



REGIONAL MAINTENANCE AND REFUELING PROGRAM

BEST PRACTICES REPORT, BUSINESS PLAN, AND RESOURCE PLAN

TxDOT PGA #51210F7113

PREPARED FOR: EAST TEXAS CONNECTS

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1. BEST PRACTICES REPORT

Introduction and Background

The 14-county East Texas Council of Governments (ETCOG) region encompasses some 9,720 square miles of land and, according to the 2010 Census, is home to 793,795 residents. The two largest cities are Tyler (population 96,900) and Longview (population 80,455). Four of the area transit service providers (GoBus, Longview Transit, Tyler Transit, and NDMJ) have expressed interest in participating in the maintenance and refueling program.

At its September 2011 meeting, ETCOG, through the East Texas Regional Transportation Steering Committee and TxDOT, agreed to a series of regional planning tasks for the upcoming year. The first of these tasks – Task 1 – is to develop a comprehensive regional vehicle maintenance and refueling program, with a goal to reduce costs, assure preventative vehicle maintenance, and foster efficient repair services for multiple transit providers in the East Texas region.

Maintenance and refueling are separate functions yet traditionally administered under a single umbrella agreement. This report, which showcases maintenance and refueling best practices, is one of the key deliverables outlined under Task 1.

Case Studies – Maintenance Programs

An examination of current best practices of maintenance procedures reveals that local programs fall into three categories:

- Coordination of multiple public operators with differing sizes to optimize use of existing resources, with smaller operators that lack maintenance facilities contracting with the larger agencies.
- A single operator or multiple operators coordinate to contract maintenance out to a private contractor.
- A hybrid model wherein some repairs are coordinated with other public operators and others are privately contracted.

The information below was gathered from a variety of sources, including the Texas Transportation Institute (TTI) report, “Peer Grouping and Performance Measurement to Improve Rural and Urban Transit in Texas”, which measured and compared maintenance procedures of rural and urban operators throughout the state.

Heart of Texas Council of Governments

The Heart of Texas Council of Governments (HOTCOG) serves a six-county region (Bosque, Falls, Freestone, Hill, Limestone, and McLennan counties) encompassing 5,478 square miles with a Census 2010 population of 349,273. HOTCOG provided 56,251 unlinked passenger trips in Fiscal Year 2009, operating 619,091 revenue miles with \$1.16 million in operating expenditures.

Structure of Maintenance Program

A vehicle maintenance program was developed as a project by HOTCOG in its Coordinated Regional Transportation Plan. HOTCOG and Waco Transit developed a Memorandum of Understanding (MOU) to provide centralized maintenance at the Waco Maintenance Facility. According to the Plan, the goals of this arrangement are to assess the status of the fleet condition, standardize maintenance costs for the six-county region, standardize maintenance records, decrease vehicle downtime, provide consistent wheelchair-lift diagnostics/repair, track warranty recovery, and maximize the useful fleet life.

The MOU took effect February 2010. Previously subcontractors used local maintenance shops for serving the HOTCOG vehicles. Many of these small shops were often back-logged or did not have ready available access to specific parts required to maintain transit type vehicles, specifically wheelchair lifts.

Conclusions

- HOTCOG entered into an agreement with a mid-sized city transit operator to use its maintenance facility.
- Centralized maintenance facility improves efficiencies.

Ark-Tex Council of Governments

The Ark-Tex Council of Governments (Ark-Tex) covers 6,429 square miles and had a 2010 population of 325,409 spread across Bowie, Cass, Delta, Franklin, Hopkins, Lamar, Morris, Red River, and Titus counties in Texas as well as Miller County in Arkansas. Ark-Tex provided 394,657 unlinked passenger trips in Fiscal Year 2009.

Structure of Maintenance Program

Ark-Tex employs a two-tiered maintenance approach: Much of its maintenance is performed at a centrally located regional maintenance facility in Mt. Pleasant, TX. However, Ark-Tex also has contracts with private maintenance providers in each of its nine Texas counties. This approach minimizes both deadheading and downtime to the regional facility when only minor maintenance is required. Ark-Tex also stores spare vehicles remotely in each county so they can quickly be placed into service if necessary.

Conclusions

- Ark-Tex utilizes a regional maintenance facility for major maintenance and private contractors with operations in each county to perform minor vehicle maintenance.
- Spare vehicles are stored in each county to minimize downtime when vehicles require immediate maintenance.

City of Brownsville, TX

Operating as the Brownsville Urban System (BUS), the City of Brownsville (144.9 square miles in an area with a population of 175,023) operates both fixed-route and paratransit services within city limits. BUS provided 1,779,981 unlinked passenger trips in 2008 with a fleet of 40 revenue service vehicles.

