Jefferson City Transit Development Plan
Transfer Center Evaluation

Prepared for

CITY OF JEFFERSON
JEFFTRAN

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Executive Summary

JEFFTRAN's current transfer location is located downtown at the intersection of Jefferson Street and High Street, adjacent to the southeast corner of the State Capitol grounds. The transfer location is the focal point for JEFFTRAN's fixed route services. Six of the seven regular fixed routes, all but the Capital Mall route, converge at this location. Jefferson and High is the primary location for patrons to transfer between bus routes. Bus stops are located on three of the four legs of the intersection including the northbound near side, eastbound far side and westbound far side. Buses arrive and depart at the same time, as the routes operate on a "pulse scheduling system."

The Transit Development Plan (TDP) project for Jefferson City included an evaluation of JEFFTRAN's transfer location. The evaluation was initiated in part due to interest in possibly moving the transfer activity to another location. There are operational problems for some bus maneuvers at the existing downtown site, and there are conflicts between JEFFTRAN passengers and some nearby businesses. There is also interest in providing an indoor waiting area for passengers to wait for transfers. One candidate being considered is the former Greyhound or intercity bus station located at 620 West McCarty Street. Other possible locations include other off-street areas within the downtown or another on-street facility in another location within the downtown.

Land uses in the immediate vicinity of the old intercity bus station include state parking lots to the south and east on McCarty Street; retail, industry and retail and apartment converted homes to the west on McCarty Street and a fire station northwest of the site. Retail establishments, the State Capitol and other state government offices would be less accessible from the bus station, as compared to access to these land uses from the existing Jefferson and High transfer location.

Several qualities of the existing facility at Jefferson & High are advantageous for transit in Jefferson City, namely the location in the core of downtown and the adjacency to key employment and civic destinations. Also, the presence of transit operations in the core of downtown provides the appearance of transit as having a key role in the community.

The assessment of both sites was presented to the project Steering Committee on July 19, 2005. In discussion it was concluded that moving from the current location was preferable due to the constraints and conflicts. It was concluded that a move to the intercity bus station would resolve the current operating problems, but would represent only a fair solution for the transfer center relocation. As such, it was concluded that the city should pursue a different location for the ultimate long term solution.

A new transit center would require about an acre of land, cost in the range of $700,000 (not including land) to develop and require at least 4-5 years for total project development. This amount of time is needed to secure funding, select a site design, and do other work that would be required.

The Steering Committee concluded that the preferred approach was to move to the intercity bus station location as soon as practical as an interim measure. The city should concurrently begin the initial work on developing a transfer center at a different location in the downtown area.

This report provided details on how the City can approach these action steps.

Section 1: Introduction

1.1 Purpose of Transfer Center Evaluation

JEFFTRAN operates seven fixed routes. Six of the routes converge at the transfer center at the same time, as the routes operate on a "pulse scheduling system." The existing transfer location is centrally located within the downtown area.

As part of a study to evaluate and develop recommendations for the development of transit within Jefferson City and the surrounding urbanized area, a transfer center evaluation was initiated in part due to interest in possibly moving the transfer activity to another location. There are operational problems for some bus maneuvers at the existing downtown site. The existing site does not have restrooms available for drivers or passengers. There is also interest in providing an indoor waiting area for passengers to wait for transfers and to have shelter from extreme cold or heat. One candidate being considered is the former Greyhound or intercity bus station located at 620 West McCarty Street. Other possible locations include other off-street areas within the downtown or another on-street facility in another location within the downtown.

1.2 Overview of Report

This report documents the process used to evaluate the existing and proposed transfer center alternatives for Jefferson City, Missouri. The report also identifies a preferred alternative for the transfer location and provides a concept plan and cost estimate for the preferred option.

Section 2 provides a description of the existing transfer location and the bus station transfer center alternative. The narrative includes a list of both positive and negative characteristics of each site.

Section 3 documents the assessment of both sites. The assessment focuses on five key criteria: safety, convenience, cost, operational functionality and flexibility/expandability.

Section 4 includes a physical assessment, recommended improvements, and a concept design for the bus station alternative. The section includes a cost estimate for the recommended interior and site improvements.

Section 5 presents a generic concept design and recommendations for a new off-street transfer center alternative to be located within the immediate downtown area. The location for this alternative has yet to be determined.

Section 2: Description of Alternatives

This section provides a description of the existing transfer location at Jefferson & High and the bus station transfer center alternative. An assessment of each transfer center alternative is included in the following section.

2.1 Overview of Jefferson & High Transfer Center

JEFFTRAN's current transfer location is downtown at the intersection of Jefferson Street and High Street, adjacent to the southeast corner of the State Capitol grounds. The transfer location is the focal point for JEFFTRAN's fixed route services. Six of the seven regular fixed routes, all but the Capital Mall route, converge at this location. Jefferson and High is the primary location for patrons to transfer between bus routes. Bus stops are located on three of the four legs of the intersection including the northbound near side, eastbound far side and westbound far side.

Physically, the transfer location is an on-street facility sharing the street with general traffic and the adjoining sidewalks with general pedestrian traffic. See Figures 1 and 2.

