

TREE INVENTORY PROPOSAL FOR: RFP 23-16

Town of Vienna, Virginia

December 20, 2022

PLANIT GEO, INC



SUBMITTED TO:
Town of Vienna, VA
127 Center St S
Vienna, VA 22180



PROPOSED BY:
PlanIT Geo, Inc.
7878 Wadsworth Blvd, Suite 340
Arvada, CO 80003
admin@planitgeo.com
303-214-5067

Town of Vienna, VA
Town Hall
127 Center St S
Vienna, VA 22180

Re: Tree Inventory Request for Proposal

Dear Evaluation Committee,

PlanIT Geo, INC has prepared a tailored response to the Town of Vienna's request for Tree Inventory services. Results from the inventory and reporting provided will assist the Town in urban forest management by reducing risk and developing strategies to prioritize tree management activities, as well as provide a tool to use as a the critical step towards the Town's investment in trees and the benefits they provide.

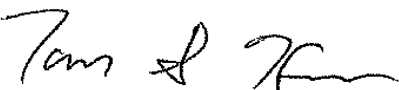
Founded in 2012, PlanIT Geo is a services and software company specializing in urban forestry, arboriculture, software development, management planning, GIS, and urban tree canopy assessments. Our company specializes in professional tree inventory services for municipalities, as well as in conducting assessments, management plans, and modern technological solutions for tree inventory maintenance/management systems. Our staff include ISA and TRAQ Certified Arborists, urban foresters, GIS professionals, software developers, project managers, and technical support.

We not only care passionately about the work that we do, but we rely on our own software daily for projects involving mapping, data collection, data management, reporting, and communications. Additionally, we utilize assessment data to develop management and action plans for communities and agencies. A few east coast clients include; Fairfax, VA; West Virginia University Morgantown, WV; Florence, SC; Prince George's County, MD; Wake Forest, NC; Charlotte, NC; Hunterdon County, NJ; Morristown, NJ; and Closter, NJ.

The PlanIT Geo team is familiar with the local tree species, having completed several inventories on the East Coast and surrounding states. As an industry leader in municipal tree inventories and management plans, PlanIT Geo arborists and consultants have a fresh understanding of the species, tree conditions, and management practices in Virginia. Our proposal and required documents describe our qualifications, project team, similar projects, and our approach to deliver the required services.

Please do not hesitate to contact us with questions regarding our submission. We are excited to provide the Town of Vienna with a comprehensive tree inventory.

Sincerely,



Ian S. Hanou
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Prepared by,



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COMPANY INFORMATION



PLANIT GEO™
mapping a greener future

PLANIT GEO, INC.

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STATEMENT OF QUALIFICATIONS

OVERVIEW

This project will be performed by PlanIT Geo, INC based in Arvada, CO (7878 Wadsworth Blvd. Ste #340 Arvada, CO) with offices in Harrisburg, PA; Strawberry Point, IA; Boca Raton, FL; and San Diego, CA. To date, PlanIT Geo has 35 full-time employees. For this project, PlanIT Geo will not use any subconsultant(s). We employ regional Tree Inventory Specialists. Because of this, minimal travel costs will be applied in order to provide the most cost-efficient solution for the Town of Vienna.

Founded in 2012, PlanIT Geo is a [services and software company](#) specializing in urban forestry, risk tree management, software development, planning, and GIS. Our staff include ISA Certified Arborists, ISA Tree Risk Assessment Qualified (TRAQ) personnel, urban foresters, GIS professionals, software developers, project managers, and technical support. We not only care passionately about the work that we do, but we rely on our own software daily for projects involving mapping, data collection, data management, reporting, and communications.

PlanIT Geo provides contractual services including tree inventories and risk assessments using [TreePlotter™](#) software, urban forest and risk tree planning, tree inventory and management software, land cover mapping (LiDAR/multispectral imagery), tree canopy assessments, GIS analysis, and i-Tree studies.

Since 2012, (10 years) our Certified Arborists have inventoried over 1 million trees across 34 states using our tree inventory and management software, TreePlotter. PlanIT Geo currently employs twelve (12) ISA Certified Arborists. To date, there are over 300 TreePlotter clients which collectively contain over 4,000 individual user login accounts. PlanIT Geo has completed urban forest management/master plans, maintenance plans, risk tree plans, strategic planting plans, storm response and mitigation plans, and canopy action plans for the public, private, and nonprofit sectors.

What does PlanIT Geo's experience mean for the Town of Vienna? It means that short and long-term goals will be met through skilled, informed, and accurate data collection, the benefits of today's best technology and tools, superior coordination, communication, project management, and local experience. Our managerial and staff capacity will ensure the project is completed on time and in budget.



PlanIT Geo
developers of TreePlotter



URBAN FORESTRY SOFTWARE

Since 2012, there are over 300 TreePlotter™ clients which collectively contain over 4,000 individual user login accounts. Our GIS, Inventory, and Consulting teams also use TreePlotter daily to perform project tasks for communities, organizations, and consultants.

GIS AND GEOSPATIAL SERVICES

PlanIT Geo's GIS or Geospatial Services department has completed services for communities varying in size (less than 1 square mile to over 1,000 square miles), ecoregion (forest, tropical, grassland, desert, Mediterranean), and tree species composition. Over 1,000,000 acres of urban tree canopy have been mapped, helping each community to understand their gray versus green infrastructure, locate and understand specific canopy gains and losses by land use type, quantify ecosystem benefits being provided, assess tree equity, and target planting spaces in the most suitable locations.