Structure of Maintenance Program

The City entered into a contract with a private contractor, First Vehicle Services, to perform all vehicle maintenance, including management of the BUS fleet preventive maintenance and repair operation, as well as useable parts inventory, at its in-house facility. The contract includes a mobile maintenance element, with a dedicated service vehicle to assure road calls are responded to within 30 minutes during normal hours.

Conclusions

- All maintenance operations are fully contracted to a private firm.
- Mobile maintenance vehicles are available within 30 minutes during normal hours.

Cape Cod Commission – National Park Service (Massachusetts)

The Cape Cod Commission (CCC) – the regional planning authority for Cape Cod, MA – and the Cape Cod National Seashore – part of the National Park Service (NPS) – has evaluated purchasing or contracting a mobile maintenance unit to reduce deadheading and downtime for small repairs of the National Seashore and Cape Cod Regional Transportation Authority (CCRTA) vehicles. The primary form of alternative transportation to National Seashore sites and beaches is a local bus service operated by CCRTA. One of the operational challenges associated with these bus routes has been the deadhead time and mileage associated with moving vehicles in and out of Outer Cape service from CCRTA's current maintenance facility located more than twenty-five miles away in Dennis, particularly during congested summer roadway conditions.

Structure of Maintenance Program

The mobile maintenance unit (MMU) being evaluated is a heavy-duty truck that is equipped with specialized vehicle maintenance and repair equipment, including a lift and diagnostic tools. The NPS examination of this option found typical unit costs in the range of \$100,000 to \$150,000; it includes capabilities such as full periodic maintenance (PM) schedules, safety inspections, roadside repairs, and minor and major service work including tune-ups and oil changes, brake, suspension, and some transmission work.

According to the NPS, roughly 98 percent of CCRTA's maintenance calls could be performed with a MMU, and that the typical "book" charge for service from a MMU is nearly double that of a non-mobile facility. This suggests a mobile unit is most advantageous in situations where multiple vehicles can be serviced at once, either in direct financial terms or in terms of impacts on transit operations. In an informal interview with Dynamic Mobile Repair of Wakefield, MA, the firm's general manager noted its typical rule-of-thumb is that a dedicated vehicle and technician can be assigned when maintenance spending rises to the level of approximately \$120,000 to \$140,000 annually.

There are several options available to the CCC for the MMU in terms of owning and operating: agency purchases and operates MMU; agency purchases the vehicle, but operated by a third-party; MMU is used on-demand from third-party; and dedicated MMU from a third-party is assigned to a designated service area. These alternatives are listed below in Exhibit 1.1.

Exhibit 1.1 Summary of MMU Options

Summary of Potential Options for Mobile Maintenance Unit (MMU)

Description	Pros	Cons	Partnership Arrangements
Own & Operate: Purchase MMU (\$100,000 to \$150,000) and operate using in-house maintenance staff.	Dedicated vehicle for Outer Cape. May be able to access capital funding sources (e.g. NPS, CMAQ).	Greater risk and capital expense vs. service contract with existing firm. May require training staff on MMU operations.	MOU among project partners governing cost allocation, staffing, and use of the MMU.
Own Vehicle but Contract for Service: Purchase MMU and operate using staff from outside maintenance contractor.	As above, plus makes use of contractor expertise in MMU operations.	Contracting out may present legal or labor relations issues. Atypical approach for MMU service would require more complex contract.	MOU among project partners governing cost allocation and use of the MMU.
Basic Service Contract: MMU sent on-demand from Upper Cape or mainland. Standard rates.	Lowest-risk option: can use MMU only as circumstances require. Low-cost way to assess the effectiveness of the MMU approach.	Extra travel time reduces cost-effectiveness. Labor/legal issues with contracting.	Each entity pays for own use of MMU on a fee-for-service basis.
Service Contract with Dedicated Vehicle. MMU and technician assigned to Outer Cape.	Dedicated vehicle reduces travel time and improves responsiveness.	Requires commitment to use MMU for approx. \$120,000+ per year in service work. Labor/legal issues with contracting.	MOU among project partners governing cost allocation and use of the MMU.

Source: Cape Cod National Seashore Satellite Vehicle Maintenance Facility Feasibility Study.

Conclusions

- Mobile maintenance facilities can service the vast majority of repairs.
- Agency can own MMU or contract the service out.
- The capital cost of purchasing a unit ranges from \$100,000 to \$150,000.
- Approximately \$140,000 worth of work needs to be performed annually to make a contract with a dedicated vehicle financially worthwhile.

Summary

Several of the findings have direct application to the East Texas region:

- Partnering with a larger public operator for shared maintenance facilities can reduce costs and improve efficiency.
- Partnering with a private company for shared maintenance facilities also can reduce costs and improve efficiency, but could be accomplished in a shorter timeframe than partnering with another public partner.
- Although there is higher capital cost and it may not be efficient for all scenarios, a mobile maintenance unit can handle most maintenance issues in a region as well as reduce costs associated with sharing facilities noted above.