As many as 6 vehicles meet simultaneously at the facility. During peak periods, vehicles on all 6 routes meet at the same time, as the routes operate on a "pulse scheduling system." The three bus stops have striping to mark where transit vehicles only are allowed to park.

Two of the three stops, the northbound near side and the westbound far side of the intersection, have shelters and benches for waiting patrons. The third stop, the eastbound far side, has neither shelters nor benches. While providing some cover during inclement weather, the shelters are exposed to the elements and patrons are subject to ambient temperature and humidity. So in the winter waiting riders are cold and in the summer hot. The shelters and other amenities are in generally good condition.

Figure 1: Missouri Boulevard/Capital Mall and High Street West shelters on the Northwest Corner of Jefferson Street and High Street

Figure 2: Southwest Boulevard and High Street East stops on the Southeast Corner of Jefferson Street and High Street

The transfer location is not staffed by any transit personnel other than the drivers for the time that buses are parked at the facility. Bus route maps are posted at the shelters. See Figure 3.

Figure 3: Renn Addition and Business 50 routes shelter at the southeast corner of Jefferson Street and High Street

In the immediate vicinity of the transfer location are a number of important land uses. On the northwest corner of the intersection of Jefferson Street and High Street are the State Capitol grounds containing state government offices. The transfer center is also just a few blocks from several other state office buildings. The Missouri governor's mansion is located one block to the north. High Street is viewed as the downtown "Main Street" of Jefferson City and contains a number of retail and office businesses, as well as service institutions such as the Post Office

and banks. Transit patrons waiting for buses sometimes are in conflict with business activity, especially in situations where sidewalks or doorways are partially blocked.

2.2 Overview of Proposed Bus Station Transfer Center Alternative

The old intercity bus station is located on a parcel bounded on the northwest by railroad tracks, on the northeast by a creek and on the south by McCarty Street. Land uses in the immediate vicinity of the bus station include state parking lots to the south and east on McCarty Street; retail, industry and retail and apartment converted homes to the west on McCarty Street and a fire station northwest of the site. Retail establishments, the State Capitol and other state government offices would be less accessible from the bus station, as compared to access to these land uses from the existing Jefferson and High transfer location.

Citizens, community leaders, and city staff are interested in providing an indoor waiting area for JEFFTRAN passengers to wait for transfers, and to have shelter from extreme cold or heat.

The former intercity bus station, located at 620 West McCarty Street, is a candidate being considered (see Figure 4).

Figure 4: Bus Station at 620 West McCarty

The bus station is located at 620 West McCarty Street and is currently a vacant structure. In the past, Greyhound, in addition to other bus companies, operated out of the station. The facility, located 0.6 miles west of the existing Jefferson and High transfer location, has been continuously maintained by the City and is in generally good condition. However, the bus station would require some work to refurbish the facility for use as a transfer center.

Details regarding the needed refurbishments and the associated cost are documented in section 4 of this report. Physically, the bus station has an indoor space that could be used as a waiting area for JEFFTRAN passengers, a ticket counter, restrooms, and a large storage room.

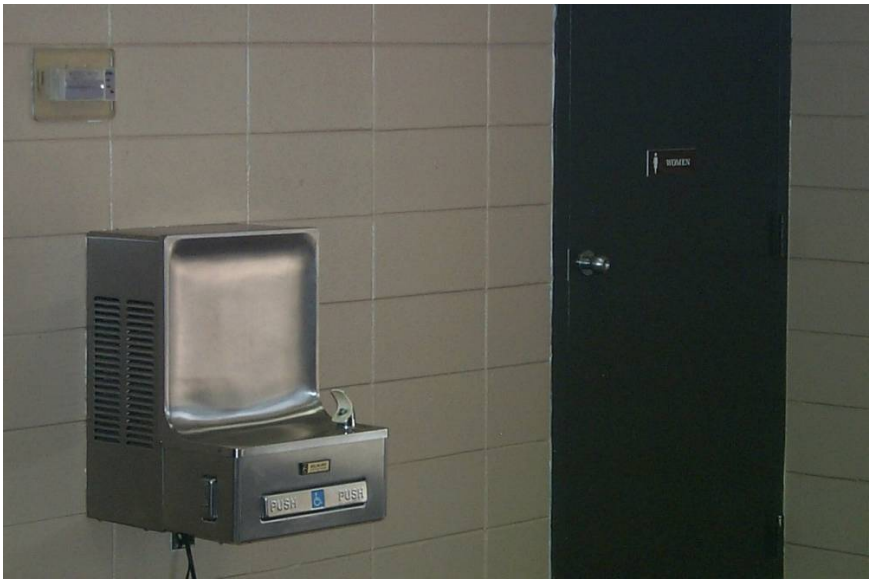
If used for JEFFTRAN's transfer center, the bus station would provide cover during inclement weather, sheltering patrons from ambient temperature and humidity. JEFFTRAN could staff the

bus station with transit personnel to provide information, sell tickets, distribute route maps and schedules, and monitor security.

Figures 5 and 6 show the bus station waiting area and restroom.

Figure 5: Looking Southwest from Inside Bus Station Waiting Area

Figure 6: Bus Station Restroom and Drinking Fountain



The current parking layout and the access driveways would need to be reconfigured to accommodate JEFFTRAN buses and passenger transfer activity. Figures 7 and 8 show the existing parking layout and the two existing accesses to McCarty Street.