Currently nine US state agencies and dozens of communities utilize TreePlotter INVENTORY and CANOPY software on a regional or statewide basis for cloud hosting of tree inventories, canopy assessments, document storage, community engagement, and interactive dashboards. And most recently, we are now offering 60 cm resolution land cover data nationwide, off-the-shelf, through the advancements in Artificial Intelligence (AI) and Machine Learning (ML). We have high-resolution data at 97% accuracy for tree canopy, impervious, and plantable areas (grass, open space) for every city in the lower 48 states, as well as change analysis from 2011. This data allows PlanIT Geo to offer significantly more data at lower cost and ultimately more value to your local capacity-building programs.

TREE INVENTORY AND ASSESSMENTS

Our Certified Arborists have inventoried over 1 million trees across 34 states using TreePlotter™. Also, the team has completed ISA Level 2 Risk Assessments for thousands of trees, has completed inventory projects in every season and tree growing stages, provided several tree inventory reports, and presented tree inventory data information to a wide variety of audiences.

URBAN FORESTRY CONSULTING

In the past 8 years, PlanIT Geo has managed or continues to manage urban forest management/master plan projects with budgets totaling over \$1 million, engaging over 6,600 community residents, and interviewing 200 city staff representing over 65 departments. PlanIT Geo has completed urban forest management/master plans, maintenance plans, risk tree plans, strategic planting plans, storm response and mitigation plans, and canopy action plans for the public, private, and nonprofit sectors.

SUMMARY

With our team, the Town's short and long-term goals will be met through skilled, informed, and accurate data production, the benefits of today's best technology and tools, superior coordination, communication, project management, and local experience. Our managerial and staffing capacity will ensure the project tasks for which PlanIT Geo is responsible are completed on time and on budget.

PlanIT Geo will provide its Director of Field Services (Boca Raton, FL) to serve as project manager as well as 1-2 other PlanIT Geo arborists to complete the Tree Inventory, Tree Inventory Report, and Presentation. All team members listed in the Team Information section are ready and available upon award to complete the Tree Inventory for the Town of Vienna.

SAMPLES OF WORK

Below are samples of work completed by PlanIT Geo on the East Coast of the US. Each inventory project was completed on time and within the budget and have met the client's goals and objectives. PlanIT Geo's range of inventories were completed for various sectors and agencies such as county department of public works, department of the environment, city parks and recreation, city urban forestry, grounds maintenance of zoos, campus and university tree maintenance programs, nonprofit and nongovernmental organizations, HOAs, and private consultants. Many of these projects included a tree inventory summary report, tree maintenance plan, planting plan, and/or risk tree management plan. The following provides samples of recent and relevant tree inventory projects.

A) City of Charlotte, NC

Project Manager(s): TJ Wood (PlanIT Geo)

Date: Aug 2021 | **Budget:** \$400,000

Contact: Laurie Dukes | Assistant Arborist - City of Charlotte

Email: ldukes@ci.charlotte.nc.us | **Phone:** (704) 336-5753

Scope of Services Provided: PlanIT Geo provided the City with a complete public tree inventory on approximately 100,000 trees on streets, parks, and right of way in Charlotte, NC. Level 2 risk assessment of the City's aging Oak population. (See: <https://pg-cloud.com/CharlotteNC/>)

Status: Completed

B) Prince George's County, MD

Project Manager(s): TJ Wood (PlanIT Geo)

Date: May 2017 - July 2018 | **Budget:** \$503,600

Contact: Wayne Lucas | Arborist - Prince George's County, MD

Email: wplucas@co.pg.md.us | **Phone:** (301) 883-5600

Scope of Services Provided: PlanIT Geo collected data on approximately 178,000 county-owned street and trees within the public rights of way in this two phase inventory for Prince George's County. (See: <https://pg-cloud.com/PGCountyMD/>)

Status: Completed

C) West Virginia University Morgantown, WV

Project Manager(s): TJ Wood (PlanIT Geo)

Date: April - May 2018 **Budget:** \$10,925

Contact: Edward Mason | Assistant Director Roads & Grounds - WVU

Email: edward.mason@mail.wvu.edu

Scope of Services Provided: PlanIT Geo conducted a campus-wide tree inventory that included trees in the right of way, parks, and public properties. Overall, 2,250 trees were inventoried for the university. (See: <https://pg-cloud.com/MorgantownWVU/>)

Status: Completed

TEAM INFORMATION

Key personnel to complete this project have already been hired by PlanIT Geo and have completed several similar projects. Each hired arborist is required to be ISA certified and encouraged to further their education by completing TRAQ or Municipal Specialist certifications. The proposed project team structure will include PlanIT Geo's Director of Field Services as the Project Manager, the Project Manager will have prime responsibility and final authority of the work. He will be the main contact between the Town and the Project Team. 1-2 arborists from the list below (including at least 1 TRAQ certified team member) will be provided to complete the Town's tree inventory and report. PlanIT Geo's Tree Inventory Specialists can typically inventory street and park trees at a rate of ~200 trees/day/arborist (or roughly about 1,000 trees per week).

STAFFING PLAN

PlanIT Geo requires each hired team member for Field Services to have already obtained ISA arborist certification and have completed a Bachelor's degree in a similar field. Each team member typically has at least 1-2 years experience before joining the PlanIT Geo team and must be proficient in species identification and urban forestry management practices. Each PlanIT Geo team member is qualified, trained, competent, reliable and ready to perform the work on this project.



KEY PERSONNEL

TJ Wood

Director of Field Services, PlanIT Geo | ISA Certified Arborist #RM-7676A | Tree Risk Assessment Qualified (TRAQ)

Director of Field Services/Project Manager

TJ will facilitate the kickoff meeting, project deliverables, and daily communications between the field staff and Town employees. TJ will oversee the field crew on day-to-day data collection. He will lead the tree inventory project kick-off and be the main point of contact with Town staff during data collection. He will work with the Town to establish protocols, communications, priority inventory areas, and final delivery of inventory data. He will also be available to provide in-person training on our tree inventory data collection/management software, TreePlotter™. He has been an ISA Certified Arborist for 6+ years and will provide tree inventory data collection and assure that other staff members are adequately collecting data. He has 10+ years of collective tree inventory management experience.

