



## Department of Purchasing and Contracting

### INSTRUCTIONS FOR NON-COMPETITIVE PURCHASE REQUESTS

The Competitive Bidding Process is the preferred method of purchasing good or services. A waiver of this process must be requested on a case by case basis by completing a Non-Competitive Purchase Request Form in its entirety.

The form must be signed by Department Director of the User Department and submitted to the Director of the Department of Purchasing and Contracting by attachment to the requisition in Oracle.

Justification for the waiver must be provided on the request form. Additional pages may be attached if necessary.

Non-Competitive Purchase Requisitions must have a market/price reasonableness determination.

#### **Emergency Purchase Request**

An Emergency Purchase Request is to be used when a User Department seeks goods or services due to an unexpected and urgent request where health and safety or the conservation of public resources is at risk. The request must be completed regardless of the time of the emergency occurrence or dollar amount of the requisition, and must include an explanation as to why the emergency cannot be responded to using the competitive process. Expiration of funds, administrative delay or expiration of a contract or quote is not acceptable criteria for an Emergency Non-Competitive Purchase.

#### **Sole Source Purchase Request**

A Sole Source Purchase Request is to be used when a User Department seeks goods or services from the only qualified vendor or supplier that possesses the unique ability or available capacity to provide the requested goods or services. A vendor may be a sole source when the procurement involves proprietary technology, copyright, or patented information, goods or services. Additional justification for a Sole Source Purchase Request may include the requirement to match piece of existing equipment available only from the same source of original equipment or authorized dealer or an upgrade to existing software only available from the producer of the software;

A Sole Source Public Notice Form shall be posted on the County's website for five (5) business days and the results shall be attached to this Sole Source Purchase Request.



# Department of Purchasing and Contracting NON-COMPETITIVE PROCUREMENT REQUEST FORM

Requesting Department: Property Appraisal  
Department Contact Person: Calvin Hicks/Tracy White Telephone: 371 2466  
Email: cchicks@dekalbcountyga.gov

Requisition Number: 9147072 Suggested Supplier: Tyler Technologies  
Estimated Amount of Purchase: \$ 597,248.00  
Detailed Description of the Goods or Services to be purchased: Tyler intends to collect and deliver street level imagery of 220,453 improved parcels.

**Emergency** (For Emergency Requests, Please check this box and answer all questions below.)

1. Date and Time of Emergency Occurrence \_\_\_\_\_

2. Please state the nature of the emergency posing a risk to public health, welfare, safety or resources:

\_\_\_\_\_

3. State how the Estimated Amount was determined to be Fair and Reasonable (attach supporting documentation):

\_\_\_\_\_

**Sole Source** (Please check box and answer all of the following completely.)

1. Provide an explanation why the product, service or supplier requested is the only method that can satisfy the requirements. Please explain why alternatives are unacceptable. Be specific with regard to specification, features, characteristics, requirements, capabilities and compatibility. (Attach additional documents, if necessary):

TYLER HAS THE TECHNOLOGY AND KNOWLEDGE THAT WILL ASSIST WITH ALLOWING FOR ADDITIONAL NEW REVENUE OF BUILDINGS AND IMPROVEMENTS WHICH HAVE GONE UNDETECTED. IT WILL PREVENT FACTUAL ERRORS WHICH CAN BE DETECTED AND ELIMINATED.

2. Will this purchase obligate us to a particular vendor for future purchases? (Either in terms of maintenance that only this vendor will be able to perform and/or if we purchase this item, will we need more "like" items in the future to match this one?) Explain in detail.

YES, AS PART OF IASWORLD, AN EXISTING SERVICES PROVIDED BY TYLER TECHNOLOGIES. ONLY TYLER CAN ACCESS IASWORLD TO MAKE REQUIRED UPDATES TO PROPERTY IMAGES.

3. Explain the impact to the County or Public if this request is not approved.

IF NOT APPROVED, IT WILL ADVERSELY IMPACT THE OVERALL PROPERTY VALUES IN THE COUNTY.

I hereby request that this non-competitive procurement request be approved for the purchase of the above stated work, material, equipment, commodity, or service.

Department Director (Typed/Printed Name) CALVIN HICKS Signature: Calvin C. Hicks Digitally signed by Calvin C. Hicks Date: 2021.03.24 15:25:32 -0400

### Do Not Write Below – for the Department of Purchasing and Contracting Use Only

Procurement Agent (Typed/Printed Name) Sharice Feagins-Bail Signature: Sharice Feagins-Bail Digitally signed by Sharice Feagins-Bail Date: 2021.10.14 14:54:28 -0400 Date: 10/14/20

Procurement Manager (Typed/Printed Name) Crystal Creekmore Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Approved  Not Approved

Signature: \_\_\_\_\_, Director, Department of Purchasing and Contracting Date: \_\_\_\_\_  
P&C Rev. 9/21/2017

(Additional information, attach pages if required):



404.371.2761 (o)  
404.371-2750 (f)  
DeKalbCountyga.gov

Manuel J. Maloof Center  
1300 Commerce Drive  
Decatur, GA 30030

**Finance Department**

**DATE :** March 8, 2021

Chief Executive Officer  
Michael L. Thurmond

**MEMO TO:** Calvin Hicks Jr., Chief Appraiser & Tracy White-Ferguson, Administrative Assistant

Board of Commissioners

**THRU:** Deborah Sherman, Assistant Director of Capital & Grants; Bejinda Reaves, Budget Management Coordinator

District 1  
Robert Patrick

*Bejinda Reaves*

**FROM:** Eric Johnson, CIP Grant Analyst

District 2  
Jeff Rader

**SUBJECT:** Property Appraisal  
**New Grant Award Notification**

District 3  
Larry Johnson

The grant award for the following program has been approved by the BOC. A budget amendment should also be submitted if required to allocate grant funds in accordance with approved award budget.

District 4  
Steve Bradshaw

**Date of BOC Approval:** February 23, 2021

District 5  
Mereda Davis Johnson

**Name of Granting Agency:** Dekalb County CIP

District 6  
Edward Terry

**Program Description / Purpose(s):** Property Appraisal  
\_ Street Level  
\_ Mobile Assessors Field Application  
\_ Replacement Tablets

District 7  
Lorraine Cochran-Johnson

**New ORACLE Project#:** 104045  
**New ORACLE Award#:** 601652  
**Expenditure Type#** 542201  
**Award Amount:** **\$597,248**

**New ORACLE Project#:** 105678  
**New ORACLE Award#:** 602451  
**Expenditure Type#** 542201  
**Award Amount:** **\$285,000**

**New ORACLE Project#:** 105680  
**New ORACLE Award#:** 602452  
**Expenditure Type#** 542201  
**Award Amount:** **\$88,000**

**Cost Center / Organization:** 82710  
**Grant Period:** 02/23/21 – 12/31/26

*The Capital & Grants Division of Finance will only monitor from a compliance and financial perspective; therefore, it is imperative that your department should provide copies of financial, programmatic, reimbursement reports (drawdowns) and grant agreements for the above-mentioned award to (Eric Johnson).*

*Please note that Capital & Grants must approve all grant related requisitions and payments that require a POETA before being processed by the Accounting Division. In order to ensure compliance and maintain accounting procedures please include (Eric Johnson) in the approval hierarchy for all purchases. Note: Attach supporting documentation i.e. invoices to the requisition before submitting for approval.*

**Cc:** Fiscal Manager - Department  
Sekai Todd  
Project File



404.371.2761 (o)  
404.371-2750 (f)  
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**Finance Department**

Chief Executive Officer  
Michael L. Thurmond

**Board of Commissioners**

District 1  
Robert Patrick

District 2  
Jeff Rader

District 3  
Larry Johnson

District 4  
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Edward Terry

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## Chief Executive Officer Michael L. Thurmond

### Board of Commissioners

District 1  
Robert Patrick

District 2  
Jeff Rader

District 3  
Larry Johnson

District 4  
Steve Bradshaw

District 5  
Mereda Davis Johnson

District 6  
Ted Terry

District 7  
Lorraine Cochran-Johnson

To: Citizens of DeKalb County  
Members, DeKalb County Board of Commissioners  
DeKalb County, Georgia

From: CEO Michael Thurmond

Re: Fiscal Year 2021 Budget Amendment

Date: February 22, 2021

This memo serves to present the Chief Executive Officer's amendment to the Fiscal Year 2021 Budget Recommendation submitted to the Board of Commissioners on December 15, 2020.

