

**BOARD OF SUPERVISORS
BUSINESS MEETING
ACTION ITEM**

SUBJECT: **Response to Board Member Initiative:
Transit/Transportation Demand Study for
Senior/Disabled Residents**

ELECTION DISTRICT: Countywide

CRITICAL ACTION DATE: June 20, 2019

STAFF CONTACTS: Scott W. Gross, Transportation and Capital Infrastructure
Penny Newquist, Transportation and Capital Infrastructure
Joe Kroboth, III, Transportation and Capital Infrastructure

PURPOSE: To report back to the Board of Supervisors (Board) on a Board Member Initiative (BMI) directing staff to complete a study of the demands and unmet transportation needs for the senior and disabled population; to authorize staff to issue a purchase order with Michael Baker International in the amount of \$56,608 to complete the study and to authorize contingency funding in the amount of \$13,392 for unknown associated expenses as part of the study.

RECOMMENDATION: Staff recommends that the Board direct staff to engage Michael Baker International to complete the demands and unmet transportation needs study at a cost no greater than \$70,000 and present the final report at a future Board meeting.

BACKGROUND: The Department of Transportation and Capital Infrastructure, Transit and Commuter Services staff and Board Members have received several complaints regarding Americans with Disabilities Act (ADA)/Paratransit trips that have been turned down for service. Typically, the trips have been turned down due to the lack of equipment at the time the citizen needs the ride or the trip is outside of the current regulated operating hours. For the first six months of FY 2019, the total number of On-Demand trips that have been turned down is 162 or an average of 27 per month. It is important to note that this is the number of trips that county staff is aware of and may not include any unmet demand from riders that may have stopped calling because they have been unsuccessful in scheduling an On-Demand ride. While there are several transportation options in Loudoun County for the senior/disabled population; they are provided by different departments and it is not clear to our citizens or staff what those options are.

At the Board Business Meeting on April 2, 2019, the Board approved (9-0) a BMI presented by Chair Randall directing staff to develop a plan framework to complete a study of the demands and unmet transportation needs for the senior and disabled population in Loudoun County; and to report back to the Board with the plan framework, the estimated cost to complete the study and a recommended funding source for the study.

In order to design the plan framework, staff gathered input from several resources including the Maricopa Association of Governments Rural Paratransit Needs Assessment, the final draft of the 2019 Unmet Paratransit and Transit Needs for Santa Cruz, the unmet transit/paratransit needs assessment of the B-Line (Butte Regional Transit), unmet paratransit needs study for the New York Metropolitan Transportation Council (Lower Hudson Valley), input from the Loudoun County Transit Advisory Board and input from the Human Services Strategic Plan (HSSP) Transportation Group. The plan framework is included as Attachment 1. The consultant's scope of work and quote for the estimated costs are provided as Attachment 2 and Attachment 3 respectively.

Page 7 of Attachment 2 summarizes the project delivery schedule. Based on the scope of services agreed to in the proposal, Michael Baker International expects the study to require 145 days to complete following formal notice to proceed.

ISSUES: Based on time frame provided by the selected consultant, a study of the demands and unmet transportation needs for the senior and disabled population in Loudoun County will take five months to complete. Depending on when the purchase order can be issued, the study could be completed by January 2020 and an item could be brought to the Board in March 2020. .

FISCAL IMPACT: The quote received from the selected consultant shows the estimated cost of the study will be \$56,608. Funding for this study is available in the Department of Transportation and Capital Infrastructure FY 2020 Operating Budget. The evaluation of determining unmet needs may be an iterative process. Staff is asking for an additional pool of funds to be available for change orders in the amount of \$13,392 bringing the total cost for the study to \$70,000 or less.

Should the study identify any unmet transit/transportation needs for the senior and disabled residents in Loudoun County, funding would need to be identified to implement any proposed solutions if the Board chooses to implement them in a future fiscal year following the study presentation.

ALTERNATIVES:

1. The Board can direct staff to engage a consultant to complete a study of the demands and unmet transportation needs for the senior and disabled population in Loudoun County at a cost no greater than \$70,000 and present the final report at a future Board meeting.
2. The Board can direct staff to modify the scope of services and thus by extension increase or decrease the study fee accordingly.