TJ graduated with a Bachelor of Science in Landscape Architecture from Colorado State University. At PlanIT Geo, he manages all tree inventory and risk assessment projects, conducts site and tree-specific evaluations, designs planting plans, compiles summary reports, and prepares project deliverables. TJ has experience conducting tree inventories with GPS mapping across the nation (100+ projects in 27 states) and provides invaluable tree identification and risk assessment skills. He has collected data on 150,000 trees at PlanIT Geo.



Rocky Yosek

ISA Certified Arborist #WE-11457AM | Tree Risk Assessment Qualification (TRAQ) | Municipal Specialist

Field Services Operations Manager

Rocky will be stationed in the Town during the data collection phase of this project. Rocky will be a tree inventory data collector for this project and will report all questions and project updates to TJ Wood, who will be directly in contact with Town staff. Rocky has an extensive urban forestry background he gained while directing the operations of a nonprofit tree program in Tucson, AZ for almost a decade. During his time working there he led large scale tree plantings, taught tree education workshops, led mapping and assessment projects, and managed the operations of two energy efficiency tree distribution programs that delivered approximately 50,000 trees to area utility customers. At PlanIT Geo, Rocky has collected data on nearly 75,000 trees and 20 projects across the country.



Nate Cummings

ISA Certified Arborist #NY-6214A | Tree Risk Assessment Qualification (TRAQ)

Tree Inventory Specialist

Nate will be stationed in the Town during data collection. Nate will report all questions and project updates to TJ Wood, who will be directly in contact with Town staff. He will be available to provide data collection and quality control on tree inventory data. Nate has a Bachelor of Science in Natural Resource Management from SUNY College of Environmental Science and Forestry. At PlanIT Geo, Nate has collected data on our largest project to date, Prince George's County, Maryland, and has collected nearly 20,000 trees.



Judith Menzl

ISA Certified Arborist #TX-4751A | Tree Risk Assessment Qualification (TRAQ)

Tree Inventory Specialist

Judith will be stationed in the Town during data collection. Judith will report all questions and project updates to TJ Wood, who will be directly in contact with Town staff. She will provide extensive experience in risk assessment processes and supervise other technicians. Judith is a certified arborist with a Bachelors degree from University of Arizona and found her passion for urban forestry after joining the Texas Conservation Corps. She has experience in production tree climbing and worked for the City of Austin managing and inventorying public park trees. Joining PlanIT Geo in 2022, Judith uses Tree Plotter to collect data on trees based on the client's needs. That includes species, condition, risk assessments, DBH, tree height, canopy spread, etc.



Jack Myrna

ISA Certified Arborist #IL-9894A

Tree Inventory Specialist

Jack will be stationed in the Town. Jack will report all questions and project updates to TJ Wood, who will be directly in contact with the Town of Vienna staff. He will be available to provide data collection and quality control on tree inventory data. Jack graduated Cum Laude from Southern Illinois University-Carbondale with a Bachelor of Science in Forestry, specializing in wildlife habitat management. While studying at SIU, Jack completed an internship with the US Forest Service dealing with human-wildlife interactions.



Alejandro Espinosa

ISA Certified Arborist #IN-3657A

Tree Inventory Specialist

Alejandro will be stationed in the Town during data collection. Alejandro will report all questions and project updates to TJ Wood, who will be directly in contact with Town staff. He will be available to provide data collection and quality control on tree inventory data. Alejandro is a certified arborist with a Bachelors degree from University of Southern Indiana. Joining PlanIT Geo in 2022, Alejandro uses Tree Plotter to collect data on trees based on the client's needs. That includes species, condition, risk assessments, DBH, tree height, canopy spread, etc.

**Lexie Anderson**

ISA Certified Arborist #RM-8422A

Tree Inventory Specialist

Lexie will be stationed in the Town. Lexie will report all questions and project updates to TJ Wood, who will be directly in contact with the Town of Vienna staff. She will be available to provide data collection and quality control on tree inventory data. Lexie graduated with a Bachelor of Science in Urban Forestry from the University of Wisconsin - Stevens Point. Lexie has a background in the private tree care industry performing plant health care applications to treat urban trees and shrubs for various insects and disease issues. Lexie joined PlanIT Geo as an inventory technician in 2022. Lexie works with the inventory team to collect quality data for client using the TreePlotter software.



TECHNICAL EXPERTISE & EXPERIENCE

URBAN FORESTRY, SOFTWARE, AND MAPPING TECHNOLOGY

PlanIT Geo has 10 years experience in urban forestry locally and nationally for tree inventory data collection, management planning, risk tree management, planting plans (species and site selection), canopy goal setting, and ecosystem services analysis. We have extensive experience in and knowledge of the US Forest Service i-Tree suite of tools and are recognized for progressive analysis and reporting related to urban forestry and green infrastructure.

PlanIT Geo specializes in urban forestry locally and nationally for tree inventory data collection, management planning, risk tree management, planting plans (species and site selection), canopy goal setting, and ecosystem services analysis. We have extensive experience in and knowledge of the US Forest Service i-Tree suite of tools and are recognized for progressive analysis and reporting related to urban forestry and green infrastructure. We are a leader in the design, development, and implementation of software developed specifically for urban forestry. Our Urban Forest Cloud is comprised of several applications for tree inventory and analysis, service requests and work order management, Emerald Ash Borer management, urban tree canopy assessment, and park amenity inventory and valuation.

CERTIFICATIONS

Our tree inventory, software, and planning teams consist of college educated staff with a background in natural resources who are urban foresters, ISA Certified Arborists, ISA TRAQ qualified, Municipal Specialists, and/or ASCA Registered Consulting Arborists.