In the time since our original proposal was submitted, our administration has been tracking all requests from county departments, constitutional officers, and other independent agencies both through the Board of Commissioners' budget hearings as well as requests made to the Office of Management and Budget.

Due to the ongoing global health and economic crises, our priority in considering these requests were to maintain critical services and meet immediate needs. In many instances, we have identified alternative funding sources outside of the county's annual budget to address these needs. In other cases, we have agreed with county departments or agencies to revisit their requests at mid-year when we have a clearer picture of county revenues. I am pleased to present the following amendments to the FY2021 Budget Recommendation which include adjustments to the Hospital Fund and General Fund, adjustments to starting fund balances, funding of contractual obligations for the District Attorney and Animal Services, and restoration of positions that have been filled since the original FY2021 budget proposal was developed.

### Grady Hospital Ponce De Leon Center

The proposed budget included \$4 million within the Hospital Fund for the renovation of Grady Memorial Hospital's Ponce De Leon Center. The county's contract with the Hospital Authority splits the payment of the \$4 million into quarterly payments of \$500,000 over two years to coincide with the construction schedule. The amended budget lowers the Hospital Fund budget by \$2 million. This reduction allows 0.137 mills to be shifted from the Hospital Fund to the General Fund millage rate, which generates \$2 million to address other budget needs outlined in the amendments below.

### Other Budget Adjustments

The proposed amendment makes additional adjustments summarized below.

- Fund Balance and Capital Reserve: Starting fund balances for the tax funds were restated based on the most current 2020 data available. These adjustments bring the starting fund balance across all tax funds to \$116.7 million, an increase of \$6.1 million from the original proposal.
- The amended budget designates the \$6.1 million increase in the tax funds' fund balance as a capital reserve, to use for non-recurring costs.
- The starting fund balances for other operating funds were also restated based upon actual financials after closing the books for December 2020.

- Property Appraisal: \$970,428 from the capital reserve to fund an update to the county's street level imagery (\$597,428), mobile assessors field application (\$285,000), and replacement tablets to appraisers (\$88,000). \$28,000 to cover additional costs for printing and mailing assessment notices.
- Sheriff: \$1,143,553 from the capital reserve to cover lease costs for the jail management system (\$643,553) and mold remediation at the county jail (\$500,000).
- Planning: \$388,011 to fund six positions recently filled or in the hiring process in the Development Fund. Three of these positions were funded in FY20 but vacant when the FY21 budget was developed. The three other positions will enhance operational efficiency for Development services.
- Magistrate Court: \$314,956 to increase part-time salaries (\$220,693) and to restore overtime funding (\$94,263). The funds for overtime were placed in an incorrect line item during the FY20 budget year which resulted in their omission from the original FY21 proposed budget.
- Board of Health: \$230,751 in one-time funding from the General Fund to support ongoing operations throughout the COVID-19 pandemic. The administration is working to identify other funding streams to supplement these funds, and additional funding may be considered in the mid-year budget.
- District Attorney: \$212,234 to cover increased lease costs for office space at One West Court Square. The District Attorney's Office entered a ten-year lease last year that included annual increases to fund the buildout of their office space.
- Animal Services: \$174,720 to fund a scheduled increase in the contract with LifeLine Animal Project for operation of the Animal Shelter.
- State Court: \$96,948 To fund a judicial clerk position for Division 1 and convert two temporary positions to full-time in DUI Court. The judicial clerk position will aid in scheduling court proceedings and create staffing parity among all State Court Divisions. The funding for the DUI court positions is partially offset by redirecting existing funds for the temporary personnel.
- Emergency Management: \$74,001 reallocated from purchased & contracted services and supplies to fund a testing specialist position filled in January (this reallocation is budget neutral).
- Human Resources: \$65,000 reallocated from purchased & contracted services to fund a testing specialist position (this reallocation is budget neutral).
- The Vehicle Replacement Fund carries over \$23.4 million from the FY2020 budget to fund encumbrances for vehicles purchased in previous years that are still on order.

## Conclusion

The progress we have made in the last four years to restore financial stability to the county was integral to our ability to adjust to the realities of the coronavirus pandemic. The amendments offered within this letter further our strategy of "Steady, As She Goes" to fund essential services and persevere until the storm has passed. I seek your continued support in our efforts through the proposed budget and look forward to brighter days in DeKalb County.

CC: Zachary L. Williams, Chief Operating Officer/ Executive Assistant  
 Delores Crowell, Intergovernmental Affairs Director  
 Dianne McNabb, Chief Financial Officer  
 Kwasi Obeng, Chief of Staff, Board of Commissioners  
 Staff, Office of Management and Budget



May 18, 2021

One Tyler Way  
Moraine, Ohio 45439

P: 800.800.2581  
F: 937.278.3711

[www.tylertech.com](http://www.tylertech.com)

Ms. Tracy White-Ferguson  
DeKalb County Property Appraisal Administration  
1300 Commerce Drive  
Maloof Annex Building  
Decatur, GA 30030

**Re: Street Level Imaging Sole Source**

Dear Ms. White-Ferguson:

Tyler Technologies' and Cyclomedia have worked together to create a solution for street level imaging. With this DeKalb will have access not only to the imaging but also Cyclomedia's GeoCyclorama™ platform through the StreetSmart application software for a period of two years. StreetSmart is an interactive web-based application that provides cloud access to GeoCycloramas and tools for measuring, collecting data, and reporting. Additional County Departmental staff with licenses for the appropriate Esri products can also access GeoCyclorama™ using Street Smart for ArcGIS Pro, Street Smart for ArcGIS Online, and the Street Smart Widget for ArcGIS Web AppBuilder.

Therefore, Tyler is the only vendor with the necessary knowledge, skills and authority to provide the iasWorld and Cyclomedia integrations to DeKalb County. The integration will assist the Assessment office in the annual valuation of properties and defense of values.

If I can be of further assistance or if you have any questions, I can be reached at 1-800-800-2581 ext. 1924 or via email at [gus.tenhundfeld@tylertech.com](mailto:gus.tenhundfeld@tylertech.com). Thank you for your continued confidence and support of Tyler Technologies.

Sincerely,

A handwritten signature in blue ink that reads "Gus Tenhundfeld".

Gus Tenhundfeld  
Inside Sales Manager







One Tyler Way  
Moraine, Ohio 45439

P: 800.800.2581  
F: 937.278.3711

[www.tylertech.com](http://www.tylertech.com)

To whom it may concern:

Tyler Technologies iasWorld™ solution is a highly-specialized computer software solution that contains software coding, process and trade secrets that are proprietary to Tyler Technologies.

Tyler is the sole provider of the requested HB820 Legislative Changes with respect to the iasWorld solution, and Tyler has the ability to provide these services going forward. The requested HB820 Legislative Changes with respect to the iasWorld solution involve Tyler's proprietary technology, and no other company is authorized to provide such services.

