Proposal Response to RFP No. 18-01

Citywide Tree Inventory,
GPS Mapping,
Condition & Hazard Assessment

March 12, 2018

DAVEY
Resource Group

Local Representative
Dorothy Abeyta
Project Developer
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Kent, OH 44240

www.daveyresourcegroup.com

Attachment 2

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DAVEY
Resource Group

March 12, 2018

CITY OF HERMOSA BEACH
Public Works Department
Attn: Mr. Ells Freeman
1315 Valley Drive
Hermosa Beach, CA 90254

RE: Citywide Tree Inventory, GPS Mapping Condition & Hazard Assessment

Dear Mr. Freeman,

Davey Resource Group, Inc. "DRG" is pleased to provide you with this proposal which describes, in detail, our team approach to your Citywide Tree Inventory, GPS Mapping & Hazard Assessment project. Our team has crafted this project scope based on the City's RFP, accompanying addendums and our understanding of your urban forest management goals. We understand that this project is a priority for city staff, leadership, and the residents of your community. Our proposal has been structured to best meet your community's particular needs and expectations.

DRG has the experience and qualifications to successfully complete this project within your timeline and budget. We have a full complement of ISA Certified Arborists with TRAQ certificates and college-educated urban foresters - and can expand our complement to meet tight deadlines, if necessary.

DRG is a wholly owned subsidiary of the Davey Tree Expert Company with an unmatched legacy in the tree care business. Since 1990, Davey Resource Group has completed over 1,000 tree inventories across the nation. No other company has successfully completed as many tree inventories or master plans as Davey Resource Group.

If you need additional information or clarification on the enclosed proposal, please feel free to contact our local representative at (925) 391-5969 or dorothy.abeyta@davey.com.

Sincerely,

Kenneth A. Joelin

Kenneth A. Joelin
Vice President
Davey Resource Group, Inc.

Proposal Section 2.1 | *Company Data*

Company Contact Information

Corporate Headquarters	Davey Resource Group, Inc. 1500 North Mantua Street Kent, OH 44240 EIN: 82-1948528 www.davey.com/drg (866) 661-4148 (330) 673-0806 FAX	Ken Joehlin Vice President Ken.Joehlin@Davey.com (330) 283-8015
Regional Office	Davey Resource Group, Inc. 6006 Capistrano Avenue Atascadero, CA 93422 (805) 481-7500 (805) 461-8501 FAX	Dorothy Abeyta Project Developer Dorothy.Abeyta@Davey.com (925) 391-5969

Davey Resource Group, Inc. "DRG" is a subsidiary of The Davey Tree Expert Company, with corporate

headquarters located in Kent, Ohio. The Davey Company has provided arboricultural services since its inception in 1880. In 1979, the company was purchased from the Davey family by its employees. It is now one of the largest employee-owned organizations in the country, employing more than 9,000 people. We currently maintain offices throughout the United States and Canada.

Since Davey was founded in 1880 as North America's first tree care company, The Davey Tree Expert Company has

held to a philosophy of excellent service and integrity. Davey, an employee-owned company, is committed to providing high quality, dependable services and advanced technical expertise. The philosophy of company founder John Davey was, "Do it right or not at all." Today, this heritage of excellence is reflected in Davey's dedication to innovation, research, and development. Davey has an enduring commitment to our employees through education, safety, and implementation of innovative work methods. The tradition of quality service and value makes Davey the right choice for creative solutions in today's rapidly changing world of vegetation and environmental management.

DRG is the consulting company within The Davey Tree Expert Company. The Western Region is headquartered in Atascadero, California with regional offices in Northern and Southern California, Missouri, Texas, the Pacific Northwest, New York, and Florida. DRG's mission is to offer technical consulting to natural resource managers, including public and private organizations and companies,

utility companies, municipal organizations, and other government jurisdictions. DRG provides urban, traditional, and utility forestry solutions; natural resources and environmental planning; research and development; and consulting services. Our clients include governmental agencies, cities, military bases, universities, park districts, utility companies, golf courses, land developers, environmental organizations, and commercial properties.

DRG is committed to providing high quality consulting services, with results focused on the needs of our clients and the communities we serve. The DRG management team brings an extensive background of consulting experience to this project, as well as the flexibility and dedication to meet the objectives. We look forward to the opportunity to partner with the City of Hermosa Beach on this important project.

DRG Western Region Contracts During the Past Five Years

| Contract Period	Contract Type	Contracting Agency	Project Description	Project Manager	Project Developer
2018 - ongoing	Professional Services	College of Southern Nevada	Tree Inventory & Software	Bova	Abeyta
2018-ongoing	Professional Services	City of Tracy	Urban Forest Canopy Analysis & Management Plan	McKeand	Abeyta
2018 - ongoing	Professional Services	LA County Dept of Beaches & Harbors	On-Call Consulting Arborist	Bova	Abeyta
2017 - ongoing	Professional Services	Santa Clara County	Tree Inventory, Software, On-Call Arborist	Bova	Abeyta
2017-ongoing	Professional Services	City of Woodland	Canopy Mapping, Analysis & Master Plan	McKeand	Fenkner
2017-ongoing	Professional Services	City of Sacramento	Urban Forest Management Plan, Comprehensive Canopy Analysis, i-Tree Analysis, Historic Assessment	McKeand	Fenkner
2017 - ongoing	Professional Services	Balboa Park Conservancy	Tree Inventory & Software	Bova	Fenkner
2017-ongoing	Professional Services	City of Merced	Tree Inventory, Analysis and Urban Forest Management Plan	Spillett, McKeand	Abeyta
2016 to 2018	Professional Services	City of Los Altos	Tree Inventory/i-Tree Analysis	Scott McKeand	Fenkner
2016 to 2017	Professional Services	City of Boulder	Tree Inventory/i-Tree Analysis	Scott McKeand	Sultan
2016 to 2018	Professional Services	City of Patterson	Urban Forest Management Plan, Tree List Canopy Assessment Historic Tree Ordinance, Maintenance Recommendations/ Schedule	McKeand Lanham	Fenkner
2016 to 2017	Professional Services	City of Atwater	Urban Forest Master Plan	McKeand	Fenkner
2016-ongoing	Professional Services	Disneyland Resort	Tree inventory, canopy study, pest monitoring	Bova	Karcher
2015 to 2016	Professional Services	City of Citrus Heights	i-Tree Analysis, Canopy Assessment, Urban forest Master Plan	Bova	Fenkner
2015	Professional Services	San Joaquin Delta College	Tree Inventory, I-Tree Analysis, Management Software	Bova	Fenkner

2015	Professional Services	Butte-Glenn Community College District	Tree Inventory, I-Tree Analysis, Management Software	Bova	Fenkner
2015	Professional Services	City of Pacific Grove	Tree Inventory, i-Tree Streets Analysis, Tree Canopy Assessment	Bova	Fenkner
2014 to 2017	Professional Services	City & County of Denver	Tree Inventory	McKeand	Sultan
2014	Professional Services	City of Mountain View	Urban Forest Management Plan	Bova	Karcher
2013	Professional Services	City of El Cerrito	Municipal Tree Inventory i-Tree Eco Assessment Software Management system	Bova	Karcher
2013	Professional Services	City of Clovis	Tree Inventory, i-Tree Streets Analysis, Urban Forest Master Plan, Software Management System	Bova	Karcher
2013	Professional Services	City of Berkeley	Inventory, i-Tree Report	Bova	Karcher
2013	Professional Services	City of Stockton	Municipal Tree Inventory	Bova	Karcher

Failures or refusals to complete a contract and explanation: **NONE**

Individuals/Firms who own an interest of 10% or greater in the proposing firm: **DRG is employee owned.**

