The Evolution of the Consulting Arborist into a Design Professional

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

What We Will Discuss

- 40 years of change in our industry
- Who are Consulting Arborists and Design Professionals
- Engaging in the Design Process
- Case Studies

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

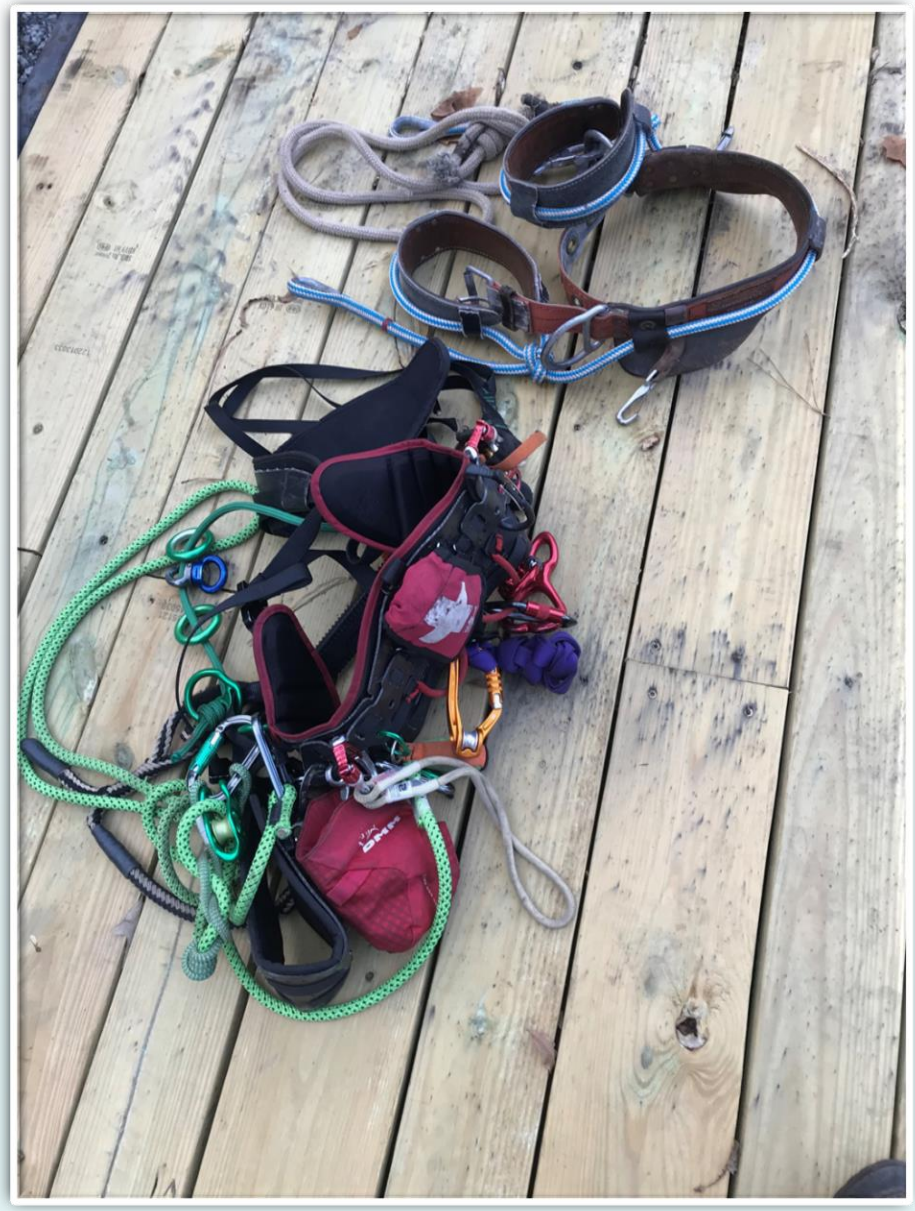
DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree COUNCIL
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Who is a Consulting Arborist ?

A consulting arborist is the authoritative expert on trees and brings an objective, comprehensive viewpoint to their clients – ensuring the safety, health and preservation of trees.

The Clients of the consulting arborist include:

- Property Owners
- Municipalities
- Contractors
- Attorneys
- Insurance Professionals
- Landscape Architects
- Developers
- Engineers
- Other Arborists

What Services could a Consulting Arborist Provide?

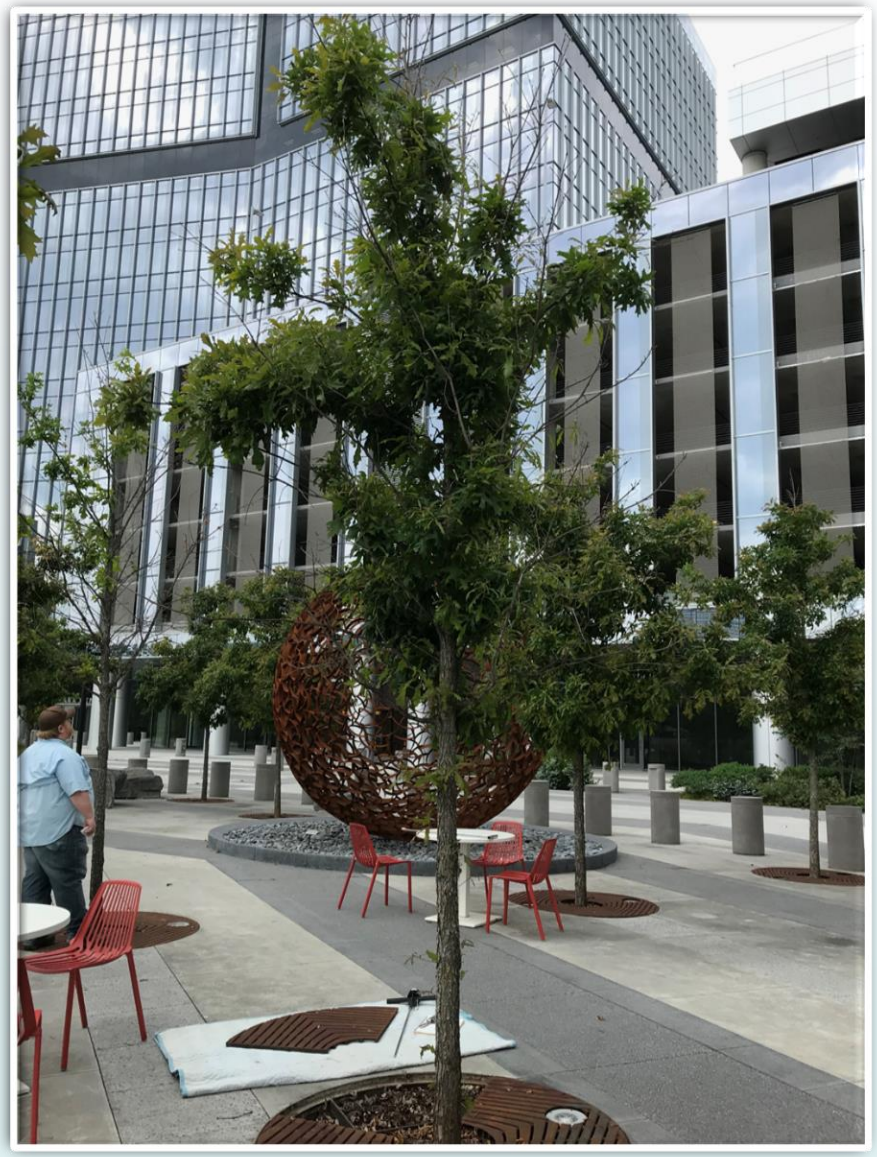
- Contract Preparation and Supervision
- Diagnosis of Tree and Landscape Problems
- Expert Witness and Litigation
- Forensic Investigations
- Tree Risk Assessments and Surveys
- Insect Disease Identification and Management
- Municipal Ordinance Development
- Plant Healthcare Programs
- Training and Education
- Tree, Landscape, and Nursery Appraisals
- Tree Management for Arboreta, Golf Courses, and Nurseries
- Tree Plant Inventories
- Tree Planting Programs
- Tree Protection for Construction Projects

