



TRUE DATA TO IMPROVE MOBILITY

Division of Central Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street, 3<sup>rd</sup> Floor  
Lexington, KY 40507

September 19, 2023

**RE: Lexington-Fayette Urban County Government RFP: Horizontal Curve Assessment Services**

On behalf of Quality Counts (QC), I am pleased to submit this proposal for providing equipment, service, and training to gather, assess and store horizontal curve data for your road safety project.

We understand the importance and the need for compliance with the latest Manual on Uniform Traffic Control Devices (MUTCD), which includes updated requirements and recommendations for the use of traffic warning signs for horizontal curves. Reliable data is essential to ensure driver safety. We will work with you to provide that data. We will bring our significant experience with Rieker's Curve Advisory Reporting Service (CARS) technology and our past experience working for various state departments of transportation to ensure we deliver accurate data on time and to your satisfaction.

**Expertise in CARS Technology** – Within the last eight years, QC has worked hand-in-hand with Rieker to collect horizontal curve data for multiple states and local DOTs. As Rieker's preferred service partner, we have been involved in all of the most successful projects conducted using the CARS system. To date, QC has surveyed and processed more curves using CARS than all other entities combined. We are prepared for this project and bring three certified CARS instructors and five certified surveyors. Our knowledge of CARS, the MUTCD mandate, and area-wide data collection efforts is so robust that Rieker outsources their CARS training to QC.

**Expertise in Kentucky** – In total, QC has managed the data collection of well over 100,000 centerline miles (CLMs) of horizontal curve data with no field work assistance from any subcontractors or engineering firms. This includes statewide data collection efforts for Ohio DOT, New York State DOT, Kentucky Transportation Cabinet, and South Carolina DOT. We will bring our lessons learned and best practices from these and other public agencies we have worked with to ensure that your project is run efficiently, delivered to your satisfaction, and compliant with the MUTCD mandate.

Our team has been delivering accurate, efficient transportation data collection services across the United States for more than 20 years. Our efforts directly impact the quality of life and safety within communities and are vital to improving Lexington-Fayette UCG's vast transportation network. We recognize and accept the terms and conditions contained within the RFP. We appreciate the opportunity to submit this proposal for your consideration, and we look forward to delivering your Horizontal Curve Assessment project to you. Should you have any questions, you can reach me at 615.397.6017 or email me at [jmccomb@qualitycounts.net](mailto:jmccomb@qualitycounts.net).

Sinc

Jay McComb | Vice President

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**Quality Counts, LLC**

29 INDUSTRIAL PARK DR, UNIT 106, HENDERSONVILLE, TN 37075  
P: 615.397.6017 | F: 954.692.9086 | [QualityCounts.net](http://QualityCounts.net)



## Company & Project Staff Experience

### Our Team

#### About Quality Counts

Quality Counts (QC) is an employee-owned transportation data collection firm with 12 offices serving all fifty states. Our company was founded in 2003 to meet the need for a local, dedicated traffic data vendor in Portland, OR. Since then, QC has leveraged its specialized commitment to exceptional customer service, quality products, and innovative technology to become one of the most respected, industry-leading data collection and data management firms in the country.

We believe in always striving to improve. Our system of data collection has evolved with deliberate intent to advance our industry. With hundreds of thousands of surveys on our resume, we are a trusted source of data collection and program development for numerous state DOTs, counties, cities, MPOs, COGs, private sector clients, FHWA, and the National Cooperative Highway Research Program (NCHRP). In fact, our data collection methods are so accurate that they are often used to establish “ground truth” corroborative data sets in nationwide studies of survey methodologies and technologies.

Our vast experience is made possible through the use of state-of-the-art hardware, software, and proven processing methods. We maintain a high level of industry-specific knowledge and cutting-edge technology to allow us to deliver solutions catered to unique transportation problems. Our team offers access to collection capabilities backed by an immense inventory of pneumatic tube counters, cameras, side-fire radars, drones, fixed-wing aircraft, inclinometers, and pavement assessment tools. We routinely utilize manual and computer vision processing methods to achieve unrivaled 98% accuracy and complete reporting customization. QC also utilizes proprietary quality assurance analytics applications for macro-level data validation across entire corridors. We are confident in our ability to exceed your expectations.

#### About Absolute Staffing & Consulting Solutions

Absolute Staffing & Consulting Solutions is a results-driven, woman, minority, & veteran-owned certified business headquartered in Westminster, Maryland. Operating since 2006, with a core team comprised of

multidisciplinary skills and a combined 75+ years of experience, Absolute Staffing brings an unparalleled level of expertise to the staffing industry. Absolute Staffing will provide a qualified and skilled driver to navigate the planned routes for this project safely and with precision.

### Project Understanding

We understand that Lexington-Fayette Urban County Government (LFUCG) requires the evaluation of horizontal roadway curves along city streets and county roads to ensure all curves meet the Manual on Uniform Traffic Control Devices (MUTCD) latest edition requirements for regulatory and advisory signs. According to FHWA, the 2019 compliance date was established because of demonstrated safety issues associated with roadway departures and fatal crashes at horizontal curves.

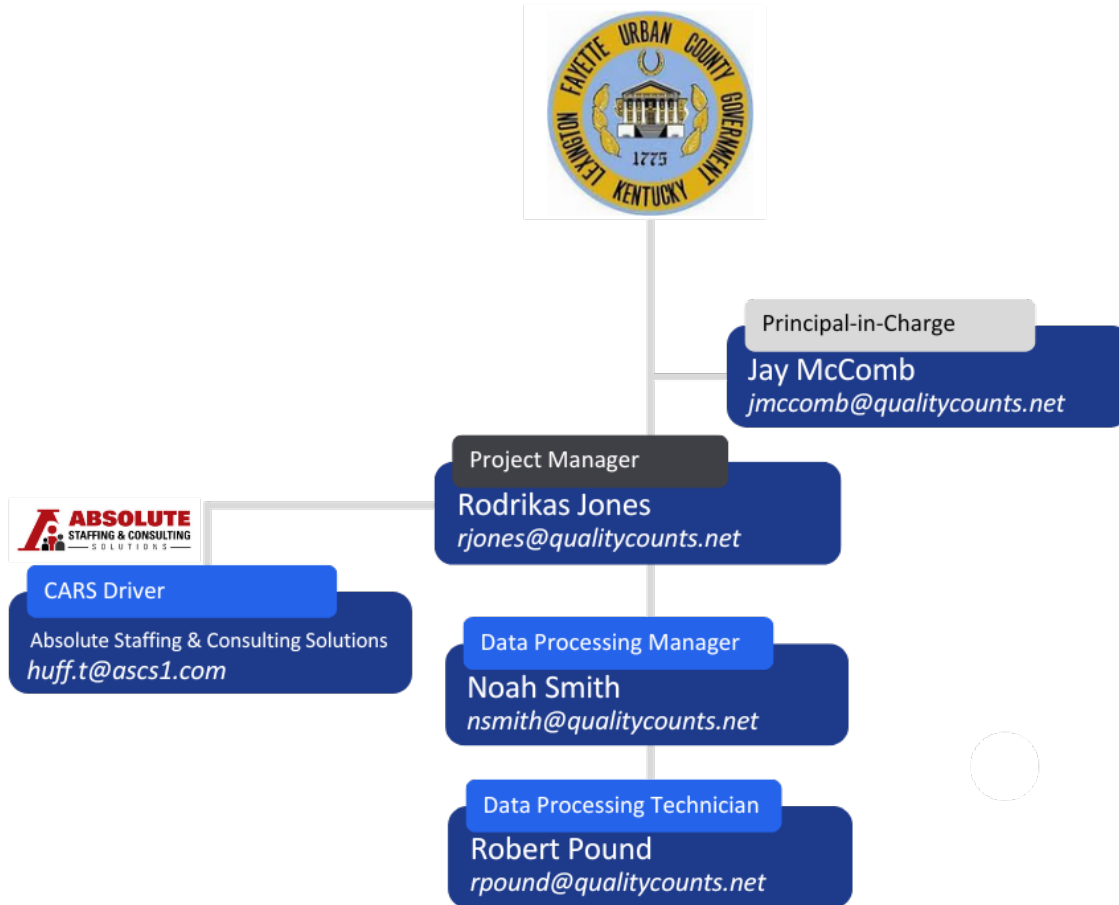
This project will involve a comprehensive check of all horizontal curves along LFUCG-maintained roadways for approximately 1,100 centerline miles. The essential data that must be collected for the roads maintained by LFUCG include roadway geometry data and roadway superelevation data. The roadway geometry and superelevation data are assessed in combination to determine a recommended advisory speed value for each curve and each direction. The recommended advisory speed value is then compared to the posted or statutory speed limit at the curve location to determine the speed differential, which in turn is used to establish whether a curve direction at a location is in accordance with the standard in Table 2C-5 of the 2009 MUTCD. This is the essential process to establish *proposed* horizontal alignment curve signage in compliance with the FHWA mandate.

