GOVERNING BODY WORKSHOP AGENDA
ROELAND PARK
Roeland Park, City Hall 4600 W. 51st Street
Monday, April 18, 2022 6:00 PM

- Mike Kelly, Mayor
- Trisha Brauer, Council Member
- Benjamin Dickens, Council Member
- Jan Faidley, Council Member
- Jennifer Hill, Council Member
- Michael Poppa, Council Member
- Tom Madigan, Council Member
- Kate Raglow, Council Member
- Michael Rebne, Council Member
- Keith Moody, City Administrator
- Erin Winn, Asst. Admin.
- Kelley Nielsen, City Clerk
- John Morris, Police Chief
- Donnie Scharff, Public Works Director

Admin	Finance	Safety	Public Works
Raglow	Rebne	Poppa	Brauer
Dickens	Hill	Madigan	Faidley

I. DISCUSSION ITEMS:

1. Est Time of 7:00 pm: Review and Discuss Pedestrian Safety Analysis and Enhancements at Roesland Elementary - 45 min
2. Review and Preliminary Approval of CIP - 15 min
3. Review & Discuss Tree Inventory Proposals - 10 min
4. Discuss 2023 CDBG Project

II. NON-ACTION ITEMS:

III. ADJOURN

Welcome to this meeting of the Committee of the Whole of Roeland Park.
Below are the Procedural Rules of the Committee

The governing body encourages citizen participation in local governance processes. To that end, and in compliance with the Kansas Open meetings Act (KSA 45-215), you are invited to participate in this meeting. The following rules have been established to facilitate the transaction of business during the meeting. Please take a moment to review these rules before the meeting begins.

A. **Audience Decorum.** Members of the audience shall not engage in disorderly or boisterous conduct, including but not limited to; the utterance

of loud, obnoxious, threatening, or abusive language; clapping; cheering; whistling; stomping; or any other acts that disrupt, impede, or otherwise render the orderly conduct of the Committee of the Whole meeting unfeasible. Any member(s) of the audience engaging in such conduct shall, at the discretion of the City Council President (Chair) or a majority of the Council Members, be declared out of order and shall be subject to reprimand and/or removal from that meeting. **Please turn all cellular telephones and other noise-making devices off or to "silent mode" before the meeting begins.**

B. **Public Comment Request to Speak Form.** The request form's purpose is to have a record for the City Clerk. Members of the public may address the Committee of the Whole during Public Comments and/or before consideration of any agenda item; however, no person shall address the Committee of the Whole without first being recognized by the Chair or Committee Chair. Any person wishing to speak at the beginning of an agenda topic, shall first complete a Request to Speak form and submit this form to the City Clerk before discussion begins on that topic.

C. **Purpose.** The purpose of addressing the Committee of the Whole is to communicate formally with the governing body with a question or comment regarding matters that are on the Committee's agenda.

D. **Speaker Decorum.** Each person addressing the Committee of the Whole, shall do so in an orderly, respectful, dignified manner and shall not engage in conduct or language that disturbs, or otherwise impedes the orderly conduct of the committee meeting. Any person, who so disrupts the meeting shall, at the discretion of the City Council President (Chair) or a majority of the Council Members, be declared out of order and shall be subject to reprimand and/or be subject to removal from that meeting.

E. **Time Limit.** In the interest of fairness to other persons wishing to speak and to other individuals or groups having business before the Committee of the Whole, each speaker shall limit comments to two minutes per agenda item. If a large number of people wish to speak, this time may be shortened by the Chair so that the number of persons wishing to speak may be accommodated within the time available.

F. **Speak Only Once Per Agenda Item.** Second opportunities for the public to speak on the same issue will not be permitted unless mandated by state or local law. No speaker will be allowed to yield part or all of his/her time to another, and no speaker will be credited with time requested but not used by another.

G. **Addressing the Committee of the Whole.** Comment and testimony are

to be directed to the Chair. Dialogue between and inquiries from citizens and individual Committee Members, members of staff, or the seated audience is not permitted. Only one speaker shall have the floor at one time. Before addressing Committee speakers shall state their full name, address and/or resident/non-resident group affiliation, if any, before delivering any remarks.

H. **Agendas and minutes** can be accessed at www.roelandpark.org or by contacting the City Clerk

The governing body welcomes your participation and appreciates your cooperation. If you would like additional information about the Committee of the Whole or its proceedings, please contact the City Clerk at (913) 722.2600.

Item Number: **DISCUSSION ITEMS- I.-1.**
Committee Meeting Date: **4/18/2022**

City of Roeland Park

Action Item Summary

Date:	4/14/2022
Submitted By:	Keith Moody
Committee/Department:	
Title:	**Est Time of 7:00 pm: Review and Discuss Pedestrian Safety Analysis and Enhancements at Roesland Elementary - 45 min**
Item Type:	Discussion

Recommendation:

Staff is looking for direction from Council on a preferred option.

Details:

Attached is an engineering analysis completed by our traffic engineer assessing the need for a crossing guard at the Parish pedestrian crossing by Roesland Elementary as well as identifying techniques to enhance pedestrian safety at this location. Please review the analysis in detail. Janelle Clayton will lead a review of the analysis/report at the meeting.

Note that a number of the identified safety enhancements have been implemented during the course of the assessment process.

The analysis reflects that a crossing guard is warranted. Some options to be considered in staffing a crossing guard are listed below:

1. SMSD existing staff continue to serve as crossing guard (the Principal has requested the City provide a crossing guard based upon increased workload of their staff).
2. Volunteers could be organized by the City to provide a crossing guard (the Principal has indicated that the School District will not use volunteers to staff crossing guard positions; this does not preclude the City from using volunteers). The City would be liable for conduct of volunteers organized by the City and the City's insurance coverage would extend to those volunteers. Training would be part of a City organized effort to staff the service with volunteers.
3. Volunteers could be organized by a civic organization such as a church, the PTA, the Boy Scouts, the Girl Scouts, etc.
4. Contract for crossing guard services (presumably SMSD will not share in the cost as they do

not provide financial support to other cities who provide crossing guards). All of the cities in Johnson County that provide crossing guards contract for these services.
5. Hire a crossing guard as a part time position (could possibly use the Community Center Attendant staffing pool and/or the part time police officer staffing pool to aid in the task). This option could be the primary guard and the school could serve in a back up capacity.
6. Assign an existing employee to the task (police, admin, public works).

Options 4 and 5 entail on going additional operating expense to the City. Option 6 would reallocate roughly 25% of the time of a full time staff member. That is a significant portion of a positions work week. I would point to Roeland Park's very lean staffing figure per capita and share that existing staff is simply not able to take on a new significant task without additional man hours.

All City Management Services (ACMS) has provided a proposal (for informational purposes) for one crossing guard working on average 2 hours per day for 180 schools days with a not to exceed price of $14,389. ACMS provides contracted crossing guard services to all of the cities in Johnson County who provide crossing guards.

For comparison a part-time employee with a total hourly cost of $20.00/hr working 2 hours a day on 180 days per year would equate to an annual cost of $7,200.

A summary of JOCO City participation in crossing guard service is attached for reference.

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

Additional Information

Total student enrollment at Roesland including Pre-K and speech= 374
Students residing in Roeland Park= 325
Students registered to ride the bus= 71

ATTACHMENTS:

	Description	Type
🗋	Presentation for Crossing Guard Analysis	Cover Memo
🗋	Engineering Analysis for Crossing Guard at Roesland Elementary	Cover Memo
🗋	Survey of JOCO Cities Crossing Guard Participation	Cover Memo

PEDESTRIAN SAFETY ANALYSIS & ENHANCEMENTS
ROESLAND SCHOOL CROSSING

CITY COUNCIL WORKSHOP

April 18th, 7:00 PM

ROELAND PARK
est 1951

LAMP RYNEARSON

MERGE MIDWEST ENGINEERING

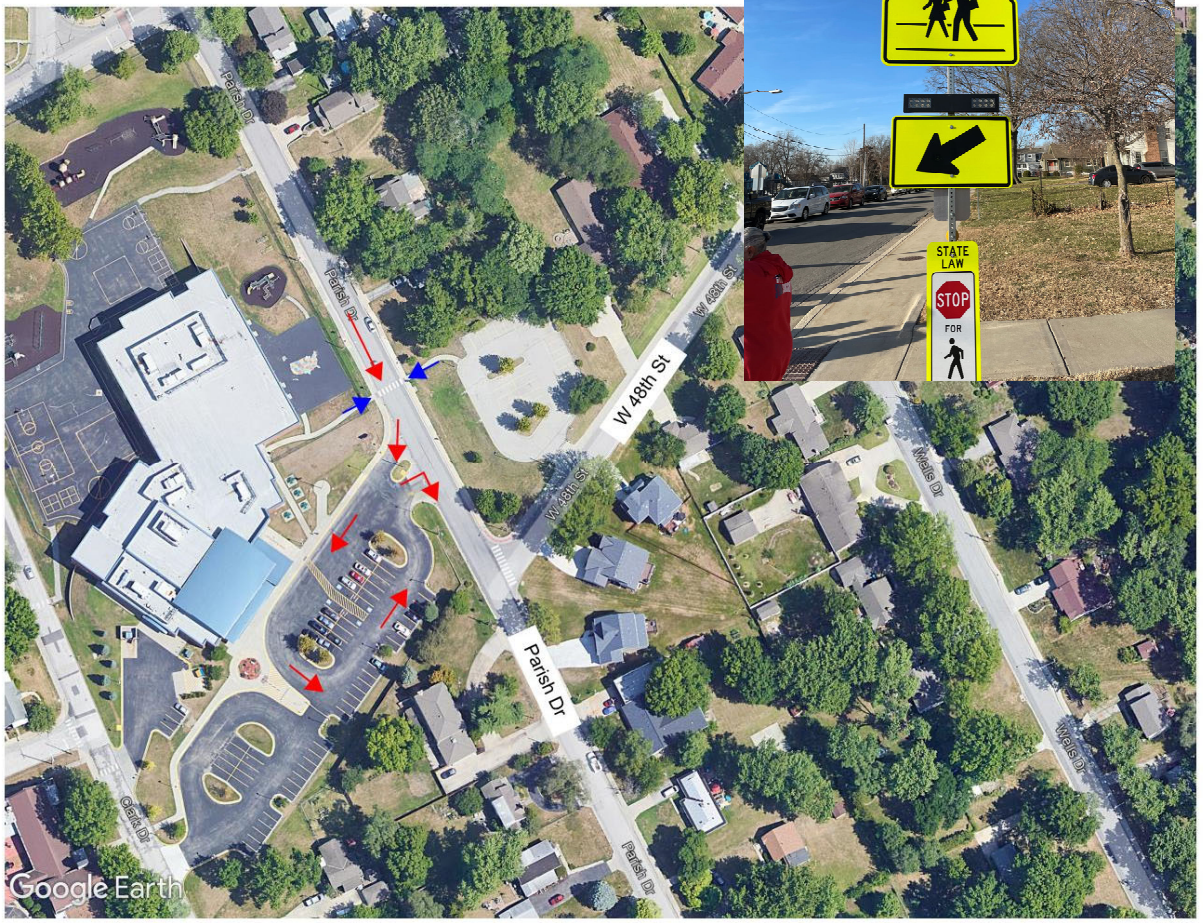
PEDESTRIAN SAFETY ANALYSIS

- Existing Conditions & Procedures
- Field Observations
- Guidelines for the Need for a Crossing Guard
- Gathering Data – Gap Study
- Safety Improvements Implemented

ROELAND PARK
esl 1951

EXISTING CONDITIONS & PROCEDURES

- Drop-Off & Pick-Ups Enter from the North on Parish Drive
- Must Turn Right When Exiting
- Heavy Utilization of Auxiliary Lot
- Rectangular Flashing Beacon
  - Were not using
  - Was mounted too low
  - Flashing bar malfunctioned
- Car queue blocked visibility of crosswalk




7:30
2:30


20'
20'

EXISTING CONDITIONS & PROCEDURES

- 48th Street – On-Street Parking

WARRANTS FOR A CROSSING GUARD

- MUTCD – Engineering study shows gaps in traffic are inadequate
- Safe Routes to School Guide – considers age and numbers of children crossing, width of street, safe gaps, volume and speed of traffic, presence of signals, signs and markings, school boundaries, other factors.
- Handled differently across the nation
  - Cal Trans, Arizona State Law

GAP STUDY (TUESDAY 3/29/22)

- After Spring Break – Nice Weather Day (High 74 degrees)
- 7:15 – 8:15 AM and 2:45 – 3:45 PM
- Morning Drop Off
  - 98 pedestrian crossings
  - 68 vehicles northbound, 134 vehicles southbound
- Afternoon Pick Up
  - 131 pedestrian crossings
  - 55 vehicles northbound, 40 vehicles southbound
  - 50 vehicles recorded in queue line

GAP STUDY (TUESDAY 3/29/22)

- Rows of children waiting to cross, walking speed, time to cross
- Time between vehicles
- Number of adequate gaps in one-hour period
  - Needed 17 seconds in AM – Only had 52 gaps (needed 60)
  - Needed 23 seconds in PM – Only had 54 gaps (needed 60)

SAFETY IMPROVEMENTS IMPLEMENTED BY CITY

- Provided cones and signs for delineation of no-stopping zone.
- School staff is educating school community on no-stopping area.
- Raised existing school crossing sign and RRFB.
- Repaired RRFB light bar.
- Adopted a no-parking or standing ordinance along 48th Street from 7:30-8:30 AM and 2:30-3:30 PM. Signs have been ordered.
- School staff is using the RRFB.

THANK YOU

QUESTIONS?

TECHNICAL MEMORANDUM

TO: Keith Moody, City Administrator
FROM: Janelle Clayton, PE, PTOE
DATE: March 31, 2022
SUBJECT: Roesland Elementary School- Parish Drive Pedestrian Crossing

Purpose

The purpose of this technical memorandum is to summarize the concerns regarding the Parish Drive crosswalk raised by the staff at Roesland Elementary School and the field observations performed by Merge Midwest staff during drop-off and pick-up hours.

Background

Roesland Elementary School Principal Kelly Swift contacted the City requesting city funds for a crossing guard at the Parish Drive crosswalk adjacent to the school. City staff met with Ms. Swift on Monday, November 8th, 2021, to discuss concerns and potential safety improvements. Additionally, a letter was sent to the City by Matt Schram who voiced concerns about parking on W. 48th Street during school pick-up hours.

Currently, a staff member serves as a crossing guard at the crosswalk before and after school and there is a Rectangular Rapid Flashing Beacon (RRFB) school-crossing sign assembly at the crosswalk that activates the flashing light bar when the push button is activated. A few older students also help near the school entrance to facilitate students getting into and out of vehicles.

Existing Concerns

Information and concerns expressed by Ms. Swift and Mr. Schram included the following:

1. In the morning there are approximately 50-65 students and parents crossing Parish Drive at the crosswalk. In the afternoon there are approximately 100 students and parents crossing the crosswalk.
2. The safety protocols the school must follow due to COVID has left them short on staff to handle outside duties.
3. More parents and students are utilizing the crosswalk compared to years past.
4. Existing staff do not have formalized training in acting as a crossing guard.
5. Some drivers are not yielding to the crossing guard while stepping into the roadway with the paddle and safety vest.
6. Some drivers are driving too fast.
7. Vehicles are parking along both sides of W. 48th Street during the after school pick up that makes pulling out of the auxiliary parking lot more difficult and dangerous for students crossing the street.

Current Drop-Off & Pick-Up Procedures

Vehicles dropping off and picking up students enter the school parking lot from the north along Parish Drive. After dropping students off, they continue to exit the lot where they must turn right (south) on Parish Drive. See **Exhibit 1** below. The red arrows depict the vehicle traffic pattern, and the blue arrows show the existing crosswalk on Parish Drive.

Exhibit 1 – School Drop-Off & Pick-Up Traffic Pattern

Initial Field Observation & Safety Improvement Recommendations

After school pick-up field observations were completed on Monday, November 8th, 2021. The following observations were made:

1. The RRFB (Rectangular rapid flashing beacon) was not pressed once during the observation. The crossing guard noted that they don't ever use it. They did at first, but the novelty wore off. Suggested Recommendation: Information training with the students and having the crossing guard make the students press it so they know what they should be doing. That way if they are crossing at a time the guard is not there, they will know what to do. Follow-Up: The school now has a student crossing guard helper that activates the button after school. The crossing guard

noted that when she tried to push the button without a helper, she was concerned the students would go into the crosswalk without her leading them.

2. The school crossing sign for the southbound direction was mounted too low. There is a power line overhead, which would limit the height of the sign. The bottom of the main sign should be 7' from the ground. The low height could be causing issues with vehicles not able to see the flashing light bar. Suggested Recommendation: Raise the sign to a maximum height that can be accomplished without being too close to the power line. Follow-Up: The City has raised the sign.

3. Vehicles in the queue to pick-up students stop too close to the crosswalk on both the north and south sides. This inhibits drivers on Parish Drive from being able to see students on the west side trying to cross. See photos below:

Parish Drive - Looking North

Parish Drive - Looking South

Stopping sight distance for 25 mph is 155' and 115' for 20 mph. We cannot apply a traditional sight triangle for that distance as it would take up too much of the car stacking. However, KS Statute: Article 15 – Uniform Act Regulating Traffic, Rules of the Road: 8-1571 says the following: No parking within 20 feet of a crosswalk at an intersection. While observing the operations, this distance clear of the crosswalk should increase the visibility of the crosswalk for oncoming traffic. Suggested Recommendation: Prohibit stopping 20' north of the crosswalk and around the curve into the school lot to increase visibility of the crosswalk as shown in **Exhibit 2** below. Follow-Up: The City has provided the school with cones and signs to delineate the no-stopping area and the school is now using them.

Exhibit 2

Morning Drop-Off Field Observation (12/8/2021)

Morning drop-off observations were completed on December 8, 2021, from 7:40 a.m. to 8:10 a.m. Almost everyone used the button to activate the RRFB to cross Parish Drive. One group of two students who were some of the earlier arrivals (prior to the crossing guard being present) walking across Parish Drive from the parking lot did not use the button. There were a few groups who arrived prior to the crossing guard, and all but that one group activated the RRFB. The crossing guard also used the RRFB each time and was able to reach it. See photo below:

Crossing Guard – Morning Drop-Off

One adult was observed at the crosswalk, one in front of the school, and 4 students in yellow vests were helping at the drop-off line in the school parking lot.

The cones and signs to delineate the no-stopping zone were not up, although the car queue was not observed backing into that general area. The drop-offs were fairly random arrivals spread out during 7:45-8:10.

<u>After School Pick-Up Observation (12/8/2021)</u>

After school pick-up observations were completed on December 8, 2021, from 2:35 p.m. to 3:30 p.m. Traffic was already queued onto Parish Drive at 2:35 p.m., although they did leave the space open by the crosswalk. At 3:00 p.m. the crossing guard came out along with the student helpers and set up the cones and signs to delineate the no-stopping zone. In addition to the guard at the crosswalk, there was another staff member along the curve as you turn into the school lot directing the guard at the crosswalk how many cars to allow to move forward. In speaking with the crossing guard, some of the vehicles waiting in line north of the crosswalk will try to move forward beyond the sign. The guard will actually step into the roadway to keep cars from doing this, but some have come close to hitting her. This is an education issue and once everyone is aware of the expectations

the second staff member directing how many cars to let through the curve may not be needed.

A student helper was stationed at the crosswalk with the guard for the sole purpose of activating the button on the RRFB. While the morning drop-off was pretty clam, the after-school hour was busy, and the students gather at the crosswalk area in a small space. It appeared that the crossing guard needed to keep the students back from the crosswalk while navigating the gaps in the traffic.

The flashing light bar for the northbound RRFB was not operating. The crossing guard said she noticed it stopped working about a week prior. The City has since addressed the issue.

Vehicles were observed parking on both sides of W. 48th Street as mentioned in Mr. Schram's email. This blocks the line-of-sight for the exiting driver in the parking lot and prohibits simultaneous two-way travel on W. 48th Street. One vehicle parked on the south side of W. 48th Street just east the crosswalk. This is especially dangerous as a westbound driver on W. 48th Street approaching Parish Drive cannot see a pedestrian coming from the south trying to cross W. 48th Street. See photos below:

Exiting Auxiliary Parking Lot – Looking West toward Parish Drive

Exiting Auxiliary Parking Lot – Looking West toward Parish Drive
Vehicle Blocking South Crosswalk Approach

Suggested Recommendation: No-parking signs could be installed designated the parking restrictions on both sides of W. 48th Street during drop-off and pick-up hours, or during school hours in general. Follow-Up: An ordinance prohibiting parking or standing 150' east of Elledge Drive on both sides of 48th Street from 7:30 AM – 8:30 AM and from 2:30 PM to 3:30 PM has been adopted. No parking signs have been ordered by City staff.

Information was gathered regarding the need or warrants for a school crossing guard. The *Safe Routes to School Guide* and Chapter 7D of the *2009 Manual on Uniform Traffic Control Devices* (MUTCD) provide information on school crossing guards.
https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part7.pdf
http://guide.saferoutesinfo.org/crossing_guard/index.cfm

MUTCD –Adult crossing guards may be used where an engineering study shows gaps in traffic are inadequate and that additional safe gaps need to be created.

Safe Routes to School Guide – The locations at which crossing guard should be assigned should be determined using the following factors:

1. Numbers and ages of children crossing
2. Width of the street and number of lanes to be crossed
3. Safe gaps in traffic
4. Presence of signals, signs, and markings
5. Volume and speed of traffic
6. Crash experience
7. School attendance boundaries and walk zones
8. Distance of crossing from school
9. Adjacent land use

The principal roles of the crossing guards are to encourage safe behavior, identify and/or create gaps in traffic for safe crossings, alerting drivers to the likely presence of pedestrians crossing the street.

For an engineering study we would need to do the following:

1. Collect volume and speed data on Parish Drive approaching the school area.
2. Observe conditions during the AM and after school periods noting:
    a. Number of pedestrians crossing
    b. Number of gaps available in traffic
    c. Notice if any sight-distance restrictions are present
3. Obtain and review crash data near the crossing area

Municipalities and school districts around the United States handle the warrants for school crossing guards a bit differently but reference the MUTCD criteria and the Safe Routes to School Guide. A few places have established criteria for crossing guards:

Ontario School Crossing Guard Guide
https://higherlogicdownload.s3-external-1.amazonaws.com/ITE/OTC-School-Crossing-Guard-Guide-2005.pdf?AWSAccessKeyId=AKIAVRDO7IEREB57R7MT&Expires=1636315706&Signature=c3XJxhlIT6AmHgPiWOKO4dcmiZA%3D

CalTrans – they have their own expanded version of the MUTCD
https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/ca-mutcd/rev6/camutcd2014-part7-rev6.pdf

Section 7D.02 Adult Crossing Guards

Option:

01 Adult crossing guards may be used to provide gaps in traffic at school crossings where an engineering study has shown that adequate gaps need to be created (see Section 7A.03), and where authorized by law.

02 Adult Crossing Guards may be assigned at designated school crossings to assist school pedestrians at specified hours when going to or from school. The following suggested policy for their assignment applies only to crossings.

Guidance:

03 *An Adult Crossing Guard should be considered when:*

A. Special situations make it necessary to assist elementary school pedestrians in crossing the street.

B. A change in the school crossing location is being made, but prevailing conditions require school crossing supervision until the change is constructed and it is not reasonable to install another form of traffic control or technique for this period.

Criteria for Adult Crossing Guards

Support:

04 Adult Crossing Guards normally are assigned where official supervision of school pedestrians is desirable while they cross a public highway, and at least 40 school pedestrians for each of any two hours (not necessarily consecutive) daily use the crossing while going to or from school.

Option:

05 Adult crossing guards may be used under the following conditions:

1. At uncontrolled crossings where there is no alternate controlled crossing within 600 feet; and
   a. In urban areas where the vehicular traffic volume exceeds 350 during each of any two hours (not necessarily consecutive) in which 40 or more school pedestrians cross daily while going to or from school; or
   b. In rural areas where the vehicular traffic volume exceeds 300 during each of any two hours (not necessarily consecutive) in which 30 or more school pedestrians cross daily while going to or from school.

   Whenever the critical (85th percentile) approach speed exceeds 40 mph, the guidelines for rural areas should be applied.
2. At stop sign-controlled crossing:
   Where the vehicular traffic volumes on undivided highways of four or more lanes exceeds 500 per hour during any period when the school pedestrians are going to or from school.
3. At traffic signal-controlled crossings:
   a. Where the number of vehicular turning movements through the school crosswalk exceeds 300 per hour while school pedestrians are going to or from school; or
   b. Where justified through analysis of the operations of the intersection.

Legal Authority and Program Funding for Adult Crossing Guards

Option:

06 Cities and counties may designate local law enforcement agencies, the governing board of any school district or a county superintendent of schools to recruit and assign adult crossing guards to intersections that meet approved guidelines for adult supervision.

Arizona Law:

Arizona Requirements for the Placement of Adult School Crossing Guards

Arizona State Law (ARS Section 28-797-D) mandates an adult school crossing guard at a yellow 15 mph School crosswalk if the school crosswalk is not adjacent to the school site. These guards are employed by the school district. Adult school crossing guards are recommended, but not required, by state law at 15 mph school zone crossings that are adjacent to the school site. These guards may be either employed by the school district or be volunteers, who have been trained and approved by the school district. (Traffic Safety for School Areas Guidelines, ADOT)

The City of Phoenix requires adult school crossing guards for elementary school crossings on busy collector streets and arterial streets. In some cases, two guards may be recommended. At white-painted crosswalks and signalized crossings, guards can be recommended using a method based on observation and engineering judgment using specific criteria such as street classification and the age of students.

Pedestrian Count and Gap Study (3/29/2022)

On Tuesday, March 29, 2022, pedestrian crossing volumes, traffic volumes, and available gaps were recorded during the morning drop-off (7:15 AM – 8:15 AM) and the afternoon pick-up (2:45 PM – 3:45 PM) at the Parish Drive crosswalk. This date was chosen as it was after the school's spring break when the number of walkers is typically larger than the winter months. The high was 74 degrees and partly cloudy on 3/29/2022.

During the morning study period from 7:15 AM to 8:15 AM, a total of 98 pedestrian crossings were recorded. 68 vehicles traveled northbound, and 134 vehicles traveled southbound on Parish Drive.

During the afternoon study period from 2:45 PM to 3:45 PM, a total of 131 pedestrian crossings were recorded. 55 vehicles traveled northbound, and 40 vehicles traveled southbound on Parish Drive. 50 vehicles were recorded in the pick-up queue line.

Gap studies refer to the determination of the number of available gaps in traffic passing a point that are of adequate length to permit pedestrians to cross. The gap is defined as the time that elapses when the rear of a vehicle passes a point on a roadway until the front of the next arriving vehicle (from either direction) passes the same point. It should be noted that the cars that idle in the car line along Parish Drive were not considered as part of the through traffic as they are consistently present. Only the through traffic was considered in the gap study. As gap studies are typically done prior to the installation of any traffic control devices, such as the Rectangular Rapid Flashing Beacon sign that is present at the crossing, or the presence of a crossing guard, the guard was instructed to try to hold the children back from the crossing until the through traffic on Parish had cleared. This was in an effort to mimic a condition without a crossing guard as much as possible.

The pedestrians are measured by recording the number of rows of pedestrians waiting at the crossing. When the group steps off the curb to cross the roadway, they have approximately 2 seconds of headway between rows. There is about 20' of available space directly behind the crossing guard for students to stand and wait. They can also wrap the curve of the sidewalk when larger groups are present. During the afternoon pick-up, it was typical to see a single-file line of students

The minimum adequate gap is defined as the time (in seconds) for one or a group of pedestrians to perceive and react to the traffic situate and cross the roadway from a point of safety on one side to a point of safety on the other side (Pline, 1992). The calculation for the minimum safe gap is as follows:

G = (W/S) + ((N-1)H + R)
Where:
G = Minimum Safe Gap in Traffic (sec)
W = Crossing Distance (ft) – 28'
S = Walking Speed (ft/sec) – Assumed 2.0 ft/sec due to young ages of children
N = Predominate Number of Rows (group size)
H = Time Headway between Rows – Assumed 2.0 sec
R = Pedestrian Start Up Time (sec) – Assumed 3.0 sec

The recorded pedestrian rows and gap calculations for the morning and afternoon periods are shown below.

Moring Drop-Off

Morning Drop-Off (7:15 – 8:15 AM)		
No. of Rows	Occurrences	Cumulative
1	41	41
2	6	47
3	0	47
4	1	48
5	0	
6	0	
7	0	
8	0	
9	0	
10	0	
11	0	

The 85th percentile of the morning sample is 0.85 x 48 = 40.8, corresponding to groups with one row. The minimum acceptable gap for the morning drop-off period is:
G = (W/S) + ((N-1)H + R) = (28 ft/2.0ft/sec) + (((1-1)*2.0sec) + 3.0sec) = 17 seconds.

During the morning drop-off period, 52 adequate gaps of 17 seconds or more were recorded. This is less than 60 minutes in the study period, therefore there are not enough adequate gaps for the crossing during the morning drop-off.

Afternoon Pick-Up

Afternoon Pick-Up (2:45 – 3:45 PM)		
No. of Rows	Occurrences	Cumulative
1	23	23
2	6	29
3	4	33
4	2	35
5	1	36
6	2	38
7	1	39
8	1	40
9	1	41
10	0	41
11	1	42

The 85th percentile of the afternoon sample is 0.85 x 42 = 35.7, corresponding to groups with four rows. The minimum acceptable gap for the afternoon pick-up period is:
G = (W/S) + ((N-1)H + R) = (28 ft/2.0ft/sec) + (((4-1)*2.0sec) + 3.0sec) = 23 seconds.

During the hour of study during the afternoon period, 54 adequate gaps of 23 seconds or more were recorded. This is less than 60 minutes in the study area, therefore there are not enough adequate gaps for the crossing during the afternoon pick-up.

Summary

Field observations have been completed for the Parish Drive crossing at Roesland Elementary school. One indicator of the possible need for a crossing guard or signal is where there are at least 20 school children crossing during the highest crossing hour and the number of adequate gaps in the vehicle traffic is fewer than the number of minutes in the study period. There were 98 pedestrian crossings during the morning drop-off and 131 pedestrian crossings during the afternoon pick-up hours. The gap study indicated that there are not enough sufficient gaps in traffic for pedestrians to safely cross Parish Drive. Due to the high volume of young children crossing Parish Drive, and the queue of vehicles interacting with the crosswalk it is recommended that a crossing guard be present at this location. The school should continue the use of the cones and signs to delineate the no-stopping zone by the crosswalk. In time, with education and communication, the additional staff member utilized to inform the crossing guard how many vehicles to let by should not be needed.

Safety Improvements Implemented by the City to-date include the following:

- Raising the existing school crossing sign for the southbound direction
- Providing cones and signs for the school to delineate a no-stopping zone
- Repaired the flashing light bar for the RRFB assembly for the northbound direction
- An ordinance prohibiting parking or standing 150' east of Elledge Drive on both sides of 48th Street from 7:30 AM – 8:30 AM and from 2:30 PM to 3:30 PM has been adopted. No parking signs have been ordered by City staff.

Survey of Crossing Guard Involvement by JOCO Cities						
Agency Name	Check If City Does Not Provide Any Crossing Guard Services or Financial Support	Check If City Staffs Crossing Guard Positions	Check If City Provides Fiscal Support to Schools for Crossing Guard Service	Check If City Contracts for Crossing Guard Service	Does City Provide Crossing Guard Service to Public and Private Schools	Notes:
DeSoto	X					
Edgerton						
Fairway	X					
Gardner				X	Only have public schools	All-City Management Services provides the service.
Lake Quivira	X					No schools located in the City.
Leawood				X	Yes	$80k per year for 7 schools.
Lenexa				X	Yes	
Merriam				X	Only have public schools	$33k per year for two schools.
Mission				X	Only have public schools	$17.8k per year for two schools.
Mission Hills	X					No schools located in the City.
Olathe				X	No	
Overland Park				X	Yes	$40k per year for 40 schools. Two crossings per day. $21.75/hr is the rate.
Prairie Village				X	Yes	
Roeland Park	X					
Shawnee				X	No	$111.4k per year for 14 locations. Two crossings per
Springhill						
Westwood				X		One public school, cost shared between Westwood and Westwood Hills.
Westwood Hills				X		One public school, cost shared between Westwood and Westwood Hills.

Item Number: **DISCUSSION ITEMS- I.-2.**
Committee Meeting Date: **4/18/2022**

City of Roeland Park

Action Item Summary

Date:	4/14/2022
Submitted By:	Keith Moody
Committee/Department:	Admin
Title:	**Review and Preliminary Approval of CIP - 15 min**
Item Type:	Presentation

Recommendation:

Review and preliminary approval of the Capital Improvement Plan.

Details:

An updated Capital Improvement Plan is attached for consideration. The first attachment is a summary of projects in the next 10 years listed by department; "Projects & Funding Sources by Department". The second attachment is the list of items by funding source; "Projects by Funding Source". In this report projects that are funded with multiple sources appear multiple times with the amount from that funding source noted in that source list.

We continue to add details to the items/projects as well as maintenance/replacement items that were not identified previously. This provides a more complete picture of capital investment needs into the future and helps to establish what level of funding is necessary for sustaining the CIP into the future.

The two part scoring system (3rd Attachment) remains the same as in prior years and you will see these scores in the "Projects by Funding Source" report. The total project score (Priority score) is used by staff to schedule projects in order of importance (some deviation from highest to lowest does occur however). Staff will have the software up and available during the presentation.

I emphasize that at this stage we are asking Council for preliminary approval of the Capital Improvement Plan. Do you feel a project should be moved to a different year? Do you feel a project should not be listed? Do you feel a funding source should be changed? Think of these questions as you review the documents, make notes so we can discuss and make changes if required. The preliminary approval tells staff that the projects make sense, based on this staff will work to confirm if the City can afford to implement the CIP as preliminarily approved.

Staff has done some preliminary work to determine the affordability of various projects. However, please understand there is more work to be done to ensure this preliminary list can be funded in the year currently displayed. That full picture will not become clear until all budgeted funds have been fully projected.

While we will walk through the full CIP, specific projects that may spur additional discussion include:

- The Community Center cost estimates have been increased based upon construction cost discussions with the Architect. An additional $1 million has been added between the two project phases.
- Projects shown in Nall Park have not been changed. The update to the Nall Park Master Plan planned in 2023 will provide direction on these projects when we update the CIP for the 2024 budget.
- A $3 million investment for a new public works facility is reflected in 2023.

The 2022 adopted CIP reflected $3.884 million in capital investment, the projected 2022 CIP reflects $4.592 million due to some 2021 project expenses being delayed to 2022. 2023 reflects $7.769 million ($3 million of which for a public works facility), 2024 reflects $3.348 million, 2025 reflects $3.598 million and 2026 reflects $1.782 million. 2022 and 2023 represent larger than normal capital investment years.

Per direction established in 2018, the CIP does not anticipate use of any new debt. Equipment and projects will be funded by the annual revenue streams of the City. This makes setting aside funds for future needs critical, this is the reason we have stretched the tool to look out 10 years.

Staff has reflected preliminarily approved 2023 Objectives in the CIP where appropriate.

I am certain we will be making edits to the CIP as we work through the line item budgets for each Fund. Staff will note any material changes to the CIP during the line item Budget presentation (next major step in the process). The CIP will ultimately be adopted along with the budget and objectives.