asca-consultants.org

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

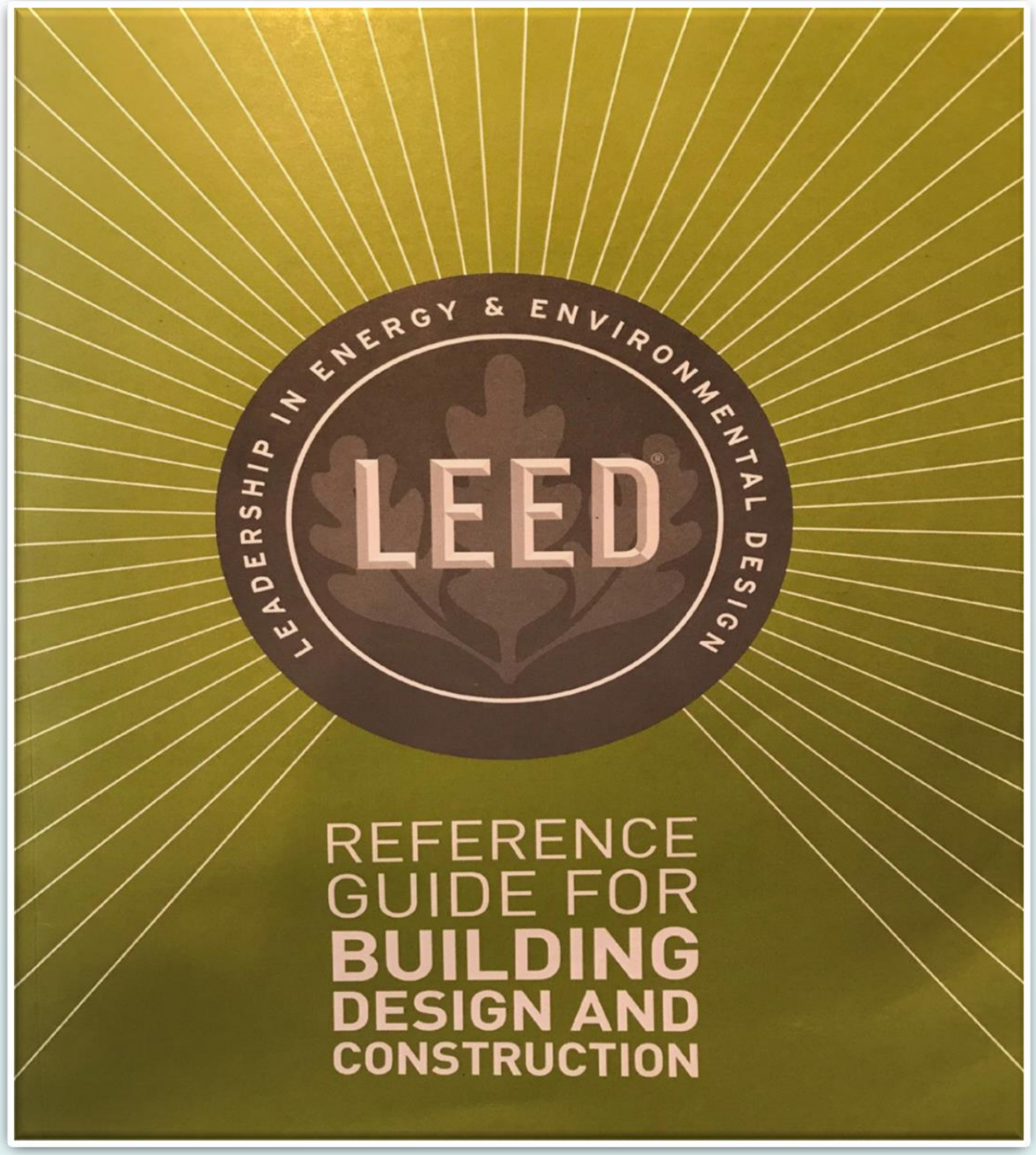


Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

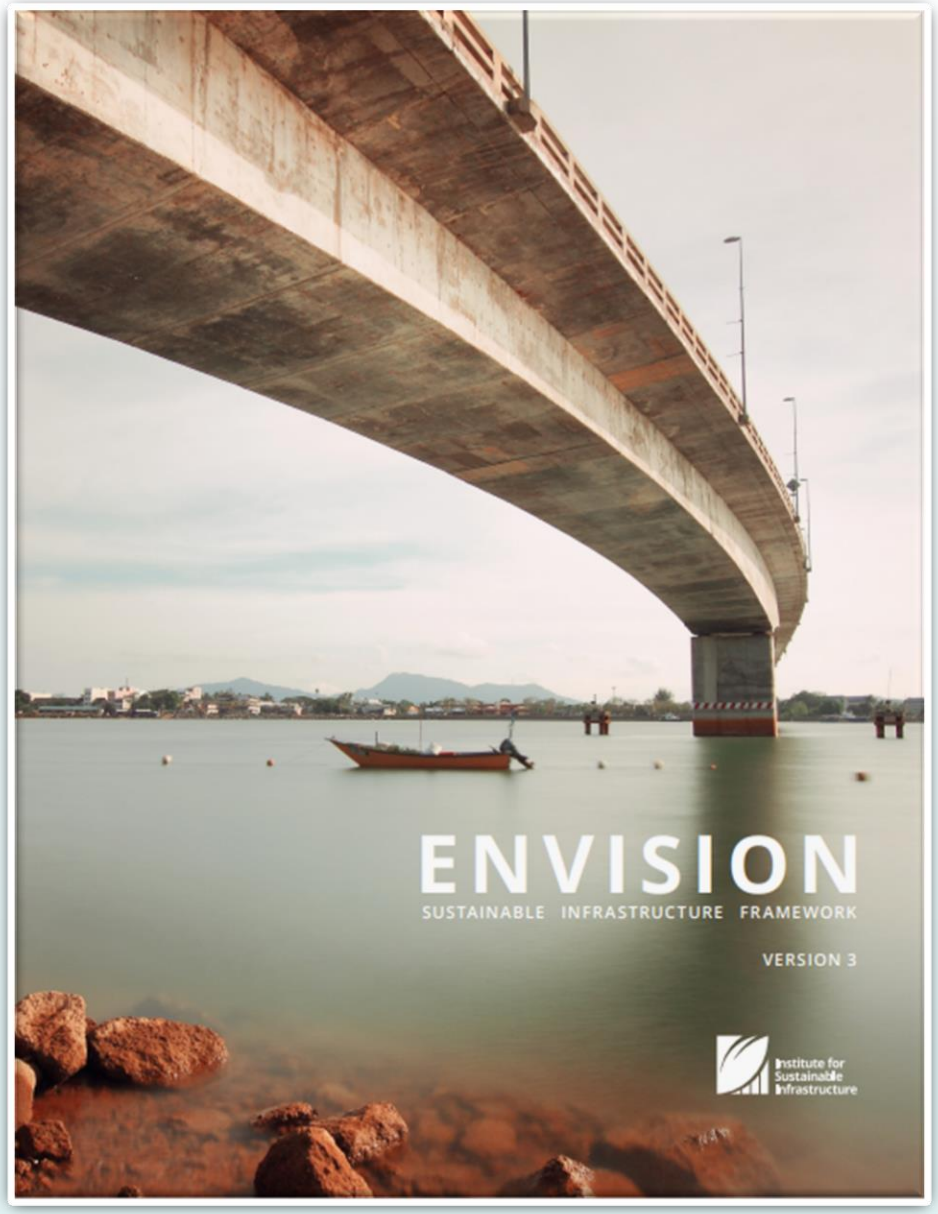


www.usgbc.org

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

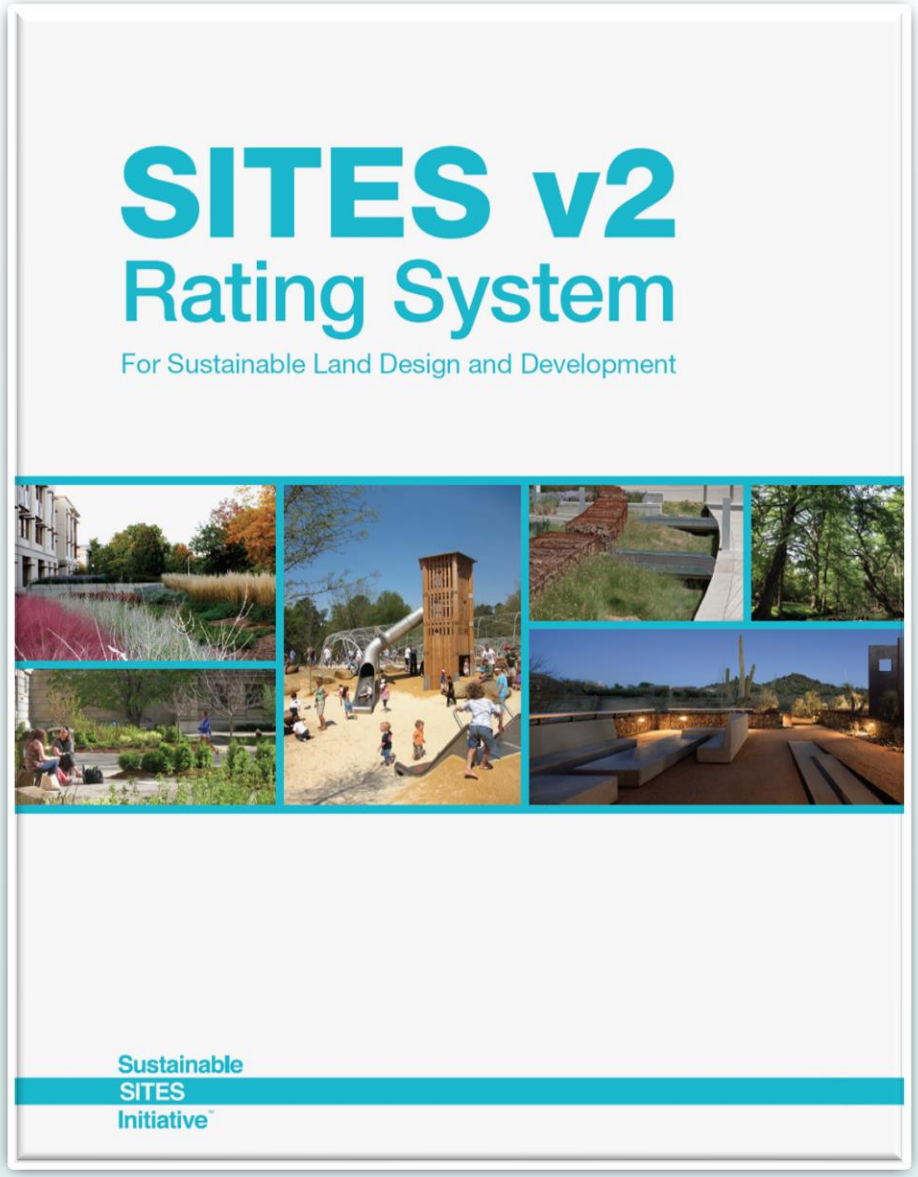


sustainableinfrastructure.org

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



http://www.sustainablesites.org/

Solutions Naturally
Arborguard
Tree Specialists

Georgia Tree
COUNCIL
Sustaining Georgia's Green Legacy

DAVEY
Institute
A Division of The Davey Tree Expert Company

https://www2.living-future.org/

Solutions Naturally
Arborguard
Tree Specialists

Georgia Tree
COUNCIL
Sustaining Georgia's Green Legacy

DAVEY
Institute
A Division of The Davey Tree Expert Company

https://climatepositivedesign.com/challenge/

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree COUNCIL
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

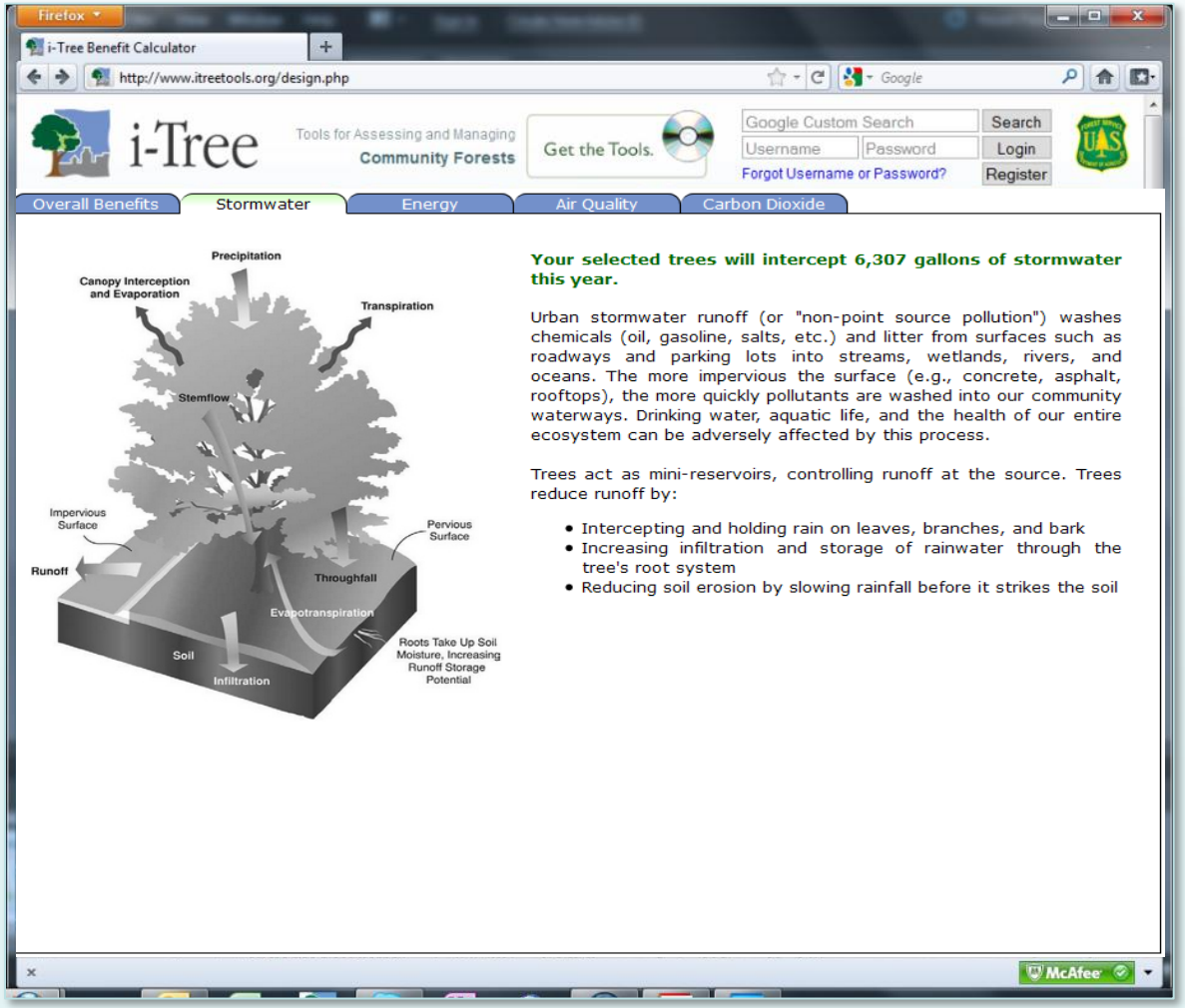
i-Tree Design

design.itreetools.org

Web application
(any web browser)

Homeowner /
Parcel level tool.