Financial interests in other lines of business: **NONE**

Proposal Section: 2.2 | *Organizational Chart*
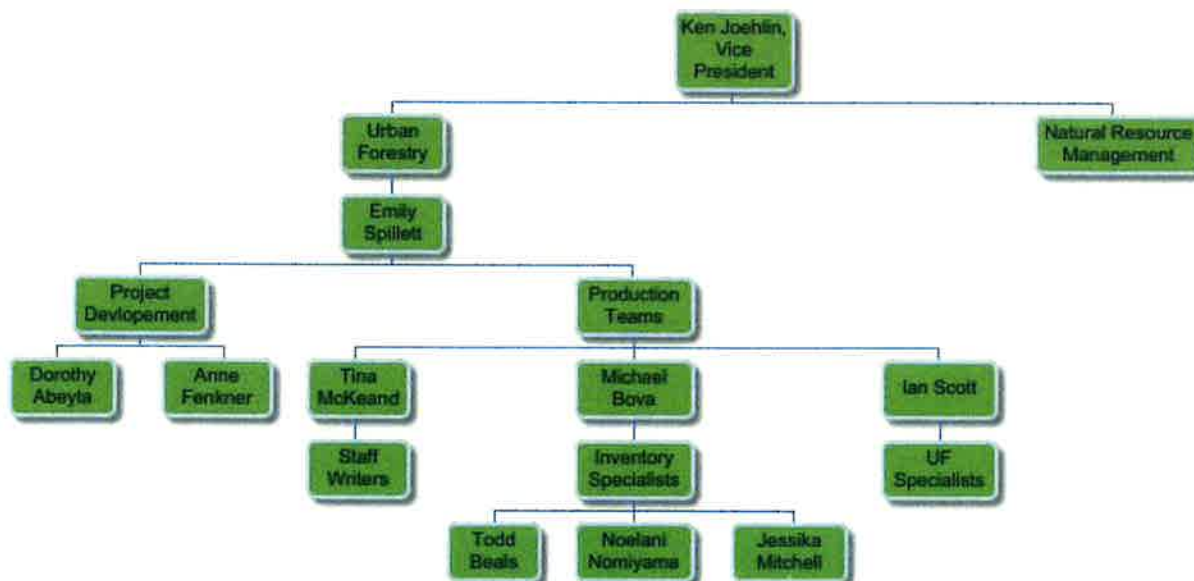
Qualifications of the Inventory Specialist can be foruns in Section 2.3 Resumes and Qualification of Personnel. Inventory Specialists with the same qualifications and experience are interchangeable for this project. Although every effort will be made to start and finish with the same inventory team, it cannot be guaranteed.

Proposal Section 2.3 | *Resumes and Qualifications of Personnel*

Select Staff

DRG Arborists are aligned and operate as a cohesive team. All are International Society of Arboriculture (ISA) Certified Arborists, some with advanced certifications that include risk assessment and municipal specialties. Along with senior leadership to ensure project success, we have assembled the following staff resumes for the City of Hermosa Beach. These individuals are representative of DRG candidates with direct experience in evaluating trees and assessing risk to the public and property. A strength of DRG is our ability to reassign additional qualified candidates from throughout our vast national service territories. Upon contract award, DRG will finalize and arrange for staffing to meet the project needs.

Emily Spillett | Western Region Operations Manager – Urban Forestry

Emily Spillett is an Operations Manager, with sixteen years of professional experience working with utility forestry, urban forestry, land use planning, and natural resource management issues with Davey. Ms. Spillett currently manages a variety of municipal projects in California, Oregon, Washington, Colorado, Oklahoma, and Texas. Ms. Spillett holds a Bachelor of Science degree in Environmental Forest Biology from the State University of New York College of Environmental Science and Forestry. She is a 2013 a graduate of from the Municipal Forestry Institute. Ms. Spillett serves as the President on the Board of the California Urban Forest Council and is a member and volunteer for the Western Chapter of the International Society of Arboriculture.

Michael Bova | Project Manager

Mr. Bova is a Certified Arborist, Registered Consulting Arborist and Certified Tree Risk Assessor. He presents more than 25 years of practical experience with with public agencies serving as a professional arboriculture and landscape industry advisor. He offers well-developed management skills evidenced by over 15 years of successful supervisory, managerial and executive responsibilities. Mr. Bova has authored numerous detailed technical and consulting reports for a variety of clients throughout the Central Coast and Southern California. A list of his educational accomplishment and professional certifications follow:

- 2005, Master of Science, with Distinction, in Agricultural Science with a specialization in Education, California Polytechnic State University, San Luis Obispo, CA
- 1986, Bachelor of Science, Agricultural Science, California Polytechnic University, Pomona
- 2012, American Society of Consulting Arborists Consulting Academy Graduate
- Certified Arborist, International Society of Arboriculture #WE-3372A
- International Society of Arboriculture Tree Risk Assessment Qualified (TRAQ)
- Registered Consulting Arborist, American Society of Consulting Arborists #549

Jessika Mitchell | Inventory Specialist

Jessika Mitchell is passionate about engaging, educating and inspire community members to participate in understanding and sustainability of the urban forest in which they live. She is an educator and an International Society of Arboriculture Certified Arborist with TRAQ certification. Prior to joining DRG in 2017 Ms. Mitchell served TreePeople.

- Loyola Marymount University, earned her BA in History from University of California, Los Angeles
- Certificate in Horticulture and Gardening from UCLA Extension.
- ISA Certified Arborist and Tree Risk Assessment Qualified (TRAQ)

Noelani Nomiyama | Inventory Specialist has been with DRG since 2015. She is an ISA Certified Arborist with more than ten years of experience in tree and landscape maintenance. Noelani is a graduate of Brigham Young University. She attended in BYU Hawaii where she was responsible for plant identification, propagation, and care of native species. At BYU Utah she worked in landscape maintenance and performed greenhouse cultivation and maintenance. She began her professional tree career as a crew leader and climber and has hands on experience in identifying tree maintenance and management needs in the field. Noelani's experience as an inventory specialist is very broad. She has completed tree inventories in California, Colorado, Utah, Nevada, and Oklahoma for DRG. Noelani brings a broad range of tree identification and tree maintenance expertise to the DRG inventory team.

- B.A. Brigham Young University
- ISA Certified Arborist (UT-4565A)

TIna McKeand | Urban and Community Forestry Specialist for Davey Resource Group. Her current and most recently completed assignments include urban tree canopy assessments and urban forest master plans for Plano, TX and Tulsa, OK (Up With Trees), resource analyses (using i-Tree), urban tree canopy assessments, and urban forest master plans for the cities of Mountain View, Citrus Heights, and Manhattan Beach, California. Previous noteworthy and unique projects include a Forestland Assessment and Management Plan for Anchorage, AK; a Portland Bureau of Planning project - Initial Assessment of Portland Street Trees as a Public Asset; a canopy assessment and Urban Forest Master Plan for Roseville, CA; canopy assessments for the cities of Bonney Lake and Port Angeles, Washington; and she was a co-author and illustrator for a US EPA project Stormwater to Street Trees on the use of Stormwater retention strategies in cities across the United States.

Ms. McKeand is a former urban forester for the City of Yuma, Arizona, a former president of the Arizona Community Tree Council, a volunteer for the Western Chapter of the International Society of Arboriculture, and currently serves on the Nevada Division of Forestry Advisory Committee.

- Board Certified Master Arborist and Municipal Specialist (WE-5005BM)
- Municipal Forestry Institute (Graduate 2007)

Dorothy Abeyta | Project Developer

Dorothy Abeyta is a Project Developer for the Davey Resource Group specializing in urban forestry and environmental resources. Dorothy served as the landscape manager for the City of San José Special Assessment Districts for over 15 years and has vast knowledge of municipal and commercial landscape

management, landscape renovation and conversion techniques for environmental stewardship. Dorothy spent the early part of her career as an independent landscape consultant, writer, speaker and consulting arborist. Drawing on over 30 years of experience in the fields of arboriculture, stormwater and landscape management, plant pathology and soil science, Dorothy brings a broad perspective to the field of landscape management and urban and community forestry. Dorothy is dedicated to continuing education, elevating our profession and working to insure visibility for our profession in the community.