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

ATTACHMENTS:

Description	Type
Projects by Funding Sources and Department	Cover Memo
Projects by Funding Source	Cover Memo
Project Scoring Guide	Exhibit

City of Roeland Park, Kansas

Capital Improvement Plan

2022 thru 2031

PROJECTS BY FUNDING SOURCE AND DEPARTMENT

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
101 General Overhead													
City Hall													
Comprehensive Plan Updates	*19-CH-002*	3				10,000					85,000		*95,000*
City Hall Total						*10,000*					*85,000*		*95,000*
101 General Overhead Total						10,000					85,000		*95,000*
106 Public Works													
Public Works													
Contracted Street Maintenance	*16-PW-014*	7	212,000	213,000	214,000	215,000	216,000	217,000	218,000	219,000	220,000	221,000	*2,165,000*
Public Works Total			*212,000*	*213,000*	*214,000*	*215,000*	*216,000*	*217,000*	*218,000*	*219,000*	*220,000*	*221,000*	*2,165,000*
106 Public Works Total			212,000	213,000	214,000	215,000	216,000	217,000	218,000	219,000	220,000	221,000	*2,165,000*
220 Aquatic Center Fund													
Aquatic Center													
Relace Main Pool Pump Strainers	*16-Aqua-003*	2					5,500						*5,500*
Pool Deck Caulking	*17-Aqua-002*	4			5,000								*5,000*
Repaint Main Pool	*17-Aqua-003*	6		150,000									*150,000*
Pool Shade Conopy Replacements	*18-Aqua-002*	2								3,000	2,000	6,000	*11,000*
Diving Board Replacement	*18-Aqua-003*	3								6,000			*6,000*
Pool Deck Concrete Repair/Replacement	*19-Aqua-004*	4								10,000			*10,000*
Painting Lobby, Office Area and Restrooms	*19-Aqua-006*	3					10,000						*10,000*
Pool Furniture Replacement	*20-Aqua-002*	n/a	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	*10,000*
Swim Lane Divider Replacements	*21-Aqua-002*	n/a	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	*16,000*
Pool Entrance ADA Improvements	*21-Aqua-006*	7	101,000										*101,000*
Lifeguard Stand Replacement	*22-Aqua-004*	n/a	1,500			1,500			1,500			1,500	*6,000*
Women's Locker Room Renovations	*23-Aqua-001*	4		75,000									*75,000*
Starting Block Replacement	*24-Aqua-001*	n/a			35,000								*35,000*
Slide Repainting	*28-Aqua-001*	2								35,000			*35,000*

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Main Recirculation Pump and Motor #1 Replacement	*30-Aqua-001*	n/a									7,000		*7,000*
Main Recirculation Pump and Motor #2 Replacement	*30-Aqua-002*	n/a								7,000			*7,000*
Replace Shade Structure Awnings	*31-Aqua-001*	n/a										12,000	*12,000*
Aquatic Center Total			*105,100*	*227,600*	*42,600*	*4,100*	*18,100*	*2,600*	*4,100*	*63,600*	*11,600*	*22,100*	*501,500*
220 Aquatic Center Fund Total			105,100	227,600	42,600	4,100	18,100	2,600	4,100	63,600	11,600	22,100	*501,500*
270 Sp. Streets													
Public Works													
Residential Street Reconstruction (RSR) Program	*19-PW-001*	7									100,000	900,000	*1,000,000*
Annual Sidewalk Repair & Replacement	*21-PW-001*	8	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	*250,000*
Bi-Annual Sidewalk Extension Project	*21-PW-002*	6		100,000		100,000		100,000		100,000		100,000	*500,000*
Street Light Replacement	*21-PW-007*	6	90,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	*180,000*
2022 CARS- Johnson Dr from Roe Blvd to Roeland Dr	*22-PW-001*	8	215,000										*215,000*
2022 CARS- 53rd: Misn-Rnhrdt & BunaVis: 53rd-SMPKY	*22-PW-003*	6	160,000										*160,000*
2025 CARS- 55th St from SMPKWY to Roe Blvd	*23-PW-003*	6			18,000	68,000							*86,000*
2022 CARS- Elledge from Roe Ln to 47th Street	*23-PW-008*	7	740,000										*740,000*
2023 RSR- Canterbury from 47th to 51st	*23-PW-015*	7	100,000	1,278,400									*1,378,400*
2023 CARS- 48th from Roe Lane to Roe Blvd	*23-PW-018*	6	17,000	80,000									*97,000*
2024 CARS- Mission Rd from 47th St to 53rd St	*24-PW-004*	6		19,000	51,250								*70,250*
2024 RSR- Extra Project (Rosewood & Granada)	*24-PW-005*	7				122,500	723,500						*846,000*
2029 RSR- Nall Ave from 51st to North End	*24-PW-009*	5							175,000	1,525,000			*1,700,000*
2025 RSR- Nall Ave from 58th to 51th	*24-PW-010*	6			100,000	900,000							*1,000,000*
2023 CARS- 53rd from Mission Rd to Chadwick	*25-PW001*	6	12,000	52,000									*64,000*
2027 RSR- Granada from SMPKY to 56th	*29-PW-001*	n/a					100,000	700,000					*800,000*
Public Works Total			*1,359,000*	*1,564,400*	*204,250*	*1,225,500*	*858,500*	*835,000*	*210,000*	*1,660,000*	*135,000*	*1,035,000*	*9,086,650*
270 Sp. Streets Total			1,359,000	1,564,400	204,250	1,225,500	858,500	835,000	210,000	1,660,000	135,000	1,035,000	*9,086,650*

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
290 Community Center													
Community Center													
Room 3 Air Handler/Furnace - 3 ton	*18-CCtr-002*	7		3,000									*3,000*
Room 3 Condenser Unit	*18-CCtr-003*	7		3,200									*3,200*
Community Center- Parking Lot & Drainage Improve.	*20-CCtr-004*	8	676,000										*676,000*
Replace Roof Vent Fan	*22-CCtr-002*	6			2,000								*2,000*
Water Heater Replacement	*22-CCtr-003*	n/a		5,000									*5,000*
Trail Connection - Community Center to Nall Park	*26-CCtr-001*	3						150,000					*150,000*
Room 6 Air Handler/Furnace	*28-CCtr-001*	5							3,000				*3,000*
Community Center Total			*676,000*	*11,200*	*2,000*			*150,000*	*3,000*				*842,200*
290 Community Center Total			676,000	11,200	2,000			150,000	3,000				*842,200*
300 Special Infrastructure													
Community Center													
Community Center Renovation - Phase 1	*23-CCtr-001*	6	125,000	1,300,000									*1,425,000*
Community Center Renovation - Phase 2	*27-CCtr-001*	5			125,000	1,100,000							*1,225,000*
Community Center Total			*125,000*	*1,300,000*	*125,000*	*1,100,000*							*2,650,000*
Parks and Recreation													
Park Maintenance/Improvements	*16-Park-001*	7	23,000	24,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	*247,000*
Disc Golf Course (short 9 basket course)	*21-Park-001*	4			13,500								*13,500*
Cooper Creek Park Improvements	*21-Park-005*	n/a	24,000										*24,000*
Nall Park Playground Equipment Replacement	*23-Park-001*	6			80,000								*80,000*
Nall Park Paved Trail Reconstruction	*25-Park-002*	5								125,000			*125,000*
Nall Park Retaining Wall Maintenance	*25-Park-003*	6				15,000							*15,000*
R Park Development Plan Phase 3	*25-Park-004*	6	600,000										*600,000*
Parks and Recreation Total			*647,000*	*24,000*	*118,500*	*40,000*	*25,000*	*25,000*	*25,000*	*150,000*	*25,000*	*25,000*	*1,104,500*
Public Works													
In-House or Contracted Street Maintenance	*16-PW-013*	7	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	*2,250,000*
#210 Leaf Vacuum Truck	*18-PW-003*	n/a									170,000		*170,000*
Pavement Evaluation of Street Network	*20-PW-020*	5	10,000			10,000			15,000			10,000	*45,000*
Artistic Staircase from Roe Ln. to Bus District	*21-PW-10*	4	104,000										*104,000*

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Bi-Annual Storm Sewer Repair/Replacement Program	*24-PW-003*	6		100,000		100,000		100,000		100,000			*400,000*
Public Works Total			*339,000*	*325,000*	*225,000*	*335,000*	*225,000*	*325,000*	*240,000*	*325,000*	*395,000*	*235,000*	*2,969,000*
300 Special Infrastructure Total			1,111,000	1,649,000	468,500	1,475,000	250,000	350,000	265,000	475,000	420,000	260,000	*6,723,500*
360 Equipment Reserve													
City Hall													
Replace Police Backup Server	*17-CH-002*	n/a		6,000					6,000				*12,000*
Replace City Hall Computer Server	*18-CH-002*	n/a	6,000					6,000					*12,000*
City Hall Server Firewall	*18-CH-003*	n/a		5,000					5,000				*10,000*
Replace City Hall Hot Water Heater	*19-CH-001*	n/a		15,000									*15,000*
Replace City Hall Networking Routers	*19-CH-003*	n/a			8,000					8,000			*16,000*
Replace City Hall Desk Top Computers	*19-CH-004*	n/a	2,400	3,200	800	800	2,400	3,200	800	800	2,400		*16,800*
City Hall Total			*8,400*	*29,200*	*8,800*	*800*	*2,400*	*9,200*	*11,800*	*8,800*	*2,400*		*81,800*
Neighborhood Services													
Building Inspection and Code Enforcement Vehicles	*22-NS-001*	n/a	40,000										*40,000*
Neighborhood Services Total			*40,000*										*40,000*
Parks and Recreation													
Granada Park Playground Equipment Replacement	*27-Park-001*	4						80,000					*80,000*
Parks and Recreation Total								*80,000*					*80,000*
Police Department													
Body Cameras	*16-Pol-004*	n/a	1,000	1,000	1,000	1,000							*4,000*
Replacement of Police Weapons	*16-Pol-006*	n/a		5,000					5,000				*10,000*
Replacement of Radar Speed Detection Units	*16-Pol-007*	n/a			5,000		5,000		5,000		5,000		*20,000*
AED Unit Replacement	*18-Pol-001*	n/a					8,000						*8,000*
Police IT Equipment/Computers	*18-Pol-003*	n/a	6,495	6,624	6,757	6,900	7,100	7,300	7,500	7,650	7,800	7,850	*71,976*
Police In-Car Computers	*19-Pol-001*	n/a	8,000		4,000	8,000	8,000	8,000			4,000	8,000	*48,000*
Tasers	*19-Pol-002*	n/a			7,200					7,400			*14,600*
Vehicle Emergency Equipment	*19-Pol-003*	n/a	16,000	8,000	8,000	8,000							*40,000*
Police K9 Dog	*19-Pol-005*	n/a					15,000						*15,000*
Police Bicycles	*19-Pol-006*	n/a									4,000		*4,000*
Police: Ford Fusion - Travel -Special use.	*22-Pol-001*	n/a						26,000					*26,000*
Police Detective Vehicle - Ford Taurus	*22-Pol-002*	n/a					26,000						*26,000*
Police In-Car Video	*22-Pol-003*	n/a	40,000					40,000					*80,000*

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Police Community Policing Trailer	*22-Pol-005*	n/a	10,000										*10,000*
Police Vehicle: Ford Explorer with Equipment	*23-Pol-004*	n/a	82,000	42,000	43,000	44,000							*211,000*
Police Vehicle: Dodge Pickup with Equipment	*24-Pol-001*	n/a			0								*0*
Police K9 Equipment for Explorer	*24-Pol-002*	n/a		15,000									*15,000*
Ford Escape - Chief Vehicle	*26-Pol-001*	n/a						25,000					*25,000*
Police Department Total			*163,495*	*77,624*	*74,957*	*67,900*	*69,100*	*106,300*	*17,500*	*15,050*	*20,800*	*15,850*	*628,576*
Public Works													
#201 - 2010 Elgin Street Sweeper	*16-PW-022*	n/a					300,000						*300,000*
#103 - 2012 F350 Pickup Replacement	*16-PW-025*	n/a			48,000								*48,000*
#102 - F750 Dump Trucks W/ Equip	*16-PW-027*	n/a										135,000	*135,000*
#101 - F750 Dump Truck w/ Equip	*17-PW-003*	n/a									135,000		*135,000*
#105 - 2017 Ford F250 Ext Cab 4X4 - Replacement	*17-PW-019*	n/a								40,000			*40,000*
New Public Works Facility	*18-PW-001*	6		3,000,000									*3,000,000*
#104 - 2014 F250 Pickup Truck - Replacement	*18-PW-010*	n/a					49,000						*49,000*
#412 - 8' 6" Boss Snow Plow	*22-PW-005*	n/a	8,000										*8,000*
#203 - 2003 Skidsteer Case 85XT	*23-PW-005*	n/a		55,000									*55,000*
#417 - 2002 Coleman Tiller Attachment	*23-PW-009*	n/a		5,000									*5,000*
#401 - 2016 Coneqtec Cold Planer Replacement	*23-PW-017*	n/a					11,000						*11,000*
#410 - 2012 Boss Plow - Replacement	*24-PW-001*	n/a			8,000								*8,000*
#107 - 2016 F350 One-ton Replacement	*26-PW-002*	n/a							74,000				*74,000*
#411 - 2015 Boss Plow - Replacement	*26-PW-003*	n/a					8,000						*8,000*
#414 - 2016 Boss Plow Replacement	*26-PW-004*	n/a							9,000				*9,000*
#408 - Vbox Spreader Replacement	*26-PW-005*	n/a							8,000				*8,000*
#403 - 2016 Paladin Sweeper Broom Replacement	*26-PW-008*	n/a										6,000	*6,000*
#406 - 2011 Henke Snow Plow Replacement	*31-PW-001*	n/a										10,000	*10,000*
#407 - 2011 Henke Snow Plow Replacement	*31-PW-002*	n/a										10,000	*10,000*
Public Works Total			*8,000*	*3,060,000*	*56,000*		*368,000*		*91,000*	*40,000*	*135,000*	*161,000*	*3,919,000*
360 Equipment Reserve Total			219,895	3,166,824	139,757	68,700	439,500	195,500	120,300	63,850	158,200	176,850	*4,749,376*

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
370 TIF 1													
Public Works													
Concrete Line 60" CMP Under Roe Blvd	*24-PW-002*	6		60,000	435,000								*495,000*
Public Works Total				*60,000*	*435,000*								*495,000*
370 TIF 1 Total				60,000	435,000								*495,000*
510 TIF 3 - caves													
Public Works													
Roe Parkway- Ph1 Maint & Ph2 Extension	*22-PW-004*	7	75,000	600,000	1,250,000	400,000							*2,325,000*
Public Works Total			*75,000*	*600,000*	*1,250,000*	*400,000*							*2,325,000*
510 TIF 3 - caves Total			75,000	600,000	1,250,000	400,000							*2,325,000*
CARS													
Public Works													
2022 CARS- Elledge from Roe Ln to 47th Street	*23-PW-008*	7	620,000										*620,000*
2023 CARS- 48th from Roe Lane to Roe Blvd	*23-PW-018*	6		77,000									*77,000*
2024 CARS- Mission Rd from 47th St to 53rd St	*24-PW-004*	6			102,500								*102,500*
Public Works Total			*620,000*	*77,000*	*102,500*								*799,500*
CARS Total			620,000	77,000	102,500								*799,500*
CDBG													
Community Center													
Community Center Renovation - Phase 1	*23-CCtr-001*	6		200,000									*200,000*
Community Center Renovation - Phase 2	*27-CCtr-001*	5				200,000							*200,000*
Community Center Total				*200,000*		*200,000*							*400,000*
CDBG Total				200,000		200,000							*400,000*
Other Sources													
Public Works													
Artistic Staircase from Roe Ln. to Bus District	*21-PW-10*	4	11,000										*11,000*
Concrete Line 60" CMP Under Roe Blvd	*24-PW-002*	6			438,000								*438,000*
Public Works Total			*11,000*		*438,000*								*449,000*

Source	#	Priority	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Other Sources Total			11,000		438,000								*449,000*
Partner City													
Community Center													
Community Center- Parking Lot & Drainage Improve.	*20-CCtr-004*	8	203,000										*203,000*
Community Center Total			*203,000*										*203,000*
Public Works													
2024 CARS- Mission Rd from 47th St to 53rd St	*24-PW-004*	6			51,250								*51,250*
Public Works Total					*51,250*								*51,250*
Partner City Total			203,000		51,250								*254,250*
GRAND TOTAL			**4,591,995**	**7,769,024**	**3,347,857**	**3,598,300**	**1,782,100**	**1,750,100**	**820,400**	**2,481,450**	**1,029,800**	**1,714,950**	***28,885,976***

City of Roeland Park, Kansas

Capital Improvement Plan

2022 thru 2026

PROJECTS BY FUNDING SOURCE

Source	Project #	Priority	2022	2023	2024	2025	2026	Total
101 General Overhead								
Comprehensive Plan Updates	*19-CH-002*	3				10,000		*10,000*
101 General Overhead Total						10,000		*10,000*
106 Public Works								
Contracted Street Maintenance	*16-PW-014*	7	212,000	213,000	214,000	215,000	216,000	*1,070,000*
106 Public Works Total			212,000	213,000	214,000	215,000	216,000	*1,070,000*
220 Aquatic Center Fund								
Relace Main Pool Pump Strainers	*16-Aqua-003*	2					5,500	*5,500*
Pool Deck Caulking	*17-Aqua-002*	4			5,000			*5,000*
Repaint Main Pool	*17-Aqua-003*	6		150,000				*150,000*
Painting Lobby, Office Area and Restrooms	*19-Aqua-006*	3					10,000	*10,000*
Pool Furniture Replacement	*20-Aqua-002*	n/a	1,000	1,000	1,000	1,000	1,000	*5,000*
Swim Lane Divider Replacements	*21-Aqua-002*	n/a	1,600	1,600	1,600	1,600	1,600	*8,000*
Pool Entrance ADA Improvements	*21-Aqua-006*	7	101,000					*101,000*
Lifeguard Stand Replacement	*22-Aqua-004*	n/a	1,500			1,500		*3,000*
Women's Locker Room Renovations	*23-Aqua-001*	4		75,000				*75,000*
Starting Block Replacement	*24-Aqua-001*	n/a			35,000			*35,000*
220 Aquatic Center Fund Total			105,100	227,600	42,600	4,100	18,100	*397,500*
270 Sp. Streets								
Annual Sidewalk Repair & Replacement	*21-PW-001*	8	25,000	25,000	25,000	25,000	25,000	*125,000*
Bi-Annual Sidewalk Extension Project	*21-PW-002*	6		100,000		100,000		*200,000*
Street Light Replacement	*21-PW-007*	6	90,000	10,000	10,000	10,000	10,000	*130,000*
2022 CARS- Johnson Dr from Roe Blvd to Roeland Dr	*22-PW-001*	8	215,000					*215,000*
2022 CARS- 53rd: Misn-Rnhrdt & BunaVis: 53rd-SMPKY	*22-PW-003*	6	160,000					*160,000*
2025 CARS- 55th St from SMPKWY to Roe Blvd	*23-PW-003*	6			18,000	68,000		*86,000*
2022 CARS- Elledge from Roe Ln to 47th Street	*23-PW-008*	7	740,000					*740,000*
2023 RSR- Canterbury from 47th to 51st	*23-PW-015*	7	100,000	1,278,400				*1,378,400*
2023 CARS- 48th from Roe Lane to Roe Blvd	*23-PW-018*	6	17,000	80,000				*97,000*
2024 CARS- Mission Rd from 47th St to 53rd St	*24-PW-004*	6		19,000	51,250			*70,250*
2024 RSR- Extra Project (Rosewood & Granada)	*24-PW-005*	7				122,500	723,500	*846,000*
2025 RSR- Nall Ave from 58th to 51th	*24-PW-010*	6			100,000	900,000		*1,000,000*
2023 CARS- 53rd from Mission Rd to Chadwick	*25-PW001*	6	12,000	52,000				*64,000*
2027 RSR- Granada from SMPKY to 56th	*29-PW-001*	n/a					100,000	*100,000*
270 Sp. Streets Total			1,359,000	1,564,400	204,250	1,225,500	858,500	*5,211,650*
290 Community Center								
Room 3 Air Handler/Furnace - 3 ton	*18-CCtr-002*	7		3,000				*3,000*

Source	Project #	Priority	2022	2023	2024	2025	2026	Total
Room 3 Condenser Unit	*18-CCtr-003*	7		3,200				*3,200*
Community Center- Parking Lot & Drainage Improve.	*20-CCtr-004*	8	676,000					*676,000*
Replace Roof Vent Fan	*22-CCtr-002*	6			2,000			*2,000*
Water Heater Replacement	*22-CCtr-003*	n/a		5,000				*5,000*
290 Community Center Total			676,000	11,200	2,000			*689,200*
300 Special Infrastructure								
Park Maintenance/Improvements	*16-Park-001*	7	23,000	24,000	25,000	25,000	25,000	*122,000*
In-House or Contracted Street Maintenance	*16-PW-013*	7	225,000	225,000	225,000	225,000	225,000	*1,125,000*
Pavement Evaluation of Street Network	*20-PW-020*	5	10,000			10,000		*20,000*
Disc Golf Course (short 9 basket course)	*21-Park-001*	4			13,500			*13,500*
Cooper Creek Park Improvements	*21-Park-005*	n/a	24,000					*24,000*
Artistic Staircase from Roe Ln. to Bus District	*21-PW-10*	4	104,000					*104,000*
Community Center Renovation - Phase 1	*23-CCtr-001*	6	125,000	1,300,000				*1,425,000*
Nall Park Playground Equipment Replacement	*23-Park-001*	6			80,000			*80,000*
Bi-Annual Storm Sewer Repair/Replacement Program	*24-PW-003*	6		100,000		100,000		*200,000*
Nall Park Retaining Wall Maintenance	*25-Park-003*	6				15,000		*15,000*
R Park Development Plan Phase 3	*25-Park-004*	6	600,000					*600,000*
Community Center Renovation - Phase 2	*27-CCtr-001*	5			125,000	1,100,000		*1,225,000*
300 Special Infrastructure Total			1,111,000	1,649,000	468,500	1,475,000	250,000	*4,953,500*
360 Equipment Reserve								
Body Cameras	*16-Pol-004*	n/a	1,000	1,000	1,000	1,000		*4,000*
Replacement of Police Weapons	*16-Pol-006*	n/a		5,000				*5,000*
Replacement of Radar Speed Detection Units	*16-Pol-007*	n/a			5,000		5,000	*10,000*
#201 - 2010 Elgin Street Sweeper	*16-PW-022*	n/a					300,000	*300,000*
#103 - 2012 F350 Pickup Replacement	*16-PW-025*	n/a			48,000			*48,000*
Replace Police Backup Server	*17-CH-002*	n/a		6,000				*6,000*
Replace City Hall Computer Server	*18-CH-002*	n/a	6,000					*6,000*
City Hall Server Firewall	*18-CH-003*	n/a		5,000				*5,000*
AED Unit Replacement	*18-Pol-001*	n/a					8,000	*8,000*
Police IT Equipment/Computers	*18-Pol-003*	n/a	6,495	6,624	6,757	6,900	7,100	*33,876*
New Public Works Facility	*18-PW-001*	6		3,000,000				*3,000,000*
#104 - 2014 F250 Pickup Truck - Replacement	*18-PW-010*	n/a					49,000	*49,000*
Replace City Hall Hot Water Heater	*19-CH-001*	n/a		15,000				*15,000*
Replace City Hall Networking Routers	*19-CH-003*	n/a			8,000			*8,000*
Replace City Hall Desk Top Computers	*19-CH-004*	n/a	2,400	3,200	800	800	2,400	*9,600*
Police In-Car Computers	*19-Pol-001*	n/a	8,000		4,000	8,000	8,000	*28,000*
Tasers	*19-Pol-002*	n/a			7,200			*7,200*
Vehicle Emergency Equipment	*19-Pol-003*	n/a	16,000	8,000	8,000	8,000		*40,000*
Police K9 Dog	*19-Pol-005*	n/a					15,000	*15,000*
Building Inspection and Code Enforcement Vehicles	*22-NS-001*	n/a	40,000					*40,000*
Police Detective Vehicle - Ford Taurus	*22-Pol-002*	n/a					26,000	*26,000*
Police In-Car Video	*22-Pol-003*	n/a	40,000					*40,000*
Police Community Policing Trailer	*22-Pol-005*	n/a	10,000					*10,000*
#412 - 8' 6" Boss Snow Plow	*22-PW-005*	n/a	8,000					*8,000*
Police Vehicle: Ford Explorer with Equipment	*23-Pol-004*	n/a	82,000	42,000	43,000	44,000		*211,000*
#203 - 2003 Skidsteer Case 85XT	*23-PW-005*	n/a		55,000				*55,000*
#417 - 2002 Coleman Tiller Attachment	*23-PW-009*	n/a		5,000				*5,000*
#401 - 2016 Coneqtec Cold Planer Replacement	*23-PW-017*	n/a					11,000	*11,000*
Police Vehicle: Dodge Pickup with Equipment	*24-Pol-001*	n/a			0			*0*
Police K9 Equipment for Explorer	*24-Pol-002*	n/a		15,000				*15,000*

Source	Project #	Priority	2022	2023	2024	2025	2026	Total
#410 - 2012 Boss Plow - Replacement	*24-PW-001*	n/a			8,000			*8,000*
#411 - 2015 Boss Plow - Replacement	*26-PW-003*	n/a					8,000	*8,000*
360 Equipment Reserve Total			219,895	3,166,824	139,757	68,700	439,500	*4,034,676*
370 TIF 1								
Concrete Line 60" CMP Under Roe Blvd	*24-PW-002*	6		60,000	435,000			*495,000*
370 TIF 1 Total				60,000	435,000			*495,000*
510 TIF 3 - caves								
Roe Parkway- Ph1 Maint & Ph2 Extension	*22-PW-004*	7	75,000	600,000	1,250,000	400,000		*2,325,000*
510 TIF 3 - caves Total			75,000	600,000	1,250,000	400,000		*2,325,000*
CARS								
2022 CARS- Elledge from Roe Ln to 47th Street	*23-PW-008*	7	620,000					*620,000*
2023 CARS- 48th from Roe Lane to Roe Blvd	*23-PW-018*	6		77,000				*77,000*
2024 CARS- Mission Rd from 47th St to 53rd St	*24-PW-004*	6			102,500			*102,500*
CARS Total			620,000	77,000	102,500			*799,500*
CDBG								
Community Center Renovation - Phase 1	*23-CCtr-001*	6		200,000				*200,000*
Community Center Renovation - Phase 2	*27-CCtr-001*	5				200,000		*200,000*
CDBG Total				200,000		200,000		*400,000*
Other Sources								
Artistic Staircase from Roe Ln. to Bus District	*21-PW-10*	4	11,000					*11,000*
Concrete Line 60" CMP Under Roe Blvd	*24-PW-002*	6			438,000			*438,000*
Other Sources Total			11,000		438,000			*449,000*
Partner City								
Community Center- Parking Lot & Drainage Improve.	*20-CCtr-004*	8	203,000					*203,000*
2024 CARS- Mission Rd from 47th St to 53rd St	*24-PW-004*	6			51,250			*51,250*
Partner City Total			203,000		51,250			*254,250*
GRAND TOTAL			4,591,995	7,769,024	3,347,857	3,598,300	1,782,100	*21,089,276*

Adding the Condition Score to the Project Importance Score generates the Total Project Score, the higher the score the higher the priority.

Condition/Opportunity Score	
5	Imminent need/emergency or Special opportunity (grants available)
4	Existing need; failing infrastructure requiring continual repair or Part of Strategic Plan (Poor Condition)
3	Developing need; infrastructure showing signs of decay (Fair Condition)
2	Growing demand; use intensifying and function decreasing
1	Future need due to growth or anticipated deterioration (Good Condition)

Project Importance Score							
Streets		**Storm Drainage**		**Sidewalk/Trails**		**Buildings/Amenities**	
		Addresses Property Loss and Safety Concerns Due to Flooding		Addresses Safety & ADA Requirements/Connects to Public Places		Renovations/Repairs/Replacement	
Arterial	4		4		4		4
Collector	3	Maintaining existing systems-Regional	3	Part of Regional Plan or Improves Connectivity	3	Additions	3
Residential	2	Maintaining existing systems-Drainage Basin	2	Commercial Area	2	New Facility	2
Dead End	1	Adding enclosed systems	1	Residential Area	1		

Item Number: **DISCUSSION ITEMS- I.-3.**
Committee Meeting Date: **4/18/2022**

City of Roeland Park

Action Item Summary

Date:	4/11/2022
Submitted By:	Donnie Scharff, Director of Public Works
Committee/Department:	Public Works
Title:	**Review & Discuss Tree Inventory Proposals - 10 min**
Item Type:	Discussion

Recommendation:

Review tree inventory proposals with council. Staff is seeking direction to complete inventory of public trees only or to include frontage trees.

Details:

Staff issued an RFP for proposals to provide a tree inventory for two options:

1. Inventory Public ROW trees 11 feet from back of curb
2. Inventory Public ROW Trees from 11 feet behind back of curb to front face of home, full width of lot.

Five proposals were received on April 8th. Arbor Masters, Davey Resource Group, Planit Geo, CNUC and Wiregrass Ecological Associates. The cost per proposal is below:

- **Arbor Masters** - $28,000 for Public ROW Trees (estimated 2,000 trees), $36,000 for Front Yard trees (estimated 4,000 trees), Tree Inventory Software - Arbor Pro (Annual Maintenance Fee is $650)
- **Davey Resource Group** - $4.79 per tree for Public ROW Trees (estimated 2,000 trees= $9,580) $4.79 per tree for Front Yard trees (estimated 4,000 trees= $19,160) Tree Inventory Software - Tree Keeper (free one year subscription with annual renewal cost of $2,500)
- **Planit Geo** - $12,000 or $6 per tree for Public ROW Trees (estimated 2,000 trees) $28,000 or $7 per tree for Front Yard Trees (estimated 4,000 trees) Tree Inventory Software - Tree Plotter (first year free with annual maintenance fee of $3,500)
- **CNUC** - $7,760 or $3.88 per tree for Public ROW Trees (estimated 2,000 trees) $15,520 or $3.88 per tree for Front Yard Trees (estimated 4,000 trees) Tree Inventory Software - Fulcrum ($33 per month)

- **Wiregrass Ecological Associates** - $9,000 or $4.50 per tree for Public ROW Trees(estimated 2,000 trees) $18,000 or $4.50 per tree for Front Yard Trees(estimated 4,000 trees)

After review of of the proposals, staff would recommend proceeding forward with Wiregrass Ecological to provide the tree inventory. Wiregrass Ecological has been in business for over 18 years and has provided similar tree inventories. Their experience in GIS, project schedules, completion deadlines, and data delivery play a vital role in assisting the city with achieving our goal. Wiregrass Ecological staff are certified arborists and Tree Risk Assessment Qualified(TRAQ) and also hold multiple certifications

Wiregrass Ecological utilizes GIS software is similar to JOCO AIMS. Multiple options of data sets can be used to track maintenance of trees, addition or removal of trees, assign users, and the software can be used in the field to get accurate up to date collection data.

Attached is the scoring criteria that staff used to rate each proposal to determine the best fit for the goals that Roeland Park would like to achieve.

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

ATTACHMENTS:

Description	Type
Proposal Ranking Sheet	Cover Memo
Arbor Masters Proposal	Cover Memo
Davey Resource Group Proposal	Cover Memo
Planit Geo Proposal	Cover Memo
CNUC Proposal	Cover Memo
Wiregrass Ecological Associates	Cover Memo

	Maximum Points	FIRM Arbor Masters	FIRM Davey Resource Group	FIRM Planit Geo	FIRM CUNC	FIRM Wiregrass Ecological
1. **Qualifications and Experience**: Company qualifications including relevant experience of project team; including expertise and management experience of proposed Project Manager o Knowledge, experience and demonstrated success on municipal street tree inventory or substantially similar projects o Relevant references	30	21	26	25	19	24
2. Demonstration of understanding of the project description = Proposed work plan to be performed to successfully meet the City's goals	30	24	24	26	25	25
3. Cost Proposal	25	15	22	20	23	22
4. **Schedule & Availability** (Estimated start & completion of project)	15	10	12	11	15	15
	100	70	84	82	82	86
Notes		most exspensive	Experienced	4-5 arborists assigned	Least exspensive	Multiple Certifications
		Tree Software - $650 Annually	Tree Software - 1 year free	Total Cost - $40,000	2-3 week completion	2-3 week completion
		Completion of 8/31/2022	$2,500 annual Fee after	Tree Software - 1 year free	$3.88 per tree/$23,280	$4.50 per tree/$27,000
		$28,000 for Public Trees	6 week completion time	$3,500 annual fee after	Tree Software - $33/mo	City can house collected
		$36,000 for Front Yard Trees	$4.79 per tree/$28,750	Completion in August	per used	data with AIMS Mapping
		Total Cost - $64,000	Indicates 7,500 trees	$6-$7 per tree		

	30 Point Question	30 Point Question	25 Point Question	15 Point Questions
Outstanding	25 - 30	25 - 30	21 - 25	11 - 15
Exceeds Acceptable	20 - 24	20 - 24	16 - 20	8 - 10
Acceptable	12 - 19	12 - 19	11 - 15	6 - 7
Marginal	0 - 11	0 - 11	0 - 10	0 - 5

Arbor Masters®

April 8, 2022

The City of Roeland Park
Director of Public Works
City of Roeland Park, Kansas

Thank you for the opportunity for Arbor Masters to present the following proposal for the Public Right of Way & Front Yard Tree Inventory & Assessment Project.

As a leader in the tree care industry for over 65 years, Arbor Masters has specialized in caring for the Urban Forest, by working side by side with Municipal and Association partners to develop and maintain effective and sustainable Tree Care Programs.

Our relevant references and team qualifications give excellent examples of our expertise and experience in the collection, management, and communication of necessary data to achieve maximum results.

Arbor Masters dedication and commitment to our customers is the foundation of our core values.

Thank you for the opportunity to bid on this project and we look forward to working with you.

Sincerely,

Mark Cantrell

Mark Cantrell
Vice-President
Arbor Masters

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Trees Trust Us

Public Right of Way & Front Yard Tree Inventory
City of Roeland Park, Kansas

April 8, 2022

Presented by:
Arbor Masters
8250 Cole Parkway
Shawnee, KS 66227

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Company Resume

Daniel Cottier

- Board Certified Master Arborist #RM-7158BUTML
- Registered Consulting Arborist #530
- Certified Treecare Safety Professional #02189
- ISA Tree Risk Assessment Qualified
- Certified Arborist Municipal Specialist
- Certified Arborist Utility Specialist
- Commercial Pesticide Applicator (TX, OK, KS, MO)

Daniel has implemented complex inventory operations, leveraged technology, and communicated with supported entities to drive efficiencies and ensure accuracy in recorded data. Daniel has extensive experience with both government and private sector stakeholders on large-scale city contracts. Daniel has experience with TreePlotter, ArborPro, Urban Forest Metrix and TreeKeeper inventory software.

Daniel has received certificates in Geographical Information Systems, Natural Resources Geographical Information Systems, and GIS Fundamentals from Front Range Community College.

In addition to Daniel Cottier, Arbor Masters has a list of in-house Certified Arborists as additional project support:

Mark Cantrell
Vice-President – Arbor Masters

- ISA Certified Arborist MW-0260A
- Certified Treecare Safety Professional

Brian Rex
Tree Division - Sales

- ISA Certified Arborist MW-4269A

Lisa McGrew
Tree Division - Sales

- ISA Certified Arborist MW-5078A

Tom Bornaman
Tree Division - Sales

- ISA Certified Arborist FL-0319A

Jacquelyn Palmer
Plant Care Division

- ISA Certified Arborist MW-6295A

Philip Ingram
Contract Manager – Dallas/Fort Worth Metro Area

- ISA Certified Arborist TX-4606A
- ISA Tree Risk Assessment Qualified

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Knowledge and Demonstrated Experience

Arbor Masters can demonstrate a knowledge of tree identification, health and understanding through recent contracts as listed below:

- **City of Roeland Park** **October 2021**
  GPS mapping of trees, species identification and tree evaluation for the City of Roeland Park, KS
  Donnie Scharff, Director of Public Works Tel: 913-722-5435

- **City of Kansas City, MO. Parks and Recreation EAB** **March 2022**
  Early assessment and identification of Ash trees for Emerald Ash Borer treatment
  Kevin Lapointe, City Forester Tel: 816-513-7776

- **Trinity Management** **May/June 2021**
  Creation of a comprehensive tree database of tree inventory-geo mapping and condition rating and tagging of trees within the boundaries of the Pine Brooke Condominium.
  Kyle Blackman, Trinity Management Tel: 913-890-2314

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Relevant References

- **Trinity Management** **May/June 2021**
  Creation of a comprehensive tree database of tree inventory-geo mapping and condition rating and tagging of trees within the boundaries of the Pine Brooke Condominium.
  Kyle Blackman, Trinity Management Tel: 913-890-2314

- **City of Kansas City, MO. Parks and Recreation EAB** **March 2022**
  Early assessment and identification of Ash trees for Emerald Ash Borer treatment
  Kevin Lapointe, City Forester Tel: 816-513-7776

- **Leawood Estates** **2012 to present**
  Assessment, identification, and evaluation of trees for maintenance on a continuous basis.
  Doug May, Property Manager Tel: 913-221-9588

- **Leawood Homes Association** **2018 to present**
  Evaluation of trees within the HOA for overall health and continued maintenance
  Bruce North, Property Manager Tel: 913-648-8902

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Schedule and Availability

The proposed schedule for tree inventory of the Public Right of Way and Front Yard Trees for the City of Roeland Park is as follows:

Public Right of Way:

- Perform tree inventory Spring 2022
- To be completed by May 31, 2022

Front Yard Trees:

- Perform tree inventory Summer 2022
- To be completed by August 31, 2022

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Work Plan

Our team of Certified Arborists will divide the city into quadrants and provide a systematic rotation of personnel to identify, evaluate and inventory all trees in accordance with the map provided by the City of Roeland Park. Arbor Pro software will be utilized unless otherwise specified by the City of Roeland Park. It is used throughout the country by numerous homeowner associations municipalities, universities, and parks departments due to its ease of use; ArborPro can be used on any web-enabled device. Data is securely stored online in the cloud allowing for real time updates in the field. Users are provided an immediate visual representation of any tree in the Urban Forest through the utilization of the latest in GIS (Geographic Information System technology).

Arbor Pro Inventory

- Location and feature(s) to be collected: All trees with a diameter of 12" or greater at Breast Height in the street right-of-way (presumed to be within 11 feet behind back of curb); All trees with a Diameter of 12" or greater at Breast Height in the front yard of each property (front yard presumed to start 11 feet back of curb and run to the front face of the building on the lot, running the full width of the lot).
- Objective(s): Determine population size and characteristics; Assess tree risk; Determine maintenance needs.
- Recorded attribute(s): Location; Species; Diameter; Height; Spread; Condition; Observation; Image; Maintenance (Public Trees Only).
- Time frame for completion: Spring 2022 (May 31) for Public Right of Way Trees; Summer 2022 (August 31) for Front Yard Trees.

Work Plan/Software: Tree features will be recorded by local Certified Arborists easily identified in company uniforms and utilizing high visibility safety vests who are knowledgeable in regional tree species, abiotic, insect and disease problems using data connected tablets, diameter measuring tape, laser range finders and digital cameras. Inventory arborists will travel to work sites using company vehicles and observe trees on foot to ensure accurate measurements and a 360 degree walk around of tree.