Figure 7: Bus Station Parking Layout

Figure 8: Bus Station Accesses and Driveway

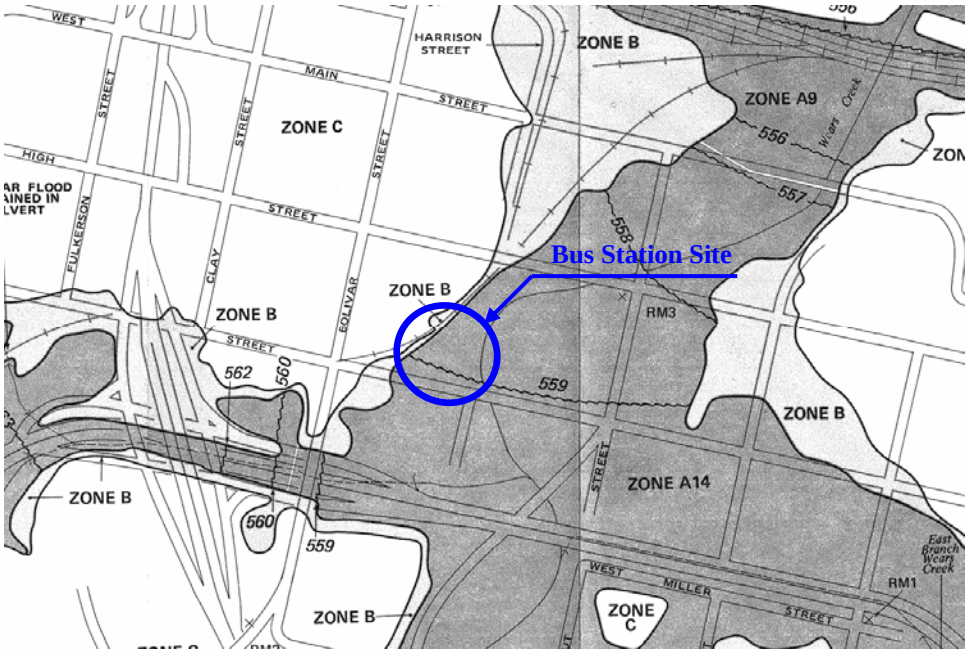
There is a sight distance issue along McCarty Street, to the west of the bus station near the intersection of Bolivar and McCarty, which makes it difficult for drivers exiting the site to see eastbound traffic along McCarty, and for eastbound traffic along McCarty to see vehicles exiting the bus station onto McCarty. At the intersection of Bolivar and McCarty there is also a railroad crossing.

Figure 9 shows the view up the hill along westbound McCarty Street, to the west of the bus station. The sight distance issue may only allow buses to make right-turn exits from the site which would result in awkward traffic patterns for most routes.

Figure 9: Looking West along McCarty Street from the Bus Station

In addition to sight distance issues, there is concern about the difficulty accessing or exiting the site due to the number of vehicles during peak periods entering or leaving state employee parking lots located just east of the bus station to the north and south of McCarty Street. The facility is also located in a flood zone (see Figure 10).

Figure 10: FEMA Flood Map of Bus Station and Vicinity



Section 3: Transfer Center Alternatives Assessment

This section presents an assessment of the two transfer center alternatives evaluated as part of the Transit Development Plan. A set of criteria relevant to passenger transit centers was used to evaluate each alternative. Table 1, later in this section, shows how the alternatives scored for each criterion. Following the table is a summary of the evaluation and findings.

3.1 Transit Center Evaluation Criteria

In evaluating the transfer center alternatives, several criteria were used. These criteria are applicable to the design of passenger transit centers and fall within these five categories:

- Safety
- Convenience
- Cost
- Operational Functionality
- Flexibility/Expandability

Safety involves the preservation and protection of people and property. Safety is a crucial factor for both financial and public image reasons. Financially, the cost of injuries and property damage can be substantial. Personal injury, for example, can often involve litigation of claims increasing the cost of settlement beyond direct medical related expenses. In addition, the image of a transit system can be damaged if that system is perceived to be unsafe. An accident draws publicity and, sometimes, a wide-audience. Many instances of personal safety concerns can raise public doubts about a transit system. These criteria help measure the safety of a given design:

- <u>Avoidance of bus and pedestrian conflicts</u>
  Refers to keeping pedestrians out of the path of moving buses. There are two main opportunities for pedestrian movements. They are: movements for transferring between bus routes and movements from the facility to surrounding land uses.

- <u>Avoidance of bus/automobile conflicts</u>
  Refers to vehicle movements of buses and automobiles in and out of the area.

- <u>Maximize the perception of personal security</u>
  Personal security (as well as the sense of personal safety) is enhanced when people are with other people. Design concepts that isolate patrons from other patrons and the general public may give the perception of personal risk.

- <u>Minimize impacts on adjacent roadways</u>
  Recognizes the fact that the transfer center is part of a larger transportation system. The goal of the transfer center and for transit in general is to enhance this system. As such, the design of the facility can be in harmony or in conflict with roadway operations and traffic flows.