- Master of Science, Plant Pathology. UC Riverside (UC Regents Fellow)
- International Society of Arboriculture | Certified Arborist, Municipal Specialist (WE-9597AM)
- Qualified Tree Risk Assessor (TRAQ)
- Society of Municipal Arborists | MFI Class of 2007
- Bay Area Urban Forest Ecosystem Council | Membership Coordinator
- Rescape California | Qualified Design Professional

Proposal Section 2.4 | *References*

City of Atwater, California (2016 - 2018) - Tree Inventory and UFMP
Lori Waterman, Grants Manager lwaterman@atwater.org (209) 357-6206

> The plan development process involved a comprehensive review and assessment of the existing community tree resource, including composition, value, and environmental benefits. The process explored community values, existing regulations, and policies that protect community trees. The Plan identifies methods of measurement and a target date for each of the strategies. The purpose of the Urban Forest Master Plan (UFMP) is to provide a guide for managing, enhancing, and growing Atwater's community tree resource over the next 25 years. The plan includes goals for long-range planning to promote sustainability, species diversity, and greater canopy cover.

City of Patterson, California (2014 - 2018) - Tree Inventory and UFMP
Maria Encinas, Management Analyst mencinas@ci.patterson.ca.us (209) 895-8061

> The initial project involved an inventory of all public trees using the TreeKeeper tree management software. i-Tree analysis was used to assess the existing community tree resource, including composition, value, and environmental benefits. The final phase of the project measured the community's needs in regard to the community forest by information gathering and building consensus to develop a comprehensive Urban Forest Master Plan that is flexible enough to grow with this rapidly expanding community. The purpose of the Urban Forest Master Plan (UFMP) is to provide a guide for managing, enhancing, and growing the community tree resource over the next 25 years. The plan includes goals for long-range planning to promote sustainability, species diversity, and greater canopy cover.

City of Los Altos, California (2016) - Tree Inventory and Analysis

Chris Costanzo, UF Manager   ccostanzo@losaltosca.gov   (650) 947-2895

DRG collected tree inventory on approximately 7,000 trees located on public property throughout the City. Information gathered in the inventory was analyzed using i-Tree to provide critical baseline data on urban forest structure, functions and maintenance requirements. The data analyses serve as a platform for achieving short and long term management objectives, and for designing a comprehensive urban and community forest master plan. Treekeeper inventory management software and training was provided to City staff to use on a daily basis to provide clarity and enhance staff communication through documentation of community input and work orders as they relate the the urban forest.

Proposal Section 2.5 | *Overview and Approach*

Inventory: DRG intends to support the City of Hermosa Beach by performing a complete inventory of trees located in Parks, Medians, planters and a Greenbelt that extends the length of the City, estimated to be between 3,000 and 3,500 trees. All tree locations shall be mapped with the latest available software and mobile application technology. Data will be provided to support GIS layering (GIS shapefile) in the file format requested by the City. DRG will collect tree attributes as requested in the scope of work. Observable defects at the time of assessment will be noted and maintenance recommendations assigned. All observations are made from the ground.

Hazardous Assessment Option: During the inventory process trees identified as posing a potential risk to the public or property will be recommended for further assessment using Level 2 tree risk assessment methodology based on ANSI A300 (Part 9) 2017 standards, along with the companion publication Best Management Practices: Tree Risk Assessment, 2nd Edition, published by the International Society of Arboriculture (2017). The Level 2 Risk Assessment is offered as an additional optional service in the proposal pricing,   *CHECK*

Tree Inventory Software Option: The tree inventory is proposed to be delivered with Treekeeper 8 software on a free trial basis for one (1) year subscription. Existing tree inventory data will be uploaded to the City of Hermosa Beach Treekeeper system and training for staff provided through webinar and online help tools. Costs to continue the subscription after the one-year trial subscription (to follow after inventory completion) are included as an option in the proposal pricing.

i-Tree Streets Analysis Option: This detailed analysis of the tree inventory includes vital information on urban canopy structure, function and value, both monetary and in ecosystem services the tree canopy provides. It provides the basis for a deeper understanding of this resource.

2.5.1 Approach

Tree Inventory and Assessment Services

Davey Resource Group inventories are customized to meet each client's needs. All data needed to manage the resource is collected to the client's specification. DRG generally begins a project by obtaining the electronic files of aerial photos and base maps of the working area within the project site. These are imported into DRG's Work Planning Software (WPS) for field data collection purposes.

In general, DRG works with each client to determine which tree attributes should be collected. This varies based on your management needs. The ISA Best Management Practices guidelines were developed with the support of The Davey Institute.

Kick-off Meeting

To begin the project, the Project Manager and/or Coordinator will meet with City staff for a pre-project meeting. This meeting will serve a number of purposes. The first priority will be to determine routing of inventory arborists. With the department's assistance, we will map out a logical sequence for moving throughout the City. In addition to determining work sequence, we also meet to create a contact directory for our staff and yours. This will help us to define the best person(s) to contact if the need arises. At this point, we also give City of Hermosa Beach contact information for all DRG managers and field staff assigned to this project. This will give staff involved in this project a point of contact at any time. Also at this meeting we will ask for any parking information or City identification that might be needed. It is our intent to be well prepared going into the contract so that your staff's day-to-day duties are not interrupted by our presence.

Pilot Project

Once the project is kicked off, we will invite our staff contact to examine and approve of our first days of data collection to look for irregularities that may occur. This type of "pilot project" allows City of Hermosa Beach to make adjustments to the collection specification as needed once the data is viewed live. This is in addition to our quality control measures that takes place on a regular basis.

Once data collection has begun, we download it weekly into a website that is accessible by City of Hermosa Beach staff. Downloading allows you to see and monitor our progress. We also provide a weekly status report so that you know what areas we are working and how much inventory is left.

Data Collection

Davey Resource Group recognizes that accuracy and efficiency are necessary features of the data collection process and will remain a priority in determining tree locations and tree attributes. To achieve these goals, Davey recommends that a combination of Geographic Information System (GIS) and Orthoimagery be used. Generally, pen-based computers, customized with the desired tree attribute fields, Ortho-rectified aerial photographs, and other GIS information, will be the primary tools used to collect tree locations and data.

GIS-Based Data Collection

Specifically, Davey Resource Group has found that the most efficient and accurate method for mapping tree locations is to utilize a three-tiered system: GIS layers, Ortho-rectified aerial map data on a handheld computer, and the arborist's field judgment.

The GIS layers serve as the first tier of tree location during the inventory. The aerial map, ranging from street centerline shapefiles all the way to various resolutions of color orthophotography from a City/County GIS program, serves as the second tier of tree location. The data collector, the third tier, draws from experience and applies field judgment to make the ultimate decision based on what is seen in the field and often resolving the inconsistencies that can exist between map data and GPS signals. Used concurrently for each tree, Davey's inventory arborists utilize the best available GIS map information and Orthoimagery to quickly and accurately plot tree/site locations with sub-meter accuracy.

Using this approach, the entities will gain these advantages:

1. Increased production rates. Location data entry using GIS with accurate basemap information is nearly twice as fast as using GPS equipment. Inventory personnel are not limited by weather conditions or interference by buildings or other tall obstructions.
2. High level of location accuracy. GIS is only limited by the accuracy of the basemap information provided. However, for community forest management purposes and for other campus-wide use, such as for construction and utility projects, the accuracy of GIS locations is usually more than sufficient.
3. Faster project completion. With the increased production rates of this methodology and the decreased negative effects of weather and satellite factors, the project can be completed more quickly with less downtime.

Pen-Based Computer Technology

Davey Resource Group will utilize pen-based computers specifically configured for this tree inventory project. During the project, data from these field units will be uploaded directly to a desktop computer for processing and storage.