Location attributes will be in latitude and longitude format placed manually over aerial imagery. Both common and botanical name (genus and species) will be collected. Trunk diameter will be measured in inches at 4.5' above ground level. In the case of multiple trunks, each trunk will be measured and totaled if split is below 12" from ground. If above 12" from ground, trunk will be measured below split. Tree height will be measured using laser range finder and estimated to the closest 5' at its tallest point.

Tree spread will also be estimated to the closest 5' as an average of the longest and shortest width. An image of the overall tree will be captured using a digital camera taken from the most unobstructed angle away from traffic hazards. Insect, disease, and abiotic impacts will be recorded in the Observations field and limited to the disorder with the most impact on tree health or structure. Condition of tree will be evaluated in accordance with the ISA rating system. Primary maintenance needs will be evaluated in accordance with City of Roeland Park contract for ROW trees only.

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Project Pricing

Collection Cost per Public Right of Way trees
(Within 11 feet behind back of curb) based on estimated 2,000 trees:

$ 28,000.00

Collection Cost per Front Yard trees
(From 11 feet back of curb to front face of building on full width of lot) based on estimated 4,000 trees:

$ 36,000.00

Annual Maintenance Fee for Tree Inventory Software Access

$ 650.00

Proposal for:

Public Right of Way and Front Yard Tree Inventory

Prepared for:

The City of Roeland Park

4600 W. 51st St.
Roeland Park, Kansas 66205

Proposal Date: April 7th, 2022

DAVEY Resource Group

Prepared by:

Jacob McMains, Area Manager
Davey Resource Group, Inc.
3507 Zinnia Drive, Columbia, Missouri 65202
C. 660.287.5773/TF. 800.828.8312

"Solutions through Innovations and Expertise"

Introduction

Trees are part of everyday life in the City of Roeland Park. The city's urban forest creates a sense of place and supplies real benefits to those who live in Roeland Park. Trees along streets, in parks, around playgrounds, and in backyards provide shade and beauty and enhance the quality of life in Roeland Park by bringing natural elements and wildlife habitats into urban settings. Trees also moderate temperatures, reduce air pollution and energy use, improve water quality, and promote human health and well-being. Davey Resource Group, Inc. "DRG" understands the benefits trees bring to your community. We also realize the challenges that come with managing public trees.

About Davey Resource Group, Inc.

For over 25 years, DRG has inventoried trees throughout the United States. We know that the data collected during a tree inventory are critical to helping you manage your urban forest proactively and better mitigate tree-related risk. Since you rely on the inventory to make important decisions, DRG uses only qualified, experienced staff who are knowledgeable of both industry standards and the municipal work environment.

Trees bring natural elements and wildlife habitats into urban settings and they also moderate temperatures, reduce air pollution and energy use, and improve water quality.

Urban Forest Experts

We are pleased to introduce DRG and our team of urban forest experts to the City of Roeland Park and present our qualifications for providing tree inventory services. DRG's team will provide you with solutions you can count on for building and maintaining tree canopy in a manner that not only enhances community aesthetics and public safety but also improves the community's environmental and social well-being through trees.

Our team consists of International Society of Arboriculture (ISA) Certified Arborists, urban and traditional foresters, urban planners, Geographic Information Systems (GIS) and Information Technology (IT) specialists, and ecological scientists. We have experience working with a wide variety of clients, including municipalities, parks, commercial complexes, and utilities, and have the knowledge, certifications, and training required to complete Roeland Park's project on time and budget while exceeding the city's expectations.

We understand that the information in a tree inventory database helps you to complete your daily work more efficiently and allows you to:

- Respond to inquiries and requests about trees
- Quickly find trees when you need to schedule work
- Keep maintenance records up to date
- Make data-driven decisions; be accountable for actions and justify decisions
- Showcase the benefits of your urban forest
- Follow public record or "sunshine" statutes and laws

Natural Resource Management

DRG's Environmental Consulting team is your committed partner for natural resource planning and management. With 22 local offices and a national footprint, we offer a wide and growing variety of consulting services (in addition to urban forestry) including wetlands and stream studies, environmental design and ecosystem restoration, stormwater management and compliance, and invasive species management.

We understand the complex ecosystems, resource challenges, and regulatory concerns that impact the success of any environmental project. No matter the location—dense city core or a remote rural site—we leverage our creativity and expertise to deliver reliable, turn-key environmental consulting services. We combine the latest technologies with time-tested techniques to provide high-quality results in a timely and professional manner.

Facts & Figures

1/2 million
TREES INVENTORIED ANNUALLY

450
URBAN FOREST PLANS DEVELOPED

600+
TREEKEEPER® CLIENTS

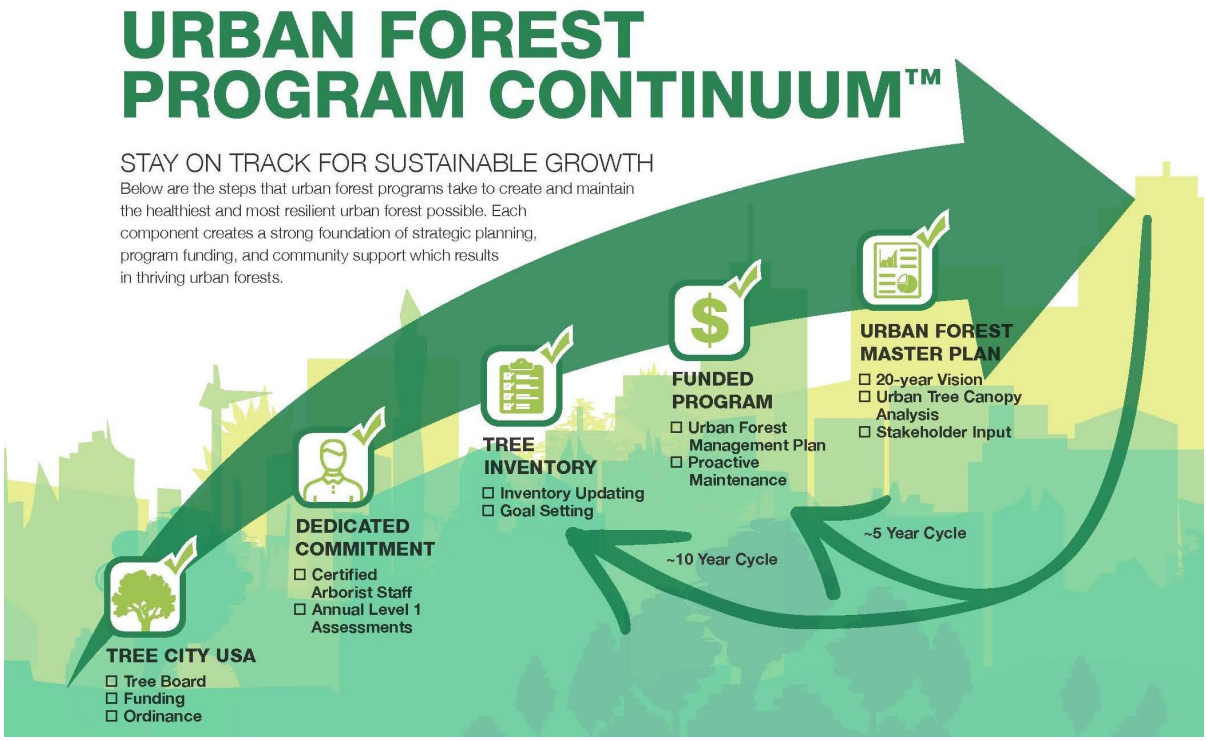
100
UTC ASSESSMENTS SINCE 2008

100+
CLIENTS HIRE DRG ANNUALLY

A Trusted Partner and Supporter of Arboriculture

Davey is a trusted partner of the United States Department of Agriculture (USDA) Forest Service and the Arbor Day Foundation, and a long-time supporter of the ISA and its local chapters. Davey is a founding partner with the USDA Forest Service of the i-Tree software.

Davey staff helped to develop and revise the American National Standards Institute (ANSI) standards for arboriculture, including tree risk assessment, and drafted some of ISA's best management practices. Davey also works with the Tree Care Industry Association (TCIA), as safety is priority one for the Davey Company. Recently, DRG created the Urban Forest Program Continuum to help our clients gauge and grow their tree management programs.



Davey Resource Group has proven solutions to help Roeland Park launch its program forward along the Urban Forest Continuum.

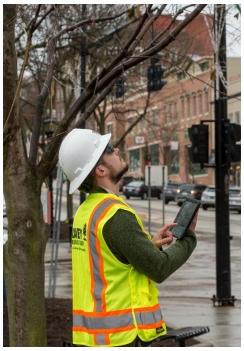
DRG's Focused Urban Forestry Services

TREE INVENTORY

Whether inventorying one tree or hundreds of thousands of trees, DRG tailors each inventory to meet your specific program needs and project budget.

TREEKEEPER® SOFTWARE

Developed, maintained, and supported by DRG's in-house IT professionals, TreeKeeper® is easy-to-use, web-based software used to manage, share, and update inventory data.



URBAN FOREST PLANNING

Whether Roeland Park needs help managing the city's trees daily or reaching overarching goals for the urban forest, our team has the experience, tools, and ability to help Roeland Park achieve both its short- and long-term goals. DRG develops management and master plans as well as storm preparedness, tree protection, woodlot, and invasive species management plans.

GIS

With GIS specialists in-house, we can map the city's urban tree canopy (UTC) cover as well as estimate tree benefits, model canopy grow out, analyze the spatial distribution of available planting space, and predict the impact of threats to the tree canopy.

STAFFING

If Roeland Park does not have an urban forester or needs help with program management or projects, DRG's experienced ISA Certified Arborists work on-call, perform project work, or work as part-time or full-time contract staff.

TREE BENEFITS

As a developer of i-Tree, DRG knows how to use i-Tree Tools to highlight the benefits of your trees.

Experienced Staff

DRG may assign the following team members to Roeland Park's project. Their experiences and credentials prove that they have the qualifications needed to work for the city.

Management

Jacob McMains is the Missouri area manager and consulting forester with DRG. Mr. McMains manages the planning and coordination of multiple forestry projects throughout the Midwest. His primary responsibilities include: training staff, quality control, technical consulting, tree risk assessments, tree preservation activities, tree/timber appraisals, arboricultural training, urban wood utilization investigations, expert witness testimony, outreach and educational programs, and a variety of plan writing. Mr. McMains has experience in traditional forestry, community forestry, and utility forestry.

Mr. McMains also regularly consults on a variety of urban and traditional forest management activities. Focus areas include cost-share assistance, insect/disease diagnosis, tree planting plans and inspections, grant and ordinance interpretation/writing, and assistance in obtaining Tree City USA status through the National Arbor Day Foundation.

Prior to joining the Environmental Consulting team, Mr. McMains served as a utility forester with DRG. He has also worked for the Missouri Department of Natural Resources and the Missouri Department of Conservation.

Throughout his career, Mr. McMains has engaged with diverse partners, from grassroots volunteer groups—such as local tree boards—to national organizations like the Arbor Day Foundation and the USDA Forest Service. Mr. McMains is an International Society of Arboriculture (ISA) Certified Arborist and has an ISA Tree Risk Assessment Qualification (TRAQ)

Field Staff

Reid Gibson is a project manager with DRG. As an ISA Certified Arborist, Municipal Specialist and Tree Risk Assessment Qualified (TRAQ) professional, Mr. Gibson specializes in urban forestry consulting projects for federal and state agencies, municipalities, parks, universities, golf courses, and cemeteries. Much of his work focuses on inventory data collection, data quality assurance, training new staff, safety leadership, project communication, and customer service. Mr. Gibson has worked on and managed more than 50 inventories across the United States and Canada, gaining him extensive knowledge of GIS-based data collection and GPS technology, tree and palm identification, and tree risk assessment. Mr. Gibson is also proficient in the use of Davey's TreeKeeper® suite of software for inventory management, the United States Forest Service i-Tree, and writing community forest management plans involving inventory analysis and urban tree canopy assessment land cover data. He has a bachelor's degree in natural resources and environmental sciences from the University of Illinois at Urbana-Champaign.

Related Projects and References

DRG listed eight projects to demonstrate our ability to complete a similar scope of work to that proposed by Roeland Park. These experiences show that DRG can:

- Undertake, manage, and complete an inventory project.
- Accurately inventory trees.
- Provide data in specified formats.
- Assess tree risk following ANSI standards and industry best management practices.
- Provide qualified staff with experience inventorying trees and assessing tree condition & risk.
- Provide solutions that address the needs of our clients.

Contact DRG for more examples of our work.

Client: City of St. Charles, Missouri
Contact: Peter Van Linn, 636.949.3383
Project: Park Tree Inventory and Management Plan

In 2017, DRG completed a multi-park tree inventory for the City of St. Charles. The city was particularly interested in understanding the risk associated with their large oak tree population. The park manager also needed a robust software program that could manage work orders, communicate tree benefits to the public, and track the large number of memorial trees planted throughout the park system. DRG mapped and assessed 4,800 trees within 31 different park sites. The TreeKeeper® software allows the city to easily find information about the entire tree population or run specific reports about the specific details in a select park.

Client: City of St. Louis, Missouri
Contact: Gerald Overmann, 314-613-7238
Project: 5-Year Street Tree Inventory with Ward Inventory Summary Reports

DRG was selected based on qualifications to perform a five-year phased street tree inventory. By working in partnership with the city, DRG was able to develop a five-year phased approach that allowed for the completion of five wards to be inventoried annually. This approach involved the data collection of approximately 18,000 trees per year with a grand total of almost 100,000 trees being inventoried. Upon completion of each ward, DRG also completed an Inventory Summary Report with a tree inventory analysis and i-Tree benefit information. This report facilitates better communication with each alderman as to what the tree condition is in their respective ward. Upon completion of each ward, Davey delivers the data into the city's CityWorks system which enables the city to have a complete street tree inventory.

Client: City of Brentwood, Missouri
Contact: Eric Gruenenfelder, 314.963.8681
Project: On-Call Supportive Urban Forest Tree Care Services

DRG accepted a five-year contract to provide comprehensive urban forestry services to the City of Brentwood, Missouri. Davey first updated the combined street and park tree inventory and developed a forestry management plan that focussed on risk mitigation, critical deferred maintenance, increased species diversity, and proactive strategies to combat emerald ash borer. The city then relied on DRG for project support, including identifying priority removals and pruning, selecting and tagging trees in the field for replanting efforts, updating the TreeKeeper® inventory software, and coordinating Davey crews to complete requested work. Individual consults, advanced tree risk assessments, public outreach, and rapid emergency response are also included in the contracted services. Through this broad ongoing partnership, DRG can promptly respond to any tree-related support needed to help the city officials achieve their urban forestry goals.

Client: City of Grantwood Village, Missouri
Contact: Laura Yates, 314-609-2576
Project: Street and Park Tree Inventory with Report and Mapping

DRG was selected, based on qualifications and cost, to perform a tree inventory of street and park trees, along with stumps, and vacant planting sites in the Grantwood Village in 2018. By working in partnership with the city, DRG was able to complete data collection of the entire community. Upon completion, DRG also completed a management plan with a tree inventory analysis, 5-year budgetary projections, and i-Tree benefit information. Additionally, a wall map and map booklet detailing site location and information was provided to the client.

Client: City of Sedalia, Missouri
Contact: Elizabeth Nations, 660-827-3000
Project: 10-Year Street and Park Tree Inventory with Reports

DRG has been selected annually, based on qualifications and cost, to perform multiple phases of tree inventory. By working in partnership with the city, DRG was able to develop a multi-year, phased approach that allowed for the completion of approximately 20% of the total population to be inventoried annually. This approach involved the data collection of approximately 1,800 trees per year with a grand total of almost 10,000 trees being inventoried. Upon completion, DRG also completed an Inventory Report with a tree inventory analysis and i-Tree benefit information.

Client: City of Shrewsbury, Missouri
Contact: Beth Parker, 314-647-1811
Project: Street and Park Tree Inventory with Report

DRG was selected, based on qualifications and cost, to perform a tree inventory of street and park trees and stumps in the City of Shrewsbury in 2019. By working in partnership with the city, DRG was able to complete data collection of the entire community. Upon completion, DRG also completed a management plan with analysis, 5-year budgetary projections, and i-Tree benefit information. Additionally, the city also received a free year of TreeKeeper® software with the inventory project.

Client: City of Des Peres, Missouri
Contact: Brian Schaffer, 314-835-6150
Project: Street Tree Inventory

DRG was selected, based on qualifications and cost, to perform a tree inventory of street trees and stumps in the City of Des Peres in 2019. By working in partnership with the city, DRG was able to complete data collection of the entire community's street tree population. Upon completion, the city received a free year of TreeKeeper® software with the inventory project.

Client: City Maplewood, Missouri
Contact: Tiffany Hyde, 314-645-3600
Project: Street Tree Inventory

DRG was selected, based on qualifications and cost, to perform a tree inventory of ROW trees and stumps in the City of Maplewood in 2020. By working in partnership with the city, DRG was able to complete data collection of the entire community's street tree population. Upon completion, the city received a free year of TreeKeeper® software with the inventory project and a summary of the inventory data.

Project Pricing

Tree Inventory

- ❑ Computerized inventory data collection of Public Right of Way Trees (within 11' of the back of curb) for a cost of: **$4.79/tree**
- ❑ Computerized inventory data collection of Public Right of Way Trees (from 11' of the back of curb to the front face of building on full width of lot) for a cost of: **$4.79/tree**

TreeKeeper® Software - Free One-Year Trial

- ❑ One-year subscription **Free**

During data collection, tree inventory data will be available for clients to view with compatible computer systems via our TreeKeeper® software. Clients agreeing to receive our promotional offer receive one free year of TreeKeeper® service beginning on the last day of the month of the inventory data release and ending 365 days later. DRG also supplies one year of telephone software support. DRG offers no discounts if Roeland Park refuses the promotional software service offer.

TreeKeeper® Software - Renewal Fees (Optional)

The inventory data are the property of Roeland Park, and there is no obligation to extend the software beyond the one-year complimentary service. Should Roeland Park wish to continue using TreeKeeper®, the following fees apply. DRG locks in the renewal fee at the prices listed below if the subscription does not lapse.

- ❑ **One-year subscription** **$2,500/yr.**
- ❑ **Three-year subscription** **$6,250/3yrs.**
- ❑ **Five-year subscription** **$10,000/5yrs.**

This proposal is valid for 60 days.

Scope of Services

This project is an integral part of Roeland Park's comprehensive tree care program. The results of this project will help Roeland Park better understand the composition, structure, and maintenance needs of its urban forest, allocate resources, develop risk management strategies, and promote the ecosystem benefits the city's trees provide to the local community.

The proposed project has the following key components:

1. **Tree Inventory.** The project is a GIS-based inventory of up to 6,000 maintained trees found along public rights-of-way (ROW) and front yard setback areas designated by the city. The inventory consists of DRG's urban foresters locating trees and recording the specified information about each tree in the inventory database. DRG bases our tree inventory on the *ANSI A300 Part 9* standards.

2. **Tree Management Software.** DRG offers a free, one-time, one-year trial of our TreeKeeper® Software. DRG delivers Roeland Park's inventory data in TreeKeeper® and as ESRI® shapefiles and an Excel™ Spreadsheet.

Project Approach

The following sections describe DRG's overall approach, or methodology, for accomplishing Roeland Park's scope of work. We included a plan of work for the tree inventory and explained the technologies used to complete the inventory and an overview of our TreeKeeper® software. To illustrate the strength and experience of the DRG team, we provided a few representative staff biographies and project references.

Dedicated to Safety

Safety is the number one priority of DRG. To ensure the safety of DRG's workers and those traveling nearby, DRG uses the following Personal Protective Equipment (PPE): ball caps, high-visibility safety vests, safety glasses, and over-the-ankle boots.

Davey has provided Proven Solutions for a Growing World since 1880 and has been employee owned for 38 years.

Tree Inventory Work Plan

To ensure that the tree inventory meets the city's goals and deadlines, DRG uses the following work plan.

Step 1. Communication

From project beginning to end, DRG staff keep open lines of communication with Roeland Park via telephone, e-mail, and, as needed, in-person meetings. DRG answers any questions Roeland Park has as well as keeps the city apprised of the project's progress.

Step 2. Contract Phase

Once awarded the project, DRG executes a contract and supplies insurance per project specifications.

Step 3. Data Mining and Hardware Programming

The next step in the inventory process is to obtain the GIS data and imagery needed to set up the field computers used for data collection. DRG's urban foresters typically work with the city's GIS or planning department to complete this step. If necessary, we can get imagery from other public sources. DRG uses the data fields defined in this proposal and the imagery, maps, and data files obtained from the city and various sources to program the data collection software and field computers. At this time, we may contact you by phone to confirm the data attributes.

Step 4. Kick-Off Meeting

DRG staff will contact the city after contract execution to schedule a kick-off meeting. During the kick-off meeting, Roeland Park's staff and the DRG project team discuss inventory safety and communication procedures and confirm project expectations and milestones. If possible, DRG's urban foresters assess a few trees with city staff to ensure consistent assessment results.

Step 5. Data Collection

DRG typically begins data collection after the kick-off meeting. Our experienced, qualified urban foresters locate trees along maintained street ROWs, evaluate those trees, and record the data specified by the city. The collected data, once finalized, are Roeland Park's tree inventory database.

Location Accuracy

DRG uses field computers and equipment that meet or exceed this project's location accuracy requirements. Having worked on thousands of tree inventory projects, DRG has found that using a combination of GIS and a customized data collection program provides the most exact data and the most efficient means for inventorying trees. DRG uses our in-house designed GIS software tool in conjunction with ruggedized computers with a GPS receiver to collect inventory data. Under favorable conditions, the equipment allows for sub-meter location accuracy of point data.

Individual Tree Inspection Process

During data collection, DRG's urban foresters walk by each tree and inspect the tree from the ground. Based on the conditions at the time of the inspection, DRG's staff identify the tree's species and its location, measure tree diameter, and rate its health. DRG's urban foresters also suggest the specific maintenance as well as collecting all other information at this time. When data collection for an individual tree is complete, DRG's urban foresters walk to the next tree and follow the same steps, in the same order, to ensure consistent data collection.

DRG formally routes the collection of inventory data to ensure that staff collect all the sites in the project area in a systematic manner. Throughout the inventory process, DRG maps the streets inventoried and shares that information with the city. DRG also tells Roeland Park where staff intend to collect data next. DRG's urban foresters collect data Monday through Friday and often on weekends with our clients' permission.

Data Fields

For Roeland Park's inventory, DRG will collect the following data fields specified in the city's Request for Proposal (RFP):

1. Location
2. Species (common & Latin w/ genus)
3. Tree size (DBH in inches)
4. Tree Height (in 5ft increments)
5. Canopy Spread (in 5ft increments)
6. Overall Condition
7. Picture of Tree
8. Insect and Disease Observations
9. Primary Maintenance Need
10. Date of inventory

The data fields listed above are proposed by Roeland Park and will provide the City with ample information to manage their trees proactively.

Upgrading the Inventory

In addition to collecting trees, DRG can inventory other infrastructure that Roeland Park might be managing, such as shrub rows, woodlots, natural or environmentally sensitive areas, irrigation boxes, benches, signage, and turf. DRG's urban foresters can also take and link pictures to tree records. DRG can upgrade the city's inventory by changing the current scope of work or by further developing the project to have additional phases. If Roeland Park is interested in learning more about options for upgrading the inventory, contact DRG for information and fees.

Step 6. Inventory Close-Out

At the end of the inventory project, DRG supplies a one- to two-page project close-out report which spells out the number and types of sites collected, provides information about the species composition and diameter size class distribution, and shows the amount and type of maintenance recommended during the inventory. We provide the report in PDF format within four weeks of inventory completion.

Tree Inventory Data Delivery

For this project, Roeland Park will receive all tree inventory data through DRG's TreeKeeper® software. As part of our one-time software trial, DRG provides a one-year subscription to TreeKeeper® software to Roeland Park free of charge. The City also receives one year of telephone software support, also free of charge for the first one-year period.

- To access TreeKeeper®, use Safari® on an iOS device or via Google Chrome™ on a Windows® or Android device; the secure login information DRG provides to the City.

- Once using TreeKeeper®, Roeland Park can view and use the inventory data and download the data in a variety of formats, including CSV/Excel™ and ESRI® shapefile formats.

DRG offers custom software training for an added fee; contact DRG to learn more about our training programs, which can earn attendees up to eight ISA continuing education units (CEUs)

Other Formats

If Roeland Park needs the inventory data in different formats, such as Google Earth's KML, AutoCAD®, or i-Tree, or for a particular asset management software program like CityWorks, or Cartegraph, DRG can supply the inventory data in those formats for an added charge. Please contact DRG for more information about data formatting options and fees.

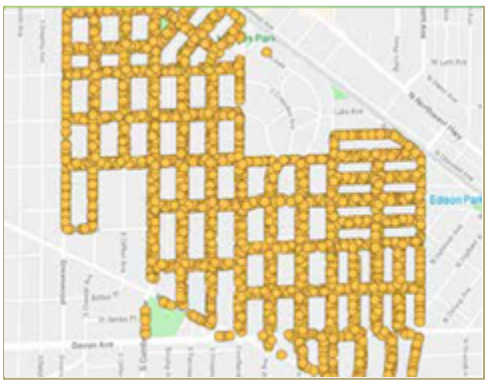
Quality Control and Assurance

WE TAKE YOUR DATA SERIOUSLY

From the project's start to its finish, DRG focuses on the experience the city has working with DRG and the quality of the project's deliverables. To ensure a good working relationship throughout the project, DRG collaborates with Roeland Park early on to schedule fieldwork and meetings at mutually agreeable times and determine protocols for addressing questions and concerns that arise during data collection. DRG's staff also stay in contact with Roeland Park's staff during all phases of the project to keep the city informed of the project's status. The following is an example of an inventory progress update, e-mailed on a set schedule such as weekly or bi-weekly, from DRG's urban forester to the client.

INVENTORY PROGRESS UPDATE E-MAIL

Dear Valued Client:



Below is a recap of last week's inventory progress.
So far, we have inventoried 3,161 sites. The map (right) shows our progress in Zone C. We also had a chance to do some in-the-field quality assurance last week (bottom). We audited 1% of the data collected last week and found no critical errors.

We expect to wrap up data collection later this week. We predict that the remaining streets will have the same tree density, although the road running along the train tracks in the northeast may have slightly more trees. In all, we think that the total site count will be close to the pre-project estimate of 3,800 sites. We will keep everyone apprised if this expectation changes.

Katie will be on the ground this week, and Pete may come out to help with collection. If needed, they can be available for an in-person closing meeting. Otherwise, we can include the final site count and notes in a close-out e-mail.

As far as data delivery, we expect it will take a few days for GIS quality control checks after data collection is complete. We will follow up with an e-mail when your final inventory dataset is available in TreeKeeper®. If you have any questions or concerns, please reach out to me.

Thanks, Your DRG Urban Forester

Inventory Statistics				
Site Count to Date		Percent Complete	Estimated Total Site Count	
3,161		83%	3,800	
Quality Assurance				
Overall Critical Error Score	Target Critical Score	Target Non-Critical Error Score	Target Non-Critical Score	Percent Audited
100%	98%	97.87%	95%	1%

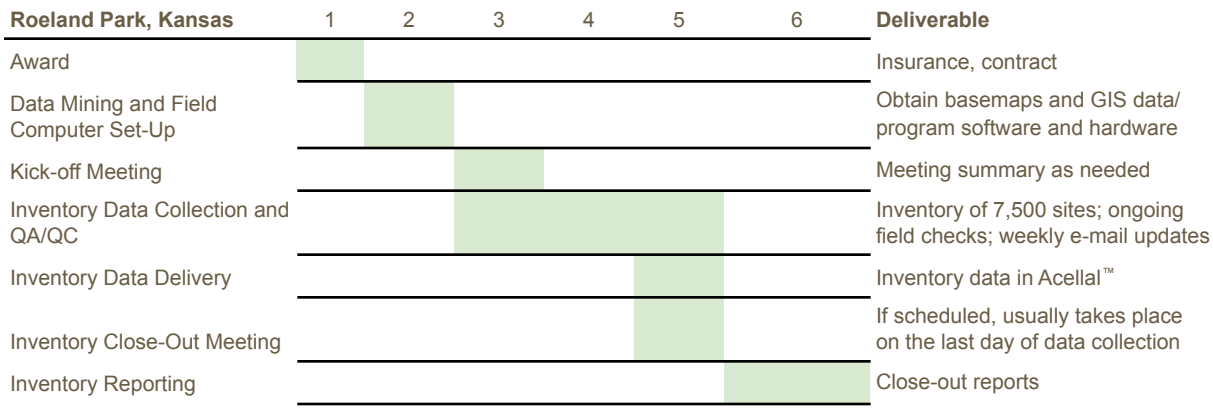
In addition to providing an excellent client experience and thorough communication, DRG takes measures to ensure the delivery of the entire scope of work. DRG's business development staff review the project's scope and provide a data specification, based on the project's contract, to DRG's in-house development team. DRG's development team consists of the inventory's project manager, and GIS and IT specialists. DRG's inventory project manager reviews the scope of work again to ensure that the data fields and input codes match Roeland Park's specifications. Once the project manager approves the data specification, then DRG's GIS and IT staff program the field computers for data collection. Before the kick-off meeting, DRG's project manager checks the field computers to make sure the computers are set up correctly and work properly. At the kick-off meeting, DRG reviews the project's work plan with the city, answers questions, and ensures that Roeland Park and DRG's urban foresters are on the same page concerning the project's expectations.

Quality control and assurance continues during data collection. DRG's project manager and urban foresters use hot and cold data checks during fieldwork and encourage Roeland Park to do so as well. DRG regularly updates Roeland Park on the project's status and makes the city aware of any situations that may need immediate attention. At the end of the project, DRG's IT specialists run computer diagnostics on the inventory data to make sure the data is clean. Finally, DRG answers any questions the city has about the data and our TreeKeeper® software and verifies Roeland Park's satisfaction with DRG's work.

Project Schedule, Tasks, and Deliverables

The following project schedule lists key tasks along with expected completion dates and deliverables. If the City's project schedule differs from what DRG projected, timeline adjustments can be discussed.

Project Schedule
(Weeks)



Client Responsibilities

1. Provide DRG with imagery, maps, and data files. Our request may include the following: digital orthophotographs, available GIS data layers, other electronic or paper copies of maps for roads, pavement widths, right-of-way widths, boundaries and utilities, and an electronic file or printed list of street names and endpoints.
2. Provide daily contact information and directions during the inventory project.
3. Provide a copy of any existing tree inventory database(s).
4. Coordinate and host a kick-off meeting before the start of fieldwork.
5. Agree to allow DRG to host Roeland Park's tree inventory data in TreeKeeper® software for one year. Terms and conditions apply.
6. Roeland Park accepts DRG's Limited Warranty and agrees that, upon award, this proposal and its attachments will be made a part of the Agreement.

Agreement

City of Roeland Park, KS

City of Roeland Park
4600 W. 51st St.
Roeland Park, KS 66205

Davey Resource Group, Inc.
Jacob McMains
3507 Zinnia Drive
Columbia, MO 65202

Proposal Date: April 7, 2022

ACCEPTANCE OF PROPOSAL: The above prices and terms and conditions and warranty are hereby accepted. I am authorized to bind Roeland Park and authorize Davey Resource Group, Inc. to perform the specified work. I am familiar with and agree to the terms and conditions appended to this proposal. I understand that once accepted this proposal constitutes a binding contract. This proposal is based on an estimated number of trees/sites to be inventoried. Davey Resource Group, Inc. reserves the right to renegotiate the price based on the timing of the award, scheduling of fieldwork, the final methodology chosen by the client, and availability, completeness, and quality of maps and GIS information.

Authorized Signature:_____

Name:_____

Date:_____

Total:_____

Please add up the costs of services and insert total on the line above.

Limited Warranty

Davey Resource Group, Inc. ("DRG") provides this limited warranty ("Limited Warranty") in connection with the provision of services by DRG (collectively the "Services") under the agreement between the parties, including any bids, orders, contracts, or understandings between the parties (collectively the "Agreement").

Notwithstanding anything to the contrary in the Agreement, this Limited Warranty will apply to all Services rendered by DRG and supersedes all other warranties in the Agreement and all other terms and conditions in the Agreement that conflict with the provisions of this Limited Warranty. Any terms or conditions contained in any other agreement, instrument, or document between the parties, or any document or communication from you, that in any way modifies the provisions in this Limited Warranty, will not modify this Limited Warranty nor be binding on the parties unless such terms and conditions are approved in a writing signed by both parties that specifically references this Limited Warranty.

Subject to the terms and conditions set forth in this Limited Warranty, for a period of ninety (90) days from the date Services are performed (the "Warranty Period"), DRG warrants to Customer that the Services will be performed in a timely, professional and workmanlike manner by qualified personnel.

To the extent the Services involve the evaluation or documentation ("Observational Data") of trees, tree inventories, natural areas, wetlands and other water features, animal or plant species, or other subjects (collectively, "Subjects"), the Observational Data will pertain only to the specific point in time it is collected (the "Time of Collection"). DRG will not be responsible nor in any way liable for (a) any conditions not discoverable using the agreed upon means and methods used to perform the Services, (b) updating any Observational Data, (c) any changes in the Subjects after the Time of Collection (including, but not limited to, decay or damage by the elements, persons or implements; insect infestation; deterioration; or acts of God or nature [collectively, "Changes"]), (d) performing services that are in addition to or different from the originally agreed upon Services in response to Changes, or (e) any actions or inactions of you or any third party in connection with or in response to the Observational Data. If a visual inspection is utilized, visual inspection does not include aerial or subterranean inspection, testing, or analysis unless stated in the scope of work. DRG will not be liable for the discovery or identification of non-visually observable, latent, dormant, or hidden conditions or hazards, and does not guarantee that Subjects will be healthy or safe under all circumstances or for a specified period of time, or that remedial treatments will remedy a defect or condition.

To the extent you request DRG's guidance on your permitting and license requirements, DRG's guidance represents its recommendations based on its understanding of and experience in the industry and does not guarantee your compliance with any particular federal, state or local law, code or regulation.

DRG may review information provided by or on behalf of you, including, without limitation, paper and digital GIS databases, maps, and other information publicly available or other third-party records or conducted interviews (collectively, "Source Information"). DRG assumes the genuineness of all Source Information. DRG disclaims any liability for errors, omissions, or inaccuracies resulting from or contained in any Source Information.

If it is determined that DRG has breached this Limited Warranty, DRG will, in its reasonable discretion, either: (i) re-perform the defective part of the Services or (ii) credit or refund the fees paid for the defective part of the Services. This remedy will be your sole and exclusive remedy and DRG's entire liability for any breach of this Limited Warranty. You will be deemed to have accepted all of the Services if written notice of an alleged breach of this Limited Warranty is not delivered to DRG prior to the expiration of the Warranty Period.

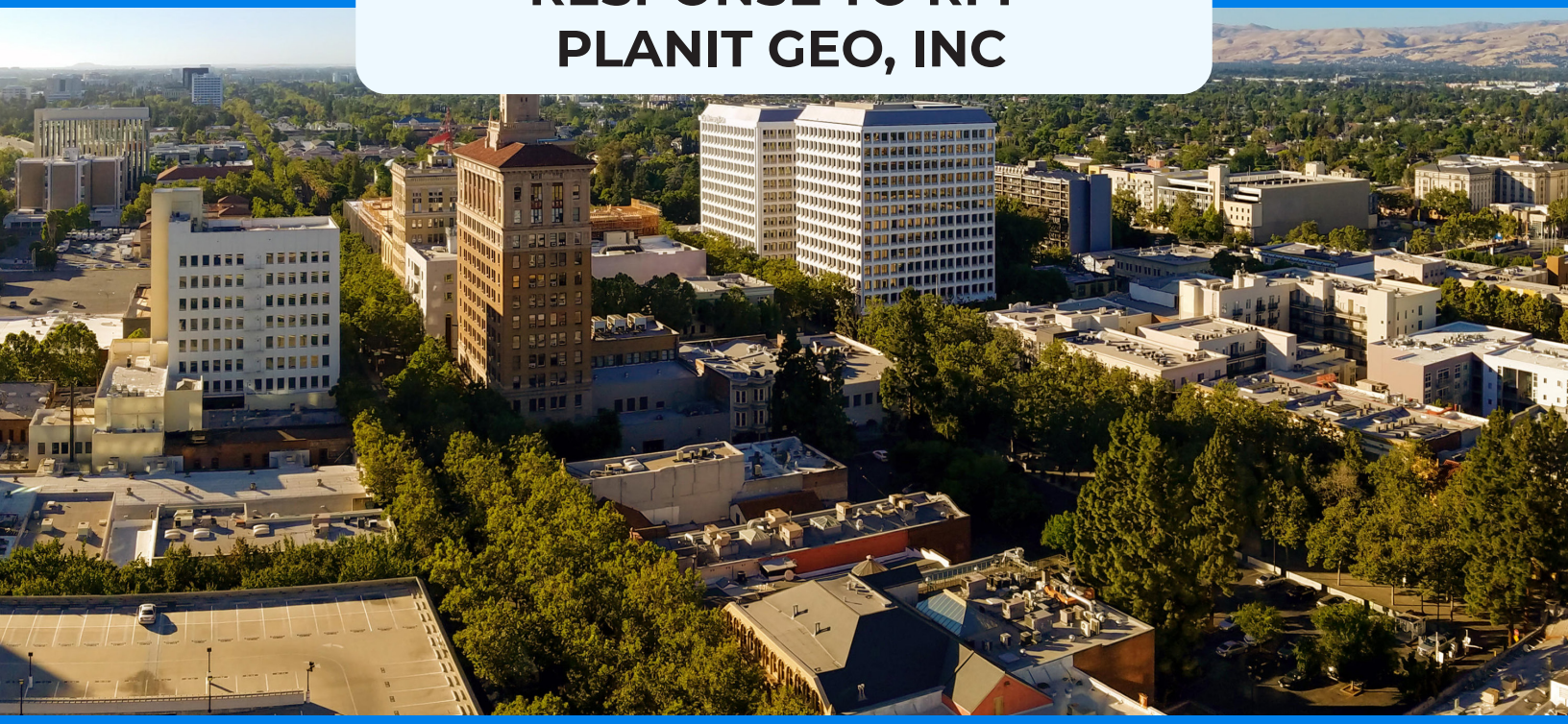
To the greatest extent permitted by law, except for this Limited Warranty, DRG makes no warranty whatsoever, including, without limitation, any warranty of merchantability or fitness for a particular purpose, whether express or implied, by law, course of dealing, course of performance, usage of trade or otherwise.