Case Studies – Refueling Programs

An examination of current refueling programs reveals three categories:

- Purchasing fuel via a private fuel card contractor.
- Purchasing fuel from another public entity.
- Joining the Texas Council of Competitive Government Retail Fuel Card program.

Rather than evaluating individual public entities, the case studies below will look at the three categories as a whole with specific examples. Information presented is mostly from the same TTI report used for the *Case Studies – Maintenance Programs* section.

Using a Private Fuel Wholesaler or Fuel Card Contractor

Several transit providers have entered into contracts with private fuel providers to realize cost savings. The contract is completed through a competitive bid Request for Proposals (RFP) process.

Organizational Examples

Since August 2011, the City of Plano and the North Central Texas Council of Governments are in separate contracts with Mansfield Oil Company to purchase fuel at wholesale prices plus a 14.5-cent mark-up for unleaded gasoline and an 18-cent mark up for diesel. Similarly, the cities of McAllen and Waco buy fuel from Fuelman of DFW and RKA Petroleum, respectively.

Conclusions

- The benefits of using a private fuel company depend on the contract and terms of purchase.

Purchasing Fuel from another Public Agency

Transit providers without in-house fueling infrastructure can purchase fuel from larger public agencies to realize cost savings. The process usually consists of entering into an MOU with the participating entity.

Organizational Examples

The TRANSA Public Transportation System, which provides transit service for the San Angelo urbanized area, has an agreement to purchase fuel from the City of San Angelo. Ark-Tex has agreements with the neighboring counties of Red River, Hopkins, and Titus to purchase fuel in addition to using a private fuel card company.

Conclusions

- Agreements with other public entities may be beneficial if coverage areas overlap.
- Refueling options are not mutually exclusive and a hybrid approach can be realized.

Joining the Texas Council of Competitive Government Retail Fuel Card Program

The Texas Council of Competitive Government (CCG) Retail Fuel Card contract gives state agencies and local governments the opportunity to realize savings on fuel and maintenance purchases on their vehicles through a purchase card program that provides electronic discounting. According to the CCG website, the program includes rebates of federal taxes for all fuel card purchases, 2.5 cents per gallon

rebate on all retail fuel purchases, and a rebate of one percent on all transactions. The card consolidates accounting into a single invoice, and under the current contract with vendor Comdata, the card is accepted at all locations that accept MasterCard. Additionally, bulk fuel may be purchased under this contract.

Organizational Examples

Although mandatory for all state agencies and institutions, local agencies are welcome to use the card. Participating agencies have saved over \$1.3 million to date during the first quarter of Fiscal Year 2009.

A 2008 TTI technical report titled “Quantifying the Purchasing Power of Public Transportation in Texas” studied the effectiveness of the state fuel card at cost savings among participants. The report analyzed 2007 financial data and concluded that the transit providers using the state-issued fuel card received a \$0.16 to \$0.21 per gallon savings over retail prices. Using 700,000 annual vehicle miles and fuel economy of 10 miles per gallon, they estimated the average rural transit provider could save \$7,000 annually.

Only a few regional agencies have joined the fuel card program, such as the Alamo Area Council of Governments and the Community Council of Southwest Texas, the latter of which saved between \$0.10 and \$0.15 per gallon after entering the program.

Conclusions

- CCG fuel card widely accepted throughout the state.
- Provides various incentives and can be tailored to an individual jurisdiction.

Summary

Similar to the vehicle maintenance program, some conclusions can be drawn for current refueling programs in the East Texas region:

- The agreement and contract terms, either between a public or private entity, is important for determining cost savings.
- Options can be combined with each other given they are not mutually exclusive.

2. BUSINESS PLAN

Introduction and Background

The 14-county East Texas Council of Governments (ETCOG) region encompasses some 9,720 square miles of land and, according to the 2010 Census, is home to 793,795 residents. The two largest cities are Tyler (population 96,900) and Longview (population 80,455). Four of the area transit service providers (GoBus, Longview Transit, Tyler Transit, and NDMJ) have expressed interest in participating in the maintenance and refueling program.

At its September 2011 meeting, ETCOG, through the East Texas Regional Transportation Steering Committee and TxDOT, agreed to a series of regional planning tasks for the upcoming year. The first of these tasks – Task 1 – is to develop a comprehensive regional vehicle maintenance and refueling program, with a goal to reduce costs, assure preventative vehicle maintenance, and facilitate efficient repair services for multiple transit providers in the East Texas region.

This report, a business plan including a recommendation of services to be purchased, anticipated cost, and a return on investment forecast, is a key deliverable in accomplishing Task 1. The recommendations include policies involving both maintenance and fueling.

