Technical Memorandum #3:

Regional Transportation Study Recommended Enhancements to Regional Mobility Services

Prepared For:

Regional Transportation Planning Coalition

Prepared By:

Wendel Duchscherer Architects & Engineers
140 John James Audubon Parkway
Suite 200
Amherst, New York 14228

In cooperation with:
Arch Street Communications
Bronner Group
Jack Reilly

April 2013

This page has been intentionally left blank.

Technical Memorandum #3: Recommended Enhancements for Regional Mobility Services

Table of Contents **Page**

Figures

Appendices

Technical Memorandum #3: Recommended Enhancements for Regional Mobility Services

1.0 Introduction

This third technical memo recommends a series of projects, programs, and strategies to enhance regional mobility options for the seven member counties of the RTS. The identification of recommendations also includes examples of best practices/lessons learned for regional transportation services which have been developing throughout the United States over the past decade. The recommendations have been identified and developed through the review and analysis of current conditions, funding, and services and programs throughout the study area, detailed working sessions with the study's Client Committee, and public input gathered through stakeholder discussions, and a seven county virtual town hall process.

The memo presents an overall vision for regional mobility in the seven county study area, and describes an incremental approach of steps and projects towards achieving that goal. The implementation plan includes estimated costs for implementation where appropriate.

In developing the recommendations, the varied stakeholders identified a number of immediate challenges to regional mobility which have been addressed as part of the recommended strategies. These challenges have been identified and discussed throughout the RTS process and have been the focus for the recommended improvement strategies:

- Connectivity among the various service providers
- Evening and weekend service
- Schedule coordination at major travel destination
- Funding constraints with institutional and regulatory barriers
- Changes to the NYS Medicaid program which could lead to fewer funds available for non emergency medical transportation eligible trips
- Staff commitments at the various service providers and agencies to do "new" work
- Travel destinations located outside the study area, including for medical care and VA services
- Consistent customer outreach and education

2.0 Timeliness of the Regional Concept Study

There is no better time than the present to initiate the development of regional mobility enhancements in the RTS area. Federal programs contained in the MAP - 21 legislation have formularized capital funding for public transit agencies; local coordination processes which were initiated under SAFETEA LU, the predecessor federal transportation funding program, led to the development of local coordination plans which highlight both the needs and available resources to meet those needs in each area. Under SAFETEA LU as well, a number of "mobility manager" positions have been developed, with the primary intent to pursue innovative transportation strategies to meet transportation needs of the customers within their individual service areas. For example, some of the individual county specific innovative strategies include the following projects:

- **TCAT:** was profiled in the June 4, 2012 issue of *Metro Magazine*: *"U. Transit Profile: Ithaca, N.Y. transit manages needs of 3 campuses, community*". The full story can be found online: www.metro-magazine.com/News/Story/2012/06/TCAT-manages-needs-of-3-campuses-community.aspx
- **In Cortland:** the first phase of the "Coordinating Service in Cortland County" is nearing completion. As part of the study, the Community Transportation Association of American, CTAA hosted a public forum/listening session in October, 2012. Cortland has branded its Mobility Management process as Way2Go Cortland, the website can be found at www.way2gocortland.org
- **In Tompkins County:** ITNEverywhere is a research project of ITNAmerica to evaluate how to organize and deliver mobility services in small urban and rural communities. The primary goal of ITNEverywhere is to develop a suite of transportation software programs to meet the needs of individual communities. The idea is to complement current public transportation systems, as well as other community transportation resources. The ITNEverywhere project is a collaboration of ITNAmerica, Tompkins County, GADABOUT (paratransit operator), Way2Go (Cornell Cooperative Extension), 211 Tompkins/Cortland, Department of Social Services, Office for the Aging, Ithaca Carshare, Ithaca Tompkins-County Transportation Council, FISH, George Corp, and Finger Lakes Independence Center. The working group included the above agencies and representatives of TCAT and the Ithaca Central School District.
- **211 Individual Trip Plan Database Project:** In every community there are case managers and discharge planners who create individual trip plans for people, usually under pressure of a short time period. A significant share of those trips present challenges based on location, time, availability of options, and individual circumstances. The purpose of the 211 individual trip plan database is to create a central repository for trip plans which can be accessed by case managers and the public, to collect insights about how local mobility services can be improved and better coordinated, and provide

the ability to crowdsource difficult trip plans. This mobility management project will enable the wisdom and insights of case managers to be collected and shared. Trip plans are customized to individual circumstances. All available options are considered, including delivering a service to the customer, instead of requiring the customer to travel to the service.

- **New York State:** Through **NYSERDA,** the state has initiated a regional process that may have applicability for some of the counties in the study area. The info on that can be accessed at www.CleanerGreenerSouthernTier.org. The process includes a transportation component and potentially could be used to fund new ideas generated through the RTS.
- **The Arc of Schuyler County:** Work continues on the Veterans Transportation and Community Living Initiative (VTCLI) grant which was received. The VTCLI grant was secured to conduct planning, outreach and marketing of a one-call/one-click center to improve access to transportation information for veterans, service members and their families. Mobility Managers of Schuyler, Chemung and Steuben counties, as well as Directors of Veterans Services for Schuyler and Steuben, met with the Bath VAMC to discuss rural veterans' transportation needs and how they are best met. Funding sources and coordination with Veteran's service organizations for possible carpool options is being reviewed.
- **Chemung/Schuyler:** A transit service expansion from **Schuyler into Chemung County** has begun preliminary discussions. A meeting was held December 7th to initiate discussions about a possible public route operated by the Arc of Schuyler into Steuben County utilizing the new transportation center. This service would connect Schuyler residents with Steuben public transportation options.
- **Cayuga County:** The County is making the City of Auburn safer for pedestrians. The City and the New York State Department of Transportation (NYSDOT) have improved six pedestrian crosswalk locations in downtown Auburn. The new crossing signs alert drivers to the crosswalks and remind them to yield to pedestrians crossing the street. Four of the new signs are located on Genesee Street, one is located on State Street and one is located on Loop Road. A group comprised mostly of senior-housing residents is meeting to identifying additional areas for safety improvement for seniors in the downtown area. Also included in their discussion is changing bus stops locations for CENTRO Auburn service to the store entrances of the shopping center rather than their current location on the street side across the parking lot.
- **Tompkins County:** The County answered 253 downstate disaster calls resulting from the damage caused by hurricane Sandy from November 5 through the 16 at the Tompkins Cortland 2-1-1 call center. Tompkins Cortland provided backup to Hudson Valley's 2-1-1 when it became inundated with calls from the storm. In an effort to be even more responsive, the Tompkins Cortland 2-1-1 call center is in the process of identifying recourses for the replacement of its I&R database and management software to allow more efficient and enhanced sharing of data among Finger Lake communities.

- **Tompkins County:** With the help of the Ithaca Dispatch Inc., has improved mobility for people using wheelchairs by purchasing the County's first wheelchair accessible taxi. The MV-1 taxi — built by Vehicle Production Group Inc. can carry one person in a wheelchair and three seated passengers. Eighty percent of the $46,000 cost was covered by federal transit money, and the additional 20 percent was contributed by the Ithaca Dispatch.

In addition to the work already underway in the individual Counties, there have been advancements in technology applications. These are beneficial both for customers to gather information as well as for transit agencies to share data bases and effectively blend individual programs. As a result programs are more seamless to customers and also offer agencies the ability to effectively manage administration functions. With that, there can be increased interest in interagency connections which can often result in more opportunities for shared and increased resources.

There are a number of ITS projects in development already within the RTS study area, for example:

- TCAT is moving forward with a IT strategy plan, to look at the range of technology applications and how those might best serve TCAT operations and customers
- ARC of Schuyler is looking at ITS options as it implements its VTCLI grant one call one click center

Many of these example projects provide opportunities that could be transferable to other counties or agencies, e.g. improving veteran and community transportation in the larger region.

The region will continue to change and diversify which results in an opportunity to blend and interconnect mobility choices including the rural system components with the fixed route foundation network. It will continue to be important, as new technologies and modal options become available, to ensure connectivity continues to be available to those who are dependent on having reliable mobility choices to contribute and participate fully in communities and services such as medical access, employment, and lifeline opportunities.

2.1 Study Area Demographics

The study area is a large geographic region with diverse characteristics which includes urban and suburban communities as well as large rural areas. This diversity, influenced by topography challenges and employment and housing options has led to some unique travel patterns. Some of these critical characteristics include the following:

- There is a high percentage of inter-county travel between Schuyler and Tompkins County, followed closely by Chemung to Tompkins County
- 12,000 residents from within the RTS region commute into Tompkins County daily
- The sum of persons that qualify for one or more of the federally defined disadvantaged categories including: persons under 18: persons over 65: persons with disabilities: and persons living in poverty account for over 60% of the population
- Public Transportation Usage: Tompkins County numbers are high and growing (from 4.8% (2000) to 6.8% (2010) of work trips). By comparison, the national average is 5.8%, while internationally, it is 20 %
- The largest growing percentage nationally of potential riders/users of public transportation is young people between the ages of 17 and 35, 35% of which have chosen not to get a drivers' license and car, but are choosing to live in environments and locations where other mobility options exist. This is particularly relevant in a region which offers so much in the way of secondary and post secondary higher education choices.

The following two figures are representative of these trends. Figure 1 depicts population and mode choice information in the study area. Figure 2 depicts employment with journey to work to Tompkins County.