SPECIES IDENTIFICATION PROFICIENCY

PlanIT Geo has completed 100+ inventories in 34 states across the country. Our arborists have nation-wide experience and a keen understanding of the tree species capable of growing in VA, having completed a few recent projects within the East Coast of the US. Our team can identify any tree species within the US and they routinely train staff on identification and tree inventory methods. During an inventory, any tree that is not identified during field collection is reported, photographed, discussed, and determined that day or by the end of the week.

PlanIT Geo recently completed a county-wide street tree inventory and risk assessment for Prince George's County, MD where a total of 220 unique tree species were identified. It should be noted that the project extended through the winter during the "leaf-off season". PlanIT Geo's staff is trained and experienced in identifying tree species and assessing risk in any season.

TREE RISK & HEALTH ASSESSMENT EXPERIENCE

PlanIT Geo staff is experienced and trained as TRAQ and ISA Certified Arborists. Having conducted inventories for trees in all stages of growth and seasons, PlanIT Geo is skilled in assessing tree risk and health based on our knowledge of species' physiology and sign and symptom indicators. Our inventory staff is experienced in plant health care through identification, treatment, prevention, and monitoring practices. We follow communication procedures based on industry standards and the client's preference for handling high-risk trees where failure is imminent. Additionally, our staff has extensive experience in hazard and risk tree maintenance planning, prioritization, and mitigation reporting. A recent county-wide tree inventory project conducted by PlanIT Geo resulted in over 68,000 tree risk assessments of which nearly 3,000 assessments were completed for high and extreme-risk trees.

SPATIAL DATA MANAGEMENT EXPERIENCE

Sound spatial data management starts with proper data collection protocols and review. Each inventory project is systematically planned to create an efficient and accurate data collection experience, limiting or fully preventing data entry errors or omissions. Data collected is reviewed after every day of collection and corrections are made either on a desktop or by revisiting the tree(s) in the field within the same week. Often, tree inventories are collected by more than one Tree Inventory Specialist and effective and accurate collection is maintained through the supervision of the Director of Field Services/Project Manager.

Additionally, TreePlotter™ is built to limit human error with its intuitive design and functionality such as the drop-down menus (rather than typing responses and making typos). This way the grouping of values is standardized and can be summarized without random entries or outliers. For example, species lists from i-Tree, which are built into TreePlotter™, control the genus, species, and species codes which enable consistent, accurate data collection and ability to perform i-Tree calculations for all trees in the app. TreePlotter's advanced filter allows a user to search for omitted or erroneous data for corrections. TreePlotter ensures accurate and consistent GPS coordinates within one meter using Google Maps and imagery provided by the Town and will remain accurate throughout all devices used for inventory, as all devices will be logged into the same custom TreePlotter application for Vienna.

Prompts built into TreePlotter™ prevent accidental data deletion or relocation of a tree point. Many other data validation checks are built into TreePlotter™ to ensure quality data entry, such as min/max values, preventing outliers and limiting errors.

PlanIT Geo's servers are capable of hosting large amounts of data, having many state and county TreePlotter™ clients, some with over 500,000 trees. The data is secure, and PlanIT Geo has an offsite backup location with data backup automatically performed every 24 hours.

ABOUT TREEPLOTTER™

The most important question municipalities want to answer after a tree inventory is:

How will I keep it accurate and up to date?

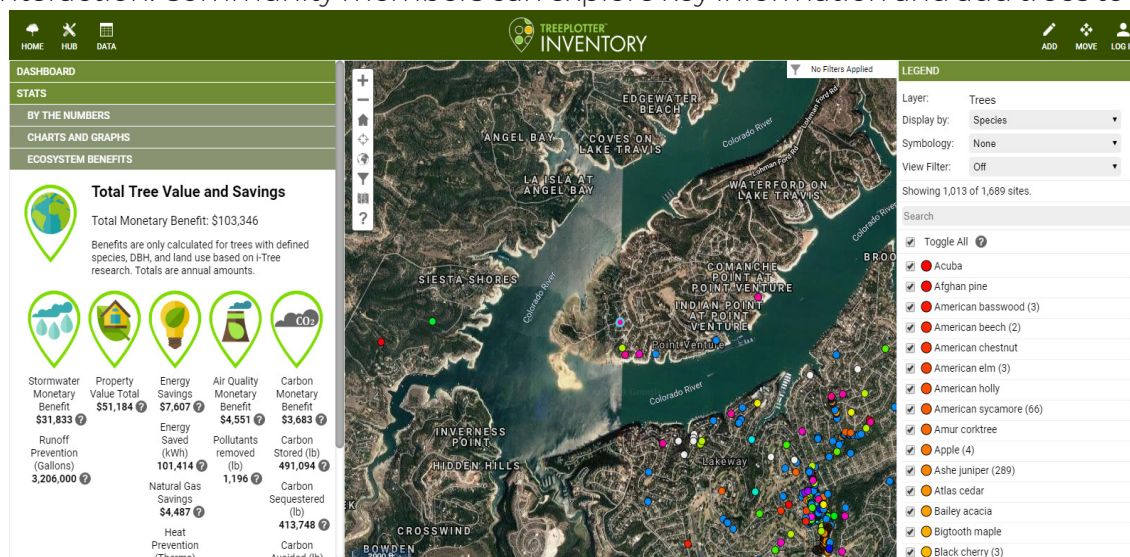
High quality tree management software is our best answer.

There is a difference between traditional GIS software, and tree management software built specifically for the role of urban foresters. Many municipalities struggle to get out of a **reactive** mode of tree management. [TreePlotter](#) is designed to help you do the opposite. The Town will be able to stay **proactive** without falling behind. Even if the Town is short on time, funding, staff, or other resources, our goal is to ensure that you maximize the benefits of your urban forest while minimizing the cost.