3. The Board can direct staff to pursue no further action in regards to completing a study of the demands and unmet transportation needs for the senior and disabled population in Loudoun County.

DRAFT MOTIONS:

1. I move the Board of Supervisors direct staff to retain the services of Michael Baker International in the amount of \$56,608 to perform a study of demands and unmet transportation needs for the senior and disabled population in Loudoun County and to authorize contingency funding in the amount of \$13,392 for unknown associated expenses as part of the study and present the findings of the study to a future Business Meeting of the Board of Supervisors.

OR

2. I move an alternate motion.

ATTACHMENTS:

1. Plan Framework Document
2. Scope of Services
3. Estimated Study Costs



Loudoun County, Virginia

www.loudoun.gov

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Plan Framework Document for BMI

Transit/Transportation Demand Study for Senior/Disabled Residents in Loudoun County

1.) INTRODUCTION

Loudoun County has various transportation options available for the senior and disabled populations in the county. These options include but are not limited to:

Public Transportation

- ADA accessible Local Fixed Route transit service (Leesburg, Ashburn, Sterling)
- Complementary ADA/paratransit service - The ADA/Paratransit service provides curb to curb service for anyone that is picked up and dropped off within $\frac{3}{4}$ of a mile of a local fixed route.
- Subsidized Uber and Lyft rides (New – program is managed by the Department of Family Services)
- Bus rides to and from the local Senior Centers provided by the Parks and Rec department.
- Bus rides to and from Adult Day Centers provided by the Parks and Rec department.

Private, Non-Profit Transportation

- Curb to Curb Demand Response service provided by Virginia Regional Transit provided in the western and southern portion of Loudoun County. This is available to all riders, not just ADA/Paratransit and senior riders.
- Home Helpers of Leesburg – Transportation for seniors for medical appointments, shopping and other outings.
- Loudoun Volunteer Caregivers - Transportation for seniors for medical appointments, shopping and other outings.
- Every Citizen Has an Opportunity (ECHO) – contracts with Loudoun's department of Family Services to provide rides to and from home and work

Private communities for seniors that may or may not have transportation

- Falcons Landing
- Wingler House
- Ashby Ponds
- Waltonwood
- Sunrise of Leesburg and Countryside
- Morningside House of Leesburg
- Sommerset Retirement Community
- Tribute at One Loudoun
- Ashleigh at Lansdowne
- Lansdowne Woods

Loudoun County's Transit and Commuter Services Division and various Board members have received complaints from senior and disabled riders in the County stating that they are unable to obtain rides when they need them. These rides can be for, but not limited to: medical appointments, trips to the grocery store, employment and trips to the pharmacy. In FY 2019, the County's Transit and Commuter Services Division started tracking ADA/Paratransit trips that were turned down. The data shows the County is averaging 27 turn downs a month for the Demand Response



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service provided in western Loudoun County but shows zero turn downs for the complementary ADA/Paratransit services provided within $\frac{3}{4}$ of a mile of the Local Fixed Routes. It is unknown how many trips are missed or turned down by other County operated ADA/paratransit programs. Before the County can begin working on a solution(s) for these complaints, a baseline of service and missed service is required to be established. Data from all of the FY 2019 ADA/Paratransit/Senior services provided in the county needs to be collected, quantified and analyzed.

Additionally, a written report will be produced that includes all of the topics and bullet points listed in the scope below:

2) SCOPE

EXISTING CONDITIONS REVIEW

- Identify all of the ADA/Paratransit/Senior transportation providers in Loudoun County:
 - List their company names and contact information
 - List their days and hours of service
 - List the type of service they provide
- Quantify how many ADA/Paratransit/Senior rides are provided in Loudoun County by county programs monthly/annually
- Quantify how many ADA/Paratransit/Senior rides are provided in Loudoun County by private/non-profit organizations monthly/annually
- Quantify all ADA/Paratransit/Senior rides in Loudoun County that are missed or denied monthly and annually.