PUBLIC R-O-W & FRONT YARD TREE INVENTORY

Roeland Park, Kansas

April 8, 2022

RESPONSE TO RFP
PLANIT GEO, INC



SUBMITTED TO:
City of Roeland Park, Kansas
4600 W 51st St.
Roeland Park, Kansas 66205

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

K. Neilsen
City of Roeland Park
4600 W. 51st St.
Roeland Park, KS 66205

Re: Public Right of Way & Front Yard Tree Inventory

Dear Evaluation Committee,

PlanIT Geo, Inc. has prepared a tailored response to the City of Roeland Park's request for tree inventory services to provide a public right-of-way and front yard tree inventories. Results from the services provided will assist the City in reducing risk, managing pests, and developing strategies to prioritize tree management activities, as well as provide the critical step towards the City'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.

The PlanIT Geo team is familiar with the local tree species, having completed other related projects within Kansas and similar states. As an industry leader in municipal tree inventories, PlanIT Geo arborists have a keen understanding of the species and tree conditions in similar ecoregions of the country. Our proposal and required documents describe our qualifications, project team, similar projects, and our approach to deliver the required services. As a part of this project, PlanIT Geo is offering the City a 1-Year credit on its subscription to TreePlotter™ INVENTORY Application ($3,500 value, beginning at project delivery).

Please do not hesitate to contact us with questions regarding our submission. We are excited to provide the City of Roeland Park with a comprehensive tree inventory of trees in the public right-of-way and front yards..

Sincerely,

Ian S. Hanou
CEO/Founder
PlanIT Geo, Inc.
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Prepared by,
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EXECUTIVE SUMMARY

The City of Roeland Park has a population of roughly 6,800 residents, covers approximately 1.6 square miles, and has a thriving urban forest providing myriad benefits to residents, businesses, and visitors. The urban forest constitutes thousands of street, park, and yard trees in addition to those found in open spaces and other natural areas. It is perhaps the most important component of the City's green infrastructure, contributing to improving air quality, public health, wildlife habitat, local property values, and community beautification.

The City of Roeland Park has placed a high priority on enhancing urban forest management as an important part of providing equity and environmental justice across the City. Effective urban forest management requires innovative strategies and accurate information, including an understanding of the current condition of the City's trees, before significant management actions and planning initiatives are undertaken. It is our understanding that, in recognition of this fact, the City requires the services of a qualified and experienced urban forest management and field services consultancy to undertake an inventory and assessment of approximately 6,000 trees within public right-of-way areas and front yards with a diameter of 12 inches or greater.

The comprehensive public tree inventory for the City of Roeland Park will include a health and condition assessment of each street tree, and GIS based, easily compilable inventory summary data. The TreePlotter™ INVENTORY software and summary data will enable City staff to use accurate and up-to-date tree inventory data and current condition information to public facing urban forestry interface and to develop the strategies necessary to determine planting goals. Working in close partnership with the City's arborist and supervisory personnel, PlanIT Geo can develop an accurate, updated baseline of current public tree information across the City. In addition to providing current snapshot of the City's current urban forest structure and maintenance needs, an inventory can lay the groundwork for setting goals, objectives, targets, and strategies by highlighting challenges, opportunities, and areas for improvement.

Evaluating, planning, and managing the legacy of Roeland Park's street trees through applied science, best practices, and budget management, is achievable with innovative and contemporary approaches. With PlanIT Geo's Tree Inventory Field Team, the City will be provided with highly experienced and qualified urban forestry consultants and arborists to develop accurate, streamlined, and GIS compatible field inventory data for the City's valuable urban forest resources. The field inventory will provide current tree count, health, and risk management information to inform the City of its current management needs and health and variety of its trees.

Ultimately, it is anticipated that the results and deliverables from this project will directly integrate with and complement the City's current initiatives and encourage urban forestry stewardship through easily accessible data. PlanIT Geo commits to working collaboratively with City arborists and supervisory personnel to ensure that this project fulfills all of the City's objectives and requirements. With the data, tools, and reporting provided, Roeland Park will be emboldened with timely, comprehensive, and accurate information about its urban forest resources and management approaches and fully ready to take the next steps toward a healthy, diverse, and expanding urban forest.

FIRM INFORMATION

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; Charlotte, NC; Boca Raton, FL; and San Diego, CA. To date, PlanIT Geo has 40 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 City of Roeland Park.

PlanIT Geo
developers of TreePlotter

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, our Certified Arborists have inventoried over 850,000 trees across 30 states using our tree inventory and management software, TreePlotter. PlanIT Geo currently employs twelve (12) ISA Certified Arborists. To date, there are over 200 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 City of Roeland Park? 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

QUALIFICATIONS

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.

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 30 states across the country. Our arborists have nation-wide experience and a keen understanding of the tree species capable of growing in KS. 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 and local 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.

DATA MANAGEMENT EXPERIENCE

Sound 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 Operations/Project Manager.

PROJECT TEAM

TJ Wood

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

Director of Field Services/Project Manager ($125/Hour)

TJ will facilitate the kickoff meeting, project deliverables, and daily communications between the field staff and City 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 City staff during data collection. He will work with the City 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.

David McCauley

ISA Certified Arborist #IL-9733A | Tree Risk Assessment Qualification (TRAQ)

Tree Inventory Crew Leader ($100/Hour)

David that will be stationed in the City during the data collection phase of this project. David will be a tree inventory data collector for this project and will provide PG astaff with daily work tasks and routes. He will be available to provide in-person training on our tree inventory data collection/ management software, TreePlotter.

David has a Bachelor of Science in Forestry specializing in Urban Forest Management from Southern Illinois University of Carbondale as well as a master's certificate in Environmental Law and Public Policy from Loyola University Chicago. To reinforce his knowledge from his degrees he also has a widespread background with disease in urban forests with his work history as a Plant Health Care Technician. David has treated hundreds of Ash trees for emerald ash borer, as well as many other species for a variety of diseases. At PlanIT Geo, David has collected data on nearly 90,000 trees and 25+ projects across the country.

Rocky Yosek

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

Tree Inventory Specialist and Consulting Arborist ($100/Hour)

Rocky will be stationed in the City 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 City 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 ($90/Hour)

Nate will be stationed in the City during data collection. Nate will report all questions and project updates to TJ Wood, who will be directly in contact with City 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.

Jack Myrna

ISA Certified Arborist #IL-9894A

Tree Inventory Technician ($85/Hour)

Jack will be stationed in the City. Jack will report all questions and project updates to TJ Wood, who will be directly in contact with the City of Roeland Park 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.

ORGANIZATIONAL CHART

TJ Wood
Director of Field Services

Inventory Project Manager

David McCauley

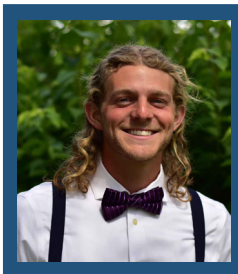
Tree Inventory Crew Leader

Rocky Yosek

Tree Inventory Specialist

Nate Cummings

Tree Inventory Specialist



Jack Myrna

Tree Inventory Technician

EXPERIENCE COMPLETING SIMILAR PROJECTS

To date, PlanIT Geo has completed over 100 tree inventory projects in 30 states across the country resulting in over 850,000 trees surveyed of which 100,000 were ISA tree risk assessments. Each inventory project was completed on time and within the budget and have met the client's goals and objectives. These 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 a summary of recent and relevant tree inventory and risk assessment projects.

TREE INVENTORY PROJECT REFERENCES

A) Prince George's County, MD Department of Public Works and Transportation

Project Manager(s): TJ Wood (PlanIT Geo)
Contact Name: Wayne Lucas, Landscape Architect | ISA Certified Arborist
Contact Info: wplucas@co.pg.md.us | (301) 324-2684
Date: April 2017 – August 2018
Budget: Phase 1 - $449,990 & Phase 2 - $53,600
Scope of Services Provided: PlanIT Geo provided the County with a complete ROW tree inventory on 2,000+ linear miles of roadway. PG has inventoried 176,000 trees in the county of which 68,000 tree risk assessments were conducted (3,000 high-risk). (See: https://pg-cloud.com/PGCountyMD/)
Status: Completed

B) Iowa City, IA Parks and Forestry

Project Manager(s): TJ Wood (PlanIT Geo)
Contact Name: Rae Lynn Schepers – Arborist
Contact Info: Rae-Lynn-Schepers@iowa-city.org | (319) 356-5093
Date: December 2016 – March 2018
Budget: $97,500
Scope of Services Provided: PlanIT Geo collected data on 50,000 city-owned trees within the public rights of way, parks, and open spaces in Iowa City. This inventory included a risk assessment for 8,800 trees. PG has also completed an Urban Forest Management Plan for the city. (See: https://pg-cloud.com/IowaCity/)
Status: Completed

C) Kettering, OH Parks and Recreation

Project Manager(s): TJ Wood (PlanIT Geo)
Contact Name: Gary Schussler– Parks Superintendent
Contact Info: Gary.Schussler@ketteringoh.org | (937) 296-2486
Date: October, 2019 – January 2020
Budget: $37,500
Scope of Services Provided: PlanIT Geo conducted a city-wide tree inventory that started in city parks, and branched out into all city street rights-of-way. Overall, 7,500 trees were inventoried for the city. A tree inventory summary report with recommendations was also completed. (See: https://pg-cloud.com/KetteringOH/)
Status: Completed

COST PROPOSAL

PlanIT Geo typically prices tree inventories on a per unit basis, that way the City may save budget if the data collected falls short of the overall estimate. It also allows the City to continue to collect data above the given estimate for a fixed rate. Should project budget not be met with total number of trees, PlanIT Geo can provide a summary inventory report or other services upon request.

Item for Bid	Cost per Unit (Rate)	# of Units	Total Bid (Rate x # of Units
Collection Cost per Public Right of Way tree (within 11 feet behind back of curb)	$6/per tree or planting site	2,000+	$12,000
Collection Cost per Front Yard tree (from 11 feet back of curb to front face of building on full width of lot)	$7/per tree or planting site	4,000+	$28,000
Annual Maintenance Fee for Tree Inventory Software Access	$3,500/year renewal price- first year free starting at project delivery	1	$0
Total Price	**$40,000**		

PROJECT WORKPLAN & APPROACH

This project will include a comprehensive tree inventory based on the collection of approximately 6,000 public right-of-way and front yard trees within the City of Roeland Park. Public right-of-way trees (2,000) will be inventoried within 11 feet behind back of curb, and front yard trees (4,000) between the front face of the building on a lot and a point 11 ft behind the curb, as stated in the RFP. PlanIT Geo (PG) will staff this project with 4-5 full time arborists. This will allow the project to be completed in a timely manner, by August 2022. The Field Services team suggests the City to notify all residents regarding the front yard inventory to mitigate any delays in the project timeline.

PlanIT Geo will work with City 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 City 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 City.

PG'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.

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, City of Roeland Park 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. City 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 City 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.

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 City's GIS system by simply exporting GIS data directly from TreePlotter and uploading into the City's own system.

TREE INVENTORY DATA FIELDS (EXCEEDS MINIMUM DATA COLLECTIONS ATTRIBUTES)

PlanIT Geo's final unit price is based on the following protocols and fields to be populated for each tree. Final fields will be determined at a project kick-off meeting and will be set for the duration of the project. These fields represent the minimum data requirements and suggested fields from the City's RFP as well as recommendations for additional fields. At minimum, our Tree Inventory Specialists will collect the following data for each tree mapped:

1. **Primary ID** – Each tree will be assigned a unique sequential number.
2. **GPS Coordinates** – Each tree will have a GPS coordinates (longitude and latitude) with sub-meter accuracy that can be easily uploaded to a GIS system to identify the location of the tree.
3. **Location** – Identify the location of each tree and/or site. Street tree locations will be organized by sequential tree site number and street name, block side, or corner location.
4. **Tree Common Name** - Common name of the tree inventoried.
5. **Species** – Trees are identified by genus and species using both botanical and common names and by cultivars where appropriate.
6. **Diameter (DBH)** – Diameter is measured to the nearest inch in one-inch size classes at 4-1/2 feet above the ground, or diameter-breast-height (DBH).
7. **Tree Height** - The height of the tree will be recorded to the nearest 5ft.
8. **Tree Spread** - The spread of the tree will be recorded to the nearest 5ft.
9. **Picture of Tree**
10. **Insect/Disease Impact** - Describes insect/disease impact on the tree if visible.

11. **Overall Condition** – Status of the tree:
    - Alive – Tree is alive
    - Dead – Tree is no longer living
    - Removed – Tree has been removed
    - Stump – Bottom area of a tree left after being cut down
    - Proposed Planting Site-Large – Planting site typically 11 or more feet of rootspace with no overhead conflicts
    - Proposed Planting Site-Medium – Planting site typically 6-10 feet of rootspace with no overhead conflicts
    - Proposing Planting Site-Small – Planting site typically 1-5 feet of rootspace or under powerlines

9. **Condition** – The general condition of each tree is rated according to the following categories adapted from the International Society of Arboriculture's rating system:
    - Excellent (100%)
    - Very Good (90%)
    - Good (80%)
    - Fair (60%)
    - Poor (40%)
    - Critical (20%)
    - Dead/Removal (0%)

10. **Primary Maintenance Need**. - The following primary maintenance needs will be determined:
    - **Priority 1 Removal** - Trees designated for removal have defects that cannot be cost-effectively or practically treated. The majority of the trees in this category have a large percentage of dead crown and pose an elevated level of risk for failure. Any hazards that could be seen as potential dangers to persons or property and seen as potential liabilities would be in this category. Large dead and dying trees that are high liability risks are included in this category. These trees are the first ones that should be removed.
    - **Priority 2 Removal** - Trees that should be removed but do not pose a liability as great as the first priority will be identified here. This category would need attention as soon as "Priority One" trees are removed.
    - **Priority 3 Removal** - Trees that should be removed, but that pose minimal liability to persons or property, will be identified in this category.
    - **Priority 1 Prune** - Trees that require priority one pruning are recommended for trimming to remove hazardous deadwood, hangers, or broken branches. These trees have broken or hanging limbs, hazardous deadwood, and dead, dying, or diseased limbs or leaders greater than four inches in diameter.
    - **Priority 2 Prune** - These trees have dead, dying, diseased, or weakened branches between two and four inches in diameter and are potential safety hazards.
    - **Large Tree Routine Prune** - These trees require routine horticultural pruning to correct structural problems or growth patterns, which would eventually obstruct traffic or interfere with utility wires or buildings. Trees in this category are large enough to require bucket truck access or manual climbing.

- **Small Tree Routine Prune** - These trees require routine horticultural pruning to correct structural problems or growth patterns, which would eventually obstruct traffic or interfere with utility wires or buildings. These trees are small growing, mature trees that can be evaluated and pruned from the ground.
- **Training Prune** - Young, large-growing trees that are still small must be pruned to correct or eliminate weak, interfering, or objectionable branches in order to minimize future maintenance requirements. These trees, up to 20 feet in height, can be worked with a pole-pruner by a person standing on the ground.
- **Stump Removal** - This category indicates a stump that should be removed.
- **Plant Tree** - During the inventory, vacant planting sites will be identified by street and address. The size of the site is designated as small, medium, or large (indicating the ultimate size that the tree will attain), depending on the growing space available and the presence of overhead wires.

12. **Overhead Utilities** – The inventory indicates the presence of overhead utilities at the tree site. (Yes/ No) and indicate their approximate height to within 5ft.
13. **Target Assessment** - Any people, property or activity zones that could be injured, damaged, or disrupted by tree or limb failure.
14. **Clearance Required** - Trees, which are causing or may cause visibility or clearance difficulties for pedestrians or vehicles, will be identified, as well as those trees blocking clear visibility of signs or traffic signals. Minimum clearance should be 8 feet for sidewalks, 14 feet for roadways and 5' from buildings and other structures.
15. **Hardscape Damage** - Damage to adjacent sidewalks and curbs by tree roots are noted. Notes on potential fixes for the problem are encouraged. (remove, replace, redesign, etc.)
15. **Additional Notes** - Additional information of possible importance is noted here; visible at ground level utility equipment, hardscape materials and others as the City directs.
16. **Date of survey and name of inspector.**

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 City's current mapping/GIS programs. Summary inventory data in Mircosoft Excel format will include a final tally of each tree species (including age and size) and it's percentage of total urban canopy cover. PlanIT Geo will meet with the City 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 City. 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 City.

QUALITY CONTROL

PlanIT Geo will provide the City 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 City 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 City work specifications and national industry standards.
4. PG welcomes and encourages the City arborist and staff to periodically perform on-site verification of the data. PG staff will cooperate fully with the City 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.

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

TIMELINE/SCHEDULE OF MILESTONES

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 City can expect the inventory to be completed within a timely manner.

Estimated Timeline

Contract Award: *Anticipated May, 2022*
Kickoff meeting: *Anticipated June, 2022*
Inventory Start date: *July, 2022*
Inventory Completion and Delivery of Data: *August, 2022*

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?

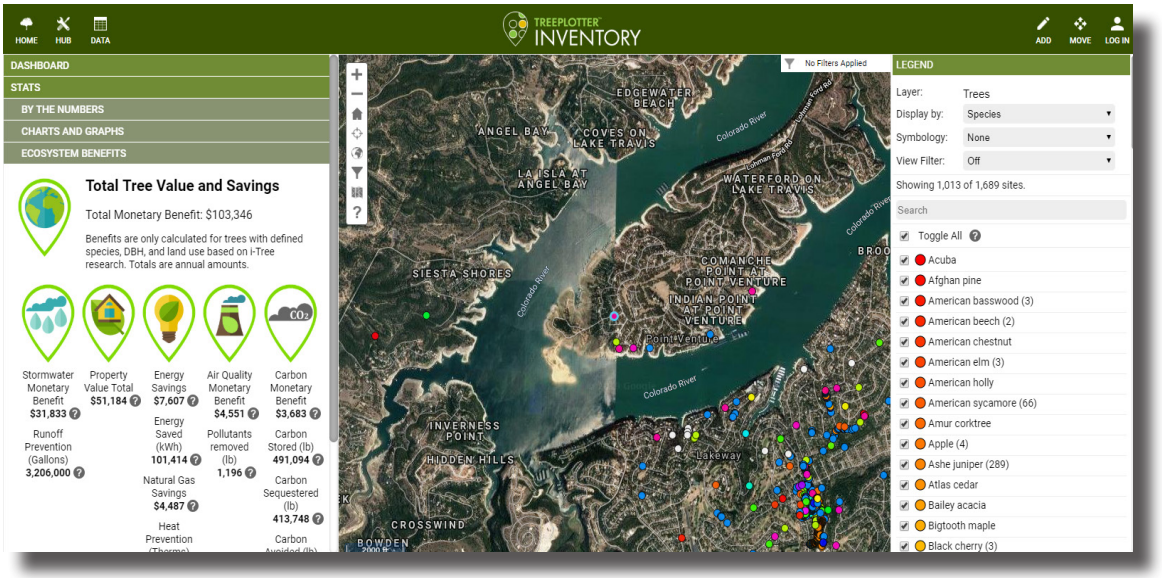
High quality tree management software is our best answer.

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 City will be able to stay ***proactive*** without falling behind. Even if the City 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.

As a part of this project, PlanIT Geo is offering the City the first year subscription for free (a $3,500 value) that will begin at project completion.

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 on the popular review site Capterra at https://www.capterra.com/p/154730/Tree-Plotter/

Out of 117 reviews provided, nearly every single one ranks our support at 5 stars, giving us a 4.5 average star rating.

APRIL 8, 2022

ROELAND PARK, KANSAS

Public Right-of-Way & Front Yard Tree Inventory

PlanIT Geo

developers of TreePlotter

CNUC

Public Right-of-Way & Front Yard Tree Inventory

CN Utility Consulting
Sarah Lilley, Supervisor of R&D
slilley@cnutility.com
310.738.9760

April 8, 2022

April 8, 2022

City of Roeland Park
4600 W 51st Street
Roeland Park, KS 66205

Re: RFP for Public Right of Way & Front Yard Tree Inventory

To the City of Roeland Park:

CNUC is pleased to submit its technical and cost proposal in response to the above-referenced Request for Proposal for the City of Roeland Park. Our company has provided high-quality vegetation management consulting services since 1999, and our experienced team of arborists began the specific work of municipal tree inventory inspections in 2016. CNUC is a corporation led by Derek Vannice, company president, who would represent CNUC in an undoubtedly successful partnership with the City of Roeland Park.

The role that trees play in forming the City's neighborhood character is invaluable. Beyond aesthetics, the City's trees provide benefits including moderating heat, absorbing runoff, and filtering particulate matter, adding to the City's environmental health and quality of life. The City of Roeland Park faces a unique challenge in managing trees in both City- and privately-owned settings, each with different aesthetic goals and possible risks. Trees are a living city infrastructure which age, become unhealthy, and decline, and their needs must be prioritized to be efficiently managed. While the natural character of the City's trees may be treasured, it is prudent to monitor, provide maintenance, or even remove trees that are in decline or pose a risk to residents and visitors.

CNUC would be honored to assist the City with managing their community forest. Our experienced arborists have worked with municipalities and utility companies, inventorying and assessing the risk of thousands of trees. We are experienced with prioritizing the maintenance requirements of a forest's inventory and understand the harm that can occur when trees are not managed adequately. In our day-to-day job duties, we have spent countless hours talking with local homeowners about their trees, their value and how to manage their risk. We would be proud to bring that love and understanding of trees to the City of Roeland Park.

On behalf of CNUC, thank you for giving us the opportunity to respond to this RFP and we look forward to beginning a mutually rewarding partnership.

Sincerely,

Sarah Lilley

CNUC Supervisor of R&D

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Executive Summary

Founded in 1999, CN Utility Consulting's (CNUC) experience over the past two decades has included a myriad of complex projects throughout North America, all focused on vegetation management consultation. In 2010, CNUC began providing utility vegetation management assistance with expanded service offerings on long-term contracts. In 2011, Derek Vannice, former Executive Director of the Utility Arborist Association (UAA) and former Director of Certification for the International Society of Arboriculture (ISA), joined the team to manage operations. Derek's extensive knowledge of the industry serving 18 years as the industry spokesperson, and business background has been a key ingredient in our growth. Since then, CNUC has expanded our employee base to nearly **450 employees working throughout North America, including 118 Certified Arborists.**

CNUC's experience in tree inventories makes us well-qualified to assist municipalities with their requirements to record tree numbers, species, and condition. Our employees understand the importance of properly identifying trees, accurately reporting their location, and are familiar with the harm that can be caused when a high-risk tree is not addressed. **As a company, our vision is to provide innovative, economically sensible and environmentally sensitive vegetation management services.**

Our urban forestry staff includes professionally trained and certified arborists, many with additional qualifications in tree risk assessment, with oversight from our Director, Randall H. Miller, who has an M.S. in Urban Forestry and is a Board-Certified Master Arborist (IL-0225BU). We are confident that our skills and experience align strongly with those necessary for the completion of the City of Roeland Park's tree inventory.

Company Qualifications

TEAM & PROJECT MANAGER QUALIFICATIONS

SARAH LILLEY, WE-11822AU, TRAQ
Supervisor of R&D and Project Lead

Sarah Lilley is CNUC's Supervisor of R&D and will serve as the point of contact for this project. She has worked on UVM and municipal contracts across the country. Sarah has worked with CNUC for six years, has assessed thousands of trees for risk, and is always happy to talk to the public about their trees. She has Bachelor of Science degrees in Biology and Environmental Studies from Gettysburg College, and a Certificate in Sustainability from UCLA Extension. Sarah is an ISA Certified Arborist, Utility Specialist, and is qualified in Tree Risk Assessment.

JACOB THOMPSON, SO-10704A, TRAQ
Inventory Arborist

Jacob Thompson has always been fascinated by nature, having grown up on a farm in Indiana. Jacob received a Bachelor of Science degree in Interdisciplinary Agriculture with a minor in Entomology from Purdue University; he has worked with CNUC since 2019. Jacob's interest in species continues with trees, and he is often seen carrying around a field guide to discover his next tree. He has worked on municipal and utility projects in several states, and is a recent transplant to the Chicago area, working on one of CNUC's long-term projects in the metro area.

MARINA DIAZ, WE-12711A, TRAQ
Inventory Arborist

Marina Diaz attended the University of California Los Angeles and graduated with a Bachelor of Science in Biology. She has been with CNUC since 2017, both in the field and as a Data Management Specialist, responsible for data QC. With an attention for detail and adventurous attitude, Marina is always looking to expand her experiences in new locations. She has worked on both municipal and utility tree inventories, is an ISA Certified Arborist and Tree Risk Assessment Qualified.

RELEVANT EXPERIENCE & REFERENCES

CNUC has performed extensive tree inventories throughout North America, for utility and municipal clients. Our arborists are familiar with local tree species, both native and ornamental, and are practiced in identifying defects which may lead to failure. CNUC has exposure to numerous GIS software systems, due to experience on a wide variety of municipal and utility contracts.

Our recent and local experiences are listed in the chart below.

CLIENT	SCOPE OF WORK	PROJECT CONTACT
Sioux Falls, SD September 2021	CNUC conducted a tree inventory, including condition rating and maintenance requirements, for 1,500 trees in City-owned golf courses in both naturalized and landscaped areas.	**Bryan Peterson** 605.367.8222 BPeterson@siouxfalls.org
Evergy Services Inc. 2022- Present	CNUC provides utility foresters to complete vegetation preinspections, quality control audits, customer service requests, storm response, tree crew oversight, outage investigations and pole/hardware inspection along Evergy's distribution and transmission lines. Foresters are located in Kansas and Missouri, centered in the Kansas City area.	**David Martin** 417.316.2701 David.martin@evergy.com
PlanIT Geo CA, MA 2019-present	CNUC has provided arborists to complete numerous large-scale street tree inventories alongside PlanIT Geo including: Fremont, CA: 45,000 trees Boston, MA: 58,000 trees Los Banos, CA: 15,000 trees	**TJ Wood** 303.847.8809 Tjwood@planitgeo.com

SCHEDULE & AVAILABILITY

CNUC proposes to conduct the tree inventory beginning in June, when trees are fully leafed out. We would work with the City to arrive at the best mutual time to begin data collection.

Kickoff Meeting

After the contract is awarded, we would communicate with the City to schedule a kickoff meeting. This meeting would serve as an introduction between the City and the CNUC inventory team, and a discussion of the inventory process. This meeting can either occur virtually, or in person at the start of data collection.

Data Collection

Data collection would commence following the kickoff meeting. Inventory arborists would meet with the CNUC Project Lead in the field, to reach consensus on an efficient plan to systematically progress through the City's urban forest. It is anticipated that data collection would take 2-3 weeks to complete, with employees working Monday-Saturday. During the data collection stage, weekly update reports will be made to the City's representative. Any trees which are identified to create an imminent risk to safety will immediately be brought to the attention to the City representative.

Upon the completion of the tree inventory, the collected data will undergo a final QC check before being submitted to the City. Should the City wish, we will schedule a Lessons Learned meeting to discuss the tree inventory process and preliminary trends observed in the data.

PROJECT TIMELINE

TASK	Apr 8, 2022	Apr-May 2022	June 6, 2022	June 13, 2022	June 21, 2022	June 28, 2022	July 8, 2022	July 15, 2022
Proposal Due	X							
Contract Awarded		X						
Kickoff Meeting[1]			X					
Tree Inventory Data Collection								
Tree Inventory Data QC								
Inventory Wrap-up and Lessons Learned Meeting[1]								X

[1] These tasks will be scheduled after discussion with the City.

Quality Assurance & Control

CNUC's approach to quality is holistic, beginning by having competent arborists in the field. Our reputation and extensive contacts in the industry provide an excellent avenue to obtain highly qualified employees. CNUC employees tend to be well-educated with a strong foundation in forestry principles; career development is encouraged through in-house trainings, field experience and mentoring. With teamwork being one of our core values, arborists will work closely together to support each other in the field and provide accurate species identification.

The data collected on the City's trees will be reviewed for completeness and accuracy. CNUC welcomes and encourages City staff to perform on-site verification of the data. We will cooperate fully with City staff to achieve data that is >95% accurate.

Cost of Proposal

Based on the personnel and total hour requirements for the tree inventory, the unit cost per tree for the re-inventory and ash tree assessment is **$3.88** for a cost of $23,280 for an estimated 6,000 trees. The cost per tree includes the required labor, equipment, travel, training, and data consolidation.

Item for Bid	Cost per Unit (Rate)	# of Units	Total Bid (Rate X # of Units)
Public Right of Way Tree Inventory	$3.88/tree	2,000	$7,760
Front Yard Tree Inventory	$3.88/tree	4,000	$15,520
Annual Maintenance Fee for Tree Inventory Software Access	$33/user/month	TBD	
Contract Total			**$23,280**

Proposed Workplan

The City of Roeland, KS is looking to gain an accurate inventory of trees within the public right-of-way and front yard trees. With this information, the City will work to develop a long-term tree maintenance plan. By including frontage trees in the inventory, the City will be able to develop a tree protection ordinance, to preserve the natural beauty of Roeland Park for the future. Collected data shall be delivered in an acceptable GIS format.

WORKPLAN

The first objective of the project is to conduct an inventory of City trees with a diameter at breast height (DBH) of 12 inches or greater within the street right-of-way (11 feet behind back of curb). In addition, the City would like to inventory frontage trees with the same minimum DBH, located 11 feet behind back of curb to the front face of the building on each lot.

Software and Data Collection

CNUC proposes to use the data collection software Fulcrum for the City's tree inventory. A customized Fulcrum app will be developed for the City, to collect the following data features:

- Location - GPS coordinates
- Tree Common Name
- Tree Latin Name (Genus, species)
- DBH (in inches)
- Tree Height (in 5' increments)
- Tree Spread (in 5' increments)
- Overall Condition (Evaluated in accordance with ISA rating system)
- Picture of tree
- Insect/Disease Impact
- Primary Maintenance Needs for Public Right of Way Trees Only

Fulcrum is able to incorporate City-provided imagery base layers, should the City prefer. All tree inventory data belongs to the City, and will be delivered in a kmz file at the project's completion. During the data collection phase of the project, CNUC will provide a Fulcrum log-in to the City, so they can observe and provide feedback as needed. Should the City decide to continue using Fulcrum after the project's completion, the cost would be $33 monthly for each user.

CNUC would also welcome the City's preference to use their own GIS software. Our arborists have experience with a multitude of data collection software, and strive to deliver data in the format best suited to the City's needs.

Employees are provided all equipment necessary to complete data collection, including a vehicle, iPad, cellphone, DBH tape, rangefinder and personal protective equipment (PPE). CNUC personnel and vehicles will display proper identification (marked trucks, logoed clothing and PPE, and company ID badges).

CNUC arborists work in urban and remote settings, in all types of weather, and provide excellent customer service to city residents and utility customers alike. Due to the location and nature of our arborists' work, they are constantly reminded of the company's first value: safety. Employees conduct daily job briefs to identify possible safety hazards, attend weekly safety calls, and wear appropriate PPE at all times on the job site. Required PPE includes Class 2 reflective and logoed safety vests, logoed hard hats, vehicle-mounted safety beacons and/or strobes, safety cones, and other appropriate safety equipment and attire as the project requires.

Project Milestones

- Kickoff Meeting: June 6th, 2022
- Tree Inventory Data Collection Completion: June 28th, 2022
- Tree Inventory Data Quality Control Completion: July 8th, 2022
- Inventory Wrap-Up and Lessons Learned Meeting with City: July 15th, 2022

Proposal for Public Right of Way and Front Yard Tree Inventory City of Roeland Park, KS

April 8, 2022

Stefan Bourgoin, TRAQ Certified Arborist
305 West Shotwell Street
Bainbridge, GA 39819
(256) 682-1493

WIREGRASS ECOLOGICAL ASSOCIATES

WIREGRASS ECOLOGICAL
ASSOCIATES

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Stefan M. Bourgoin | **Project Manager/Arborist** | 230 White Oleander Drive Lexington, SC 29072
sbourgoin@wiregrasseco.com | Office: 229-246-9651 | Mobile: 256-682-1493
Bainbridge, GA | Enterprise, AL | Monticello, FL | Charlotte, NC | Gulfport, MS | Columbia, SC

WIREGRASS ECOLOGICAL ASSOCIATES

SECTION 1. COVER LETTER AND EXECUTIVE SUMMARY

1A. COVER LETTER

April 8, 2022

Donnie Scharff
Roeland Park Director of Public Work
4600 W. 51st Street
Roeland Park, KS 66205
dscharff@roelandpark.org

Dear Mr. Scharff:

Wiregrass Ecological Associates (WEA; a subsidiary of Southern Forestry Consultants (SFC)) is excited about the opportunity of providing tree inventory data collection services to The City of Roeland Park, Kansas. We respectfully submit our price and qualifications for the Public Right of Way and Front Yard Tree Inventory bid. We have reviewed the amended combined synopsis / solicitation for this solicitation and can confirm we meet all insurance, contracting, qualification, and experience requirements. We anticipate our qualified and experienced team of biologists and arborists can complete this work by one year from its issue date. We would also like to note that we have the capability to expound upon the project through further efforts to provide data associated with the project as a geospatial map web, upon the City's request and a future scope determination (See Proposed Work Plan and Milestones below).

As project manager for this project, I (**Stefan M. Bourgoin, TRAQ-Certified Arborist)** will lead our team to complete this work. Mr. Bourgoin serves as principal ecologist for both WEA and SFC. He is certified as an ecologist through ESA and a Tree Risk Assessment Qualification (TRAQ)-qualified arborist through ISA and has over 10 years of project management experience in resolving natural and water resources management and policy issues, mitigation and restoration area management and monitoring, conducting tree inventories (City of Cocoa, FL), listed species monitoring and reporting, wetland delineation and monitoring, extensive use with the ArcGIS/ArcPro software series through ESRI, and ecological research and monitoring in ecosystems across the southeastern U.S. Mr. Bourgoin previously served as a senior scientist for Atkins, Inc, in Tallahassee, FL.

In addition, **Austin Carroll (President of Wiregrass Ecological Associates)** will serve in a field leadership role for the project. Mr. Carroll is the President of Wiregrass Ecological Associates (WEA) and a Partner at its parent company, Southern Forestry Consultants (SFC). He is a forest ecologist and wildlife biologist with over 18 years of project management experience on both public and private lands. Mr. Carroll has extensive forest management experience, particularly from the Big Bend region of Florida west to Pensacola. He has helped develop and staff mitigation plans for clients such as the Port Panama City and the Northwest Florida Beaches International

Airport (ECP). A large component of his expertise involves the identification and management of various tree species within both a forestry and ecological concept. Mr. Carroll previously served as the Southeast US Program Manager of Environmental Sciences and the National Aviation and Environmental Sciences Lead for Atkins, Inc. He has also served as a forest wildlife ecologist for International Paper and The St. Joe Company

Also, **Jeffrey Busch (TRAQ-Certified Arborist)** with Bayhead Ecological Solutions, LLC, will serve in a limited role on the project team. Jeffrey is a Certified Arborist through ISA and has a diverse working knowledge of arboriculture. He has completed multiple previous tree inventory projects and has also previously teamed with WEA in completion of the City of Cocoa, FL, Tree Inventory. He also holds a Tree Risk Assessment Qualification (TRAQ) through ISA that allows him to conduct Tree Risk Assessments.

In conclusion, WEA reaffirms our excitement and interest in serving the City of Roeland Park under the Public Right of Way and Front Yard Tree Inventory contract. Our project team possess the unique professional qualifications and experience required to complete this project. Furthermore, our commitment to QA/QC procedures meets and exceeds the standards required from our federal clients. Given our cost-effective and efficient approach to projects, we are confident that we can provide these tree inventory services at a reasonable cost to the City of Roeland Park.

Sincerely,

Stefan M. Bourgoin, ISA-Certified Arborist

WIREGRASS ECOLOGICAL ASSOCIATES

1B. EXECUTIVE SUMMARY

Wiregrass Ecological Associates (WEA) is excited to offer its services to the City of Roeland Park for its "Public Right of Way & Front Yard Tree Inventory". WEA is an environmental consulting firm that has experience conducting tree inventories/risk assessments for various other municipalities (City of Cocoa, FL; City of Brooksville, FL; City of Tallahassee, FL). Aside from strictly arboricultural services, the WEA team has an extensive tree-identification background through jurisdictional wetland delineations WEA also prides itself on staying on the front lines of innovation within both the environmental as well as arboricultural arenas, which it has already utilized through previous inventories and will now bring to Roeland Park. These new technologies used through the inventory will allow real-time data collection tracking and utilize features designed to create an unparalleled ease-of-use through the inventory process. The project lead on this project, Stefan Bourgoin, is a TRAQ-certified arborist and will be teaming with another TRAQ-certified arborist, Jeffrey Busch, from Bayhead Ecological Solutions. The President of WEA, Austin Carroll, will also be available in a support/oversight role to provide his valuable advice and experience. Due to our team's experience and expertise, along with the financial flexibility of being smaller companies, we are confident that we can provide a quality assessment of Roeland Park's trees for a very competitive price.

