Final Report

Greenville Intermodal Transportation Center – Operating Model

For:

City of Greenville
North Carolina

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October 28, 2008
WSA Project No. 102125

Operating Model –
Greenville Intermodal Transportation Center

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in association with:
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Section 1: Introduction

The Operating Model for the Intermodal Transportation Center (ITC) in Greenville, North Carolina is one component of the planning efforts for this facility project and is discussed within the following chapters. Other components of the study include architectural and engineering services for the overall site selection and design, and preliminary environmental processes. The ITC will serve as a centralized facility for transfers between existing and proposed bus routes for several potential providers, including GREAT, GREAT ADA service, PATS, Pitt County Memorial Hospital, ECUSTA, and Greyhound. This report contains the detailed operating model for the selected site for the ITC.

The Operating Model analysis included three phases:

- Review of preferred site and program elements from each agency
- Data collection of existing agency and similar facility operating costs
- Estimate annual operating costs of the ITC based on existing costs and other local cost estimates from other like-facilities

The following text is a brief description of the major transit agencies involved as partners of this Intermodal Transportation Center project.

GREAT

The Greenville Area Transit System (GREAT) provides fixed-route bus service within Greenville and to Pitt Community College. Four routes operate throughout the community and make connections in the downtown area. The service is under the umbrella of the Public Works Department within the City of Greenville. Service operates from 6:30 a.m. to 7:00 p.m., Monday through Friday, and from 9:00 a.m. to 6:00 p.m. on Saturdays. No Sunday service operates at this time. Figure 1-1, on the following page, illustrates the GREAT transit routes.

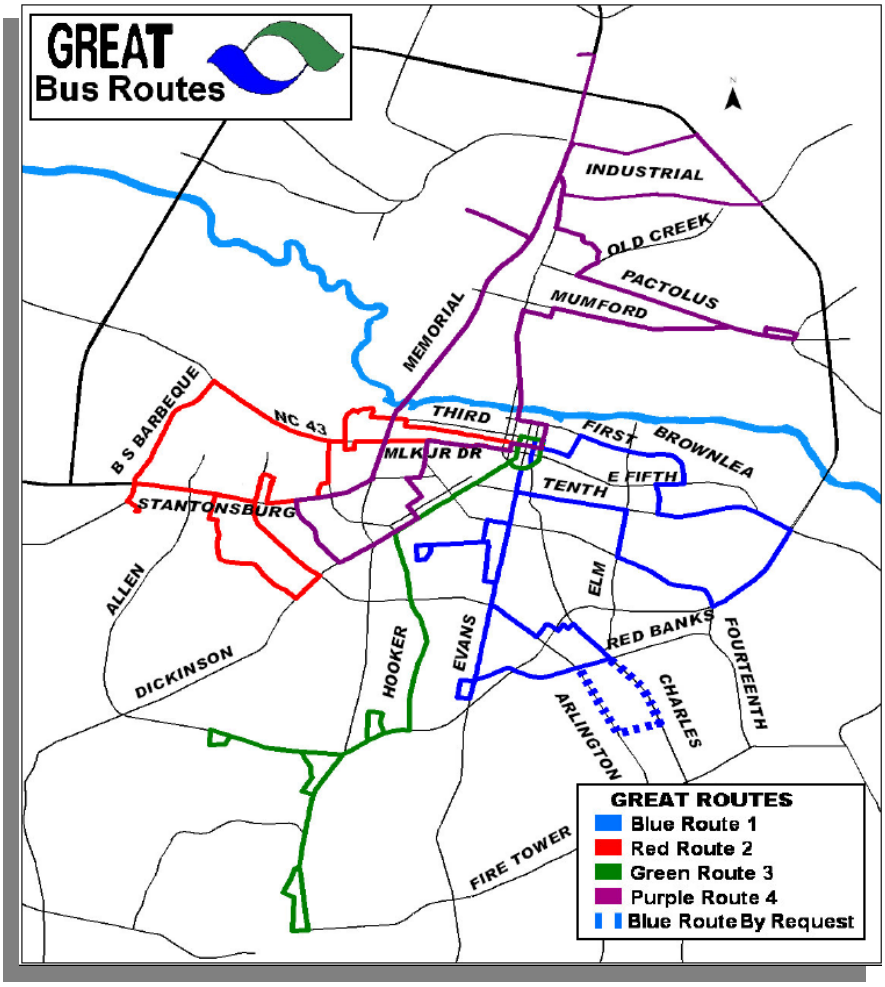
The base fare for GREAT service is $1.00 per one-way trip. Elderly and disabled residents pay $0.50 per one-way trip. Transfers to other routes are free. A variety of discount passes are also available for residents of Greenville. Passes may be purchased at Greenville City Hall, the Public Works Department, or from any bus driver.

All GREAT vehicles are low-floor buses with a kneeling feature for easy access onto the bus. Signage on the buses is displayed in both English and Spanish, and the buses are clearly marked for which route they serve. All GREAT buses are equipped with bike racks on the front of the buses that carry two bicycles.

Specific operational data pertinent to this study are listed below.

- GREAT uses Reade Street and Third Street for existing transfers, which is approximately 350 per day.
- GREAT operates 60-minute headways, pulsing at 20 minutes after the hour, with departures scheduled at 25 minutes after the hour.
- All four routes pulse at the Reade and Third Street location.
- GREAT provided 264,801 annual one-way trips in 2007.
- GREAT currently operates 35' buses.
- Approximately one in four trips use a transfer; this translates to one in three journeys requiring transfer onto a second bus, according to the 2006 Feasibility Study.

Figure 1-1
GREAT Fixed-route Service



GREAT ADA Service, City of Greenville

Greenville Area Transit (GREAT) provides ADA paratransit service within a ¾-mile corridor of the regular fixed-route bus service. In addition, the GREAT ADA paratransit service travels to the movie theatre complex, and to the Vocational Rehabilitation offices on Highway 43, in an effort to be responsive to this group of public transit users.

The curb-to-curb van service is provided by the Pitt Area Transit System (PATS). All passengers are certified by GREAT. The hours of operation parallel the GREAT fixed-route service. Fares are $2.00 per one-way trip. A variety of bus passes are also available for purchase. Reservations must be made 24-hours in advance.

Pitt Area Transit System (PATS)

Pitt Area Transit System (PATS) is a newly operated county system, since July 2007, providing human service and rural general public transportation in Pitt County. PATS was previously a non-profit organization. The PATS office is located at 1717 W. Fifth Street. PATS also provides ADA paratransit service for GREAT. The hours of operation are 6:30 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. No Sunday service is operated. Reservations are required by 2:00 p.m. the day prior to travel.

The majority of PATS service is demand response. However, the East Carolina Vocational Center has fixed PATS routes. Future fixed-route service may be expanded to Ayden and Griffin. PATS operates seven 13-passenger high-top vans. PATS anticipates having two bays at the new ITC for its passengers.

According to the 2006 Feasibility Study, PATS provides approximately 125 trips per day, of which about 30 (24 percent) are for GREAT ADA service.

East Carolina University Student Transit Authority (ECUSTA)

East Carolina University Student Transit Authority (ECUSTA), an ECU division of the Academic and Student Affairs, provides transit service to ECU students, faculty, and staff. Service is provided to, from, and around the ECU campus, off-campus housing areas, and several shopping and service areas. Student fees are the funding source for the broad transit service. Students show a valid ECU One Card to ride for free. Service is not available to the general public in Greenville.

ECUSTA operates during the academic year, beginning the first day of class of each semester and summer school session. The summer service has a reduced schedule and service area. ECUSTA does not operate during school breaks. Figures 1-2, 1-3, and 1-4 illustrate the ECU off-campus service, on-campus service, and late night service.