Easy to use.

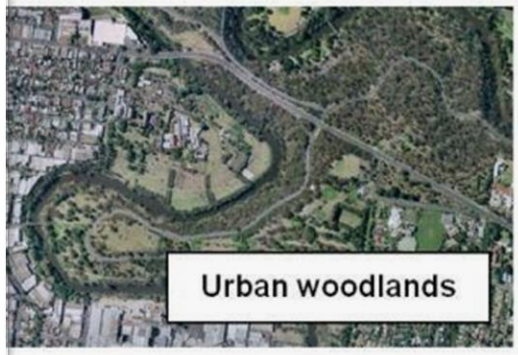


Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Urban green infrastructure



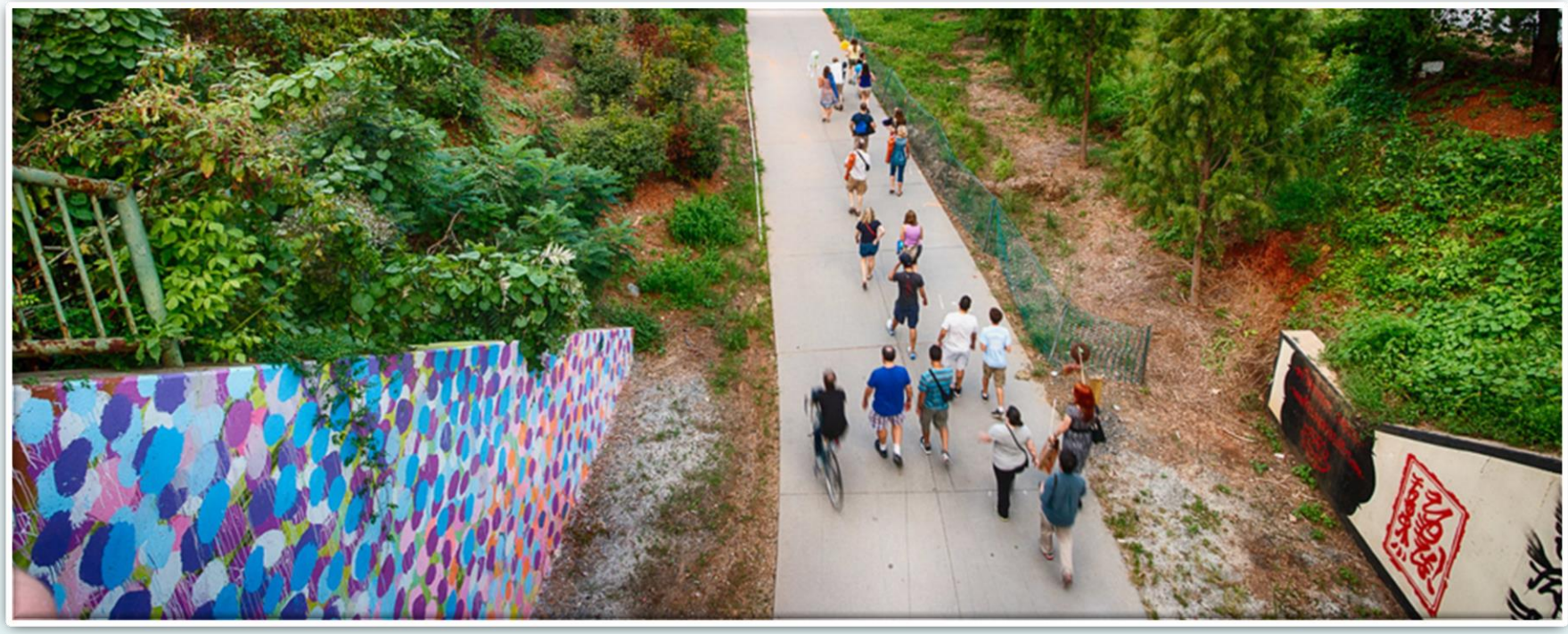
climatechange.lta.org/green-infrastructure/

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

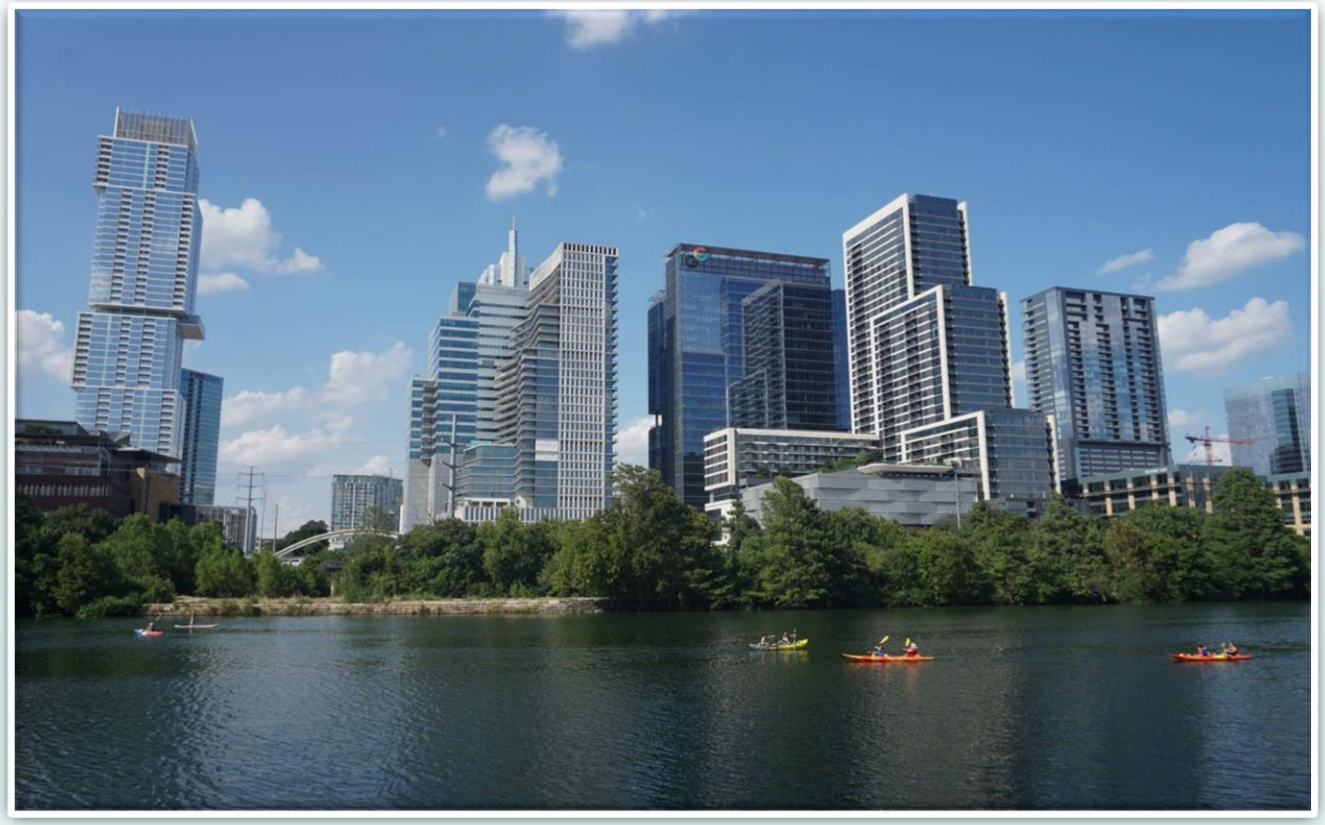
DAVEY Institute
A Division of The Davey Tree Expert Company

The Atlanta BeltLine will require SITES certification for future parks



Currently, Atlanta BeltLine sustainability guidelines require compliance with the SITES Rating System, ensuring that the Atlanta BeltLine corridor will be built using best practices in green design and construction.

Austin will require all future Parks and Recreation projects to achieve SITES certification



By Hannah Su • July 27, 2022 • News, ProfessionalPractice, Southwest, Sustainability

Image credit: mandritoiu, Adobe Stock.

Rebecca Price Aug 05, 2022

Rhode Island Amends its Green Buildings Act

The legislation expands the requirement that public projects meet a LEED, LEED for Neighborhood Development and/or SITES certification to include public buildings, public structures and public real property of cities and local governments. The original law applied to state projects, state agencies and "political subdivisions thereof."

www.usgbc.org/articles/rhode-island-amends-its-green-buildings-act

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

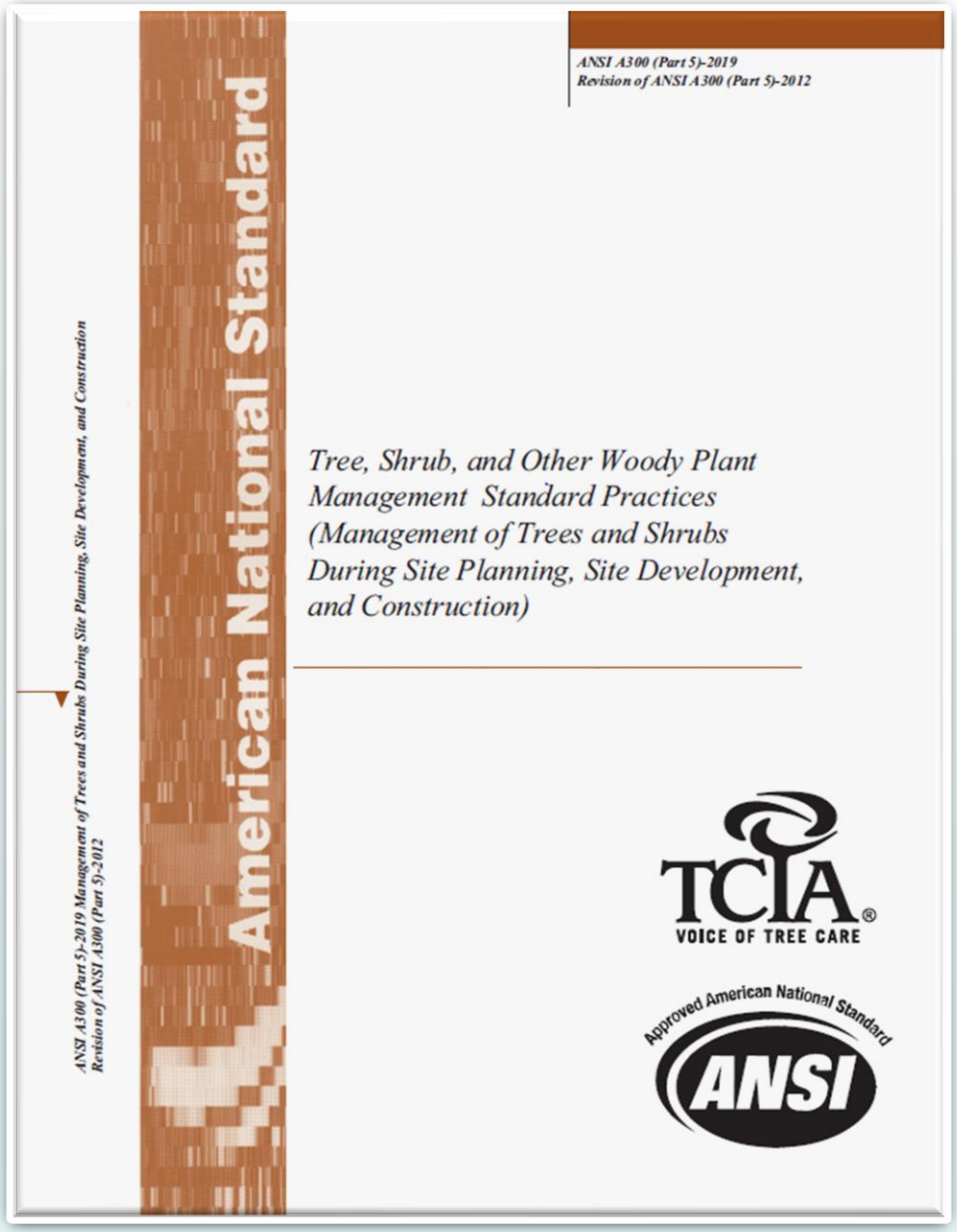
Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

The Future …

Who will take care of our urban forests?