Pen-based computers offer several advantages:

1. Data entry is quick because collectors use simple input forms containing pick lists, checkboxes, and buttons to save time and money.
2. The computer only accepts certain entries, decreasing errors. All information on a particular tree must be entered before the collector can proceed. Cross Checking between fields occurs in real-time, as well, to prevent inconsistent results.

3. The data can be exported in file formats compatible with commercial GIS applications, including ArcCatalog™,ArcView™, ArcInfo™, and AutoCAD®, or plotted on paper maps.

Format Options for Data Deliverables

Davey Resource Group can deliver inventory data to each entity in a variety of formats for different systems. The most common formats for data deliverables are:

Microsoft Excel™	ESRI® Shapefile	ESRI® GeoDatabase	Google Earth™ KML	TreeKeeper 8® Software

Our GIS/IT group is also able to work with a client's GIS/IT group to format the data for particular asset management software programs and systems already in place. We have successfully delivered tree inventory data for customers that use all programs including CityWorks, Hansen, Cartegraph, and GeoBlade.

Quality Control and Training

Davey will provide and assure the City an accurate and high-quality inventory project. Davey can make this assurance through these means:

1. Davey Resource Group's team of experienced, professional urban foresters will conduct the inventory.
2. All of our inventory arborists are Certified Arborists through the International Society of Arboriculture.
3. Davey's Information Technology Department also runs specific analysis software on the collected data to ensure consistency and accuracy.
4. In addition to computerized quality checks and control, a senior inventory arborist on site regularly field checks data collected by other staff to assure adherence to city work specifications and national industry standards.

Clarity through respectful communication contributes to quality data collection.

DRG will provide extensive quality control information with the following processes to ensure that the quality expectations are met and exceeded:

- *Training* – DRG is a professional organization that has the best training resources available to ensure the highest quality inventory and species identification. We include Quality Assurance within our inventory methodology to ensure quality data. All field staff will demonstrate familiarity with Southern California regional dendrology prior to beginning work for the City of Hermosa Beach.

- *Data Collections Specification* – A clear understanding of the data and the methods for collection and categorization ensure high quality data. DRG will work with the City staff to develop a detailed specification before actual data collection begins.

- *Field Quality Check* – At the beginning of the project, 10% of an individual arborist's information will be checked for quality and completeness. All aspects of data collection will be reviewed. As the project progresses, the percentage of quality-controlled information may decrease based on an individual's abilities.

- *Status Updates* - The DRG Project Manager will provide weekly updates of the inventory collection progress in the format preferred by the City. Possible status update formats include: progress notes, excel, or Google spreadsheet, CAD files, SHP, and GeoDatabase plot maps.

- *Quality Assurance Methods* – Where possible, quality control will be completed electronically so that quality checks are a permanent record of the data collected. This means there will be additional fields in the data files for quality control. Where this is not practical, quality control will be completed on paper forms, with a tally of all quality checks.

- *Quality Assurance Reporting* – Quality assurance information will be tallied by week ending date and provided to the City Program Manager at least monthly, or in intervals desired by the Program Manager. Accuracy rates and classification of any errors will be included as appropriate.

Tree Attributes

In general, Davey Resource Group works with each client to determine which tree attributes should be collected. This varies based on your management needs. Most clients begin with the *International Society of Arboriculture (ISA) Best Management Practices* that were developed with the support of The Davey Institute. For this grant project, DRG recommends using these tree attributes. In addition, each client has a preference for inventory routing and the sequencing of trees within the GIS layers. The City's staff will guide our inventory specialist through the collection process. Rest assured that our inventory models are flexible to meet the needs of the City and its desired outcomes for the management of the tree resource.

Tree Inventory Data Fields

1. **Location and Unique Identifier**—DRG identifies the location of each tree and/or site. An X and Y coordinate will be generated for each tree site. DRG will also assign each tree a unique identification number.

2. **Description of Location**— In addition to latitude and longitude a geographic direction (South, North, East and West) in relation to street will be identified for each tree.

3. **Species**—Trees are identified by genus and species using both botanical and common names.

4. **Tree Size**—Diameter is measured in ranges at 4-½ feet above the ground, or diameter at breast height (DBH).

5. **Condition Rating**—In general, the condition of each tree will be recorded in one of the following categories adapted from the rating system established by the International Society of Arboriculture:

i.	Excellent	100%
ii.	Very Good	90%
iii.	Good	80%
iv.	Fair	60%
v.	Poor	40%
vi.	Critical	20%
vii.	Dead	0%

6. **Maintenance Priority**—Each tree will be classified into one of the following recommended maintenance categories. These categories are adapted from the *Best Management Practices Guide for Tree Inventories* from the International Society of Arboriculture. Trees identified for removal will have supporting rationale in the comments section:

    a. **Large Tree Routine Pruning**—Trees in this category have characteristics that could become risks if not corrected. Deadwood limbs are less than two inches in diameter.

    b. **Small Tree Routine Pruning**—This category includes small-growing trees that can generally be maintained from the ground, *i.e.,* redbud, Mexican plum, etc., and other trees 20 feet or less in height.

    c. **Training Pruning**—This category includes trees under 20 feet tall with correctable structural problems or minor amounts of deadwood that pose minimal threat of personal injury or property damage. Inexpensive pruning at this stage significantly affects the future of these trees. Young trees in this category that will be large at maturity generally require an annual pruning or inspection.

    d. **Priority 1 Pruning**—Trees in this category need pruning to remove hazardous deadwood limbs greater than four inch diameter and/or have broken, hanging, or diseased limbs.

    e. **Priority 2 Pruning**—These trees need pruning to remove hazardous deadwood limbs greater than two, but less than four, inches in diameter.

        Note: Trees assessed as lower priority may fail before trees assessed as higher priority. There are many uncontrollable conditions, such as weather, pests, and human involvement, which can contribute to tree failure. Davey's assigned priority is meant only to be used as a guideline to make safety-driven maintenance decisions and direct normal tree maintenance programs efficiently. All priorities are based on observable defects at the time of assessment. All observations are made from the ground.
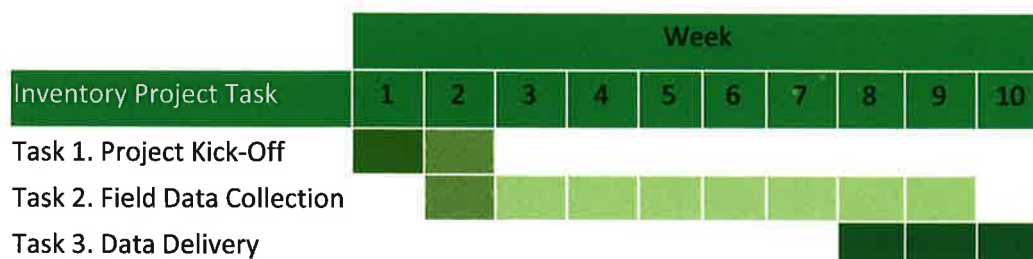
    f. **Priority 1 Removal**—These trees have defects that cannot be cost-effectively or practically treated, have a high amount of deadwood, and pose an immediate hazard to a property or person. Davey recommends that these trees be removed immediately.

g. **Priority 2 Removal**—These trees are not as great of a liability as Priority 1 Removals, being smaller and/or less hazardous, although they are also recommended for removal. Davey recommends that they be removed as soon as possible.

h. **Priority 3 Removal**—Trees designated for Priority 3 Removal do not pose a public hazard and are small, dead, or poorly formed. Smaller dead trees and failed transplants are in this category. Large trees in this category are generally poorly sited, of inferior quality, and pose little to no threat to the community.

i. **Stump Removal**—Stumps are identified separately since they may not be removed at the time of a tree removal.

7. **Observations** – In addition to the Maintenance Priority assigned, the following specific maintenance observations will be collected as the most critical task:

    - Clean/Deadwood
    - End Weight/Thin
    - Reduce
    - Remove
    - Remove Stake
    - Restore
    - Stake/Train
    - Structural Prune
    - Treat Pest/Disease

8. **Clearance Issues** – Trees that are conflicting with buildings, lights, etc will be noted. Specific thresholds for noting clearance issues will be determined according to the City's needs.