Maintenance and Refueling Existing Conditions

Four of the area transit service providers (GoBus, Longview Transit, Tyler Transit, and NDMJ) have expressed initial interest in participating in the maintenance and refueling program. Several have a history of coordinating their maintenance and refueling programs. During Fiscal Year 2007/2008, ETCOG and the City of Longview entered into a Memorandum of Understanding (MOU) wherein Longview provided preventative maintenance as well as repair services to ETCOG in support of its GoBus program. As detailed in the MOU, the labor rate was fifty dollars/hour with parts billed at cost plus 4.8 percent.

ETCOG has participated in the Texas Council of Competitive Government (CCG) Retail Fuel Card program in the past. The City of Longview has also participated in this program, though the program did not include fuel for transit vehicles. Longview Transit has also partnered with Harrison County to use the County's third-party fuel card for gasoline purchases. The City has its own diesel supply, which is used by Longview Transit.

GoBus

GoBus has a desire to reduce vehicle deadheading, downtime, and overall maintenance costs while vehicles are repaired, which is why it is pursuing a regional vehicle maintenance program. Given its current vehicle spare ratio, GoBus can place cost efficiency over downtime in terms of priorities. GoBus currently relies on market-rate third parties to perform maintenance, including using Longview Transit in Gregg County. Preventative maintenance is accomplished via an outside vendor using an automated system as well as integration with RouteMatch software. Vehicles that fail in the field are towed to the nearest vendor facility. Given its large service area, GoBus stores vehicles at satellite locations: Longview Transit yard, Cotton Belt Building in Tyler, Greyhound station in Marshall, or the residences of individual bus operators.

GoBus seeks to decrease fueling costs by 10 percent while maintaining its existing reliability of access. Currently, GoBus has a fuel card contract with private vendor Comdata, similar to the CCG Retail Fuel Card contract, to fuel its fleet of 58 gasoline cutaways.

Longview Transit

Primary challenges for Longview Transit include maintenance personnel training for various bus components as well as planning for expansion of facilities and improving the quality of maintenance facilities. Like GoBus, Longview Transit has an adequate spare ratio that promotes cost efficiency while minimizing downtime. Preventative maintenance is conducted in-house through the use of spreadsheets for recordkeeping, with the City currently considering a software solution. With such a localized service area, buses are stored on-site at Longview Transit offices. To minimize maintenance incidents on the road, pre-trip inspections are performed on a daily basis.

Although there is no specific cost-savings goal, the City is conducting a cost/benefit analysis. With a fleet of nine gasoline and 10 diesel buses, Longview utilizes a City-owned tank for diesel refueling and a private vendor for gasoline refueling. Longview Transit prefers to enter into agreements with public entities for the sharing of maintenance and refueling responsibilities, but will consider contracts with private vendors as long as they are competitive.

Tyler Transit

Reducing costs is the primary driver in a regional vehicle maintenance program along with resolving the mechanical issues of a new fleet. All preventative maintenance is accomplished in-house, based on mileage. Tyler Transit buses – each equipped with GPS – are stored overnight in a lot next to the main offices. Tyler Transit is constantly striving to keep a balance between cost efficiency and vehicle downtime.

Tyler Transit follows the City of Tyler fuel policies, but is interested in further cost savings through a shared refueling program. For its fleet of 13 diesel buses and one propane/gasoline bus, Tyler Transit shares refueling with other City departments at a City-owned facility.

Recommended Action Plan for Maintenance

We recommend GoBus, Tyler Transit, and NDMJ enter into an MOU with Longview Transit to perform major component repairs (those that require shop maintenance) at its in-house facility. This MOU would be structured similarly to the ETCOG-City of Longview agreement, with minor adjustments regarding price, scope of services, and other details, when necessary. Longview Transit would have to undertake significant expansion of its current maintenance facilities in order to accommodate the increased service calls.

This recommendation furthers the goals of GoBus and NDMJ to obtain a maintenance provider with experience in servicing transit vehicles. Staff expertise and an increased supply of parts specific to transit vehicles are two benefits that will be realized in assuring faster repairs. GoBus and NDMJ are also likely to realize cost savings compared to using private facilities where a profit is built into pricing formula. Longview Transit would benefit from this approach given it will be able to utilize the new operating revenue to upgrade equipment and expand the facility.

In addition to sharing maintenance facilities at Longview Transit, all four project partners should create another MOU to share the expenditures of a mobile maintenance unit (MMU) that would facilitate more cost-effective preventative and “road call” maintenance throughout the region. Instead of purchasing a MMU to own outright, it is recommended to contract out for a dedicated vehicle, which would not require a large capital purchase of \$100,000 to \$150,000. This region-wide service would be created through a bidding process (RFP) to ensure that competitive rates are secured. Management, oversight, and record keeping of the system would be handled by the Mobility Manager housed at the proposed One-Stop Call Center. Such records will be used to help determine the cost-share of each participating entity, assuring that each agency pays costs equal to their use of the service.