EXISTING AND PROJECTED POPULATION TRENDS

- Estimate the population in Loudoun County in 2020
- For FY 2020, gather data specifically on older adult households, low income households and households without an automobile that are in areas that are underserved with transit.
- Estimate the population in Loudoun County in 2030
- Estimate the population in Loudoun County in 2040

SERVICE BARRIERS, DUPLICATION, GAPS AND NEEDS

- Using surveys and other methods, quantify as best as possible, the number of ADA/Paratransit/Senior rides that are not booked in Loudoun County. These un-booked trips could be because of a lack of awareness of the programs, difficulty with the booking processes, programs operating outside of needed time parameters, etc.
- Identify duplications of service and opportunities for economies of scale
- Identify service barriers
- Identify service gaps

POTENTIAL RIDERSHIP DEMAND

- Collect ADA/Paratransit/Senior ridership in peer jurisdictions. Compare the ridership data to the respective jurisdiction's population to come up with a percentage of ADA rides to total population and compare that to Loudoun County's percentage.
- Calculate the number of ADA/Paratransit/Senior trips that could have been made in Loudoun County in FY 2019 had no trips been denied
- Project the number of monthly and annual ADA/Paratransit/Senior trips that may be made in Loudoun County for FY 2020, FY 2030 and FY 2040



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FINANCIAL REVIEW

- Based on the ADA/Paratransit service hour rate in Loudoun County in FY 2020, estimate the service costs for transit providing enough ADA/Paratransit service to eliminate denied, missed or un-booked trips.
- Based on the estimated ADA/Paratransit service hour rate in Loudoun County in FY 2030, estimate the service costs for transit providing enough ADA/Paratransit service to eliminate denied, missed or un-booked trips.
- Based on the estimated ADA/Paratransit service hour rate in Loudoun County in FY 2040, estimate the service costs for transit providing enough ADA/Paratransit service to eliminate denied, missed or un-booked trips.
- Based on the number of estimated ADA/Paratransit trips, not provided by transit, project the service costs of these trips in FY 2020.
- Based on the number of estimated ADA/Paratransit trips, not provided by transit, project the service costs of these trips in FY 2030.
- Based on the number of estimated ADA/Paratransit trips, not provided by transit, project the service costs of these trips in FY 2040.

SUMMARY OF SERVICE DEFICIENCIES

Create a summary page of the options for the service changes/additions required to reduce/eliminate the number of ADA/Paratransit trips turned down.

May 16, 2019

Proposal for Transit/Transportation Demand Study for Senior/Disabled Residents in Loudoun County

Michael Baker International (Michael Baker) is pleased to submit this quote to Loudoun County for possible delivery through the on-call consultant contract. The scope of services and associated fee are included in this submittal for your review.

Purpose

The purpose of this task is to determine the cost to accommodate current and future ADA/Paratransit needs that are currently unmet within Loudoun County. The study is needed to determine the status of ADA/Paratransit ridership within the County for Fiscal Year 2019. Since both records and definitions of a missed/denied trip may vary across transportation providers, a survey of trip characteristics will be necessary for public, private non-profit, and any volunteer-based private transportation entities. The study will compare the data gathered with an assessment of current and future mobility needs of specific population groups that may be underserved within the County. The main conclusion of the study will be to define any gaps in provided service, potential barriers and identification of methods to efficiently address these gaps. A financial review will inform County leadership of the incremental cost estimates of service changes that could be initiated to reduce/eliminate the number of ADA/Paratransit trips that are not accommodated both currently and into the future.

Task 1 – Project Management, Coordination and Communication

This task consists of time required to administer the project, addressing contract matters, internal project coordination, regular communication with the County, change management, general quality control, and schedule management.

Whenever practical, conference calls and WebX meetings will be held in lieu of traveling for meetings. The overall project is anticipated to be streamlined, with a kickoff conference call allowing for an expeditious start of project activities. For the purpose of this scope of work the following in-person meetings are assumed during the course of the study:

- **Survey Pre-Launch Meeting:** This meeting will allow for review of initial findings and coordination of key survey elements/methodology. Given issues expressed by the public regarding the sensitivity of ADA/Paratransit trips, this meeting is to make sure messaging in advertising and collecting the survey is consistent with County expectations.
- **Financial Review Meeting:** To confirm the results of the review and collaborate on methodology for development of specific and/or policy-based service corrections to address the gaps discovered. The key objective will be not to over commit the County or Private providers and to set appropriate expectations.