Convenience relates to how easily the system can be used by patrons. Patrons typically have some degree of choice in selecting a mode of travel. The convenience of a given mode can be a decisive factor in the selection of a mode of travel. While convenience can mean different things for different people, this is seen as key for the design of a transfer center:

- Minimize the walking distance for patrons who are making transfer connections
  The transfer of patrons from route to route is enhanced when the effort is easy and quick.

- Minimize the walking distance for patrons destined for or originating in downtown
  Create the least inconvenience for the greatest number of passengers destined or leaving downtown.

Cost pertains to the amount of money required to build, refurbish and/or maintain a site alternative for use as a transfer center facility. Cost also includes the impact on operations:

- Minimize both the operating cost and the cost to build, renovate and/or maintain a transfer facility
  Promotes the alternative with the lowest cost impact.

Operational Functionality is a general description of elements necessary to effectively support services and bus operations. These include:

- Maximization of efficient transit operations both on- and off-site
  Bus movements to and from the site as well as on and off the site should consume the least amount of time and make sense for both bus operators and patrons.

- Maximize the efficiency of automobile access to the site
  Similar in concept to the previous criterion, private vehicle movement should be logical and easily accomplished.

- Optimize the visibility of the location so that it is easy to locate for patrons
  Refers to the ability of people to see the site, to intuitively understand how to get to and from the site, and to be encouraged to use the facility. Visibility is also a part of the sense of personal security referenced earlier.

Flexibility/Expandability refers to the potential of the facility both in the future and as a community asset. This criterion will be used for evaluating the vision of a given design:

- Flexibility of the design to accommodate future growth or changes in the bus operation
  A key concern is the anticipated growth of the transit system. Accommodating growth efficiently would ideally allow new construction to occur without significantly interfering with existing operations. The initial design of the terminal can be crucial in this regard.

- The opportunity the design provides to develop open space and parks
  Recognizes that the terminal can, potentially, enhance the livability of the area. The development of a community resource, such as a park, accomplishes a broader objective.

3.2 Evaluation of Transfer Center Alternatives

The Jefferson & High transfer location and the bus station transfer center alternative were evaluated using the evaluation criteria. A three level scale was used: Poor, Fair, Good.

Table 1 summarizes the evaluation.

Table 1: Evaluation of Transfer Center Alternatives

Category	Criterion	Jefferson & High Assessment	Bus Station Assessment
Safety	• Avoidance of bus and pedestrian conflicts	Ranks "fair" due to streetscape improvements that provide sufficient sidewalk space and highlight street crossings. However, there is still a need to cross the street to transfer between some routes.	Ranks "good" due to being an offstreet facility. Site layout could be configured to provide pedestrian refuge and limited conflicts with buses.
	• Avoidance of bus/automobile conflicts	Ranks "fair" because bus operations are mixed with general street traffic. The northbound to eastbound maneuver is difficult to make when vehicles are queued in the westbound left-turn lane.	Ranks "good" because bus operations would be separated from general street traffic. However, there is a sight distance issue to the west near the intersection of Bolivar and McCarty.
	• Maximization of the perception of personal security	Ranks "good." The current facility is on a busy city street with plenty of visibility, lighting, and surrounding land use activity.	Ranks "fair." The bus station is located away from downtown pedestrian activity. However, if JEFFTRAN staffs the bus station with transit personnel it may offset the impact of being in a more remote location.

Table continued

Category	Criterion	Jefferson & High Assessment	Bus Station Assessment
Safety (cont.)	• Minimization of impacts on adjacent roadways	Ranks "fair" because the operation of buses in mixed traffic does have an impact on traffic operations.	Ranks "fair" because the operation of buses may have an impact on the large number of vehicles entering and leaving state employee parking lots during peak periods.
Convenience	• Minimize the walking distance for patrons who are making transfer connections.	Ranks "fair" because patrons have minimal walking distances to make transfers. However, due to the transfer center being divided by an intersection, patrons may have to cross the street to make connections.	Ranks "good" because patrons would have minimal walking distances to make transfers.
	• Minimize the walking distance for patrons destined or originating downtown	Ranks "good" because many patrons have minimal walking distances to adjacent state office buildings and other office or retail employment in the downtown.	Ranks "fair" because patrons would not likely walk the 0.6 miles to or from the State Capitol, other state office buildings or other downtown office or retail destinations. However, buses could be routed through the downtown to minimize this impact.
Cost	• Minimize both the operating cost and the cost to build, renovate and/or maintain a transfer facility.	Ranks "good" because the existing facility is low cost and low maintenance due to it being an outdoor facility with three bus shelters.	Ranks "fair" because the bus station would require some investment to refurbish for use as a transfer center.
Operational Functionality	• Maximization of efficient transit operations both on and off site	Ranks "fair" because transit vehicles can typically access the site without problems. However, increased congestion during the morning, midday and evening peak periods adds difficulty to already tight running times.	Ranks "fair" because routes could be reworked to access the bus station with minimal impact to transit operations. Sight distance issues along McCarty at Bolivar may result in awkward traffic patterns for most routes.