During the data collection and up until delivery of data and the Town Council presentation, the Town will have access to TreePlotter INVENTORY without subscription. Upon project completion, TP will need to be purchased (a \$3,500 value) for continued usage.

UNIQUE FEATURES

- **Intuitive Visualization** – color-coding of tree map points based on any data attribute (e.g. by species, genus, date planted, condition, size, maintenance priorities, etc.)
- **Data Field Editor** - a simple interface for customizing data fields to fit your management plan as it evolves.
- **Tree inspections** - a history log of all tree visits
- **Save and share custom interactive maps** - the ability to save custom interactive maps to facilitate the communication of complex information to specified individuals such as crew members, contractors, public stakeholders, and community members.
- **Advanced TRAQ risk assessments** - the ability to perform qualified TRAQ risk assessments in the field to prevent liability from hazardous trees
- **Offline tools** - work in the field with low or zero internet connection
- **Direct customer support by phone**
- **Instant live reports** - generate charts and reports that can be analyzed and shared easily, in a single step.
- **Community engagement tools** - an online web portal designed for community engagement and interaction. Community members can explore key information and add trees to the map.



SUPPORT

Your on-site arborists will provide free in-person training on TreePlotter™.

After the completion of the inventory, PlanIT Geo provides responsive, personalized technical support to all software clients from 8am-7pm Central time and through emergency numbers over weekends and holidays. We also frequently respond to questions, bugs, and training requests at other hours.

Additional training and support services include:

1. The HELP button inside the software
2. Email through support@planitgeo.com
3. Our knowledge base and video library: <http://support.treeplotter.com/>

We invite you to read our [independent client testimonials](https://www.capterra.com/p/154730/Tree-Plotter/) on the popular review site Capterra at <https://www.capterra.com/p/154730/Tree-Plotter/>

Out of 118 reviews provided, nearly every single one ranks our support at 5 stars, giving us a 4.5 average star rating.

TREEPLOTTER INVENTORY APPLICATION EXAMPLE PROJECTS

1. Keep Indianapolis Beautiful Inc. - <https://pg-cloud.com/KIB/>
2. Highlands Garden Village Homeowners Association - <https://pg-cloud.com/hgv/>
3. Colorado Tree View - Colorado's Community Tree Map - <https://pg-cloud.com/cotv/>



PROJECT PLAN

WORK PLAN

This project will include a comprehensive Town-wide tree inventory based on the collection of an all street and public trees within the Town. PlanIT Geo (PG) will staff the inventory with 1-2 full time arborists. This will allow the project to be completed in a timely manner. Our proposed timeline allows for the inventory to be completed in early May 2023.

PlanIT Geo will work with Town staff to establish communications and protocols that adhere to industry standards to ensure proper and standard operating procedures are met. PlanIT Geo will also provide the Town with the proper tools for the engagement with and maintenance of the inventory data, such as TreePlotter™ training. The inventory will be a living database that can be added to or edited in the future by the Town. PlanIT Geo will provide weekly project status reports during growing season while the project is underway. Monthly, PlanIT Geo will conduct a more in-depth status report meeting to communicate milestone accomplishments, discuss challenges, forecast of activities, major risks identified, and project cost to date. PlanIT Geo will notify the Town immediately when a high risk tree is identified to mitigate future issues. Any other critical issues that arise will be immediately mediated between the Town staff and Project Manager.

PlanIT Geo's GIS-based tree inventory will be performed using computer tablets (Samsung tablets) that read information directly from the World Wide Web and the data will be easily exported and available in ESRI shapefile, Excel, and i-Tree acceptable formats. PlanIT Geo arborists will also complete the tree inventory report that will include maps with tree locations and imagery, project statistics and recommendations. The report will be delivered in the format required by the Town.



WEB-BASED GIS DATA COLLECTION

Our web-based capabilities (TreePlotter) allow us to utilize the mobile GPS location feature built into our hardware devices (tablets). This location feature serves as the first tier for determining the exact location of the tree to be inventoried. Spatial information (latitude and longitude coordinates) is then collected based on the location of the tree on the base maps (Google, Esri, OpenStreetMap, others) by the arborist. With this, our Tree Inventory Specialists can accurately determine the ownership and exact location of each tree.

Using this approach, Town of Vienna and PlanIT Geo's staff will gain these advantages:

- 1. Data and production transparency.** By utilizing a web-based data collection protocol PG will share the real time data collection map service so that collection progress can be monitored by appropriate staff members. Furthermore, web-based data collection enables PG to ensure that no trees are missed or that trees are not double inventoried throughout the entirety of the project.
- 2. Increased production rates.** Location data entry using GIS with accurate base map information is nearly twice as fast as using GPS equipment alone. Inventory personnel are not limited by weather conditions

or interference by buildings or other obstructions.

3. **High level of location accuracy.** GIS is only limited by the accuracy of the base map information provided. By utilizing the built-in GPS functionality of our hardware and our field expertise we can ensure accurate location information of 1-meter or less.
4. **Understand and Update.** With simple training, an unlimited number of simultaneous users (i.e. Town managers and staff) can track and analyze existing trees according to risk, required action, species, diameter, or any other inventory attribute and quickly and dynamically perform status updates as required over time.

A Note on Data Security - As inventory information is collected, data are instantaneously stored on secure remote servers, eliminating the possibility of data loss, and making it possible for Town staff to access and download, at any time, real-time data collection with secure login credentials. Your data is also backed up on our servers every 24 hours and our support staff can assist with accessing or restoring that backed up data if the need arises.