Figure 1-2
ECUSTA Off-campus Service

Figure 1-3
ECUSTA On-campus Service

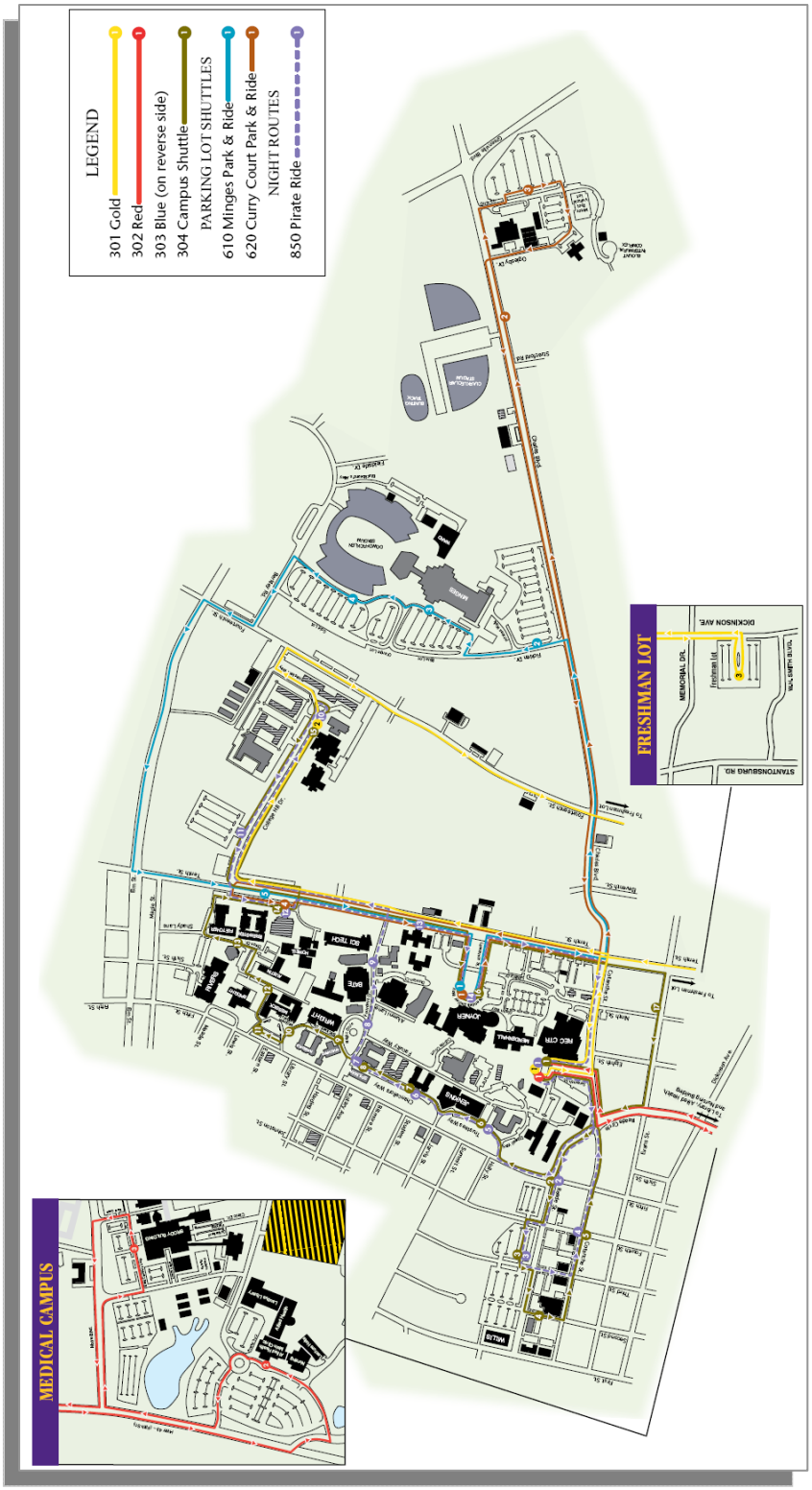
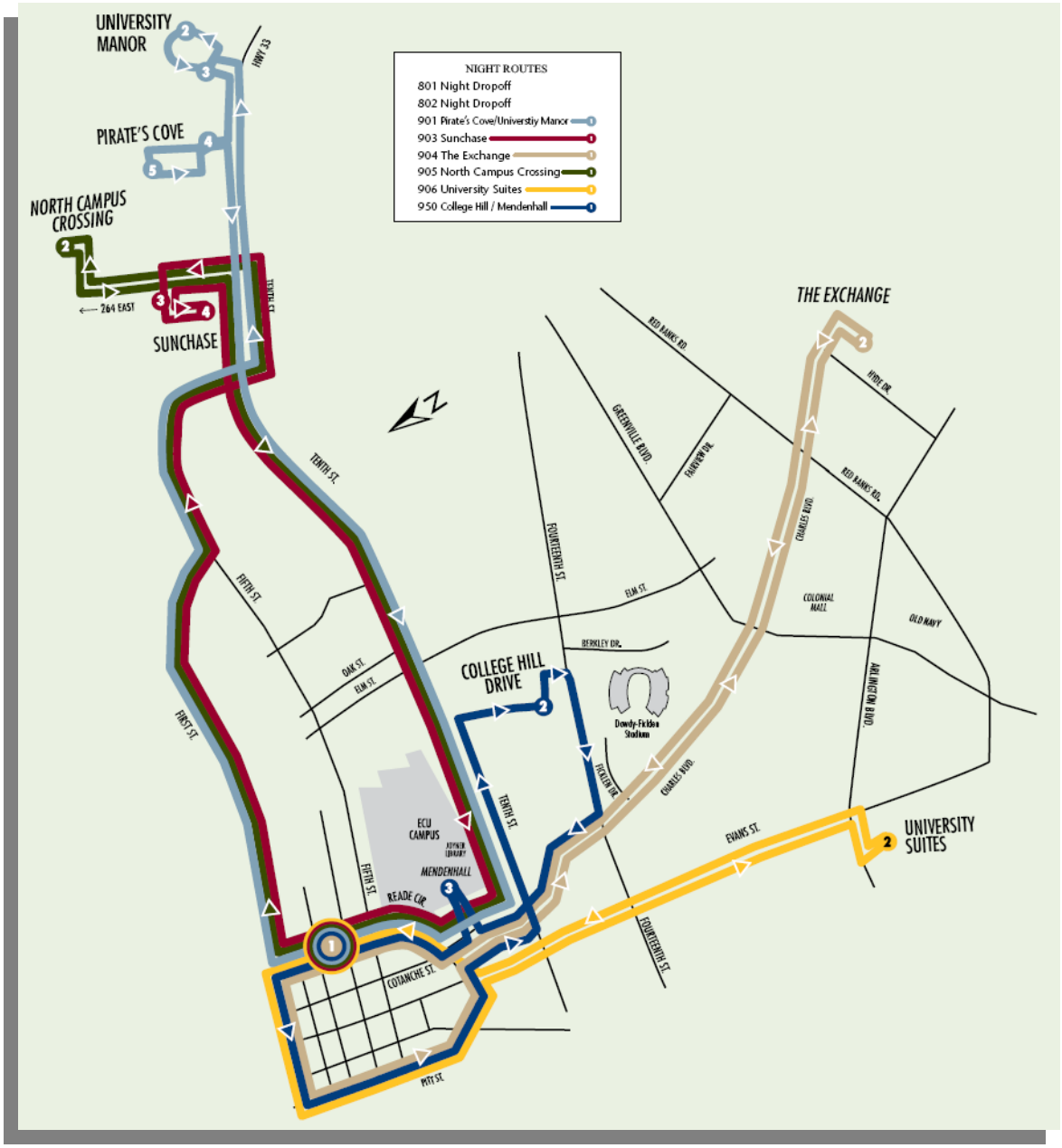


Figure 1-4
ECUSTA Night Service



ECUSTA operates approximately 25 routes during the regular school year with a variety of headways depending upon which service is used. These range from 10-minute headways for campus services to 20-, 30- and 60-minute headways for some off-campus routes. Operating hours vary depending upon the service; however, in general, the service begins at 7:00 a.m. and ends at 3:30 a.m.