If selected, QC will communicate in a timely and effective manner all data collection, assessment progress, and impediments to project success that may be encountered. We will also provide a systematic approach with verifiable inputs and documentation of technological specifications. Map-based visualizations of routing and project process will be provided as tools for effective communication for stakeholder verifiability. QC will adhere to all MUTCD and OSHA safety standards. QC will work with LFUCG to improve safety and compliance with MUTCD and the Kentucky Transportation Cabinet standards for curve warning signs.



### Team Organization

The QC team has dedicated their careers to the improvement of data collection and processing. Our personnel have the relevant qualifications to deliver your project. Our team members have the necessary availability and are fully committed to providing the required services. Resumes for key staff members can be found after this page. The projects shown on each of the resumes are just a small sample of what each person will bring to this effort. Please refer to our organizational chart below, that illustrates how we are structured to deliver your project.



KEY STAFF ROLES, RESPONSIBILITIES AND AVAILABILITY				
Name	Role	Phone	Expertise/Applicable Skills	Availability
Jay McComb	Principal-in-Charge	615.397.6017	Planning, resource coordination, and client communication	40%
Rodrikas Jones	Project Manager	503.891.5805	Manage curve and sign inventory data collection	70%
Noah Smith	Data Processing Manager	323.481.4894	Manage curve data processing, QA/QC, and deliverable creation	50%
Robert Pound	Data Processing Technician	-	Process horizontal curve data	80%
Absolute Staffing	CARS Driver	-	Drive planned routes, upload curve data	75%

## Resumes



### **Jay McComb – Principal-in-Charge**

**BS, Liberal Arts | University of Tennessee | 30+ Years of Experience**

Jay is responsible for all Horizontal Curve Assessment (HCA) projects, which have included statewide efforts in Ohio, New York, Kentucky, and South Carolina, as well as many smaller projects throughout the US. Under Jay’s leadership, QC has become the largest horizontal curve data collector in the US. In addition to HCA, Jay has managed hundreds of data collection projects. Jay will allocate all appropriate operational resources to Fayette-Lexington UCG, such as additional staff and vehicles, as necessary to ensure all data is collected in a timely manner. In addition, he will be responsible for all contractual matters.

**Ohio DOT, Horizontal Curve Data Collection and Assessment** – Project Manager responsible for contract negotiation, project coordination, client communication, monthly reporting, and invoice management. Supervised hiring and training of drivers and field data collection management. QC performed the data collection and analysis work for this statewide project for more than 20,000 centerline miles, including all interstates, U.S. highways, state routes, and associated ramps in Ohio were surveyed. This project resulted in more than 15,000 curve reports and an inventory of approximately 34,000 curve warning signs.

**New York State Department of Transportation, Horizontal Curve Data and Existing Sign Inventory** – Principal-in-Charge for statewide horizontal curve data collection on approximately 20,000 centerline miles of NYSDOT roadway. Trained and oversaw the project team to perform horizontal curve analysis of integrated GPS-BBI data to create an inventory of more than 30,000 horizontal curve locations that includes curve geometry, superelevation, and MUTCD-compliant recommended advisory speed calculations.

**Kentucky Transportation Cabinet, Horizontal Curve Data and Existing Sign Inventory** – Principal-in-Charge for statewide horizontal curve data collection on approximately 27,000 centerline miles of KYTC roadway. Oversaw project team to perform horizontal curve analysis of integrated GPS-BBI data to create an inventory of more than 100,000 horizontal curve locations that includes curve geometry, superelevation, and MUTCD-compliant recommended advisory speed calculations.

**Caltrans District 5, Horizontal Curve Data Collection** – Project Manager responsible for contract negotiation, project coordination, client communication, and monthly reporting and invoice management. Conducted data collection for horizontal curve assessments on all interstates, state routes, and U.S. highways within Caltrans District 5 using Rieker’s CARS system. The project objective was to provide data necessary to replace and supplement existing and/or place horizontal alignment signs (curve warning signs) in new locations on all state routes and ramps in compliance with the 2014 CA MUTCD. The network consisted of all roads maintained by Caltrans in District 5, which totaled approximately 1,100 centerline miles of roadway and 100 miles of freeway ramps. Performed post-processing using the CARS online portal to produce more than 3,000 curve reports complete with sign inventory, including on-site georeferenced sign images.

**Multnomah County, Horizontal Curve Assessment Data Processing** – Project Manager responsible for working with the County to provide curve horizontal curve assessment and redriving. Multnomah County borrowed a CARS kit from ODOT and had an intern perform the initial driving data collection for their county. When it came time to process the data on the CARS portal, they found that they were not equipped to take this part of the project on efficiently. QC contracted with the county to provide horizontal curve assessments, data quality control, and re-surveying with CARS units. This was a cost-effective solution for the county, as it would have taken them a significant amount of internal resources to complete this project.

**Rodrikas Jones – Project Manager****BS, Health Service Administration | University of Central Florida | 16 Years of Experience**

Rodrikas will serve as our Project Manager on this contract and will serve as your primary contact. He will be responsible for the performance of all key personnel, production staff, and support staff assigned. Rodrikas will be tasked with the hiring, training, and management of drivers. He will meet with the UCG's Project Manager to review the project locations, review and clarify any project issues, and review any data needs and availability prior to the start of the project. He will also work with the Data Processing Manager to ensure all deliverables are submitted on time and meet the MUTCD.

**Kentucky Transportation Cabinet Statewide Planning – Traffic Counting** – Project Manager responsible for developing and executing the data collection plan for up to 250 counts statewide per year over a 2-year period. These are a combination of volume counts and class counts.

**Indiana Department of Transportation – Monroe, Morgan & Vigo Counties** – Project Manager responsible for developing and executing the data collection strategy for collection of over (635) 48 hr. Class and volume tube locations. Each county was broken into separate work orders that were all able to be completed ahead of the 9-week schedule given. Each county was completed in 4-5 weeks.

**Tennessee Department of Transportation – Statewide Data Collection:** Project Manager responsible for the execution of 2,800 tube locations in the span of four months. These tube counts consisted of class counts and volume counts for the entire state of Tennessee.

**Indiana Department of Transportation – Clark, Perry & Spencer Counties:** Project Manager responsible for developing and executing the data collection strategy for the collection of 513 48-hour volume, class, and speed tube locations.