- Civil Engineer? Urban Planners? Watershed? Landscape Architects? Director of the Arborist Division?
- Trees as Green Infrastructure
- Climate Change will drive species selection
- Future ordinance writers making it mandatory for a consulting arborist to be part of the design team
- Sadly, arborists are not recognized as professionals
- No Credential available that specifically addresses Arboriculture with Site Design in mind



Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

tcia.org

DAVEY Institute
A Division of The Davey Tree Expert Company

54.2 Design phase

54.2.1 An inventory of trees and other resources should be specified and conducted, if this was not completed in the planning phase. Information from the inventory should be used to develop a tree protection plan.

54.2.2 Inventory specifications should include:

- Area to be inventoried;
- Resources to be inventoried (e.g., trees, shrubs, soil)
- Minimum size tree to include (e.g. trunk diameter or height) ;
- Data to be collected (see 52.4.3);
- If a tree risk assessment will be completed, the methodology shall be specified;
- Time frame for data collection;
- Type of report to be provided (e.g. oral, written, map, plan);
- Due date of report; and,
- To whom the report should be submitted.

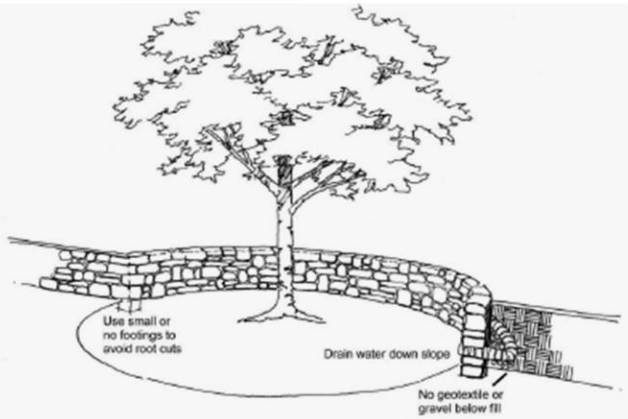


Figure 54.2 Adapted with permission from Best Management Practices, Managing Trees During Construction. 2008. Fite, Kelby and Smiley, E. Thomas. Copyright 2008, International Society of Arboriculture, Champaign, IL.

54.2.3 Tree inventory data should include:

- Identification/tag number;
- Location (map reference or coordinates);
- Species;
- Size (e.g. trunk diameter, crown spread);
- Condition (i.e. health, structure, form);
- Status as defined by applicable regulations (e.g. heritage, historic); and,
- Additional factors as specified.

54.2.4 Tree protection report should include:

- Objectives;
- Tree inventory data;
- Suitability for preservation;
- Estimation of the construction impacts to tree;
- Recommended action for each tree (retained, transplanted or removed);
- Required mitigation for trees to be removed (if appropriate);
- Recommendations for care of retained trees (e.g. pruning to provide clearance for construction, pruning to improve structure, root pruning, work procedures);
- Procedures for protecting trees, other plants and soil areas (e.g. tree protection zone [TPZ] locations);
- Irrigation recommendations for retained trees during all phases;
- Identification of the appropriate times to implement tree protection procedures;
- Consequences for non-compliance; and,
- Additional items as specified.

54.2.5 The tree protection plan should be developed from the tree-protection report.

54.2.6 When a tree protection plan sheet is required or desired, it should be developed from the tree protection report.

54.2.7 When appropriate, design changes or alternative building methods should be recommended to avoid root loss and/or soil compaction. (e.g. pervious/permeable surface materials that do not rely on excessive excavation to install a sub base treatment).

tcia.org

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council — Sustaining Georgia's Green Legacy

DAVEY Institute — A Division of The Davey Tree Expert Company

Elements of Project Evolution

- Concept
- Request for Proposal (RFP)
- Schematic Design (30%)
- Design & Development (60%-90%)
- Construction Documents (100%)

Atlanta BeltLine

REQUEST FOR QUALIFICATIONS

PROFESSIONAL DESIGN AND CONSULTING SERVICES

FOR

ATLANTA BELTLINE WESTSIDE TRAIL EXTENSION

STATEMENTS OF QUALIFICATIONS DUE: Monday, September 9, 2019, 3:00 PM, EST

Envelope(s) shall be sealed and marked with
Project Title and Firm Identified

Courtesy of Atlanta Beltline, Inc.

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

3. PROJECT TEAM

Include an organizational chart and task matrix detailing the division of responsibilities. Provide a professional resume for the key personnel, including key personnel of any joint venture member, or major sub-consultants proposed to be assigned to the Project. Describe their unique qualifications and relevant experience on similar or related projects. Describe key personnel's proposed roles and responsibilities on this Project. Resumes should be included in the Attachments/Supporting Materials section of the response. Submittals must identify a proposed Project Manager who will be responsible for the day- to-day management of Project tasks and would be the primary point of contact with your firm. Describe the Project Manager's experience with similar projects and with managing and leading interdisciplinary teams. List other projects to which the proposed Project Manager is currently assigned.

4. TEAM EXPERIENCE

Submit minimum of five examples of projects that are reflective of the subject of this Project, including references. For each example, identify the type of project, size, budget, Respondent's role, client name and contact information, and indicate what role (if any) the proposed Project Manager or other team members had on the related project. When submitting projects for which an individual firm worked in an auxiliary capacity or in a joint venture or partnership, please include the name of the lead firm. Please remember that any extensive descriptions of vaguely related projects are discouraged and could negatively impact the overall outcome of the evaluation.

Courtesy of Atlanta Beltline, Inc.

Arborguard Tree Specialists
a DAVEY company

Project Experience

Jekyll Island Beach Village Renovation, Jekyll Island, Georgia.
On this project Mr. Dechant provided consulting services related to plan review, interfaced with the Design and the Ownership Teams to implement design changes as needed to protect valuable Live Oak tree resources within the limits of disturbance. Produced and implemented a comprehensive tree conservation program with an innovative fine system to discourage needless tree damage. He also supervised the demolition of existing structures adjacent to all protected trees. 34 Live Oak trees ranging in size from 11" in diameter to 31" in diameter were relocated under the oversite of the project arborist. There was a 100% survival rate of the relocated trees. This $30.2 million project was completed in the spring of 2012. Cliff Gawron, with the Jekyll Island Authority and Director of Landscape and Planning, 381 Riverview Drive Jekyll Island, GA 31527, 912-635-4099, cgawron@jekyllisland.com was my primary project contact. The unique nature of this project was recognized by the Georgia Urban Forestry Council and received its 2013 Excellence in Urban Arboriculture Award and received the Urban Ag Council's 2013 Green Star Award.

Original plan showing 40" Live Oak tree at bottom of Roundabout, high likelihood of dying within 3 years in this scenario

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

SECTION 6 - EVALUATION CRITERIA

Each submittal shall be evaluated on the following criteria weighting and maximum points as follows:

Evaluations of the responsive submitted SOQs

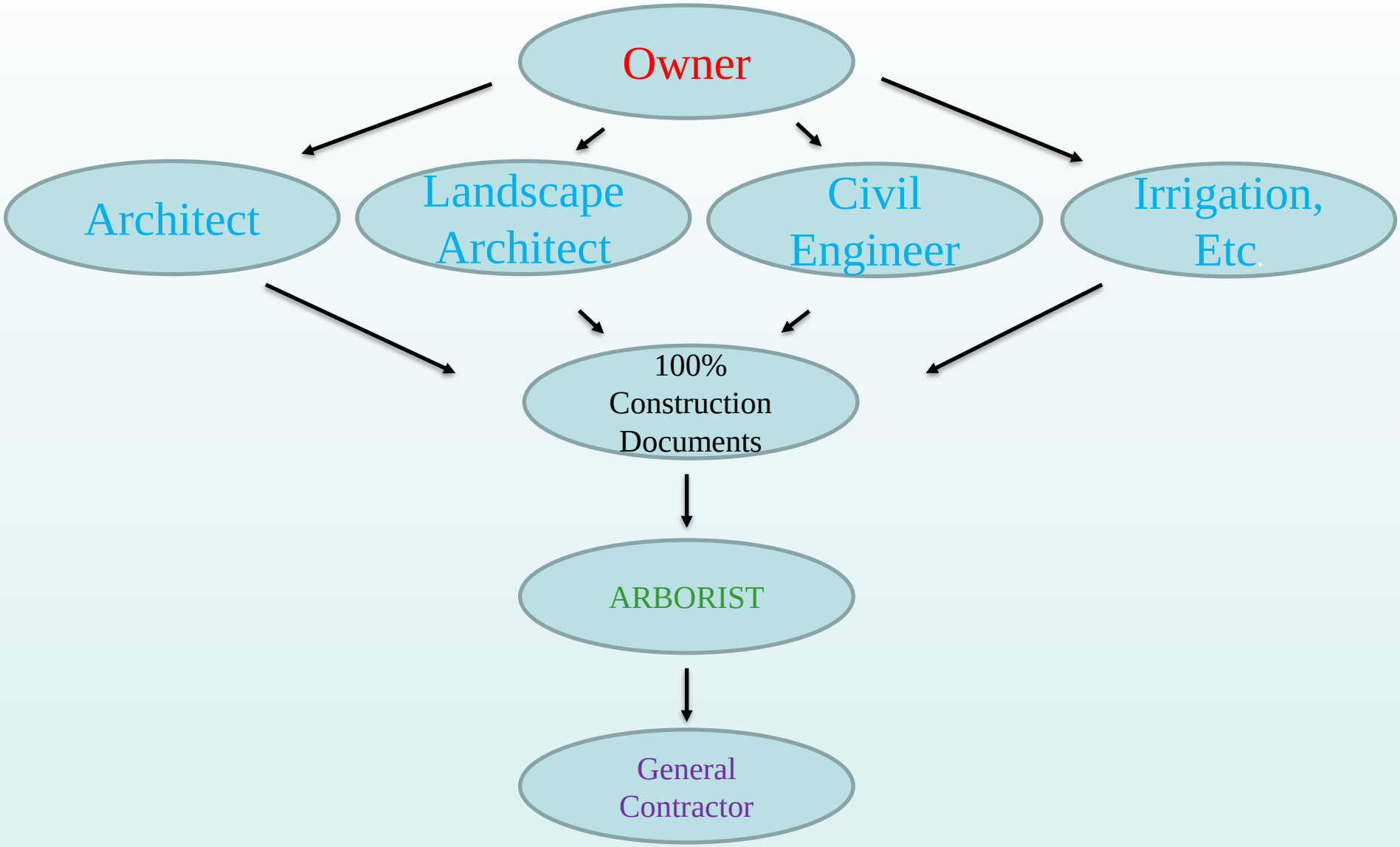
Firm Description	10 Points
Project Team	20 Points
Team Experience	20 Points
	50 Points

Evaluation of Short-Listed Firms Only

Project Understanding/Proposal	35 Points
Interview/Presentation	15 Points
	50 Points

An evaluation committee convened by ABI will evaluate the submittals. At the discretion of ABI, follow-up interviews may be conducted before a final selection is made. The interview will focus on the proposal presentation, interpersonal skills, ability to organize data, and design vision.