During Spring 2008, 10 routes operated off-campus, 8 routes operated for the night service, and the on-campus service included 2 Parking Lot Shuttles, 4 day routes and 1 night route. Approximately 2.5 million trips are projected for the next academic year based on ridership trends from the last two years. The on-campus Park Lot Shuttles are approximately 25 percent of total ridership. The off-campus routes make up approximately 47 percent of total ridership, and the night service is approximately 9 percent of total ridership. The off-campus routes with highest ridership are Route 505 – North Campus Crossing with approximately 6,400 weekly one-way trips, Route 501 – Pirate's Cove with approximately 4,900 weekly one-way trips, and Route 504-The Exchange with approximately 4,700 weekly one-way trips.

The existing ECUSTA service provides very limited service into the downtown area due to the location of student housing units and the primary gathering points of the ECU service – Mendenhall/Westend and Christenbury Gym. Currently the Night Service and the Westside day service could actively utilize the ITC.

As discussed later in this Final Report, two scenarios are provided for the new Greenville Intermodal Transportation Center. These scenarios are based on the involvement and use of ECUSTA service at the Intermodal Center.

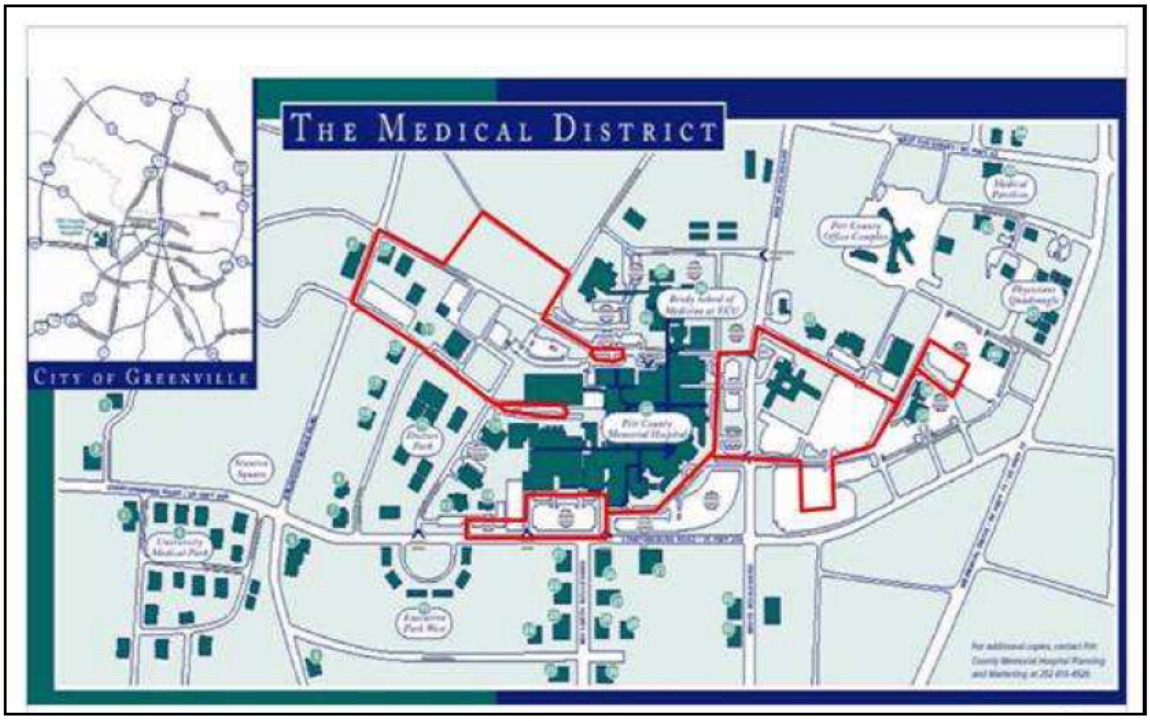
- Phase 1 uses the assumption of two ECUSTA bays for service.
- Phase 2 assumes six bays will be used by ECUSTA transit service.

The involvement of the University provides unique opportunities due to the late hours of service on the Night Routes and also Sunday service. Another unique feature is the use of articulated buses for some routes, which would need to be accommodated at the ITC. In addition, if the University uses the ITC as a primary service hub, customer seating capacity would be affected.

Pitt County Memorial Hospital

Pitt County Memorial Hospital (PCMH) operates two routes which provide internal circulation for visitors and staff from buildings to vehicles and acts as a security presence in the parking lots. The service operates from 6:00 a.m. to midnight, Monday through Friday. Each route operates approximately every 10 minutes, using small buses. The Front Route requires three peak vehicles and the Rear Route requires two peak vehicles. Ridership is approximately 300,000 annually. Figure 1-5 illustrates the PCMH routes.

Figure 1-5
PCMH Routes



Source: 2006 Greenville Feasibility Study

Greyhound Bus Lines

Scheduled intercity bus service is available to Greenville via Greyhound Bus Lines. During the initial planning for the ITC, Carolina Trailways was the intercity bus service for Greenville. Greyhound Lines has now assumed the bus service for Greenville. The bus station is currently located at 405 E 14th Street. The station is open Monday through Friday from 10:00 a.m. to 6:00 p.m., and Saturday from 12:00 p.m. to 6:00 p.m. The station is closed on Sundays and major holidays. Greyhound Package Express and ticketing services are available during the above hours. Departure times are shown below:

- 10:40 a.m.
- 4:45 p.m.

According to the 2006 Feasibility Report, approximately 15,000 riders boarded at Greenville in 2004-05, which is approximately 41 passengers per day. Peak ridership is in July and August.

Taxi Service

Taxi service will also be available from the Intermodal Transportation Center for passenger pickup and dropoff. According to the 2006 Feasibility Study, the following taxi companies are licensed for the Greenville area:

- City Cab Co., 500 Albemarle Avenue; five vehicles licensed to operate
- Eagle Cab Co., 3545 Old River Road; 1 vehicle licensed to operate
- Express Taxi, 400 Airport Road; 2 vehicles licensed to operate
- Aladdin Taxi, 116 W. 10th St.; 5 vehicles licensed to operate
- Courtesy Cab, 310-B Pennsylvania Ave.; 6 vehicles licensed to operate

Summary

This introductory chapter provides a brief overview of the local transit agencies who are future partners for the Greenville Intermodal Transportation Center. Local data from each of the providers were collected to complete the operations model, which is described in detail in the following chapters.

Section 2:

Program Requirements and Site Selection

Section 2 provides a brief description of the program requirements by agency. The information presented in this chapter provides the baseline information needed to create the operating model, which is described in detail later in this report.

Agency Program Requirements

The beginning stages of the site selection process evolved around the needs of each agency that would be occupying and/or using the site. Several meetings were held over the past nine months with the local transportation agencies to identify specific details or program requirements. Some specific factors were hours of operations, number of stalls/bays needed for service, employee parking at the facility, etc. Each agency identified these details based on current service levels and future projections.

At the local advisory and stakeholder meetings held in March 2008, ECUSTA, the City of Greenville, PATS, and other local agencies discussed design options for the facility. Topics influencing the design and layout include the beginning stages of an overall long-range Master Plan for the University and how those plans affect overall transportation goals for students, faculty, and staff at the ECU. Other factors include cost of the facility and where the facility is located. From feedback at these meetings, the consultant team agreed to prepare the operating cost model with Phase 1 and Phase 2 development. As previously discussed, the primary difference between the options is how actively used the facility will be by ECUSTA. Phase 1 plans two bus bays for the University and is used as a minor hub. Phase 2 plans six bus bays for ECUSTA and the ITC would be a major hub for ECU students.

Figure 2-1 and Figure 2-2, on the following pages, show the program requirements determined by each agency for the ITC, Phase 1 and Phase 2 development. As the consultant team prepared the operations model for the Intermodal Transportation Center, these requirements are a key role in determining equal cost share amongst local agency partners.