As the project is described with 6,000 trees needing to be inventoried with Roeland Park, we anticipate a total cost of $27,000 to complete the project ($9,000 for Public Right of Way Trees and $18,000 for Front Yard Trees). If for any reason there are additional trees needing inventory above ad beyond the 6,000, WEA proposes a rate of $5 per tree to offset the additional costs.

SECTION 2. COMPANY QUALIFICATIONS

2A. COMPANY RESUME

Mr. Bourgoin has multiple years of tree-related field work and identification through his current and previous jobs. Mr. Bourgoin is also a TRAQ-certified arborist through the International Society of Arboriculture (ISA) and recently completed a similar urban tree inventory in Cocoa Beach, FL (September-October 2020) alongside Mr. Busch (see below). This effort included the inventory of 8500 trees within the city's right-of-way and the subsequent composition of an Urban Forestry Management Plan based on these results. While with Atkins North America, his previous company under Mr. Carroll there as well, he worked extensively on conducting NEPA and Project Design and Environmental (PD&E) assessments of multiple major proposed roadways near the

Panama City/Bay County region in Florida (Gulf Coast Parkway, West Bay Parkway, and Gulf to Bay Highway). These involved the identification and protection of multiple "legacy" trees, evaluating the quality of trees tagged for potential removal, and also providing hundreds of acres of wetland delineations. He also participated in various PD&E other projects throughout the Florida peninsula, including the Wellness Way Corridor evaluation. Through these unique field experiences, along with multiple others included in his resume, Mr. Bourgoin is well-attuned to the inventory of forests, tree species, and urban areas. Mr. Bourgoin received his B.S. in Biology from Birmingham-Southern College and his M.S. in Biological Oceanography from Florida State University.

As a program manager and eventual Southeastern Sciences Group Manager at Atkins North America, Mr. Carroll was instrumental in developing and implementing mitigation plans to offset the development of the Northwest Florida Beaches International Airport and the expansion of the Port of Panama City Intermodal Site. He has an experience and knowledge of tree inventories, species identification and care, as he is a Registered Forester and former employee of the St. Joe Company. Mr. Carroll received his B.S. in Forestry as well as M.S. in Wildlife and Fisheries Science through Mississippi State University and his M.B.A. through the University of Florida's Warrington College of Business. Mr. Carroll is expected to serve in an overseeing support role for the project, contributing his expertise and knowledge to the project effort.

Jeffrey Busch with Bayhead Ecological Solutions, LLC, serves an additional team member that brings his own unique expertise. He is an ISA-Certified Arborist with a Tree Risk Assessment Qualification (TRAQ). In addition to assisting WEA in the completion of the aforementioned City of Cocoa Tree Inventory, he has experience with estimating the value and importance of community trees and Urban Forests as well as an understanding of local municipalities and their inventory requirements. Jeff completed an additional inventory for the City of Brooksville, FL, where he inventoried trees for preservation within a 40-acre property and also performed risk assessment for potentially problem trees. Jeff has conducted a variety of tree assessments tasks including Tree inventory, mangrove permitting, pruning and removal, Tree Risk Assessments, nuisance species control, supplemental upland and wetland mitigation planning, management of planting, and maintenance and has assisted other companies in performing tasks required to completing a variety of arboricultural assessments. Mr. Busch received his B.S. in Biology from St. Petersburg College.

Additional team members with WEA are expected to contribute hours to the project, although they are not considered to be "key members" due to their experience level and the anticipation that they

will be serving in a support role alongside one of the key members. All of the key team members' resumes are provided in **Appendix A.**

2B. RELEVANT REFERENCES

PREVIOUS EXPERIENCE NO. 1

Contract/Work type: Tree Inventory for the City of Cocoa, FL

Contract Number: B-20-17-COC

Total Contract Value: $37,400

Agency/firm for who work was performed: City of Cocoa Public Works

Contact person at the site: Frank Mirabito (321) 433-8776

E-mail address: fmirabito@cocoafl.org

Month/Year work began - Month/Year work ended: 09/2020-10/2020

Brief description of duties: WEA and Bayhead Ecological teamed together to complete a tree inventory for the City of Cocoa, FL. Cocoa had not had a tree inventory completed since 1999, so data was lacking and a complete geospatial inventory of the city Right-Of-Ways, parks, cemeteries, municipal buildings, and all other city-owned property. This inventory collected a complete dataset on 8,500 trees throughout the city. Tree Risk Assessments (TRAs) were performed on those trees deemed to be a critical risk to the city through their condition and location. A Tree Management Plan summarizing this inventory and recommending actions for the City of Cocoa to take in their tree management process was completed in early 2021.

PREVIOUS EXPERIENCE NO. 2

Contract/Work type: City of Brooksville Tree Inventory and Mitigation, Hernando County, FL

Total Contract Value: $50,000

Agency/firm for who work was performed: Duke Energy

Contact person at the site: Wayne Richardson

E-mail address: wayne.richardson2@duke-energy.com

Month/Year work began - Month/Year work ended: January/2018-January/2019

Brief description of duties: Inventoried trees for the City of Brooksville, FL, within a 40-acre property and provided mapping and tree data for trees to be preserved along a canopy preservation road. Bayhead also provided mitigation permitting and Tree Risk Assessments for "grand oaks" preservation and established setbacks along the preservation areas. The survey/inventory was completed using sub-meter GIS locations to record diameter at breast height (DBH), species type, and vigor and also involved the completion of ISA TRA forms and photo documentation. The site was extremely overgrown and treacherous to navigate. Permitting for the project was attained in less than 6 months and ground-breaking took place in Jan 2019.

PREVIOUS EXPERIENCE NO. 3

Contract/Work type: City of Tallahassee, Chadwick Way Sidewalk Installation Tree Assessment

Contract Number (if applicable):

Total Contract Value: $5,000

Agency/firm for who work was performed: Atkins North America

Contact person at the site: Mario Rivieccio

Valid E-mail address: mario.rivieccio@atkinsglobal.com

Year work began - Year work ended: July 2017

Brief description of duties: While working at Atkins, WEA staff performed a tree assessment on particular trees within the right-of-way of a sidewalk installation/expansion project within Tallahassee. The sidewalk right-of-way impacted certain trees which had to be assessed for quality.

2C. SCHEDULE & AVAILABILITY

In order to properly identify all tree species within the project area based on all characteristics and features available, Wiregrass proposes that the project should not begin until the mid-to-late May 2022 timeframe. This will allow trees to have bloomed and produced leaves, essential aspects in their identification. We then anticipate the field portion of the project to be completed in approximately 2 to 3 weeks. Once data collection has occurred, the data will be processed to ensure

adherence to the needs of the City. The final deliverable for the project is therefore estimated to be mid-to-late June, 2022.

SECTION 3. COST OF PROPOSAL

In order to conform with the standards put forward in the RFP by the City of Roeland Park, the cost breakdown of the project is presented below in the form given to responders.

- Data Collection Cost per Public Right of Way tree (within 11 feet behind back of curb) **$ 9000**
- Data Collection Cost per Front Yard tree (from 11 feet back of curb to front face of building on full width of lot) $ **18000**
- Annual Maintenance Fee for Tree Inventory Software Access – If Applicable (i.e. Contractor currently using tree inventory software, what is cost to city to access data) **$500** annual base price for an ESRI online "creator" license to manage all tree inventory data. A creator license must exist to manage the tree inventory data online, but below creator there are additional add-on licenses that allow different customization:
    - "Viewer" license that can only view online data = **$120/year**
    - "Field Worker" license that allows viewing and also data collection/editing from mobile devices = **$350/year**

SECTION 4. PROPOSED WORK PLAN & MILESTONES

4A. PROPOSED WORK PLAN

In experience with other similar tree inventory projects, we have learned that it is essential before the field effort begins to have clearly defined GIS-compatible boundaries for all areas that are to be surveyed. The City of Roeland Park has stated in the RFP trees will be inventoried both in the public right of way (11ft from back of curb) and also in the front yards (between building face and the right of way) of businesses/residences. If possible, Wiregrass (WEA) will work to obtain GIS files from the City of Roeland Park that specifically delineate the right of way area; this will greatly streamline the field effort and reduce its time to completion. If this data is not available, WEA will use publicly available Department of Transportation files showing roadway centers to calculate where this 11-ft ROW limit exists.

A meeting with Roeland Park staff upon selection will outline the major timeline, scope, and direction of the project. Once authorized to begin work, WEA will develop a geodatabase through ESRI ArcPro that contains all necessary fields for proper data collection in the field. The data fields needed for each tree will include: location (point file with latitude/longitude recorded

automatically with sub-meter precision through use of the ESRI Field Maps mobile application paired with a BadElf™ GPS Bluetooth receiver), the tree species (common and scientific name), diameter at breast height (DBH) in inches, estimated height (in 5 foot increments), tree spread (in 5 foot increments), the overall condition of the tree (Excellent, Good, Fair, Poor, or Removal), photographs of each tree inventoried to record a visual inspection of the tree for posterity, the impact of insect or disease on the tree, and a general notes field to record observations not covered within the other fields or any ancillary observations. Data collected will be stored in a shapefile (.shp) format, as well as a geodatabase (.gdb) for operability within ArcPro and ArcGIS Online. As WEA has completed projects recently with very similar data requirements, we anticipate this being a straightforward and time-efficient endeavor. This geodatabase can be constructed to have all data needed in drop down menus, so that field collection can occur rapidly and save time for each tree.

Once the geodatabase has been developed, WEA will review the City-provided right-of-way information as well as neighborhood and city boundaries, along with any other areas deemed necessary for inventory at the City's discretion, to determine the best course of action to begin inventorying the City's approximately 6,000 trees. Depending on the estimated time needed to complete inventory of these areas, 1 or more project teams will be assembled to begin the inventories in a uniform direction (likely North-South/West-East) to ensure consistent coverage of inventory areas. A project team will consist of two members that will each work together to provide complete coverage of each area needing an inventory. These project teams will all be made from employees of WEA or Bayhead Ecological Solutions (BES), the subcontractor used for this project, that also worked together in the Fall of 2020 to complete the tree inventory for the City of Cocoa, Florida. These teams have a familiarity with this type of project as well as working with each other. Using the combination of an iPad and BadElf™ GPS Bluetooth receiver, a sub-meter accuracy point will be taken in the ESRI Field Maps application to mark each tree location, and the above data will be collected. At least one photo of each recorded tree will be collected for any further analysis needed. After each field day the collected data will be viewed with aerial imagery in ArcPro desktop software to ensure that 1) each point collected represents a tree, 2) all data fields associated with each tree have been completed, and 3) that the location of the points is correct. Data collected within the FieldMaps mobile app is synched in real time with ArcGIS Online, which will allow real-time progress tracking from our home office while collecting data to ensure that these day-end QA/QC checks are as streamlined as possible.

When data has been collected for the entire project, it will be delivered to the client in both a geodatabase and shapefile format for geospatial analysis, as well as Microsoft Excel spreadsheet format. Fields and domains present within the geodata will be compatible and interchangeable

within the City of Roeland Park's GIS framework. For example, the field of tree condition will have a domain allowing the selection of one of the 5 tree conditions: Excellent, Good, Fair, Poor, and Removal. This domain could be updated in the City's GIS database over time to reflect an improvement or degradation of the tree's overall health. Also, a photo gallery of each representative tree within the inventory could be delivered in Powerpoint form as a deliverable.

As mentioned above, WEA staff are well-versed in the use of GIS technology to accomplish both field and higher-level analysis tasks. WEA proposes that, following the initial scope of this RFP, the data that has been collected could be put to greater use than a static shapefile or geodatabase. Through previous work with our other clients, WEA has the capacity to include this data in ana adaptive ArcGIS Online Webmap that keeps the data current and updated in real time. This resulting Web Application is a smart device-ready platform that would allow Roeland Park city staff to complete real-time management and updating of the database resulting from this project. Any interest that the City may have in this ongoing service can be discussed separately following the completion of the tree inventory project.

4B. MILESTONES

- Mid/Late April - Kickoff Meeting/Discussion of Project Scope
- Late April - Site Data Acquisition from City of Roeland Park; Geodatabase Development and Field Effort Planning
- Early May - Early June - Field Effort
- Early June – End of June - Quality Assurance/Quality Control Procedures to Ensure Data Conformity; Deliverable for City of Roeland Park

Appendix A.
Team Member Resumes/Arborist Credentials

Stefan M. Bourgoin, MS, CE

Project Manager/Ecologist

Stefan Bourgoin serves as Project Manager/Ecologist with Southern Forestry Consultants (SFC) and its environmental subsidiary, Wiregrass Ecological Associates (WEA). He is a forester, ecologist, arborist, and wildlife biologist with over 10 years of project management experience in resolving natural and water resources management and policy issues, permit acquisition and compliance, mitigation and restoration area management and monitoring, multi-organizational partnership development, and ecological research and monitoring in ecosystems across the southeastern U.S. He specialized in Biological Oceanography for his Master's Research, but has since broadened his scientific background to many terrestrial disciplines. Mr. Bourgoin has worked as a field scientist responsible for vegetation monitoring/mitigation, permitting, water quality assessment, airport wildlife mitigation, and has lead technical report writing for various projects. He is an ecologist with experience in marine biology (specializing in inshore reef fish), aquatic ecology (water quality sampling, coastal invertebrate sampling and monitoring), stream restoration, threatened and endangered species assessment and monitoring (particularly versed in gopher tortoises), wildlife hazard assessments (aviation) and extensive use of Geographic Information Systems (GIS) in the development of data collection systems and analysis of data. He is also a certified arborist through the International Society of Arboriculture (ISA) with a Tree Risk Assessment Qualification (TRAQ) designation. He has been involved with a variety of linear infrastructure projects (pipelines, roadways) and mitigation area projects, as a lead scientist conducting assessments for permit compliance and/or permit applications including vegetation monitoring, invasive exotic plant species surveys, erosion control, and wetland delineations.

Mr. Bourgoin previously served as a Senior Scientist in Tallahassee, FL, for Atkins, Inc. (2010-2019).

Mr. Bourgoin's project experience includes:

American Forest Foundation (AFF) Florida Landscape Management Plan (Arkansas, Florida, Georgia, Louisiana, South Carolina, Tennessee, Virginia). Mr. Bourgoin served as SFC lead technical writer for the development of a Landscape Management Plan Pilot (LMP) for forest communities throughout the Southeast. The goal of the LMP was to develop a credible forest management planning structure to support landscape scale conservation activities. Drawing on emerging research, models used in Scandinavia and techniques used by some American consulting firms, the landscape plan was designed to reduce the management plan barrier that landowners face to becoming involved in conservation activities and streamline the American Tree Farm System® (ATFS) certification process. The management plan promoted implementation of conservation activities with positive impacts for wood production and biodiversity conservation, on the ground. The SFC engaged public and private landowners and professionals through a Natural Resource Professional Support Committee. The fully interactive LMP document incorporated various local, state, and national guidelines, standards, and BMP's. The LMP ultimately provided methodology for determining landowner and

Total years of experience

11

Years with Wiregrass Ecological Associates

3

Education

M.S., Biological Oceanography, Florida State University, 2011
B.S., Biology, Birmingham-Southern College, 2007

Certifications

Florida Fish and Wildlife Conservation Commission (FWC) Gopher Tortoise Authorized Agent #GTA-22-00016

Certified Ecologist, Ecological Society of America #148771

International Society of Arboriculture (ISA) Certified Arborist #SO-10520A with Tree Risk Assessment Qualification (TRAQ) Designation

Qualified Airport Wildlife Biologist, Federal Aviation Administration

Florida Department of Environmental Protection (DEP) Stormwater, Erosion, and Sedimentation Control Inspector

Florida Certified Commercial Pesticide Applicator, CM26451 – Core, Aquatic, Forest Pest and Natural Areas

Georgia Certified Commercial Pesticide Applicator

Professional affiliations

Ecological Society of America (ESA)

landscape level objectives, forest identification, forest resources (including non-consumptive cultural, aesthetic and ecosystem benefits), silvicultural and management options, and adaptive management techniques. SFC also developed an accompanying web-enabled geodatabase for site characterization of all forested parcels in the Florida panhandle.

Tree Inventory and Management Plan, City of Cocoa, FL. Arborist responsible for the completion of an urban tree inventory of 8,300 total trees for the City of Cocoa, FL, to update their data from the most recent survey (1999). Mr. Bourgoin designed a tree data collection geodatabase in ArcPro that was used to collect a wide suite of data about each tree located within Cocoa city limits. He also led a field effort using this database in conjunction with the ESRI Collector application to take data points for each tree and collect all of its necessary data. This data was analyzed through ArcPro to determine the health of Cocoa's trees and assess risk to the environment and community. An ISA Risk Assessment Form was completed to analyze risk for trees that had conditions warranting further examination. A Tree Management Plan that made future recommendations for the health of the community's trees was composed for the City of Cocoa utilizing all of the data collected.

FDEP Seagrass Restoration, Bay and Gulf Counties, FL. Environmental scientist responsible for GIS analysis of boat prop scarring throughout areas of high seagrass abundance as well as assisting in the process of field verification of the scarring and implementing the restoration of these scars. FDEP proposed the restoration of seagrass scarring throughout three important Aquatic Preserves (APs) within the panhandle region: St. Joseph Bay, Alligator Harbor, and St. Andrews Bay). FDEP provided high resolution imagery aerial surveys/maps prepared by a Florida Licensed Professional Surveyor and Mapper (PSM) of the selected AP's. Atkins used these surveys/maps to identify, quantify and assess the extent of prop scar damage to submerged aquatic vegetation (SAV) beds within the APs. Atkins will quantify the amount of prop scar damage for all three APs and develop seagrass recovery plans for each AP. Atkins will then (Fall 2018) begin the implementation of the restoration activities proposed in the recovery plan(s) beginning with St. Joseph Bay and proceeding to Alligator Harbor AP and St. Andrew Bay AP as required to obtain the two (2.0) acres of restoration.

Sunshine Lake Water Quality Analysis Study, Charlotte County, FL. Environmental scientist responsible for groundwater sampling, surface water sampling, vegetation monitoring, and hydrologic data management to assist the county in its efforts to determine the cause of algal blooms, to develop a restoration plan, and remain in compliance with numeric nutrient criteria (NNC) for Florida freshwater ecosystems. Field efforts were conducted in Sunshine Lake in Port Charlotte, FL, to asses water quality indicators and vegetative response within the water body. In 2017, two peer-reviewed journals published the findings; *Quantification of Nutrient Assimilative Capacity of Chara (sp.) in a Previously Hypereutrophic Lake in Southwest Florida (USA): Implications for Lake Management*" and "*Finding Sources of Fecal Coliform Bacteria in Stormwater Runoff: The Importance of Nonfecal Origins*".

International Society of Arboriculture (ISA)

Software

ArcGIS Mapping Software (ArcGIS Online, ArcPro)
SPSS, Minitab
DISTANCE 7.2 Software
Adobe Illustrator
TerraSync
CTD Diver-Office
Oracle E-Business Suite
Microsoft Access/Teams

Professional development

2017 Gopher Tortoise Authorized Agent Certification Training Class for Surveying Burrows, Wildlands Conservation and Ashton Biological Preserve, Gainesville, FL, 01/2017

2016 Hydraulic Soils Workshop, Florida Association of Environmental Soil Scientists (FAESS), Okeechobee, FL, 04/2016

Stormwater, Erosion, and Sedimentation Control Inspector Training Program, DEP, Chipley, FL, 07/2011

Presentations

Overview of the ongoing Deepwater Horizon Marsh Sampling in Belle Chasse, Louisiana. Sciences TPO Presentation, Atkins. August 16, 2018

Bourgoin, Stefan M. "Accelerating recovery after the *Deepwater Horizon* Oil Spill: Response of the macroinvertebrate communities to shoreline oiling effects" CEER Conference, New Orleans, LA, July 28-August 1, 2014

Bourgoin, Stefan M. "The variability of certain life-history parameters of early juvenile gag grouper (*Mycteroperca*

Northeast and Southeast Regional Utilities Service Areas Monitoring and Reporting, Polk County Utilities, Polk County, FL. Environmental scientist responsible for wellfield monitoring and reporting activities associated with the Environmental Management Plan (EMP) that addresses Special Conditions identified in Polk County's Water Use Permit. The boundaries of wetland vegetation were delineated by photointerpretation on aerial photos and digitized to create a GIS coverage for each reporting unit. Changes in wetland area and extent were made by comparing wetland boundaries over time.

West Bay Parkway PD&E, Bay County, FL. Environmental scientist responsible for assisting/collaborating with others to create the final version of an NRE for this project. The Federal Highway Administration (FHWA), in cooperation with the Florida Department of Transportation (FDOT), is considering the addition of a new link in the transportation network of the central Panhandle of Florida. This new link, known as the West Bay Parkway (WBP), would provide a connection between US 98 and US 231 in Bay County, Florida. The proposed roadway would use a combination of existing and new alignment within a 168-foot to 250-foot wide right-of-way. The right-of-way widths will allow for expansion of the road to a four-lane, divided roadway, when traffic demand warrants. Field efforts included multiple instances over the course of a year of field efforts to both determine threatened and endangered species presence within the project corridors, as well as to ground-truth FLUCFCS codes for each of the proposed project corridors and associated buffer. Desktop efforts included GIS-analysis of multiple proposed project corridors and environmental variables (FLUCFCS Codes, NWI-wetlands, reticulated flatwood salamander (RFWS) potential breeding ponds, FNAI listed species locations, etc.) to determine the environmental impact of each. These desktop analyses were checked in the field from November 2016 to May 2017 in an effort to update all previously assessed data related to the project.

Gopher Tortoise Survey and Population Estimate for De Soto National Forest, Mississippi (United States Forest Service). Served as field lead/technical writer/GIS analyst for a gopher tortoise sampling effort of the entire De Soto National Forest. The survey methodology utilized line-transect-distance sampling, which approximates the density of a gopher tortoise population through the use of field survey transects. After the survey transects were designed and placed through the use of desktop ArcGIS, field surveys were conducted to locate gopher tortoise burrows. These burrows were scoped and their occupancy determined for future calculations of density. A total transect distance of 31, 588 meters was surveyed, and the 76 tortoises observed were used in a calculation through the DISTANCE 7.2 software to estimate tortoise abundance and its corresponding coefficient of variance (CV) level. A full GIS analysis and mapping was performed on the tortoise data for the project.

Hydrologic Monitoring Wells Construction and Maintenance (NWFWMD). Environmental scientist responsible for the monitoring of well construction and repair in the Lake Talquin region as well as throughout Leon County, FL.

microlepis, Pisces: Serranidae) in the northern Gulf of Mexico" Masters Thesis Defense, Tallahassee, FL, May 20, 2011

Publications

Frederick, A., Tsigelny, I., Cohenour, F., Spiker, C., Krejci, E., Chatonnet, A., Bourgoin, S., Richards, G., Allen, T., Whitlock, M., and Pezzementi L. "Acetylcholinesterase from the invertebrate *Ciona intestinalis* is capable of assembling into asymmetric forms when co-expressed with vertebrate collagenic tail peptide." *FEBS Journal* 275:6, (2008) 1309-1322.

Deis, D.R., Fleeger, J.W., Bourgoin, S.M., Mendelssohn, I.A., Lin, Q., and Hou, A. "Shoreline oiling effects and recovery of salt marsh macroinvertebrates from the Deepwater Horizon Oil Spill". PeerJ 5:e3680

Deis, D.R., Mendelssohn, I.A., Bourgoin, S.M., Lin, Q., Fleeger, J.W., and Hou, A. "Analysis of marsh loss and erosion within northern Barataria Bay, Louisiana: the effects of the Deepwater Horizon oil spill." In Progress, PeerJ

Wakulla and St. Marks Rivers Minimum Flow Levels (MFL) Analysis. Environmental scientist responsible for field efforts to determine MFLs for the St. Marks and Wakulla Rivers while also identifying habitat types/zones along their banks and floodplains. The minimum flow and level (MFL) study will facilitate future management decisions on water withdrawal from these two river systems with the consideration of how different flow conditions can affect coastal wetlands, tidal freshwater swamp floodplain habitats, and protected species of the Wakulla and St. Marks rivers. This included instream habitat assessments, habitat mapping (i.e. GIS), vegetation sampling within the floodplain of each river, downloading hydrologic data from five (5) continuous data loggers stationed in the rivers and monthly water quality sampling at 29 vertical profile stations utilizing YSI water quality instruments to collect temperature, salinity, conductivity, pH, and depth.

Gulf of Mexico Research Initiative (GoMRI) Louisiana Marsh Research Study, Belle Chasse, LA (Louisiana State University). Environmental scientist responsible for conducting an ongoing (2012-present) field study examining the effect of remaining Deepwater Horizon oil spill residue on the function and health of two main LA marsh species: periwinkle snails (*Littorina spp.)* and various fiddler crabs. The project involves extensive field work in Barataria Bay, LA and resulted in a publication examining the recolonization and overall health of the marsh ecosystem. This portion of the project was presented at the Conference on Ecological and Ecosystem Restoration (CEER) from July 28-August 1, 2014, in New Orleans, LA. Recently, marsh grasses have also been planted and used for field analysis at previously-oiled sites within the marsh. This study is current and therefore the data is ongoing. The project also involves extensive desktop GIS analysis to calculate regular erosion rates within the marshes and how these rates are affected by hurricanes and oil spills. This portion of the project whas been presented at the Gulf of Mexico Research Initiative (GoMRI) Summit in New Orleans, LA, from December 10-15, 2016.

Escribano Point Hydrologic Restoration Plan, Escribano Point Wildlife Management Area, Florida Fish and Wildlife Conservation Commission, Pensacola, FL. Environmental scientist responsible for multiple field efforts in conjunction with FFWCC to identify and map natural features and waterways present throughout the Escribano Point WMA. These data were used in conjunction with Atkins engineers to develop a hydrologic restoration plan, with the goal of restoring the Escribano Point site to historic and sustainable hydrologic conditions.

Florida Department of Transportation (FDOT), Egans Creek Greenway Restoration, Fernandina Beach, FL. The Egans Creek Greenway (Greenway) consists of publicly owned lands located in, and managed by, the City of Fernandina Beach, Nassau County, Florida. The Greenway contains over 300 acres along the now channelized Egans Creek and was opened to the public for passive recreational use in summer 2000. The freshwater wetland restoration project was prompted by changes in Greenway vegetation due to inadvertent increased water levels and saltwater intrusion associated with the original Egans Creek Saltmarsh Restoration project located between Atlantic Boulevard and Jasmine Street. The Florida Department of Transportation (FDOT) District 2 established a comprehensive monitoring plan. This plan included the biannual monitoring of salinity levels and community composition

within the greenway, using soil salinity measurements and vegetation community identification in the field. The purpose of this report was to describe the study design, parameters, and sampling periodicity and present a summary of the program results. The previously delineated limits of the affected area were used to investigate water quality, biological and geologic factors in the Greenway.

Florida Gas Transmission Company (FGT) – Post-Construction Environmental Surveys – Phase VIII Expansion Project, Apalachicola, Florida (Florida Gas Transmission Company). Environmental scientist responsible for conducting wetland and invasive species surveys along sections 4 (Marianna, FL) and 5 (Tallahassee, FL) of the FGT pipeline. This project involves post-construction environmental surveys to document various wetland and upland conditions within the pipeline right-of-way, compressor and meter stations, and construction areas of the Phase VIII project corridor for a period of three years.

St. George Island Hydrologic Restoration Plan, Florida Department of Environmental Protection (FDEP), St. George Island, FL. Environmental scientist that assisted in a field effort to assess the current hydrologic situation and community types present on St. George Island, FL. These data were used in conjunction with Atkins engineers to develop a hydrologic restoration plan, with the goal of restoring the St. George Island site to historic and sustainable hydrologic conditions.

Gulf Coast Parkway Project Development and Environment (PD&E) Study, Bay and Walton Counties, FL. Environmental scientist responsible for assisting/collaborating with others to create the final version of the EA for this project. Field efforts included multiple instances of field efforts to determine threatened and endangered species presence within the project corridor. Desktop efforts included GIS-analysis of multiple proposed project corridors and environmental variables (FLUCFCS Codes, NWI-wetlands, reticulated flatwood salamander (RFWS) potential breeding ponds) to determine the environmental impact of each. The Federal Highway Administration (FHWA), in cooperation with the Florida Department of Transportation (FDOT), is considering the addition of a new link in the transportation network of the central Panhandle of Florida. This new link, known as the Gulf Coast Parkway, (GCP) would provide a connection between US 98 in Gulf County and US 231 and US 98 (Tyndall Parkway) in Bay County, Florida. The proposed roadway would use a combination of existing and new alignment within a 168-foot to 250-foot wide right-of-way. The right-of-way widths will allow for expansion of the road to a four-lane, divided roadway, when traffic demand warrants.

Georgia Department of Transportation (GDOT) NEPA Contract 3 Environmental Services, Toombs County, Georgia. Environmental scientist responsible for determining environmental impacts of various intersection improvements throughout Barrow and Toombs Counties, GA. Any wetland features, surface waters, state waters, and streams likely to impact the proposed project were identified in the field. All streams were scored using the NC DWQ Stream Identification Forms (Version 4.11) to determine their status as either ephemeral, intermittent, or perennial. Any wetlands were identified, as well as

any exotic/invasive species present within the project vicinity. An Ecology Resource Survey and Assessment of Effects Report (ERSAOER) was prepared documenting all field results and submitted to GDOT.

Georgia Department of Transportation (GDOT) NEPA Contract 3 Environmental Services, Thomas County, Georgia. Environmental scientist responsible for determining environmental impacts of various intersection improvements throughout Barrow County, GA. Any wetland features, surface waters, state waters, and streams likely to impact the proposed project were identified in the field. All streams were scored using the NC DWQ Stream Identification Forms (Version 4.11) to determine their status as either ephemeral, intermittent, or perennial. Any wetlands were identified, as well as any exotic/invasive species present within the project vicinity. An Ecology Resource Survey and Assessment of Effects Report (ERSAOER) was prepared documenting all field results and submitted to GDOT.

Summer Camp Beach Environmental Mitigation Services, Franklin County, Florida (The St. Joe Company). Environmental scientist responsible for seasonal vegetation monitoring/mitigation, consumptive use permit (CUP) monitoring/mitigation, and water quality assessment of both inshore and offshore waters. This project involves wetland mitigation, Consumptive Use Permit (CUP) vegetation monitoring, sea grass quantification and monitoring, and water quality monitoring services.

Tuscaloosa Regional Airport Wildlife Hazard Assessment (WHA), Tuscaloosa, Alabama (FAA). Environmental scientist responsible for conducting and reporting the Wildlife Hazard Assessment for the Tuscaloosa Regional Airport. Responsibilities included creating shapefiles and ArcGIS components for both use in the field and the analysis of data, assisting in the field gathering data, and composing quarterly reports to summarize results. Field components involved avian and mammal species identification and their subsequent digitization in the ArcGIS system. This project provided familiarization and knowledge of the FAA procedures and regulations pertaining to airport wildlife strikes. Responsibilities also include more of a direct leadership role in client interaction at the airport as well as completion of field surveying events.

Dayton International Airport Wildlife Hazard Assessment (WHA), Dayton, Ohio (FAA). Environmental scientist responsible for conducting and reporting the Wildlife Hazard Assessment for the Dayton International Airport. Responsibilities included creating shapefiles and ArcGIS components for both use in the field and the analysis of data, assisting in the field gathering data, and composing quarterly reports to summarize results. Field components involved avian and mammal species identification and their subsequent digitization in the ArcGIS system. This project provided familiarization and knowledge of the FAA procedures and regulations pertaining to airport wildlife strikes.

Panama City-Bay County International Airport (PFN) Relocation Water Quality Monitoring and Reporting Services, Bay County, FL (Panama City-Bay County Airport and Industrial District) As ecologist, he participated in monitoring efforts related to impacts of the relocation of PFN and construction of Northwest Florida Beaches International Airport (ECP). This multi-year project

involved quarterly and semi-annual reporting events to monitor, sample, and analyze offsite water bodies with an overall goal of gathering scientifically defensible information on the physical, chemical, and biological conditions of surface waters surrounding ECP, including water quality status and trends. Tasks accomplished as part of the study included identifying water bodies that exceeded DEP water quality standards, assessing water quality status discharged from ECP, describing present conditions and trends in water quality, and providing potential causes for identified exceedance. He also provided QA/QC oversight on this project during data analysis and report composition.

Wellness Way Corridor Feasibility Study, Orlando, FL. Environmental scientist serving as field lead for a potential private toll road currently in the PD&E stages of development. Three alternative alignments were identified during an initial Corridor Feasibility Study conducted prior to this stage of planning. Responsibilities included a pre-field GIS analysis of the site using data and shapefiles annotating Florida Land Use Classification Codes (FLUCCS), National Wetland Inventory (NWI), and Natural Resource Conservation Service (NRCS) soil series. A field effort was conducted using these shapefiles as a guide to determine the composition of the potential toll road alignments, including the extent of possible wetland features and presence of threatened and endangered species (or habitat). Wetlands were identified and scored using the Unified Mitigation Assessment Method (UMAM). Post-field GIS analysis was used to determine wetland and potential T&E habitat extents for each alternative alignment, which was reported to the client.

Georgia Department of Transportation (GDOT) Intelligent Transportation Systems (ITS) Environmental Task Order 2, Barrow County, Georgia. Environmental scientist responsible for determining environmental impacts of various intersection improvements throughout Barrow County, GA. Any wetland features, surface waters, state waters, and streams likely to impact the proposed project were identified in the field. All streams were scored using the NC DWQ Stream Identification Forms (Version 4.11) to determine their status as either ephemeral, intermittent, or perennial. Any wetlands were identified, as well as any exotic/invasive species present within the project vicinity. An Ecology Resource Survey and Assessment of Effects Report (ERSAOER) was prepared documenting all field results and submitted to GDOT.

Georgia Department of Transportation (GDOT) Intelligent Transportation Systems (ITS) Environmental Task Order 3, Walton County, Georgia. Environmental scientist responsible for determining environmental impacts of various intersection improvements throughout Walton County, GA. Any wetland features, surface waters, state waters, and streams likely to impact the proposed project were identified in the field. All streams were scored using the NC DWQ Stream Identification Forms (Version 4.11) to determine their status as either ephemeral, intermittent, or perennial. Any wetlands were identified, as well as any exotic/invasive species present within the project vicinity. An Ecology Resource Survey and Assessment of Effects Report (ERSAOER) was prepared documenting all field results and submitted to GDOT.

Georgia Department of Transportation (GDOT) Intelligent Transportation Systems (ITS) Environmental Task Order 14, I-20. Environmental scientist

responsible for determining environmental impacts of various improvements to the buffer of Interstate 20, west of Atlanta, GA. Any wetland features, surface waters, state waters, and streams likely to impact the proposed project were identified in the field. All streams were scored using the NC DWQ Stream Identification Forms (Version 4.11) to determine their status as either ephemeral, intermittent, or perennial. Any wetlands were identified, as well as any exotic/invasive species present within the project vicinity.

Central Florida Expressway (CFX) Wekiva Gopher Tortoise Relocations, Apopka Florida. Environmental scientist that assisted in the excavation and relocation of 50+ gopher tortoises located within the path of the CFX SR 436 expansion.

Florida Department of Transportation (FDOT), District 2, I-10 Intelligent Transportation Systems (ITS) Wetland Surveying, Jacksonville to Tallahassee, FL. Environmental scientist responsible for assisting in environmental services pertaining to the installation of ITS systems along the I-10 corridor from Jacksonville to Tallahassee, FL. Responsibilities included field work to determine the extent of all wetlands and/or other surface water designations within the I-10 boundary project corridor. Also preliminary GIS analysis as well as field wetland data post-processing of the interstate corridor was conducted to create an overview of wetland locations for the project.

West Bay Parkway (CR 388 Extension) Project Development and Environment (PD&E) Study, H.W. Lochner, Inc., Bay and Walton Counties, FL. Environmental scientist responsible for assisting/collaborating with others to create the final version of the EA for this project. Field efforts included multiple wetland delineations along the project corridor as well as evaluating potential retention pond sites for the project. FDOT District Three is proposing a new 4-lane, 24-mile roadway with bridge over the Intracoastal Waterway to connect US 98 in Walton County with SR 79 in Bay County. Referred to as the West Bay Parkway, the project has been split into two segments requiring two PD&E studies for the projects, also known as the CR 388 Extension. The purpose of the PD&E studies is to evaluate and determine the best location or alignment for the proposed new roadway; the best design; and the effect the project will have on the natural, physical, and social environment along or near the existing CR 388 corridor in Bay County between SR 79 and 77. The findings of the Segment 1 and Segment 2 PD&E studies will be documented in an EIS and an EA, respectively, and submitted to the Federal Highway Administration for approval. An extensive public involvement program will be conducted throughout the project to obtain the public's input in developing the best solution to meet the community's transportation needs

Florida Gas Transmission Company (FGT) – TECO Project Gopher Tortoise Relocation, Lake City, Florida (Florida Gas Transmission Company). Environmental scientist assisting in the excavation of gopher tortoises along the new proposed TECO pipeline in Lake City, FL. This required mechanical gopher tortoise excavation through the use of trackhoes, hand excavations using shovels, and bucket trapping techniques to capture gopher tortoises for relocations.