9. **Hardscape Damage** – The extent of damage to walkways, if present, will be identified.

10. **Additional Inspection Required** – The arborist may identify trees that warrant a secondary inspection beyond the scope of a routine inventory. These trees will be further evaluated using Level 2 Risk Assessment methodology.

11. **Comments/Notes** – Comments that the arborist feels are warranted on a tree specific basis will be included. Trees that are identified for removal will have comments pertaining to the reason for recommended removal in the Observation field. Other comments can include items such as: Cavity, Decay, Co-Dominants, Improperly Pruned, Mechanical Damage, Pest Problem, Poor Structure, Previous Failure, Serious Decline, Signs of Stress, Leaning, etc.

Tree Inventory Project Timeline

Once authorization to proceed is received from the City, Davey Resource Group can comfortably meet the approximate sixty day deadline. Due to the size and nature of our team, we have the ability to start the project as soon as needed.

Inventory Project Task	Week									
	1	2	3	4	5	6	7	8	9	10
Task 1. Project Kick-Off										
Task 2. Field Data Collection										
Task 3. Data Delivery										

Optional Services: *Enhancements to Scope of Work*

Level 2 Risk Assessment Methodology Option

Using the tree inventory, Davey Resource Group's certified arborists with ISA Tree Risk Assessment Qualification will navigate to each of the trees identified as presenting a potential risk. A Level 2 tree risk assessment will be performed based on ANSI A300 (Part 9) 2017 standards, along with the companion publication *Best Management Practices: Tree Risk Assessment*, 2nd Edition, published by the International Society of Arboriculture (2017).

A **Level 2 Risk Assessment** includes a ground-based 360-degree review of all visual portions of the tree. The assessment does not include advanced analysis with special equipment or tools. In each inspection,the arborist considers various tree failure scenarios which help determine risk rating.. The failure mode (i.e., branch, whole tree, codominant stem) with the greatest risk will serve as the overall tree risk rating.

Simple tools may be used for measuring the tree and acquiring more information about it or any potential defects. However, the use of these tools is not mandatory unless specified in the scope of work. Measuring tools may include a diameter tape, clinometers, or a tape measure. Other inspection tools include binoculars, mallet, trowel, shovel, or probe.

The primary limitation of a basic assessment is that it includes only conditions that are detected from a ground-based inspection on the day of the assessment. Internal, belowground, and upper-crown conditions, and certain types of decay may be impossible to see or difficult to assess and may remain undetected.

Level 2: Basic Assessment Process

- Locate and identify the tree or trees to be assessed.
- Determine the targets and target zone for the tree or branches of concern.
- Review site history, conditions, and species failure profile. Assess general tree health.
- Assess potential load on the tree and its parts.
- Inspect the tree visually— using binoculars, mallet, probe, or trowel, as desired by the arborist or as specified in the scope of work.
- Record observations of site conditions, defects, and outward signs of possible internal defects and response growth.
- If necessary, recommend an advanced assessment.
- Analyze data to determine the likelihood and consequences of failure in order to evaluate the degree of risk.
- Develop mitigation options and estimate residual risk for each option.
- Develop and submit the report/documentation, including, when appropriate, advice on re-inspection intervals.

Ratings are determined by the following criteria:

- Likelihood of Failure. Identifies the most probable failure and rates the likelihood that structural defect(s) will result in failure based on observed current conditions.
- Likelihood of Impacting a Target. The rate of occupancy of targets within the target zone and any factors that could affect the failed tree as it falls toward the target.
- Categorizing Likelihood of Tree Failure Impacting a Target. The likelihood of failure and the likelihood of target impact are combined in the matrix below to determine the likelihood of tree failure impacting a target.

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

- Consequence of Failure. The consequences of tree failure are based on the level of target and potential harm that may occur. Consequences can vary depending upon the size of defect, distance of fall for the tree or limb, and any other factors that may protect a target from harm. Target values are subjective, but efforts will be made to assess them from the client's perspective.

Based on the assessment, each tree will receive a risk rating based on combining the likelihood of tree failure impacting a target and the consequence of failure in the matrix below.

Likelihood of Failure	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Some trees may also be flagged for **future or additional levels of inspection**. This may be due to a variety of issues beyond the scope of a Level 2 inspection, such as additional tools are needed or the arborist is concerned with issues outside of the risk assessment timeline. Categories for future inspections include:

- Multi-year, annual inspection (e.g., a healthy tree that has been impacted by recent construction or other damage).
- Level 3 Risk assessment (e.g., a tree with a defect requiring additional or specialized equipment for investigation).
- Insect/disease monitoring (e.g., a tree that appears to have an emerging insect or disease problem).

Each tree assessed will also be provided a maintenance recommendation to mitigate risk. The following maintenance needs will be determined based on ANSI A300 standard specifications:

- Removal. Trees designated for removal have defects that cannot be practically or cost-effectively treated. The majority of trees in this category have a large percentage of dead crown or other significant defects.
- Tree Clean. Such trees require selective removal of dead, dying, broken, and/or diseased wood greater than 2 inches in diameter to minimize potential risk. Prioritization of pruning work should depend on the Risk level assigned.
- Restrict Access or Move Target. These trees may be large, specimen trees worth preserving, but have significant risk levels associated with them. Access can be restricted or targets moved to reduce risk.
- Cabling or Bracing. These trees have structural defects that could be corrected with advanced arboricultural methods such as installing cables or braces.

Notice of Disclaimer: Risk Assessment data provided by Davey Resource Group, a division of The Davey Tree Expert Company, are based on visual recording at the time of inspection. Visual records do not include individual testing or analysis, nor do they include aerial or subterranean inspection. Davey Resource Group is not responsible for the discovery or identification of hidden or otherwise non-observable hazards. Records may not remain accurate after inspection due to the variable deterioration of inventoried material. Davey Resource Group provides no warranty with respect to the fitness of the urban forest for any use or purpose whatsoever. Clients may choose to accept or disregard Davey Resource Group's recommendations or to seek additional advice. Important: know and understand that visual inspection is confined to the designated subject tree(s) and that the inspections for this project are performed in the interest of facts of the tree(s) without prejudice to or for any other service or any interested party.

Work Product for Part A: Level 2 Tree Risk Assessment

The current tree inventory and mapping database for the City of Hermosa Beach will be updated by the Davey Resource Group. DRG will generate tables, indicating the risk level and tree part(s) involved, recommended maintenance activities, and mitigation measures and/or recommendations for further evaluation (Level 3 Risk Assessment) for each tree evaluated. The table will include potential targets, occupation frequencies, and risk level achieved after mitigation measures are completed. The database will also be used to generate various maps showing the location of each of the trees and potential targets.

An accompanying narrative will discuss all of the information in the data tables including, but not limited to the items listed in the Request for Proposal. The report will follow the protocol endorsed by the American Society of Consulting Arborists and be organized by the six report elements in an easy to understand language and format.

Tree Inventory Management Software Option

For this proposal DRG is offering TreeKeeper 8® as the preferred delivery format if the City decides to opt to use the TK8 one-year free subscription..

TreeKeeper® 8 Overview

TreeKeeper® 8 is the latest release of our flagship tree management software. It continues the TreeKeeper product line that has successfully led the industry for over 15 years. TK 8 was designed with integration in mind, allowing the user to interact with their urban forest data in a variety of helpful ways. Whether you are in the office or out in the field, coordinating your internal crews or outside contractors, or getting benefits information out to the public, this versatility makes TreeKeeper 8 very user-friendly and the most convenient tool to easily access information.

TreeKeeper 8 is designed to:	**TK 8 has Customizable Tree Attributes:**
Manage tree inventories	Species, condition, DBH
Manage calls	Recommended maintenance
Manage work	Call and work histories for a tree site
Create reports	Tree valuation and benefits calculator
Provide an integrated mapping component	Call and work histories for a tree site

Electronic files can be uploaded to TreeKeeper to be linked to the tree site, including digital photos, permits, correspondence or spreadsheets for individual tree sites.