No public meetings are assumed as part of this task.

Task Deliverables:

- Bi-weekly project coordination calls with County
- Two meetings, with support material and content.

Task 2 – Existing Conditions Review

Task Objectives:

- Create a Database / Tracking Sheet
- Research to Confirm Potential Providers
- Compile Provider Information

This task will develop a simple Excel sheet and data input form, to provide the County with an ongoing resource for tracking ADA/Paratransit missed trips/denials in future years. Data fields will include: Agency Overview/Description, Service Characteristics, FY2019 Trip Details. A tracking sheet will be prepared for providers to fill out via email, or for facilitated collection via phone interview, to capture pertinent data.

Some provider information that is already compiled as part of the DRPT Coordinated Human Service Mobility (CHSM) study will be readily incorporated. Where applicable, the geographic coverage of the service area (if not county wide) and trip eligibility requirements for the various providers will be further highlighted. The record-keeping frequency and timing (monthly, annual reporting) of the providers will also be sought in the compilation of provider information to further inform how future data could be collected at coordinated intervals beyond this study.

Task Deliverables:

- Organization Details and FY2019 Trip Data (Rides) for all ADA/Paratransit/Senior transportation providers identified for Loudoun County, including:
 - Company names and contact information
 - Classification of organization (public/private/volunteer/etc.)
 - Days and hours of service
 - Geographic coverage of service (as applicable)
 - Types of service provided
 - Client transportation eligibility requirements
 - FY2019 monthly rides provided, missed and/or denied

Task 3 – Existing and Projected Population Trends

Task Objectives:

- Define ADA/Paratransit Population Groups
- Compile Existing Data and Projections
- Prepare Exhibit to Illustrate Changes (Numerical/Geographical)

This task will delineate the data collection source and type of demographic data used to target ADA/Paratransit ridership, namely: Senior Households, Low Income Households, and Households without Automobile Access. Individual populations will be reported along with a composite index to be developed and overlaid with transit coverage to identify and quantify the population most in need (as well as possible geographic location of the same).

Task Deliverables:

- Estimate for the population in Loudoun County in 2020, 2030 and 2040 to include:
 - Overall population
 - Senior (aged 65+) population
 - Low Income population
 - Households without automobile population

Task 4 – Service Barriers, Duplication, Gaps and Needs

Task Objectives:

- Define a Survey Target
- Develop a Survey
- Outreach to Survey Partners
- Conduct the Survey
- Compile Results

This task will contain all elements required to establish a survey and collection methods during outreach to users, seniors, and providers to further understand why needs may not be met. For outreach to riders and the general public, based upon population groups quantified in Task 2, a target for the number of survey responses will be determined. This survey will focus on the following aspects of ADA/Paratransit services in Loudoun County:

- Awareness of Service Options (non-users)
- Perceptions regarding Service Delivery (users)
- Improvement Options for the Service
- Impact of Not Having Reliable Service

The survey is expected to be administered in close coordination with human service agencies directly engaged with the targeted populations. The opportunity to piggyback at existing events and to provide incentives will be explored to drive timely collection of responses over no more than a two-week period.

Additional outreach will consist of phone interviews with up to six (6) providers to compile additional perspective on barriers and opportunities for service coordination. Using survey data gathered, an empirical estimate of unbooked ADA/Paratransit trips will be identified along with contributing factors. A brief final report with exhibits will be developed to succinctly communicate findings following this outreach.

Task Deliverables:

- Survey approach methodology
- Survey questions/sheet
- Provider interview questions
- Unbooked ADA/Paratransit trips calculation methodology
- Summary narrative outlining:
 - Awareness/Marketing issues
 - Duplications of service among providers and opportunities for coordination
 - Service barriers
 - Service gaps

Task 5 – Potential Demand

Task Objectives:

- Identify Peer Location Candidates
- Research on Readily Available Data/Best Practices
- Identify ADA/Paratransit Percentage of Overall Population
- Extrapolate Percentage to Demand in Future Years (Number of Trips)
- Extrapolate Trip Lengths (Service Hours)

This task will establish a rapid methodology to identify peer locations to Loudoun County, based upon similar demographics and geography. A selection of up to four (4) peers will be used to determine comparable county-wide ADA/Paratransit need. Additional research will be conducted on any best practice methodology to ensure the approach is defensible.