Figure 1 Population and Mode of Travel

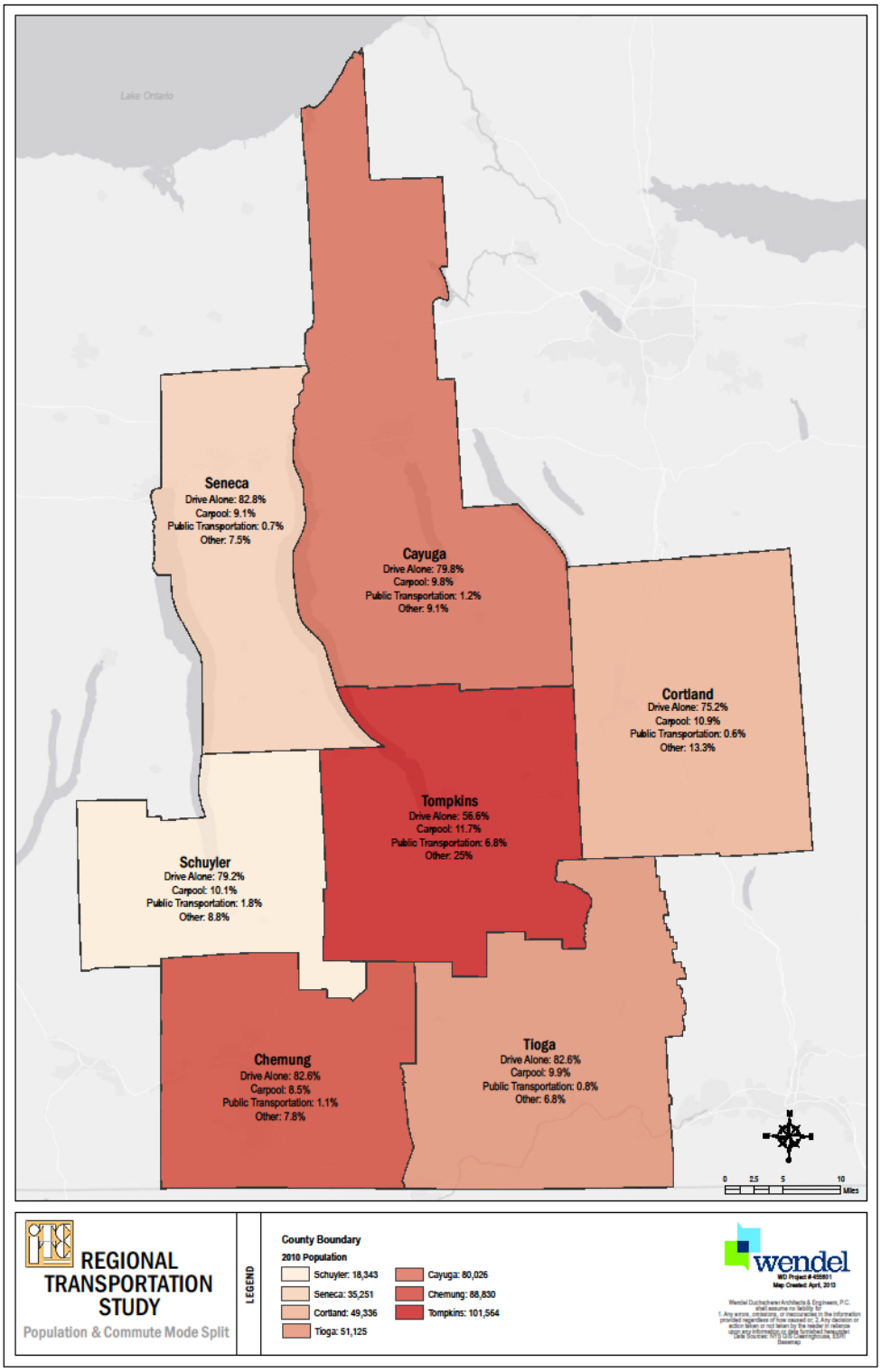
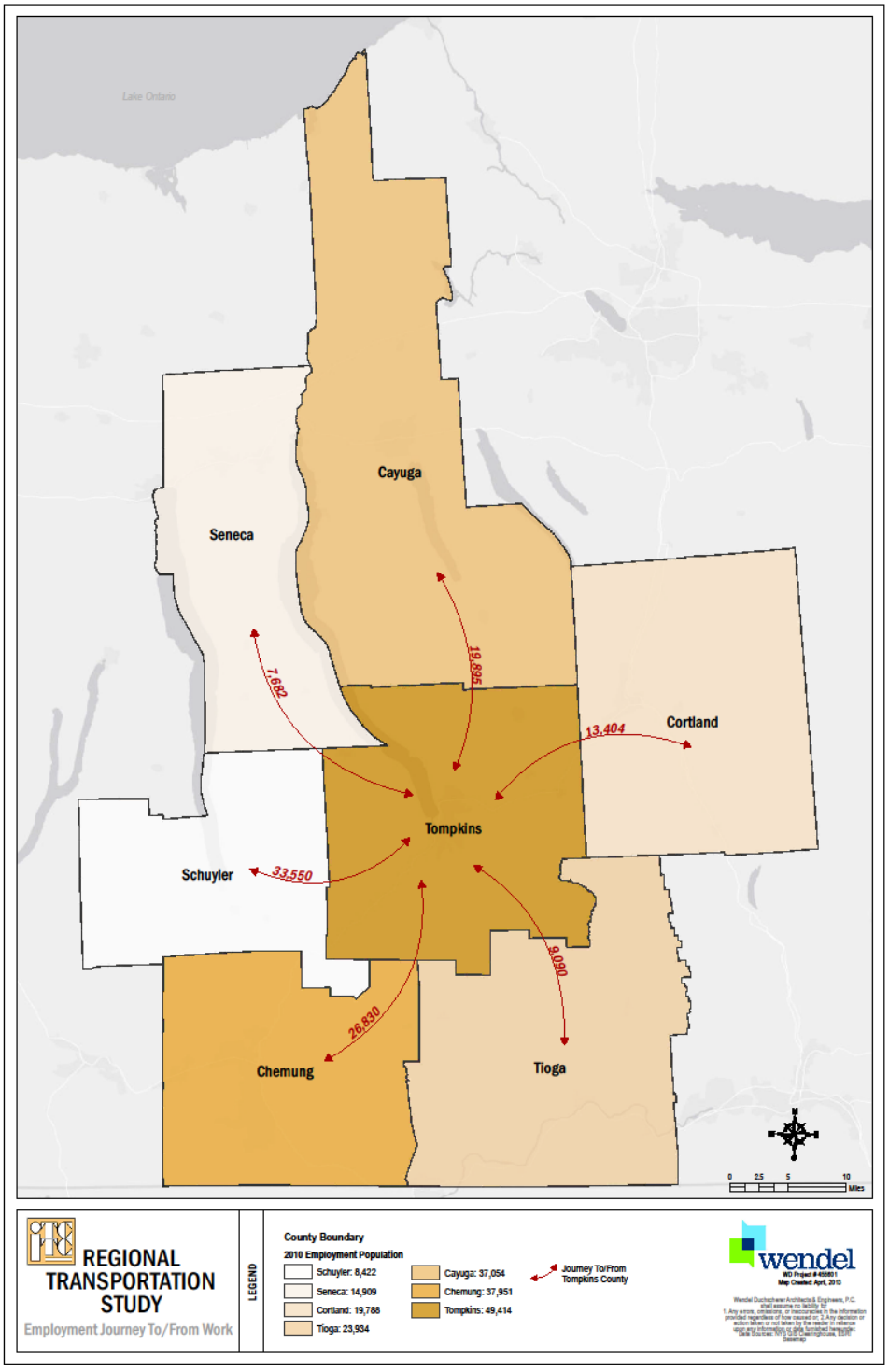


Figure 2 Employment and Journey to Work to Tompkins County



All of the demographic information shows that regional transportation options will only continue to grow in importance in the future. Services that remain status quo will not effectively meet the growing and changing needs that must be addressed. However, coordination as will be described through this document is one way in which the effective use of resources can be maximized.

2.2 Changes to Watch for in Transportation Funding

Another critical consideration is how transportation is currently funded within the RTS area. As was noted previously, approximately $25,000,000 is spent annually for public transit operating purposes within the region. That includes approximately $5.5 million gathered from the farebox, $9 million from the State's Operating Assistance program, $3.5 million of federal funds from all programs combined, and the rest from a variety of sources including reimbursement for providing non emergency medical transportation services, and other programs which support transportation including senior program funds, and local contributions.

MAP-21 which is the new two-year federal surface transportation program has included a number of programmatic changes from its predecessor program SAFETEA LU including blending the former 5316, JARC program, into the 5307, federal urban, and 5311 federal rural program funds, and also blending the 5317, new freedom program into the 5310 programs for seniors and persons with disabilities.

Other requirements that are part of MAP-21 but where federal guidance has not yet been developed include requirements for Asset Management Plan development and State of Good Repair for all federal assets, and enhanced safety oversight by the Federal Transit Administration. While the impacts of these changes are not yet known, they will clearly influence programs and activities which have been ongoing in the region.

New York State is also implementing changes in its State Medicaid transportation program moving from its current process of non emergency medical transportation (NEMT) provided under the auspices of the Counties, to provision of transportation services administered by a regional broker. That system has already been implemented in the NY METRO area and Hudson Valley, and has been directed to eventually be a state-wide system. The primary goal of that change, as is consistent with other program changes in other states, is to reduce total Medicaid costs. As the Affordable Health Care Act nears implementation in 2014, which includes increased eligibility for Medicaid programs and non emergency medical transportation, it is unclear how this state Medicaid savings will impact the provision generally of transportation at the County level. But, as a large percentage of many of the County transportation budgets are dependent on NEMT as part of their total coordinated program, it will be important to monitor changes as they develop.

3.0 Best Practices/Lessons Learned from Other Regional Processes

Over the past decades many areas of the country have studied the feasibility of implementing regional services for public transportation. This has been done for a variety of reasons including saving money, responding to regional changes, and providing more effective services to customers, as many trips require crossing jurisdictional boundaries. From a customer perspective, in general, they don't care who operates the service, rather, they want to get from point A to point B in the most effective, easy to understand way. There is no right way to create a "regional system", and what has transpired in each of the examples where this has occurred has been very location specific, including leadership, motivations, resources, and results. One common thought to keep in mind is that these processes typically develop over time, and often start in one direction and end in a different way than was originally intended.

The Transit Cooperative Research Program, TCRP, completed a study in January 2011 entitled *Regional Organizational Models for Public Transportation.* This was a quick response study that reviewed various organizational models and provided detailed case study analysis which has applicability for the stakeholders and communities in the RTS district. In this study, the regional organizational models studied included:

- State transit agencies
- General purpose transit authorities
- Special purpose regional transit authorities
- Municipal transit agencies
- Joint exercise of powers or joint powers authorities.

In conducting the research, seven strategies were identified that are relevant for this process:

- Every region is unique and precise governance choices must fit the region
- It is importance to recognize and capitalize on opportunities for change
- Governance and financing are inter-related and must be addressed together
- Governance change takes take and is never static
- Leaders and Champions are critical for any successful endeavor
- Advocacy partners are also important elements of regional discussions
- Good working relationships between agencies, operators and partners are critically important

This diagram portrays the range of attributes consistent with regional and organizational change:

The examples of regional service range from those completed by statute or regulation to those that were completed by inter-local agreements. Services range from the simple expansion of service area boundaries, while others include the coordination of multiple operators into a single or shared framework.

From a New York State perspective, one of the case studies included the expansion of Oneida County formally into the CENTRO CNYRTA which as noted in the overview from the TCRP report below as being facilitated by the existence of enabling legislation. Other than Cortland County, which has that designation as being able to be part of an existing RTA, that option does not extend to the remaining RTS Counties. The on-going challenges of funding operations and the reliance on the NY State budget are also on-going challenges for the RTS area.