This recommendation benefits all parties because it incorporates a key element – mobile maintenance – currently missing from each service provider’s maintenance toolkit. For a provider with a large service area such as GoBus, a mobile maintenance unit is of particular benefit because vehicles requiring preventative maintenance or minor repairs would not have to accrue deadhead time or mileage. For local providers such as Tyler Transit and Longview Transit, this means time and space that would be occupied by small repairs and preventative maintenance is freed up, facilitating more streamlined continuous work flow on longer-term, more complex repairs. The end result is that all projects, even those not conducted by the mobile maintenance unit, are completed more quickly and efficiently.

Anticipated Costs

The primary costs are the expansion of Longview Transit’s maintenance facilities and the costs associated with the service contract for a dedicated MMU provider. Each partner would pay its respective share of both stationary maintenance at Longview Transit’s facilities and mobile maintenance costs from the MMU. Modest costs arise from staff time in developing the MOU as well as the RFP itself and the process of selecting a vendor(s).

Necessary Agreements

The execution of the action outlined above would require developing an MOU outlining standards and compensation methodology between the project partners. The crafting and issuance of an RFP would also be required.

To secure federal funding mentioned above, the appropriate FTA grant documents would need to be submitted.

ROI Forecast

GoBus, Longview Transit, and Tyler Transit spent approximately \$111,132, \$100,000, and \$210,000, respectively, on routine vehicle maintenance last year. The John A. Volpe National Transportation Systems Center in conjunction with the National Park Service (NPS) sponsored the Cape Cod National Seashore Satellite Vehicle Maintenance Facility Feasibility Study that concluded a service contract with a dedicated MMU would be cost efficient once maintenance costs are at least \$120,000 to \$140,000 per year. Throughout the East Texas region a MMU would be effective if at least two providers partner together.

Responses to this RFP will establish direct monetary savings estimates for each service provider. In addition to direct savings, this action would likely result in indirect savings both monetary and non-

monetary in nature. For example, reduction of vehicle downtime and deadhead travel from maintenance that would have previously been necessitated by a trip to a centralized facility or a wait in a retail facility would improve the overall system efficiency through savings in time, money, and likely improvements in customer service.

Recommended Action Plan for Refueling

All project partners should join the Texas Council on Competitive Government (CCG) Retail Fuel Card program. As members, all project participants would realize cost savings by joining the largest available cooperative fueling program available. Because each service provider can join individually, they maintain a level of local control and choose the fueling option that works best for their agency. For example, Longview Transit, which has its own diesel tank in a central facility yet buys gasoline from private vendors, can utilize the program to buy any type of bulk fuel, while GoBus, whose demand for fuel is geographically dispersed throughout the 14 counties it serves, can use the card at most retail locations. Moreover, project partners can obtain and maintain records individually for accounting and oversight purposes.

Anticipated Costs

According to the Texas Procurement and Support Services (TPASS) division of the Texas Comptroller, there are no costs associated with joining the CCG Retail Fuel Card program.

Necessary Agreements

Application into the program is through the TPASS Statewide Contract Support Team, while the contract itself is between the individual agencies and the CCG.

ROI Forecast

The direct cost savings of joining the program would differ among the project partners. Calculations are estimated from the annual fuel consumption in 2011 and a potential savings in the range of \$0.10 to \$0.21 per gallon, the latter of which is based upon findings from two Texas Transportation Institute (TTI) technical reports: "Quantifying the Purchasing Power of Public Transportation in Texas" and "Peer Grouping and Performance Measurement to Improve Rural and Urban Transit in Texas."

Exhibit 2.1 Gasoline Consumption and Savings

Transit Provider	Gas Consumption/Year		Savings per Year		
	Vol. (gal.)	Price (\$)	Min.	Max	Max as %
GoBus	215,052	\$ 692,564	\$ 21,505	\$ 45,161	6.5%
Longview Transit	10,717	\$ 31,475	\$ 1,072	\$ 2,251	7.2%
Tyler Transit	1,334	\$ 4,255	\$ 133	\$ 280	6.6%

Source: ETCOG

As shown in Exhibits 2.1 and 2.2, partners can expect to reduce annual fuel costs by up to 7.2 percent through the Retail Fuel Card program.

Exhibit 2.2 Diesel Consumption and Savings

Transit Provider	Diesel Consumption/Yr		Savings per Year		
	Vol. (gal.)	Price (\$)	Min.	Max	Max as a %
Longview Transit	43,124	\$ 142,868	\$ 4,312	\$ 9,056	6.3%
Tyler Transit	55,808	\$ 189,615	\$ 5,581	\$ 11,720	6.2%

Source: ETCOG

In addition to these direct cost savings, transition to the fuel card system strengthens accountability and streamlines record-keeping, an area of improvement identified by several participating entities.