If you have any questions, please feel free to call (800-800-2581), or email me at [kim.frisby@tylertech.com](mailto:kim.frisby@tylertech.com)

Sincerely,

A handwritten signature in blue ink that reads "Kimberly L. Frisby".

Kimberly L. Frisby  
Vice President Support Services

KLF:clw:krs



## Scope of Work

Tyler intends to collect and deliver street level imagery of 220,453 improved DeKalb County Georgia parcels. The imagery will be delivered in a JPEG format, with a minimum of one image per parcel.

Tyler believes it has the necessary depth of experience and methodology to ensure a successful project for the DeKalb County Georgia Property Appraisal Department and its stakeholders. All created and derived data attributed to the project will become property of the DeKalb County Georgia Property Appraisal Department. .

The following points have been considered in our proposed approach:

1. The consistency of image quality and information available for mass appraisal, GIS, and CAD taxing unit practices.
2. The speed of acquisition, delivery, and opportunity for immediate use of information. The speed at which new discovery is made and reported to the County.
3. Tyler's capabilities as the County's CAMA provider to support and provide a worry free and fully functional integration of the newly collected data in the system.
4. The verification of the County's GIS parcel layer and related information. Quality control and verification of vendor presence and progress.
5. Cost of data acquisition and inherent value to the County.

Tyler and CycloMedia understand the complexity for each type of property: residential, commercial/industrial, exempt/public, agricultural, etc. By capturing a distorting free 360° image from multiple angles, we can see a property from multiple perspectives and save a JPEG of the best view with

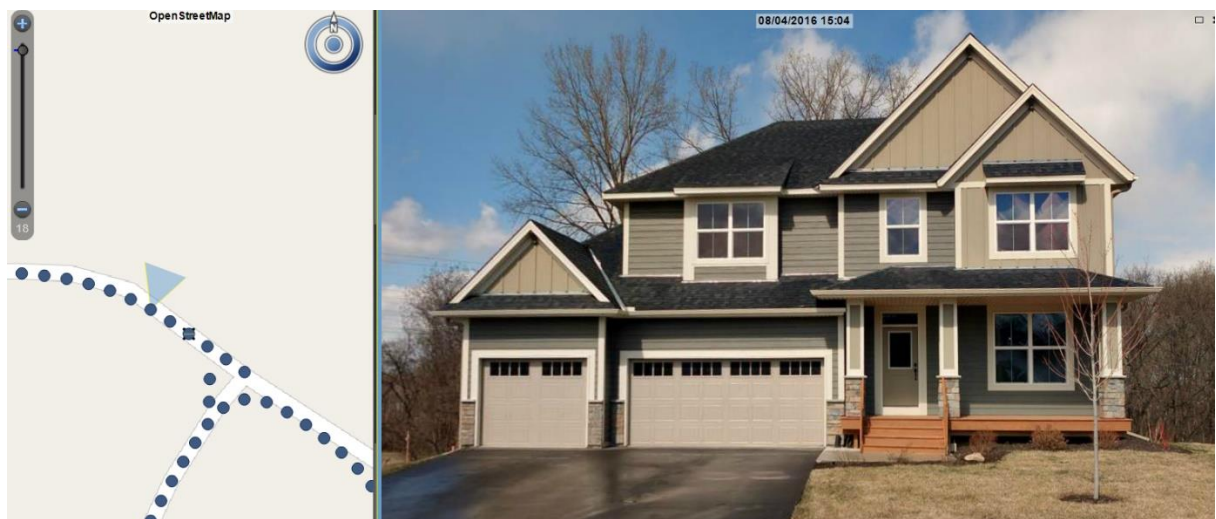


Figure 1: Left approach

# DeKalb County Georgia Property Appraisal Department

Image Collection Services



Appraisal & Tax

the desired quality, detail, and characteristics. This allows the selection of the best front-facing image without the need to rely on a single person's perspective. The images will be generated resulting in the building taking up a minimum 75% of the frame.