Figure 2-1
Phase 1 – Program Requirements

GREENVILLE INTERMODAL - PRELIMINARY PROGRAM - Phase 1											
										REVISED:	5/12/2008
					* NSF = Net Square Feet; GSF = Gross SF						
		Space Description	# of Units	# Occ.	NSF/unit*	Subtotal	Circulation	NSF + Circ.	GSF Multi	GSF*	Comments
EXTERIOR											
		GREAT Bays	6		1,300	7,800	1.25	9,750	1.50	14,625	40' bus - sawtooth; canopy
		Greyhound Bays	2		765	1,530	1.25	1,913	1.50	2,869	45' bus - herringbone; canopy
		PAT Bays	2		1,300	2,600	1.25	3,250	1.50	4,875	30' van - drop-off
		Shuttle Bay/PCMH	1		1,300	1,300	1.25	1,625	1.50	2,438	40' bus - sawtooth; canopy
		ECUSTA Bay	2		1,300	2,600	1.25	3,250	1.50	4,875	40' bus - sawtooth; canopy
		Taxis	3		400	1,200	1.25	1,500	1.30	1,950	
		Staff Parking	11		400	4,400	1.25	5,500	1.30	7,150	GR-5; GH-2; ECU-1; Visitor-3
		GREAT Driver Shuttle Van	2		400	800	1.25	1,000	1.30	1,300	28' van; canopy
		Police Car	3		400	1,200	1.25	1,500	1.30	1,950	Officer parking remains at present location
		Greyhound Short-term	6		400	2,400	1.20	2,880	1.30	3,744	Waiting; delivering; buying; info
		Passenger Drop-off	2		400	800	1.20	960	1.10	1,056	
		Passenger Platform (10' wide)	1		10,486	10,486	1.20	12,583	1.10	13,842	Canopy
		Misc. sidewalks, landscaping	1		5,000	5,000	1.20	6,000	1.10	6,600	
	TOTAL	EXTERIOR				42,116		51,711		67,273	
										0	
INTERIOR											
		Public Waiting	1	20	800	800	1.25	1,000	1.25	1,250	Share with all public
		Ticket/Information/Security	3	3	100	300	1.25	375	1.25	469	Share with all public/GREAT/PATS/ECUSTA
		GH-Package Express	1		100	100	1.25	125	1.10	138	Scale
		GH-Secure Storage	1		62	62	1.25	78	1.10	85	
		GH-Manager Office	1	1	108	108	1.25	135	1.10	149	
		GH-Baggage	1	1	384	384	1.25	480	1.10	528	
		Public Toilets	2		250	500	1.25	625	1.10	688	3 wc; 3 lavs; baby change
		Public Vending	1	4	14	14	1.25	18	2.00	35	Share with all; Universally accessible
		Janitor Closet	1		60	60	1.25	75	1.10	83	Share with all
		Staff Toilet	2	1	75	150	1.25	188	1.10	206	Share with all STAFF
		Staff Breakroom	1	8	200	200	1.25	250	1.10	275	Share with all
		Small Conference Room	1	4	100	100	1.25	125	1.10	138	Share with all
		GR-Facility Manager Office	1	1	130	130	1.25	163	1.10	179	
		GR-Admin. Assistant	1	1	80	80	1.25	100	1.10	110	
		GR-Director Office	1	1	80	80	1.25	100	1.10	110	
		GR-Office Storage	1		30	30	1.25	38	1.10	41	
		GR-Brochure Storage	1		30	30	1.25	38	1.10	41	
		Breakroom	1	15	375	375	1.25	469	1.25	586	Share with all; kitchenette
		Accessory use allowance	1		300	300	1.20	360	1.10	396	Share with all
		Police Substation									
		Desks	4	4	60	240	1.20	288	1.10	317	1 lockable file cabinets each occ.
		Interview room	1	2	80	80	1.20	96	1.10	106	
		Toilet Room (unisex)	1	1	65	65	1.25	81	1.25	102	2 wc; 2 sh; 2 lavs; share showers
		Mechanical/Electrical/Data	1		580	580	1.20	696	1.10	766	
	TOTAL	INTERIOR				4,768		5,900		6,795	
		SUBTOTAL SITE REQUIRED - SF								74,067	
		Environmental, Zoning, etc.	10%							7,407	
	TOTAL PHASE 1 SITE REQUIRED - SF									81,474	
	TOTAL PHASE 1 SITE REQUIRED - ACRES									1.9	

Figure 2-2
Phase 2 – Program Requirements

GREENVILLE INTERMODAL - PRELIMINARY PROGRAM - Phase 1 & Phase 2

REVISED: 5/19/2008

* NSF = Net Square Feet; GSF = Gross SF

	Space Description	# of Units	# Occ.	NSF/unit*	Subtotal	Circulation	NSF + Circ.	GSF Multi	GSF*	Comments
EXTERIOR										
	GREAT Bays	6		1,300	7,800	1.25	9,750	1.50	14,625	40' bus - sawtooth; canopy
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	Shuttle Bay/PCMH	1		1,300	1,300	1.25	1,625	1.50	2,438	40' bus - sawtooth; canopy
	ECUSTA Bay	5		1,300	6,500	1.25	8,125	1.50	12,188	40' bus - sawtooth; canopy
	ECUSTA Bay	1		1,500	1,500	1.25	1,875	1.50	2,813	Articulated bus - sawtooth; canopy
	Taxis	3		400	1,200	1.25	1,500	1.30	1,950	
	Staff Parking	11		400	4,400	1.25	5,500	1.30	7,150	GR-5; GH-2; ECU-1; Visitor-3
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	Police Car	3		400	1,200	1.25	1,500	1.30	1,950	Officer parking remains at present location
	Trailways Short-term	6		400	2,400	1.20	2,880	1.30	3,744	Waiting; delivering; buying; info
	Passenger Drop-off	2		400	800	1.20	960	1.10	1,056	
	Passenger Platform (10' wide)	1		13,482	13,482	1.20	16,178	1.10	17,796	Canopy
	Misc. sidewalks, landscaping	1		5,000	5,000	1.20	6,000	1.10	6,600	
TOTAL	EXTERIOR				50,512		62,056		81,352	
									0	
INTERIOR										
	Public Waiting	1	70	1,750	1,750	1.25	2,188	1.25	2,734	Share with all public
	Ticket/Information/Security	3	3	100	300	1.25	375	1.25	469	Share with all public/GREAT/PATS/ECUSTA
	GH-Package Express	1		100	100	1.25	125	1.10	138	Scale
	GH-Secure Storage	1		62	62	1.25	78	1.10	85	
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	Public Vending	1	4	14	14	1.25	18	2.00	35	Share with all; Universally accessible
	Janitor Closet	1		60	60	1.25	75	1.10	83	Share with all
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	Staff Breakroom	1	8	200	200	1.25	250	1.10	275	Share with all
	Small Conference Room	1	4	100	100	1.25	125	1.10	138	Share with all
	GR-Facility Manager Office	1	1	130	130	1.25	163	1.10	179	
	GR-Admin. Assistant	1	1	80	80	1.25	100	1.10	110	
	GR-Director Office	1	1	80	80	1.25	100	1.10	110	
	GR-Office Storage	1		30	30	1.25	38	1.10	41	
	GR-Brochure Storage	1		30	30	1.25	38	1.10	41	
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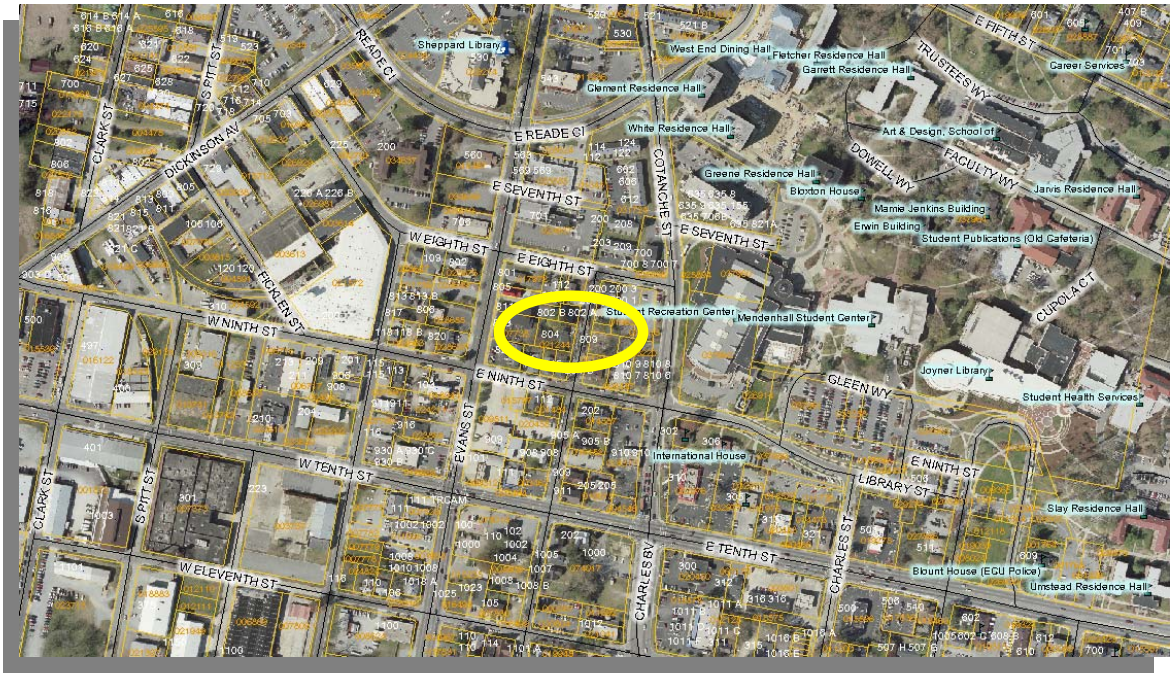
	Police Substation									
	Desks	4	4	60	240	1.20	288	1.10	317	1 lockable file cabinets each occ.
	Interview room	1	2	80	80	1.20	96	1.10	106	
	Toilet Room (unisex)	1	1	65	65	1.25	81	1.25	102	2 wc; 2 sh; 2 lavs; share showers
	Mechanical/Electrical/Data	1		580	580	1.20	696	1.10	766	
TOTAL	INTERIOR				5,718		7,088		8,279	
	SUBTOTAL SITE REQUIRED - SF								89,631	
	Environmental, Zoning, etc.	10%							8,963	
TOTAL SITE REQUIRED - SF									98,595	
TOTAL SITE REQUIRED - ACRES									2.3	