Funding Plan

Federal funds can be used for the capital costs associated with both facility expansion and MMU vehicle purchasing. Specifically, the Federal Transit Administration (FTA) Urbanized Area Formula Program (Section 5307), Transportation for Elderly Persons and Persons with Disabilities (Section 5310), Formula Grants for Other than Urbanized Areas (Section 5311), the Congestion Mitigation and Air Quality (CMAQ) Program, and other fund sources are available. The details of these programs are presented below.

FTA Grants

Section 5307 makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. Funding is apportioned on the basis of legislative formulas. For areas of 50,000 to 199,999 in population (known as *small urban areas*), the formula is based on population and population density. The federal share may not exceed 50 percent of the net project cost of operating assistance. For urbanized areas with populations of 200,000 or more, operating assistance is not an eligible expense. In these areas, at least one percent of the funding apportioned to each area must be used for transit enhancement activities such as historic preservation, landscaping, public art, pedestrian access, bicycle access, and enhanced access for persons with disabilities. Eligible uses of Section 5307 for all recipients include planning, engineering design, and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment, and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems. All preventive maintenance and some ADA complementary paratransit service costs are considered capital costs. The federal share for capital projects is not to exceed 80 percent of the net project cost. The federal share may be 90 percent for the cost of vehicle-related equipment attributable to compliance with ADA and the Clean Air Act. The federal share may also be 90 percent for projects or portions of projects related to bicycles. Local share may be provided from state or local funding sources. For urbanized areas with a population of 200,000 and above, funds are apportioned and flow directly to a designated recipient selected locally to apply for and receive federal funds. For urbanized areas of less than 200,000 population, the FTA distributes funds for small urbanized areas to TxDOT.

Section 5310 provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. Funds are apportioned based on each state's share of population for these groups of people. Funds are obligated based on the annual program of projects included in a state-wide grant application. In Texas, TxDOT ensures that local applicants and project activities are eligible and in compliance with federal requirements, that private not-for-profit transportation providers have an opportunity to participate as feasible, and that the program provides coordination of federally assisted transportation services. Once FTA approves the application, funds are available for state administration of its program and for allocation to individual subrecipients within the state. TxDOT allocates funds as follows: 25 percent of funds are allocated to each of the 25 TxDOT districts (1 percent each), while 75 percent of funds are allocated based on each TxDOT district's proportional share of the target populations of elderly and persons with disabilities. Capital projects are eligible for funding. Most funds are used to purchase vehicles, but acquisition of transportation services under contract, lease or other arrangements and state program administration are also eligible expenses. The maximum federal share is 80 percent. Local share may be provided from state or local funding sources.

Section 5311 provides formula funding to states for the purpose of supporting public transportation in areas where population is less than 50,000. Funds are apportioned in proportion to each state's non-urbanized population. Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, and nonprofit organizations, and operators of public transportation services. The state must use 15 percent of its annual apportionment to support intercity bus service, unless the governor certifies that these needs of the state are adequately met. The maximum federal share for capital and project administration is 80 percent. Projects to meet the requirements of the ADA, the Clean Air Act, or bicycle access projects, may be funded at 90 percent federal match. The maximum FTA share for operating assistance is 50 percent of the net operating costs. Local share may be provided from state or local funding sources.

CMAQ

The CMAQ Program has the objective of improving the nation's air quality and managing traffic congestion. CMAQ projects and programs are often innovative solutions to common mobility problems and are driven by Clean Air Act mandates to attain national ambient air quality standards. Eligible activities under CMAQ include transit system capital expansion and improvements that are projected to realize an increase in ridership; travel demand management strategies and shared ride services; pedestrian and bicycle facilities and promotional activities that encourage bicycle commuting. Programs and projects are funded in air quality non-attainment and maintenance areas for ozone, carbon monoxide (CO), and small particulate matter (PM-10) that reduce transportation-related emissions. CMAQ funds are distributed according to a formula based on population and severity of pollution. The federal share can fund up to 90 percent of transit vehicle-related equipment attributable to compliance with the Clean Air Act, up to 80 percent of other capital projects, and 80 percent of the operations costs for demonstration of services. Demonstration projects can be funded for up to three years.