Upon establishing a low/high range of trips using an ADA/Paratransit demand factor from the peer analysis, this factor will be applied to future Loudoun County population estimates to

determine the gap in current unmet need. The factor will also be applied to fulfill unmet trip needs in FY2030 and FY2040.

In order to provide sufficient input into Task 6, during the peer data collection and best practice research, a methodology will be applied for inferring average trip length of unbooked ADA/Paratransit trips. This trip length will be used with data on service speeds from the providers (collected in Task 2) to calculate the service hours required/service changes identified in the following tasks.

Task Deliverables:

- A peer derived percentage of ADA rides to total population (to apply to Loudoun County)
- Defined methodology and calculated additional trips needed in FY2019 (no trips denials)
- Monthly and annual ADA/Paratransit/Senior trips for Loudoun County for FY 2020, FY 2030 and FY 2040 (no trip denials)
- Establish service hours required for new service projections

Task 6 – Financial Review

Task Objectives:

- Prepare Service Cost Calculation Methodology (Transit/Private)
- Assign Trips to Transit/Private Providers
- Estimate Service Costs by Provider in Future Years

Using a simple three factor cost model, service hour costs will be calculated for public and private provision of the trips identified in Task 5. The costing methodology will first establish and validate the calculation of current operating costs, accounting for peak vehicles, total service miles, and total service hours. If detailed service data is not readily available, per hour/per trip costs from existing providers will be used as a baseline. The costing methodology for escalating costs as service increases will also include incremental administrative and overhead costs as a result of expanded operations.

Task Deliverables:

- Service cost estimation methodology and results
- Service cost matrix to outline the following:
 - Additional Loudoun County service costs of ADA/Paratransit service to eliminate denied, missed or un-booked trips in FY2020, FY2030, and FY240
 - Additional private provider costs of ADA/Paratransit service to eliminate denied, missed or un-booked trips in FY2020, FY2030, and FY240

Task 7 – Summary of Service Deficiencies

Task Objectives:

- Implementation planning for new services.

This task will identify approaches to establishing additional services that accommodate the number of trips identified in Task 6. The logical distribution of County vs. private provider trips will be identified along with an implementation timeline and responsibility for action. Identification of other institutional changes to facilitate service delivery/coordination will also be identified.

Task Deliverables:

- Implementation timeline, description, and responsibility for new service changes/additions.

Schedule

The anticipated time frame for completing the study is five (5) months. Approximate dates for the completion of each task as follows:

Task 1 – Project Management, Coordination and Communication	On-going throughout project
Task 2 – Existing Conditions Review	NTP + 45 days
Task 3 – Existing and Projected Population Trends	+ 60 days
Task 4 – Service Barriers, Duplication, Gaps and Needs	+ 90 days
Task 5 – Potential Demand	+ 105 days
Task 6 – Financial Review	+ 130 days
Task 7 – Summary of Service Deficiencies	+ 145 days

Fee and Billing

Michael Baker will provide the services described in the Scope of Services for a not to exceed amount of \$56,608 based on the contract labor classification, estimated hours, fixed billable rates and expenses. A breakdown of the fee is as shown in the following attachment.

If you have questions or need additional information, please contact me at (703) 236-7469.