**Orange County, FL – Continuing Professional Services for Annual Traffic Counts** – Project Manager responsible for this data collection support services for the County using 72-hour bi-directional machine traffic volume counts at a minimum of 720 count stations within Orange County, FL. The counts were then reduced and processed in accordance with the format required by Orange County.

**Washington County – Tube Count Project** – The Project Manager responsible for all data collection services for this project, which conducted 373 24-hour class, volume, and speed tube counts. Included GPS coordinates for each location. Performed the task within the time frame set forth by the client.

**Florida Department of Transportation – Intersection Data Collection and Reporting Services** – The Project Manager responsible for this data collection effort in which Site-Specific Roadway intersection traffic data and more than 25 characteristics were collected at a total of 400 (72-hour) turn movement counts throughout Florida. The project required a 95% accuracy for acceptance. 10 purchase orders with 40 locations each were required to be completed within a five-week period.

**Brevard County, FL – Traffic Count Program** – Principal-in-Charge for the processing of special and routine traffic volume, AM/PM peak turning movement and pedestrian counts, and other related traffic data collection surveys at specified locations throughout Brevard County, Florida. This data includes signal timing characteristics, including signal phase cycle length and timing.

**Noah Smith – Data Processing Manager****BS, Theater | Emerson College | 8 Years of Experience**

Noah assists QC's national offices with project planning, management, and data delivery. Noah is also an integral part of QC's Horizontal Curve Assessments and serves as the company advisor for special projects. Noah Smith will direct the Data Processing Technicians. He will ensure the horizontal curve data and sign inventory data are correctly processed, quality controlled, and delivered in the appropriate formats. Data Processing Technician Robert Pound and various

Quality Control Technicians will support his efforts.

**Caltrans District 5, Horizontal Curve Data Collection** – Processing Manager for horizontal curve and sign inventory data and performed data collection in the field using Rieker's horizontal curve data collection hardware. Rieker's CARS system was used to conduct data collection for horizontal curve assessment on all State Routes within Caltrans District 5. The project consisted of approximately 1,100 centerline miles of roadway and 100 miles of freeway ramps. The data collection also included an inventory of more than 1,700 existing horizontal alignment signs with geo-referenced imagery. Performed post-processing using the CARS online portal to produce more than 6,000 curve reports.

**New York State Department of Transportation, Horizontal Curve Data and Existing Sign Inventory** – Data collection and quality control manager for statewide horizontal curve data collection on approximately 20,000 centerline miles of NYSDOT roadway. Trained and oversaw the curve processing team to perform horizontal curve analysis of integrated GPS-BBI data to create an inventory of more than 30,000 horizontal curve locations that includes curve geometry, superelevation, and MUTCD-compliant recommended advisory speed calculations.

**Kentucky Transportation Cabinet, Horizontal Curve Data and Existing Sign Inventory** – Data collection and quality control manager for statewide horizontal curve data collection on approximately 27,000 centerline miles of KYTC roadway. Trained and oversaw the curve processing team to perform horizontal curve analysis of integrated GPS-BBI data to create an inventory of more than 100,000 horizontal curve locations that includes curve geometry, superelevation, and MUTCD-compliant recommended advisory speed calculations.

**WSDOT SW Region, Horizontal Curve Data Collection and Analysis** – Processing Manager responsible for including oversight and systems development for the planning and processing stages of the project and in-depth analysis and quality control on the final deliverables. Surveyed approximately 960 centerline miles of roadway and more than 50 miles of freeway ramps with Rieker's CARS system. The project covered all roads maintained by WSDOT throughout the Southwest Region. Utilized the CARS software to post-process the data, resulting in nearly 2,000 curve reports complete with recommendations for proposed horizontal alignment signs in accordance with MUTCD requirements.

**South Carolina DOT, Solicitation 5400015879, Horizontal Curve Data Collection and Assessment** – Data Processing and QA/QC Manager responsible for route planning, project tracking, data processing, quality control, and reporting for 4,300 CLMs.

**Caltrans, Statewide HPMS Data Collection** – Processing Manager for the planning and management of this 1.5-year project for the Highway Performance Monitoring System project, which was comprised of more than 2,500 tube counts across the state of California. In addition to weekly fieldwork planning and logistical support, he corresponded with more than 200 local government agencies over the course of the project to obtain appropriate permits, insurance documentation, and supplementary materials tailored to each individual public works department.

**Robert Pound – Data Processing Technician****MS, Library & Information Science | University of South Florida | 6 Years of Experience**

Robert Pound supports operations and the data processing of projects performed by QC. He ensures the accurate and efficient collection of manual count data from various data sources. As such, he is responsible for the more intricate and elaborate studies QC conducts. These studies include manual class counts, stop-delays, high-traffic pedestrian studies, horizontal curve assessments, and more. Robert has supported the processing of hundreds of thousands of video

hours of collected transportation data.

**New York State Department of Transportation, Horizontal Curve Data Analysis** – Data Processing Technician responsible for supporting the processing of traffic sign inventory and horizontal curve data. QC is currently conducting the data collection for the inventory of all existing horizontal curve warning signs throughout the NYSDOT highway system. The system is approximately 16,550 centerline miles and 5,000 miles of ramps. The sign inventory includes both sign information as well as locations.

**Kentucky Transportation Cabinet, Horizontal Curve Data, and Existing Sign Inventory** – Data Processing Technician responsible for conducting the processing of traffic sign inventory and horizontal curve data. QC is currently conducting the data collection for the inventory of existing signage for the Kentucky Transportation Cabinet. Their network consists of 27,000 CLM. All data is collected one direction at a time and is accurate to within 25 feet of the sign's actual location. All sign information is recorded on spreadsheets containing information relating to Sign Assemblies and Sign Details.

**Caltrans District 5, Horizontal Curve Data Collection** – Data Processing Technician for horizontal curve and sign inventory data and performed data collection in the field using Rieker's horizontal curve data collection hardware. Rieker's CARS system was used to conduct data collection for horizontal curve assessment on all State Routes within Caltrans District 5. The project consisted of approximately 1,100 centerline miles of roadway and 100 miles of freeway ramps. The data collection also included an inventory of more than 1,700 existing horizontal alignment signs with geo-referenced imagery. Performed post-processing using the CARS online portal to produce more than 6,000 curve reports.

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**South Carolina DOT, Solicitation 5400015879, Horizontal Curve Data Collection and Assessment** – Data Processing and QA/QC Manager responsible for route planning, project tracking, data processing, quality control, and reporting for 4,300 CLMs.

**San Francisco Municipal Transportation Authority, On-Call Data Collection** – Data Processing Technician responsible for overseeing the reception and preparation of counts for reduction. Ensures compliance is met for all data reduction requirements. Supervises reduction progress and ensures the project stays on schedule. Manages the quality control and delivery process. Since 2016, collection efforts have included more than ten types of specialized observation counts and more than 5,000 hours of video reduction. Responsible for overseeing the data reduction and custom deliverable creation.



## References of Past Performance

### Kentucky Transportation Cabinet, Curve Data and Existing Sign Inventory, Statewide, KY

Mike Vaughn  
859.582.6858  
mike.vaughn@ky.gov  
March 2019 – March 2021

QC conducted the data collection for the inventory of curve data and existing signage for the Kentucky Transportation Cabinet. Their network consists of 27,000 CLM. Curve surveys were performed using digital inclinometers that recorded geocoded tilt data from each curve. All sign data was collected one direction at a time and is accurate to within 25 feet of the sign's actual location. All sign information was recorded on spreadsheets containing information relating to Sign Assemblies and Sign Details.