Figure 2: Center approach

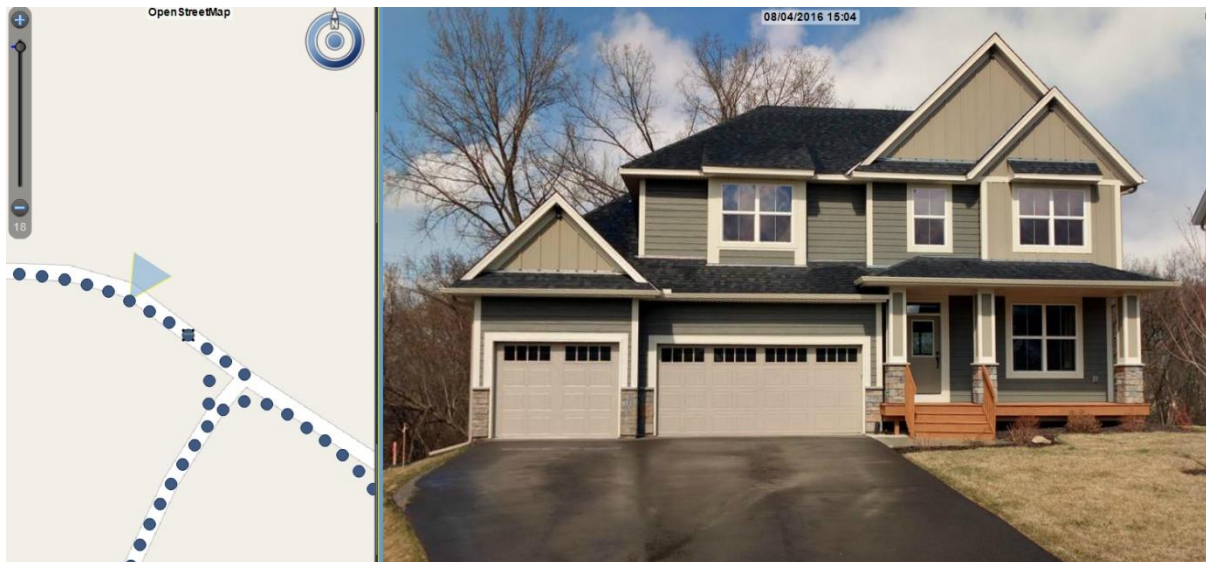


Figure 3: Right approach

**DeKalb County Georgia Property Appraisal  
Department**

Image Collection Services



**Appraisal & Tax**

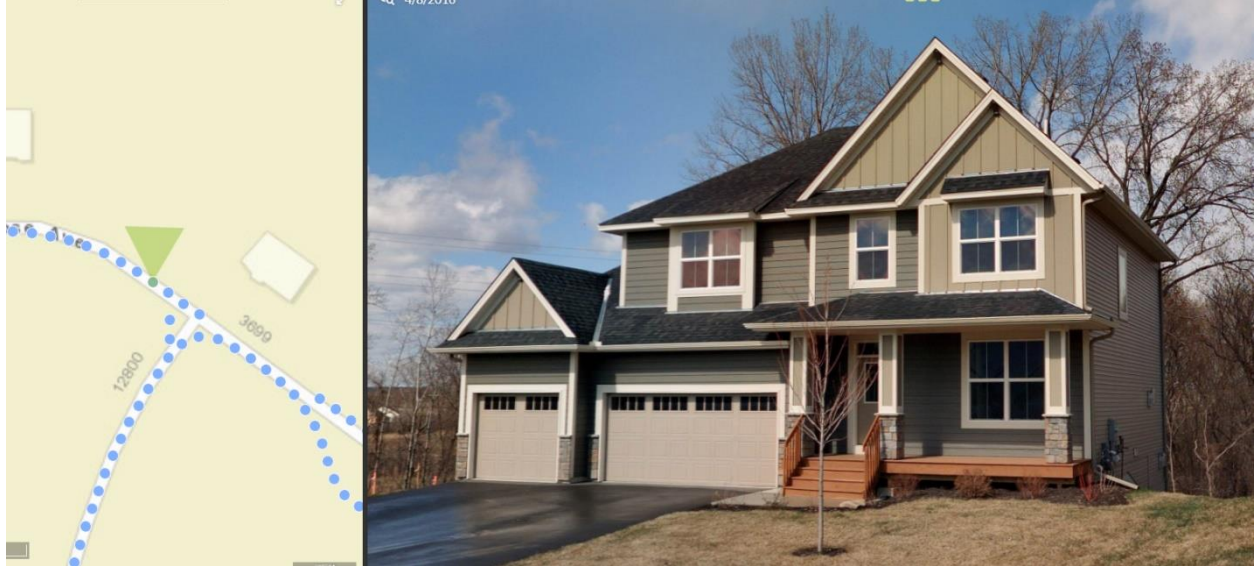


Figure 4: Image selected for JPEG creation showing two sides



## Methodology/Technical Approach

Data acquisition will be performed with a high definition vehicle-mounted camera system, comprised of five individual cameras (front, rear, left, right, and up) using CycloMedia's patented technology to fire individually over a single recording point as the vehicle travels forward. The following section outlines the procedures that take place after the initial capture and processing of the GeoCyclorama™ imagery.



Figure 5: CycloMedia fleet vehicles

## Preparation

DeKalb County's parcel layer will be imported as a data layer inside a cloud-based service, StreetSmart™, in the content creation phase. The parcel information is displayed in the map window as well as a panoramic imagery view. This will allow the selection of the optimal image of any particular parcel and structure(s). Tyler and CycloMedia will work with DeKalb County to develop the necessary scope of the project that will identify any customization required (i.e. data to be displayed on the cut-out imagery, etc.) Within three weeks of the project commencement, DeKalb County will be able to view the GeoCyclorama



imagery online. As the imagery is processed and QA/QC is completed, the GeoCycloramas are then sent to the cut-out phase for the JPEG creation.

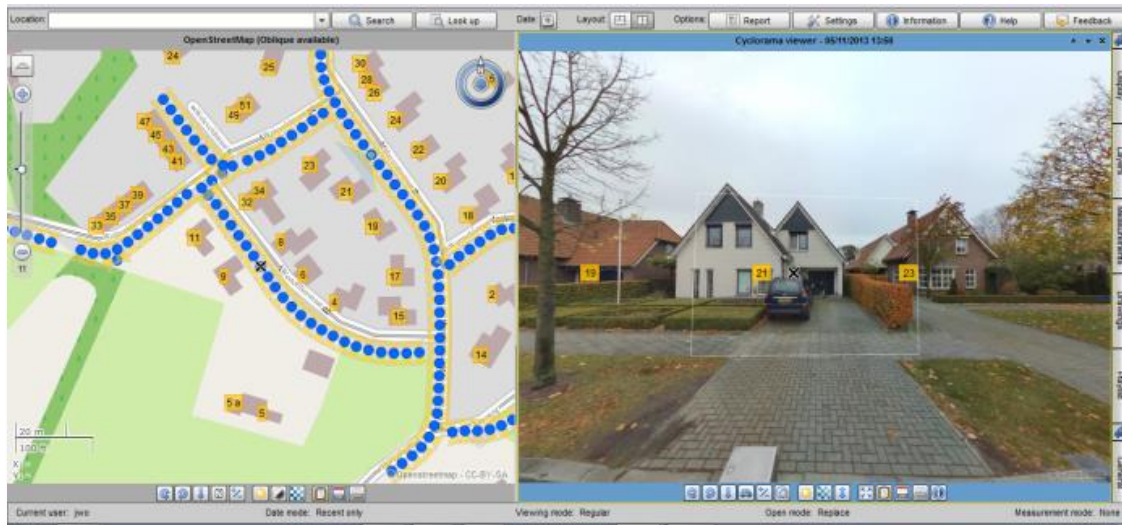


Figure 6: Parcel data layer displayed in map window on left and in panoramic imagery view on right. GeoCyclorama collection points are indicated as blue dots on the map. The multiple capture points allow for the selection of the best image.

When a road is driven, a green marker (signaling good GPS/IMU receiving) is automatically placed at the recording location on the in-vehicle map display – if there are any errors with the camera, available light, or GPS signal, a red marker will signify to the driver that an image needs to be recaptured immediately. This user interface provides the driver a better overall picture of what has been and needs to be captured and gives immediate feedback regarding the quality of the imagery.

The driver is required to periodically review the captured imagery to ensure that the camera is functioning properly and the five camera lenses are free of dirt, pollen, insects, etc. A periodic visual check and cleaning of the camera lenses is also performed.

## Capturing

Image “cut-outs” from a GeoCyclorama comply with the IAAO MARP Standard 3.3.5 for street-view images. These standards include, but are not limited to:

- Adequate focus, color, tint, brightness and contrast
- Proper framing of the structure including appropriate horizontal and vertical levelness
- Images free of digital artifacts, excessive shadow, radiometric and tonal imbalance, glare, extreme contrast, smearing, warping or distortion of features, ghosting, voids, and artificial colorations
- Images are captured from public roads and suitable to distinguish structure height and shape that enables quality grade and physical condition to be verified.



Images shall only be taken when well defined images can be obtained. Images will not be collected during rainstorms, at night or during any other environmental factors (such as excessive haze, smoke, dust, etc.) that will obscure the image quality & detail. It is standard operating procedure that imagery is only collected when the sun angle is at least 24° above the horizon (minimizing shadows and issues with sun angles) and there is minimal moisture in the environment (rain and sleet).

If the property is not visible from the public roadway, CycloMedia will make note of the address and indicate when an image was “not accessible”.

### Production

During the image production phase, Tyler and CycloMedia will ensure that every image is of high quality and meets the County’s QA/QC standards for imagery including, at a minimum, images free of digital artifacts, excessive shadow, radiometric and tonal imbalance, glare, extreme contrast, smearing, warping or distortion of features, ghosting, voids, and artificial colorations. Factors to be reviewed or incorporated are overall focus, tint, brightness and contrast of the image, proper framing of the structure, with appropriate horizontal and vertical levelness, and adequate zoom level.



Figure 7: Showing high resolution zoom and quality of image

The raw position measurements from the GPS/IMU sensors in the vehicle, plus the reference data from a network of permanent GNSS reference stations, are processed into an accurate position and orientation for each 360° image.



The five images captured by our camera unit at each recording point are prepared for editing including adjustment for white balance, chromatic aberration, demosaicking (color filter array interpolation), color artifacts reduction, and tone mapping, and then combined into a 360° view. Several different image operations are performed on the 360° image soon after, including local contrast enhancement, sharpening and adaptive histogram enhancements.

As soon as these steps are done, quality reports are automatically generated. These reports are used in the manual controls to approve a creation of the JPEG images. Images may be rejected after the automated reporting or after visual inspection. Examples of problems that are caught by the quality control process are over or underexposure, wide class differences between the front and rear camera, or high inaccuracy in the position. In addition, systematic series of images are randomly checked for visible defects, such as dirt or water on the lenses or low sun angle glare.