Preferred Site

In July 2007, the consultant team continued the study process from the completed 2006 Feasibility Study for the Greenville Intermodal Transportation Center. The following section highlights the site selection process and identifies the preferred site selected by the local advisory team in March 2008. Full detail of the selection process is available in ITC Final Report.

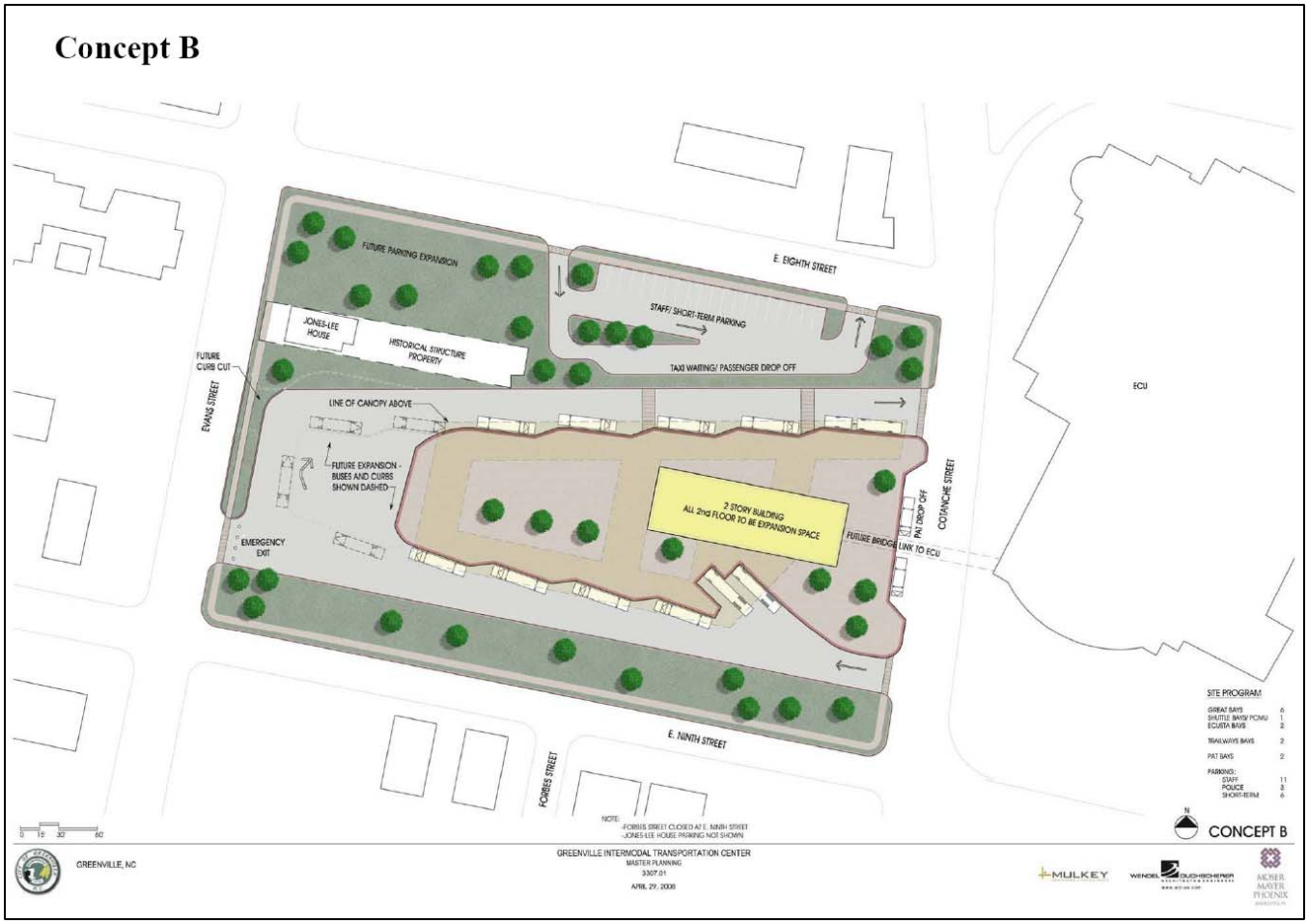
The study team in coordination with local stakeholders identified advantages and disadvantages of several sites for the ITC in the downtown area. Access, existing infrastructure, safety, and proximity to major generators were some of the details and criteria used in the analysis. The preferred site is shown below in the aerial photo, Figure 2-3. The location is the block between E. Eighth and E. Ninth Street, between Evans Street and Cotanche Street, adjacent to the University.

Figure 2-3
Aerial Photo of Preferred Site in Downtown Greenville



As mentioned previously, the selected site has Phase 1 and Phase 2 design options. The primary difference between the options is the involvement of the University and ECUSTA use of the facility as a primary hub for passengers or as a secondary hub for passengers. Figure 2-4 is final version of the concept plan for the ITC.

Figure 2-4
ITC Concept Plan



Section 3: Facility Design and Data Collection

Section 3 provides a brief discussion of facility design elements. These data are important to the Greenville project as the final designs are developed. Design elements and materials, as discussed below, affect operating costs over the life cycle of the building.

Building Design and Materials

The information below focuses on basic design elements of the facility and data collection efforts for existing operating costs. The design of the Greenville Intermodal Transportation Center will consider future operations and maintenance costs over the life of the building, appropriate materials, effect of aesthetics and functionality of the building for the people who work within the facility, as well as the surrounding community.

Good building designs factor in long-term operating costs for the facility. For example, some agencies use the simple, most economical building design such as a rectilinear building with uniform height, thinking only of first-time capital costs. However, considering the overall operational cost of the building during its life span, often determines this is not the best design approach due to the heating and air conditioning, which ultimately results in higher utility costs. Another example of long-term utility cost savings is the use of natural lighting for work areas, which saves utility costs.