### Ohio Department of Transportation Horizontal Curve Data Collection and Assessment Project, Statewide, OH

Charles Fisher, PE  
614.644.0270  
charles.fisher@dot.ohio.gov  
July 2016 – March 2017

QC performed all the route planning, data collection, and analysis work for this statewide project in Ohio. More than 20,000 centerline miles were surveyed, including all interstates, U.S. highways, state routes, and associated ramps. This project resulted in more than 15,000 curve reports and an inventory of approximately 34,000 curve warning signs. Caroline Duffy served as the Project Manager for JMT (prime firm) until she left prior to the completion of the project in early 2017. QC conducted all the surveying, inventorying, and data production, while the prime reviewed our deliverables to ODOT.

### South Carolina Department of Transportation, Horizontal Curve Data Collection and Assessment, Statewide, SC

Shawn Salley  
803.737.1949  
SallySE@scdot.org  
August 2018 – November 2018

QC was awarded this statewide Horizontal Curve Data Collection and Assessment contract in July of 2018, comprised of 4,300 CLMs. QC completed two passes required for this contract, compiled the data for delivery to the state, and conducted all redrives that did not have satisfactory curve data in a short five-month period. This effort was then extended through a supplemental solicitation to include an additional 11,226 CLMs and 611 interstate ramps.

### New York State Department of Transportation, Curve and Sign Inventory, Statewide, NY

Daniel Carey  
518.457.7114  
daniel.carey@dot.ny.gov  
February 2019 – April 2020

QC was awarded New York's statewide curve and sign inventory data collection contract in early 2019. This effort included the collection of data along 16,550 CLMs and 5,000 ramps. QC was also tasked with assessing and providing recommendations for signage based on the MUTCD and NYS supplement. QC used digital ball bank indicators and dashboard-mounted cameras to collect the required data.

### Dodge County Highway Department, Horizontal Curve Data Collection, Dodge County, WI

Peter Thompson, PE  
920.386.3655  
pthompson@co.dodge.wi.us  
January 2019

QC conducted data collection for the inventory of curve data for the Dodge County Highway Department. This project included the assessment of 540 CLMs and was completed within a one-month time frame.

### Multnomah County, Oregon, Horizontal Curve Assessment – Data Processing, Multnomah County, OR

Storm Beck  
503.988.5906  
storm.beck@multco.us  
May 2018

QC conducted data collection for the inventory of curve data for Multnomah County, Oregon. QC worked directly with the County to provide curve horizontal curve assessment and re-driving. Jay McComb provided consultation on communication with County Project Manager. Multnomah County borrowed a CARS kit from ODOT and had an intern perform the initial driving data collection for their county. When it came time to process the data on the CARS portal, they found that they were not equipped to take this part of the project on efficiently. QC contracted with the county to provide horizontal curve assessments, data quality control, and re-surveying with CARS units. This was a cost-effective solution for the county, as it would have taken them a significant amount of internal resources to complete this project.



## Inclusion of Items in Scope of Services

### Rieker's CARS

The CARS system is designed to satisfy the 2009 MUTCD mandate, which states that all horizontal curves with more than 1,000 ADT be reassessed for curve warning signs by the end of 2019 and that all incorrect signs must be removed. The CARS system continuously records speed, position, and lateral acceleration; the user completes the field work while driving at normal roadway speeds under almost any level of traffic congestion. Through post-processing, the software calculates curve radius, cross slope, and the recommended advisory speed (RAS) using best-fit parabolic models and design equations from the AASHTO Green Book.

CARS will be used to facilitate the determination of horizontal curve advisory speeds according to the 2009 MUTCD. When used by QC-trained personnel, the service combines Rieker's proven Ball Bank inclinometer with GPS and proprietary software to generate a comprehensive Curve Advisory Report for a horizontal curve. This technology also provides additional key information.

The tools used include an integrated dashboard-mounted inclinometer and a Trimble GPS unit to record data continuously. Raw, timestamped GPS/BBI data is collected in real-time by the tablet. Upon completion of a survey route and connection to a dedicated tablet to a WiFi network, the data is automatically uploaded to Rieker's CARS cloud portal. This portal leverages the Google Maps API for complete data visualization.

The CARS BBI takes readings every .05 seconds, and the GPS records data every .3 seconds. Together, these tools produce over a half million data points per day of driving. This tool kit is a turnkey solution and can easily be operated by a single person with introductory knowledge of the system. The kit allows for data collection to be conducted at any speed, including at or below the speed

limit. All of the data and telemetry is captured automatically and continuously with no user interaction. This allows drivers to remain focused on driving and not on any peripheral devices. All the data necessary for curve analysis can be gathered with a single pass of a curve in either direction. However, QC will conduct multiple passes over each roadway for additional quality assurance. The results will be combined for comparison in the analysis reports.

The GPS provides lateral accuracy of +/- 2 meters, 80% of the time, and a GPS coordinate resolution of .00001. The GPS signal strength is continuously displayed and automatically recorded with each data record. The integrated ball bank inclinometer provides an overall accuracy of .15 degrees. The unit compensates for temperature and is manufactured according to FHWA specifications.



### SignProx

SignProx is a sign inventory and management system featuring a filterable and searchable database of MUTCD and custom signs. QC will utilize this application alongside HD dash-camera footage to process all existing signage. As the video is played back, our data processing team will document all curve-associated signs in SignProx with GPS coordinates, sign designation, MUTCD code, right or left placement of the sign, and the number of W1-8 chevron signs in a curve, if applicable.



Deliverables/Report Examples



RIEKER Inc. Total Solutions

## Safe Curve Speed Analysis Report

Curve: 034-KY-1425 -000 MP1.14-1.30  
 Corridor: 034-KY-1425 -000  
 Mile Post: 1.30 - 1.14

Posted Speed: 55 mph  
 Selected RAS - Left: 55 mph  
 Selected RAS - Right: 55 mph

Lateral Friction Limit: 12°  
 Model Geometry: Parabolic

Analysis summary

Pass #	Turn Direction	Travel Direction	Point of Curvature Latitude Longitude	Point of Tangent Latitude Longitude	GPS Fit	Average Test Speed	Curve Radius	Curve Length	Deflection Angle	Curve Class.	Super Elevation at Apex	Curve Grade	Min. Calculated Advisory Speed	Recommended Advisory Speed (RAS)
1	Right	South Decreasing	38.03421° -84.39633°	38.03193° -84.39715°	98.2%	43.4 mph	890 ft	919 ft	52°	F	3.6%	A	50.3 mph	50 mph
2*	Left	North-East Increasing	38.03191° -84.39712°	38.03425° -84.39627°	95.6%	40.9 mph	972 ft	958 ft	50°	F	3.1%	A	56.2 mph	55 mph
3*	Right	South Decreasing	38.03420° -84.39631°	38.03191° -84.39714°	97.5%	43.4 mph	951 ft	917 ft	49°	F	4.7%	B	58.9 mph	55 mph
4	Left	North-East Increasing	38.03194° -84.39711°	38.03423° -84.39627°	96.9%	49.1 mph	924 ft	920 ft	50°	F	5.1%	A	51.5 mph	50 mph

Warnings are disabled

Sign recommendation summary

Pass #	Differential	Curve Sign	Curve Sign Requirements	Advisory Speed Sign	Speed Sign Requirements	Chevron Sign	Chevron Spacing	Chevron Requirements	Note
1	-5 mph	W1-2	recommended	50 mph	recommended	W1-8	160 ft	optional	
2*	N/A	W1-2	none	55 mph	none	W1-8	160 ft	none	The Recommended Advisory Speed for this pass is at or above the posted speed limit
3*	N/A	W1-2	none	55 mph	none	W1-8	160 ft	none	The Recommended Advisory Speed for this pass is at or above the posted speed limit
4	-5 mph	W1-2	recommended	50 mph	recommended	W1-8	160 ft	optional	