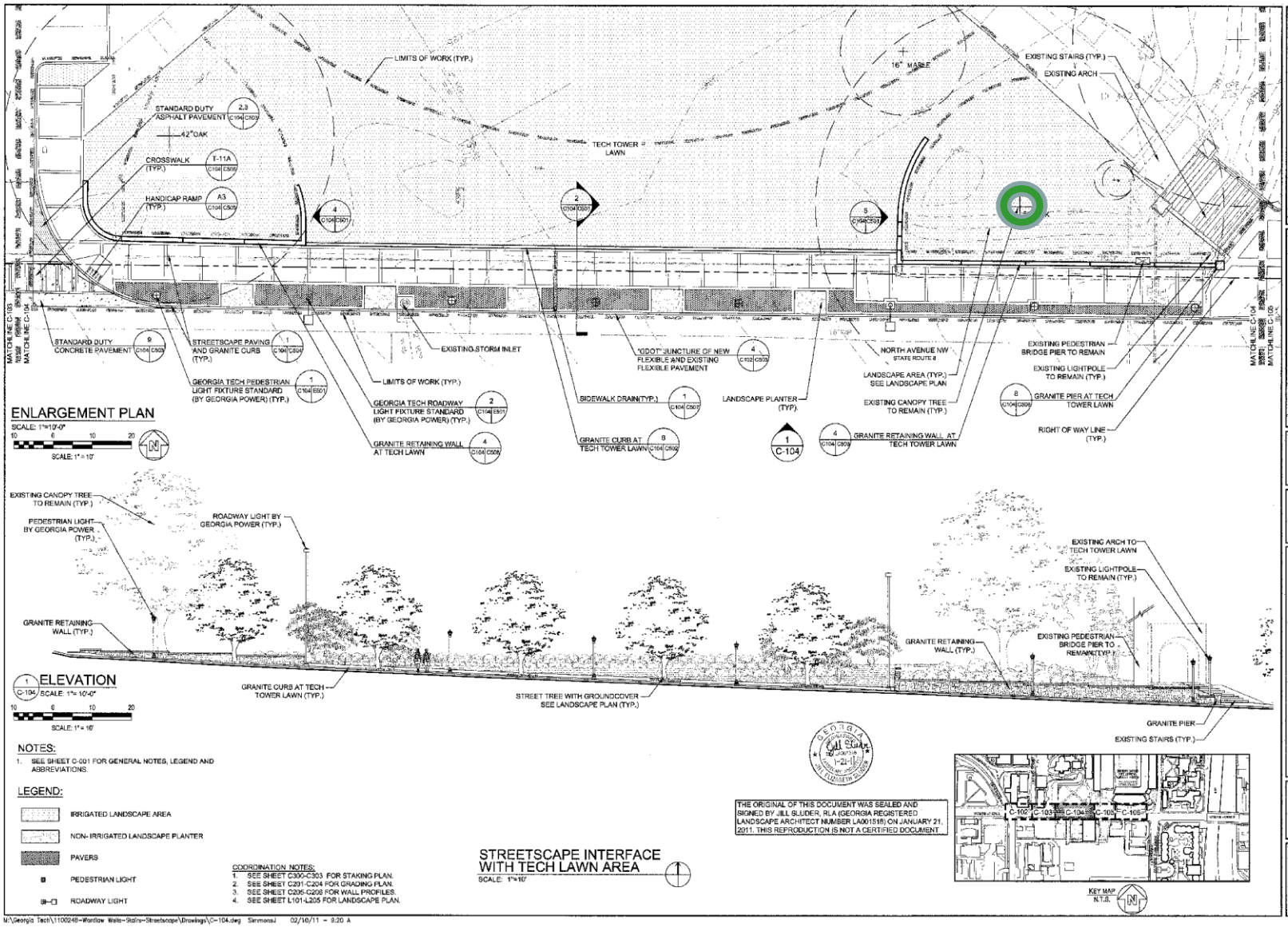
Courtesy of Atlanta Beltline, Inc.



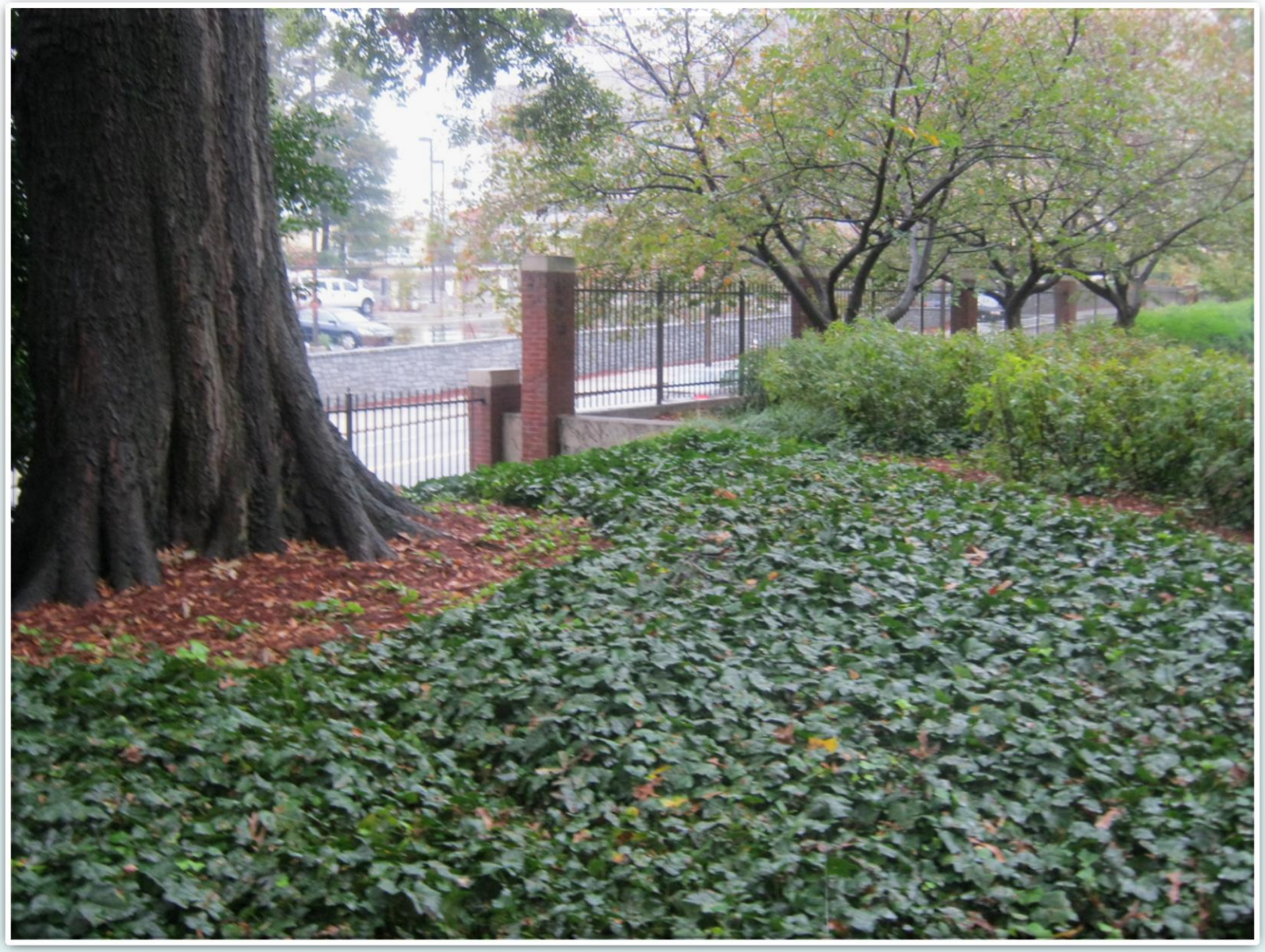
Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



Plan Courtesy of POND & CO.



Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree COUNCIL
Sustaining Georgia's Green Legacy

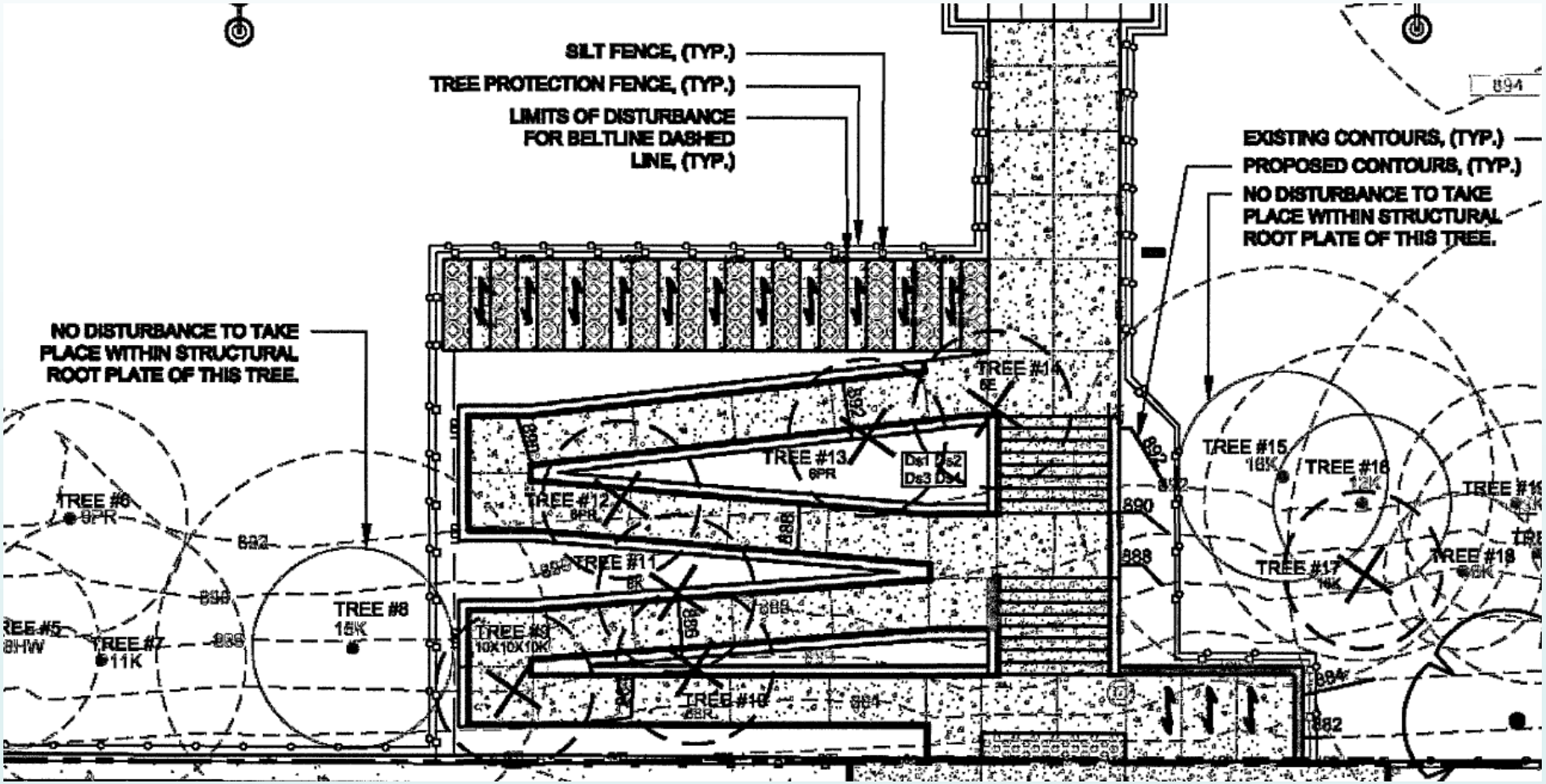
DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