TreeKeeper® 8 Suite Components
TreeKeeper® Software

TreeKeeper software is a comprehensive state-of-the-art approach to urban forest management operations. TreeKeeper is a Web-based software package that allows the client to manage tree inventories efficiently and effectively, register and track calls, generate work orders, create flexible reports, and allow for an easy-to-use mapping system. Anyone with internet connectivity can access Davey Resource Group's TreeKeeper management software. There are no restrictions related to the number of 'seats' or licensing requirements, and there is no limit to the number of concurrent users.

Integrated Mapping Component enables the user to have a system that is capable of mapping queries, zooming, panning, and moving tree points. It also supports multiple, simultaneous users, meaning that more than one user can interact with the database at the same time and changes can be viewed in real time. The mapping component allows the user to view TreeKeeper sites within a map-based system while still having all of the reporting and querying power of TreeKeeper management software.

The "map window" is used to access stored GIS map data from the map server either in ArcView™ shapefile format or common image formats (aerial photos or scanned facility maps). It provides GIS functionality through its associated mapping tool buttons, including zoom, pan, identify, label, measure, and print tools. Basemaps can be toggled on/off and a key map tracks the main map position on a small-scale overview map of the user's choice.

Reporting Capabilities supported by a flexible reporting structure are additional great feature which allow the user to custom design reports and to save report layouts to run again in the future with other data. Once a report is saved, it remains dynamic and automatically includes any updates to the tree inventory data after the report was created. Reports also can be exported easily to other word processing and spreadsheet software applications for additional methods of analyzing and sharing data.

Tracking Capabilities and monitoring various types of data, including electronic documents, means that TreeKeeper is capable of tracking work histories, digital photos, letters to other entities or contractors, tree risk assessment forms, and other pertinent documents that the user may wish to associate with a given tree.

Field Options allow users to run TreeKeeper accessing their live TreeKeeper software program in the field by using a combination of a Windows® XP or higher enabled tablet computer and a cellular air card to access the Internet / network remotely in the field. This option requires no special software to be purchased by the user.

Software Training and Support is available in a variety of formats and time blocks. We can design a training package that meets the specific needs of the City's urban forestry program. Training sessions are eligible for ISA CEU credits as well.

TreeKeeper Mobile®

The TreeKeeper Mobile system is a new tool that allows users to access the same TreeKeeper dataset as the TreeKeeper Tree Management Software System. The TreeKeeper Mobile system is a native Android App, as well as an alternative mobile browser access point using Safari on an iOS device.
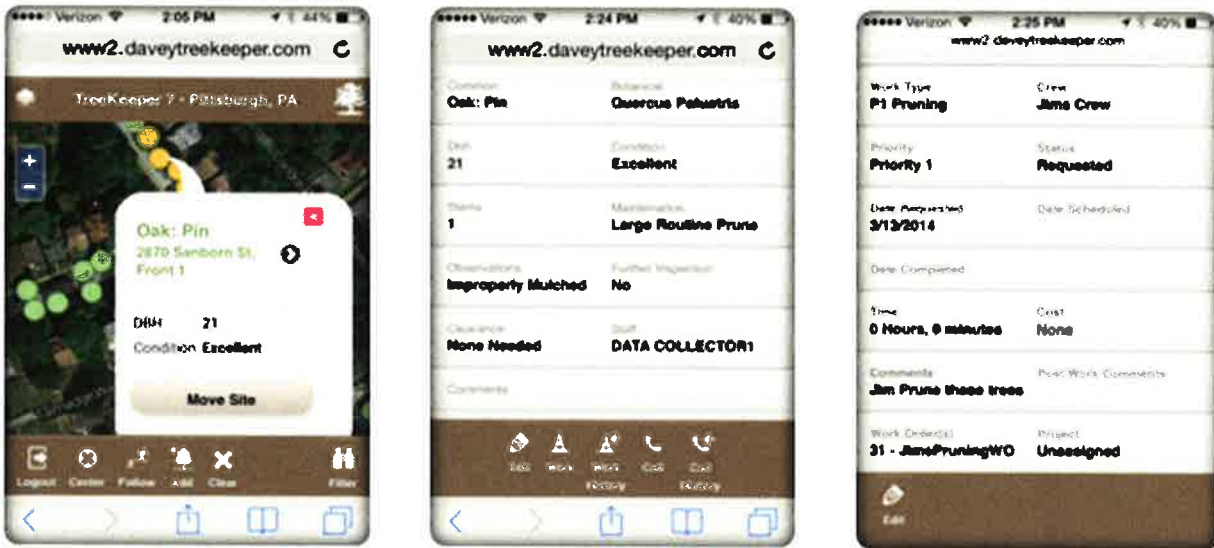
sample screen shots of TreeKeeper Mobile on smaller iPhone 4 screen

The mobile system utilizes the location services or GPS availability of the smartphone or tablet computer to locate you automatically on the map. Nearby trees are marked with green markers, and you can quickly identify a marker to see brief details on the tree site, and bring up the full details of the site.

The user is able to fully edit all the data tied to the site, as well as assign new work records, complete existing work records, and log calls on the tree site. A user can also easily take a picture of the tree and associate it with the record, using the onboard camera with the iOS or Android OS device. A mechanism also exists for the user to be able to add new trees to the system by using the underlying Google provided aerial imagery, and GIS and GPS technologies to place the tree site on the map with a simple drag and drop.

Finally, trees can be queried by address, attributes, as well as assigned work records and planned work orders. All database updates occur in real time, so field updates are immediately reflected upon all other systems accessing the TreeKeeper database, including other mobile users, and office staff working with the TreeKeeper Tree Management Software system. Emergencies can be quickly communicated to the crews, by assigning a work order and alerting the mobile user that a work order needs immediate attention.

myTreeKeeper®

myTreeKeeper is a front-end access point for the TreeKeeper database intended for public access. It is a simplified website, that reduces the available attributes to the public users, so sensitive information such as recommended maintenance or risk categorization is not available. The purpose of this system is to aid the general public in learning more about the value of trees within the urban forest. Each tree is tied to the Tree Benefits calculations as derived from the US Forest Service's i-Tree model. Sets of trees are summed up so the site visitor can see the total benefits of the entire urban forest, or subsets of data derived by spatially selecting data on the map, or querying the database for particular attributes.