\*Selected passes shaded and in bold



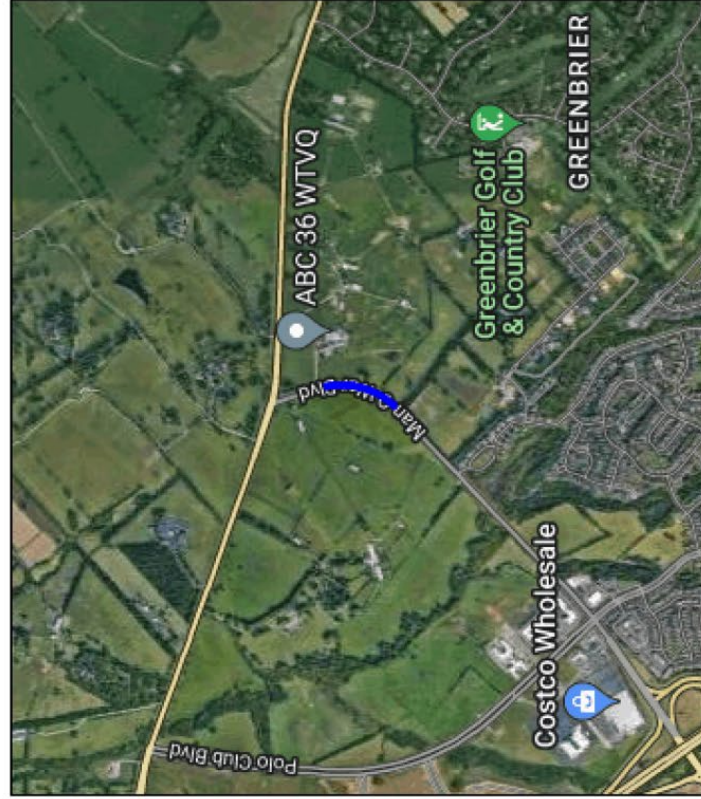
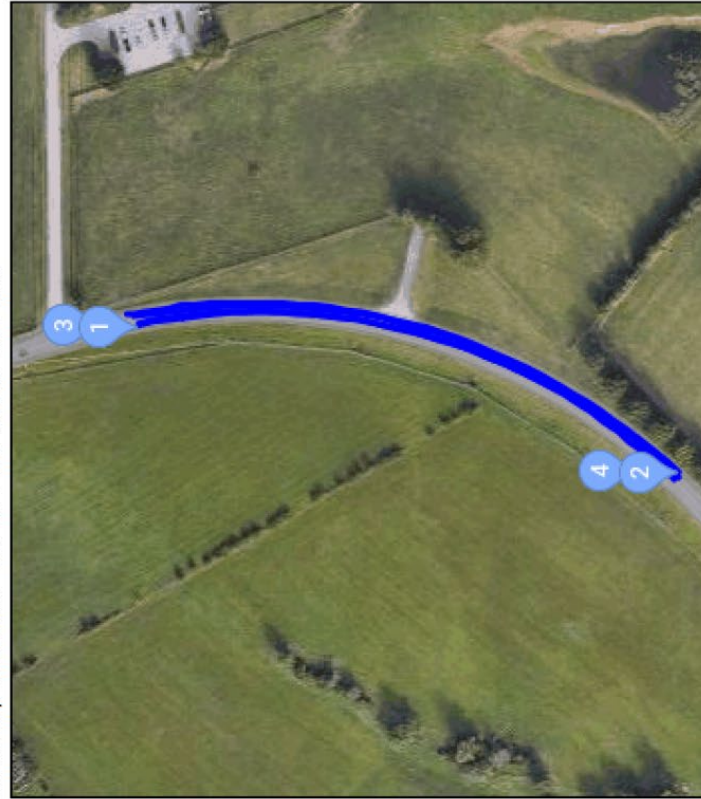
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Mile Post: 1.30 - 1.14

Posted Speed: 55 mph  
Selected RAS - Left: 55 mph  
Selected RAS - Right: 55 mph

Lateral Friction Limit: 12°  
Model Geometry: Parabolic

Curve map reference - 034-KY-1425 -000 MP1.14-1.30





RIEKER Inc. Total Solutions

## Safe Curve Speed Analysis Report

Curve: 034-KY-1425 -000 MP1.14-1.30

Corridor: 034-KY-1425 -000

Mile Post: 1.30 - 1.14

Posted Speed: 55 mph

Selected RAS - Left: 55 mph

Selected RAS - Right: 55 mph

Side friction summary - 034-KY-1425 -000 MP1.14-1.30, pass 2

Lateral Friction Limit: 12°

Model Geometry: Parabolic

Theoretical side friction at the point producing the minimum calculated advisory speed and generating the maximum side friction

Advisory Speed (mph)	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Auto Side friction guideline (deg)	16	16	16	16	14	14	12	12	12	12	12	12	12	12
Max side friction (deg)	-0.1	0.2	0.7	1.4	2.2	3.3	4.5	5.9	7.5	9.3	11.2	13.3	15.5	17.9

Radius: 1,004 ft; Super elevation: 0.2%

CollectionDate	PC_RT_Unique	PT_RT_Unique	County	Route	CurveDirection	TravelDirection	PCMIlepost	PTMIlepost	PCLongitude	PTLongitude	PCLatitude	PTLatitude	GRSRH	AverageTestSpeed	CurveRadius	CurveLength	Deflection	Superelevation	PostedSpeed	SideFrictionLimit	CurveModel	MinCalcAdvSpeed	RecAdvSpeed
3/28/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Left	Increasing	0.32	0.4	-85.11011	38.02242	-85.10559	38.02143	0.99	37.9	478	409	44	3.3	55	12	Parabolic	36.7	35	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	0.44	0.52	-85.10899	38.02105	-85.10829	38.0202	0.99	36.9	588	373	94	3.4	55	12	Parabolic	43.9	40	
3/28/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Left	Increasing	0.56	0.64	-85.10817	38.01959	-85.10721	38.01879	0.98	40.3	372	437	57	10.1	55	12	Parabolic	32	30	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	0.67	0.76	-85.10672	38.01874	-85.10527	38.01811	0.99	37.6	420	510	59	12	55	12	Parabolic	43.4	40	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Left	Increasing	0.79	0.84	-85.10509	38.01783	-85.10459	38.01719	0.99	39	1474	275	10	-0.6	55	12	Parabolic	62	60	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Left	Increasing	0.95	1.09	-85.10315	38.01603	-85.10097	38.01598	0.98	34.5	371	724	82	10.3	55	12	Parabolic	39.9	40	
3/28/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	1.16	1.25	-85.10006	38.01688	-85.0986	38.01741	0.98	40.8	915	511	30	8.8	55	12	Parabolic	46.5	60	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	1.36	1.49	-85.09676	38.01776	-85.09459	38.01712	0.98	38.7	561	719	61	8.3	55	12	Parabolic	46.5	45	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	1.61	1.67	-85.09255	38.0159	-85.09234	38.01531	0.99	42.9	1436	347	13	2.9	55	12	Parabolic	65.6	65	
3/27/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	1.74	1.83	-85.09129	38.01483	-85.09018	38.01389	0.99	42.3	857	462	30	5.5	55	12	Parabolic	57.9	55	
3/28/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Left	Increasing	3.05	3.14	-85.07407	38.00437	-85.07243	38.00423	1.00	52.8	1448	479	18	2	55	12	Parabolic	63.9	60	
3/28/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Left	Increasing	4.29	4.38	-85.05147	38.0044	-85.04993	38.00473	0.99	40.8	579	474	43	7.7	55	12	Parabolic	45.3	40	
3/28/2019	003-KY-004-000	003-KY-004-000	3 KY-004	Right	Increasing	4.52	4.61	-85.04779	38.00394	-85.04638	38.00638	0.99	42.1	896	445	27	5.4	55	12	Parabolic	58.5	55	

## Approach

### Kickoff Meeting

Upon award of the contract our management team will hold a meeting with relevant LFUCG staff to discuss the final project scope, schedule, budget, and other relevant information. Milestone submittals and project review dates will be scheduled at this time. This meeting shall serve as a notice to proceed and start of the project duration.