Good facility design should always consider long-term operating costs and responsibilities to the surrounding environment. According to the United States Green Building Council (USGBD), buildings utilize approximately 40 percent of all energy in the United States. A building designed only with initial costs in mind will generally have much less efficient mechanical and electrical systems included, requiring higher energy costs to operate over the life of the building. Buildings should be designed and built to last for at least 50 to 100 years.

The City of Greenville is open to exploring the possibility of incorporating Leadership in Energy and Environmental Design (LEED) certification from the USGBD. As the local committee considers targeting these certifications, some sample design strategies may include:

- Underfloor air distribution to reduce energy usage

- Low flow/dual option plumbing fixtures and waterless urinals
- Sensor-activated lighting in offices
- Recycled content in carpet, tile, ceiling finishes, etc.
- Low volatile organic compounds (VOC)-emitting interior paint
- Reduced east and west window openings
- Double-pane/low-e glazing to reduce heat gain
- Natural lighting into all regularly occupied spaces
- Highly reflective roofing membrane for flat roof design
- Metal and fabric canopies to reduce heat island effect
- Drought-resistant native landscaping

The design team is very familiar with these strategies and will incorporate all energy efficient uses into the project, as appropriate, which will ultimately affect the overall operating costs for the facility. A well-designed building, such as the future ITC, will lead to community satisfaction and enhancement for the citizens of Greenville.

This Final Report presents the current conceptual designs for the ITC. The operating costs within this report are based on these designs. Should the design change in the future, the operating cost model should be revisited and updated.

Operating Data

The operating data for the facility consists of day-to-day recurring expenses on site. For example, these may include:

- Street light utility costs
- Electric utility costs
- Gas utility costs
- Water and waste water utility costs
- Maintenance of the facility, such as paint, repair, restriping, heating/cooling, communication equipment
- Landscaping
- Cleaning of facility
- Information Technology access fees

In addition, a capital outlay or depreciation of the facility is another annual cost for the new facility. The City of Greenville does not currently charge depreciation expense to its general municipal buildings supported by the City general fund; therefore, the depreciation expenses are not included in the overall operating costs.

Because GREAT does not currently have an enclosed transit facility, but utilizes Reade and Third Street for transfers, a direct comparison of facility operating costs is not advisable. The current transfer site has shelters and utilizes City existing curb, gutter, and sidewalk facilities.

Similar to GREAT, ECUSTA utilizes existing buildings, Mendenhall/ Westend and Christenbury Gym, for passenger waiting areas, and boarding and deboarding areas. Again, a direct comparison of facility operating costs is not advisable because the new ITC is a comparably different structure.

Knowing these above factors, the consultant team utilized other local sources, other transit facilities, and other like-facilities to identify annual costs for the ITC. The local advisory committee recommended contacting the Transit Managers in Wilson and Rocky Mount for local comparative costs. These locations were also included in the 2006 Feasibility Study.

The following section provides detailed information and assumptions used for developing the operating model. As the study progresses and adjustments are needed, so too, can the model be adjusted.

Operating Costs - Other Local Agency Station Costs

Rocky Mount – Tar River Transit

The consultant team contacted the Transit Manager in Rocky Mount, where Tar River Transit operates service. The transportation center for Tar River Transit is in a 1-story building, approximately 7,000 square feet, and adjacent to the Historic Rail Station. The transit agency has operated from that facility for approximately six years. Four years ago, a major renovation was completed to upgrade features. The building is owned by the City of Rocky Mount, who contributes several in-kind services to the transit agency, offsetting operating expenses.

The 2006 Feasibility Study included a thorough description of the Rocky Mount station with several intermodal links including Amtrak and Greyhound in Annex 1 of the report.

(j) Tar River Transit slips

The average annual operating costs for the Rocky Mount facility are shown in Figure 3-1 on the following page. As shown in the table, the City of Rocky Mount provides many in-kind services, which would be expensed in other department budgets, such as landscaping, information technology, maintenance, etc. The agency did not have an annual estimate for these expenses. The Transit General Manager also acts at the facility manager for Rocky Mount. The businesses have their own access to the building and waiting areas, designed so that the areas can be divided and secure.

Figure 3-1
Rocky Mount Operating Expenses

Rocky Mount Average Annual Operating Expenses				
	Annual		Notes	
Utilities	$ 14,400		$ 1,200	Month
Deep Clean	$ 2,000		$ 500	Quarterly
Trash			City	
IT			City	
Landscaping			City	
Maintenance			City	
Building Depreciation			City	
Security			No extra security	
Cleaning	$ 38,200		1 Full-time/1 Part-time staff on-site	
Annual Transit Agency Cost	$ 54,600			

Wilson Transit

(a) Transportation Center

The consultant team contacted the Transit Manager in Wilson to discuss operating costs at their existing facility. This facility was also visited and reviewed thoroughly in the 2006 Feasibility Study. According to the Transit Manager, the Wilson Transportation Center was the first coordinated intermodal facility project with federal funding and NCDOT. The 2-story facility is approximately 7,950 square feet. The Wilson facility opened in 1989 and includes the transit administration offices within the building. The building also hosts a taxi office with separate access to the building, a restaurant, and Greyhound services. The Transit Manager, a city employee, serves as the Building Manager at the Wilson facility.

Rail service and the train station are located across the street, which includes an unmanned police substation. The Wilson facility has worked well for accommodating passengers and transfers among the different services. Figure 3-2, on the following page, shows the average annual operating costs for the Wilson Transportation Center.

Figure 3-2
Wilson Operating Expenses

Wilson Average Annual Operating Expenses			
	Annual		Notes
Utilities	$ 38,400		$3,200 per month
Deep Clean			Included in cleaning contract
Trash			City
IT	$ 1,500		$1-$2K yr – Downtown free wi-fi
Landscaping			City
Maintenance	$ 30,000		In early yrs, not as much - $80K new roof in 2008
Building Depreciation			City
Security			No extra security
Cleaning	$ 28,200		
Annual Transit Agency Cost	$ 98,100		

Operating Costs – 2006 ITC Feasibility Study

The 2006 Feasibility Study estimated operating costs for the Greenville ITC. The identified costs within that study included building management, ticketing staff, security, cleaning, maintenance, etc. For comparison purposes, the consultant team updated that estimate to NOT include transit agency staff, but to exclusively estimate operating costs for the building. The study also stated that a Building Manager is required for the ITC; thus is reflected in the total annual costs below. Figure 3-3 presents the updated information.

Figure 3-3
2006 Feasibility Study
Updated Estimated Operating Costs

2006 Feasibility Study Annual Operating Expenses Estimate - Updated			
	Annual		Notes
Building Manager	$ 62,250		Salary and benefits
Housekeeping/Utilities	$ 68,570		Housekeeping/repair supplies; equipment contracts; utilities
Building Technician	$ 24,200		Part-time Building Technician
Maintenance/Grounds	$ 65,340		
Reserves	$ 50,000		For replacement
Security	$ 66,000		2 Full-time
Cleaning	$ 27,800		1 Full-time Janitor
Annual Transit Agency Cost	$ 301,910		

Summary

The above information provides an overall look at what factors may influence operational costs for an intermodal transportation center. Each community has different needs and requirements to ensure their facilities are properly maintained and continue to be an asset for the surrounding neighborhoods.

The following chapter presents an estimate for the operating costs of the Greenville Intermodal Transportation Center.

Section 4: Operating Model

The previous section of this report presented true operating costs at comparable transportation stations in the region. These costs along with previous estimates from the 2006 Feasibility Study, and consultant team experience at other locations, are the basis for the operating costs presented below in Figure 4-1.