Many of the existing myTreeKeeper clients are taking advantage of the easy to create filters, that allow visitors to the site the ability to easily map important subsets of the public tree population. For example, some trees are emphasized with a "gold medal" which reflects that that particular tree is a top performer relative to the urban forest. This is a great way for the public to learn more about desirable trees, and bring to attention the "winners" of the urban forest. Other filters that have been created include trees with historic significance and trees at risk from invasive pests.
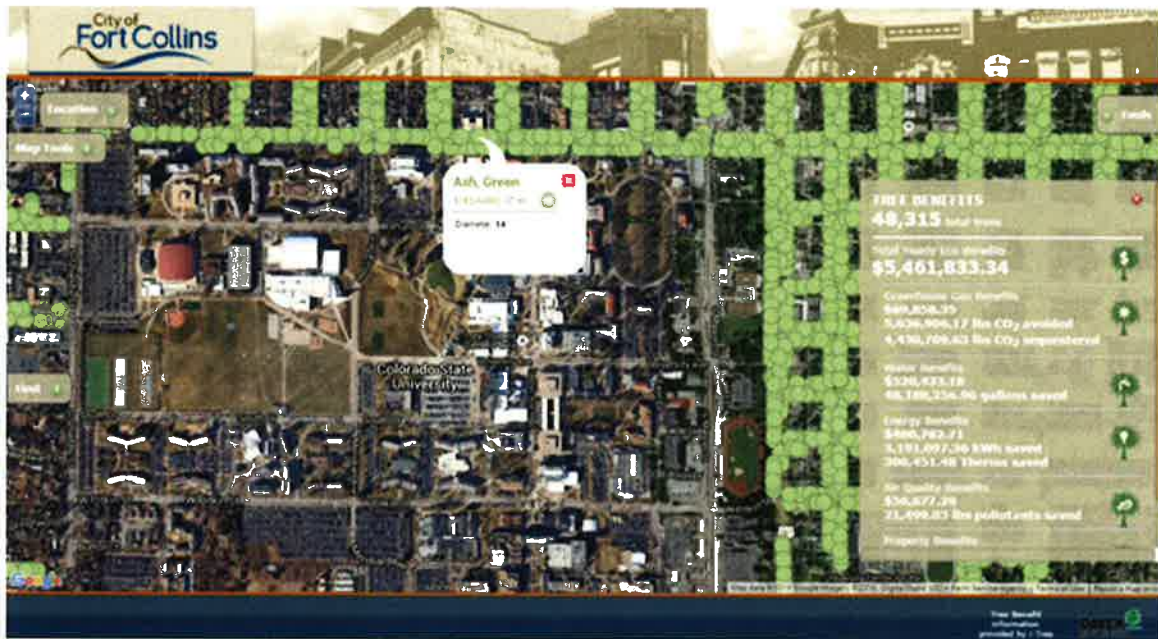
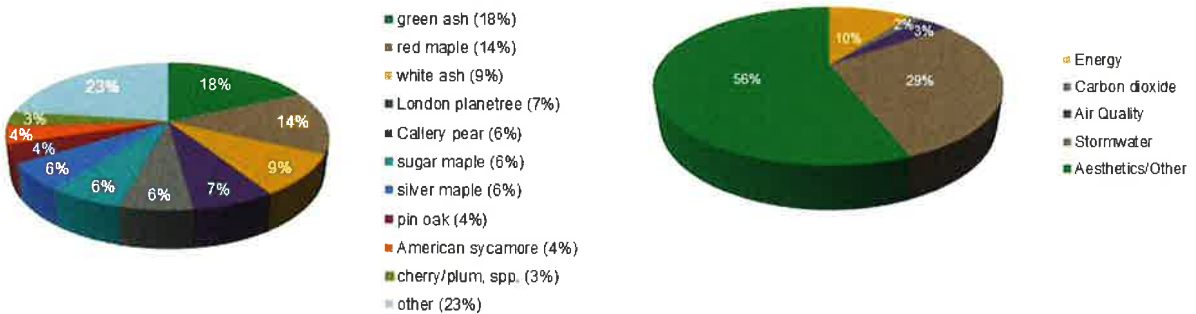*main screen of myTreeKeeper with Google Satellite View base layer and a quick view callout of a tree record*
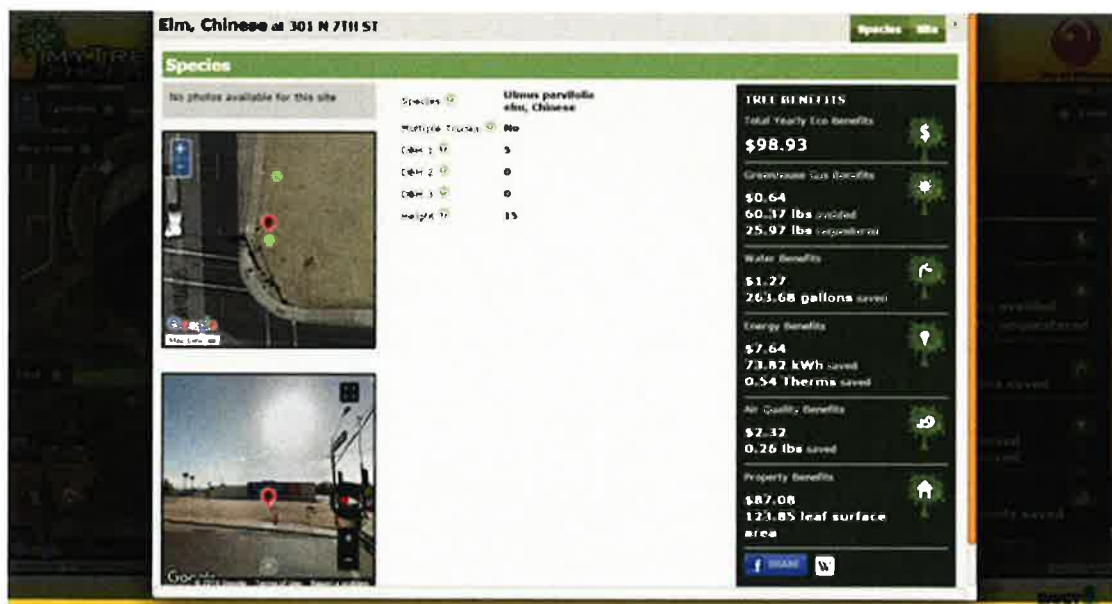
detailed myTreeKeeper view of a tree record that includes tree benefits for that individual tree

Canopy Analyses Option (i-Tree)

Information on the current status of the urban forest will inform the City of both strengths and areas for improvement. Detailed analyses of the tree inventory data will determine the Urban Forest population statistics, e.g. Per-Capita tree population, urban forest age distribution, urban forest condition and health, species diversity, genera diversity, tree pests, and root impacts. DRG urban forest specialists will perform the tree inventory data analysis once the most current tree inventory data are available.
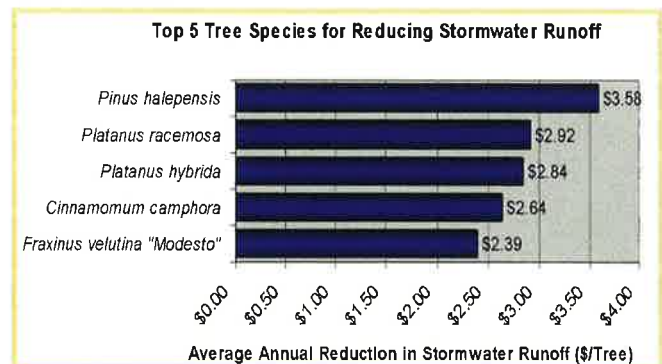
The i-Tree Streets report helps cities understand the function, structure, and value of their urban forest, and by utilizing a state of the art tree management software to maintain and manage their urban trees.

- green ash (18%)
- red maple (14%)
- white ash (9%)
- London planetree (7%)
- Callery pear (6%)
- sugar maple (6%)
- silver maple (6%)
- pin oak (4%)
- American sycamore (4%)
- cherry/plum, spp. (3%)
- other (23%)

- Energy
- Carbon dioxide
- Air Quality
- Stormwater
- Aesthetics/Other

By conducting an i-Tree Streets analysis, the City will develop a true, scientifically based understanding of the benefits of their trees to the community. This includes the economic, social, and environmental benefits of trees. It also develops a scientific understanding of the composition, inventory, and, diversity of the urban forest. By utilizing the most current inventory, Davey Resource Group will begin an analysis of your entire urban forest.

The following quantification is available through i-Tree Streets:

- Energy conservation.
- Air quality improvement.
- Carbon dioxide reduction.
- Stormwater runoff reduction.
- Property value increase.

Top 5 Tree Species for Reducing Stormwater Runoff

Species	Value
Pinus halepensis	$3.58
Platanus racemosa	$2.92
Platanus hybrida	$2.84
Cinnamomum camphora	$2.64
Fraxinus velutina "Modesto"	$2.39

Average Annual Reduction in Stormwater Runoff ($/Tree)

In addition, i-Tree Streets calculates the following aspects of your tree resource:

- Structure (e.g., species composition, age distribution, canopy cover).
- Function (environmental and aesthetic benefits).
- Value (annual monetary value of benefits and costs).
- Management needs (e.g., recommended maintenance, stocking levels, tree conflicts).