### Preparation

To ensure that the project roadways are driven efficiently, QC's route planning team breaks up the road network into "routes" which can be driven in a single day. After the team uses route-planning software to create step-by-step driving directions that cover the roadways for each route, the routes are exported to the cloud for easy access by the driving team.

Route information and roadway network information is tracked on a cloud platform to allow for multiple users to participate in planning, tracking progress, processing data, and performing quality control. In preparation for each project, the data processing team creates a new instance of QC's proprietary tracking database system that seamlessly integrates data from the CARS platform, video from the drivers, processing team inputs, and GIS interfaces to provide a user-friendly project management tool. Driver training instructs all drivers on setting up the horizontal curve analysis packages inside the vehicle to be driven.

### Data Collection

At the beginning of each day of driving, the driver will calibrate their CARS unit. The driver then activates the CARS unit and proceeds to drive their assigned route. All data and telemetry are captured automatically and continuously with no user interaction. This allows drivers to remain focused on driving. At the end of the route, the driver connects the CARS tablet to the internet and uploads the raw Ball Bank Indicator (BBI) and GPS data to Rieker's cloud portal. Once the data is uploaded, the files are automatically archived on the tablet and can be accessed at any point if needed.



### Curve Processing

Once the GPS and BBI raw data are uploaded to the CARS cloud database, they are accessible on the CARS web portal. A Data Processing Technician selects data sessions for a corridor and proceeds to produce a series of horizontal curve assessments along the length of the corridor. CARS features a polygon tool used to identify the point of curvature (PC) and point of tangency (PT) for each curve on the map. This map-based selection process identifies all raw GPS and BBI data associated with a given curve. The system calculates, for each curve pass, a modeled curve (parabola or circular arc) using a best-fit regression and then automatically calculates all required curve geometry, superelevation, side friction, and advisory speed statistics for the curve. CARS generates goodness-of-fit statistics and graphical representations of raw data and modeled elements which allow the Data Processors to evaluate data quality. If the curve assessment is accepted, then the Data Processor uses CARS' Proposed Signs feature to generate an MUTCD-compliant set of horizontal curve alignment warning signs and advisory speed plaques. This includes the number of chevrons, chevron spacing, and GPS locations based on the curve radius calculated by CARS. It also includes recommended locations of advanced placement and sign designation curve and turn arrows. Curve processing will be conducted each time 100 CML or more of data is accumulated on the CARS portal and, when completed, will be QA/QC and delivered to LFUCG. Ideally, all roadway data collection will occur within the first month of the contract period; however, QC will be flexible based on the needs of LFUCG.



## Quality Control

### Horizontal Curve Data

All processed curve data is periodically exported from the CARS portal into QC’s proprietary CARS quality control system. Segments from the network that have been fully processed by the curve processing team are assigned to the quality control team for manual review. In addition to the manual review, geospatial and statistical analysis (primarily Python/ArcPy and T-SQL) will be applied to identify any data quality issues. The results will be used to flag curves requiring corrective action. Generally, this means a curve either needs correction via the CARS portal or that additional sensor data is required for assessment. Flagged locations requiring additional data collection will be added to routing and/or processing team workflows as appropriate, with notes indicating the nature of the problem. These curves will continue to trigger flags in subsequent quality control cycles until the issue is resolved. The cycle repeats until all curves pass quality control.

The following list serves as a sample of tests applied during the batch-processing quality control phase:

- GPS fit percentage of modeled curve passes
- Min/max test speed within curve passes
- Recommended advisory speeds for all curve passes variance among curve passes
- Superelevation at apex for all curve passes
- Comparison of PC/PT with existing framework curve data (if available)
- Comparison of reported to existing posted speed data
- Consistency of reported posted speed and side friction limit

### Recollection of Gaps in Data

After the entire network has been surveyed and quality control is complete, the route planning team creates additional routes to target specific areas that need to be

resurveyed. The same driving protocols are followed, and the additional data is processed using the same protocols described above. Usually, when QC performs the data collection using CARS kits, 5% or less of the road network may need to be resurveyed.



### Deliverables

Deliverable formats will be discussed at the Kickoff Meeting and sample deliverables will be made available early in the project life cycle to establish acceptable information display and formatting. The curve data report will be provided in a tubular format importable by ESRI GIS software and into a point shapefile that will include all necessary criteria listed in the Scope of Services.

### Project Schedule & Payments

The total project time, from kickoff to delivery, will be less than six months. Progress will be invoiced monthly with respect to scheduled items.

### Fee Schedule

Item	Unit	Quantity	Total
Project Fixed Cost	Lump	1	\$55,000
Data Gathering	Mile	1,100	\$22,300
Deliverable Data	Mile	1,100	\$48,100
Mobilization	Lump	1	\$12,100
<b>Total Cost</b>			<b>\$137,500</b>

## AMERICAN RESCUE PLAN ACT

### AMENDMENT 1 — CERTIFICATION OF COMPLIANCE FOR EXPENDITURES USING FEDERAL FUNDS, INCLUDING THE AMERICAN RESCUE PLAN ACT

The Lexington-Fayette Urban County Government (“LFUCG”) may use Federal funding to pay for the goods and/or services that are the subject matter of this bid. That Federal funding may include funds received by LFUCG under the American Rescue Plan Act of 2021. Expenditures using Federal funds require evidence of the contractor’s compliance with Federal law. Therefore, by the signature below of an authorized company representative, you certify that the information below is understood, agreed, and correct. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

**The bidder (hereafter “bidder,” or “contractor”) agrees and understands that in addition to all conditions stated within the attached bid documents, the following conditions will also apply to any Agreement entered between bidder and LFUCG, if LFUCG uses Federal funds, including but not limited to funding received by LFUCG under the American Rescue Plan Act (“ARPA”), toward payment of goods and/or services referenced in this bid. The bidder also agrees and understands that if there is a conflict between the terms included elsewhere in this Request for Proposal and the terms of this Amendment 1, then the terms of Amendment 1 shall control. The bidder further certifies that it can and will comply with these conditions, if this bid is accepted and an Agreement is executed:**