Sincerely,

Michael Baker International



Ryan M. Furgerson, AICP
Consultant Project Manager

Loudoun County On-Call Transportation Services
Detailed Cost Proposal
Task Order 3.0 - ADA/Paratransit Demand Study
May 13, 2019

MICHAEL BAKER INTERNATIONAL TOTAL

410 Hours
\$ 56,353 Labor Dollars
\$ 255 Direct Expenses

\$ 56,608 BAKER TOTAL

PROJECT TOTAL

\$ 56,353 Labor Dollars
\$ 255 Direct Expenses

\$ 56,608 Contract Total

Loudoun County On-Call Transportation Services
 Detailed Cost Proposal
Task Order 3.0 - ADA/Paratransit Demand Study
 May 13, 2019

BAKER LABOR SUMMARY

Task	Program Manager	Project / Task Manager	Senior Planner / Engineer / Cost Management	Planner / Engineer / Cost Management	Assoc. Planner / Engineer / Cost Management	GIS / Graphics / Technical Support Services	Document Control Manager / Technical Writer	Administrative Support		TOTAL	Baker labor	ODCs	Total Cost
1 - Project Management, Coordination & Communication	2	20								22	\$ 4,640.52	\$ 46.80	\$ 4,687.32
Detail of Miscellaneous Expenses													
2 - Existing Conditions Review			6		60	8				74	\$ 9,166.00	\$ 3.00	\$ 9,169.00
Task and Item or Service Unit Cost Units Cost													
3 - Existing and Projected Population Trends			2		16	16				34	\$ 4,084.48	\$ 15.80	\$ 4,100.28
4 - Service Barriers, Duplication, Gaps and Needs			32		120					152	\$ 20,379.52	\$ 128.20	\$ 20,507.72
5 - Potential Demand			8		36					44	\$ 5,805.76	\$ 1.20	\$ 5,806.96
6 - Financial Review			24		20					44	\$ 6,991.04	\$ 46.80	\$ 7,037.84
7 - Summary of Service Deficiencies			8		24	8				40	\$ 5,285.84	\$ 13.20	\$ 5,299.04
										0	\$ -	\$ -	\$ -
TOTAL HOURS	2	20	80	0	276	32	0	0	0	410			
TOTAL DOLLARS	\$ 532.32	\$ 4,108.20	\$ 15,404.80	\$ -	\$ 32,700.48	\$ 3,607.36	\$ -	\$ -	\$ -	\$ 56,353.16	\$ 56,353.16	\$ 255.00	\$ 56,608.16
Contract Rates	\$ 266.16	\$ 205.41	\$ 192.56	\$ 146.64	\$ 118.48	\$ 112.73	\$ 142.38	\$ 73.51					
TOTAL													
\$ -													

BAKER DIRECT EXPENSES

Task	Travel Expenses							Reproduction								Communications			Misc. Detail Above	TOTAL	
	Mileage		Parking/	Meals and Lodging		Other	Color Copies		B/W Copies		Color Plots (per sq ft)		B/W Plots		Report Reproduction	Postage/Overnight	Other				
	\$0.570	Tolls		\$ 42.00	\$ 85.00	(Air, Taxi..)	\$0.45	\$0.05	\$3.00	\$1.00	varies	\$7.00									
Miles	Cost	Cost	Days	Meals	Lodging	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Units	Cost	Cost	Cost	
1 - Project Management, Coordination & Communication	80	\$45.60		\$ -	\$ -			\$0.00	24	\$1.20		\$0.00							\$0.00		\$ 46.80
2 - Existing Conditions Review		\$0.00		\$ -	\$ -			\$0.00	60	\$3.00		\$0.00									\$ 3.00
3 - Existing and Projected Population Trends		\$0.00		\$ -	\$ -		24	\$10.80	100	\$5.00		\$0.00									\$ 15.80
4 - Service Barriers, Duplication, Gaps and Needs	160	\$91.20		\$ -	\$ -		60	\$27.00	200	\$10.00		\$0.00									\$ 128.20
5 - Potential Demand		\$0.00		\$ -	\$ -			\$0.00	24	\$1.20		\$0.00									\$ 1.20
6 - Financial Review	80	\$45.60		\$ -	\$ -			\$0.00	24	\$1.20		\$0.00									\$ 46.80
7 - Summary of Service Deficiencies		\$0.00		\$ -	\$ -		24	\$10.80	48	\$2.40		\$0.00									\$ 13.20
	0	\$0.00		\$ -	\$ -			\$0.00		\$0.00		\$0.00		\$0.00							\$ -
TOTAL UNITS AND COSTS		\$182.40	\$0.00	\$0.00	\$0.00			\$48.60		\$24.00		\$0.00		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00	\$ 255.00