Table continued

Category	Criterion	Jefferson & High Assessment	Bus Station Assessment
Operational Functionality (cont.)	• Optimize the visibility of the location so that it is easy for patrons to locate.	Ranks "good." The Jefferson & High location is easy to find and is central to downtown Jefferson City.	Ranks "fair." Transit would be less visible at the bus station, which is 0.6 miles away from the current transfer center.
Flexibility/ Expandability	• Flexibility of the design to accommodate future growth or changes in the bus operation.	Ranks "poor." The site is able to accommodate vehicles for the existing number of routes. However, if transit service is expanded, additional on-street parking would have to be taken to provide additional transit vehicle parking. In addition, the site may limit operation of longer vehicles that are currently being acquired.	Ranks "poor." The site can be redesigned to accommodate vehicles for the existing number of routes but has no capacity for growth if transit service is expanded.
	• The opportunity the design provides to develop open space and parks.	Ranks "poor." There is no opportunity to develop parks or open space with the current on-street facility.	Ranks "fair." The site would allow opportunities to provide landscaping and green space surrounding the transfer center.

3.3 Assessment Summary

3.3.1 Summary of Jefferson & High Assessment

Of the eleven criteria used to evaluate the Jefferson & High transfer location, two have "poor" rankings. Namely, these include criteria relating to flexibility/expandability (the design to accommodate future growth or changes in the bus operation and the opportunity the design provides to develop open space and parks).

"Fair" rankings include criteria related to safety (bus and pedestrian conflicts, bus/automobile conflicts and impacts on adjacent roadways), convenience (the walking distance for patrons who are making transfer connections), and operational functionality (efficient transit operations both on and off site).

The facility ranks "good" for several criteria pertaining to safety (the perception of personal security), convenience (the walking distance for patrons destined or originating downtown), cost (minimizes operating and maintenance costs) and operational functionality (the visibility of the location so that it is easy for patrons to locate).

Other factors to consider are the lack of customer service facilities such as a climate control waiting area, restroom facilities and a customer service booth all of which reduce the appeal of

public transit in Jefferson City. Transit patrons waiting for buses may also conflict with business activity if sidewalks or doorways are partially blocked.

Several qualities of the existing facility at Jefferson & High are advantageous for transit in Jefferson City, namely the location in the core of downtown and the adjacency to key employment and civic destinations. Also, the presence of transit operations in the core of downtown provides the appearance of transit as having a key role in the community. However, despite the advantages, some aspects are lacking at the existing facility such as the provision of a climate controlled waiting area with restrooms and customer service amenities. Also, the new streetscaping along High Street presents maneuvering problems for vehicles traveling from the northbound curb stop turning right onto High Street to go east.

This problem would only be exacerbated by longer vehicles that are currently being acquired. Another challenge to operating in the downtown is the morning, midday and evening traffic congestion. A location outside the downtown may be able to alleviate some of the congestion related issues.

3.3.2 Summary of Bus Station Assessment

Of the eleven criteria used to evaluate the bus station transfer center alternative, one has a "poor" ranking. Namely, this criterion relates to flexibility/expandability (the design to accommodate future growth or changes in the bus operation).

"Fair" rankings include criteria related to safety (the perception of personal security and impacts on adjacent roadways), convenience (the walking distance for patrons destined or originating downtown), cost (minimizes operating and maintenance costs), operational functionality (efficient transit operations both on and off site and the visibility of the location so that it is easy for patrons to locate) and flexibility/expandability (the opportunity the design provides to develop open space and parks).

The facility ranks "good" for several criteria pertaining to safety (bus and pedestrian conflicts and bus/automobile conflicts) and convenience (the walking distance for patrons who are making transfer connections).

Other factors to consider are the availability at the bus station site for providing customer service facilities such as a climate controlled waiting area, restroom facilities and a customer service booth all of which increase the appeal of public transit in Jefferson City.

Several qualities of the proposed bus station facility alternative are advantageous for transit in Jefferson City, namely the provision of a climate controlled waiting area with restrooms and customer service amenities, the separation of bus operations from conflict with automobile traffic and the separation of transferring patrons from both vehicular traffic and other pedestrian traffic. However, despite the advantages, some aspects are lacking at the proposed bus station facility including the location outside of the downtown core resulting in less access to key employment and civic destinations for patrons waiting at the transfer center. Also, the bus station alternative may decrease the visibility of transit's role in the community by removing the transfer center from the downtown core.

3.3.3 Conclusions

The assessment of both sites was presented to the project Steering Committee on July 19, 2005. In discussion it was concluded that moving from the current location was preferable due

to the constraints and conflicts. It was noted that a move to the intercity bus station would resolve the current operating problems, but would represent only a fair solution for the transfer center relocation. As such, it was suggested that the city should pursue a different location for the ultimate long term solution.

City staff pointed out funding and timing issues associated with creating a new transit center. A new transit center would require about an acre of land, cost in the range of $700,000 (not including land) to develop and require at least 4-5 years for total project development. This amount of time is needed to secure funding, select a site design, and do other work that would be required.

The Steering Committee concluded that the preferred approach was to move to the intercity bus station location as soon as practical as an interim measure. The city should concurrently begin the initial work on developing a transfer center at a different location in the downtown area.

Section 4: Bus Station Transfer Center Conceptual Design

4.1 Introduction

A physical evaluation of the bus station located at 620 West McCarty Street was conducted on July 12, 2005. This section summarizes the physical evaluation as documented in the Greyhound Bus Station Physical Evaluation technical memorandum. Interior spaces, site areas and physical condition of the facility were observed.