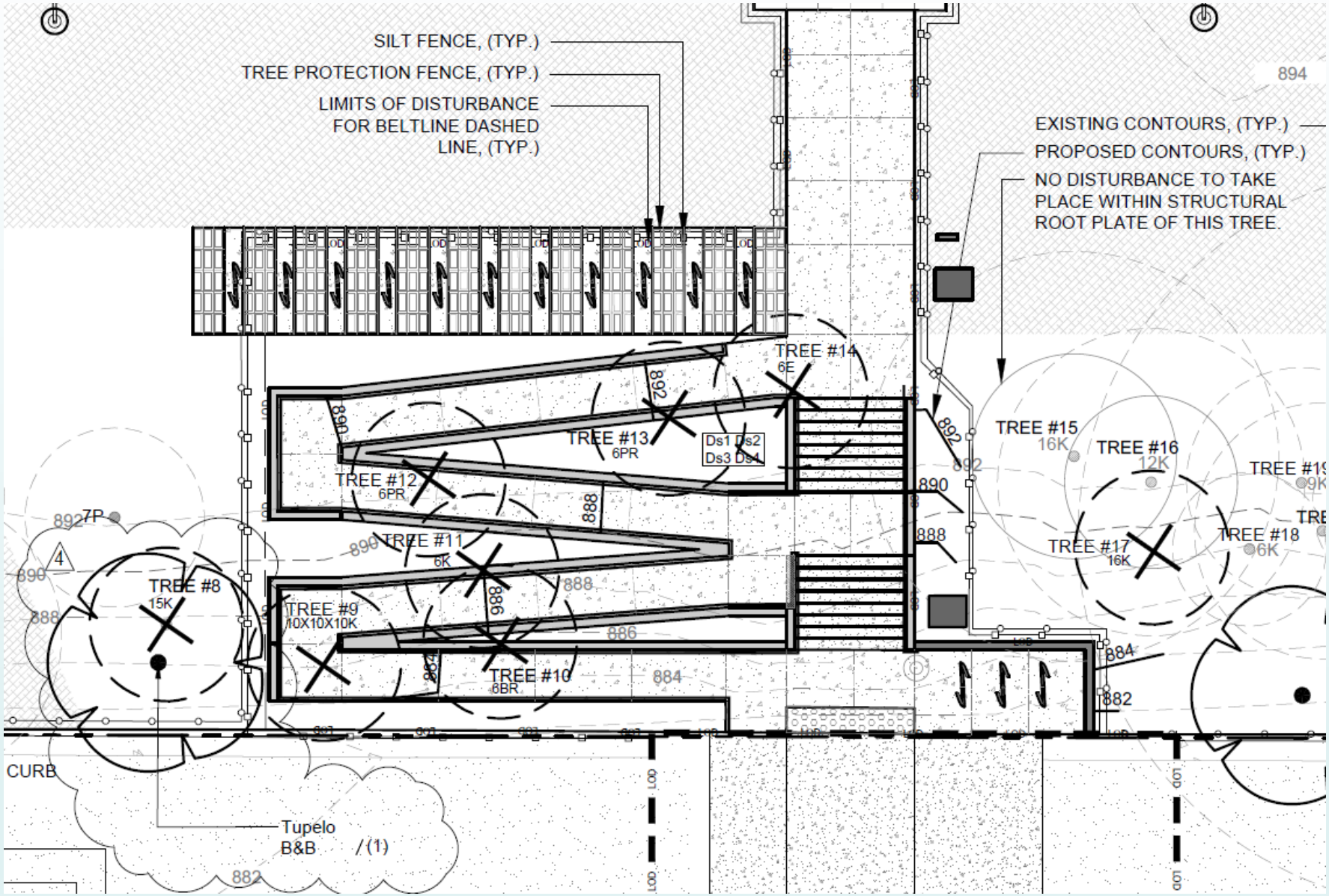


Plan Courtesy of ASD SKY

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



Plan Courtesy of ASD SKY

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

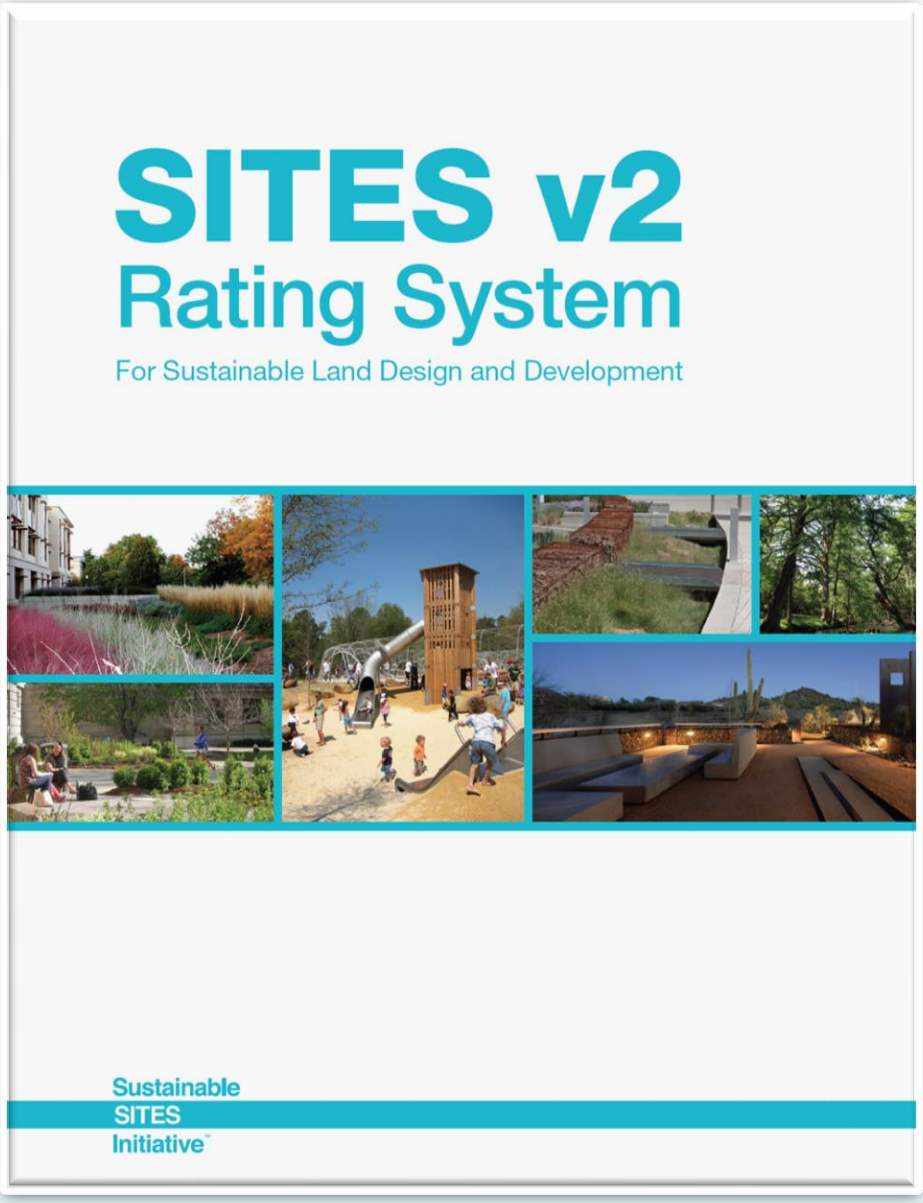
DAVEY Institute
A Division of The Davey Tree Expert Company

We Need a <u>Non-Traditional</u> Approach to Site Design!

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



SITES GUIDING PRINCIPLES

These principles informed the development of specific and measurable criteria for site sustainability, and can also be applied to the land design and development process.

Do no harm.
Make no changes to the site that will degrade the surrounding environment. Promote sustainable design projects on sites where previous disturbance or development presents an opportunity to regenerate ecosystem services through sustainable design.

Apply the precautionary principle.
Be cautious in making decisions that could threaten human and environmental health. Some actions can cause irreversible damage. Examine a full range of alternatives (including no action), and be open to contributions from all potentially affected parties.

Design with nature and culture.
Create and implement designs that are responsive to economic, environmental, and cultural conditions and to the local, regional, and global context.

Use a decision-making hierarchy of preservation, conservation, and regeneration.
Maximize the benefit of ecosystem services by preserving existing environmental features, conserving resources in a sustainable manner, and regenerating lost or damaged ecosystem services.

Provide regenerative systems as intergenerational equity.
Provide future generations with a sustainable environment supported by regenerative systems and endowed with regenerative resources.

Support a living process.
Continuously re-evaluate assumptions and values, and adapt to demographic and environmental change.

Use a systems thinking approach.
Understand and value the relationships in an ecosystem. Use an approach that reflects and sustains ecosystem services and re-establishes the integral and essential relationship between natural processes and human activity.

Use a collaborative and ethical approach.
Encourage direct and open communication among colleagues, clients, manufacturers, and users to link long-term sustainability with ethical responsibility.

Maintain integrity in leadership and research.
Implement transparent and participatory leadership; develop research with technical rigor; and communicate new findings in a clear, consistent, and timely manner.

Foster environmental stewardship.
In all aspects of land development and management, foster an ethic of environmental stewardship—an understanding that responsible management of healthy ecosystems improves the quality of life for present and future generations.

http://www.sustainablesites.org/

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

The prerequisites are as follows:

Context P1.1: Limit development on farmland
Context P1.2: Protect floodplain functions
Context P1.3: Conserve aquatic ecosystems
Context P1.4: Conserve habitats for threatened and endangered species

Pre-Design P2.1: Use an integrative design process
Pre-Design P2.2: Conduct a pre-design site assessment
Pre-Design P2.3: Designate and communicate Vegetation and Soil Protection Zones

Water P3.1: Manage precipitation on site
Water P3.2: Reduce water use for landscape irrigation

Soil+Veg P4.1: Create and communicate a soil management plan
Soil+Veg P4.2: Control and manage invasive plants
Soil+Veg P4.3: Use appropriate plants

Materials P5.1: Eliminate the use of wood from threatened tree species

Construction P7.1: Communicate and verify sustainable construction practices
Construction P7.2: Control and retain construction pollutants
Construction P7.3: Restore soils disturbed during construction

O+M P8.1: Plan for sustainable site maintenance
O+M P8.2: Provide for storage and collection of recyclables

http://www.sustainablesites.org/

Prerequisite 2.1: Use an integrative design process

Required

P2.1

INTENT

Optimize site performance by identifying and executing synergistic opportunities across different disciplines throughout all phases of design and construction.