Syracuse Region (New York)

Impetus for Change: Near bankruptcy of local municipal, transit operators (e.g. re-categorization of City of Rome outside of Federal Urbanized Area resulted in loss of Federal revenue)

Direction of Governance Change: Growing Regional Transit Authority (Urbanized area covering parts of Onondaga, Oswego and Cayuga counties). Expanded operations to a second urbanized area (Oneida County) in 2005. The 1970 legislation allows up to seven counties.

Mechanism for Change: No governance change per se. County Board of Legislators needed to be convinced to join. Because Utica and Rome were experiencing financial stress, County Executive called Central NY RTA to formally request a study. Opting in required one-time $2.7M capital infusion, and ongoing operations requirements levying a mortgage recording tax (¼ of 1%) and matching a portion of state operating assistance. Transition occurred in 2005.

Accomplishments:

- Objective evaluation of options in 2005 (privatize; join RTA; postpone change by extending individual operations for 1-2 years)
- Adapt to combined operating environment (3 unions, different buses for different markets, bring all heavy repair to central maintenance facility).

Lessons Learned:

- RTA governance model is flexible.
- Fact that original (1970) legislation enabled integration of 7-county area was a big advantage. In effect no governance model change was needed, only changes to board composition.
- Opportunities exist in the future to further expand not only into other three counties, but other counties not in any authority's district for economies of scale. Would require statewide legislation.

On-Going Challenges:

- Availability of operations funding is the biggest ongoing challenge.
- Heavily reliant on NY state budget.

3.1 Organizational/Fixed Route Service

There are a number of examples of regionalizing services which have some attributes to contribute to the discussion in the RTS. In the Triangle Region of North Carolina, which includes the cities of Raleigh, Durham, Cary and Chapel Hill, there were two organizational studies which looked at the potential to create a comprehensive regional transportation agency. In addition to individual fixed route operations in each listed city and transit services for Duke and North Carolina State, Triangle Transit provides commuter bus service and regional paratransit, and each county operates its own coordinated human service paratransit. The original goal had been to consolidate all activities under the auspices of Triangle Transit, which was not accomplished due to a variety of issues, including the lack of a leadership champion to achieve the necessary change.

However, what did occur was that through a series of informal and formal agreements, the varied parties were able to create a regional brand (GO Triangle) with a website that includes a variety of commuter options, standardized client eligibility programs, coordinated call center access and collaboration on a range of service development options. Thus, information and services to the customers were improved and expanded and staffs from the various agencies continue to collaborate on a variety issues within the region. Triangle Transit served as the lead agency in many of the actions and activities which were implemented.

Another study in North Carolina did result in the formation of a new transit entity, Greenway Transit, which consolidated services in four counties and three cities to form the first rural and urban regional transit authority in that state. That formation process also required many meetings and discussions and a number of years to implement.

There are a number of other examples including: the expansion of service area for Monterey Salinas Transit CA achieved through working with local agencies and officials, and ultimately transitioning from a Joint Powers Authority to the creation of Monterey Salinas Transit Regional Transit District: creation of a new county transit agency in Middlesex County NJ to bridge the gap between the statewide New Jersey Transit and municipal services; the CoastalLink Route, regional corridor service in CT operated by three different operators that alternate trips with their own vehicles and drivers.

In each of these examples, the affected agencies worked together to determine what type of service agreement would work best for their area and then proceeded to plan, fund and implement.

3.2 Paratransit/Human Service Transportation

The use of multiple partners and the formation of coordination activities are especially prevalent in the area of human service transportation. Some of the attributes and better known examples from around the country include:

- Organizational Structure, ACCESS Paratransit, Pittsburgh, PA: A highly structured coordinated regional system that is consistent working with customers regarding eligibility and service delivery and with agencies working on policies including financing and administration. As a result clients from multiple agencies are accommodated on one vehicle and service effectiveness and efficiencies are achieved.
- Volunteers, TRIP Program, Riverside CA: This nationally recognized volunteer mileage reimbursement model has been implemented in a number of locales and has information and instructional materials from their website. The use of volunteer-based programs has increased in recent years with many persons offering to "give back" to communities.
- Operating Agreements, ALTRAN MI: This 15 county area in the Upper Peninsula of Michigan negotiated and implemented a one-page agreement that allows agencies to operate in multiple counties.
- Technology, Lower Savannah Council of Governments, COG, SC: Received a Mobility Services for All Americans grant from USDOT which connected service in multiple counties through the use of ITS infrastructure. They have been successful working with multiple agencies to secure other grants and funds as well.

Coordination with NEMT Brokerages

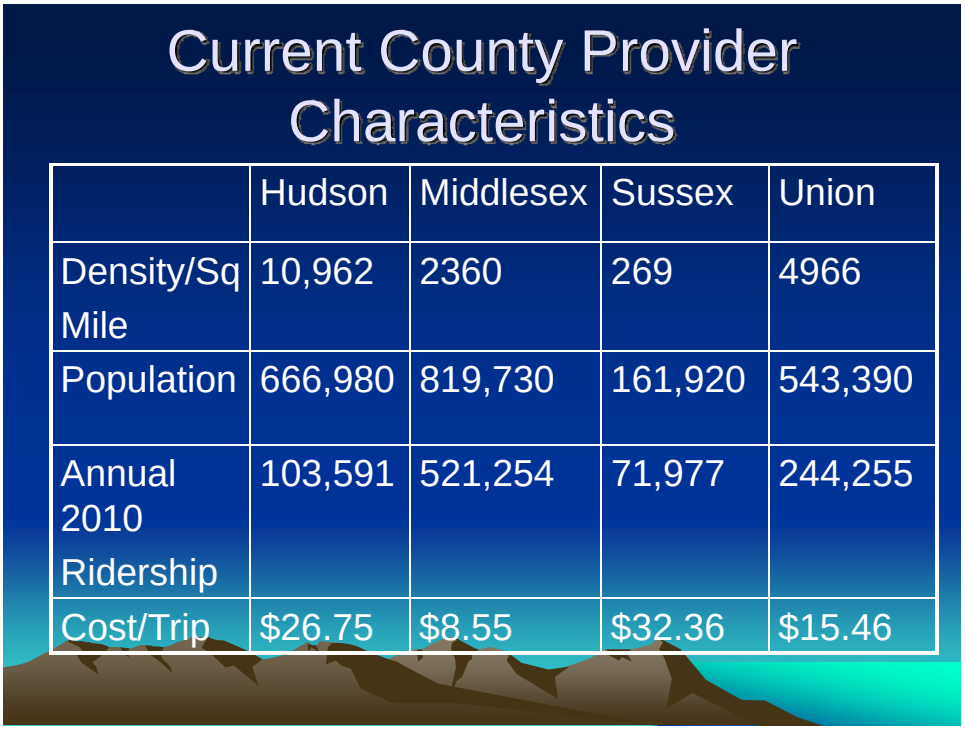
As many states have begun to establish statewide brokerages in place of previous reliance on regional, county, or local coordination with established public transportation agencies there has been some success documented noting transit agencies ability to coordinate successfully with the established brokerages. This may have particular relevance to the County programs in the RTS region, as the state transitions to its new model.

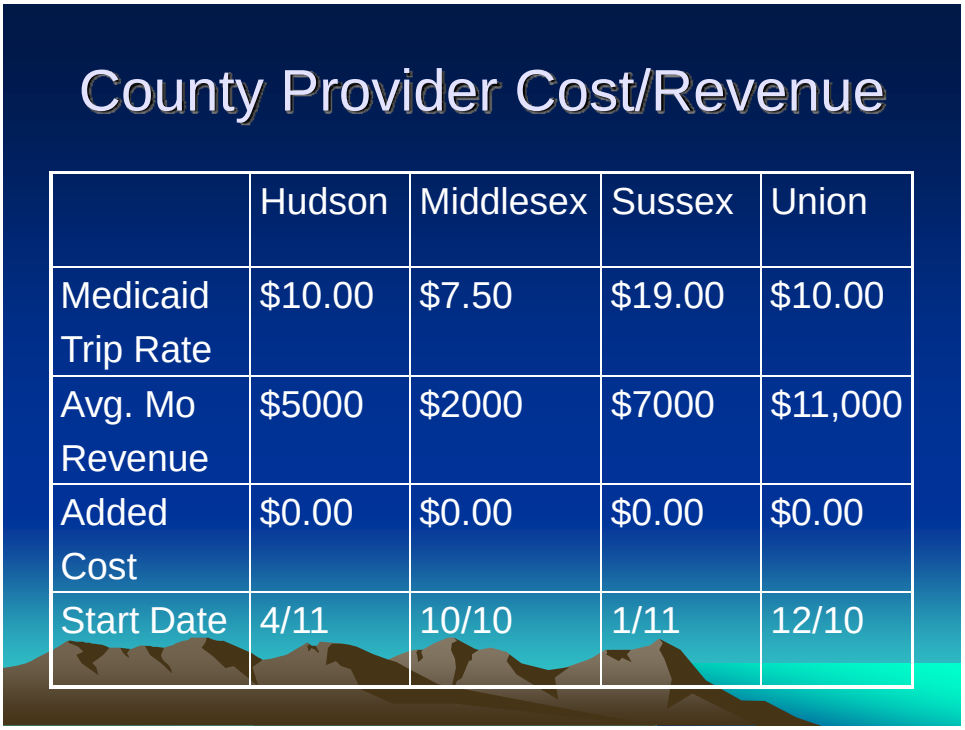
One recent example is in New Jersey, which offers the follow steps for consideration:

- Spring 2009- NJDHS awards capitated broker contract to Logisticare
- Spring 2010- Logisticare begins transition of ambulatory services brokering from county Board of Social Services
- October 1, 2010- Logisticare begins first provider contract with county operator
- January 2011- Logisticare completes transition of 21 county Medicaid services
- Create win-win of new revenue for counties, and lower cost for broker including:
    - Take advantage of empty seats on County provider non-Medicaid vehicle runs
    - Focus on existing County medical subscription runs (mental health, dialysis, etc)

  - Broker accepts training and background checks for county providers required by FTA grantors
  - Examples- accept PASS driver training, 5 panel drug test, background checks
  - Eliminate liquidated damages except in most egregious cases
- Currently four of 21 NJ county coordinated systems under contract with Logisticare
- Counties range from rural to urban
- Counties negotiate individual per trip rates based on costs, livery market rates
- Counties focused on adding Medicaid trips to existing vehicle runs

The following are some statistical information for the four counties and their respective services:





The following table shows monthly income for the four counties for their first year of NEMT with Logisticare.