The bus station is now vacant but was formerly used by Greyhound and several other bus companies. Recommendations for improvements to use the bus station as a city transit transfer station are provided with a concept cost estimate.

4.2 Physical Assessment

4.2.1 Building and Site Areas

The site is a triangular shaped property of approximately 29,495 Square Feet or 0.68 Acres. The property is adjacent to Weirs Creek and within the 100 to 500 year storm flooding area per Flood Insurance Rate Map, community panel 2901080004. The building appears to have been designed with an earth berm perimeter to protect the building from flooding.

Six (6) public parking spaces are provided off a 24 foot wide drive lane that could accommodate a parking lane and a passing lane for several buses. The existing drive appears to be able to accommodate 3 buses. Modifications to the existing drive are needed to accommodate additional bus passenger loading spaces.

Generous areas of pavement are already provided in front of the station along an 85 foot long boarding platform. A small covered area is provided at the main entrance into the bus station. A City sidewalk is also provided along McCarty Street.

The building is of contemporary design and constructed of concrete masonry units with an exterior insulation finish system. A steeply pitched roof is clad with premium composition roof shingles. The roof appears to be of frame construction. The building has a good appearance although landscaping appears to have received minimal attention.

4.2.2 Interior Areas

The bus station was designed as a small regional bus station. Interior spaces are compact and most finishes are durable.

The lobby area is of sufficient size to accommodate approximately 20 persons if the existing area is only minimally reduced by seating, vending and other furnishings.

The ticket area could be converted to use for vending machines if the station is not manned.

An appropriate use of the two backside storage rooms will need to be determined. The larger room is large enough to be used as an office. The smaller room is only large enough to be used for storage.

Men's and women's toilets are provided and appear to be sufficient for the original use.

Existing carpeting has been water damaged and must be replaced. A hard non-slip surface is recommended such as a stained concrete finish for ease of maintenance.

HVAC and electrical systems are relatively new but are expected to require significant repairs due to the prolonged inactivity of the building. A complete mechanical, electrical inspection is required.

Evidence of water damage was noted along the lobby wall adjacent to the ticket office. Leakage appears to have occurred in the roof flashing system where a slope transition occurs. If this is the problem, this should be an easy repair. Water damage and musty odor is enough to require a complete re-paint of interior walls. Attic insulation should be inspected and batt insulation replaced where damaged.

Table 3 indicates the size and function of existing interior spaces.

Table 2: Bus Station Interior Space Use

Personnel/ Function	Type (SF)	Equipment / Special Requirements
Lobby	450	• ADA accessible • Durable finishes • Good Visibility for security
Storage	80	
Storage	176	
Tickets	88	
Men's Toilet	45	
Women's Toilet	45	
Mechanical Room	36	
Covered Entry		
Subtotal	**920**	• ***Assigned Square Feet***
Unassigned Area	**218**	• ***24% factor***
Grand Total Bus Station Transfer Facility	**1,138**	• ***Gross Square Feet***

4.3 Recommended Improvements

As described above the following improvements are recommended for the bus station to be utilized as a bus transfer facility:

- Modify the existing drive to accommodate additional bus passenger loading spaces and to ensure sufficient turning radii and bus maneuverability.
- Provide seating, vending and other furnishings.
- Determine appropriate use of the two backside storage rooms.
- Replace water damaged carpeting preferably with a hard non-slip surface such as a stained concrete finish that would be easy to maintain.
- Perform a complete mechanical, electrical inspection of the HVAC and electrical systems to determine if repairs are needed due to the prolonged inactivity of the building.
- Determine cause and make repairs as needed due to water damage as observed along the lobby wall adjacent to the ticket office. Leakage appears to have occurred in the roof flashing system where a slope transition occurs.
- Repaint interior walls as needed due to water damage and musty odor.
- Inspect attic insulation and replace batt insulation where damaged.

4.4 Concept Design

Figure 11 shows the site improvements that need to be made to prepare the bus station for use as JEFFTRAN's transfer center. The modifications to the driveway are required to allow six buses to stage on site.

Other improvements include a general site cleanup and repairs of sidewalks and curbs on and adjacent to the site.