REQUIREMENTS

Projects must complete all of the following steps for prerequisite achievement:

1. **Form an integrated design team**
   - The integrated design team should include, at minimum, the following roles:
     - Owner and/or client
     - Professionals knowledgeable in design, construction, and maintenance
     - Professionals knowledgeable in sustainable practices
     - Professionals with expertise in vegetation, water, soils, landscape ecology, materials, and human health and well-being, selected to meet the unique constraints and opportunities of the project and its site

2. **Develop a collaborative communication process**
   - Develop an agreed upon communication method for team members. The method should be collaborative and allow the viewpoints and perspectives of all members to be fully considered in the decision-making process.
   - Designate a team facilitator to be responsible for overseeing and ensuring a collaborative communication process.

3. **Identify project sustainability principles and performance goals** (see *O+M P8.1: Plan for sustainable site maintenance*)
   - Identify the principles and performance goals of the project (both short- and long-term). Include an associated timeline and specific performance measures for each goal to determine when it has been achieved.
   - Designate specific team members to track project goals throughout the development process.

4. **Incorporate the sustainability principles and performance goals into a program plan**
   - Develop a program plan that at minimum includes the following information:
     - The unique characteristics, opportunities, and constraints of the site
     - General project parameters, such as the scope, budget, implementation schedule, purpose, and design intent of the project
     - A diagram or description of the intended function, arrangement, and relationship of desired features and their approximate dimensions
   - Describe how the sustainability principles and performance goals will be incorporated into the design.

5. **Identify stakeholders and site user groups**
   - Identify project stakeholders.
   - Identify the full range of potential site users. List the primary and secondary user groups.

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council — Sustaining Georgia's Green Legacy

http://www.sustainablesites.org/

DAVEY Institute — A Division of The Davey Tree Expert Company

1. Form an integrated design team

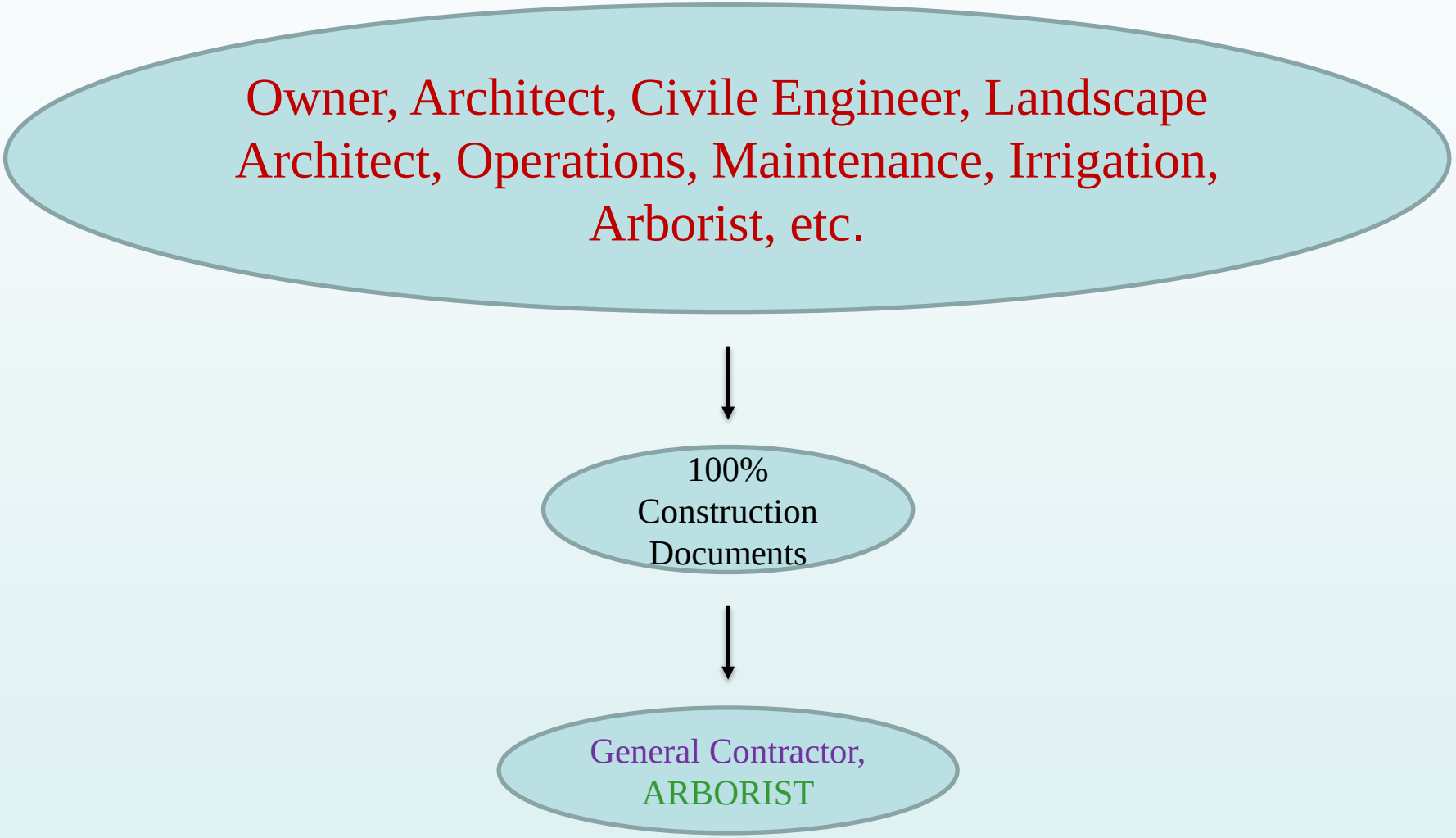
- The integrated design team should include, at minimum, the following roles:
  - Owner and/or client
  - Professionals knowledgeable in design, construction, and maintenance
  - Professionals knowledgeable in sustainable practices
  - Professionals with expertise in vegetation, water, soils, landscape ecology, materials, and human health and well-being, selected to meet the unique constraints and opportunities of the project and its site

http://www.sustainablesites.org/

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Who is a Design Professional?

A design professional can be one of several different types of specialists:

- A licensed Architect
- A licensed Landscape Architect
- A registered Professional Engineer
- A licensed Land Surveyor

https://furukawacastles.com/

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

The common theme with any professional trade is a strict adherence to the highest level of moral and ethical standards during the performance of a given task

If we maintain that design is not just a job, but a profession, like being an architect or a doctor or lawyer, then we must also accept the responsibilities and obligations that come with it.

Being a design professional is not merely a badge of acceptance. The title implies adherence to a code of professional behavior; it implies that we have obligations towards society and that there are lines that we are professionally bound not to cross.

https://www.theicod.org/

How Do You Get a Seat at the Table?

It is critical that you gain the respect and trust of other design professionals:

- **Credentials**
  - ISA Certified Arborist
  - ISA Board Certified Master Arborist
  - ISA Municipal Arborist Specialist
  - Tree Risk Assessment Qualification (TRAQ)
  - SITES AP
  - ENV SP
- **Education**
- **Experience**
- **Excellent Communication Skills**
  - You must understand how to communicate effectively in the language of other trades:
    - Architect
    - Civil Engineer
    - Landscape Architect

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

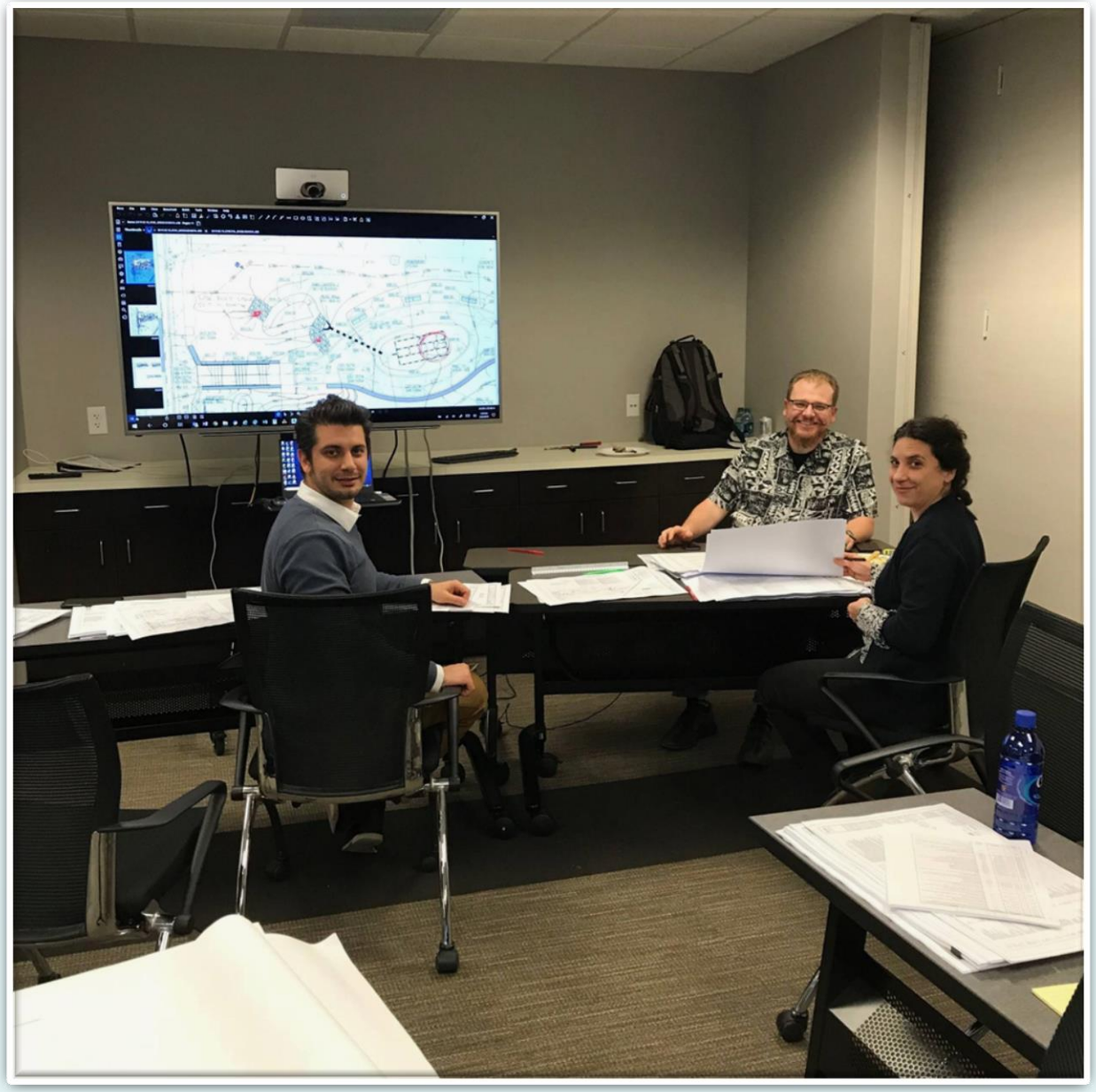
DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