1. Any Agreement executed as a result of acceptance of this bid may be governed in accordance with 2 CFR Part 200 and all other applicable Federal law and regulations and guidance issued by the U.S. Department of the Treasury.
2. Pursuant to 24 CFR § 85.43, any Agreement executed as a result of acceptance of this bid can be terminated if the contractor fails to comply with any term of the award. This Agreement may be terminated for convenience in accordance with 24 CFR § 85.44 upon written notice by LFUCG. Either party may terminate this Agreement with thirty (30) days written notice to the other party, in which case the Agreement shall terminate on the thirtieth day. In the event of termination, the contractor shall be entitled to that portion of total compensation due under this Agreement as the services rendered bears to the services required. However, if LFUCG suspects a breach of the terms of the Agreement and/or that the contractor is violating the terms of any applicable law governing the use of Federal funds, LFUCG may suspend the contractor’s ability to receive payment by giving thirty (30) days’ advance written notice. Further, either party may terminate this Agreement for cause shown with thirty (30) days written notice, which shall explain the party’s cause for the termination. If the parties do not reach a settlement before the end of the 30 days, then the Agreement shall terminate on the thirtieth day. In the event of a breach, LFUCG reserves the right to pursue any and all applicable legal, equitable, and/or administrative remedies against the contractor.
3. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
  - (1) Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and

applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- (4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event a contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

4. If fulfillment of the contract requires the contractor to employ mechanic's or laborers, the contractor further agrees that it can and will comply with the following:

- (1) *Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.*



- (2) *Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.*
- (3) *Withholding for unpaid wages and liquidated damages. LFUCG shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.*
- (4) *Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.*

5. *The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.*

6. *The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.*

7. *The contractor shall include these requirements in numerical paragraphs 5 and 6 in each subcontract exceeding \$100,000 financed in whole or in part with Federal funding.*

8. *The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.*

9. *The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.*

10. *The contractor shall include these requirements in numerical paragraphs 8 and 9 in each subcontract exceeding \$100,000 financed in whole or in part with Federal funds.*

11. *The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.*

12. *The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency regional office.*

13. *The contractor shall include these requirements in numerical paragraphs 11 and 12 in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.*

14. The contractor shall include this language in any subcontract it executes to fulfill the terms of this bid: “the sub-grantee, contractor, subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury’s Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this contract (or agreement). Title VI also includes protection to persons with ‘Limited English Proficiency’ in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury’s Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this contract or agreement.”

15. *Contractors who apply or bid for an award of \$100,000 or more shall file the required certification that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier, up to the recipient. The required certification is included here:*

- a. The undersigned certifies, to the best of his or her knowledge and belief, that:
  - (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
  - (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
  - (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
- b. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

16. The contractor acknowledges and certifies that it has not been debarred or suspended and further acknowledges and agrees that it must comply with regulations regarding debarred or suspended entities in accordance with 24 CFR § 570.489(1). Funds may not be provided to excluded or disqualified persons.

17. The contractor agrees and certifies that to the greatest extent practicable, it will prefer the purchase, acquisition, and use of all applicable goods, products or materials produced in the United States, in

conformity with 2 CFR 200.322 and/or section 70914 of Public Law No. 117-58, §§ 70901-52, also known as the Infrastructure Investment and Jobs Act, whichever is applicable.

18. The contractor agrees and certifies that all activities performed pursuant to any Agreement entered as a result of the contractor's bid, and all goods and services procured under that Agreement, shall comply with 2 C.F.R. § 200.216 (Prohibition on certain telecommunications and video surveillance services and equipment) and 2 C.F.R. 200 § 200..323 (Procurement of recovered materials), to the extent either section is applicable.

19. If this bid involves construction work for a project totaling \$10 million or more, then the contractor further agrees that all laborers and mechanics, etc., employed in the construction of the public facility project assisted with funds provided under this Agreement, whether employed by contractor, or contractor's contractors, or subcontractors, shall be paid wages complying with the Davis-Bacon Act (40 U.S.C. 3141-3144). Contractor agrees that all of contractor's contractors and subcontractors will pay laborers and mechanics the prevailing wage as determined by the Secretary of Labor and that said laborers and mechanics will be paid not less than once a week. The contractor agrees to comply with the Copeland Anti- Kick Back Act (18 U.S.C. § 874) and its implementing regulations of the U.S. Department of Labor at 29 CFR part 3 and part 5. The contractor further agrees to comply with the applicable provisions of the Contract Work Hours and Safety Standards Act (40 U.S.C. Section 327-333), and the applicable provisions of the Fair Labor Standards Act of 1938, as amended (29 U.S.C. et seq.). Contractor further agrees that it will report all suspected or reported violations of any of the laws identified in this paragraph to LFUCG.

\_\_\_\_\_  
Signature

9/19/2023  
\_\_\_\_\_  
Date

# EQUAL OPPORTUNITY AGREEMENT

## Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

## The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states:

*The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.*

- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

*The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.*

\*\*\*\*\*

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

*I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.*

\_\_\_\_\_  
*Signature*

Quality Counts, LLC  
\_\_\_\_\_  
*Name of Business*

**DIRECTOR, DIVISION OF CENTRAL PROCUREMENT  
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT  
200 EAST MAIN STREET  
LEXINGTON, KENTUCKY 40507**

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION**

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) Contract participation. Disadvantaged Business Enterprises (DBE) consists of Minority-Owned Business Enterprises (MBE) and Woman-Owned Business Enterprises (WBE).

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this Contract be subcontracted to Disadvantaged Business Enterprises, which is made up of MBEs and WBEs. The Lexington Fayette Urban County Government also has set a goal that not less than three percent (3%) of the total value of this Contract be subcontracted to Veteran-owned Small Businesses. The goal for the utilization of Disadvantaged Business Enterprises as well Veteran –owned Small Businesses as subcontractors is a recommended goal. Contractor(s) who fail to meet such goal will be expected to provide written explanations to the Director of the Division of Procurement of efforts they have made to accomplish the recommended goal, and the extent to which they are successful in accomplishing the recommended goal will be a consideration in the procurement process. Depending on the funding source, other DBE goals may apply.

For assistance in locating Disadvantaged Business Enterprises Subcontractors contact:

Sherita Miller, MPA, Division of Central Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street, 3rd Floor, Room 338  
Lexington, Kentucky 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)

Firm Submitting Proposal: Quality Counts, LLC

Complete Address: 29 Industrial Park Dr Unit 106 Hendersonville, TN 37075  
**Street City Zip**

Contact Name: Jay McComb Title: Vice President

Telephone Number: 571-585-9225 Fax Number: 954-692-9086

Email address: jmccomb@qualitycounts.net



**LFUCG MWDBE PARTICIPATION FORM**  
**Bid/RFP/Quote Reference # RFP-39-2023**

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Procurement for approval immediately.

**Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Absolute Staffing & Consulting Solutions, LLC Tawanda Huff - CEO 221 Cherokee Dr. Westminster, MD 21157 410-848-9480 huff.t@ascsl.com	WBE	Provide driver to drive pre-planned routes for horizontal curve data collection.	\$8,400	10%
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Quality Counts, LLC  
**Company**  
9/19/2023  
**Date**

**Company Representative**  
Vice President  
**Title**



Date

Title

## GENERAL PROVISIONS

1. Each Respondent shall comply with all Federal, State & Local regulations concerning this type of service or good.

The Respondent agrees to comply with all statutes, rules, and regulations governing safe and healthful working conditions, including the Occupational Health and Safety Act of 1970, *29 U.S.C. 650 et. seq.*, as amended, and KRS Chapter 338. The Respondent also agrees to notify the LFUCG in writing immediately upon detection of any unsafe and/or unhealthful working conditions at the job site. The Respondent agrees to indemnify, defend and hold the LFUCG harmless from all penalties, fines or other expenses arising out of the alleged violation of said laws.