- Hudson County: **$5,250**
- Middlesex County: **$1,147**
- Sussex County: **$7,448**
- Union County: **$12,650**

In the case of these four counties, they were successfully able to negotiate an agreeable agency fee with the statewide broker, which enabled them to continue to be a provider of non emergency medical transportation services, fill available seats on vehicles, and maintain a steady revenue stream.

3.3 Information Services/Rideshare

The use of technology has had a tremendous impact on the public transportation industry. Its impact has significantly expanded the ability of customers to access information regarding available mobility options. Technology has assisted as well in providing data and resource bases which have contributed to the development of ridesharing applications.

With respect to customer information, in some areas like the San Francisco Bay, the partnership of the MPO, the Highway Patrol and Department of Transportation provides extensive auto and transit information using the 511 network. In New Jersey, NJFindaRide.org offers information on a number of transit alternatives, especially targeted to those with disabilities and limited access to traditional transit services. And in Virginia, 211 Virginia provides access to community services and is funded by the Department of Social Services partnering with Council of Community Services, Family Resource and Referral Center, The Planning Council, the United Ways of Central Virginia, and Greater Richmond and Petersburg.

Rideshare programs are evolving rapidly in a number of regions nationally, with many combining the use of social media with real time information to offer immediate “dynamic” rideshare options. These programs, similar to the current programs in the RTS area, run the gamut from fee based or free, and can include a variety of ancillary services. For example the base traditional rideshare program Zimride has added an on-demand program called ***Lyft***, which is now being used as one of the alternatives for taxi service in areas like San Francisco. Zimride has also partnered with fixed route bus service, e.g. ski buses from San Francisco to Lake Tahoe, thus there are many options and alternatives now available in the rideshare market.

As part of the RTS several areas around the country were evaluated that had attributes similar to the greater Ithaca area including: Ann Arbor MI, Boulder CO and Missoula MT. In each of those areas rideshare, transit and community groups worked together innovatively to attract more use. For example: a regional rideshare serving seven counties was formed in Michigan, offering ride matching services for bicyclists, as well as carpool and vanpools, and is sponsored by Ann Arbor Transit Authority and the Southeast Michigan Council of Governments (SEMCOG); in Boulder employers purchase Eco Passes which provide and enable discount fares and access to City transit services, as well as a Guaranteed Ride Home Program and the NECO pass allows neighbors to band together to buy passes at a discount; and in Montana the transit management association provides vanpool services and organizes carpools and also performs many of the functions of a TMA, organizing employer programs and encouraging pass purchases plus has a dispatch system that allows all participating providers to advise clients when another provider has a vehicle better positioned to respond (using shared software).

Although every area has a unique set of attributes, the above section has included examples from other areas of the country that have applicability to the RTS area.

4.0 Recommendations

The following section contains the service and program recommendations that would expand mobility options as a result of the RTS process. The goal of the recommended programs and service is to be responsive to the diversities in the region include many demographic, socio-economic and topographic factors which influence mobility needs, and extend beyond the seven County region to destinations such as Rochester, Syracuse and Binghamton.

Through the RTS process a number of ideas and concepts were able to be transitioned into priorities and then, through the development of a series of smaller working groups, framed as services, policies and programs that could effectively frame a regional mobility program.

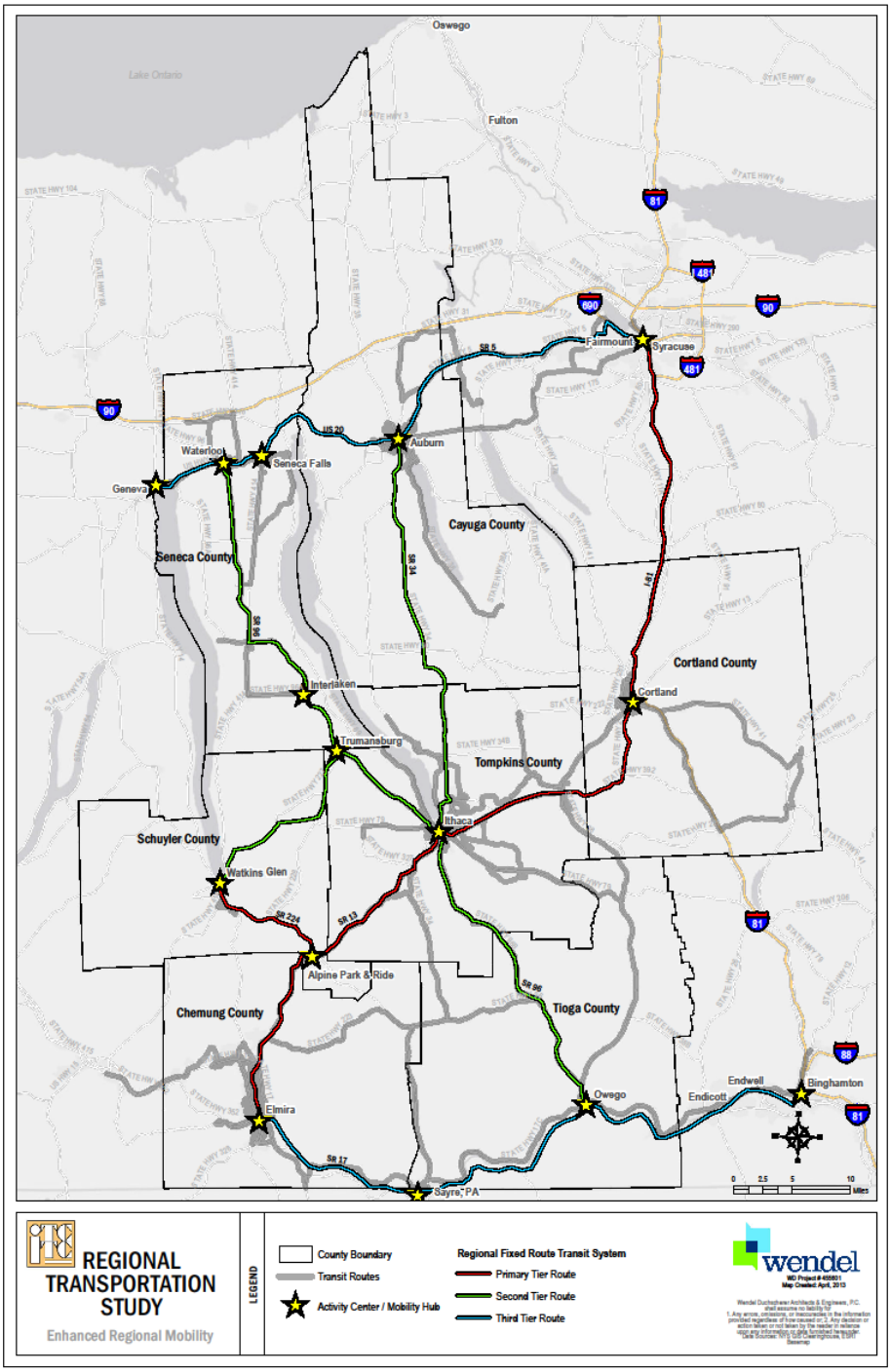
The framework for the system - a Virtual Regional Transportation Consortium consists of:

- Multiple modes and operators
- Seamlessly connected services
- Common communication and information
- Effective marketing and branding
- Agreement in form (policy)
- Financial process/mechanism

The term virtual indicates that an overarching regional entity would not need to be created. Rather through the use of Intelligent Transportation System technology and forms of organizational management, such as consolidation, coordination and collaboration, the regional system can be formed with multiple participants using technology to communicate, connect services, etc.

With respect to service connections and opportunities, discussions with existing operators indicated some potential to do minor route and policy modifications that could increase mobility connections, but there was consensus that without additional resources and policies a true regional transit system could not be developed. By listening to and analyzing the variety of trip and destination needs, the framework for a regional system was developed, as shown below, which could form the basis of a program of projects to be pursued by the affected agencies and the Regional Transportation Planning Coalition.

Figure 3 Enhanced Regional Mobility



These corridors contain the majority of trip demands communicated as part of the input from the Client Committee members and the public, which was also validated by analysis of other trip data. Demand for those corridors includes work, medical, educational, and other trip purposes. The proposed network is based on a foundation of fixed route connections between the major hubs along the corridors. Those fixed route services could then be supplemented and complemented by a series of either fixed or flexible routes or demand responsive services including the human service transportation network and other community based services. These connections would occur at transfer centers, park and ride lots or mobility hubs (as shown below) that would be developed with a RTS brand or theme to reinforce the regional network concept. The incorporation of and coordination with inter-city carriers would also complement the network and expand mobility options.

The recommendation is that by creating the fixed route framework along the priority corridors identified then establishes the foundation for sustainable regional connections. The Client Committee discussions included the potential to prioritize the Elmira – Ithaca – Cortland – Syracuse corridor as the first in a series of regional corridor linkages, and develop plans to build from existing services as the first pilot or demonstration project.

Besides the traditional fixed and demand response service network, other connections would be provided through coordinated rideshare programs which would offer a variety of carpool and vanpool alternatives, including the ever-changing real-time dynamic ridesharing options that are

being developing in many areas of the country and the world. Many of those newer programs are especially popular with college students and younger persons and use a number of social media connections as their platform for connections.

As noted throughout the study, there are a number of different rideshare alternatives within the region and programmatic changes can be anticipated in the future. Although there is no requirement for one rideshare program to be identified for the entire region, there is a need for the options to be accessible from a centralized reference site. Developing that centralized reference site is another goal for the RTS. There are significant differences in these types of programs, including that some are fee-based, and others can be accessed without a fee. In addition, there are a range of pricing strategies associated with different variations within the rideshare infrastructure. A working group has already been exploring rideshare program options and alternatives, including the state's 511 NY system which includes a project in Chemung County. The Counties participating in this rideshare effort include Tompkins, Chemung, and Cortland.

One opportunity for coordinating communication and information would be through the Mobility Manager positions that have been created to serve all counties within the RTS. In general the concept of Mobility Management is to focus on the trip needs of the customers, finding the best transportation solutions from all service operators. As a result, there may be a variety of choices available to potential users, all of which would be communicated consistently. The Mobility Managers have been valuable resources during the RTS, including assisting in the virtual town hall which was broadcast to all counties from a central location, with those Mobility Managers coordinating input from each county location. Continuing those service coordination and communication roles from a regional perspective would be an excellent process to sustain the RTS plan and implementation process.

Specific information on recommended services and programs are detailed in the next section and are structured in a phased strategy, recognizing that small projects can lead to larger results, if approached incrementally. In general the implementation plan is based on establishing ITCTC as the lead planning entity and TCAT as the lead operating entity to develop a three-year program of planning and operations projects

4.1 Operations

The specific projects are organized starting with actions which are low cost and relatively easy to implement, and leading to more complex, higher cost actions which will require a more formal regional process.