### Examples

- Single Family - Most structures will require one image with the front and garage doors visible.
  - I. The image should also be taken at slight angle vs straight on to get some perspective.



Figure 8: Example of primary image of a Single-family home with main structure

# DeKalb County Georgia Property Appraisal Department

Image Collection Services



## Appraisal & Tax

- Multi-Family (Duplex, Triplex, Townhouses etc.) - One shot of the whole building plus a single image of each unit.
  - I. Buildings on Multi-Family may be on one parcel or split into two or more parcels.
    - a) If on more than one parcel, the whole building image will be associated with each of the parcels and then the correct unit will be associated with the parcel it is on.



Figure 9: Example of a representative view of a Multiple Family complex on a single parcel



- Agricultural residence and major outbuildings will also require photographs.
  - I. On non-residential agricultural properties, the primary image will be of the main structure on the parcel. Any other significant buildings will be captured as secondary images. Individual images of outbuildings can also be generated based on specific requirements identified by the County.



**Figure 10: Example of an Agricultural residence**



Figure 11: Example of a representative view of multiple Agricultural structures, with the primary structure in the background, on a single parcel.



- Condominiums - When composed of more than one building, photographs shall be obtained that represent each type of building (i.e. story height).
  - I. Detail images of contributory structures, covered parking, pools, gazebos, etc.
  - II. For parcel ID/account numbers that are not identifiable from the outside, one image of the entire structure will be collected, and that image will be duplicated for all other similar units in the same structure. The secondary image will be of any significant structures, such as a pool, tennis court, or clubhouse. The County can choose prior to commencement of the project if individual images of secondary structures is preferable.



Figure 12: Example of a primary Condominium structure



Figure 13: Example of a secondary Condominium structure, along with signage and primary structure.



**Appraisal & Tax**

- **Manufactured Home Park**
  - I. The parcel will be imaged from a point where access to the parcel meets the public right-of-way and as much of any structure as may be visible.
  - II. The secondary image will be of any significant structure, such as a pool or recreational center.
  - III. Images of individual manufactured homes will not be collected.



**Figure 14: Example of entrance to a Manufactured Home Park**



- Commercial and Industrial
  - I. Retail - front elevation will suffice for most types but need the following detail:
    - a) Strip Mall, Neighborhood, and Community Centers - Primary image of the whole complex, then detail images of the store fronts and pad sites.
      - i. Multiple store fronts in one image are acceptable but all fronts in the complex need to be imaged.
      - ii. Free standing pad sites (i.e. fast food restaurants, auto service center etc.) in parking lots will require separate images, even if they are part of the same parcel as the strip center.



Figure 15: Example primary image of a strip mall





Figure 16: Example secondary image of strip mall



Figure 17: Example primary image of Free-standing Pad

- b) Office and Apartment Complexes - When composed of more than one building, photographs shall be obtained that represent each type of building (i.e. story height).



- i. For Apartments, detail images of contributory structures, covered parking, pools gazebos, etc.



Figure 18: Example primary representative image of Building Type 1



Figure 19: Example primary representative image of Multi-unit Office Building



- c) Warehouse and Manufacturing - Primary of main structure and detail of loading dock areas.
  - i. There are some very large structures in the County that will require more than one image. Appraisal staff will be available to help identify these parcels.



Figure 20: Example primary representative image of Warehouse and Loading Dock area



- d) Additional structures such as parking lots, parking garages, silos, water towers, etc., will also require photos.



Figure 21: Example primary representative image of Water Tower



- Exempt and Public Properties
  - I. All exempt properties shall be photographed from the front elevation. Under certain circumstances, large exempt parcels, such as the University or College, may require a representative photograph of each individual building.



**Figure 22: Example primary representative image of Exempt Property**



- Other Structures
  - I. For parcels with a unique parcel ID/account number, images will be collected of properties with any visible property improvements.
  - II. Property improvements will be defined as any visible signs of site improvements such as driveways, signage and billboard structures, sheds, and concrete or gravel.



Figure 23: Example primary representative image of Billboard

# DeKalb County Georgia Property Appraisal Department

Image Collection Services



## Appraisal & Tax

- Manufactured Home
  - I. Properties with manufactured homes are to be imaged.
  - II. For properties with a permanent structure and a mobile home, the mobile home will be imaged as a secondary image.



Figure 24: Example primary representative image of Mobile Home



### **Image Size and Font**

- Unobstructed curbside, public right-of-way views of each improved parcel.
- A level clearly focused image.
- Proper horizontal and vertical centering of each parcel.
- Adequate tint, brightness and contrast so that a viewer with 20/20 vision can accurately and easily distinguish color and property detail.
- The appropriate distance from each parcel shall be utilized so that the image is adequately captured but the detail may be easily distinguished..
- An image that is acceptable for viewing on HD (or equivalent) monitors and reproducible as either color or black and white prints.
- A minimum of obstructing foliage and no snow on the ground.
- The base of the improvement must be parallel to the bottom of the image.

### **Image Imprints**

- A clearly visible date stamp in the bottom right corner of the image.

### **Good Image Detail**

- Image taken at the appropriate distance from the subject structure(s) so that the following image details may be distinguished:
- Building height: image shows the proportionate height of the structure.
- Building shape: image shows the proportionate length and width of the structure.
- Construction type: image shows construction detail of siding and roofing material.
- General exterior condition: image shows general soundness and degree of structural maintenance.

### **Best View**

- A curbside view of the front elevation from public access without entering private property.
- The view that best reflects the overall value of the structure, including porches or garages along the side.
- The view that avoids and minimizes obstructions.

### **Unobstructed View**

- The existence of physical obstructions such as trees, shrubbery, vehicles, walls, signs, in close proximity to subject structure(s) should be minimized to the view of the property.
- For properties not seen from public access, the parcel will be imaged from a point where access to the parcel meets the public right-of-way and as much of any structure as may be visible and flagged with a "not accessible" attribute.





### **Good Exposure**

- A clearly focused image, with adequate color tint, brightness and contrast, so that a viewer may accurately and easily distinguish color and property detail.
- Images should be free of sunspots and glare.
- Image quality should not be degraded by weather conditions.

### **Orientation**

- The front elevation of the subject structure will comprise approximately 75% of the image.
- The structure will be oriented so that two sides of the structure are captured, with the front of the structure comprising a majority of the image.
- Proper horizontal and vertical centering of the subject property leaving room at the bottom of the picture for digital placement of the parcel ID and at the sides of the picture for cropping.

### **Image Characteristics**

Image cut-outs from a GeoCyclorama™ are in compliance with IAAO Standard 3.3.5 for street-view images. These standards include, but are not limited to:

- Adequate focus, color, tint, brightness, and contrast
- Proper framing of the structure including appropriate horizontal and vertical levelness
- Images free of digital artifacts, excessive shadow, radiometric and tonal imbalance, glare, extreme contrast, smearing, warping or distortion of features, ghosting, voids, and artificial colorations
- Images captured from public roads and suitable to distinguish structure height, shape, construction type, and general exterior condition

### **Collection Method**

The structure will be centered within the image. Images will only be collected from public access..

CycloMedia is pleased to provide 100 megapixel, GIS compatible 360° street level imagery from which multiple views of structures can be obtained.

### **Minimum Image Size and Font Requirements**

The extracted image will be a 4096 width x 3072 height pixel resolution, color JPEG format.

### **Image Imprints**

CycloMedia has an automated process for annotating jpeg images with Parcel ID and Date Stamp.