Florida Gas Transmission Company (FGT) – TECO Project, Starke, Florida (Florida Gas Transmission Company). Environmental scientist responsible for conducting wetland delineations and T&E species surveys along the new proposed TECO pipeline in Starke, FL. This project involves pre-construction wetland delineations along the entirety of the project corridor, the completion of ACOE wetland forms and WRAP forms for each wetland, and the completion of gopher tortoise surveys throughout selected sections of the proposed project corridor.

Deepwater Horizon Oil Spill SCAT Recovery Efforts, Grand Isle, Louisiana (Plaquemines Parish). Served as a Coastal Restoration and Protection Authority (CPRA) assisting Shoreline Cleanup Assessment Team (SCAT) members in the identification and removal of sub-surface oil in Grand Isle, LA. Recorded the presence and magnitude of sub-surface oiling found within auger holes bored into the Grand Isle and Grand Terre beachfronts. Collaborated with Tetra Tech Environmental Firm as well as United States Coast Guard.

Panama City Airport Mitigation Activities, Panama City, Florida (Panama City Bay County Airport and Industrial District). Environmental scientist responsible for assisting in various mitigation and water quality monitoring assignments. Semi-annual water quality testing was conducted and reported for various riverine and marine stations potentially impacted by airport development. Yearly mitigation monitoring activities were also carried out to ensure proper development of land used as a mitigation area. These monitoring events involved vegetation identification and cover class analysis. Annual mitigation monitoring and progress reports were generated from this monitoring and reviewed for accuracy.

WindMark Beach Monitoring and Ecological Services, Port St. Joe, Florida (The St. Joe Company). Environmental scientist responsible for managing personnel and conducting surveys for federally listed plant species and gopher tortoise burrows. These surveys and other monitoring activities are composed in yearly monitoring reports. These findings were also presented annually at a homeowners meeting for the residents of the Windmark Beach community.

Turkey Creek Mitigation Site, Tasks 404 Wetland Delineation, York County, South Carolina (Duke Energy). Environmental scientist responsible for participating in two separate wetland delineation procedural deployments for the entirety of the Turkey Creek Mitigation Site. Used wetland delineation procedures including soil study, vegetation identification, and the classification of hydrological patterns to determine wetland boundaries within the Turkey Creek Mitigation Site (~6000 acres). Also used GIS technology for navigation as well as the mapping of each distinct wetland habitat.

Sumter National Forest Mitigation Plan (Mapping), Newberry County, South Carolina (Duke Energy). Environmental scientist responsible for assisting in various stream mapping/qualifying procedures. These activities were conducted to determine mitigation credits for the client. These activities included stream and wetland delineation, assessment of various stream “bank full” conditions, ground truthing of perceived stream order, and Bank Erosion Hazard Index (BEHI).

Sumter National Forest Mitigation Plan (Stream Macro invertebrate Surveys), Newberry County, South Carolina (Duke Energy). Environmental scientist responsible for assisting in the collection of stream macro invertebrates. These collections were conducted in multiple locations within the Sumter National Forest in Newberry County, SC. Samples were collected through dip nets, kick seines, and substrate sampling.

Little London Creek Mitigation Area, Gaffney, South Carolina (Duke Energy). Environmental scientist responsible for aiding in the mapping and scoring of multiple stream reaches outside the town of Gaffney, SC. These streams were scored in order to gain an accurate assessment of their value in regards to mitigation credits.

Florida State University (FSU) Reservation Dock Permitting, Tallahassee, Florida (Florida State University). Environmental scientist responsible for assisting in a Natural Features Inventory (NFI) of the proposed project site. This project included preparation and submittal of Florida Department of Environmental Protection (FDEP) and Leon County permits for a FSU-provided dock design at the FSU reservation on Lake Bradford.

Hancock Forest Management (HFM) – Mitigation Banking Market Assessment, Various States (HFM). Environmental scientist responsible for conducting research into mitigation banking procedures across the U.S. Army Corps of Engineers (USACE) districts for the client. This project involves conducting mitigation banking assessment associated with lands managed by HFM in 17 states.

Apalachicola National Forest Gopher Tortoise Restoration Research Study, Apalachicola, Florida (The St. Joe Company). Environmental scientist responsible for assisting in the relocation and monitoring of gopher tortoises relocated from various sites throughout the state of Florida to the national forest and maintaining the integrity of enclosures on the recipient site. Gopher tortoise (*Gopherus polyphemus*) populations have been declining in recent decades, due in large part to an increase in urbanization, habitat conversion, and habitat fragmentation. The Florida Fish and Wildlife Conservation Commission (FWC) requires the protection of all gopher tortoises and their burrows located within 25 feet of development activities. Landowners and developers with gopher tortoises on their property can have them relocated to an FWC-approved long-term recipient site (conservation bank). The gopher tortoise recipient site, known as the Apalachicola National Forest (ANF) Research and Restoration Area is the result of a Service (USFS), The St. Joe Company, and FWC. It contains more than 900 contiguous acres of the tortoise's preferred upland pine sandhills habitat that will be managed into perpetuity to maintain habitat conditions by USFS.

USACE Section 404 Individual Permit Application (Confidential Energy Client). Environmental scientist responsible for evaluating and assessing the importance/quality of streams located in a potential future development. This project involves preparation of a USACE Section 404 Individual Permit Application for construction of a proposed nuclear facility. This permit application includes environmental documentation supporting the proposed activities within jurisdictional waters of the U.S., including intake and discharge structures, and

offsite impoundment, railroad spur, and offsite transmission lines. Supporting tasks have included supplemental wetland delineation and mitigation analysis. The permit application is being developed congruently with final engineering design and supplemental environmental documentation, requiring Atkins to maintain close communication and flexibility with the client and a large team of engineering and environmental consultants.

Port of Panama City Intermodal Distribution Center Year 2 Mitigation Monitoring and Permit Modifications, Panama City, Florida (Panama City Port Authority). Environmental scientist responsible for annual vegetation monitoring of mitigation property associated with the Panama City Port Authority. This project involves Year 2 mitigation monitoring for Port Panama City as described in the Port Panama City Intermodal Distribution Center Mitigation and Monitoring Plan. Monitoring activities will include the sampling of nine 30-foot x 30-foot monitoring plots. Nine plots are located in three different habitat types or mitigation activity types: wet pine flatwoods, mechanical/manual clearing, pine thinning, and longleaf planting. Examples of the data collected at monitoring locations include: identification and description of the vegetative community; groundcover plant species percent cover; canopy percent cover (in forested systems); canopy basal area density (ft2/acre) in pine flatwoods or pine savanna); Wetlands Rapid Assessment Procedure (WRAP) wetland assessment, to be conducted during the growing season; a description of any unusual climatic conditions or natural phenomenon; panoramic photos for each community; and a determination if success criteria have been met. Field data forms will be completed for all monitoring sites. Atkins will also conduct work related to the permit modifications which will involve field work to delineate revised wetland boundaries, coordination and site visits with the FDEP and USACE for permit modifications; and preparation of supporting documentation such as narrative descriptions, map exhibits, and suggested edits to mitigation permit conditions and mitigation plan.

Highway Performance Monitoring System Assistance, Alabama Department of Transportation (ALDOT). Environmental scientist responsible for assisting in a team effort to check every public road in the state of Alabama through use of ArcMap GIS technology. The state was divided by counties, with each county distributed to a member of a large team of GIS analysts. Roads (through use of TIGER) were checked to ensure they were publicly accessible and then stored in the overall geodatabase.

Tram Road Grading-Southwood, Tallahassee, Florida (The St. Joe Company). Environmental scientist responsible for initial gopher tortoise surveys at the Tram Road site. This project involves preparation of a grading plan for approximately ten acres and submittal of a permit application to the City of Tallahassee for land clearing.

Pier Park Conservation Easement Evaluation, Panama City Beach, Florida (Pier Park Community Development District). Environmental scientist responsible for land-clearing procedures associated with developing the proposed Pier Park development site. This project involves a review of the conservation easement and/or the development of regional impact (DRI) document; and an attempt to locate and review dredge and fill permits.

U.S. Marine Corps Blount Island Gopher Tortoise Surveys, Jacksonville, Florida (Battelle Memorial Institute). Environmental scientist responsible for conducting an initial 100% coverage gopher tortoise survey of Blount Island Marine Station. This project involved providing desktop analysis and coordination with MCIEAST personnel to evaluate the entire 902 acres on the east half of Blount Island (Marine Corps Support Facility-Blount Island [MCSF-BI] for identified gopher tortoise habitat.

Shepherd's Branch Mitigation Monitoring, Leon County, Tallahassee, FL. Environmental scientist responsible for assisting in various mitigation monitoring assignments. Yearly mitigation monitoring activities were carried out to ensure proper development of land used as a mitigation area. These monitoring events involved vegetation identification and cover class analysis. Annual mitigation monitoring and progress reports were generated from this monitoring and reviewed for accuracy.

Sacred Heart Hospital Offsite Mitigation Site Monitoring Services, Gulf County, Port St. Joe, FL. Environmental scientist responsible for assisting in various mitigation monitoring assignments. Yearly mitigation monitoring activities were carried out to ensure proper development of land used as a mitigation area. These monitoring events involved vegetation identification and cover class analysis, as well as surveys for the federally-listed species Telephus spurge (*Euphorbia telephioides*). Annual mitigation monitoring and progress reports were generated from this monitoring and reviewed for accuracy.

Blount Island Environmental Support Services, Blount Island, Florida (USACE, Mobile District). Environmental scientist that assisted in the excavation of 100-plus gopher tortoise burrows located on Blount Island Marine Station. As part of the ongoing contact with USACE-Mobile for planning and environmental services, Atkins performed the following tasks for the MCSF-BI; a boundary-to-boundary survey; and gopher tortoise excavation and relocation. The excavation encompassed greater than 100 gopher tortoise burrows.

City of Tallahassee/Leon County Natural Features Inventories. Environmental scientist responsible for conducting Natural Features Inventories (NFIs) for proposed Leon County engineering and roadway projects. With these NFIs, all natural features (wetlands, T&E species, etc.) are identified in the field through GIS positioning systems and included in a report to the county. NFIs completed while at Atkins include: Ford's Arm Channel Restoration and Enhancements, Tram Road Trail Sidewalk Installation, Southwood Park Community Development/Gopher Tortoise Survey, Natural Bridge Road Sidewalk Installation, Chadwick/Deerlake Road Sidewalk Installation, Dome Level Road Sidewalk Improvement, Geddie at State Road 20 Sidewalk Improvement, Beech Ridge Trail Sidewalk Installation, Lonnie Road Sidewalk Installation, Keystone Court Trash Screen, Fred George Road Trash Screen, Gamble Road at Lake Bradford Road Stormwater Sewer Replacement, Timberlane Road Sidewalk Installation, Crump Road Sidewalk Installation, Naab Road Sidewalk Installation, Chaires Crossroad Sidewalk Installation, Perkins Road Sidewalk Installation, Woodville Highway Sidewalk Installation, Magnolia Road Sidewalk Concept Study, and Gearhart Road Sidewalk Installation.

Austin D. Carroll, RF, CWB

Program Manager/Principal Ecologist

Austin Carroll serves as Partner and Principal Ecologist with Southern Forestry Consultants (SFC) and President of its environmental subsidiary, Wiregrass Ecological Associates (WEA). He is a forester, ecologist, and wildlife biologist with over 20 years of project management experience in resolving natural and water resources management and policy issues, permit acquisition and compliance, mitigation and restoration area management and monitoring, multi-organizational partnership development, and ecological research and monitoring in ecosystems across the southeastern U.S). His experience in field research includes study design, implementation, data collection, analysis, and reporting. His past experience has given him a expertise in aquatic and terrestrial habitat management practices; wildlife and fisheries population management; silvicultural and mitigation area design and management; threatened and endangered species surveys, relocations, and management; regulatory compliance, permitting (including National Environmental Policy Act [NEPA]), and monitoring techniques; and large-scale project management. He has established and coordinated partnerships among local landowners, citizen/civic groups, governmental agencies, private industry, academic and research groups, and non-governmental organizations to facilitate mutual interest and cooperation in achieving ecologically significant objectives. These efforts led to Mr. Carroll serving as a guest instructor on partnerships at the U.S. Fish and Wildlife Service (USFWS) Training Center. He also serves annually as an invited faculty member at the Florida Environmental Permitting Summer School.

Mr. Carroll previously served as the Southeast US Program Manager of Environmental Sciences and the National Aviation and Environmental Sciences Lead for Atkins, Inc. He has also served as a forest wildlife ecologist for International Paper and The St. Joe Company.

Mr. Carroll's project experience includes:

Forest Management, Restoration, and Mitigation

American Forest Foundation (AFF) Florida Landscape Management Plan (Florida Panhandle). Mr. Carroll served as SFC program manager for the development of a Landscape Management Plan Pilot (LMP) for forest communities throughout the western panhandle of Florida. The goal of the LMP was to develop a credible forest management planning structure to support landscape scale conservation activities. Drawing on emerging research, models used in Scandinavia and techniques used by some American consulting firms, the landscape plan was designed to reduce the management plan barrier that landowners face to becoming involved in conservation activities and streamline the American Tree Farm System® (ATFS) certification process. The management plan promoted implementation of conservation activities with positive impacts for wood production and biodiversity conservation, on the ground. The SFC engaged public and private landowners and professionals through a Natural Resource Professional Support Committee. The fully interactive LMP document incorporated various local, state, and national guidelines, standards, and BMP's. The LMP ultimately provided methodology for determining landowner and landscape level objectives, forest identification, forest resources (including non-consumptive cultural, aesthetic and ecosystem benefits), silvicultural and management options, and adaptive management techniques. SFC developed

Education

M.B.A., Warrington College of Business Administration, University of Florida, 2012

M.S., Wildlife and Fisheries Science, Mississippi State University, 2004

B.S., Forestry (Wildlife Management Option), Mississippi State University, 2000

Certifications

Certified Wildlife Biologist, The Wildlife Society

Qualified Airport Wildlife Biologist, Federal Aviation Administration

Registered Forester, Mississippi, #02148

Tree Farm Inspector #172965

Certified Prescribed Burner in Mississippi and Alabama (#01138)

Florida Certified Commercial Pesticide Applicator, CM25920 – Core, Aquatic, Forest Pest and Natural Areas

Alabama Certified Commercial Pesticide Applicator, 2003624 - Ground, Aquatic

I-100, L-180, S-130, S-131, S-190, S-215, Fire Management Certification

Florida Fish and Wildlife Conservation Commission (FWC) Gopher Tortoise Authorized Agent #GTA-13-00026 (all services except modified pulling rod)

Embry-Riddle Aeronautical University Federal Aviation Administration (FAA) Wildlife Hazard Management Training

National Pollutant Discharge Elimination System (NPDES)-Qualified Stormwater Management Inspector, #14507

FWC Official Marine Turtle Lighting Exam

also developed an accompanying web-enabled geodatabase for site characterization of all forested parcels in the Florida panhandle.

Panama City - Bay County International Airport (PFN) Relocation Mitigation Management and Monitoring, Bay County, FL (Panama City-Bay County Airport and Industrial District). Project manager responsible for regulatory agency coordination; mitigation plan implementation; contract administration; wetland functional assessment tracking; and qualified mitigation supervisor (QMS) responsibilities; and monitoring and reporting requirements for the approximately 10,000-acre mitigation area required for construction of the Northwest Florida Beaches International Airport (ECP). He developed the management schedule to accomplish the goals and objectives of the mitigation plan under an accelerated timeline. He directed activities of and provides guidance to the contractor, relative to mechanical and manual site preparation, prescribed burning, hydrologic restoration, vegetation planting, invasive/exotic species management, and dump site removal. He also led regulatory agency coordination and site visits, quantitative and qualitative monitoring efforts, and reporting requirements for the mitigation area.

Emerald Coast Utilities Authority (ECUA) Central Water Reclamation Facility (CWRF) Forest Restoration Area (Escambia County, Florida). As program manager, Mr. Carroll completed a forest restoration plan for the approximately 2,100-acre CWRF Forest Restoration Area in Escambia County, Florida. A desktop analysis of geospatial resources, unmanned aerial vehicle (UAV) reconnaissance, and subsequent habitat inventory was performed on the site to determine the natural communities and forested conditions upon which the management plan was based. Invasive species were also recorded during habitat inventory surveys, invasive species only surveys, and through ancillary observations during hydrologic characterization site visits. Statistical analysis of survey data and proprietary growth and yield models were conducted to accurately evaluate the techniques needed to create the Desired Future Condition (DFC) of the natural communities. Ultimately, SFC developed a 20-year forest restoration plan and program budget using appropriate habitat management methods to restore the native sandhill and scrub pine flatwood natural communities while maximizing water quality and water availability standards. Additionally, proprietary growth and yield models were used on the habitat inventory data to develop annual and 5-year program budgets, that would fund the project over the 20-year plan. SFC currently provides oversight and management for habitat enhancement implementation activities detailed within the management plan.

Baldwin County Highway Department Wetland Mitigation Area Management (Baldwin County, Alabama) Mr. Carroll leads efforts to restore approximately 425 acres of hydric pine flatwoods habitat. Following desktop analysis, unmanned aerial vehicle (UAV) reconnaissance, and on-site inspection, Mr. Carroll developed an operations plan that included the use of fuelwood harvesting methods to remove midstory and overstory vegetation, roller-chopping to reduce and horizontally stratify less dense vegetation and fuels, prescribed burning, and selective herbicide applications. Under Mr. Carroll's direction, these management tools are currently being implemented to enhance habitat conditions to meet USACE permit conditions.

Florida Wildlife Conservation Commission (FWC) Big Bend Wildlife Management Area Comprehensive Forest Management Plans (Perry, Florida). Mr. Carroll served as project manager and principal ecologist to develop a long-term forest management plan to "create or restore historical, self-sustaining, naturally regenerating upland pine communities including the range flatwoods of sandhill

Institutional Animal Care and Use Committee (IACUC) Animal Care and Handling Training

Committee Appointments

Society of American Foresters, National Committee on Forest Policy, 2019-present

Florida Forestry Association, Environmental Committee Meeting, 2017 - present

Florida Tree Farm Program Board of Directors, 2019 - Present

Florida Forestry Association, Gopher Tortoise Task Force, Lead, 2019 - present

FWC Black Bear Management Plan Stakeholder Group, 2011 – present

Transportation Research Board of the National Academies of Sciences, Engineering and Mathematics, Committee on Ecology and Transportation, 2013 – present

Big Bend and Capital (Florida) Regions Envirothon Sponsor and Volunteer, 2011-2015

SummerCamp Firewise Board, President (2007-2008)

FWC Florida Wildlife Legacy Initiative Stakeholder Group, The St. Joe Company Representative, 2006-2007

Franklin County Wildlife Initiative, Board Member, 2006-2007

Professional affiliations

The Wildlife Society, Florida chapter

Society of American Foresters, Big Bend chapter

Ecological Society of America

Society for Ecological Restoration, Coastal Plain chapter

Birdstrike Committee USA

Gopher Tortoise Council

Southeast Partners in Amphibian and Reptile Conservation, Alabama and Florida Chapters

communities … depending on the soils and other factors, that will be returned to the historic community type designation and managed for the benefit of the suite of wildlife species native to these community types." FWC contracted with SFC to conduct a timber inventory and develop 20-year forest management recommendations on selected forested stands identified within the Hickory Mound, Snipe Island, and Spring Creek Units of the Big Bend Wildlife Management Area (BBWMA). Additionally, SFC was tasked with revising and creating polygon shape files for these stands, compiling forest inventory data with the statistical analyses of results, and preparing a forest inventory report. SFC designated inventoried stands to specific Desired Future Condition (DFC) natural community types including wet pine flatwoods, mesic pine flatwoods, and scrubby pine flatwoods. Site specific management recommendations were then written for each stand to transition them to the DFC. These actionable management recommendations included timber harvest schedules, native groundcover enhancement through herbicide applications and prescribed burning, hardwood competition control through herbicide and mechanical/manual enhancement activities, and longleaf pine planting.

United States Army Corps of Engineers (USACE) Allatoona Lake Forest Mapping, Inventory and Report (Georgia). Mr. Carroll served as project manager providing professional forest inventory and reporting services to USACE on approximately 19,400 acres of the Allatoona Lake Project Site near Cartersville, Georgia. All inventory data was recorded and audited on hand-held data recorders or web-based mapping and inventory systems. Cruise specifications included using veneer, sawtimber, and pulpwood (Chip-N-Saw as applicable) product groups to the local mill requirements. Inventory specifications included all trees to species, DBH, site index, age, height, 10-year radial growth, and bark thickness. Sub-merchantable and regeneration species were inventoried using 1/50th acre plots. Snags and cavity sizes were also collected on each plot. Technical accuracy levels were acceptable to USACE standards. WEA staff is currently completing the Forest Inventory Report.

Mississippi Department of Wildlife Fisheries and Parks (MDWFP) Coastal Invasive Species Inventory Auditing Services (George and Jackson Counties, Mississippi). Mr., Carroll completed auditing services on forest inventory and invasive species plots within the Pascagoula River WMA in George and Jackson Counties, Mississippi. All forest inventory audit data was recorded on hand-held data recorders using T-cruise. Sawtimber (1/5th acre plot) and pulpwood (1/10th acre plot) product specifications were recorded by species, 1" DBH class, and merchantable height. Snags and cull trees were recorded with the presence of potential dens and den size. Regeneration and sub-merchantable (1/100th acre plot) tree species were recorded by height class. A 53-species list was used to identify all trees. Invasive Species were recorded within 24 feet of plot center using a 12-species list. Audit locations were selected using a stratified random sampling by WEA and audit data subsequently graded with the initial survey data. Technical accuracy standards for these cruises were acceptable at > 80% due to the requirements established by MDWFP. Mr. Carroll also developed audit reports for MDWFP and discussed inconsistencies and errors within the inventory with both MDWFP and the inventory cruisers.

Florida Fish and Wildlife Conservation Commission (FWC) Tosohatchee Wildlife Management Area (TWMA) Timber Assessment and Report (Orange County, Florida). Mr. Carroll served as a principal ecologist and senior forester providing professional forest inventory and planning services to FWC on approximately 7,832 acres of the TWMA in Orange County, Florida. Initially, existing stand boundaries were corrected using desktop geospatial software and current

Alabama Wildlife Federation

National Eagle Scout Association, Lifetime Member

Software

Experience in ArcGIS; T-cruise; SAS; SPSS; Oracle Crystal Ball; RiskSim; Minitab; PC ORD; CANACO; Various GPS units and OS; Microsoft Access; and Microsoft Project

aerial imagery. These stand boundaries were further refined during field inventory events. All inventory data was recorded on hand-held data recorders using sawtimber and pulpwood (including Chip-N-Saw as applicable) product specifications and species classifications applicable to the local mill requirements. Site Index, age, height, 10-year radial growth, and bark thickness were also recorded. Sub-merchantable and regeneration species were inventoried using 1/100th acre plots. Technical accuracy levels were acceptable to Florida Forest Service levels.

Northwest Florida Beaches International Airport (ECP) Wetland B and D Restoration, Monitoring and Reporting, Bay County, FL (Panama City-Bay County Airport and Industrial District). As project manager for this project, he directs restoration of wetland habitat impacted during prolonged inundation events. He evaluated the use multiple restoration activities and their impacts on sedimentation and the natural hydrology of the site. These activities included prescribed burning, mechanical harvesting, manual debris removal, and replanting potential. Mr. Carroll hired contractors and implemented a combination of these activities to garner USACE and FDEP approvals for restored hydrology on the site. Mr. Carroll is also responsible for all monitoring and reporting efforts associated with this management area.

SummerCamp Beach Community Environmental Services and Mitigation Area Management, Monitoring, Reporting, Franklin County, FL (The St. Joe Company). Project manager responsible for providing project management and QMS services for the SummerCamp Beach community and mitigation area. He provides management recommendations and coordination with St. Joe biologists regarding road removal, hydrologic restoration, vegetation planting, sea turtle issues, prescribed burning, nuisance and exotic species control, urban-wildlife interactions, Firewise Community standards, and community education. He provides St. Joe technical assistance regarding state and federal laws, regulations, policies, and permits related to land management and the mitigation area. He directs annual wetland assessments (permit requires WRAP scoring), vegetation monitoring, and mitigation progress monitoring efforts. He also leads and provides QA/QC oversight on this project during data analysis and report composition.

Gulf County Sacred Heart Memorial Hospital Offsite Mitigation Area, Gulf County, FL (The St. Joe Company). Project manager and senior scientist providing management recommendations regarding habitat enhancement from planted silviculture to wet pine prairie and savannah. He directed and performed listed species surveys to document population occurrence locations prior to harvesting efforts. He coordinated timber harvest operations to minimize impact on the listed species and meet management objectives. He also coordinates prescribed burn regimes for habitat management. He also leads monitoring and reporting efforts pursuant to USACE and DEP permit conditions. Mr. Carroll also provides agency negotiation services regarding permit compliance, modifications, and success criteria achievement.

Port Panama City Intermodal Distribution Center Mitigation Area Management, Bay County, FL (Port Panama City). Project manager and senior scientist responsible for providing QMS services for mitigation plan implementation on the Port of Panama City Intermodal Distribution Center mitigation area. He directs mitigation plan implementation by providing on-site management recommendations and coordination with contractors during wetland vegetation thinning, prescribed burning, hydrologic restoration, and vegetation planting. He also leads monitoring and reporting efforts pursuant to USACE and DEP permit conditions. Mr. Carroll also

provides agency negotiation services regarding permit compliance, modifications, and success criteria achievement.

Pier Park Wetland Enhancement and Permitting Services, Bay County, FL (Pier Park Community Development District / Simon Group). As project manager, he evaluated two on-site conservation areas for potential wetland enhancement activities. He assisted in the development of management plans to guide enhancement activities, including a nuisance/exotic species plan, vegetation thinning plan, and prescribed burning plan. He coordinated permit consultations and site visits with regulatory agencies and provided contractor guidance for implementation of the plans. Mr. Carroll developed and directed progress monitoring and reporting protocols for the enhancement projects. Ultimately, he successfully led implementation and completion of each plan through utilization of specialized environmental contractors.

Wetlands Mitigation Banking Market Assessments, Alabama, Florida, and North Carolina (Resource Management Service, LLC [RMS]). Senior scientist that assisted in assessments of current and future mitigation banking market conditions for a 3.8 million-acre study area in North Carolina and a 6.3 million-acre study area in Alabama and Florida associated with RMS landholdings. These assessments focused on current mitigation credit supply, projected credit supply over a 10-year period, and demand for credits now and in the future based on public and private development patterns. The approach combined quantitative and qualitative assessments of economic and geographic sectors along with regulatory, economic development, and Atkins staff representing various business lines. Final deliverables provided an overall assessment of potential mitigation banking opportunities for RMS within the multi-watershed study areas.

Wetlands Mitigation Banking Market Assessments, Mississippi (New Forests). As a senior scientist, Mr. Carroll provided assistance during the development of a feasibility assessment for a proposed mitigation bank. This assessment involved evaluation of the mitigation banking instrument, site conditions, current and future mitigation credit supplies and economic drivers of credit demand within a multi-county area in north Mississippi. The final deliverable was provided to the client with an assessment of relative risk regarding investment opportunities.

Wetlands Mitigation Banking Market Assessments, Multiple States (Hancock Forest Management [HFM]). Senior scientist performed assessments of potential issues related to mineral rights and mitigation banks in 19 USACE Districts associated with HFM's landholdings in 16 states.

Wildlife Hazard Management

Tuscaloosa Regional Airport (TCL) Wildlife Hazard Assessment (WHA) and Management Plan (WHMP), Tuscaloosa County, AL (City of Tuscaloosa). As project manager for this project, he led the WHA process which evaluated on-site and off-site wildlife hazards to TCL. This assessment includes spatial data and aerial photography desktop analysis, coordination and interviews with TCL staff, identification of wildlife attractants, and daily and seasonal wildlife population surveys and monitoring. Mr. Carroll analyzed the results of this 12-month ecological study to develop relative risk values (RRV) for aircraft on all species. General administrative, active wildlife, and passive habitat management recommendations were also developed to mitigate hazards associated with wildlife at TCL. Following FAA review and approval of the WHA, a WHMP was developed in conjunction with TCL staff to

address the WHA results and recommendations by incorporating wildlife hazard management techniques into airport operations. Mr. Carroll also led 2 WHMP training sessions for TCL staff which included review of the plan, bird identification, and field pyrotechnic training. Mr. Carroll serves as the Qualified Airport Wildlife Biologist on the TCL Wildlife Hazard Management Group.

Venice Municipal Airport (VNC) and Golf Course Wildlife Attractant Review of Landscape Planting Plan, Sarasota County, FL (City of Venice). Senior scientist responsible for evaluating the potential wildlife hazard impacts associated with the landscape planting plan for VNC and the nearby golf course. All species addressed in the plan were evaluated and their potential uses by wildlife discussed. These species evaluations were combined with analysis of the planting locations to provide an assessment of the relative impacts of the proposed planting plan. Recommendations were provided for ways to mitigate such impacts and/or provide suitable planting (species and location) alternatives.

James M. Cox Dayton International Airport (DAY) Wildlife Hazard Assessment (WHA), Montgomery County, OH (City of Dayton). As project manager for this project, he led the WHA process which evaluates on-site and off-site wildlife hazards to DAY. This assessment includes spatial data and aerial photography desktop analysis, coordination and interviews with TCL staff, identification of wildlife attractants, and daily and seasonal wildlife population surveys and monitoring. Mr. Carroll analyzed the results of this 12-month ecological study to develop relative risk values (RRV) for aircraft on all species. General administrative, active wildlife, and passive habitat management recommendations were also developed to mitigate hazards associated with wildlife at TCL. The final WHA was submitted and approved by FAA.

Colonial Wading Bird Nesting Prevention Plan and Management, Jefferson Parish, LA (U.S. Army Corps of Engineers [USACE], New Orleans District). Assistant project manager responsible for assisting in the development of the colonial bird nesting prevention plan for the USACE-New Orleans District to prevent colonization of a historic rookery adjacent to Lake Pontchartrain and vicinity, as well as Lake Charles Parish levee maintenance and construction activities during nesting season. The nesting plan contained life histories of potential nesting species, equipment required, and abatement methodology, relative to the goals and objectives of the USACE and under the regulations of the USFWS and Louisiana Department of Wildlife and Fisheries (LDWF). The project site is uniquely situated between the New Orleans International Airport (MSY), and oil and gas fields and refineries, requiring ongoing and detailed coordination of the abatement measures. Mr. Carroll directed initial field efforts and staff training relative to the safe and effective implementation of the nesting plan and associated management activities. He established species observation and abatement measures monitoring methodology to document species abundance and locations, abatement measures employed, and efficacy of these measures. He was also involved in discussions and negotiations with USACE, USFWS, and LDWF, regarding the nesting prevention plan methodology, implementation, and reporting.

Greater London Hub Airport Wildlife Hazard Study, Greater London County, United Kingdom (Transportation for London). As a senior scientist for this ongoing project, he provides standards and assessments related to the siting, construction, and development of a potential new airport in Greater London. This includes the research and composition of the Wildlife Hazards Good Practice -

Technical Note related to wildlife hazard considerations during the development of new airports. International case studies discussed include wildlife hazard risk mitigation efforts at new and renovated airports in South Africa, Latvia, Poland, and the United States. He also provided Quality Assurance and Quality Control (QA/QC) review for potential bird strike risk (based on preliminary and existing data) at three locations in the United Kingdom. Ultimately, recommendations were developed to mitigate the risk of catastrophic wildlife strikes at potential new airport locations by collecting onsite and offsite habitat data, wildlife density and movement data, and evaluating the daily, seasonal, and annual fluctuations due to these environmental components.

SummerCamp Beach Community Shorebird Monitoring and Management, Franklin County, FL (The St. Joe Company). Project manager responsible for monitoring and delineation efforts of wintering shorebird populations at the SummerCamp Beach Community in Franklin County. This included documentation and reporting of species observed on the approximately four miles of shoreline in the project area. In accordance with USACE and FDEP permit requirements, areas containing listed shorebird species (e.g., piping plover) were posted with informational signage on the location and presence of the species. Additionally, coordination with residents, visitors, and construction personnel included the implementation of disturbance avoidance measures and development of best management practices.

National Environmental Policy Act (NEPA) and Permitting

Focused Environmental Assessment (EA) for Venice Municipal Airport (VNC) Runway 13-31 Safety Improvement Project, Sarasota County, FL (City of Venice). As a part of the project management team, he was responsible for Quality Assurance and Quality Control (QA/QC) reviews of draft and final EA document submittals to the FAA. This EA evaluates impacts associated with the realignment of Runway 13-31 to conform to FAA design standards (preferred alternative) relative to a no action alternative. This evaluation is based upon environmental consequences to the affected environment including aircraft operations; noise; air quality; infrastructure and utilities; hazardous materials and waste; and earth, water, biological, cultural, and socioeconomic resources. This EA also evaluated cumulative impacts to these biophysical resources related to past, present, and future actions in the area. Mr. Carroll also provided input and QA/QC regarding coordination with the Florida State Clearinghouse, FAA, FWC, USFWS, and the general public.

Environmental Assessment (EA) for Relocation and Construction of the Panama City - Bay County International Airport (PFN) VORTAC to Tyndall Air Force Base (TAFB), Bay County, FL (Panama City-Bay County Airport and Industrial District). Project manager responsible for the survey design, data collection and analysis, and EA composition on this project. This EA evaluated the preferred action alternative (VORTAC relocation) in relation to the no action alternative, based upon environmental consequences to the affected environment including aircraft operations; noise; air quality; infrastructure and utilities; hazardous materials and waste; and earth, water, biological, cultural, and socioeconomic resources. This EA also evaluated cumulative impacts to these biophysical resources related to past, present, and future actions in the area. He coordinated the review and incorporates comments from TAFB, Federal Aviation Administration (FAA), PFN, USFWS, FDEP – State Clearinghouse, National Marine Fisheries Service (NMFS), eight Native American Tribes, and the general public.

Environmental Assessment (EA) for Northwest Florida Beaches International Airport (ECP) Commercial Development Phase I, Bay County, FL (Panama City-Bay County Airport and Industrial District). Project manager responsible for preparing an EA submittal to FAA regarding impacts associated with the development of aviation use and general use parcels associated with the new ECP. He led all survey design, data collection and analysis, and EA composition on this project. This EA evaluates the preferred commercial development alternative relative to multiple alternatives, based upon environmental consequences to the affected environment including aircraft operations; noise; air quality; infrastructure and utilities; hazardous materials and waste; and earth, water, biological, cultural, and socioeconomic resources. This EA also evaluated cumulative impacts to these biophysical resources related to past, present, and future actions in the area. He also led coordination with the FAA, USACE, USFWS, NMFS, and the general public.

Environmental Assessment (EA) for Department of Homeland Security (DHS) Cheltenham Federal Law Enforcement Training Center (FLETC), Prince George County, Maryland (DHS). Senior scientist who assisted with the preparation of an EA to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with FLETC's constructing, operating and maintaining a 2.4 MW PV system on 11 acres of land at Cheltenham. FLETC, as a Federal agency, is required to incorporate environmental considerations into their decision-making process for the actions they propose to undertake. The DHS FLETC mission is to train those who protect US interests by serving as an inter-agency law enforcement training organization for over 80 Federal agencies and numerous state, local, tribal, campus and international law enforcement officers and agents.

Programmatic Environmental Assessment (PEA) for Fort Jackson Real Property Master Plan, Richland County, South Carolina (United States Army). Senior scientist who assisted with the preparation of a programmatic environmental assessment (PEA) for the US Army Garrison Fort Jackson. The PEA evaluates a multi-faceted Proposed Action that includes the implementation of the Fort Jackson Real Property Master Plan (RPMP) and its Component Plans. Fort Jackson proposes to implement the RPMP in order to provide the facilities infrastructure required to support both current and future missions. Mr. Carroll assisted with the preparation of an EA to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects of the RPMP.

Leon County General Engineering Contract Services – Natural Features Inventory (NFI) and Environmental Impact Analysis (EIA), Leon County, FL (Leon County Department of Public Works [LCDPW]). As senior scientist and task manager, Mr. Carroll completed and submitted NFI and EIA permit applications and acquisition services from the City of Tallahassee for LCDPW. The NFI and EIA processes require onsite coordination with local and state agencies dependent on the project. NFI and EIA projects involve initial site assessments and analysis of potential impacts to natural features. Subsequent permitting is provided as needed and has included jurisdictional wetland delineations, tree surveys, habitat assessments for listed species, gopher tortoise surveys and associated gopher tortoise relocations following FFWCC permitting requirements.

Confidential Client, Wetlands Permitting and Mitigation Planning - Proposed Nuclear Power Facility, South Carolina. As senior scientist, Mr. Carroll provided ecological expertise and Quality Assurance and Quality Control (QA/QC) evaluations with various aspects of this project. Atkins was contracted to prepare a critical supplement to the Environmental Report (ER) to the Nuclear Regulatory Commission

(NRC) for a proposed nuclear facility being planned by a confidential client. The ER-Supplement provided data and analyses that the NRC will use to complete the Environmental Impact Statement (EIS) for the project. The ER-Supplement included environmental analyses addressing terrestrial and aquatic habitats, listed species, ecological resources (plants, mammals, birds, reptiles, amphibians, fish, and aquatic macroinvertebrates), and wetland and stream features associated with a proposed supplemental water supply reservoir. Atkins is also contracted to prepare the USACE 404 permit application package and mitigation plan for the project. Mr. Carroll also provided assistance with the mitigation component of the 404 Permit including the identification of mitigation options (wetlands and streams) from various sources and landowners, coordinating with regulatory agencies, and developing the mitigation plan.