Table 1 below contains a list of the short, mid and long term actions that should be completed to initiate work on the regional fixed route network. The lower cost, easy to implement projects start with activities associated with sharing information regarding the existing services offered by the regions' public transit operators in Seneca, Cayuga, TCAT, CTRAN, Ride Tioga, Cortland Transit and Schuyler County Transit as well as other inter-city operators. Those activities would include gathering schedules, fares, transfer agreements, other inter-agency policies and agreements, etc. and working towards developing coordinated schedules and transfer times, and regional transfer agreements. Since some counties offer flexible routing options or area coverage, those services would also be included.

These more simple activities would have the significant benefit of enhancing a customer's access to the services and provide more consistent, easy to understand information and connections. As noted, these are no cost or low cost alternatives that can improve mobility connections, as well as remove some existing impediments to making those connections, such as operating restrictions. Working to gather information and consider some short term modifications should be accomplished in the first year, as well as the mechanisms to facilitate multi-operator travel, such as a regional transfer policy.

In the second year, the framework for inter-local or inter-county operating agreements would be developed as well as conducting the preliminary planning and development for developing service options for the high priority Elmira-Syracuse corridor. In addition to the base service, other infrastructure amenities such as placement of park and ride locations, mobility hubs to accommodate transfers from other community based and human service transportation and supporting ITS options such as real time service information should be drafted. Longer term actions would include finalizing and funding implementation of the service and amenities, first for the priority corridor and ultimately throughout the RTS region.

TABLE 1

Operations- Short Term		
	1	Compile schedule information for all general public transportation providers
	2	Collect information on fares, transfers, agreements or restrictions
	3	Examine opportunities/impediments to improve services from a customer perspective
	4	Consider service/functional modifications to meet needs identified
	5	Develop interlocal/inter county agreements for service coordination
Operations- Long Term		
	1	Develop preliminary plan to implement priority corridor and connector service
	2	Operation for first year
	3	Supporting capital infrastructure for transfer/mobility hub connections
	4	Develop operating plan for next tier of corridor/connector services*
	5	First year of operations for next corridors and connectors
	6	Supporting capital infrastructure for transfer/mobility hub connections

The specific actions required for the regional corridor network for the seven county study area has been developed and is contained in Appendix A. These routes and preliminary analysis were developed using industry standard methods. A preliminary schedule for each was developed to meet specific service objectives, including one round trip per day in each peak period, with one mid day trip, and well as for two round trips per day in each peak period with one mid day trip. Finally, using 2010 operating information from TCAT reported data, a preliminary cost assessment for the alternatives was developed.

The procedure included:

1. Development of route alignments
2. Estimate travel speeds
3. Develop service design objectives
4. Develop service schedules
5. Develop a cost estimating model
6. Apply the cost model to the service schedules

4.2 Paratransit/Human Service Transportation

The phased implementation steps identified for these services would include participation by ITCTC in planning, TCAT in operations and the Mobility Managers as coordinators with the human service agencies. Specific projects would again be developed from the more easy to implement low cost projects to those that are more complex and would require specific regional action from a policy perspective and include:

- Create shared data base of information on customers and services
- Draft a regional process for long distance medical and other services
- Develop methodology to communicate long-distance medical trip needs
- Develop pilot corridor service to medical center (e.g. Syracuse)
- Monitor changes in state's NEMT processes
- Compare eligibility information inclusive of ADA paratransit
- Develop consistent ADA eligibility process

The first year steps would begin with drafting a plan for data sharing among the affected agencies, perhaps using the 211 network or another existing infrastructure. Since one of the consistently mentioned needs was longer distance medical trips, another first year action would be to share demands for those services and to consider options to deliver that service collaboratively, working with potential operators as well as the medical community. Since that service would be initially recommended for the high priority Elmira-Syracuse corridor, it would be coordinated with the fixed route service planning. Structuring the service and implementation would occur in the second year.

As indicated previously, county transit programs will be affected by changes in the State Medicaid transportation program as well as changes that would occur based on the start of the Affordable Health Care program. It will be in the interest of the RTS region to monitor those changes and to communicate the improvements planned as a result of the RTS to all agencies. Since many Medicaid eligible riders are also eligible for ADA paratransit, especially the growing number of frail elderly persons, working collaboratively on eligibility processes and coordinating ADA and Medicaid services presents longer term prospects to better communicate more

seamless mobility options to customers, coordinate service delivery among operators and streamline administrative processes.

4.3 Rideshare

As noted, a working group consisting of representatives from the Client Committee has been formed with the goal of exploring the potential to expand on the NYSDOT511 demonstration program that includes Chemung County. This program is available without cost, which is different than the fee based Zimride program. The first three years of the Tompkins County Zimride project, which includes participation by Tompkins County, ITCTC, Cornell University, Ithaca College and Tompkins Cortland Community College, has been funded with a three year NYSERDA grant which will expire in 2014. However, alternatives such as moving forward with Zimride, including securing funding, or seeking other solutions must be decided.

The phased implementation plan would be to communicate the activities of the working group to other RTS participants as well as to inform those participants on decisions with respect to Zimride or other alternatives. Once more specific courses of action are known, then considering a more comprehensive rideshare program or a collaboration of programs for the RTS area can be considered.

The goal for this modal function as part of the RTS recommendations is to minimally work towards an inter-operable platform so that rideshare activities throughout the region can at a minimum consistent and available region wide.

4.4 ITS/Marketing and Branding

The effective use of ITS in public transportation projects has been successful in better communicating the availability of services to customers and more effectively connecting agencies within a region with respect to collaboration, coordination and consolidation opportunities. The phased implementation plan for ITS in the seven county region would consist of:

- Initially establishing communication links among RTS agencies and looking at the feasibility of using a common 211 network within the region
- Followed by longer term alternatives to migrate data to a common site and to consider the steps required to create a virtual regional call center

Although not a specific ITS project per se there would also be a need to fashion a consistent education, information and marketing process. In other locales that process is enhanced by a branding program, that can communicate a commonality to all the RTS projects and programs. Steps which will be necessary for the branding and marketing processes include developing a notable “brand” or moniker for the regional program, including agreement on what the brand will

represent and what information will be included as part of the brand. An important component of the marketing and branding process is the development of an educational campaign, to communicate to customers and to stakeholders regarding the availability of these services.

Appendix B provides a preliminary cost estimate and lists proposed responsible parties to implement the recommended projects noted in this report.

5.0 Implementation Strategy

Technical and Policy Elements

There are two elements required in order to sustain the RTS plan – one is technical and the other is policy. To be successful each needs to be appropriately developed with the technical element referring to ongoing and expanding work of the Client Committee and detailed in the previous section and the policy element referring to engaging decision makers in the public and private sector to garner support for the projects and programs developed by the Client Committee.

In order to sustain the process, there is recognition that there needs to be policy level support from the Cities, the Counties, and Business Community. From similar work around the country, those efforts which have been successful, such as Middlesex County NJ, Go Triangle in North Carolina and others have had a champion or lead agency to nurture these types of efforts. Such leaders are necessary to ensure resources are available to complete additional work and fully develop plans and programs.

The policy recommendations in the report to be presented to the Regional Transportation Planning Coalition are as follows:

- Endorse the Virtual Regional Transportation Consortium in concept
- Empower Coalition representatives to work with counties, the business community and other affected entities to communicate the RTS ideas and recommendations, including potential opportunities for funding and inter-local agreements to facilitate service coordination
- Establish ITCTC as the lead planning entity and TCAT as the lead operating entity to develop a three-year program of planning and operations projects

Funding and Organizational Issues

As indicated above the foundation for the RTS system will be the regional fixed route network. Although these services do not transport the majority of the trips in the region, they have the best potential to be recognized and understood by the public and also have the potential to act as nodes of access for all other services.

There are several different funding and organizational models that are used by agencies providing fixed route services Since funding is always a critical need and organizational relationships are important from policy perspectives, understanding those models is an important part of the RTS process.

The following offers an overview of the transit agencies in the RTS area:

- In two counties, Seneca and Cayuga, service is operated under contract by regional transportation authorities, the Rochester Genesee Regional Transportation Authority (RGRTA) and the Central New York Transportation Authority (CENTRO); Specific RTAs are referenced in State Legislation; Cortland County also has the ability, through legislation, to join CENTRO; funding provided includes mortgage tax fees in addition to federal and state funding.
- In Tompkins County, Tompkins Consolidated Area Transit (TCAT) is a 501C3 non-profit agency funded by the City of Ithaca, Tompkins County and Cornell University.
- Service in Chemung and Cortland counties is operated under contract by First Transit and in Tioga County there also is a contract provider.
- In Schuyler County, service is operated by the Arc of Schuyler.

Services in several counties that employ contract operators use a combination of state and Medicaid transportation funds to offer both fixed route and demand response services that provide mobility for a combination of commute, local and medical trips. In those counties, historically there has been limited use of county funds for public transportation and the non-state and Medicaid funds are typically provided by the contractor. The State is currently implementing a consolidated transportation program for Medicaid which is being phased in throughout the state. As part of that process a broker will arrange the trips for eligible participants. When enacted that could affect the funding available for the current systems and result in organizational changes or the need for additional public funds to sustain existing services. From a regional perspective, reevaluation and redefinition of existing programs or the creation of a new funding program would be required for service expansion.

Currently, there are also limitations on service providers with respect to operating in other jurisdictions, for example limiting stops to a certain locale, or precluding operations altogether. Historically, there has been a mindset that operators from outside the county should not benefit from fare revenues that can be paid for services sponsored by that county. This mindset affects customers, especially those traveling inter-county and also inhibits inter-operator coordination. If a regional transportation system concept is to be successful, these limitations must be eliminated. There are examples of agreements that have been developed in many areas of the country, e.g. a one-page agreement between 15 counties in Michigan that can be emulated.

Conclusion

The RTS was developed as cited in the Request for Proposals as “a regional mobility study, not just regional transit study or a highway-based study. Its purpose is to generate recommendations that will lead to the increase and better management of mobility alternatives for inter-county travel in the Study Area” with the following objectives:

- Increase the efficiency and effectiveness of existing mobility services across all modes of transportation,
- Develop and market real mobility choices to the public, and
- Enable coordination among counties to provide the best possible cost effective transportation programs for the Study Area.

The Virtual Regional Transportation Consortium described above consisting of multiple modes and operators, seamlessly connected services, common communication and information, effective education, marketing and branding, agreement in form (policy), financial process/mechanism fulfills those objectives. The development of phased implementation beginning with some short term projects that can sustain the technical process and include the policy level component will further communicate the system concepts:

- Develop areas of congruence for short, mid, and long term
- Establish process for communication, collaboration
- Incorporate addition of other potential partners
- Build work plan for future years

In order to be successful the participants have to shift their perspectives from the current inward focused individual county, agency and project to an outward view that includes other counties, agencies and projects. This will require some prospective process planning working together to broach ideas and concepts to traditional agencies such as NYSDOT as well as other non-traditional sources.