4.5 Cost Estimate

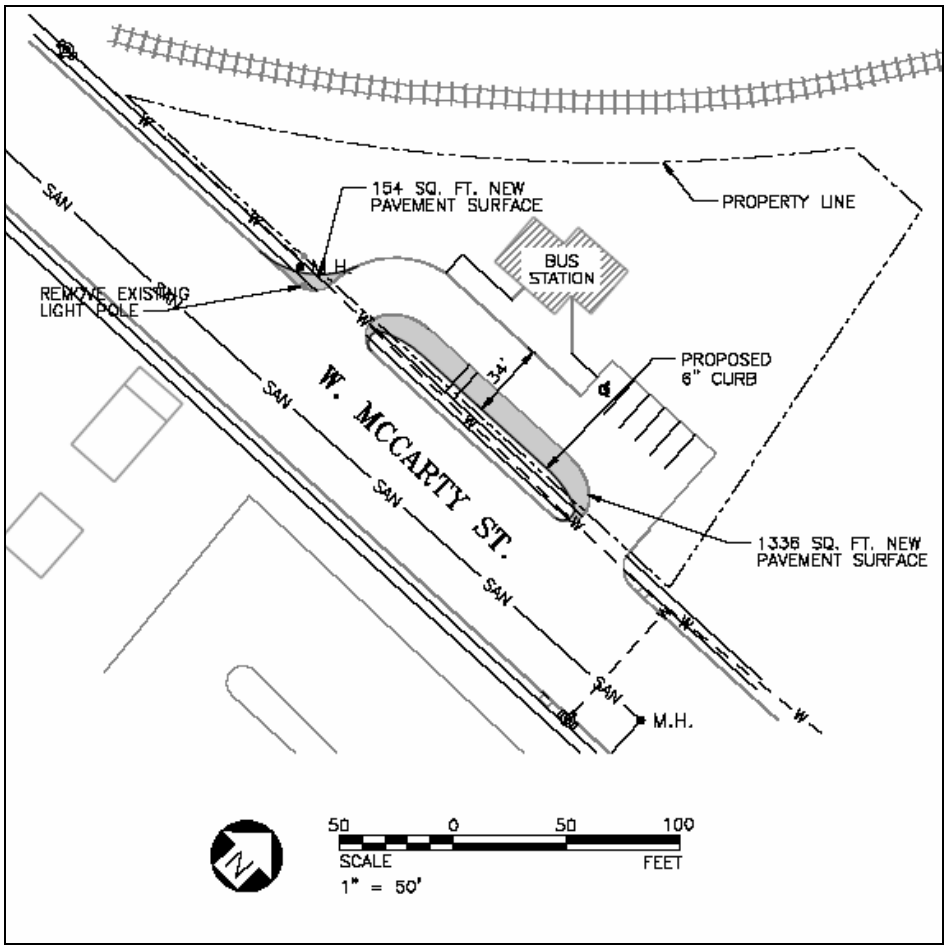
A very preliminary cost estimate to make the site suitable for a transfer center is $62,000 inclusive of all associated costs, as shown in Table 3.

Table 3: Renovation Cost Estimate

Building Renovation	$34,000
Site Preparation	$28,000
TOTAL	$62,000

These costs include labor, materials, design and other costs. Additional detail is provided in Appendix A.

Figure 11: Bus Station Concept Design



Section 5: Concept Design for New Downtown Off-Street Transfer Center

5.1 Introduction

With the Steering Committee's conclusion to begin initial work on developing an off-street transfer center in the downtown area a general concept was developed to illustrate the possibilities and as a basis for a conceptual level cost estimate.

Many communities have used the development of a transit facility in the downtown area, financed in part with FTA capital funding, to provide a convenient area for transit patrons and assist with the rejuvenation of the area.

Some communities have developed transit centers in conjunction with parking structures, a possibility in downtown Jefferson City. Generally, FTA will participate in the development of the transit facility and related work up to 80 percent of the total cost. FTA does not typically fund parking facilities unless they are transit related, such as a park and ride lot.

5.2 Space Requirements and Amenities

The downtown transfer center concept was developed assuming the following requirements:

- Off street staging area for eight buses and related drives for circulation.
- Loading platforms for passengers.
- Interior space for passenger waiting and bus driver accommodations.
- Passenger amenities such as shelters, benches, and other furnishings.
- Site landscaping.

Depending upon the configuration of the site the above would require about 0.8 acres. For planning purposes a site of one acre is required.

5.3 Concept Design

A simple concept design is shown in Figure 12. This design uses a center loading platform with adjacent bus loading areas. The design minimizes the distance between buses by providing a "cross platform" transfer for most passengers.

Figure 13 includes several photos of downtown transfer centers in other cities. These photos give a range of design types, and show that these transit facilities can be attractive sites that relate well to surrounding land uses.

5.4 Cost Estimate

A preliminary cost estimate was prepared to provide an idea of the cost of such a facility. Table 4 shows the initial preliminary cost estimate. The cost of land is not included in the cost estimate.

Table 3: Downtown Transfer Facility Preliminary Cost Estimate

Building & Structures	$262,000
Site Preparation	$417,000
TOTAL	$679,000

*Note cost of land is not included.

Additional detail on the cost estimate is included in Appendix B.

Assuming FTA funding of 80 percent, or $543,000, the city's share of the cost would be $136,000.