PROJECT KICK-OFF

Upon award, PlanIT Geo will schedule the project kick-off meeting and provide a tentative agenda. Topics to cover during the kick-off include:

- Project schedule, communications, meetings, and priority areas
- Tree inventory data fields and criteria and finalizing the preferred final data delivery format
- Safety, equipment, and industry standards
- Minimum tree diameters and measurement criteria
- Rights-of-way limits and criteria
- TreePlotter software app set up

COLLECTION METHOD

PlanIT Geo will equip our Tree Inventory Specialists with a customized version of TreePlotter™ Software for recording the location and attributes of each tree. The GIS-based tree inventory will be performed using computer tablets (iPad and Samsung tablets) that read information directly from the World Wide Web on PlanIT Geo's TreePlotter software. This means that any similar web-connected device can also be used to collect, edit, and manage the inventory resources. The application enables each tree to be precisely mapped (within 1-meter spatial accuracy) with the attributes described in the next section. This also allows for seamless integration into the Town's GIS system by simply exporting GIS data directly from TreePlotter and uploading into the Town's own system.

Tree Inventory Data Fields

PlanIT Geo's final price is based on the following protocols and fields to be populated for each tree. Final fields will be determined on a project kick-off meeting and will be set for the duration of the project. At minimum, our Tree Inventory Specialists will collect the following data for each tree mapped. TreePlotter can also collect extra fields as stated below if the Town prefers:

- **Location** - will include x,y coordinates. New trees, vacant sites, removals, and stumps will be added as they are identified
- **Tree Common Name**

- **Tree Latin Name**
- **DBH** - measurement of DBH (diameter at breast height) in inches
- **Tree Height** - estimated to the nearest foot
- **Stems** - number of stems with diameter measured for each stem
- **Condition** -
 - Excellent - 90 - 100%
 - Good - 70 - 90%
 - Fair - 40 - 70%
 - Poor - less than 40%
 - Dead
- **Crown Condition** - percentage of deadwood or dieback
- **Level 2 Risk Assessment** - per ANSI A-300 standards using these classifications:
 - Low - chances of failure are minimal
 - Moderate - chances of failure are possible
 - High - chances of failure are likely
 - Extreme - the tree is failing and requires attention immediately
- **Location of Risk** - location of risk factor on the tree and definition of risk target
- **Observations** - will include: cavity/decay, trunk or limb damage, co-dominant leaders, constricted roots, restoration pruning, structure pruning, crown cleaning, stump/tree removal, pest control, fertilization pest/disease control
- **Vacant ROW locations** - locations where no trees are present on the Town's ROW
- **Maintenance Needs** - primary and secondary needs based on ANSI A-300 standards specifications and other arboriculture best management practices
 - Train
 - Thin
 - Raise
 - Clean
 - Removal
 - Stump removal
 - Plant
- **Hardscape and Features**
- **Utility Lines** - present, yes or no
- **Picture of Tree**
- **Environmental values and benefits**
- **Date of Inspection**
- **Name of Inspector and Date of Inspection**
- **General Observations** - based on the list the Town provided in the RFP

Format Options for Inventory Data Deliverables

Upon completion of the inventory and the QA/QC process, PlanIT Geo will deliver tree inventory data in Microsoft Excel and ESRI Shapefile and/or File Geodatabase to be integrated with the Town's

current mapping/GIS programs, if the Town decides to keep their current collection application. Summary inventory data in Microsoft Excel format will include a final tally of each tree species (including age and size) and its percentage of total urban canopy cover. PlanIT Geo will meet with the Town prior to data delivery to review preliminary inventory. Data can be delivered in the desired coordinate system and contain full metadata references compliant with FGDC standards. Data will be reviewed for errors prior to being provided to the Town. TreePlotter™'s "Exporter" tool can save data as CSV or Shapefile formats at any point in time during the project and active TreePlotter subscription. Data export is free at any time and will be no extra cost to the Town.

QUALITY CONTROL

PlanIT Geo will provide the Town with a professional, courteous, and informative tree inventory project experience beginning with high-quality tree inventory data. We can make this assurance because:

1. Quality control begins with proper training and education. PlanIT Geo's ISA Certified Arborists are college-educated and skilled at conducting tree inventories.
****All technicians working on this project have an ISA Certified Arborist credential and are supervised by an Arborist with a Tree Risk Assessment Qualification (TRAQ) credential.***
2. During the inventory process, extensive quality control checks are applied regularly. Using PlanIT Geo's proprietary TreePlotter application access will be granted to the Town staff to dynamically monitor inventory progress.
3. In addition to daily quality checks and control, tree inventory Project Manager TJ Wood will perform remote/on-site data checks to ensure data collected by other staff adhere to Town work specifications and national industry standards.
4. PG welcomes and encourages the Town staff to periodically perform on-site verification of the data. PG staff will cooperate fully with the Town arborist and staff to achieve a high level of confidence in the accuracy of the data. PG will provide staff with weekly updates.
5. PG assures that if any errant tree site location is detected, it is our responsibility to correct the data promptly.

TREE INVENTORY REPORT

A complete report with the results of the inventory findings will be completed and delivered to the Town. The Team has experience creating this type of report and will complete an information, digestible, and professional report. The report will include: inventory methodology, location of trees, species diversity, size and age distribution, condition, observations, risk assessments, maintenance priority, benefits of the urban forest, tree maintenance and planting recommendations, and any other information the Town requires to meet their future objectives in urban forest management.

Tree Inventory Report Examples

- [Boynton Beach, FL](#)
- [Morristown, NJ](#)
- [Fremont, CA](#)

PRESENTATION

The Project Team will complete a 12-15 slide executive summary report detailing main points of the overall tree inventory report. This presentation will be used and presented to the Town Council upon inventory and report completion. The PowerPoint presentation will also be delivered to the Town after the Town Council presentation.