Organizationally, participants will need to discuss and balance perhaps on a case-by-case basis the best use of these options:

- Collaboration - informal with voluntary participation
- Coordination – more formal, typically inter-local agreement or MOUs
- Consolidation – usually a designated lead agency with varying levels of participating partners

The RTS is a large area, not all potential parties will likely participate, but aiming high, to achieve significant results, while understanding that logically smaller results will occur can nonetheless initiate the regional process.

Appendix A: RTS Regional Corridor Network

Preliminary Regional Fixed Route Service Design

This paper describes an intraregional transit service for the seven county study area. Essentially, a number of routes were developed and using industry standard methods, a schedule for each was developed which met a specific service objectives. Finally, a cost assessment for the alternatives was developed.

The procedure included:

1. Development of route alignments
2. Estimate travel speeds
3. Develop service design objectives
4. Develop service schedules
5. Develop a cost estimating model
6. Apply the cost model to the service schedules

1. Service Design

This section describes a service network configuration for transit routes which connect the communities in the study area. Based on discussion with the advisory group and other data, a network design as shown in figure 3 was assessed. Table 1 below shows a brief description of the routes.

Table 1 Description of Routes

Route	Terminals	One way distance (mi.)	Speed	One-way time (min.)	Round Trip Time (min.)	Round Trip Time (hrs.)
1	Elmira - Syracuse	91.4	40	151	302	5.03
2	Geneva - Syracuse	56.5	40	93	186	3.11
3	Elmira - Binghamton	56.6	50	75	149	2.49
4	Waterloo - Ithaca	41.6	40	69	137	2.29
5	Owego - Ithaca	29.1	40	48	96	1.60
6	Auburn - Ithaca	37.8	40	62	125	2.08
7	Watkins Glen - Alpine	12.5	40	21	41	0.69

The routes are characterized (except route 7) by long trip distances. Speed estimates were determined by scheduled speeds of intercity carriers in the study area. These are replicated in the table below.

Table 2 Travel Speed Estimates

City Pair	Carrier	Distance	Time	Speed	Road Type
Owego-Ithaca	Short Line	29.1	36	48.5	Rural highway
Elmira-Binghamton	Short Line	56.6	80	42.5	Rural highway
Cortland-Syracuse	Short Line	36.0	40	54.0	Interstate
Ithaca-Geneva	Trailways	48.3	75	38.6	Rural highway

This table shows that existing running speeds are about 40 miles per hour on rural highways and about 55 miles per hour when interstate highways are used. These speeds will be used in the assessment of routes.

2. Service Design Standards

The basic objectives of the study design were as follows:

- Provide at least one round trip per day on each route connecting residential market sheds with employment centers in Ithaca, Binghamton and Syracuse.
- Provide one midday trip to enable residents to travel to the larger communities (Syracuse, Ithaca and Binghamton)

Two levels of service were assessed. The first (basic service) included one round trip in each peak period with a midday trip. The second (enhanced service) included two peak hour round trips with the midday trip.

Actual schedules for both the basic and enhanced plan are shown in Appendix A and Appendix B. In each of the schedules, the bus assigned to each trip is shown and designated by a letter.

3. Cost Allocation Model

Table 1 below shows detailed financial data from the Tompkins Consolidated Area Transit (TCAT) for the calendar year 2010. These data are used to derive a fully allocated transit operating cost model. The model is a standard method of apportioning transit operating costs among transit routes and for forecasting the cost of new services. The model takes all transit costs and places them into three categories, (1) costs which are fixed in the short run, (2) costs which vary roughly according to the number of hours operated and (3) costs which vary according to the number of miles operated. After assigning costs to cost categories (vehicles, miles and hours), a coefficient was developed which represents the average cost per unit in that category. It is obtained by dividing the costs for the category by the number of units. The 2010

data were adjusted upward according to the consumer price index of urban wage earners. This was 6.3% between 2010 and 2013. In the model below, the cost coefficients are $50,310 per vehicle per year, $2.38 per miles and $46.11 per hour.

This model will be used to estimate operating costs of alternatives. For each alternative, the number of miles, vehicles and hours will be determined and the coefficients applied to estimate annual costs.

Table 3 Cost Allocation Model Development

Cost Category	Total	Hours	Miles	Vehicle
Vehicle Operations				
Operator Wages	$3,374,579	$3,374,579		
Other Wages	$386,483	$386,483		
Fringe Benefits	$1,607,013	$1,607,013		
Service Costs	$17,582	$17,582		
Fuels and Lubricants	$1,219,080		$1,219,080	
Tires and Tubes	$83,903		$83,903	
Miscellaneous	$55,038	$55,038		
Vehicle Maintenance				
Other Wages	$809,222		$809,222	
Fringe Benefits	$356,036		$356,036	
Service Costs	$15,633		$15,633	
Fuels and Lubricants	$12,458		$12,458	
Tires and Tubes	$4,416		$4,416	
Other Materials and Supplies	$814,173		$814,173	
Miscellaneous	$55,038		$55,038	
Non-Vehicle Maintenance				
Other Wages	$125,087			$125,087
Fringe Benefits	$58,455			$58,455

Miscellaneous	$126,371			$126,371
General Administration				
Other Wages	$818,699			$818,699
Fringe Benefits	$278,021			$278,021
Service Costs	$165,830			$165,830
Utilities	$152,061			$152,061
Casualty and Liability	$460,621		$460,621	
Tax	$5,516			$5,516
Miscellaneous	$305,108			$305,108
Total	$11,306,423	$5,440,695	$3,830,580	$2,035,148
Total Revenue Hours		125,414		
Total Revenue Miles			1,712,994	
Total Peak Vehicles				43
Cost Coefficients		$43.38	$ 2.24	$47,329.02
adjust to 2013 by 6.3%		$46.11	$ 2.38	$50,310.75

4. Service Analysis

Efficient provision of service on this network is impeded by long one-way distances. This results in buses not being available to make a second round trip during the peak hour and the requirement for significant deadhead miles if vehicles are dispatched from a single facility. The best method of operating the services as proposed in the schedules in Appendices A and B are to distribute the vehicles throughout the network. The table below shows the proposed location of each vehicle assigned to the service. The vehicle assignment is keyed to the route number (1-7) and the bus assignment (block) within the route (letters A-F). The table below shows proposed assignment locations.

Table 4. Garage Assignments for Basic Service

Route	Block	Start Time	Start Location
1	A	5:15 AM	Elmira
1	B	7:10 AM	Elmira
1	C	6:35 AM	Syracuse
1	D	7:05 AM	Syracuse
2	A	6:03 AM	Geneva
3	A	6:20 AM	Elmira
4	A	6:48 AM	Waterloo
5	A	6:42 AM	Owego
6	A	6:30 AM	Auburn
7	A	6:30 AM	Watkins Glen

Table 5. Garage Assignments for Enhanced Service

Route	Block	Start Time	Start Location
1	A	5:15 AM	Elmira
1	B	5:45 AM	Elmira
1	C	7:10 AM	Elmira
1	D	7:40 AM	Elmira
1	E	6:35 AM	Syracuse
1	F	7:05 AM	Syracuse
2	A	6:03 AM	Geneva
2	B	6:33 AM	Geneva
3	A	6:20 AM	Elmira
3	B	6:50 AM	Elmira
4	A	6:48 AM	Waterloo
4	B	7:18 AM	Waterloo
5	A	6:42 AM	Owego
5	B	7:12 AM	Owego
6	A	6:30 AM	Auburn
6	B	7:00 AM	Auburn
7	A	6:00 AM	Watkins Glen

5. Cost Assessment

Appendix C shows an estimate of the vehicles miles and hours associated with each route and service plan (basic and enhanced). The table below shows an estimate of the annual direct operating cost of each of the routes in each of the service plans.

Route	Terminals	Basic	Enhanced
1	Elmira - Syracuse	$ 843,000	$ 1,003,000
2	Geneva - Syracuse	$ 353,000	$ 510,000
3	Elmira - Binghamton	$ 333,000	$ 479,000
4	Waterloo - Ithaca	$ 247,000	$ 372,000
5	Owego - Ithaca	$ 209,000	$ 313,000
6	Auburn - Ithaca	$ 254,000	$ 373,000
7	Watkins Glen - Alpine	$ 97,000	$ 137,000
	Total	$ 2,336,000	$ 3,187,000

While these are sizable costs, there may be some methods of cost reduction including substituting small vehicles on some of the routes, more advanced scheduling practices

Appendix A
Basic Schedules

Route 1- Elmira - Syracuse

Northbound

City	Time	A	B	C	C
Elmira		5:15 AM	7:10 AM	10:00 AM	
Ithaca	50	6:05 AM	8:00 AM	10:50 AM	5:15 PM
Cortland	40	6:45 AM		11:30 AM	5:55 PM
Syracuse	45	7:30 AM		12:15 PM	6:40 PM
	135	Park in Syracuse			

Southbound

City	Time	C	D	C	B	A
Syracuse		6:35 AM	7:05 AM	12:30 PM		5:15 PM
Cortland	45	7:20 AM	7:50 AM	1:15 PM		6:00 PM
Ithaca	40	8:00 AM	8:30 AM	1:55 PM	5:15 PM	6:40 PM
Elmira	50	8:50 AM		2:45 PM	6:05 PM	7:30 PM
	135			Deadhead to Ithaca		

Route 2 Geneva - Syracuse

Eastbound

City	Time	A	A
Geneva		6:03 AM	11:00 AM
Auburn	42	6:45 AM	11:42 AM
Syracuse	45	7:30 AM	12:27 PM
	87	Deadhead to Geneva	

Westbound

City	Time	A	A
Syracuse		12:40 PM	4:45 PM
Auburn	45	1:25 PM	5:30 PM
Geneva	42	2:07 PM	6:12 PM
	87	Deadhead to Syracuse	

Route 3 – Elmira - Binghamton

Eastbound

City	Time	A	A2
Elmira		6:20 AM	11:00 AM
Owego	42	7:02 AM	11:42 AM
Binghamton	28	7:30 AM	12:10 PM
	70	Deadhead to Elmira	

Westbound

City	Time	A	A2
Binghamton		12:40 PM	4:45 PM
Owego	28	1:08 PM	5:13 PM
Elmira	42	1:50 PM	5:55 PM
	70	Deadhead to Binghamton	