Top 5 Tree Species for Improving Air Quality

Species	Average Annual Air Quality Improvements ($/Tree)
Platanus racemosa	$55.10
Platanus hybrida	$53.70
Pinus halepensis	$53.49
Fraxinus velutina "Modesto"	$47.07
Cinnamomum camphora	$42.23
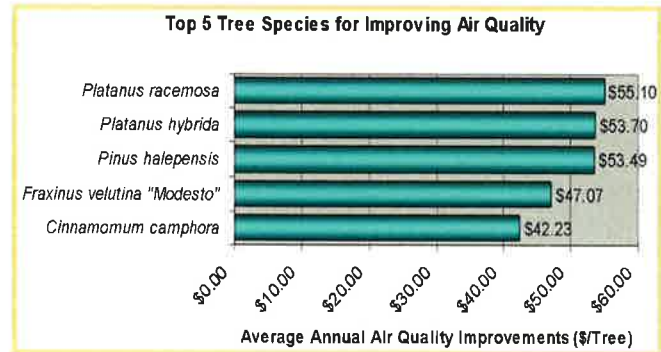
When reports are generated, graphics such as the charts above can be included and utilized as part of a management plan.

Proposal Section 2.7 - **Proposal Forms**

APPENDIX 2 – NON-COLLUSION AFFIDAVIT

The undersigned declares states and certifies that:

1. This Proposal is not made in the interest of, or on behalf of any undisclosed person, partnership, company, association, organization or corporation.

2. This Proposal is genuine and not collusive or sham.

3. I have not directly or indirectly induced or solicited any other Proposer to put in a false or sham proposal and I have not directly or indirectly colluded, conspired, connived, or agreed with any other Proposer or anyone else to put in sham proposal or to refrain from submitting to this RFP.

4. I have not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price or to fix any overhead, profit or cost element of the proposal price or to secure any advantage against the City of Hermosa Beach or of anyone interested in the proposed contract.

5. All statements contained in the Proposal and related documents are true.

6. I have not directly or indirectly submitted the proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay any fee to any person, corporation, partnership, company, association, organization, RFP depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

7. I have not entered into any arrangement or agreement with any City of Hermosa Beach public officer in connection with this proposal.

8. I understand collusive bidding is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards.

_____
Signature of Authorized Representative

Emily Spillett for Davey Resource Group, Inc.   Production Manager
_____   _____
Name of Authorized Representative   Title of Authorized Representative

DAVEY
Resource Group

APPENDIX 3 – CONSULTANT'S ACKNOWLEDGEMENT OF COMPLIANCE WITH INSURANCE REQUIREMENTS FOR AGREEMENT FOR PROFESSIONAL/CONSULTANT SERVICES

Consultant agrees, acknowledges and is fully aware of the insurance requirements as specified in the Request for Proposal and accepts all conditions and requirements as contained therein.

Consultant: Emily Spillett for DAVEY RESOURCE GROUP, INC.   Name (Please Print or Type)

By: _____   Consultant's Signature

Date: March 12, 2018

This executed form must be submitted with Scope of Work proposal.

01-31-18_CityWideTreeGPSInventoryAssessment

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APPENDIX 4 - CERTIFICATION OF PROPOSAL

The undersigned hereby submits its proposal and agrees to be bound by the terms and conditions of this Request for Proposal (RFP) **No. 18-01.**

1) Proposer declares and warrants that no elected or appointed official, officer or employee of the City has been or shall be compensated, directly or indirectly, in connection with this proposal or any work connected with this proposal. Should any agreement be approved in connection with this Request for Proposal, Proposer declares and warrants that no elected or appointed official, officer or employee of the City, during the term of his/her service with the City shall have any direct interest in that agreement, or obtain any present, anticipated or future material benefit arising therefrom.

2) By submitting the response to this request, Proposer agrees, if selected to furnish services to the City in accordance with this RFP.

3) Proposer has carefully reviewed its proposal and understands and agrees that the City is not responsible for any errors or omissions on the part of the Proposer and that the Proposer is responsible for them.

4) It is understood and agreed that the City reserves the right to accept or reject any or all proposals and to waive any informality or irregularity in any proposal received by the City.

5) The proposal response includes all of the commentary, figures and data required by the Request for Proposal

6) The proposal shall be valid for 90 days from the date of submittal.

Name of Proposer: DAVEY RESOURCE GROUP, INC.

By: _____
(Authorized Signature)

Type Name: Emily Spillett

Title: Production Manager

Date: March 12, 2018

City of Hermosa Beach

Civic Center, 1315 Valley Drive, Hermosa Beach, California 90254-3885

ACKNOWLEDGEMENT OF ADDENDUM

RFP 18-01 CITYWIDE TREE INVENTORY, GPS MAPPING CONDITION, & HAZARD ASSESSMENT

Complete and sign this acknowledgement form. Enclose the original copy of the acknowledgement in your proposal. Failure to do so may result in disqualification of your firm's proposal.

The undersigned acknowledges receipt of **Addendum No. 1** dated February 21, 2018

ATTEST: _____

Principal: _____DAVEY RESOURCE GROUP, INC._____

By: _____Emily Spillett_____

Title: _____Western Region Operations Manager_____

DAVEY
Resource Group

City of Hermosa Beach

Civic Center, 1315 Valley Drive, Hermosa Beach, California 90254-3885

ACKNOWLEDGEMENT OF ADDENDUM

RFP 18-01 CITYWIDE TREE INVENTORY, GPS MAPPING CONDITION, & HAZARD ASSESSMENT

Complete and sign this acknowledgement form. Enclose the original copy of the acknowledgement in your proposal. Failure to do so may result in disqualification of your firm's proposal.

The undersigned acknowledges receipt of **Addendum No. 2** dated February 21, 2018

ATTEST:

Principal: **DAVEY RESOURCE** GROUP, INC.

By: Emily Spillett

Title: Western Region Operations Manager

CITY OF HERMOSA BEACH

Bid Sheet

Bid price shall include all labor, materials and fees, to complete Inventory, GPS, Species, Condition and Hazard Assessment

A. **Unit Cost Per Tree** $ 19,012.00

Nineteen thousand, twelve dollars and zero cents

B. **Optional – Level 2 ISA Risk Assessment/Reports for 700 trees** $ 40,790.00

Forty-thousand, seven hundred ninety and zero cents

Optional – i-Tree Analysis $ 5,870.00

Five thousand, eight hundred seventy dollars and zero cents

C. **Software/GIS Shape File/App** $ 0.00

Zero Dollars for duration of contract plus one additional year

D. **Tax is included** $ 0.00

Zero Dollars

E. **TOTAL PROPOSED COST** $ 65,672.00

Sixty-five thousand, six hundred seventy-two and zero cents

The contractor by his signature is attesting that he/she/they have performed a thorough field review, and that they are submitting a balanced bid proposal. They are also attesting that they have received any/all Addendums and that they included them with their bid proposal as required.

DAVEY RESOURCE GROUP, INC.

Company Name

1500 N MANTUA STREET, KENT OHIO 44240

Address

(866) 661-4148   (330) 673-0806

Telephone Number   Fax Number

PRODUCTION MANAGER

Authorized Signature   Title

EMILY SPILLETT   MARCH 12, 2018

(Print Name)   Date

TreeKeeper® Tree Management Software Suite (Pricing after first year free)				
TreeKeeper subscription options (to commence after complimentary subscription expires)				
✳ 1-year TreeKeeper subscription	Lump Sum	$2,500	1	$2,500
✳ 3-year TreeKeeper subscription	Lump Sum	$6,250	1	$6,250
✳ 5-year Treekeeper subscription	Lump Sum	$10,000	1	$10,000
TreeKeeper Mobile annual license options				
✳ Unlimited users			Included with subscription	
myTreeKeeper				
✳ Unlimited users			Included with subscription	
TreeKeeper training				
Web based training			Included with subscription	
on-site training	Lump Sum	$2,800	1	$2,800