TIMELINE/SCHEDULE

PlanIT Geo's Tree Inventory Specialists can typically inventory street and park trees at a rate of ~200 trees/day/arborist (or roughly about 1,000 trees per week). With these statistics in mind, the Town can expect the inventory to be completed within a timely manner.

Estimated Overall Project Timeline

Contract Award: TBD

Kickoff Meeting: Anticipated February 2023

Inventory Start Date: March 1, 2023

Inventory Completion and Delivery of Data: Early May 2023

Tree Inventory Report Completion: Mid May 2023

City Council Presentation: End of May 2023

Schedule of Milestones

Project Kickoff - Anticipated Feb 2023

Phase 1: Tree Inventory - March - April 2023

- PlanIT Geo will schedule monthly meetings, solidify data fields, establish communications and internal work plan. Arborists will collect tree data for all trees included in the inventory using TreePlotter.

Phase 2: Tree Inventory Report and Presentation- May 2023

- The tree inventory report will be completed and delivered with the digital tree inventory data. A presentation to Town Council will occur, with delivery of the PowerPoint to the Town upon completion.

Inventory Completion and Project Delivery - May 2023

DECEMBER 20, 2022

TOWN OF VIENNA, VIRGINIA

Tree Inventory



PlanIT Geo
developers of TreePlotter

ATTACHMENT A

BUSINESS, PROFESSIONAL AND OCCUPATIONAL LICENSE

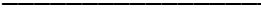
All firms located or operating in the Town of Vienna must obtain a Business, Professional and Occupational License (BPOL) as required in the Municipal Code, Article VII and local license tax authorized, Code of Virginia, § 58.1-3700 et seq. **A BPOL license is not required to submit a bid for this effort but will be required prior to award of the contract.**

In order for the Department of Tax Administration to determine BPOL requirement prior to contract award, it is necessary to provide the following information:

- If you currently have a Town of Vienna business license, please submit a copy with your bid/proposal.
- Do you have an office in: Virginia ☐ yes ☒ no
 Town of Vienna ☐ yes ☒ no
- Date business began/will begin work in the Town of Vienna March 1, 2023

Provide a description of the business activity that will take place in the Town of Vienna:

Tree Inventory services


12/15/2022

Authorized Signature Date

Please return this form and a copy of current Town of Vienna business license in bid/proposal.
Contract award may not be made if omitted.

ATTACHMENT B

State Corporation Commission Form

State Corporation Commission Form Virginia State Corporation Commission (SCC) registration information.

The bidder:

_____ is a corporation or other business entity with the following SCC identification number:

-OR-

_____ is not a corporation, limited liability company, limited partnership, registered limited liability partnership, or business trust

-OR-

X _____ is an out-of-state business entity that does not regularly and continuously maintain as part of its ordinary and customary business any employees, agents, offices, facilities, or inventories in Virginia (not counting any employees or agents in Virginia who merely solicit orders that require acceptance outside Virginia before they become contracts, and not counting any incidental presence of the bidder in Virginia that is needed in order to assemble, maintain, and repair goods in accordance with the contracts by which such goods were sold and shipped into Virginia from bidder's out-of-state location)

-OR-

_____ is an out-of-state business entity that is including with this bid an opinion of legal counsel which accurately and completely discloses the undersigned bidder's current contacts with Virginia and describes why those contacts do not constitute the transaction of business in Virginia within the meaning of § 13.1-757 or other similar provisions in Titles 13.1 or 50 of the Code of Virginia.

****NOTE**** >> Check in the following space if you have not completed any of the foregoing options but currently have pending before the SCC an application for authority to transact business in the Commonwealth of Virginia and wish to be considered for a waiver to allow you to submit the SCC identification number after the due date for bids (the Commonwealth reserves the right to determine in its sole discretion whether to allow such waiver): _____

ATTACHMENT C

PROPRIETARY INFORMATION

Ownership of all data, materials, and documentation originated and prepared for the Owner pursuant to the REQUEST FOR PROPOSAL shall belong exclusively to the Owner and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by an Offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act, however, the Offeror must invoke the protections of Section 2.2-4342F of the Code of Virginia, in writing, either before or at the time the data or other material is submitted. The written notice must specifically identify the data or materials to be protected and state the reasons why protection is necessary. The proprietary or trade secret material submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information.

NOTICE OF PROPRIETARY INFORMATION

Section Title	Page Number	Reason(s) for Withholding from Disclosure
NA	NA	NA

Confidentiality References Protection in Accordance with the Code of Virginia,

Section 2.2-4342F NOTICE OF PROPRIETARY INFORMATION (CONTINUED):

INSTRUCTIONS: Identify the data or other materials to be protected and state the reasons by using the codes listed below. Indicate the specific words, figures, or paragraphs that constitute trade secrets or proprietary materials.

A- This page contains information relating to "trade secrets", and "proprietary information" including processes, operations, style of work, or apparatus, identify confidential statistical data, amount or source of any income... of any person (or) partnership. "See Virginia Public Procurement Act, Section 2.2-4342F. Unauthorized disclosure of such information would violate the Trade Secrets Act 18 U.S.C. 1905.

B- This page contains proprietary information including confidential, commercial or financial information which was provided to the Government on a voluntary basis and is of the type that would not customarily be released to the public. See Virginia Public Procurement Act, Section 2.2-4342F; 5 U.S.C. 552 (b)(4); 12 C.F.R. 309.5(c)(4).

C- This page contains proprietary information including confidential, commercial or financial information. This disclosure of such information would cause substantial harm to competitive position and impair the Government's ability to obtain necessary information from contractors in the future. 5 U.S.C. See Virginia Public Procurement Act, Section 2.2-4342F; 552 (b)(4); 12 C. F. R 309.5(c)(4).