Route 4 - Waterloo - Ithaca

Southbound

City	Time	A	A2
Waterloo		6:48 AM	11:28 AM
Ithaca	12:00 AM	7:30 AM	12:10 PM
		DH to Waterloo	

Northbound

City	Time	A	A2
Ithaca		12:40 PM	4:45 PM
Waterloo	42	1:22 PM	5:27 PM
		DH to Ithaca	

Route 5 - Owego - Ithaca

Northbound

City	Time	A	A2
Owego		6:42 AM	11:22 AM
Ithaca	48	7:30 AM	12:10 PM
		DH to Owego	

Southbound

City	Time	A	A2
Ithaca		12:40 PM	4:45 PM
Owego	48	1:28 PM	5:33 PM
		DH to Ithaca	

Route 6 - Auburn - Ithaca

Southbound

City	Time	A	A2
Auburn		6:30 AM	11:10 AM
Ithaca	60	7:30 AM	12:10 PM
		DH to Auburn	

Northbound

City	Time	A	A2
Ithaca		12:40 PM	4:45 PM
Auburn	60	1:40 PM	5:45 PM
		DH to Ithaca	

Route 7 - Watkins Glen - Alpine

Note: Bus meets Route 1 - Elmira to Syracuse for all trips

Southbound

City	Time	A
Watkins Glen		6:30 AM
Alpine	20	6:50 AM

Northbound

City	Time	A
Alpine		5:15 PM
Watkins Glen	20	5:35 PM

Appendix B
Enhanced Schedules

Route 1- Elmira Syracuse

Northbound

City	Time	A	B	C	D	E	E	F
Elmira		5:15 AM	5:45 AM	7:10 AM	7:40 AM	10:00 AM		
Ithaca	50	6:05 AM	6:35 AM	8:00 AM	8:30 AM	10:50 AM	4:45 PM	5:15 PM
Cortland	40	6:45 AM	7:15 AM			11:30 AM	5:25 PM	5:55 PM
Syracuse	45	7:30 AM	8:00 AM			12:15 PM	6:10 PM	6:40 PM
	135	park in Syracuse	park in Syracuse					

Southbound

City	Time	E	F	E	C	D	A	B
Syracuse		6:35 AM	7:05 AM	12:30 PM			4:45 PM	5:15 PM
Cortland	45	7:20 AM	7:50 AM	1:15 PM			5:30 PM	6:00 PM
Ithaca	40	8:00 AM	8:30 AM	1:55 PM	4:45 PM	5:15 PM	6:10 PM	6:40 PM
Elmira	50	8:50 AM		2:45 PM	5:35 PM	6:05 PM	7:00 PM	7:30 PM
	135							

Route 2 Geneva-Syracuse

Eastbound

City	Time	A	B	A
Geneva		6:03 AM	6:33 AM	11:00 AM
Auburn	42	6:45 AM	7:15 AM	11:42 AM
Syracuse	45	7:30 AM	8:00 AM	12:27 PM
	87	DH to Geneva	Park in Syracuse	

Westbound

City	Time	A	A	B
Syracuse		12:40 PM	4:45 PM	5:15 PM
Auburn	45	1:25 PM	5:30 PM	6:00 PM
Geneva	42	2:07 PM	6:12 PM	6:42 AM
	87	DH to Syracuse		

Route 3 - Elmira Binghamton

Eastbound

City	Time	A	B	A
Elmira		6:20 AM	6:50 AM	11:00 AM
Owego	42	7:02 AM	7:32 AM	11:42 AM
Binghamton	28	7:30 AM	8:00 AM	12:10 PM
	70	DH to Elmira	Park in Bingha mton	

Westbound

City	Time	A	A	B
Binghamton		12:40 PM	4:45 PM	5:15 PM
Owego	28	1:08 PM	5:13 PM	5:33 PM
Elmira	42	1:50 PM	5:55 PM	6:25 PM
	70	DH to Binghamton		

Route 4 - Waterloo - Ithaca

Southbound

City	Time	A	B	A
Waterloo		6:48 AM	7:18 AM	11:28 AM
Ithaca	42	7:30 AM	8:00 AM	12:10 PM
		DH to Waterloo	Park in Ithaca	

Northbound

City	Time	A	A	B
Ithaca		12:40 PM	4:45 PM	5:15 PM
Waterloo	42	1:22 PM	5:27 PM	5:57 PM
		DH to Ithaca		

Route 5 - Owego – Ithaca

Northbound

City	Time	A	B	A
Owego		6:42 AM	7:12 AM	11:22 AM
Ithaca	48	7:30 AM	8:00 AM	12:10 PM
		DH to Owego	Park in Ithaca	

Southbound

City	Time	A	A	B
Ithaca		12:40 PM	4:45 PM	5:15 PM
Owego	48	1:28 PM	5:33 PM	6:03 PM
		DH to Ithaca		

Route 6 - Auburn – Ithaca

Southbound

City	Time	A	B	A
Auburn		6:30 AM	7:00 AM	11:10 AM
Ithaca	60	7:30 AM	8:00 AM	12:10 PM
		DH to Auburn	Park in Ithaca	

Northbound

City	Time	A	A	B
Ithaca		12:40 PM	4:45 PM	5:15 PM
Owego	60	1:40 PM	5:45 PM	6:15 PM
		DH to Ithaca		

Route 7 - Watkins Glen – Alpine

Note: Bus meets Route 1 - Elmira to Syracuse for all trips

Southbound

City	Time	A	A
Watkins Glen		6:00 AM	6:30 AM
Alpine	20	6:20 AM	6:50 AM

Northbound

City	Time	A	A
Alpine		5:15 PM	5:45 PM
Watkins Glen		5:35 PM	6:05 PM

Appendix C

Service Details

Enhanced Service

Route	Block	Start Time	Start Location	End Time	End Location	Trip Type	Hours	Miles
1	A	5:15 AM	Elmira	7:30 AM	Syracuse	Revenue	2.25	91.4
1	A	4:45 PM	Syracuse	7:00 PM	Elmira	Revenue	2.25	91.4
1	B	5:45 AM	Elmira	8:00 AM	Syracuse	Revenue	2.25	91.4
1	B	5:15 PM	Syracuse	7:30 PM	Elmira	Revenue	2.25	91.4
1	C	7:10 AM	Elmira	8:00 AM	Ithaca	Revenue	0.83	33.4
1	C	4:45 PM	Ithaca	5:35 PM	Elmira	Revenue	0.83	33.4
1	D	7:40 AM	Elmira	8:30 AM	Ithaca	Revenue	0.83	33.4
1	D	5:15 PM	Ithaca	6:05 PM	Elmira	Revenue	0.83	33.4
1	E	6:35 AM	Syracuse	8:50 AM	Elmira	Revenue	2.25	91.4
1	E	10:00 AM	Elmira	12:15 PM	Syracuse	Revenue	2.25	91.4
1	F	7:05 AM	Syracuse	8:30 AM	Ithaca	Revenue	1.42	58.0
1	F	5:15 PM	Ithaca	6:40 PM	Syracuse	Revenue	1.42	58.0
2	A	6:03 AM	Geneva	7:30 AM	Syracuse	Revenue	1.45	58.0
2	A	7:30 AM	*Syracuse*	*8:57 AM*	*Geneva*	*Deadhead*	1.45	58.0
2	A	11:00 AM	Geneva	12:27 PM	Syracuse	Revenue	1.45	58.0
2	A	12:40 PM	Syracuse	2:07 PM	Geneva	Revenue	1.45	58.0

2	A	*3:18 PM*	*Geneva*	*4:45 PM*	*Syracuse*	*Deadhead*	1.45	58.0
2	A	4:45 PM	Syracuse	6:12 PM	Geneva	Revenue	1.45	58.0
2	B	6:33 AM	Geneva	8:00 AM	Syracuse	Revenue	1.45	58.0
2	B	5:15 PM	Syracuse	6:42 PM	Geneva	Revenue	1.45	58.0
3	A	6:20 AM	Elmira	7:30 AM	Binghamton	Revenue	1.17	57.0
3	A	7:30 AM	*Binghamton*	*8:40 AM*	*Elmira*	*Deadhead*	1.17	57.0
3	A	11:00 AM	Elmira	12:10 PM	Binghamton	Revenue	1.17	57.0
3	A	12:40 PM	Binghamton	1:50 PM	Elmira	Revenue	1.17	57.0
3	A	*3:35 PM*	*Elmira*	*4:45 PM*	*Binghamton*	*Deadhead*	1.17	57.0
3	A	4:45 PM	Binghamton	5:55 PM	Elmira	Revenue	1.17	57.0
3	B	6:50 AM	Elmira	8:00 AM	Binghamton	Revenue	1.17	57.0
3	B	5:15 PM	Binghamton	6:25 PM	Elmira	Revenue	1.17	57.0
4	A	6:48 AM	Waterloo	7:30 AM	Ithaca	Revenue	0.70	41.6
4	A	7:30 AM	*Ithaca*	*8:12 AM*	*Waterloo*	*Deadhead*	0.70	41.6
4	A	11:28 AM	Waterloo	12:10 PM	Ithaca	Revenue	0.70	41.6
4	A	12:40 PM	Ithaca	1:22 PM	Waterloo	Revenue	0.70	41.6
4	A	*3:18 PM*	*Waterloo*	*4:45 PM*	*Ithaca*	*Deadhead*	1.45	41.6
4	B	4:45 PM	Ithaca	5:27 PM	Waterloo	Revenue	0.70	41.6
4	B	7:18 AM	Waterloo	8:00 AM	Ithaca	Revenue	0.70	41.6
4	B	5:15 PM	Ithaca	5:57 PM	Waterloo	Revenue		

							0.70	41.6
5	A	6:42 AM	Owego	7:30 AM	Ithaca	Revenue	0.80	29.1
5	A	7:30 AM	*Ithaca*	*8:18 AM*	*Owego*	*Deadhead*	0.80	29.1
5	A	11:22 AM	Owego	12:10 PM	Ithaca	Revenue	0.80	29.1
	A	12:40 PM	Ithaca	1:28 PM	Owego	Revenue	0.80	29.1
5	A	*3:57 PM*	*Owego*	*4:45 PM*	*Ithaca*	*Deadhead*	0.80	29.1
5	A	4:45 PM	Ithaca	5:33 PM	Owego	Revenue	0.80	29.1
5	B	7:12 AM	Owego	8:00 AM	Ithaca	Revenue	0.80	29.1
5	A	5:15 PM	Ithaca	6:03 PM	Owego	Revenue	0.80	29.1
6	A	6:30 AM	Auburn	7:30 AM	Ithaca	Revenue	1.00	37.8
6	A	7:30 AM	*Ithaca*	*8:30 AM*	*Auburn*	*Deadhead*	1.00	37.8
6	A	11:10 AM	Auburn	12:10 PM	Ithaca	Revenue	1.00	37.8
6	A	12:40 PM	Ithaca	1:40 PM	Auburn	Revenue	1.00	37.8
6	A	*3:45 PM*	*Auburn*	*4:45 PM*	*Ithaca*	*Deadhead*	1.00	37.8
6	A	4:45 PM	Ithaca	5:45 PM	Auburn	Revenue	1.00	37.8
6	B	7:00 AM	Auburn	8:00 AM	Ithaca	Revenue	1.00	37.8
6	B	5:15 PM	Ithaca	6:15 PM	Auburn	Revenue	1.00	37.8
7	A	6:00 AM	Watkins Glen	7:10 AM	Watkins Glen	Revenue	1.17	50.0
7	A	4:55 PM	Watkins Glen	6:05 PM	Watkins Glen	Revenue	1.17	50.0