Figure 12: Downtown Transfer Center Conceptual Design

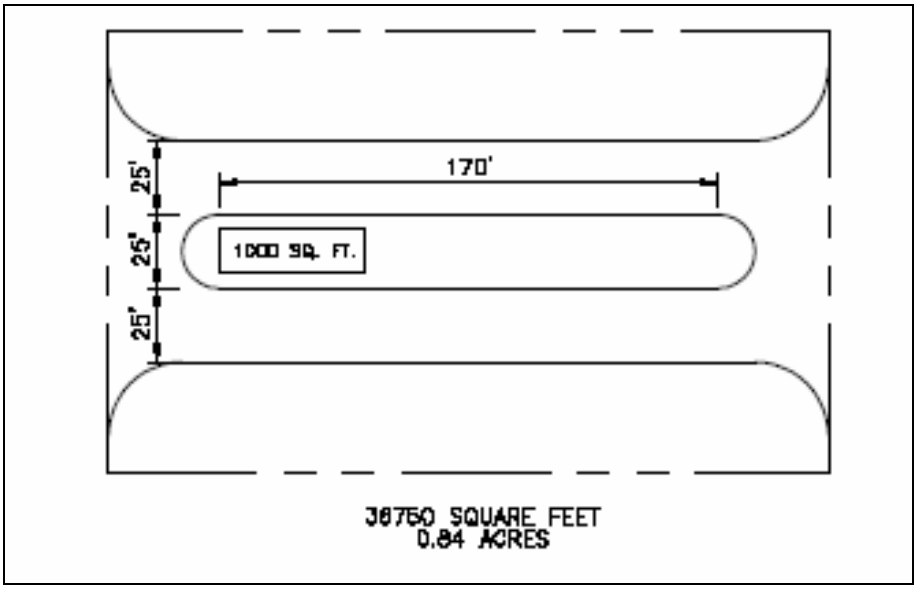


Figure 13: Downtown Transfer Center Examples from Other Cities

Sheboygan

Kansas City

Wichita

Raleigh

Appendix A: Bus Station Site Renovation Cost Estimate

Jefferson City TDP
Greyhound Station Renovation Cost Estimate

Item	Quantity	Unit	Unit Cost	Total
Building Repairs				
Exterior				
Roof Flashing Repairs	1	LS	$1,500	$ 1,500
Exterior Painting	2,800	SF	$1.00	$ 2,800
Attic Insulation Replacement	1	LS	$200.00	$ 200
Subtotal - Exterior Building				**$ 4,500**
Interior				
Carpet Removal	450	SF	$1.00	$ 450
Lobby Floor Refinish	450	SF	$8.00	$ 3,600
HVAC Servicing	1	LS	$200	$ 200
Interior Wall Painting	3,200	SF	$1.00	$ 3,200
New Electrical Outlets	4	EA	$150	$ 600
New Hot Water Heater	1.5	LS	$250	$ 375
Electrical Lamp Replacement	1.5	LS	$150	$ 225
Ceiling Tile Replacements	1.5	LS	$250	$ 375
Furnishings	1	LS	$10,000	$ 10,000
Subtotal - Exterior Building				**$ 19,025**
Subtotal Building				**$ 23,525**
Site Work				
Driveways				
Demolition	166	SY	$5.00	$ 828
Subgrade prep.	166	SY	$2.50	$ 414
Driveway Paving (7" conc.)	1,490	SF	$5.00	$ 7,450
6" raised curb	170	LF	$14.00	$ 2,380
Driveway Subtotal				**$ 9,830**
Misc. Sitework				
Relocate Light Pole	1	LS	$2,000	$ 2,000
Repair Curbs & Sidewalk	1	LS	$2,000	$ 2,000
General Cleanup	1	LS	$2,500	$ 2,500
Misc. Subtotal				**$ 6,500**
Landscaping				
Landscaping	1	LS	$2,000.00	$ 2,000
Turf Sod	1	LS	$1,000.00	$ 1,000
Landscaping Subtotal				**$ 3,000**
Subtotal Site				$ 19,330
Subtotal Construction				**$ 42,855**
Contingency		30%		$ 12,857
Total Construction				$ 55,712
Geotech, survey, testing etc.				$ 1,000
Design		6%		$ 3,343
Construction Administration		4%		$ 2,228
Total Cost				**$ 62,000**

Appendix B: Downtown Transfer Center Cost Estimate

Jefferson City TDP
New Transfer Center Cost Estimate

Item	Quantity	Unit	Unit Cost	Total
Building & Structures				
New Structure	1,000	SF	$150.00	$ 150,000
Furnishings	1	LS	$10,000	$ 10,000
Shelters	2	LS	$5,000.00	$ 10,000
Subtotal Building & Structures				**$ 170,000**
Site Work				
Site Prep	4,083	SY	$5.00	**$ 20,417**
Utility Allowance	1	LS	$40,000	**$ 40,000**
Driveways				
Subgrade prep.	2,000	SY	$2.50	$ 5,000
Driveway Paving (7" conc.)	12,000	SF	$5.00	$ 60,000
6" raised curb	960	LF	$14.00	$ 13,440
Driveway Subtotal				**$ 78,440**
Sitework				
Passsenger Platform	5,000	SF	$4.25	$ 21,250
Elect./Lighting	12,000	SF	$2.50	$ 30,000
Furnishings	1	LS	$5,000	$ 5,000
Misc. Subtotal				**$ 56,250**
Drainage				
Structures	3	EA	$4,000.00	$ 12,000
Piping	400	LF	$35.00	$ 14,000
Drainage Subtotal				**$ 26,000**
Landscaping				
Landscaping	1	LS	$50,000	$ 50,000
Landscaping Subtotal				**$ 50,000**
Subtotal Site				**$ 271,107**
Subtotal Construction				**$ 441,107**
Contingency		30%		$ 132,332
Total Construction				$ 573,439
Geotech, survey, testing etc.				$ 25,000
Design		8%		$ 45,875
Construction Administration		6%		$ 34,406
Total Cost				**$ 679,000**

*Note cost of land is not included.