Each image will have one of the five attributes listed below associated to the corresponding data file:

- Best View - The view of the structure captured in the image does not meet the standard requirements for a quality image due to obstructions.
- Not Accessible
  - The primary structure for the parcel is not visible from public access.
  - The parcel will be imaged from a point where access to the parcel meets the public right-of-way, and as much of any structure as may be visible.
- Gated - The structure is located behind a secure gate and access could not be gained.
- Primary - The primary image is of the most significant structure on the parcel. Other significant structures will be captured as secondary images.
- People - The image contains a person that could not be avoided.

### **Project Management Approach and Implementation Plan**

In executing a project of this nature and complexity, Tyler will utilize a team approach led by a strong Project Manager to ensure that the County's goals and objectives are achieved. This approach involves putting together an exceptionally qualified team that brings together expertise in project management, technical execution, training and support and marrying the Tyler team to the County's team to bring about superior results.

Over the past 25 years, Curtis Tyler, Regional Manager – Tyler Verify, has gained leadership and project management experience and has become an expert in residential and commercial/industrial image data collection. He has been responsible for the budget, schedule, communications, supervision and training of new employees on several projects using many types of data collection and appraisal systems. Mr. Tyler and the project team will be supported by Mark Folkerts, VP of Appraisal Operations. Company experience shows that client involvement throughout a project helps ensure a successful outcome. In this regard, the DeKalb County Property Appraisal Department and Tyler will be acting as a team to successfully complete the job at hand.

**DeKalb County Georgia Property Appraisal Department**

Image Collection Services



**Appraisal & Tax**

<b>Name</b>	<b>Alexander Hepp, Director, Assessment</b>
<b>Responsibility</b>	Single CMT point of contact for the project with Tyler counterpart. Responsibilities include, but are not limited to, handling any issues that may arise, authorization of changes, reporting status and final QA/QC of all image/data deliverables.
<b>Experience and Qualifications</b>	Alex has been in the Street-Level and Aerial Imaging business for nearly 30 years. From overseeing some of the first Street-Level Imagery Capture projects in the United States in the 1980's. VP of Sales at Mobile Video Services Inc. He also led the Team at Pictometry/Eagleview that delivered Millions of parcels of ChangeFindr. Alex is a member of both URISA and IAAO. Alex is a recipient of an IAAO Presidential Citation, and a 2018 Service Award. In 2018 Alex was the Conference Co-Chair for the URISA Annual Conference, GIS-Pro. Alex serves on both the URISA and GIS/CAMA Conference Committees. He has presented extensively at Conferences in the United States, Canada and Europe.
<b>Relevant Projects</b>	<b>Franklin County, OH</b>   Street Level Imagery Services – Responsible for managing the imagery delivery, Primary Point of Contact, Project and QA/QC for the County. <b>CAMA Coordination</b>   Responsible for managing CAMA partner discussions and integration plans with CAMA Vendors such as Tyler Technologies, Patriot Properties, E-Ring, Schneider, etc.

<b>Name</b>	<b>Andrew Bohnsack, Manager, Field Operations</b>
<b>Responsibility</b>	Responsible for field operations, including imagery collection, data transfer, equipment, and vehicle maintenance. Oversees the day-to-day operations of all vehicles and system operators.
<b>Experience and Qualifications</b>	Andrew Bohnsack is a seasoned project manager whose experience has been tempered through 10 years of service in the US Navy. He has successfully managed over 25 imagery collection projects across 15 states in 16 months with CycloMedia.

Quality, service, and value are the key drivers for Tyler, sustaining and growing our client base over many decades. Whether it is travelling across the continent to collect a few images, delivering early to maintain schedules, or providing unparalleled response and personalized service tailored to each client, we treasure the opportunity to delight. We are passionate about our work, our industry, and our clients. We are part of a large and deep organization, but still remain boutique in nature. Because of our size, structure



and operating philosophy, we not only contract, but partner with our clients to solve their individual frustrations and concerns in their work environments and to meet their intended goals.

Prior to and during the course of a project, Tyler, in conjunction with the County, will provide the public information through press releases, interviews with the media, through law enforcement agencies, and directly to the public as situations arise.

### **Communications Plan**

Following contract signing, Tyler will initiate meetings with DeKalb County Property Appraisal Department representatives to formalize a communications plan. As a beginning point, we propose the communications plan include the following:

#### **Project Meetings**

- Monthly Status Meetings - A monthly review of project progress, issues, and proposed changes. The monthly meetings are generally held the same day, time, and place. Items covered in the meetings will include:
  - Updated project plan
  - Tasks completed during the last reporting period
  - Tasks planned for the next reporting period
  - Tasks planned for completion during the next reporting period
  - Anticipated staffing needs
  - Outstanding issues; current status and plans for resolution
  - Any issues that can affect schedules
  - Any issues that can delay or impact the completion of the project

#### **Monthly Status Reports**

Tyler will submit monthly written project status reports to the Appraisal Department Project Manager detailing activities, accomplishments, milestones, identified issues, and problems. Each report will include a written summary of progress during the past month, detailing the status of items in the project plan, identification of issues, and proposed resolutions.

### **Proposed Schedule and Deliverable Space Requirements**

The length of the contract will be from the date of award, until completion.

The approximate contract schedule is as follows:



1. Contractor shall begin field data collection on a date based upon the mutual agreement of the DeKalb County Property Appraisal Department and Tyler.
2. The Property Appraisal Department and Tyler shall determine a Production Schedule of property areas to be collected.
3. A completion date of image collection will be determined at contract signing, but may be altered by adverse weather conditions or the failure of the County to deliver the required Data File as needed. Contractor shall provide written notice to the County of any weather-related delays.
4. Contractor shall provide through the County's FTP site an initial installment of at least 1000 records within three weeks of the Imaging start date. This installment will be used to quality control the images and resolve any conflicts arising out of interpreting the image specifications
5. Following the initial installment, contractor shall provide routine deliveries, with each delivery containing between 2,000 to 5,000 images. Contractor shall perform routine deliveries at least every week, or as the production schedule allows.
6. Contractor shall provide the County written notification of the final delivery.

Our operations team will coordinate the arrival of the driver(s) and vehicle(s). The vehicles capture imagery while moving; there are less questions/concerns from the general public than with a traditional stop/shoot approach. All driver, vehicle descriptions, license plates, etc. will be provided to the County, which may opt to provide the drivers with a letter explaining the purpose of the project if the drivers receive any specific inquiries.

Once the County determines the full scope of the contract, the Tyler and CycloMedia team will work with the County on a more specific time-frame and the number of vehicles to be deployed.

## **Deliverables**

### **Review and Acceptance Criteria for Street Level Photography**

The following outlines the general procedures the County may follow in review and accepting data:

- The County receives deliverables from Tyler via FTP, on hard drive or electronic media/DVD as determined by the County.



- The County loads data files (if not using a hosted solution) using provided Tyler software or internal means and confirms the existence of JPEGs and associated data text files.
- The County will review the data provided by Tyler to assure that the data received meets the specifications described in the Service Agreement. The time necessary for a complete review by the County is established as the duration of the field collection project plus the warranty period. Lack of notification to Tyler during this period constitutes acceptance of the data.
  - Tyler warrants that at a minimum, ninety-eight (98%) of the images provided under in this project will meet the specifications described and shall be free from defects in material and workmanship. This warranty shall be effective through the term of the service agreement.
- In the event that the deliverable data fails to meet specifications, the County will notify Tyler by sending an email or letter identifying the parcels, JPEG images or text file data which fail to meet standards and rationale. Tyler's web-based image review software provides an efficient method for review and reporting for this purpose. Supplemental information, which the County feels will aid Tyler in correcting the error may also be included.
- For data on a single delivery which has systemic errors and cannot be read by the County or which contains images that are so poor that they cannot be inspected, notification will be by written memo only to ensure appropriate issue elevation and resolution.
- In the event the County provides notification of deliverables not meeting specifications, Tyler shall replace or repair such deliverables under the Warranty provisions of the Service Agreement.
- Notwithstanding the warranty provided in this proposal, you may evaluate the quality of the imagery received for 30 business days after receipt of a data delivery before any payments will be released.