Figure 4-1
Estimated Annual Operating Costs

Operating Model
Greenville, NC Intermodal Transportation Center

		Phase 1	Phase 2
Total Square Footage		78,734	103,237

	Category	Annual Expenses	
1	Utilities	$ 40,000	$ 40,000
2	Building Manager	$ 62,250	$ 62,250
3	Information Technology	$ -	$ -
4	Maintenance	$ -	$ -
5	Landscaping	$ -	$ -
6	Regular Cleaning	$ 40,000	$ 40,000
7	Deep Cleaning	$ 6,000	$ 6,000
8	Reserves	$ -	$ -
Estimated Annual Cost		***$ 148,250***	***$ 148,250***

Assumptions for the above table include:

- #1 - Utilities includes water, waste water, gas, electric.
- #2 - As indicated in the Feasibility Study, the Building Manager is required for the ITC. The above costs include salary and benefits.
- #3 - #5 – The IT, Maintenance, and Landscaping costs will be in-kind from the City of Greenville.
- #6 – Regular cleaning would be for a minimum of six days per week, with cleaning at least two times per day. This category could be staffed with a full-time and part-time position, or contracted out to a cleaning service.

- #7 – Deep cleaning is schedule one time per month at approximately $500 for each service.
- #8 – For building replacement or depreciation – The City of Greenville does not include depreciation in buildings funded from City general fund.
- The table assumes that a manned police substation will be present at the facility. Recent local committee meetings indicated this is the preferred plan.

Agency Use

The next step in the operating model includes estimating local agency use by square footage. As mentioned before, the consultant team is looking towards a Phase 1 model and Phase 2 model. The previous Section 2 of this report shows the square footage assigned per use by each agency. Using those assumed square footage assignments, the appropriate percentage of total use, including exterior and interior areas, are shown in Figures 4-2 and 4-3. The common areas have been equally assigned to each agency. Details for the Phase 1 and Phase 2 models are included in Appendix A.

Figure 4-2
Phase 1 Model – Agency Use

Total Assignments
(including interior and exterior)

City	55,334	sq ft	68%
Greyhound	9,258	sq ft	11%
ECU	6,127	sq ft	8%
Taxi	2,396	sq ft	3%
PATS	5,477	sq ft	7%
Shuttle	2,883	sq ft	4%
	81,474	sq ft	100%

Figure 4-3
Phase 2 Model – Agency Use

Total Assignments
(including interior and exterior)

City	57,137	sq ft	58%
Greyhound	9,505	sq ft	10%
ECU	20,454	sq ft	21%
Taxi	2,643	sq ft	3%
PATS	5,724	sq ft	6%
Shuttle	3,131	sq ft	3%
	98,595	sq ft	100%

Agency Costs

Many different mechanisms are available for setting local agency partnering costs for facility use. Knowing agency use by square footage, as shown above, and charging a cost per square foot is one common methodology. Other mechanisms are charging a fixed cost based on past expenditure trends. However, because this facility is new, this methodology is not recommended.

The local advisory committee directed the consultant team to review operating costs for the University and for the City of Greenville. With that guidance, below are the calculations, assuming operating costs are approximately $148,250. In addition, the total marketing value was calculated based on total square footage. One notation is the total square footage includes bus bays, pedestrian areas, and facility.

Market Value Calculations

A recent Marketing Study completed for the City of Greenville evaluated real estate market trends in downtown Greenville. For office space in downtown, an average market value of $13.50 per square foot was determined.

The Phase 1 model, shown previously in Figure 4-2, shows a total of 81,474 total square feet, for a market leasing value of approximately $1.1 million. ECU will occupy in Phase 1 6,127 square feet, 8 percent of the total. The City and other organizations would occupy the remaining 92 percent.

The Phase 2 model, shown above in Figure 4-3, shows a total of 98,595 square feet, for a market leasing value of approximately $1.3 million. ECUSTA usage is 20,454 square feet, 21 percent of the total 98,595 square feet for Phase 2. ECU will use the ITC as a major transfer hub for services. The City and other organizations would occupy the remaining 79 percent.

The focus of this Report is the operating model for the Greenville ITC. As this project continues to move forward in the planning phases, the review of leases and contracts with agencies will be a future step.

Operating Costs

The following recommended methodology for determining allocation of operation costs is based on the percentage of square footage use by agency. The costs were determined for ECU and the City, based on guidance from the Advisory Committee. Using the assumption of $148,250, the following calculations are made for Phase 1 and Phase 2 development.

Phase 1 has a total square footage of 81,474. ECUSTA will occupy 8 percent of the facility, with 6,127 square feet. This amounts to an annual operating cost for ECU at approximately $11,148. The operating costs for the City will be approximately $137,102.

Phase 2 has a total square footage of 98,595. ECU will occupy 21 percent of the facility, with 20,454 square feet. The annual operating costs will be $30,756 for the University with Phase 2. The City cost will be $117,494.

Figure 4-4
City and University
Annual Operating Costs – Phase 1 and Phase 2

	Sq Ft	%	$
ECU – Phase 1	6,127	8%	$ 11,148
ECU – Phase 2	20,454	21%	$ 30,756
City – Phase 1	75,347	92%	$ 137,102
City – Phase 2	78,140	79%	$ 117,494

Partnerships

The City of Greenville currently has active partnerships with many businesses and agencies, private and non-profit, in the community. As the planning process continues for the Intermodal Transportation Center, the consultant team highly recommends continuing existing partnerships and looking for other potential opportunities with agencies. This may include new partners, such as those with Greyhound, taxi companies, vending companies, etc. Each of these agencies is a potential revenue source for the City, which will help offset costs of the ITC.

Summary

This Final Report provides a summary of likely users of the Greenville Intermodal Center. Data for each agency is shown representing future use at the ITC. Phase 1 and Phase 2 cost options are shown in detail. Most importantly, an updated operational cost is shown for the ITC, and an operating model is presented which is based on the square footage use of the facility. This report was submitted to the local advisory committee and local staff for review and comments, which were incorporated into this Final Report, as appropriate.