2. Failure to submit ALL forms and information required in this RFP may be grounds for disqualification.
3. Addenda: All addenda and IonWave Q&A, if any, shall be considered in making the proposal, and such addenda shall be made a part of this RFP. Before submitting a proposal, it is incumbent upon each proposer to be informed as to whether any addenda have been issued, and the failure to cover in the bid any such addenda may result in disqualification of that proposal.
4. Proposal Reservations: LFUCG reserves the right to reject any or all proposals, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
5. Liability: LFUCG is not responsible for any cost incurred by a Respondent in the preparation of proposals.
6. Changes/Alterations: Respondent may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the proposal, and received by LFUCG prior to the scheduled closing time for receipt of proposals, will be accepted. The proposal, when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of proposal".
7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from a Respondent.
8. Bribery Clause: By his/her signature on the bid, Respondent certifies that no employee of his/hers, any affiliate or Subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.

9. Additional Information: While not necessary, the Respondent may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the Respondent's response. Additional documentation shall not serve as a substitute for other documentation which is required by this RFP to be submitted with the proposal,
10. Ambiguity, Conflict or other Errors in RFP: If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
11. Agreement to Bid Terms: In submitting this proposal, the Respondent agrees that it has carefully examined the specifications and all provisions relating to the work to be done attached hereto and made part of this proposal. By acceptance of a Contract under this RFP, proposer states that it understands the meaning, intent and requirements of the RFP and agrees to the same. The successful Respondent shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to Respondent shall be authorized for services or expenses reasonably covered under these provisions that the proposer omits from its Proposal.
12. Cancellation: If the services to be performed hereunder by the Respondent are not performed in an acceptable manner to the LFUCG, the LFUCG may cancel this contract for cause by providing written notice to the proposer, giving at least thirty (30) days notice of the proposed cancellation and the reasons for same. During that time period, the proposer may seek to bring the performance of services hereunder to a level that is acceptable to the LFUCG, and the LFUCG may rescind the cancellation if such action is in its best interest.

#### A. Termination for Cause

- (1) LFUCG may terminate a contract because of the contractor's failure to perform its contractual duties
- (2) If a contractor is determined to be in default, LFUCG shall notify the contractor of the determination in writing, and may include a specified date by which the contractor shall cure the identified deficiencies. LFUCG may proceed with termination if the contractor fails to cure the deficiencies within the specified time.
- (3) A default in performance by a contractor for which a contract may be terminated shall include, but shall not necessarily be limited to:
  - (a) Failure to perform the contract according to its terms, conditions and specifications;

- (b) Failure to make delivery within the time specified or according to a delivery schedule fixed by the contract;
- (c) Late payment or nonpayment of bills for labor, materials, supplies, or equipment furnished in connection with a contract for construction services as evidenced by mechanics' liens filed pursuant to the provisions of KRS Chapter 376, or letters of indebtedness received from creditors by the procurement agency;
- (d) Failure to diligently advance the work under a contract for construction services;
- (e) The filing of a bankruptcy petition by or against the contractor; or
- (f) Actions that endanger the health, safety or welfare of the LFUCG or its citizens.

#### B. At Will Termination

Notwithstanding the above provisions, the LFUCG may terminate this contract at will in accordance with the law upon providing thirty (30) days written notice of that intent, Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

13. **Assignment of Contract:** The contractor shall not assign or subcontract any portion of the Contract without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
14. **No Waiver:** No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this Contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
15. **Authority to do Business:** The Respondent must be a duly organized and authorized to do business under the laws of Kentucky. Respondent must be in good standing and have full legal capacity to provide the services specified under this Contract. The Respondent must have all necessary right and lawful authority to enter into this Contract for the full term hereof and that proper corporate or other action has been duly taken authorizing the Respondent to enter into this Contract. The Respondent will provide LFUCG with a copy of a corporate resolution authorizing this action and a letter from an attorney confirming that the proposer is

authorized to do business in the State of Kentucky if requested. All proposals must be signed by a duly authorized officer, agent or employee of the Respondent.

16. **Governing Law:** This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this Contract, the Parties agree that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division. All parties expressly consent to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to this Contract or any rights or obligations arising thereunder. Service of process may be accomplished by following the procedures prescribed by law.
17. **Ability to Meet Obligations:** Respondent affirmatively states that there are no actions, suits or proceedings of any kind pending against Respondent or, to the knowledge of the Respondent, threatened against the Respondent before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of Respondent to perform its obligations under this Contract, or which question the legality, validity or enforceability hereof or thereof.
18. Contractor understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Contractor is an independent contractor at all times during the performance of the services specified.
19. If any term or provision of this Contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.
20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.

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Signature

9/19/2023

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Date

**WORKFORCE ANALYSIS FORM**

Name of Organization: Quality Counts, LLC

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Administrators		1															1	
Professionals		1															1	
Superintendents																		
Supervisors						1											1	
Foremen																		
Technicians		2				1											3	
Protective																		
Para-																		
Office/Clerical		1															1	
Skilled Craft																		
Service/Maintena																		
<b>Total:</b>																		

Prepared by: Jennifer Lapp, Human Resources Date: 09 / 18 / 2023

*(Name and Title)*

*Revised 2015-Dec-15*



## **Affirmative Action Plan**

It is the policy of Quality Counts, LLC to provide equal employment opportunities without regard to race, color, religion, sex, national origin, age, disability, marital status, veteran status, sexual orientation, genetic information or any other protected characteristic under applicable law. This policy relates to all phases of employment, including, but not limited to, recruiting, employment, placement, promotion, transfer, demotion, reduction of workforce and termination, rates of pay or other forms of compensation, selection for training, the use of all facilities, and participation in all company-sponsored employee activities. Provisions in applicable laws providing for bona fide occupational qualifications, business necessity or age limitations will be adhered to by the company where appropriate.

As part of the company's equal employment opportunity policy, Quality Counts, LLC will also take affirmative action as called for by applicable laws and Executive Orders to ensure that minority group individuals, females, disabled veterans, recently separated veterans, other protected veterans, Armed Forces service medal veterans, and qualified disabled persons are introduced into our workforce and considered for promotional opportunities.

Employees and applicants shall not be subjected to harassment, intimidation or any type of retaliation because they have (1) filed a complaint; (2) assisted or participated in an investigation, compliance review, hearing or any other activity related to the administration of any federal, state or local law requiring equal employment opportunity; (3) opposed any act or practice made unlawful by any federal, state or local law requiring equal opportunity; or (4) exercised any other legal right protected by federal, state or local law requiring equal opportunity.

The above-mentioned policies shall be periodically brought to the attention of supervisors and shall be appropriately administered. It is the responsibility of each supervisor of the company to ensure affirmative implementation of these policies to avoid any discrimination in employment. All employees are expected to recognize these policies and cooperate with their implementation. Violation of these policies is a disciplinary offense.

It is the responsibility of Quality Counts' Human Resources Department to facilitate this policy's equal distribution among its employees, and to monitor the implementation of the criteria outlined in the above. This policy will be disseminated on an annual basis beginning on or immediately after the first of each calendar year. The policy will remain active and accessible to all employees within the employee portal.

## AFFIDAVIT

Comes the Affiant, Mark Shields, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Mark Shields and he/she is the individual submitting the proposal or is the authorized representative of Quality Counts, LLC, the entity submitting the proposal (hereinafter referred to as "Proposer").
2. Proposer will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Proposer will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Proposer has authorized the Division of Central Procurement to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Proposer has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Proposer will not violate any provision of the campaign finance laws of the Commonwealth.
6. Proposer has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

**Continued on next page**

7. Proposer acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

Mark Shields

STATE OF NC

COUNTY OF Mecklenburg

The foregoing instrument was subscribed, sworn to and acknowledged before me  
by Mark Shields on this the 19 day  
of Sep, 2023

My Commission expires: March 14 2028

[Signature]

NOTARY PUBLIC, STATE AT LARGE