Basic Service

Route	Block	Start Time	Start Location	End Time	End Location	Type	Hours	Miles
1	A	5:15 AM	Elmira	7:30 AM	Syracuse	Revenue	2.25	91.4
1	A	5:15 PM	Syracuse	7:30 PM	Elmira	Revenue	2.25	91.4
1	B	7:10 AM	Elmira	8:00 AM	Ithaca	Revenue	0.83	33.4
1	B	5:15 PM	Ithaca	6:05 PM	Elmira	Revenue	0.83	33.4
1	C	6:35 AM	Syracuse	8:50 AM	Elmira	Revenue	2.25	91.4
1	C	10:00 AM	Elmira	12:15 PM	Syracuse	Revenue	2.25	91.4
1	C	12:30 PM	Syracuse	2:45 PM	Elmira	Revenue	2.25	91.4
1	C	*4:25 PM*	*Elmira*	*5:15 PM*	*Ithaca*	*Deadhead*	0.83	33.4
1	C	5:15 PM	Ithaca	6:40 PM	Syracuse	Revenue	1.42	58.0
1	D	7:05 AM	Syracuse	8:30 AM	Ithaca	Revenue	1.42	58.0
2	A	6:03 AM	Geneva	7:30 AM	Syracuse	Revenue	1.45	56.5
2	A	*7:30 AM*	*Syracuse*	*8:57 AM*	*Geneva*	*Deadhead*	1.45	56.5
2	A	11:00 AM	Geneva	12:27 PM	Syracuse	Revenue	1.45	56.5
2	A	12:40 PM	Syracuse	2:07 PM	Geneva	Revenue	1.45	56.5
2	A	*3:12 PM*	*Geneva*	*4:45 PM*	*Syracuse*	*Deadhead*	1.55	56.5
2	A	4:45 PM	Syracuse	6:12 PM	Geneva	Revenue	1.45	56.5
3	A	6:20 AM	Elmira	7:30 AM	Binghamton	Revenue	1.17	56.6
3	A	*7:30*	*Binghamton*	*8:40*	*Elmira*	*Deadhead*		

		AM		*AM*			1.17	56.6
3	A	11:00 AM	Elmira	12:10 PM	Binghamton	Revenue	1.17	56.6
3	A	12:40 PM	Binghamton	1:50 PM	Elmira	Revenue	1.17	56.6
3	A	*3:35 PM*	*Elmira*	*4:45 PM*	*Binghamton*	*Deadhead*	1.17	56.6
3	A	4:45 PM	Binghamton	5:55 PM	Elmira	Revenue	1.17	56.6
4	A	6:48 AM	Waterloo	7:30 AM	Ithaca	Revenue	0.70	41.6
4	A	*7:30 AM*	*Ithaca*	*8:12 AM*	*Waterloo*	*Deadhead*	0.70	41.6
4	A	11:28 AM	Waterloo	12:10 PM	Ithaca	Revenue	0.70	41.6
4	A	12:40 PM	Ithaca	1:22 PM	Waterloo	Revenue	0.70	41.6
4	A	*4:03 PM*	*Waterloo*	*4:45 PM*	*Ithaca*	*Deadhead*	0.70	41.6
4	A	4:45 PM	Ithaca	5:27 PM	Waterloo	Revenue	0.70	41.6
5	A	6:42 AM	Owego	7:30 AM	Ithaca	Revenue	0.80	29.1
5	A	*7:30 AM*	*Ithaca*	*8:18 AM*	*Owego*	*Deadhead*	0.80	29.1
5	A	11:22 AM	Owego	12:10 PM	Ithaca	Revenue	0.80	29.1
5	A	12:40 PM	*Ithaca*	1:28 PM	Owego	Revenue	0.80	29.1
5	A	*3:57 PM*	*Owego*	*4:45 PM*	*Ithaca*	*Deadhead*	0.80	29.1
5	A	4:45 PM	*Ithaca*	5:33 PM	Owego	Revenue	0.80	29.1
6	A	6:30 AM	Auburn	7:30 AM	Ithaca	Revenue	1.00	37.8
6	A	*7:30 AM*	*Ithaca*	*8:30 AM*	*Auburn*	*Deadhead*	1.00	37.8
6	A	11:10 AM	Auburn	12:10 PM	Ithaca	Revenue	1.00	37.8

6	A	12:40 PM	*Ithaca*	1:40 PM	Auburn	Revenue	1.00	37.8
6	A	*3:45 PM*	Auburn	*4:45 PM*	Ithaca	*Deadhead*	1.00	37.8
6	A	4:45 PM	*Ithaca*	5:45 PM	Auburn	Revenue	1.00	37.8
7	A	6:30 AM	Watkins Glen	7:10 AM	Watkins Glen	Revenue	0.67	26.0
7	A	4:55 PM	Watkins Glen	5:35 PM	Watkins Glen	Revenue	0.67	26.0

Appendix B: RTS Preliminary Project Cost Estimates

RTS
Cost Estimates by Project Type

			Est. Cost	Fiscal Year	Responsible Agency	Notes
Operations- Short Term						
1	Compile schedule information for all general public transportation providers	$	1,000	2013	TCAT	Work with operators to compile existing information
2	Collect information on fares, transfers, agreements or restrictions	$	1,000	2013	ITCTC- TCAT	Work with operators to compile existing information on fare policies and other restrictions to coordinationschedules for key locations
3	Examine opportunities/impediments to improve services from a customer perspective	$	5,000	2013	TCAT	Schedule connections and transfer locations
4	Consider service/functional modifications to meet needs identified	$	1,000	2013	TCAT	Develop regional transfer policy
5	Develop interlocal/inter county agreements for service coordination	$	5,000	2014	ITCTC- TCAT	Coordinate with County stakeholders
Operations Short Term Subtotal		**$**	**13,000**			
Operations- Long Term						
1	Develop preliminary plan to implement priority corridor and connector service	$	35,000	2014	ITCTC- TCAT	Survey corridor for parkand ride locations, roadway geometry, traffic, consider connections/meet with affected other local and regional operators and human service agencies and policy makers
2	Operation for for first year*	$	1,140,000.00	2015	TCAT	First year operation for initial corridor and connector- includes two am and two pm round trips plus one mid day trip
3	Supporting capital infrastructure for transfer/mobility hub connections	$	120,000	2015	TCAT	$20,000 per mobility hub- 6 hubs capital cost
4	Develop operating plan for next tier of corridor/connector services*	$	25,000.00	2016	ITCTC- TCAT	Survey corridor for parkand ride locations, roadway geometry, traffic, consider connections/meet with affected other local and regional operators and human service agencies and policy makers
5	First year of operations for next corridors and connectors	$	2,047,000	2016	TCAT	First year operation for next tiers of corridors and connectors, includes 2 am and 2 pm round trips, plus one mid day trip
6	Supporting capital infrastructure for transfer/mobility hub connections	$	160,000	2016	ITCTC- TCAT	$20,000 per mobility hub-8 hubs capital cost
Operations Long Term SubTotal		**$**	**3,527,000**			
Operations Total		**$**	**3,540,000**			

			Est. Cost	Fiscal Year	Responsible Agency	Notes
Human Services Transportation						
1	Create shared data base for customers and services	$	1,000	2013	ITCTC-Mobility Managers	Mobility Managers should select a lead amongst the group
2	Draft regional process for long distance medical trips	$	5,000	2013	ITCTC-Mobility Managers	
3	Develop methodology to communicate long distance medical needs	$	3,000	2013	ITCTC-Mobility Managers	Communicate with customers, stakeholders regarding availability, etc
4	Develop/operate pilot corridor service to medical center (Syracuse)	$	43,592	2014	Mobility Managers- TCAT	Planning $10,0000@ $64.50 = cost per hour, average 5 hours per round trip= $323/two trips per week/52 weeks
5	Monitor changes in State NEMT process	$	-	2013	ITCTC-Mobility Managers	Should be part of current work program
6	Review eligibility processes for ADA and other services	$	1,000	2014	Mobility Managers- TCAT	
7	Develop consistent ADA and other eligibility requirements for service	$	5,000	2015	Mobility Managers- TCAT	
Human Services Transportation Total		**$**	**58,592**			
ITS Program						
1	Create platform for linked connections to some or all websites	$	50,000	2014	ITCTC/Client Committee	
2	Migrate information to collaborative website	$	5,000	2015	ITCTC/Client Committee	
3	Examine 211 opportunities	$	1,000	2013	ITCTC/Client Committee	
4	Develop longer term strategy for inter-operability	$	1,000	2015	ITCTC/Client Committee	
5	Build regional virtual call center	$	500,000	2017	ITCTC, Mobility Managers, TCAT	Order of Magnitude estimate of capital and implemention for multi county MSAA, incl one year of license fees
ITS Program Subtotal		**$**	**557,000**			
Ridesharing Program						
1	Continue working group activities regarding adaptation of NYSDOT 511 to consortium of Counties in the RTS	$	-	2013	ITCTC/Client Committee	
2	Zimride Consortium to decide on future of program	$	-	2014	ITCTC	
3	Consider connecting multiple rideshare programs into a regional collaborative	$	-	2015	ITCTC/Client Committee	
Ridesharing Program Subtotal		**$**	**-**			
Marketing and Branding						
1	Decide on brand	**$**	**-**	2014	Client Committee	including what will be represented as part of brand
2	Develop and conduct education and marketing campaign	$	30,000.00	2015	Client Committee	develop materials, outreach campaign e.g.create speakers bureau
Marketing and Branding Subtotal		**$**	**30,000.00**			
	TOTAL PROJECT COST ESTIMATES	**$**	**4,185,592**			

Estimates should be reviewed each year to adjust cost variations or program scope changes.

Typically for public transportation capital and planning purposes, 80% of federal match money can be utilized

* fully allocated operating costs were estimated using TCAT reported operational information from 2010