West Bay Parkway (WBP) Project Design and Environment (PD&E) Study and National Environmental Policy Act Services, Bay County, FL (Opportunity Florida, H.W. Lochner, Inc., and Florida Department of Transportation - District Three [FDOT-D3]). Project manager and senior scientist for a PD&E study to provide access to the Northwest Florida Beaches International Airport via a connector highway between US Highway 98, SR 79, and SR 77. The WBP project area encompasses multiple alternative corridors and alignments that could result in approximately 24 miles of new highways primarily through undeveloped land. Mr. Carroll assisted in the assessment of the 13-mile proposed project through geographic information system (GIS) desktop analysis and aerial interpretation of habitat characterizations and listed species occurrences. He also assisted with field verifications of this desktop analysis and ultimately, reporting pertaining to wetlands, T&E wildlife and plant species, and essential fish habitat (EFH) associated with the multi-year study. Natural resource analyses involved habitat evaluations using aerial photographs, soils data, and wetland covertype maps; wetland and upland habitat characterizations; and UMAM assessments. Field surveys focused on wetlands, gopher tortoises, reticulated flatwoods salamander ponds, bald eagle nests, Florida black bears, wood storks, EFH, and federal and state listed plants. Mr. Carroll assisted in the composition and review of wetland evaluation, endangered species biological assessment, and EFH reports, and the conceptual mitigation plan for an EIS and EA on WBP Segments 1 and 2, respectively. Atkins engages in frequent communication with various federal and state agencies on behalf of FDOT including the USFWS, FWC, NMFS, and FDEP. Public involvement and communications have included public meetings and hearings and website design and maintenance.

Gulf Coast Parkway (GCP) Project Design and Environment (PD&E) Study, National Environmental Policy Act Services and Environmental Impact Statement (EIS), Gulf, Bay, and Calhoun Counties, FL (Opportunity Florida and Florida Department of Transportation - District Three [FDOT-D3]). Project manager and senior scientist responsible for the evaluation of multiple alternative corridors and alignments that could result in approximately 35 miles of new highways primarily through undeveloped land. Mr. Carroll assisted in the assessment of the proposed project area and alignments through geographic information system (GIS) desktop analysis and aerial interpretation of habitat characterizations and listed species occurrences. He also assisted with field verifications of this desktop analysis and ultimately, reporting pertaining to wetlands, T&E wildlife and plant species, and essential fish habitat (EFH) associated with the multi-year study. Natural resource analyses involved habitat evaluations using aerial photographs, soils data, and wetland covertype maps; wetland and upland habitat characterizations; and UMAM assessments. Field surveys focused on wetlands, gopher tortoises, Panama City crayfish, reticulated flatwoods salamander ponds, bald eagle nests, Florida black

bears, wood storks, EFH, and federal and state listed plants. Mr. Carroll assisted in the composition and review of wetland evaluation, endangered species biological assessment, and EFH reports, and the conceptual mitigation plan for an EIS for GCP. Atkins engages in frequent communication with various federal and state agencies on behalf of FDOT including the USFWS, FWC, NMFS, and FDEP. Public involvement and communications have included public meetings and hearings and website design and maintenance.

Gulf to Bay Highway (US 98 Re-Alignment) – Segments 2 & 3, Gulf County, FL (FDOT District Three). As project manager and senior scientist, he leads the coordination of the Joint Application for Works in the Waters of Florida (dredge and fill permit) for the realignment of approximately 6.5 miles (Segment 2) and approximately 4 miles (Segment 3) of rural, two-lane, new alignment for US 98 in Gulf County. He has served as a Quality Assurance and Quality Control (QA/QC) on draft and final deliverables, He has led and provided assistance with wetland jurisdictional determinations, GIS analysis, UMAM assessments, threatened and endangered species evaluations, RAI responses, and biological assessments (BA). Mr. Carroll has also with coordinated state and federal agencies, including FWC and USFWS.

Environmental Management Office (EMO) District-wide Environmental Support and External Review Process, Leon County, FL (FDOT Districts Two [D2] and Three [D3]). Senior scientist responsible providing expert review and Quality Assurance and Quality Control (QA/QC) services, on behalf of D2 and D3, for multiple environmental documents produced by other consultants under FDOT's external review process. Since 2008, document reviews have been performed on multiple projects in both districts and generally are NEPA related, including WERs, ESBARs, Wildlife and Habitat Impact Assessments, Biological Assessments/Opinions (BA/BO), and EFH assessments. The document reviews support PD&E requirements and assist FDOT in quality assurance before submittal to federal agencies.

State Road 292 Improvement Project, Escambia County, FL (FDOT District 3 [D3]). Senior scientist serving as a environmental Quality Assurance and Quality Control (QA/QC) reviewer on various aspects of this coastal road (SR 292) improvement project. The primary environmental issue concerns conservation of the endangered Perdido Key beach mouse (PKBM). Support includes assistance with road design and informal agency consultations (federal and state) regarding conservation measures, such as unconventional road crossing techniques and habitat restoration actions. Mr. Carroll also provides QA/QC services and technical expertise regarding the methodology and budgeting of a large-scale PKBM research project, under the direction of the University of Florida. The final deliverable is a Biological Assessment, including formal Section 7 Consultation with the USFWS.

Gopher Tortoises

Apalachicola National Forest (ANF) Gopher Tortoise Restoration, Relocation, and Research Project (Statewide Florida) Program manager for this project involving the translocation of up to 3,000 gopher tortoises from third-party permit holders statewide to ANF as part of a large-scale restoration effort. A formal research study aimed at evaluating the site fidelity response of relocated tortoises to habitat conditions created by common silviculture practices (thinning, burning, and/or herbicide) is coupled with the restoration objectives. Using radio transmitters on over 10% of all relocated gopher tortoises, site fidelity of tortoises (post enclosure removal) is monitored and evaluated with site conditions and vegetative response. Project

partners include the Florida Fish and Wildlife Conservation Commission (FWC), U.S. Department of Agriculture – Forest Service (USFS), and the Fish and Wildlife Foundation of Florida (FWFF). He is responsible for the administration, implementation, and reporting associated with the restoration and research project. These responsibilities include FWC and USFS permit acquisition; coordination with project partners; development of a market-based fee structure for tortoises; gopher tortoise acquisition from third party donors; study implementation including radio telemetry of gopher tortoises and vegetative community surveys; statistical data analysis; literature review; presentations, reports, and manuscript submissions; and publication of research results and management implications in peer-reviewed journals.

Flightline Facilities Gopher Tortoise Relocation – Tallahassee Regional Airport, Leon County, FL (Ciceft/Flightline). Project manager on this relocation project for development at the Tallahassee Regional Airport property. The project site included two facilities located approximately one mile apart and connected by a linear pipe for superconductive cable development. He led coordination and acquisition of permits with state and local agencies. He also directed all surveys, excavations, and relocations to the Apalachicola National Forest (ANF) Gopher Tortoise Restoration, Relocation, and Research Site. Local permitting was satisfied via coordination with the City of Tallahassee Growth Management Department.

Panama City-Bay County International Airport Relocation Gopher Tortoise Services, Bay County, FL (Panama City-Bay County Airport and Industrial District) Senior Scientist responsible for surveys, excavation, and relocation of gopher tortoises found during the airport construction process. He excavated gopher tortoise burrows on the construction site and access roads. He relocated commensal species, including gopher frogs to the Panama City - Bay County International Airport (PFN) Relocation Mitigation Area.

Shepherds Branch Mitigation Area Management and Monitoring, Leon County, FL (The St. Joe Company). As project manager for this project, he worked closely with JOE biologists to provide habitat management services on the Shepherd's Branch Mitigation Area. These habitat management activities included prescribed burning, vegetation planting, exotic/nuisance species control, and vegetation management. Mr. Carroll also directed wildlife management activities on the mitigation area for gopher tortoises and southeastern kestrels. Mr. Carroll was also responsible for all monitoring and reporting efforts associated with this mitigation area. Under his guidance, the site reached maximum stocking capacity for gopher tortoises and met habitat success criteria in DEP and USACE permits was subsequently released from future monitoring by the regulatory agencies.

Florida Landings Development of Regional Impact (DRI) Consulting Services, Washington County, FL (Florida Landings, LLC). As quality assurance and quality control (QA/QC) officer, he provided gopher tortoise relocation and wildlife/urban conflict recommendations based on the objectives of the client during Florida Landings community planning. Mr. Carroll also assisted in answering and performing QA/QC reviews of sufficiency responses during the DRI application phase of this project. The project involved professional consulting services associated with the Florida Landings DRI including analysis, evaluation, and documentation of transportation, environmental, and cultural resource needs generated by the preparation of the DRI. The DRI, application for development approval (ADA), and development order (DO) processes were coordinated with other planning

consultants, all environmental review agencies, Washington County, and the Florida Department of Community Affairs (DCA).

Jennings State Forest, FWC-Certified Gopher Tortoise Recipient Site Permitting, Clay County, FL (Florida Department of Transportation [FDOT], District Two). Project manager in the certification of Jennings State Forest as a FWC-certified gopher tortoise relocation area. This involved coordination of the goals and objectives of the Florida Forest Service (FFS) and the construction needs and schedules of the FDOT. He directed the gopher tortoise burrow and vegetation surveys to assess the current gopher tortoise population and habitat conditions, and coordinated the subsequent permit submission.

United States Marine Corps (USMC) Support Facility – Blount Island (MCSF-BI) Gopher Tortoise Relocation, Duval County, FL (USMC). Project manager on this relocation project for development and expansion purposes at MCSF-BI. He led coordination between FWC, USMC, and MCSF-BI to facilitate the excavation and relocation of gopher tortoises from the project site. He was the permitting biologist responsible for all surveys, bucket trapping, and excavations on the donor site. He was also responsible for all transport, marking, and relocation to the ANF gopher tortoise restoration, relocation, and research site in Leon County. The project successfully excavated, captured, and relocated 49 gopher tortoises from 97 burrows.

US 331 Widening Gopher Tortoise Consultation, Walton County, FL (Walton County). Senior scientist and task manager responsible for evaluation and assessment of after-action impacts from construction on resident gopher tortoise populations. Mr. Carroll directed impacted area and adjacent habitat utilization gopher tortoise surveys to determine the impacts of road construction completed prior to permitting. This process also included personnel and staff interviews, FWC coordination and site visits, impact and adjacent area map generations, and gopher tortoise impact determination report submissions. The proposed project is to reconstruct SR 83 (US 331) from a two-lane undivided arterial to a four-lane divided arterial from just north of Freeport to I-10.

TR105 Gopher Tortoise Excavations, Leon County, FL (The Sembler Company). Project manager responsible for the permitting, excavation, and relocation of gopher tortoises on the TR105 development site in Tallahassee. He directed the surveys and permitting of the development area through FWC and the City of Tallahassee. He negotiated and performed the relocation of tortoises to a St. Joe Company-owned recipient site in Leon County.

Savannah Forest Gopher Tortoise Relocation, Wakulla County, FL (Florida Environmental and Land Services, Inc.) Senior scientist assisted in the permitting, excavation, and relocation of gopher tortoises for a private landowner in Woodville. He also providing guidance on all transport and marking. All gopher tortoises relocated from the site were relocated to the Apalachicola National Forest (ANF) Gopher Tortoise Restoration, Relocation, and Research Site.

DeFuniak Springs (24" and 30") Relay Project – Gopher Tortoise Relocation, Walton County, FL (Florida Gas Transmission Company [FGT]). As task manager and senior scientist, he led all gopher tortoise survey and permitting efforts associated with the construction on major linear utility corridors for FGT on this project. He identified suitable recipient site habitat adjacent to the corridor and provided communication to secure recipient site approvals. He directed gopher tortoise

surveys on both donor and recipient sites and was responsible for obtaining the FWC temporary exclusion permit for this project.

Leon County General Engineering Contract Services – Gopher Tortoise Surveys and Excavations, Leon County, FL (Leon County Department of Public Works [LCDPW]). As project manager, he directed all gopher tortoise surveys, permitting, excavation, and relocation associated with the Killearn Lakes stormwater improvement areas. He also provided onsite consultation and construction impacts monitoring to the client following burrow identification in the construction area. Additionally, he negotiated and secured permits from FWC to excavate these additional burrows in the construction area. He also directs ongoing NFI and EIA permit application and acquisition services from the City of Tallahassee for multiple LCDPW projects.

Aquatics and Water Quality

Panama City-Bay County International Airport (PFN) Relocation Water Quality Monitoring and Reporting Services, Bay County, FL (Panama City-Bay County Airport and Industrial District) As project manager, he led and provided coordination for monitoring efforts related to impacts of the relocation of PFN and construction of Northwest Florida Beaches International Airport (ECP). This multi-year project involved quarterly and semi-annual reporting events to monitor, sample, and analyze offsite water bodies with an overall goal of gathering scientifically defensible information on the physical, chemical, and biological conditions of surface waters surrounding ECP, including water quality status and trends. Tasks accomplished as part of the study included identifying water bodies that exceeded DEP water quality standards, assessing water quality status discharged from ECP, describing present conditions and trends in water quality, and providing potential causes for identified exceedance. He also provided QA/QC oversight on this project during data analysis and report composition.

Piezometer Replacement and Installation at Northwest Florida Beaches International Airport (ECP), Bay County, FL (Panama City-Bay County Airport and Industrial District). As project manager for this project, he documented damage to piezometers resulting from harvesting and emergency wildfire activities. He coordinated with subcontractors to repair and/or replace piezometers damaged during these activities. He also provided QA/QC, testing, and certification of completion results.

SummerCamp Beach Community Water Quality Monitoring and Reporting, Franklin County, FL (The St. Joe Company). As project manager, he leads and provides coordination for monitoring efforts related to impacts from development at SummerCamp Beach. This multi-year project involves quarterly reporting events to monitor, sample, and analyze offsite water bodies with an overall goal of gathering scientifically defensible information on the physical, chemical, and biological conditions of surface and ground waters within and near SummerCamp Beach, including water quality status and trends. Tasks accomplished as part of the study include identifying water bodies that exceed DEP water quality standards, assessing water quality status both in marine and freshwater locations, describing present conditions and trends in water quality, and providing potential causes for identified exceedance. He also provides QA/QC oversight on this project during data analysis and report composition.

SummerCamp Beach Community Seagrass Monitoring and Reporting, Franklin County, FL (The St. Joe Company). Project manager leading seagrass monitoring and reporting efforts in the nearshore waters of the SummerCamp Beach Community. This multi-year project collects seagrass species, abundance, and extent data on fixed transects across the site.

Port Panama City Seagrass Permitting, Surveys, and Reporting, Panama City, FL. (Port Panama City) As senior scientist and task manager for the seagrass surveys, Mr. Carroll developed and directed seagrass surveys to meet the requirements obtained through coordination with the U.S. Army Corps of Engineers (USACE) and Florida Department of Environmental Protection (DEP) as related to maintenance of the entrance channel and turning basin. This survey and the subsequent report delineated the composition, density, and extent of seagrass occurrences and aided in the design of the port project by determining any potential seagrass impacts. As General Engineering Consultant to Port Panama City, Atkins was tasked with the design and permitting of the port's maintenance dredging project throughout all berthing areas. This includes development of an upland disposal area for dredged materials that will be shared with USACE, as well as the coordination of state and federal regulatory authorizations.

Killearn Lakes Conservation Area and Stormwater Assessment, Leon County, FL (Leon County). As senior scientist, he developed and conducted site surveys for threatened and endangered species, invasive and exotic species, wildfire potential, and stormwater flow assessment within the Killearn Lakes community conservation area. Using the survey data, he provided management recommendations and guidelines for enhancement of the conservation area.

General Ecological Services

Perdido Key Joint Programmatic Habitat Conservation Plan (HCP), Escambia County, FL (Escambia County). As senior scientist, he assisted in preparation and Quality Assurance and Quality Control (QA/QC) review of the HCP document which included a description of the proposed projects; the species subject to impact by the project (primarily Perdido Key Beach Mouse [PKBM]); and measures to avoid, minimize, and mitigate those impacts to the maximum extent practicable. Mr. Carroll also provided guidance in coordinating with federal and state resource and regulatory agencies. This project involved the development of a joint HCP and environmental assessment (EA) to address the potential impacts to PKBM and other federally listed species and critical habitat from the proposed infrastructure and roadway improvements to SR 292 and an 80-acre multifamily private development on Perdido Key. The HCP analyzed biological goals, adaptive management, monitoring, permit requirements, public involvement needs, significant impacts on physical or biological resources or the human environment, and cumulative impacts. The final deliverable established incidental take and mitigation strategies for the endangered PKMB, listed shorebirds, and listed sea turtles.

Windmark Beach Community Ecological Services, Gulf County, FL (The St. Joe Company). As project manager, he oversees the implementation and monitoring associated with several management plans required by federal and state agencies, as well as the Gulf County Development Order. His responsibilities also include directing threatened and endangered species surveys, management recommendations, homeowner education, and environmental reporting across the development area. He also directs monitoring surveys, management activities, and reporting requirements in the gopher tortoise mitigation areas. He provides QA/QC

measures for all monitoring reports and management guidelines developed to meet mitigation goals and objectives. Mr., Carroll presents annually before the Homeowner's Association on monitoring results and topical ecological issues related to WindMark Beach. He also provides recommendations on habitat management efforts including vegetation thinning, exotic/invasive species removal, and prescribed burning.

SouthWood Community Environmental Services, Leon County, FL (The St. Joe Company). As senior scientist and task manager, he conducts Natural Features Inventory (NFI) and Environmental Impact Assessment (EIA) application and acquisition efforts from the City of Tallahassee and Leon County within the SouthWood community. The NFI and EIA processes require onsite coordination with local and state agencies dependent on the project. This includes site assessments for potential impacts to natural features and communities including surveys for threatened and endangered species, trees, wetlands, significant grade impacts, and ecological habitat assessments. He serves as a contact with city and county environmental growth management officials to resolve permitting and logistical issues. He also directs gopher tortoise permitting, excavation, and relocation associated with the SouthWood community.

Mr. Carroll's work history with other companies included:

Wildlife Biologist, The St. Joe Company, Tallahassee, FL. Mr. Carroll oversaw USACE, USFWS, FDEP, FWC, St. Johns River Water Management District (SJRWMD), Northwest Florida Water Management District (NWFWMD), and local permit compliance on ecological issues pertaining to the RiverTown, SouthWood, and SummerCamp Beach communities. He provided consultation and assistance on numerous St. Joe projects throughout Florida, including mitigation plan implementation, mitigation area management, wildlife habitat management, prescribed burning, and threatened and endangered species (e.g., red-cockaded woodpecker, piping plover, Choctawhatchee beach mouse, sea turtles, etc.) surveys and management. In recognition of his and coworkers' efforts at St. Joe, The Southeastern Section of the Wildlife Society selected his St. Joe Ecological Services Team as recipients of the 2009 Wildlife Management Excellence Award.

At St. Joe, Mr. Carroll directed, planned, and implemented management activities to meet mitigation requirements including timber thinning, prescribed burning, exotic and nuisance vegetation control, hydrologic enhancement, coastal debris removal, mechanical and manual wetland vegetation management, derelict vessel removal, and road removal. He guided and supervised mechanical and manual vegetation clearing crews to accomplish mitigation and general landscaping goals and objectives. Mr. Carroll provided recommendations to internal construction development staff regarding strategic changes to land management and regulatory compliance, relative to land/lot sales and development planning. Mr. Carroll developed a partnership with Coastal Seed and Native Plants, Inc. which allowed the harvest of sea oats on St. Joe's landholdings on St. James Island, in exchange for the replanting of various coastal dune plants in the SummerCamp Beach Community to reduce landscaping costs. He oversaw measures to avoid human-bear interactions on the site including the use of bear-resistant trash cans and community education programs. Mr. Carroll served as board member on the Franklin County Wildlife Initiative which sought to minimize urban wildlife conflicts in the region. He also negotiated conditions and implementation of sea turtle lighting plans with FWC. Mr. Carroll developed the *SummerCamp Community Firewise Plan* and a *SummerCamp*

Wildfire Preparedness Plan while acquiring certification of SummerCamp Beach as the first Firewise Community in the panhandle. He was responsible for the review and modification of construction, lighting, and landscape plans prior to and during development on individual lots, roadways, and commercial construction sites to ensure permit compliance. He also performed winter shorebird counts and posted areas containing listed wintering and nesting shorebirds. Mr. Carroll also served as the St. Joe representative on the FWC Wildlife Legacy Initiative Stakeholder Group, aimed at identifying the most sensitive ecological communities in Florida and methods to ensure their sustainability.

Forest Wildlife Ecologist, International Paper (IP) – U.S. South Central and Mid-South Regions, Courtland, AL and Shreveport, LA. As a former employee of IP, Mr. Carroll provided assistance to environmental and forestry staff throughout the 5 million acre and ten state landbase. He provided internal support to Forest Operations staff concerning Objectives 3, 4, 5, and 6 of the Sustainable Forestry Initiative® (SFI), including inspection of 10 percent of all timber harvests annually to ensure SFI compliance. He was responsible for the development, implementation, and administration of all short- and long-term management of wildlife habitat on over 400,000 acres and 800 hunting clubs, for game and listed species. He developed a "value score" for each existing and potential hunting lease-based silviculture records, hydrologic and terrestrial habitat conditions, hunting records, and location that was used to determine lease rates. Mr. Carroll subsequently increased hunting lease revenue approximately 65% in fewer than two years through lease rate increases, implementation of a bidding process on unleased acres, providing management recommendations, and the introduction of an amenities fee program. He was responsible for the daily interaction and coordination with hunting club lessees and adjacent landowners regarding the companies' management activities. Mr. Carroll developed, coordinated, and maintained an ArcGIS shapefile for all Special Places in the Forest™ locations and hunting club boundaries in the U.S. Central Region. He provided technical presentations and assistance to other wildlife biologists on application, use, and editing of this shapefile and using ArcGIS software.

Mr. Carroll directed forest inventory analysis, land management planning and assessment, GIS analysis, environmental management, regulatory compliance, prescribed burning, and ecological characterizations and surveys on lands throughout the southeast. He developed, implemented, and updated lake management plans for all the lakes in the U.S. Mid-South Region, including harvesting and stocking recommendations, lake maintenance and improvements, and financial analysis. Mr. Carroll assisted federal, state, and IP biologists in the installation of artificial cavities, population monitoring, and relocation of federally endangered, red-cockaded woodpeckers from national forests in Texas to the IP-owned Brushy Creek Experimental Forest, under a Habitat Conservation Plan (HCP) and incidental take permits (ITP). Mr. Carroll also participated in numerous freshwater mussel surveys in Tennessee and Alabama and assisted in the repatriation of the federally-endangered boulder darter to Shoal Creek, Tennessee.

Mr. Carroll represented the company on external boards and stakeholder groups across the US, including serving as an instructor on partnerships at the USFWS Training Center. He also worked with representatives of external agencies on various joint management ventures, including sites enrolled in the Special Places in the Forest™ program. He initiated a partnership with the Texas Historical Commission to manage, research, and protect historically relevant areas on the companies' landholdings within Texas. His deliverables included internal reports, external publications, presentations, GIS projects, budgetary goals, financial reports and

updates, site evaluations, staff training, field and literature research, pilot studies, and prescribed burn plans.

Graduate Research Assistant, Mississippi State University, Starkville, MS. Mr. Carroll directed all aspects of an independent graduate research project including budgets, staffing, and coordination with other graduate students. He interviewed, hired, and supervised over 15 technicians who worked on the project. He aided and organized prescribed burning for competition control with an independent contractor, and to meet the requirements and standards of study treatments. He trapped small mammals using Sherman, pitfall, and funnel traps and herpetiles using coverboards, pitfall, and funnel traps. He oversaw and conducted anuran call count surveys. He directed sampling of vegetation community structure using a variety of methods including biomass collection. He statistically analyzed and presented data for his thesis, as well as quarterly and annual reports. He was responsible for presenting status reports and results during quarterly research review meetings with major funding partners. He also instructed and graded undergraduate students during field sampling and monitoring exercises.

Field Technician, Butler and Gardiner, Inc., Demopolis, AL. During his undergraduate education, Mr. Carroll surveyed timber for management and procurement purposes using a variety of methods and techniques. He was responsible for marking timber for harvest, boundary lines, and Streamside Management Zone (SMZ) delineation. He observed and monitored numerous timber harvesting operations for best management practices (BMP) compliance and forest product utilization. He interpreted and constructed maps and aerial photographs using GIS to determine stand locations and boundaries. He assisted in nuisance species eradication and planted food plots as supplemental wildlife forage.

Presentations

Carroll, Austin D., and John Dooner. "Wildlife Management Considerations on Private Lands in Florida," University of Florida Integrated Natural Resource Management Undergraduate Class in Gainesville, Florida (virtual) – March 24, 2020.

Carroll, Austin D. "Wetland and Aquatic Resources Management and Implications for Forestry Operations," University of Florida Forest Operations Field Laboratory in Havana, FL – November 18, 2019.

Gwaltney, Chance and Austin D. Carroll. "Apalachicola National Forest (ANF) Gopher Tortoise Restoration, Relocation, and Research Project Update," 2019 Alabama Chapter of Partners in Amphibian and Reptile Conservation 10th Annual Meeting in Nauvoo, Alabama, November 1-3, 2019.

Carroll, Austin D. "Landscape Management Plans for ATFS Review, Ongoing Efforts in the Southeast & Implications for Tennessee," 2019 Tennessee Forestry Association Annual Meeting in Knoxville, Tennessee – October 17, 2019.

Carroll, Austin D. "A Longleaf Pine Case Study: Creation of the Emerald Coast Utility Authority (ECUA) Central Water Reclamation Facility (CWRF) Forest Restoration Area," Florida Panhandle Forests and Drinking Water Workshop in Eastpoint, Florida – August 28th, 2019

Fullerton, George, and Austin D Carroll. “Hurricane Michael Impacts and Recovery Efforts to Red-Cockaded Woodpeckers and Other T&E Species,” 33rd Annual Environmental Permitting Summer School in Marco Island, FL – July 17, 2019.

Carroll, Austin D. “Logging Considerations for Threatened and Endangered Species,” Master Logger Workshop in Live Oak, FL – June 5, 2019.

Carroll, Austin D., Laura Bosworth, and Nepthali Chavez. “Landscape Management Plans: Where to Next?” American Forest Foundation National Leadership Conference in Louisville, KY - March 27, 2019.

Fullerton, George and Austin D. Carroll. “Wetland and Aquatic Resources Management and Implications for Forestry Operations,” University of Florida Forest Operations Field Laboratory in Havana, FL – November 19, 2018.

Carroll, Austin D. “Florida Black Bear (*Ursus americanus floridanus*) FWC Management Plan, Status, and Continued Implications,” 32nd Annual Environmental Permitting Summer School in Marco Island, FL – July 19, 2018.

Carroll, Austin D. “Forest Industry Considerations and Emerging Issues for Biodiversity and Imperiled Species in Georgia,” 2018 Georgia Forestry Association Annual Conference in Hilton Head, SC – July 17, 2018.

Carroll, Austin D. “Logging Considerations for Threatened and Endangered Species,” Master Logger Workshop in Live Oak, FL – June 27, 2018.

Carroll, Austin D. “Wildlife Hazard Assessment and Management Plan Review and Bird Identification Training,” Tuscaloosa Regional Airport in Tuscaloosa, AL – December 19, 2017.

Carroll, Austin D. “Wetland and Aquatic Resources Management and Implications for Forestry Operations,” University of Florida Forest Operations Field Laboratory in Havana, FL – November 20, 2017.

Carroll, Austin D. “Apalachicola National Forest (ANF) Gopher Tortoise (*Gopherus polyphemus*) Research and Restoration Area: A Partnership for Conservation,” Friends of Apalachicola National Forest Meeting in Tallahassee, FL – October 9, 2017.

Carroll, Austin D. “Forest Industry Considerations for Biodiversity and Conservation,” 31st Annual Environmental Permitting Summer School in Orlando, FL – July 22-25, 2017.

Carroll, Austin D. “Apalachicola National Forest (ANF) Gopher Tortoise (Gopherus polyphemus) Research and Restoration Area: Backgounds and Locations,” Tallahassee Mountain Bike Riders Association Monthly Meeting in Tallahassee, Florida – July 5, 2017

Carroll, Austin D. “Logging Considerations for Threatened and Endangered Species,” Master Logger Workshop in Live Oak, FL – June 7, 2017.

Carroll, Austin D. “Wildlife Hazard Assessment and Management Plan Review and Firearm/Pyrotechnic Training,” Tuscaloosa Regional Airport in Tuscaloosa, AL – April 14, 2017.

Carroll, Austin D. “Initial Insights from the Florida Landscape Management Plan Project,” American Forest Foundation National Leadership Conference in Greenville, SC – February 23, 2017.

Carroll, Austin D. “Wetland and Aquatic Resources Management and Implications for Forestry Operations,” University of Florida Forest Operations Field Laboratory in Havana, FL – November 21, 2016.

Carroll, Austin D. "Florida Black Bear *(Ursus americanus floridanus*) FWC Management Plan, Status, and Continued Implications," 30th Annual Environmental Permitting Summer School in Orlando, FL – July 19-22, 2016.

Carroll, Austin D. "Logging Considerations for Threatened and Endangered Species," Master Logger Workshop in Live Oak, FL – June 8, 2016.

Carroll, Austin D. "Threatened and Endangered Species Implications on Wildlife Hazard Management at Airports," 29th Annual Environmental Permitting Summer School in Marco Island, FL – July 7-10, 2015.

Carroll, Austin D. "Wetland and Aquatic Resources Management and Implications for Forestry Operations," University of Florida Forest Operations Field Laboratory in Havana, FL – November 23, 2015.

Carroll, Austin D. "Threatened and Endangered Species Implications on Wildlife Hazard Management at Airports," 28th Annual Environmental Permitting Summer School in Marco Island, FL – July 22-25, 2014.

Fravel, Harold and Austin D. Carroll. "The Apalachicola National Forest Gopher Tortoise (*Gopherus polyphemus*) Research and Restoration Area: A Partnership for Conservation." 35th Annual Gopher Tortoise Council Meeting in Ponte Vedra, FL – October 10-13, 2013. Presentation.

Carroll, A.D., K. Reece, H. Herod, and S.A. Zengel. "Deepwater Horizon Oil Spill Section 7 BMPs and RESTORE Act Implications," 27th Annual Environmental Permitting Summer School in Marco Island, FL – July 16-19, 2013.

Carroll, Austin D. "Florida Black Bear (*Ursus americanus floridanus*) Florida Fish and Wildlife Conservation Commission (FWC) Management Plan and Implications," 26th Annual Environmental Permitting Summer School in Marco Island, FL – July 18-20, 2012.

Carroll, Austin D. "Gopher Tortoise Permitting Guideline Changes and Research Updates for 2011," 25th Annual Environmental Permitting Summer School in Marco Island, FL – July 20-22, 2011.

Carroll, Austin D. and Scott A. Zengel. "The Role of the National Oceanic and Atmospheric Administration (NOAA) in Section 7 Permitting and in the Deepwater Horizon Oil Spill Response," 24th Annual Environmental Permitting Summer School in Marco Island, FL – July 21-23, 2010.

Carroll, Austin D. "Gopher Tortoise Research and Management on Florida's Public Lands," 24th Annual Environmental Permitting Summer School in Marco Island, FL – July 21-23, 2010.

Carroll, Austin D. "The Windmark Beach Community Annual Natural Resource Report," 2010 Windmark Beach Homeowners Association Meeting in Port St. Joe, FL – June 12, 2010.

Carroll, Austin D. "A Study Plan to Evaluate the Response of Translocated Gopher Tortoises (*Gopherus polyphemus*) to Stocking Density and Enclosure Size on the Apalachicola National Forest in Florida," The Florida Chapter of The Wildlife Society Annual Spring Conference in Tallahassee, FL – April 22, 2010.

Carroll, Austin D. "The Gopher Tortoise (Gopherus polyphemus) in Florida: Current and Future Regulations Related to Construction and Maintenance Activities," FDOT District Three in Chipley, FL – January 13, 2010.

Carroll, Austin D. "The Gopher Tortoise (Gopherus polyphemus) in Florida: Current and Future Regulations," Leon County Department of Public Works in Tallahassee, FL – May 14, 2009.

Carroll, Austin D. “Long-Term Recipient Site Selection, Management, and Research for the Gopher Tortoise (Gopherus polyphemus) in Florida,” 23rd Annual Environmental Permitting Summer School in Marco Island, FL – July 22-24, 2009.

Carroll, Austin D. “The Response of Translocated Gopher Tortoises (Gopherus polyphemus) to Stocking Density and Enclosure Size on the Apalachicola National Forest in Florida: A Study Plan,” 29th Gopher Tortoise Council Annual Meeting in Milton, FL – October 11-14, 2007.

Carroll, Austin D. “Planning a Firewise Community: A Case Study at SummerCamp Beach in Franklin County,” 2007 Florida Firewise Conference in Orlando, FL – October 2-3, 2007.

Carroll, Austin D. and Jimmy Bullock. “Building and Maintaining Partnerships,” USFWS Foundations New Hire Class at the National Conservation Training Center in Shepherdstown, WV – January 2005.

Carroll, A., B. D. Leopold, D. A. Miller, and L. W. Burger. “Small Mammal Community Response to Prescribed Burning and Herbicide (Imazapyr) Treatments in Mid-Rotation Loblolly Pine Plantations of Mississippi,” 12th Colloquium of Conservation of Mammals in the Southeastern United States in Starkville, MS – February 20-21, 2003.

Carroll, Austin D. “The Role of Forest Industry in Wildlife Management,” Forestry Awareness Week by the Webster Parish School Board, Homer, LA – October 10-12, 2000.

Carroll, Austin D. “The Role of Forest Industry in Wildlife Management,” LSU AgCenter Field Day in Homer, LA – September 21, 2000.

Carroll, Austin D. “International Standards Organization and Sustainable Forestry Initiative and ISO 140001 Training” for International Paper employees in Jena, LA – August 2000.

Publications

Carroll, A. 2004. “Small Mammal and Herpetile Community Responses to Prescribed Burning and Herbicide Treatments in Thinned, Mid-Rotation Loblolly Pine Plantations in Mississippi.” M.S. Thesis, Mississippi State University, Starkville, MS, 253pp.

Carroll, A., B. D. Leopold, D. A. Miller, and L. W. Burger. 2003. “Small mammal community response to prescribed burning and herbicide (imazapyr) treatments in mid-rotation loblolly pine plantations of Mississippi.” Colloquium on Conservation of Mammals in the Southeastern United States 13:12. (Abstract).

□effrey A□□usch □ISA Certified Arborist
Ecologist

Expertise
Tree Inventory

Tree Risk Assessment

Professional Mangrove Trimmer

Grand Oak Pruning and Assessments

Natural Habitat Assessments

Wetland Delineation, Evaluation and Permitting

Education
B.S., Biology
St. Petersburg College, 2013

Certifications
ISA Certified Arborist, FL-6701A

ISA Tree Risk Assessment Qualification

Restricted use pesticide license #CM26041

- Aquatic and Natural Areas

SWFWMD Wetland Assessment Procedure (WAP)

FDEP Qualified Stormwater Management Inspector

US Department of Labor MSHA 30 CFR Part 46 and Part 48 Certifications

FAESS Hydric Soils Workshop

Memberships & Affiliations
Tampa Bay Association of Environmental Professionals (TBAEP) Member

International Society of Arboriculture (ISA) Professional Membership

Jeffrey has a diverse background in arborculture. He has experience with estimating the value and importance of community trees and Urban Forests as well as an understanding of local municipalities and their inventory requirements. Jeff has conducted a variety of tree assessments tasks including nuisance species control, supplemental wetland mitigation planning and planting, and has assisted other companies in performing tasks required to completing a variety of arboricultural assessments.

Tree Inventory for Local Municipalites

Project Manager/Project Arborist – City of Cocoa, City of Brooksville, City of Jacksonville. City of Tampa, Central and North Florida
Led teams in performing tree inventories for native species considered protected through each municipality. Each municipality has its own requirements and minimum requirements. Designed mitigation plans and planting for mitigation strategies of each site. Development and landscape planning

Professional Mangrove Trimmer

Registered through the Florida Department of Environmental Protections web portal as a Statue Authorized Professional Mangrove Trimmer (PMT) in the Southwest District that includes Citrus, Hernando, Pinellas, Polk, Manatee and Hardee Counties. Also, registered through Pinellas and Hillsborough County as a Professional Mangrove Trimmer. 15 years of professional experience in mangrove trimming.

Project Manager/Project Ecologist - Gopher Tortoise Relocations, Throughout Florida
Excavated and relocated hundreds of gopher tortoises and gopher tortoise burrow commensals to on-site and off-site recipient sites as a Florida Fish and Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agent. Tasks involved survey effort, permit application preparation, agency field review participation, Florida One-Call utility location coordination, excavation, pulling rod or trapping, tortoise transport, installation and removal of exclusionary fencing and completion of agency reporting.