ATTACHMENT D

EXCEPTIONS TO RFP

Name of Offeror: PlanIT Geo, Inc.

RFP Title: RFP 23-16 Tree Inventory

Please list any deviations to RFP specifications below:

[illegible]



TOWN OF
VIENNA
since 1890

December 7, 2022

ADDENDUM No. 1 TO ALL OFFERORS:

Request for Proposal: RFP # 23-16

Description: Tree Study

RFP Issue Date: November 21, 2022

Proposal Due Date: December 20, 2022, 2 p.m. Eastern

The following questions were received for the referenced request for proposal (RFP) as follows:

1. What is expected in the "Environmental values and benefits" field?
Answer: This would be a field or fields that describes environmental benefits such as, storm water absorption, shade and cooling benefits, carbon sequestration, pollution amelioration, amounts of pollutants removed and the associated value (dollar amounts) provided by these environmental benefits.
2. Differentiation between "Plant" field and "Locations where no trees are present in the ROW", will all empty sites be planting sites unless deemed unsuitable? Will the field just require an entry of "no tree" in sites on the ROW where there are no trees, and the site is unsuitable?
Answer: Location refers to sites (specifically street locations) identified by address, or longitudinal and latitudinal coordinates. Planting is for sites that are deemed by the inventory technician appropriate for planting and recommended species. Details of the site can simply be a dropdown with descriptors such as full sun, partial sun, shade, soil quality observations, amount of available planting area.
3. What is the budget for this project?
Answer: We don't provide budgets for projects. If we were to give a number, all of the pricing will usually come in at that price.
4. Would it be easier for companies to price their proposals per tree or increment of every 100 trees? Most of the time pricing is based on the time it will take to do the study and an estimation of the number of trees in the area.
Answer: Pricing is up to the bidder. Please refer to EVALUATION CRITERIA (section 6) in the RFP.



TOWN OF
VIENNA
since 1890

Purchasing Office

5. In the RFP, it mentions that we are not supposed to put pricing in our proposals, only short-listed vendors will be required to provide pricing, can you confirm this?

Answer: Yes, that is correct. You will receive an email from me requesting pricing.

6. Is there an anticipated award date, start date and desired end date?

Answer: I as the Procurement Officer of the Town can award contracts \$75,000 or less. Contracts over \$75,000 have to be approved by Town Council. To get approval, you have to be on the Town Council's docket, and they are full up in January so the earliest approval would probably be the February meeting. With that said, the anticipated start date would probably be March 1, 2023. There is no end date just when the work is done.

7. In the RFP one of the evaluation criteria is "Additional deliverables beyond those listed in this RFP" did you have anything specific in mind there or is that open to us to propose?

Answer: Basically, something that may be of interest to the Town. Be creative.

8. The Scope of Work mentions a presentation of key findings, conclusions, and recommendations to the Town Council, will we be required to do that presentation in person, or can it be a virtual presentation?

Answer: In person.

9. There is mention of a PowerPoint to be delivered as well and an executive summary. What would be the expected use of that PowerPoint?

Answer: It would be used as part of the presentation to Town Council and would be part of your work deliverable to the Town.

10. Will there be a list of the participants of this meeting today?

Answer: Yes, that will be posted on the DemandStar and eVA websites.

11. What size trees are required for this study?

Answer: Six inches and above and all street trees.

12. Can you provide a satellite map of the Town or a Canopy Analysis?

Answer: Yes, we will provide our canopy analysis that was done this year.

13. Are natural areas included in this study?

Answer: Yes. It is the intention of the Town of Vienna to have all Town-owned trees are inventoried. This project will prioritize inventoried trees in this order of importance: 1) street trees 2) Town of Vienna facility trees such as the rec center, town hall, police station, and other town-owned buildings; 3) park trees; 4) all other trees in natural areas owned by the Town of Vienna. The final inventory will be determined by the budget for the project, and it is planned to capture as many trees



Purchasing Office

TOWN OF
VIENNA
since 1890

as possible. NOTE: trees around schools are not included in this inventory unless there are street trees at these sites.

Note: A signed acknowledgment of this addendum shall be received as part of your proposal package. Signature on this addendum does not substitute for your signature on the original RFP document. The original proposal document must be signed.

Very truly yours,

Jerry Amacker, CPPB, VCO, VCA
Procurement Officer
jerry.amacker@viennava.gov
Phone: 703-255-6359

PlanIT Geo, Inc.

Name of Firm

Signature/Title Date



TOWN OF
VIENNA
since 1890

December 8, 2022

ADDENDUM No. 2 TO ALL OFFERORS:

Request for Proposal: RFP # 23-16

Description: Tree Study

RFP Issue Date: November 21, 2022

Proposal Due Date: December 20, 2022, 2 p.m. Eastern

The following questions were received for the referenced request for proposal (RFP) as follows:

1. Could you please provide us with a GIS shapefile that designates the public property parcels, and ROW's/undeveloped streets, if possible, to be surveyed?

Answer: Yes, this will be provided to the successful offeror.

2. For trees along the street, where there are no sidewalks, how do we determine jurisdiction? Is there a ROW measurement from street center or edge of street?

Answer: I've attached a map that shows the ROWs, but it doesn't have measurements (although they can be determined by using a CAD type program). Otherwise, I will provide guidance as needed during the survey.

Note: A signed acknowledgment of this addendum shall be received as part of your proposal package. Signature on this addendum does not substitute for your signature on the original RFP document. The original proposal document must be signed.

Very truly yours,

Jerry Amacker, CPPB, VCO, VCA
Procurement Officer
jerry.amacker@viennava.gov
Phone: 703-255-6359

PlanIT Geo, Inc.

Name of Firm

Proposal Coordinator, 12/14/2022

Signature-Title-Date