Transportation and Community and System Preservation (TCSP) Program

The purposes of the Transportation and Community and System Preservation (TCSP) program are to improve transportation efficiency; reduce transportation's environmental impacts; reduce the need for future investments in infrastructure; provide access to jobs; and encourage private sector development that supports these initiatives. The program includes a research program to investigate these relationships; funds to integrate transportation and community and system preservation plans and practices; and funds to address transportation efficiency and community system preservation. Two types of grants are awarded through this program: planning and implementation. Planning grants are designed to research, plan, and develop strategies to meet the purposes of the TCSP. Priority for planning grants is given to applicants that demonstrate a commitment of non-federal resources to the proposal, including involvement of nontraditional partners. Implementation grants are designed to carry out projects that meet the purposes of the TCSP. Priority for implementation grants is given to applicants that promote cost effective and strategic investments in transportation infrastructure that minimize adverse impacts of the environment and promote innovative private sector strategies.

3. RESOURCE PLAN

Introduction and Background

The 14-county East Texas Council of Governments (ETCOG) region encompasses some 9,720 square miles of land and, according to the 2010 Census, is home to 793,795 residents. The two largest cities are Tyler (population 96,900) and Longview (population 80,455). Four of the area transit service providers (GoBus, Longview Transit, Tyler Transit, and NDMJ) have expressed interest in participating in the maintenance and refueling program.

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This is a resource plan that outlines how to accomplish the implementation of a regional vehicle maintenance and refueling program. It summarizes key concepts detailed in the Business Plan, which is also part of Task 1.

Current Practices

Project partners were sent a survey on existing conditions, practices, and goals that relate to fueling and maintenance processes. The responses given were then analyzed and presented in the Business Plan, which are summarized below in Exhibit 3.1.

Exhibit 3.1 Maintenance and Fueling Survey Summary

	Regarding Current Practices									
	Challenges facing main/refueling process?	Overnight vehicle staging	Fuel type, capacity	Average monthly maint.	Any contracts for 3rd party fleet maintenance?	GPS locators or automated maintenance	How is preventative maintenance scheduled/performed?	How are in-field vehicles failures currently addressed?	What is the current vehicle fueling process?	Typical midday layover for vehicles going to Longview or Tyler
GoBus	maint and fueling costs	Longview Op Center, Tyler, Marshall Greyhound, operator homes	58 gas	\$ 27,500	Longview Transit in Gregg Co	90% fleet have GPS; integrating RouteMatch for preventative maint.	outside vendor, automated	towed to nearest vendor	contract with Comdata	no layover
Longview	training different components of buses; facility needs expansion	Longview	19 (9 gas, 10 diesel)	\$ 40,000	GoBus	No, no; but analyzing software	in-house, manual (spreadsheets)	pre-trip to prevent failure, but will respond	operator owned diesel, gas ExxonMobile	
Tyler	mechanical issues w/new fleet	Tyler office lot	14 (13 diesel, 1 prop w/gas)	\$ 25,310	no	all have GPS	in-house, based on mileage	supervisors and in-house veh maint	city-owned tanks shared with other depts	

	Further refining goals, outcomes and limitations					Other	
	What is cornerstone goal of the prop veh maint concept?	What is cornerstone goal of the proposed veh fueling concept?	Hierarchy of priorities b/w cost-efficiency and min veh downtime?	Preferences, limitations re contracts for refueling or maint?	Identification of cost-savings target?	Remote veh maint/parking agreements?	Any near-term changes re fleet composition, fuel source, etc?
GoBus	establish regional veh maint program that will decrease maint costs, veh	decrease fuel costs while maintaining current accessibility	cost-efficiency over down-time: have good spare veh ratio	none	decrease fueling costs by 10%	none	Addition of 3 Senator E-Lo series 17-passenger w/2 wheelchairs to Marshall Flex Route
Longview	improved quality of equipment	cost savings - buying in bulk	balance of resources; maintain adequate spare ratio	ILA/MOU w/gov preferred; contracts w/private providers must be competitive	no, but developing maint cost/benefit analysis		no
Tyler	cost reduction	cost savings	a balance of both	follows City fuel policies, Veh Services Dept	no		no

Maintenance

This section summarizes how to establish coordinated maintenance across the East Texas region.

Expansion of Existing Longview Transit Maintenance Facility

Longview Transit will soon be expanding its existing maintenance capabilities to service its own fleet. This represents an opportunity to begin maintenance coordination among the partners. In 2008, ETCOG and the City of Longview entered into a Memorandum of Understanding (MOU), with Longview Transit agreeing to provide preventative maintenance to ETCOG's GoBus service. A similar agreement can be drafted for each of the entities to use the expanded facility at Longview Transit.

Contracting with Mobile Maintenance Unit Provider

The facility at Longview would become the primary facility for non-routine maintenance, while a mobile maintenance unit (MMU) would be used for service calls occurring on the road. Instead of purchasing a MMU outright, which can cost upwards of \$100,000, it is recommended to contract out to a dedicated MMU provider. The Mobility Manager would manage the contract, including the issuing of a request for proposals (RFP) to achieve competitive rates.