Appendix A: Program Detail – Phase 1 and 2

Phase 1

GREENVILLE ITC - PRELIMINARY PROGRAM - Phase 1																	
		REVISED:	10/23/2008														
				Appendix A - Phase 1 Detail													
	Space Description	GSF*	Comments	Responsible			**Exterior percentage of Use**										
EXTERIOR				EXTERIOR													
	GREAT Bays	14,625	40' bus - sawtooth; canopy	City	14,625		City	44,573	66%								
	Greyhound Bays	2,869	45' bus - herringbone; canopy	Greyhound	2,869		Greyhound	7,913	12%								
	PAT Bays	4,875	30' van - drop-off	PAT	4,875		ECU	5,525	8%								
	Shuttle Bay/PCMH	2,438	40' bus - sawtooth; canopy	Shuttle	2,438		Taxi	1,950	3%								
	ECUSTA Bay	4,875	40' bus - sawtooth; canopy	ECU	4,875		PAT	4,875	7%								
	Taxis	1,950		Taxi	1,950		Shuttle	2,438	4%								
	Staff Parking	7,150	GR-5; GH-2; ECU-1; Visitor-3	0.727273	city	5200	0.181818182	Greyhound	1300	0.0909091	ECU	650					
	GREAT Driver Shuttle Van	1,300	28' van; canopy	City	1,300												
	Police Car	1,950	Officer parking remains at present location	City	1,950												
	Greyhound Short-term	3,744	Waiting; delivering; buying; info	Greyhound	3,744												
	Passenger Drop-off	1,056		City	1,056												
	Passenger Platform (10' wide)	13,842	Canopy	City	13,842												
	Misc. sidewalks, landscaping	6,600		City	6,600												
								67,273	total exterior								
TOTAL	**EXTERIOR**	**67,273**															
		0															
INTERIOR																	
	Public Waiting	1,250	Share with all public	all	see to the right				**INTERIOR**								
	Ticket/Information/Security	469	Share with all public/GREAT/PATS/ECUSTA	all	see to the right												
	GH-Package Express	138	Scale	Greyhound	138				1,250	469	688	35	83	206	275	138	TOTAL
	GH-Secure Storage	85		Greyhound	85			City	208	156	115	6	14	34	46	23	602
	GH-Manager Office	149		Greyhound	149			Greyhound	208		115	6	14	34	46	23	446
	GH-Baggage	528		Greyhound	528			ECU	208	156	115	6	14	34	46	23	602
	Public Toilets	688	3 wc; 3 lavs; baby change	all	see to the right			Taxi	208		115	6	14	34	46	23	446
	Public Vending	35	Share with all; Universally accessible	all	see to the right			PAT	208	156	115	6	14	34	46	23	602
	Janitor Closet	83	Share with all	all	see to the right			Shuttle	208		115	6	14	34	46	23	446
	Staff Toilet	206	Share with all STAFF	all	see to the right				1250	469	688	35	83	206	275	138	
	Staff Breakroom	275	Share with all	all	see to the right												
	Small Conference Room	138	Share with all	all	see to the right												
	GR-Facility Manager Office	179		City	179												
	GR-Admin. Assistant	110		City	110												
	GR-Director Office	110		City	110												
	GR-Office Storage	41		City	41												
	GR-Brochure Storage	41		City	41												
	Breakroom	586	Share with all; kitchenette	City	586												
	Accessory use allowance	396	Share with all	City	396												
	Police Substation																
	Desks (share by 2 officers)	317	1 lockable file cabinets each occ.	City	317									**Interior percentage of Use**			
				City	0												
				City/ECU	92%	% City	0	8%	%ECU	0	0			City	10,761	76%	
				City	0									Greyhound	1,345	9%	
				City	0									ECU	602	4%	
	Interview room	106		City	106									Taxi	446	3%	
				City	0									PAT	602	4%	
	Toilet Room	102	2 wc; 2 sh; 2 lavs; share showers	City	102									Shuttle	446	3%	
	Mechanical/Electrical/Data	766		City	766												
														Total			
TOTAL	**INTERIOR**	**6,795**						TOTAL BUILDING				$ 148,250		**interior**	**6,795**		
														environmen	7,407		
	SUBTOTAL SITE REQUIRED - SF	74,067						City	55,334	sq ft	68%	$ 100,685					
	Environmental, Zoning, etc.	7,407		City	7,407			Greyhound	9,258	sq ft	11%	$ 16,845			14,201		
								ECU	6,127	sq ft	8%	$ 11,148					
TOTAL	**SITE REQUIRED - SF**	**81,474**						Taxi	2,396	sq ft	3%	$ 4,359			81,474	total	
								PAT	5,477	sq ft	7%	$ 9,966					
TOTAL	**SITE REQUIRED - ACRES**	**1.9**						Shuttle	2,883	sq ft	4%	$ 5,246					
									81,474	sq ft	100%	$ 148,250					
								Sq Ft	%	**$**							
							ECU	6,127	8%	$ 11,148							
							City	75,347	92%	$ 137,102							
								81,474	100%	$ 148,250							
							$ 1,099,899	Market Value @ $13.50		$ 13.50							

Phase 2

GREENVILLE ITC - PRELIMINARY PROGRAM - Phase 2

		REVISED:	10/23/2008														
				Appendix A - Phase 2 Detail													
	Space Description	GSF*	Comments	Responsible			**Exterior percentage of Use**										
EXTERIOR				EXTERIOR									7,150				
	GREAT Bays	14,625	40' bus - sawtooth; canopy	City	14,625		City	44,572	55%			city	73%	5200			
	Greyhound Bays	2,869	45' bus - herringbone; canopy	Greyhound	2,869		Greyhound	7,913	10%			greyhound	18%	1300			
	PAT Bays	4,875	30' van - drop-off; canopy	PAT	4,875		ECU	19,605	24%			ECU	9%	650			
	Shuttle Bay/PCMH	2,438	40' bus - sawtooth; canopy	Shuttle	2,438		Taxi	1,950	2%					7150			
	ECUSTA Bay	12,188	40' bus - sawtooth; canopy	ECU	15,000		PAT	4,875	6%								
	ECUSTA Bay	2,813	Articulated bus - sawtooth; canopy				Shuttle	2,438	3%								
	Taxis	1,950		Taxi	1,950			81,352	100%								
	Staff Parking	7,150	GR-5; GH-2; ECU-1; Visitor-3	City	see right			total exterior									
	GREAT Driver Shuttle Van	1,300	28' van	City	1,300												
	Police Car	1,950	Officer parking remains at present location	City	1,950												
				City	0												
	Greyhound Short-term	3,744	Waiting; delivering; buying; info	Greyhound	3,744												
	Passenger Drop-off	1,056		City	1,056												
	Passenger Platform (10' wide)	17,796	Canopy; 3955 to ECU; City other	City	13,841	78%	ECU	3,955	22%								
	Misc. sidewalks, landscaping	6,600		City	6,600												
TOTAL	**EXTERIOR**	**81,352**															
		0															
INTERIOR																	
	Public Waiting	2,734	Share with all public	all	see to the right				**INTERIOR**								
	Ticket/Information/Security	469	Share with all public/GREAT/PATS/ECUSTA	all	see to the right												
	GH-Package Express	138	Scale	Greyhound	138				2,734	469	688	35	83	206	275	138	TOTAL
	GH-Secure Storage	85		Greyhound	85			City	456	156	115	6	14	34	46	23	849
	GH-Manager Office	149		Greyhound	149			Greyhound	456		115	6	14	34	46	23	693
	GH-Baggage	528		Greyhound	528			ECU	456	156	115	6	14	34	46	23	849
	Public Toilets	688	3 wc; 3 lavs; baby change	all	see to the right			Taxi	456		115	6	14	34	46	23	693
	Public Vending	35	Share with all; Universally accessible	all	see to the right			PAT	456	156	115	6	14	34	46	23	849
	Janitor Closet	83	Share with all	all	see to the right			Shuttle	456		115	6	14	34	46	23	693
	Staff Toilet	206	Share with all staff	all	see to the right				2734	469	688	35	83	206	275	138	
	Staff Breakroom	275	Share with all	all	see to the right												
	Small Conference Room	138	Share with all	all	see to the right												
	GR-Facility Manager Office	179		City	179												
	GR-Admin. Assistant	110		City	110												
	GR-Director Office	110		City	110												
	GR-Office Storage	41		City	41												
	GR-Brochure Storage	41		City	41												
	Breakroom	586	Share with all; kitchenette	City	586												
	Accessory use allowance	396	Share with all	City	396												
	Police Substation																
	Desks	317	1 lockable file cabinets each occ.	City	317									**Interior percentage of Use**			
				City	0												
				City/ECU	92%	% City	0	8%	%ECU	0	0			City	12,565	73%	
				City	0									Greyhound	1,592	9%	
				City	0									ECU	849	5%	
	Interview room	106		City	106									Taxi	693	4%	
				City	0									PAT	849	5%	
	Toilet Room (unisex)	102	2 wc; 2 sh; 2 lavs; could share showers	City	102									Shuttle	693	4%	
		0															
	Mechanical/Electrical/Data	766		City	766										17,242		
														Total			
TOTAL	**INTERIOR**	**8,279**						TOTAL BUILDING				$ 148,250		**interior**	**8,279**		
														environme	8,963		
	SUBTOTAL SITE REQUIRED - SF	89,631						City	57,137	sq ft	58%	$ 85,914					
	Environmental, Zoning, etc.	8,963		City	8,963			Greyhound	9,505	sq ft	10%	$ 14,292			17,242	total	
								ECU	20,454	sq ft	21%	$ 30,756					
	TOTAL SITE REQUIRED - SF	**98,595**						Taxi	2,643	sq ft	3%	$ 3,974					
								PAT	5,724	sq ft	6%	$ 8,607					
	TOTAL SITE REQUIRED - ACRES	**2.3**						Shuttle	3,131	sq ft	3%	$ 4,707					
									98,595	sq ft	100%	$ 148,250					
							Sq Ft	**%**	**$**								
						ECU	20,454	21%	$ 30,756								
						City	78,140	79%	$ 117,494								
							98,595	100%	$ 148,250								
						$ 1,331,026	Market Value @ $13.5(		$ 13.50								