Project Ecologist - Transmission Lines and Substations, Throughout Florida
Conducted general and species-specific listed species surveys and obtained U.S. Fish and Wildlife Service (FWS) and FWC listed species permits for many transmission line and substation projects throughout Florida. Specifically conducted bald eagle nest monitoring and surveys for Florida scrub-jay, bald eagle, southeastern American kestrel, burrowing owl, red-cockaded woodpecker, crested caracara, gopher tortoise, sand skink and listed plant species. The bald eagle nest monitoring was conducted in accordance with the FWC Bald Eagle Management Plan (2008) and the FWS Bald Eagle Monitoring Guidelines. Nest monitoring was conducted to allow the utility company to maintain and replace transmission structures during the eagle nesting season within the protected buffer zones (660 and 330 feet) of a bald eagle nest.

Project Manager- FWC Private Lands Alligator Night Light Survey, Pasco, Polk and Hernando Counties, Florida
Led projects working with private landowners to permit, survey and harvest alligators, hatchlings and eggs from 3,000 acres land track. Surveys were conducted to develop a baseline population and establish a sustainable harvest quota for landowners to profit from the resource. Also, worked with the FWC to establish population densities for the Alligator Statewide Harvest Program in Brevard and the St. Johns River.

Ecologist– Osprey Monitoring, Throughout Florida
Monitoring and photo documentation of osprey nests on cell towers and transmission line structures throughout Florida to determine nest occupancy before maintenance could be undertaken.

Ecologist – Florida Scrub-jay Survey and Monitoring, Central Florida
Surveyed Florida scrub-jay habitat and monitored active sites in Volusia County and Citrus County according to the U.S. Fish and Wildlife Service protocol.

Lead Ecologist –Upland Wildlife Surveys, Throughout Florida
Directed numerous upland wildlife surveys on a variety of projects, including complex Developments of Regional Impact. Directed the field data collection for gopher tortoises, Southeastern American kestrels, and Florida scrub-jays in North Florida, Northwest Florida, Central Florida, and Pasco, Hernando, Citrus, Hillsborough, Polk and Hardee Counties. Analyzed the data and assisted in the permitting of potential impacts to these species.

Task Manager –Wildlife Aerial Surveys, Throughout Florida
Conducted numerous aerial surveys via helicopter to detect state and federally listed wildlife in a variety of habitats. Surveyed uplands for nesting bald eagles, and wetlands for wading bird nesting and roosting colonies and nesting Florida sandhill cranes. Extensively involved in analyzing and mapping the collected data and participated in its incorporation into client reports and permitting documents.

Project Manager/Lead Ecologist - Listed Species Assessments on Various Developments of Regional Impact (DRIs) and Phosphate Mine Lands, Hillsborough, Manatee, Polk, Levy, Citrus, Orange, Lake, Sumter and Hardee Counties, Florida
Conducted surveys for state and federally listed wildlife, including the southeastern American kestrel, Florida scrub-jay, Crested caracara, Florida sandhill crane, eastern indigo snake, gopher tortoise, gopher frog, Florida grasshopper sparrow, Florida sand skink, and Florida mouse. Results were used in the preparation of Applications for Development Approval (ADA) and other regulatory submittals.

Project Manager/ Project Ecologist - Listed Species Permit Coordination, Florida
Completed consultations with the FWC during the regulatory approval process. Successfully obtained permits for, but not limited to, gopher tortoise, Florida mouse, Florida sandhill crane, Florida sand skink, wading birds, gopher frog, eastern indigo snake, and bald eagle.

Project Ecologist - Avian Protection Plan and Avian Risk Assessment, Central Florida
Conducted field surveys to identify at-risk areas and assess risk of utility poles for a large mining company in Central Florida. Assisted in preparation of an Avian Protection Plan to reduce avian interactions with electrical utilities.

ENVIRONMENTAL PERMITTING AND COMPLIANCE

Project Manager/Ecologist – Environmental Permitting Assistance, Throughout Florida
Developed and prepared application materials for submittal to state, federal, and local regulatory agencies. Worked with large teams including clients, engineers, scientists, and attorneys and participated in agency negotiations.

Project Manager – Stormwater Pollution Prevention Plan Design, Permitting, and Compliance – Throughout Florida
Designed and implemented Stormwater Pollution Prevention Plans (SWPPP) associated with linear projects throughout the state of Florida. These projects included assessments to identify site specific approaches to protect natural resources, development of maps and SWPPP documents, installation of erosion and sedimentation controls, and evaluation of each control throughout construction to assure compliance with applicable permits and the Clean Water Act.

Project Manager/Ecologist – Environmental Compliance, throughout Florida
Developed compliance organization strategies for clients with projects in the design and construction phase. Compliance efforts included tracking compliance conditions from state, federal, and local regulatory agencies, providing third party compliance inspections, inspection summaries, and project recommendations.

WETLAND DELINEATION, EVALUATION AND PERMITTING

Ecologist – Wetland Monitoring & Compliance, Central Florida
Assisted in the determination of wetland delineations, vegetation monitoring, soil sample collection, planting oversight, and site visits to determine permit compliance of wetland mitigation areas throughout Central Florida.

Project Ecologist - Substation and Transmission Line, Throughout Florida
Provided site assessments, wetland delineations, general and species-specific listed species surveys, FWS and FWC listed species permitting, listed species relocations, and permit compliance monitoring for several substations and transmission lines in Florida.

The International Society of Arboriculture

Hereby Announces That

Stefan Bourgoin

Has Earned the Credential

ISA Certified Arborist ®

By successfully meeting ISA Certified Arborist certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council

Caitlyn Pollihan
CEO & Executive Director

4 August 2020	31 December 2023	SO-10520A
Issue Date	Expiration Date	Certification Number

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17024
PERSONNEL CERTIFICATION BODY
#0847
ISA Certified Arborist

The International Society of Arboriculture

Hereby Announces That

Stefan Bourgoin

Has Earned the Credential

ISA Tree Risk Assessment Qualification

By successfully meeting ISA Tree Risk Assessment Qualification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council

Caitlyn Pollihan
CEO & Executive Director

26 February 2021	26 February 2026
Issue Date	Expiration Date

INTERNATIONAL SOCIETY OF ARBORICULTURE

CERTIFIED ARBORIST™

Jeffrey Alan Busch

Having successfully completed the requirements set by the Arborist Certification Board of the International Society of Arboriculture, the above named is hereby recognized as an ISA Certified Arborist®

Jim Skiera, Executive Director
International Society of Arboriculture

Certification Board, Chair
International Society of Arboriculture

FL-6701A	Jan 30, 2015	Jun 30, 2018
Certification Number	Certified Since	Expiration Date

The International Society of Arboriculture

Hereby Announces That

Jeffrey Alan Busch

Has Earned the Credential

ISA Tree Risk Assessment Qualification®

By successfully meeting ISA Tree Risk Assessment Qualification certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council

Caitlyn Pollihan
CEO & Executive Director

13 July 2018	13 July 2023
Issue Date	Expiration Date

Item Number: **DISCUSSION ITEMS- I.-4.**
Committee Meeting Date: **4/18/2022**

City of Roeland Park

Action Item Summary

Date:	4/8/2022
Submitted By:	Donnie Scharff, Director of Public Works
Committee/Department:	Public Works
Title:	**Discuss 2023 CDBG Project**
Item Type:	Discussion

Recommendation:

Direction from the governing body to submit the 2023 CDBG application for the Community Center Phase I Improvements

Details:

Attached is a draft 2023 CDBG application**.** Staff would like to get feedback from council on the application submission for 2023 CDBG funding. Phase I of the Community Center Improvements is scheduled to be constructed in 2023 which would allow CDBG funding to be available during the same year of construction and would cause no delays to the project timeline.

A City is limited to $200,000 of CDBG funds per two year period, if for example $200,000 was awarded for 2023, the City could not apply for funds in 2024. Staff prefers seeking awards every other year because use of these funds requires greater administrative oversite and fiscal audit, both add cost, thus an every other year grant would be preferred. However, identifying a project that meets all of the CDBG award criteria and is over $200k in cost is a challenge.

CDBG will not allow for reimbursement of expenses incurred prior to the award of CDBG funds and the project is to be completed by 12/1/23. This requires the project to be fairly simple, requiring little engineering time, and quick execution. Not to mention that the federal government does not award the funds timely, therefore the project schedule must be flexible.

The Community Center Phase I Project ($1,500,000 estimated cost) has been identified as a possible CDBG project. SFS Architects has been approved to begin design of the project in 2022 with construction anticipated in 2023.

A final restriction on selecting CDBG eligible projects is that the project must occur inside of a block group which has at least 43.46% of the residents served by the project qualify as low or moderate

income. This criteria makes identifying a qualified project even more challenging. Per the attached map showing Census Tract Block Group boundaries and LMI population percentages Roeland Park now only has one block group that meets or exceeds the 43.46% threshold (Census Tract 501, Block Group 1). The Community Center lies within this Block Group.

All of the factors noted above are considered as we look for CDBG application prospects. We have secured CDBG funding for 3 street mill and overlay projects in the past 6 funding rounds. The prospective streets are limited to those within Block Group 501.1, and a mill and overlay project in that area is an option for consideration. An application for CDBG funding of the parking/storm drainage/ADA improvements at the Community Center was submitted for 2021 funding, the City did not receive an award.

The Public Hearing required as part of the CDBG project consideration process is an opportunity to receive community input on the application, answer questions, and discuss. This is a step which must be completed prior to submitting an application. A public hearing is set for the May 2nd, 2022 council meeting.

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

Additional Information

Also attached is the scoring criteria for CDBG applications, you may use this to guage how well the projects will stack up to projects submitted from other agencies. We have also been successful in securing CDBG funds for mill/overlay projects in 2018 and 2019, however the County "Strategies" were updated in 2020 and our 2021 application for funding of the ADA improvements at the Community Center was not awarded funding.

The City received $100,000 in CDBG funds in support of the Birch Street project in 2018. We received $136,000 (original request of $164,000) in CDBG funds in support of the El Monte Street project in 2019. Because we were awarded more than $100,000 in 2019 we were not allowed to apply for CDBG funds in 2020. Staff submitted an application for the Elledge Dr project in 2021 and did receive $125,000 CDBG funding in 2022

ATTACHMENTS:

Description	Type
2021 Census Block Group LMI%	Cover Memo
CDBG Application Scoring Criteria	Cover Memo
Census Block Percentage LMI Map	Cover Memo
2023 CDBG Draft Application	Cover Memo

FY Exception 43.46%

City	TRACT	BLKGRP	LOWMOD persons	LOWMOD universe	LOWMODPCT
Aubry Twp	053803	1	320	2,180	14.68%
Aubry Twp	053803	2	195	1,450	13.45%
Aubry Twp	053804	1	285	2,420	11.78%
De Soto	052700	3	725	2,400	30.21%
De Soto/Lex TS	052700	1	1,195	2,795	42.75%
De Soto/Lex TS	052700	2	1,145	2,310	49.57%
Edgerton	053701	1	745	1,695	43.95%
Edgerton/McCamish Twp	053701	2	140	915	15.30%
Fairway	050000	6	115	1,295	8.88%
Fairway	050700	1	200	690	28.99%
Fairway	050700	2	210	960	21.88%
Fairway	050800	2	65	1,070	6.07%
Gardner	053703	1	655	2,380	27.52%
Gardner	053703	2	530	920	57.61%
Gardner	053705	1	955	2,015	47.39%
Gardner	053705	2	540	1,160	46.55%
Gardner	053707	1	220	675	32.59%
Gardner	053707	2	810	2,815	28.77%
Gardner	053707	3	720	1,190	60.50%
Gardner	053709	1	340	1,495	22.74%
Gardner	053709	2	630	1,205	52.28%
Gardner	053709	3	165	1,150	14.35%
Gardner	053709	4	35	545	6.42%
Gardner	053712	1	70	995	7.04%
Gardner	053712	2	285	845	33.73%
Gardner Twp	053709	5	265	1,090	24.31%
Gardner Twp	053711	2	680	1,060	64.15%
Gardner Twp	053711	3	235	850	27.65%
Lake Quivira	052306	2	375	2,020	18.56%
Leawood	051600	1	210	855	24.56%
Leawood	051600	2	280	2,375	11.79%
Leawood	051600	3	290	2,285	12.69%
Leawood	051700	2	305	2,265	13.47%
Leawood	051700	3	170	1,415	12.01%
Leawood	053201	2	85	600	14.17%
Leawood	053203	2	270	2,440	11.07%
Leawood	053301	1	675	2,820	23.94%
Leawood	053301	2	185	2,640	7.01%
Leawood	053302	1	310	2,170	14.29%
Leawood	053302	2	55	1,700	3.24%
Leawood	053302	3	415	3,055	13.58%
Leawood	053409	1	920	3,500	26.29%
Leawood	053410	2	55	2,610	2.11%

Leawood	053410	4	255	2,025	12.59%
Merriam	050400	1	145	1,075	13.49%
Merriam	050500	2	165	580	28.45%
Merriam	052001	1	1,195	2,270	52.64%
Merriam	052004	1	750	1,655	45.32%
Merriam	052101	1	865	2,000	43.25%
Merriam	052201	2	520	1,100	47.27%
Merriam	052201	3	900	1,980	45.45%
Mission	050200	2	440	1,015	43.35%
Mission	050200	3	315	1,135	27.75%
Mission	050200	4	190	505	37.62%
Mission	050301	1	800	1,375	58.18%
Mission	050301	2	255	920	27.72%
Mission	050301	3	855	1,820	46.98%
Mission	050302	1	430	890	48.31%
Mission	050302	2	155	555	27.93%
Mission	050600	2	50	750	6.67%
Mission	050700	5	175	735	23.81%
Mission Hills	050800	1	25	755	3.31%
Mission Hills	050800	3	150	985	15.23%
Mission Hills	050900	1	90	850	10.59%
Mission Hills	050900	3	680	2,470	27.53%
Olathe	052801	1	240	2,460	9.76%
Olathe	052801	2	345	1,705	20.23%
Olathe	052801	3	425	2,565	16.57%
Olathe	052801	5	295	1,680	17.56%
Olathe	052802	1	40	1,140	3.51%
Olathe	052802	2	515	2,375	21.68%
Olathe	052802	3	15	1,475	1.02%
Olathe	052802	4	245	1,410	17.38%
Olathe	052802	5	170	2,830	6.01%
Olathe	052803	1	1,270	2,565	49.51%
Olathe	052803	2	710	1,135	62.56%
Olathe	052904	1	195	965	20.21%
Olathe	052904	2	415	1,465	28.33%
Olathe	052904	3	515	1,185	43.46%
Olathe	052905	1	1,895	2,390	79.29%
Olathe	052905	2	680	1,665	40.84%
Olathe	052906	1	615	1,080	56.94%
Olathe	052906	2	590	1,685	35.01%
Olathe	052906	3	955	2,250	42.44%
Olathe	052907	1	1,285	1,760	73.01%
Olathe	052907	2	100	870	11.49%
Olathe	052907	3	1,145	2,195	52.16%
Olathe	052908	1	1,425	2,235	63.76%
Olathe	052908	2	510	945	53.97%

Olathe	052908	3	555	1,445	38.41%
Olathe	052908	4	860	985	87.31%
Olathe	052910	1	370	2,260	16.37%
Olathe	052910	2	360	1,755	20.51%
Olathe	053006	1	755	2,395	31.52%
Olathe	053006	2	265	1,055	25.12%
Olathe	053007	1	600	1,705	35.19%
Olathe	053007	2	145	1,240	11.69%
Olathe	053007	3	255	1,005	25.37%
Olathe	053007	4	75	1,075	6.98%
Olathe	053011	1	100	2,165	4.62%
Olathe	053403	1	600	2,615	22.94%
Olathe	053403	2	245	1,295	18.92%
Olathe	053406	1	55	980	5.61%
Olathe	053406	2	170	1,140	14.91%
Olathe	053406	3	140	2,300	6.09%
Olathe	053406	4	50	1,380	3.62%
olathe	053502	1	725	845	85.80%
Olathe	053502	2	1,255	1,800	69.72%
Olathe	053502	3	130	130	100.00%
Olathe	053505	1	210	1,630	12.88%
Olathe	053505	2	250	2,940	8.50%
Olathe	053505	3	135	925	14.59%
Olathe	053505	4	340	2,675	12.71%
Olathe	053506	1	185	1,450	12.76%
Olathe	053506	2	460	2,230	20.63%
Olathe	053507	1	210	1,325	15.85%
Olathe	053507	2	225	1,145	19.65%
Olathe	053507	3	340	1,105	30.77%
Olathe	053507	4	75	950	7.89%
Olathe	053507	5	30	1,145	2.62%
Olathe	053508	1	435	1,355	32.10%
Olathe	053508	2	275	935	29.41%
Olathe	053508	3	385	1,245	30.92%
Olathe	053508	4	565	1,215	46.50%
Olathe	053508	5	560	1,605	34.89%
Olathe	053509	1	185	1,340	13.81%
Olathe	053509	2	500	1,385	36.10%
Olathe	053509	3	805	1,925	41.82%
Olathe	053509	4	100	1,300	7.69%
Olathe	053509	5	635	1,245	51.00%
Olathe	053510	1	70	1,225	5.71%
Olathe	053510	2	340	1,520	22.37%
Olathe	053510	3	30	1,190	2.52%
Olathe	053510	4	330	1,850	17.84%
Olathe	053555	1	395	510	77.45%
Olathe	053555	2	405	495	81.82%

Olathe	053555	3	455	660	68.94%
Olathe	053556	1	1,075	1,925	55.84%
Olathe	053556	2	705	1,210	58.26%
Olathe	053557	1	535	750	71.33%
Olathe	053557	2	1,170	1,530	76.47%
Olathe	053601	1	495	805	61.49%
Olathe	053601	2	975	1,340	72.76%
Olathe	053602	1	455	835	54.49%
Olathe	053602	2	1,600	2,630	60.84%
Olathe	053602	3	300	1,350	22.22%
Olathe	053602	4	550	1,780	30.90%
Olathe	053711	1	120	1,625	7.38%
Olathe Twp	052801	4	90	1,905	4.72%
Oxford Twp	053406	5	330	3,245	10.17%
Oxford Twp	053411	2	260	835	31.14%
Prairie Village	050700	3	280	1,395	20.07%
Prairie Village	050700	4	175	845	20.71%
Prairie Village	050900	3	680	2,470	27.53%
Prairie Village	051000	1	220	950	23.16%
Prairie Village	051000	2	120	1,040	11.54%
Prairie Village	051000	3	255	1,010	25.25%
Prairie Village	051000	4	125	705	17.73%
Prairie Village	051300	1	540	1,320	40.91%
Prairie Village	051300	4	235	995	23.62%
Prairie Village	051400	1	200	820	24.39%
Prairie Village	051400	2	275	635	43.31%
Prairie Village	051400	3	85	760	11.18%
Prairie Village	051400	4	80	1,005	7.96%
Prairie Village	051500	1	315	1,155	27.27%
Prairie Village	051500	2	155	585	26.50%
Prairie Village	051500	3	270	1,080	25.00%
Prairie Village	051500	4	360	1,200	30.00%
Prairie Village	051801	1	310	720	43.06%
Prairie Village	051801	2	230	1,110	20.72%
Prairie Village	051801	3	140	1,555	9.00%
Roeland Park	050000	1	300	710	42.25%
Roeland Park	050000	5	60	745	8.05%
Roeland Park	050100	1	570	1,020	55.88%
Roeland Park	050100	2	330	1,010	32.67%
Roeland Park	050100	3	170	855	19.88%
Roeland Park	050100	4	230	600	38.33%
Roeland Park	050100	5	195	655	29.77%
Roeland Park	050200	1	260	1,140	22.81%
Springhill	053801	1	840	1,605	52.34%
Springhill Twp	053801	2	1,090	3,025	36.03%
Springhill Twp	053801	3	90	840	10.71%

Westwood	050000	2	185	760	24.34%
Westwood	050000	4	200	875	22.86%
Westwood Hills	050000	3	175	685	25.55%

PROJECT RATING SHEET - 2022 CDBG APPLICATION

APPLICANT: _____

NEED: (30 point total) _____

* The applicant clearly describes the local need for the project.
* Data provided in the application is current, local and adequately substantiates the need.
* The applicant demonstrates that the need is not currently or adequately being met through existing programs.
* The applicant provides convincing reasons why the project should be funded.
* The project meets a national CDBG objective and a strategic priority of Johnson County.

PROJECT IMPACT: (20 point total) _____

* The project is based on the needs identified.
* Project goals are clear and specific.
* Project beneficiaries/outputs are clearly described.
* Project objectives/outcomes are realistic, measurable and appear to be achievable.
* The project will significantly impact the identified needs.
* The applicant clearly describes the criteria for evaluating the success/impact of the project.

BUDGET & TIMELINESS: (20 point total) _____

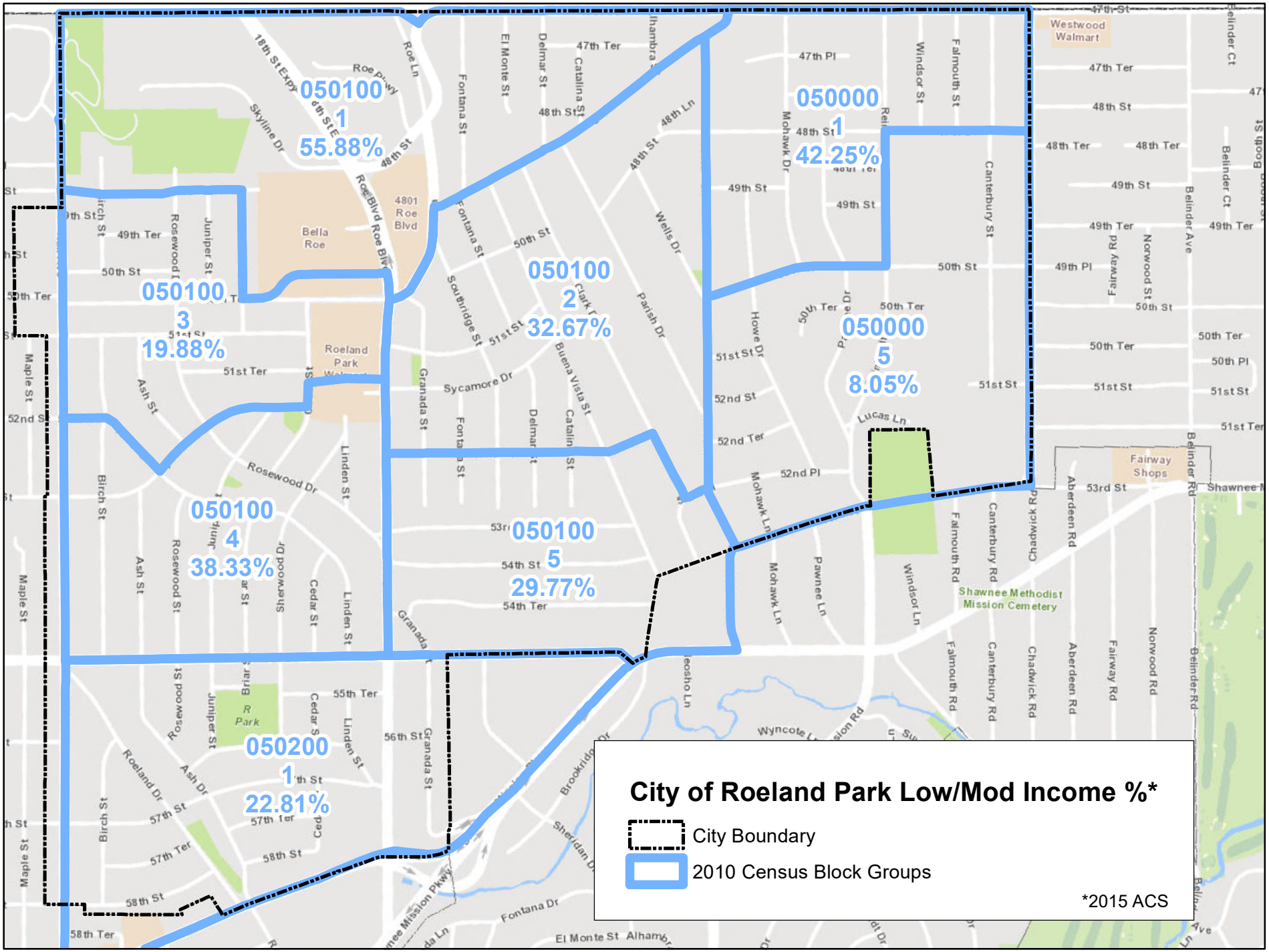
* The project budget demonstrates that the proposed expenditures are reasonable.
* Other funding sources and amounts needed to accomplish the project are clearly identified and reasonable.
* The project leveraged other funding sources and is not solely dependent on CDBG funds.
* For Housing/Public Facilities Projects – The project will proceed in a timely manner.
* For Public Service Projects - The project is cost effective in relation to cost per unit of service and the community needs identified.
* Grantee has demonstrated timeliness of spending and deobligation of prior grants is minimal.

PERFORMANCE MEASURES: (30 point total) _____

* Logic Model is completed and reasonable.
* Explanation of variances.
* Actual accomplishments comparable to estimates on prior grants.

TOTAL POINTS _____

Rater No.


050100
1
55.88%
050100
2
32.67%
050100
3
19.88%
050100
4
38.33%
050100
5
29.77%
050000
1
42.25%
050000
5
8.05%
050200
1
22.81%
City of Roeland Park Low/Mod Income %*
City Boundary
2010 Census Block Groups
*2015 ACS

JOHNSON COUNTY/OLATHE 2023 CDBG APPLICATION
PUBLIC FACILITIES and IMPROVEMENTS
PART 1 - PROJECT SUMMARY

For CDBG Staff Use Only.

Date Received: _____ Amount Requested: _____
Matrix Code: _____
Environmental Status: _____ Code Citation: 24 CFR 58. _____
National Objective Code: _____ Code Citation: 24 CFR 570.208_____

The Project Summary may not exceed two (2) pages.

1. Applicant

Name: Keith Moody
Address: 4600 W 51st Street
City/ZIP: Roeland Park, KS 66205
WEB Site: www.Roelandpark.org
Phone: 913 722 2600
DUNS #: 044744308

2. Contact person responsible for all communications concerning this proposed project.

Name: Donnie Scharff
Address: 4600 W. 51st St
City/ZIP: Roeland Park, KS 66205
E-mail: dscharff@roelandpark.org
Phone: 913 722 5435

3. Title of the proposed project: Roeland Park Community Center Phase I Improvements

4. Address/location for the proposed project *(If the project is carried out at more than one location, provide complete addresses on a separate sheet. This is necessary for the Environmental Review required by HUD.)*
4850 Rosewood Drive, Roeland Park, KS 66205

5. Amount of CDBG funds being requested: $200,000

Type and Amount of funds the applicant is committing to this project: (These are your leveraged funds.)
Design and inspection funds from the following local resources:
Community Center Funds= $800,000

6. In TWO sentences provide a concise description of the project. *(This **MUST** be brief, clear and to the point.)* Updates to lighting, HVAC systems, flooring, directional signage, ceilings, and wall surfaces at the Community Center. Improvements to the building fascia will include updating the exterior colors and new building signage. ADA accessibility issues will be addressed, and energy efficiency will be improved as part of the project.

7. **If this Public Facility/Improvement project benefits an area, provide each Census 2010 Tract & Block Group for the entire service benefit area. Please provide the rational for your service area.**

Census Tract(s): Tract 501
Block Group(s): Block Group 1

Boundaries of service area:
Rational for boundaries of benefit area listed above: Not Applicable, see above.
Income characteristics of the residents of the area: Not Applicable, see above.

Percentage of low/mod income persons in the service area and data used for determining the percentage: The Community Center provides service to the elderly as well as those with disabilities. The Community Center offers 50 plus programming as well as offering memberships to its fitness room at no cost to those enrolled in the Silver Sneakers Program. The Fitness Room currently has a total of 235 members, 55 of these members are over the age of 50 (or 23.4% of members). Programs – a total of 2,678 people participated in 50 Plus Programs in 2021, with 6,643 total participations. 135 room rentals at the Community Center in 2021, 30 rentals were by individuals over the age of 50.

Please include a map with the service area circled and all census tract/block groups in the service area labeled. Please see **Exhibit A**

8. **How many PEOPLE will benefit from this project?** Estimated 6,735, City population.

9. **Citizen Participation- For Applications by Cities (not County Departments/Agencies).** Project selection was discussed at an open Council meeting on April 18, 2022 and a public hearing was held at the City Council meeting on May 2, 2022. Minutes from those meetings and the notice of Public Hearing are attached as **Exhibit B**.

10. **Fair Housing Activities-must be completed by all applicants. Describe what actions will be taken to further Fair Housing.** The City of Roeland Park proclaims the month of May as "Fair Housing Month" and urges all citizens to actively support fair housing laws. The Fair Housing Month proclamation is attached as **Exhibit C.**

11. **Does your project address any of Johnson County's strategic priorities? Yes**
If yes, please briefly explain: (see page 5 of application instructions for details)

Strategic Priority No. 3 – Strengthen and finance the appropriate level of service to meet the needs of the county's vulnerable populations and create conditions that promote community health.

The Community Center provides cardio training and weightlifting facilities which supports the "promote community health" component of Strategic Priority 3. Johnson County Parks and Recreation provides childcare in the Community Center, in addition the Community Center facility hosts senior specific activities and programs, having this facility in place helps to meet the needs of both these vulnerable populations addressing the second component of Strategic Objective 3.

12. **SIGNATURE:** _____ **Date:** _____

(Signature of Mayor/Director of County or City of Olathe Department/Chairman of Board)
Mike Kelly, Mayor
Please Type/Print Name

JOHNSON COUNTY/OLATHE 2023 CDBG APPLICATION
PUBLIC FACILITIES and IMPROVEMENTS
PART 2 - PROJECT NARRATIVE

The Project Narrative may not exceed two (2) pages.

NEED the Project is addressing

1. Clearly describe the specific local need this project will address.

The project will address the aging design standards by bringing the building appearance and functionality to modern standards with the addition of LED lighting fixtures, new flooring material that reduces fatigue, HVAC upgrades to improve energy efficiency, updates to paintable surfaces, and exterior updates to building facia surfaces, address ADA compliance issues & updated signage. Sustaining this facility will ensure healthy social and physical opportunities are provided at the community center for those of all ages and abilities.

2. Describe the major local factors that contribute to the problem.

Limited local funding to bring the facility up to current ADA standards as well as limited funding for facility maintenance is the major contributing factor.

3. Provide current, up-to-date, county/city-specific data that substantiates the need.

The link below will take you to a Facility Design plan completed by the City in 2019: https://www.roelandpark.org/DocumentCenter/View/2975/Community-Center-Existing-Condition-Assessment-9-3-2019-PDF?bidId=

The link below will take you to an ADA compliance assessment completed for the facility in 20??: https://www.roelandpark.org/DocumentCenter/View/2974/ADA-Compliance-Assessment-Completed-by-JCPRD-09-18-2018-PDF?bidId=

The City's capital improvements program has more project needs than resources available to fund them.

The PROJECT – Performance Measurement

Summarize the following information using the chart on the next page:

- Clearly state the goal(s) of the 2023 project.
- Identify the inputs of the project.
- Specifically describe the activities you propose to conduct which will help achieve program goals.
- Clearly state what will be the direct products/outputs of the project.
- Clearly state the objectives/outcomes of the project.
- Clearly state how and when the achievement/impact of program objectives will be measured.

The City will measure the impact when the project has reached final completion. Improvements completed and notes taken by the inspector will confirm compliance with design

standards. Quantities reflected in the pay estimates approved by the inspector will confirm completion of the project objectives.

Please submit 2020 & 2021 forms from previous years' applications along with the actual results for 2022.
Roeland Park was awarded CDBG funds for 2022, but not for 2020 or 2021, Exhibit E is the Project Narrative for 2022.

2023 Project Narrative

Goal	Inputs	Activities	Measurable Outputs	Outcomes	Actual Results
Updates to interior lighting, HVAC systems, flooring, wall surfaces, exterior building facia, compliance with ADA accessibility standards, new signage to meet modern standards	$1,000,000 Budget Consulting Engineer: Design, Bid, Contract Administration, Inspection Construction Contractor(s) Administrative Staff	Administration of CDBD Grant Preparation of plans & specification. Competitive bid process. Construction observation and Davis Bacon oversight. Construction activities.	Lighting upgrades to improve energy efficiency & visibility of the building. HVAC updates to promote clean air & healthy living Promotes useability of the indoor space by modifying individual rooms to accommodate larger events .	Improved visual and functional characteristics to public facilities for all patrons regardless of age or abilities. Extended useful life of these facilities.	

JOHNSON COUNTY/OLATHE 2023 CDBG APPLICATION
PUBLIC FACILITIES and IMPROVEMENTS
PART 3 - BUDGET and TIMELINESS

The Budget & Timeliness Section may not exceed two (2) pages.

BUDGET NARRATIVE

The information to be provided below pertains only to the proposed project for which you are requesting CDBG funds.

1. **Project Title: Roeland Park Community Center Phase I Improvements**
2. **2023 Total Project Budget**

Revenues *(These funds must directly support and be essential to the implementation of this proposed project.)*

List All Revenue Sources For This Project	Amount
Funds requested from:	
Johnson County CDBG:	**200,000**
Olathe CDBG:	
Overland Park CDBG:	
Shawnee CDBG:	
***Other Project Revenue:	
Other Federal Funds	
State/Local Funds	**800,000**
Private Funds	
Other:	
Total Project Revenue	**1,000,000**

Expenses

Source	Amount
Personnel	
Equipment	
Supplies	
Space Rent/Utilities	
Other- Consulting Engineer/Architect	**125,000**
Other- Construction Contract	**875,000**
Total Project Expenses	**1,000,000**

Total project revenue must equal total project expenses.
*****All other project revenue must be specified. Sources must be noted.**

3. **Describe precisely what CDBG funds will be used to pay for.**

Construction (materials and labor) new lighting fixtures, HVAC systems, flooring, signage, ADA compliant access and restrooms, paint, A project location and layout map along with the cost estimate for the project is provided in **Exhibit D.**

Timeliness

HUD imposes a timeliness requirement for the expenditure of CDBG funds on the County.

1. **Will this project be ready to proceed as of January 1, 2023?** Yes

2. **If not ready, when will the project proceed?**

3. **When is this project scheduled to be completed?** December 1, 2023.

4. **Describe any circumstances that might prevent this activity from being completed by December 1, 2023.**
   If CDBG funds are not available as of January 1, 2023.

5. **CDBG History**
   If your organization has received CDBG funding in the past, please provide the information below.

Program year	**2019**	**2022**
Award in Program Year	136,000	125,000
Expended in Program Year (Will agree to your reimbursement request forms.)	124,000	125,000
Number of PEOPLE served (Will agree to final project beneficiary form.)	48	145
Balance Remaining (if applicable)	0	0

JOHNSON COUNTY/OLATHE 2023 CDBG APPLICATION
ALL PROJECTS
PART 4 – ENVIRONMENTAL QUESTIONS

HUD requires that an Environmental Review be performed on any project supported by CDBG funds.

To assist us in determining the level of Environmental Review necessary for this proposed project.

Since this project is a **PUBLIC FACILITIES/IMPROVEMENTS** project:

1. **Please provide the address or location of the project.** 4850 Rosewood Drive, Roeland Park, KS 66205

1. **Is the facility/improvement in place and will it be retained in the same use without change in size or capacity of more than 20 percent? Yes**

3. **Is the project located in a flood zone area? No**

4. **Is the location in a primarily residential area? Yes**

JOHNSON COUNTY/OLATHE 2023 CDBG APPLICATION
PART 5 - CERTIFICATIONS

The Applicant certifies that:

(a) It possesses legal authority to make a grant submission and to execute a community development and housing program.

(b) Its governing body has in an official meeting open to the public duly adopted or passed as an official act a resolution, motion or similar action authorizing the person identified as the official representative of the subrecipient to submit the final statement and all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the subrecipient to act in connection with the submission of the final statement and to provide such additional information as may be required.

(c) The grant will be conducted and administered in compliance with:

(1) Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352; 42 U.S.C. Subsection 2000 et seq.);

(2) The Fair Housing Act (42 U.S.C. 3601-20).

(d) It will affirmatively further fair housing.

(e) It has developed its proposed activity so as to give maximum feasible priority to activities that benefit low- and moderate-income families or aid in the prevention or elimination of slums or blight. The proposed use of funds may also include activities which the subrecipient certifies are designed to meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community, where other financial resources are not available to meet such needs.

(f) It will not attempt to recover any capital costs of public improvements assisted in whole or in part with funds provided under section 106 of the Act or with amounts resulting from a guarantee under section 108 of the Act by assessing any amount against properties owned and occupied by persons of low- and moderate-income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless: (1) funds received under section 106 of the Act are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than Title 1 the Act; or (2) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the grantee certifies to the Secretary that it lacks sufficient funds received under section 106 of the Act to comply with the requirements of subparagraph (1).

(g) It will comply with the acquisition and relocation requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1990 as required under Section 570.606(a) and Federal implementing regulations; the requirements in Section 570.606(b)

governing the residential anti-displacement and relocation assistance plan under section 104(d) of the Act (including a certification that the subrecipient is following such a plan); the relocation requirements of Section 570.606(c) governing displacement subject to section 104(k) of the Act; and the relocation requirements of Section 570.606(d) governing optional relocation assistance under section 105(a)(11) of the Act.

(h) To the best of my knowledge and belief that:

1. No Federal appropriated funds have paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant loan, or cooperative agreement, it will complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and

3. It will require that the language of paragraph (h) of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

(i) It will comply with the other provisions of the Act and with other applicable laws.

_____ _____

Signature Date

Mayor/Director of County or City of Olathe Department/ Chairman of Board

_Mike Kelly, Mayor_____

Please Print Name and Title