### **Data Review and Image Review Software Applications**

As part of the project, Tyler provides viewing software (IMS) and application programming interface (API's) that allow for viewing within a web application interface will be provided to enable easy and efficient image serving. Tyler's suite of imaging software allows for the importation, maintenance, and editing of the collected datasets, API's for use by the County to deploy imagery to your internal and outward facing applications.

Access to the image review software will be available to the County as set forth in the Agreement. Support, upgrades, and any product enhancements of the image review software is included during the term of the Agreement.

### **Change Orders**

DeKalb County may at any time, by written order, make changes to Tyler's obligations or method of performance within the general scope of the final Service Agreement. If any change causes an increase



or decrease in work to be performed under the Agreement, DeKalb County shall make an equitable adjustment in the fixed price amount, the fee rate structure, the performance schedule, or other affected terms, as appropriate, and shall make written modifications to the Service Agreement.

Tyler must assert our right to an adjustment under this clause within ten (10) calendar days from the date of receipt of the written order. Tyler's non-response to DeKalb County's written order shall be deemed as an acceptance by Tyler, with no necessary modification to the Agreement.

Tyler agrees to provide the County with timely project progress reports and information of our direct interactions with the County's representatives and the general public. At the election of the County, Tyler may present this information in written or verbal form.

## **Data Requirements**

### **Source Data Requirements provided by Client**

#### **Property Parcel Record File (Required Data)**

The basic building block of a real property field data collection project is a property parcel data file containing the records of each parcel in a jurisdiction. At a minimum, a delimited text file is required that contains:

- Parcel identification number
- Parcel physical address location
- Parcel tax map number
- Land use code
- A dictionary of the parcel identification number and its relationship to the jurisdiction's other data elements



### **GIS Property Parcel Base Layer**

The availability of a GIS property parcel base layer greatly improves the ability to accurately identify properties. The GIS layer should contain:

- Shape files/ Geo databases of parcels as polygons
- The preference is for shape files in ESRI format
- If files are provided in other formats, Tyler will convert data to ESRI formats
- Property parcel record data tied to the parcel polygons
- The map projection system used
- Road (centerline) coverage
- Municipal/Township boundary coverage
- Rivers/Waterway coverage if waterways are significant in the jurisdiction

### **Tax Assessment Data**

A complete data file of all tax assessment data, containing property records such as legal description and property characteristics, is of assistance in the proper identification of parcels and structures.

- CAMA data
- Personal Property data
- Business License data

### **Address Database**

- CAMA address data

### **Landmarks Database (If Required)**

- General description and geographic location
- Defined list of the number of each structure type

### **Orthophotographs/Oblique view photographs**

Orthophotographs or aerial photographs that have been rubber-sheeted to a GIS property parcel base

## **Optional Services and Products**

Tyler and CycloMedia is confident that all JPEG deliverables to the County will be fully compliant as outlined in Understanding that DeKalb County has utilized cutting edge technology in the past, we believe that we should provide the following exception(s). We believe that DeKalb County would benefit from our 360° spherical imagery known as GeoCycloramas and the full functionality of our suite of software products and potential integrations.





The joint Tyler and CycloMedia solution has the ability to provide our customers not only static JPEG images, but also geometrically correct imagery. The unmatched location fidelity (+/- 10 cm, less than 4-inch absolute accuracy) allows the optional 360° spherical imagery to become a valuable GIS asset. A well-developed partnership with Esri is evident in the available plug-in for ArcGIS and the first street level imagery ArcGIS Online application in the Marketplace, Street Smart™. The 100 Megapixel imagery is the Assessment Industry leading resolution. The 360° spherical imagery delivers tremendous value to all county agencies and departments, not just a single entity. For example, in Washington, D.C. over 20 agencies currently utilize the 100 Megapixel 360° spherical imagery solution.

- Dept. of Small and Local Business Development
- Dept. of Public Schools
- Dept. of Fire and EMS
- Dept. of Health
- Office of the State Superintendent of Education
- Dept. of General Services
- Dept. of Alcoholic Beverage Regulation Administration
- Office of the Chief Medical Examiner
- Dept. of Housing and Community Development
- Office of Zoning
- Dept. of Small and Local Business Development
- Dept. of Public Schools
- Dept. of Fire and EMS
- Dept. of Health
- Office of the State Superintendent of Education
- Dept. of General Services
- Dept. of Alcoholic Beverage Regulation Administration
- Office of the Chief Medical Examiner
- Dept. of Housing and Community Development
- Office of Zoning

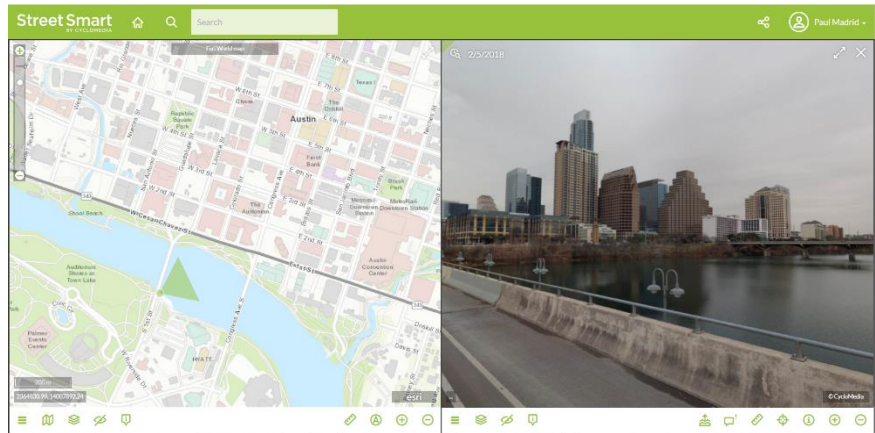


Figure 25: City of Austin in StreetSmart

The use of our industry leading image technology allows you to not only view a single JPEG image of a property but multiple views and the ability to truly understand the surrounding properties and neighborhood factors. The use of GeoCycloramas has proven return-on-investment by our customers and has included a 66% ROI and an additional 50 Million dollars in estimated Tax Revenue (2018 NYC DOF) from a single customer.



Figure 26: Measurements conducted on a GeoCyclorama

Our GeoCyclorama images are delivered with pixel-precise location coordinates enabling highly accurate measurements, and our Street Smart™ API can be integrated into your existing GIS, and Aerial software.

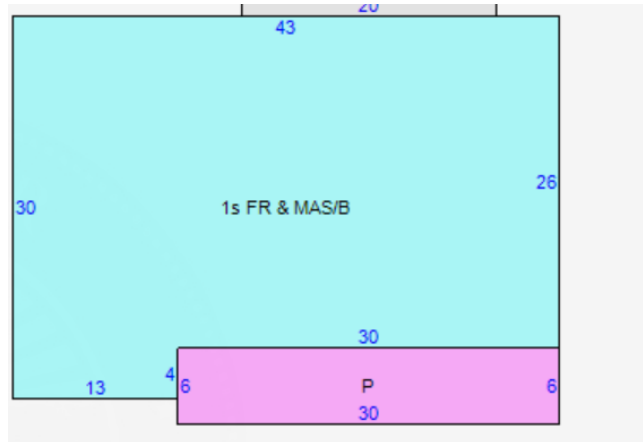


Figure 27: Validated measurements

Tyler and CycloMedia will construct geometrically correct 360° images from our moving vehicle(s), creating distortion-free street level imagery. Our unmatched location fidelity (+/- 10 cm less than 4-inch absolute accuracy) allows our imagery to become a valuable GIS asset.

