fig. 4-5. One proposed roundabout treatment is at the juncture of Bowne Boulevard with Brown's Station Way. Aesthetically, both roundabouts contain plantings that surround a linear limestone outcropping.

Fig. 4-6. A consistent street tree canopy is recommended along Brown's Station Way.

Fig. 4-7. The inscription on the off-street, limestone outcropping should be illuminated.

Fig. 4-8. A 5-foot concrete sidewalk is proposed for one side of Brown's Station Way.

Fig. 4-9. A 10-foot asphalt multi-use path is proposed for one side of Brown's Station Way.

Fig. 4-10. Crosswalks should be marked at all intersections.

Fig. 4-11. The proposed pedestrian bridge, adjoining West Brooke Avenue and McKinley Avenue, is an integral component to achieving successful pedestrian circulation.

Fig. 5-1. Construction cost estimates are provided for the pedestrian bridge and road diet.

Fig. AB-1. A public open house was held on October 7, 2019 at the Clarksville branch of the Jeffersonville Township Public Library, where residents were invited to learn more about the project and provide input on the future of Brown's Station Way. Photo Credits: TSW Design Group / News and Tribune.

Fig. AB-2. Station 6: Share Your Big Ideas. Photo Credit: TSW Design Group.

Fig. AB-3. Scenario A: 2020 PM Peak Hour Existing Volumes.

Fig. AB-4. Scenario A: 2020 PM Peak Hour Existing Volumes.

Fig. AB-5. Scenario B4: 2020 PM Peak Hour - Two Lane Road Diet with Signalization and Lewis and Clark Volume Balance between Intersections. **Fig. AB-6.** Scenario B4: 2020 PM Peak Hour - Two Lane Road Diet with Signalization and Lewis and Clark Volume Balance between Intersections.

Fig. AB-7. Scenario B4: 2020 PM Peak Hour 70% - Two Lane Road Diet with Signalization and Lewis and Clark Volume Balance between Intersections.

Fig. AB-8. Scenario B4: 2020 PM Peak Hour 70% - Two Lane Road Diet with Signalization and Lewis and Clark Volume Balance between Intersections.

LIST OF TABLES

Table 2-1. Speed Study: Summary of Results.

Table 4-1.Suggested Tree Species: Large Trees(50' and Over).

Table 4-2.Suggested Tree Species: MediumTrees (35' - 50').

Table 4-3.Suggested Tree Species: OrnamentalTrees (Under 35').

 Table 4-4.
 Suggested Shrub Species.

 Table 4-5.
 Suggested Grass Species.

 Table 4-6.
 Suggested Perennial Species.

Table5-1.ConstructionCostEstimate:Pedestrian Bridge.

Table 5-2.Construction Cost Estimate: RoadDiet.

APPENDIX B PUBLIC ENGAGEMENT



to Credit: TSW Design Grou





TSW I hoto Credit:



A public open house was held on October 7, 2019 at the Clarksville branch of the Jeffersonville Township Public Library, where residents were invited to learn more about the project and provide input on the future of Brown's Station Way

PUBLIC ENGAGEMENT

A public open house was held on October 7, 2019 at the Clarksville branch of the Jeffersonville Township Public Library, where residents were invited to learn more about the project and provide input on the future of Brown's Station Way (Fig. AB-1). There were six stations set up at the meeting, including:

- Station 1: Project Overview / What's \checkmark Your Vision
- Station 2: Existing Conditions \checkmark
- Station 3: Connections and Destinations
- Station 4: Potential Safety Upgrades
- Station 5: Build-A-Street \checkmark
- \checkmark Station 6: Share Your Big Ideas

Each station had a set of directions and a member of the project team available for questions. At Station 1: Project Overview / What's Your Vision, residents were provided with information about the project, including the project purpose, goals, deliverables, and schedule. Using a word or phrase, they were asked to provide feedback on what represents their vision for the future of Brown's Station Way. At Station 2: Existing Conditions, residents were provided with information on reported traffic collisions. speed, and land use. At Station 3: Connections and Destinations, residents were asked how they used the Brown's Station Way corridor. Following the directions on the board, they were asked to provide input on destinations, safety concerns, gateways, and connections. At Station

FIG. AB-1

4: Potential Safety Upgrades, residents were provided with information about roundabouts and road diets. At Station 5: Build-A-Street, residents were asked to build their ideal streets using the pieces provided. At Station 6: Share Your Big Ideas, residents were asked to provide feedback on their "big ideas" for the future of Brown's Station Way (Fig. AB-2).

The big ideas that were generated from the feedback received at the Public Open House include:

- Consider a road diet
- Replace the pedestrian bridge
- Consider alternatives to roundabouts
- Replace the Lewis and Clark Parkway overpass with an at-grade intersection or roundabout
- ✓ Slow traffic
- Provide lighting along the corridor
- Maintain the landscape along the corridor
- Provide safe pedestrian crossings along the corridor
- Increase connectivity to neighborhoods and trails
- Incorporate bike and pedestrian infrastructure along the corridor
- Increase police presence along the corridor



FIG. AB-2 Station

Station 6: Share Your Big Ideas.