Refueling

This section summarizes the recommended fueling program detailed in the Business Plan.

Participation in the State Fuel Card Program

Project partners would join the Texas Council on Competitive Government (CCG) Retail Fuel Card program. Participation would allow partners to reduce fueling expenses as well as have a wider range of locations to purchase fuel. This is particularly helpful for entities that cover large service areas.

Partners that have existing fuel contracts would not be forced into joining the CCG program, but rather would choose the fueling option that is the most effective for the situation. For example, an existing partnership between an entity and a city's fuel depot may be retained for diesel fuel, but the CCG program would be used for gasoline purchases outside the city.

Funding and Outside Partnerships

To sustain regional coordination efforts, sources of funding and outside partners must be identified. This section summarizes available funding programs and notable organizations in the region that can be leveraged.

Public Grant Programs

There are several grant programs administered by the Federal Transit Administration (FTA) that would be applicable to project partners. Each program is separate from one another and requires separate applications.

- Urbanized Area Formula Program (Section 5307)
- Transportation for Elderly Persons and Persons with Disabilities (Section 5310)
- Formula Grants for Other than Urbanized Areas (Section 5311)
- Congestion Mitigation and Air Quality (CMAQ) Program

- Transportation and Community and System Preservation (TCSP) Program

Outside Organizations

There are many organizations dedicated to increasing mobility options in the East Texas region. The following list represents opportunities for project partners to create relationships to further the goals of a regional fueling and maintenance program.

- Private-for-hire Transportation Providers
 - Horizon Transportation (Tyler)
 - London Cab (Longview)
 - Hurd Taxi (Marshall)
 - City Cab of Athens
 - Palestine Taxi
 - Chuck's Travel Coaches (Tyler)
 - A-1 Limousine Service (Tyler)
 - Classic Coach & Carriage (Tyler)
 - Prestige Service (Tyler)
 - Paulette's Limousine Service (Longview)
 - At Your Service Limousine & Marketing (Longview)
 - Bisese Limousine Service (Longview)
 - Anderson's Limousine (Flint)
- Limited Eligibility Public Transportation
 - Elderly & Disabled Providers:
 - Anderson County Sheltered Workshop (Palestine)
 - Andrews Center (Smith County)
 - Cherokee County Mental Retardation Assoc. (Rusk)
 - Family Outreach & Resource Center (Palestine)
 - Sabine Valley Center (Marshall)
 - Salvation Army- William Booth Garden Apartments (Tyler)
 - Special Health Resources of East Texas (Longview)
 - Youth & Family Enrichment Center (Tyler)
 - Christian Retirement Center (Longview)
 - Medical Transportation:
 - Judi's Carriers (Tyler)
 - ACCESS (Jacksonville)
 - Andrews Center (Smith County)
- Client Transportation Providers (an organization's client, resident or member)
 - Alterra Sterling House of Palestine
 - American Red Cross (Tyler)
 - Anderson County Community Council (Palestine)
 - Anderson County Employment Solutions (Palestine)
 - Angelina House (Jacksonville)

- Aunt B's Adult Activity Center (Henderson)
- Brunor Manor (Lindale)
- Buckner Westminster Place (Longview)
- Cavanagh Enterprises (Alto)
- Champagne Inc (Lindale)
- Comfort Keepers (Tyler)
- Community Access (Tyler)
- Community Workforce of Texas (Tyler)
- County Rehabilitation Center (Tyler)
- Cozby-Germany Hospital (Grand Saline)
- Deborah Nalls Foster Care (Longview)
- Diversified Industries (Athens)
- East Texas Lighthouse for the Blind (Tyler)
- East Texas Workforce Center- Wood County (Quitman)
- Garden Estates of Tyler
- Generations Together (Tyler)
- Henderson Memorial Hospital
- Higgs Foster Home (Longview)
- Hope, Inc (Jacksonville)
- Integrated Health Services of Canton
- Kingsley Place of Henderson
- Moores Adult Foster Care (Longview)
- New Life Outreach Boarding Home (Longview)
- Palestine Healthcare Center
- Palmer 12 (Tyler)
- Park Place Rehab & Nursing Center (Tyler)
- Pinecrest Nursing Center (Tyler)
- Red Bird House (Tyler)
- Reunion Inn Assisted Living (Tyler)
- Rusk County Veterans Transportation (Henderson)
- Rusk State Hospital
- Salvation Army Center (Tyler)
- Stewart Blood Center (Tyler)
- TDH Medical Transportation Region 4 (Tyler)
- Twin Oaks Rehabilitation and Health Center (Jacksonville)
- VA Vans (Longview/Tyler)
- Villa of Tyler (Tyler)
- Woodland Hills Home (Tyler)

Not every organization listed must have an active relationship with the project partners, but rather they should be called upon if certain problems arise that need a specialized solution.