As stated, the data acquisition will be performed with a high definition vehicle-mounted camera system, comprised of five individual cameras (front, rear, left, right and up) using CycloMedia's patented technology to fire individually over a single recording point as the vehicle travels forward. Every 16.4 feet, multiple images will be generated. One GeoCyclorama (100 megapixels, GIS compatible 360° street level image) creates multiple viewing options for a single property. Also, since one of the five cameras is looking upward, complete high-rise structures are captured, as opposed to a simple street level view. The benefit of the GeoCycloramas is that you will also easily be able to move up and down the street to see if there are other neighborhood factors that could impact the value of a property.

# DeKalb County Georgia Property Appraisal Department

Image Collection Services



Appraisal & Tax

By capturing a distortion-free 360° image every 16.4 feet, we can see a property (Figure below) from many different perspectives.



**Figure 28: Benefit of the GeoCyclorama is that the end user will get the ability to see multiple perspectives of the same property, while still generating multiple JPEG images if required from a single property.**

The raw position measurements from the GPS/IMU sensors in the vehicle, plus the reference data from a network of permanent GNSS reference stations, are processed into an accurate position and orientation for each 360° image.

The five images captured by our camera unit at each recording point are prepared for editing including adjustment for white balance, chromatic aberration, demosaicking (color filter array interpolation), color artifacts reduction and tone mapping and then combined into a 360° view. Several different image operations are performed on the 360° image soon after, including local contrast enhancement, sharpening and adaptive histogram enhancements.

## Delivery of GeoCycloramas

DeKalb County will have the license rights (for a two-year period) at no additional charge to view the GeoCycloramas with a SaaS via Microsoft Azure utilizing CycloMedia's StreetSmart™ Software (see below). StreetSmart is an interactive web viewer built on HTML5 technology which provides cloud access to GeoCycloramas and tools.



All maintenance to the SaaS solution is done by CycloMedia. This highly secure delivery and access of imagery prevents any additional burden to DeKalb County's IT infrastructure.

### Software

The following Software can be included in the License agreement with the Cycloramas at no additional charge:

**StreetSmart™:** This new interactive web viewer built on HTML5 technology provides cloud access to GeoCycloramas and tools.

- Use Street Smart on the desktop or tablet (internet access required)
- Conduct searches with address, postal code or coordinates
- Integrate with your own applications and work processes using the Street Smart API
- Where historical GeoCyclorama images exist, "time travel" to see previous dates
- Save GeoCyclorama views as images

### Optional Street Level Services

Tyler and CycloMedia brings the added benefit of capturing LiDAR data simultaneously while capturing our GeoCyclorama™ imagery. By this coincident capture method, we ensure the highest levels of both quality and accuracy. We further enhance the LiDAR data by processing it with our proprietary CycloPositioner software to increase its locational accuracy and perfect alignment in 3D space with our imagery. Given precise imagery co-referencing, we are able to extract the RGB values to produce a photo realistic "colorized point cloud."

## White-Ferguson, Tracy

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**From:** Hicks, Calvin C. Jr  
**Sent:** Tuesday, October 27, 2020 1:34 PM  
**To:** White-Ferguson, Tracy  
**Subject:** FW: Pricing Estimate Street Level Imaging  
**Attachments:** DeKalbGA Scope of Work 2020 (003).pdf

**Importance:** High

Tracy:

Below is the pricing estimate for new street level imagery to be incorporated into our 2021 budget estimate. Please retain the email inclusive of the Scope of Work attachment.

The second capital improvement project will be to incorporate the field collection application from Data Cloud. Pull the estimate we received, we may need to increase for inflation.

Best regards,

Calvin

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**From:** Crysel, Steve [mailto:Steve.Crysel@tylertech.com]  
**Sent:** Tuesday, October 27, 2020 1:11 PM  
**To:** Hicks, Calvin C. Jr  
**Subject:** Pricing Estimate Street Level Imaging  
**Importance:** High

Calvin,

First, let me apologize for this taking so long. The estimated pricing is below:

Total project:	\$597,427.63
Total improved parcels:	220,453
Price per parcel:	\$2.71

However, I thought it would be important for you to know exactly what you would be receiving for that price so I had the group put together a Scope of Work and that took a little longer than I had hoped. If you have any questions please feel free to let me know. Also if you would like I can schedule a demonstration of the Cyclomedia process for a first hand look at the images.

Regards,

Steve

**Steve Crysel**  
Senior Account Executive  
Tyler Technologies, Inc.

P: 800.800.2581 ext.1617  
C: 336.263.5386  
[www.tylertech.com](http://www.tylertech.com)



Empowering people who serve the public®

## Public Notice of Proposed Award of Sole Source Procurement

### Section A – Description of Proposed Sole Source Procurement

**Description of Supplies/Services:** Collect and deliver street level imagery of 220,453 improved parcels.

**Demonstration of Contractor’s Unique Qualifications:** Tyler Technologies has the technology and the knowledge that will assist with allowing for additional new revenue of building and improvements which goes undetected.

### Section B – To Be Completed by the Department of Purchasing and Contracting

#### Market Survey Results

**Date Public Notice posted on website:** April 2, 2021

**Date Public Notice closed:** April 9, 2021

#### Review of Offers

**Were any offers received (Yes/No):** No

**Number of offers received:** 0

**Responders:** 0

#### **Purchasing Agent review and recommendation:**

Tyler Technologies, Inc. offers a broad solution and product offering empowers you to deliver better and faster assistance to the public – greater transparency and accessibility, sustainable office practices, secure data that’s easy to manage, maintain for faster results. Tyler Technologies experiences reflect comprehensive mass appraisals and technology-driven valuation services. With their computer-assisted mass appraisal it allows managing all property data and every phase of the property appraisal process, including assessment administration, property maintenance, and valuation and appeals. Tyler technologies performs to make companies drive for economic growth easier by connecting the core functions of local government and enabling information to flow seamlessly between departments and across jurisdictions. DeKalb County and Tyler Technologies have been doing business since 2004.

Law findings referenced the Third-Party Terms and license agreements with Tyler Technology and Cylomedia. A meeting was held to clarify the terms and conditions and license agreements. Recommendations and changes were advised. Law made changes to the terms and conditions. To add “multi-year language” and “the two-year license will run from the delivery date versus the start date of the contract.” See attached supporting documents. My recommendation is to approve the sole source. Consists of providing street level imagery of the improved parcels In DeKalb County to assist in keeping the county up to date with images of buildings, residential homes, parking lots, erected structures, and fenced parcels with the exception of farmland or vacant lots. The total amount spent to date with Tyler Technologies, Inc is \$17,792.397.98.

2004 - \$63,125.00

2005 - \$59,125.00

2006 - \$59,125.00

2008 – 88,687.00  
2009 - \$31,050.00  
2011 - \$2,201,250.00  
2012 - \$1,575,950.00  
2013 - \$942,860.00  
2014 - \$713,380.97  
2015 - \$1,156,244.68  
2016 - \$1,177,152.92  
2017 - \$1,202,303.16  
2018 - \$3,174,484.90  
2019 - \$1,605,448.25  
2020 - \$205,176.91  
2021 - \$1,687,034.19

\_\_\_\_\_  
Agent Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Procurement Manager Signature

\_\_\_\_\_  
Date