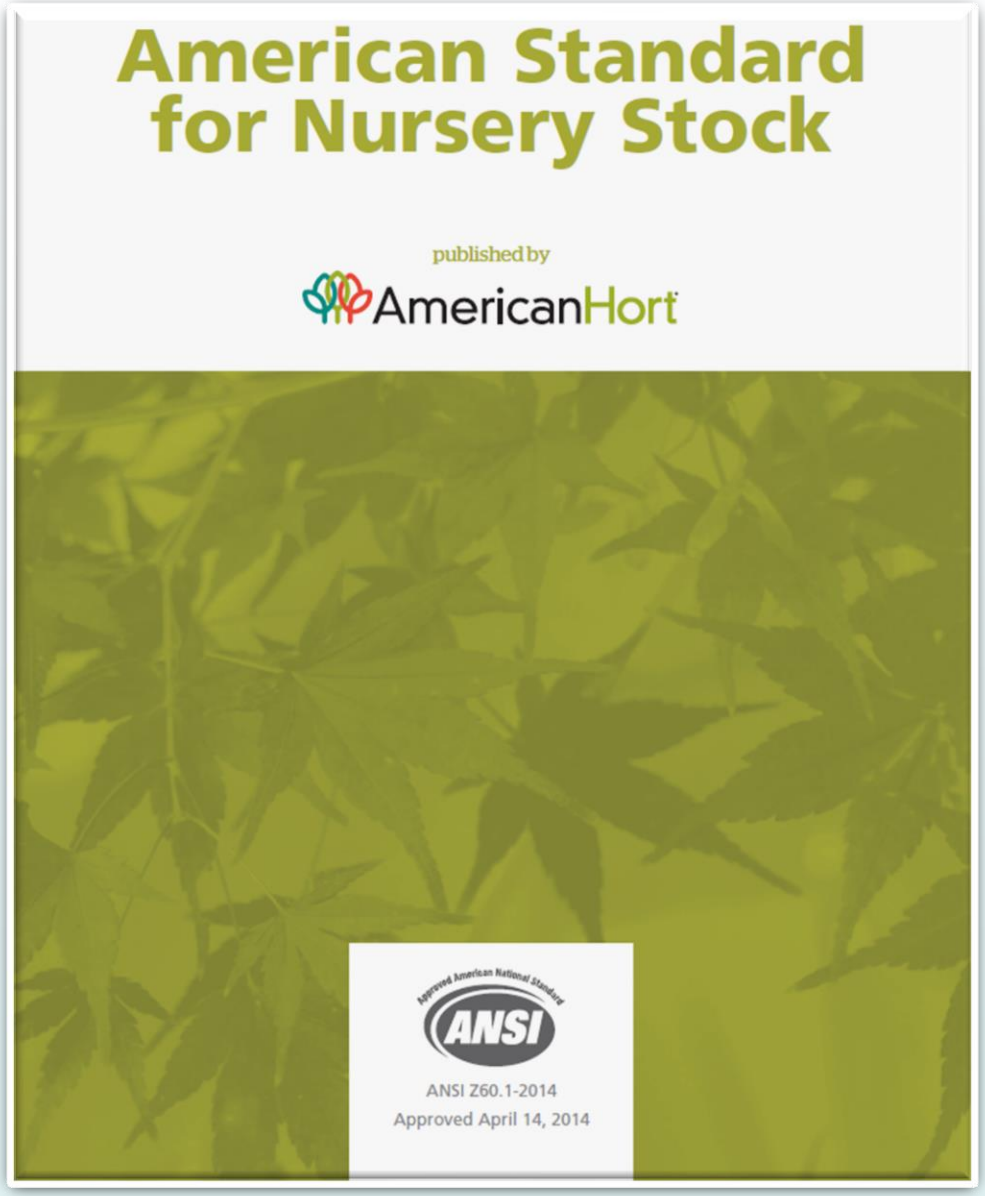
DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



cdn.ymaws.com/americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

- 29-100¶
  - Availability of the trees in the Metro Atlanta area Questionable¶
  - Water Hickory¶
  - Bluff Oak¶
  - Southern Shagbark Hickory¶
  - No Green Ash should be planted, Emerald Ash Borer is killing them¶
  - Sand Post Oak¶
  - Carolina Buckthorn¶
  - Persian Ironwood¶
  - Post Oak¶
  - American Bladdernut¶
  - Horse Sugar¶

This note needs to be added to this page:¶

Since all trees shown are specified as container grown trees, all trees are to be inspected by an ISA certified arborist BEFORE the containers are to be removed from the shipping vehicle. NO EXCEPTIONS. ¶

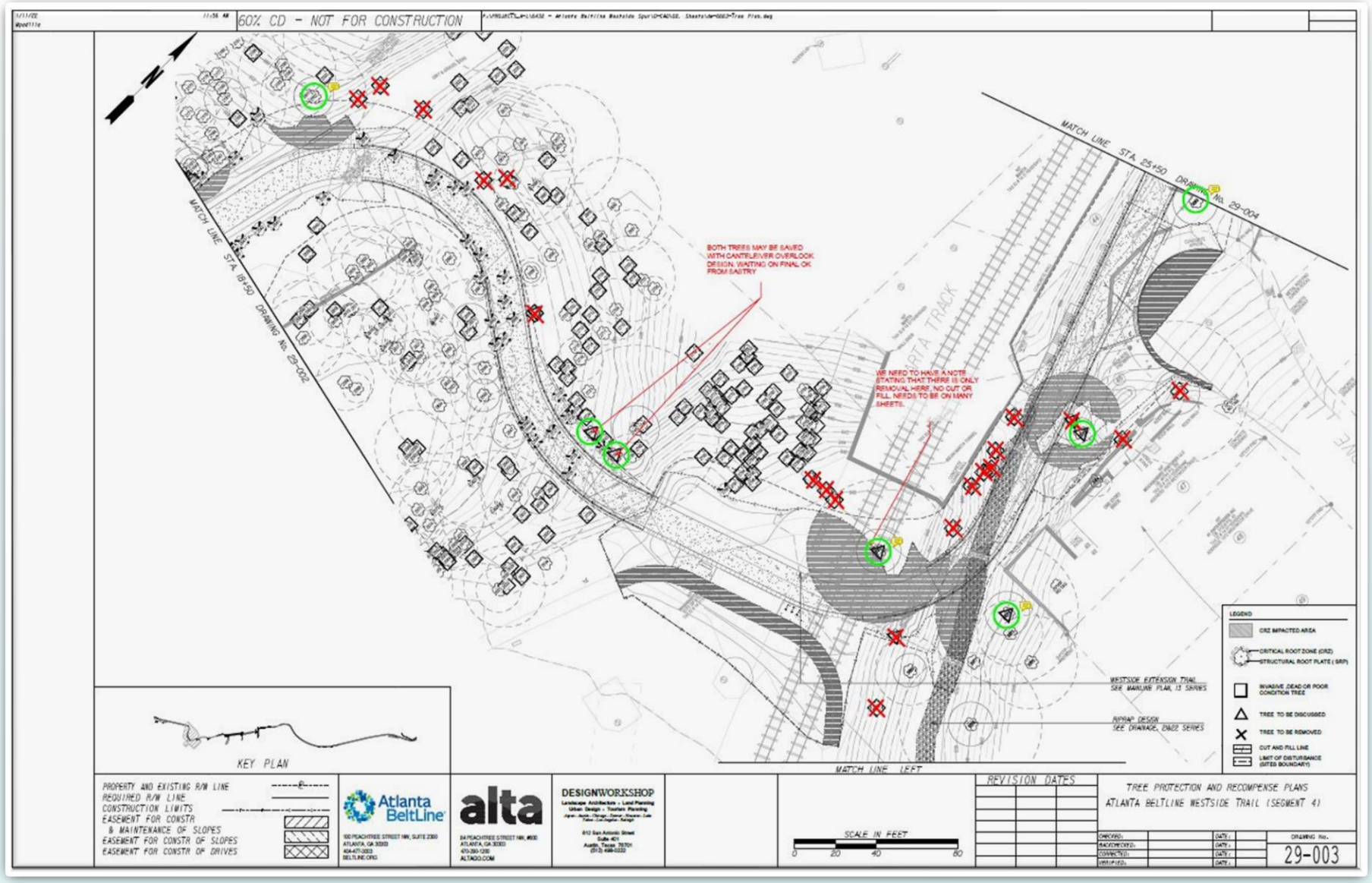
All container grown trees shall meet the American Standard for Nursery Stock ANSI Z60.1-2004. As per Section 1.7 on page 20 of the document, all trees shall be free of excessive circling roots. Trees found with excessive irreparable girdling root conditions will be rejected before being off-loaded. NO EXCEPTIONS.¶

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

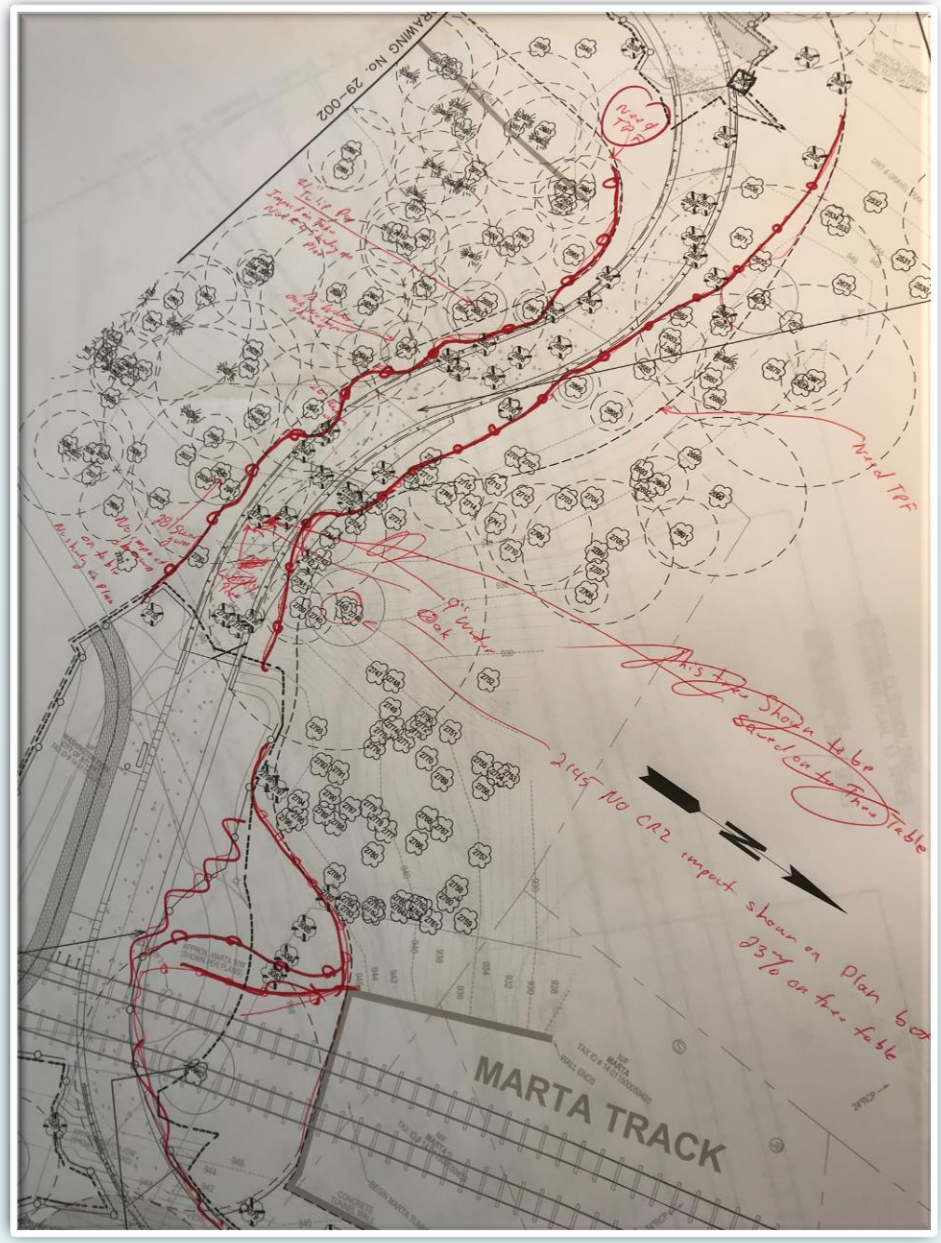


Plan Courtesy of alta

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

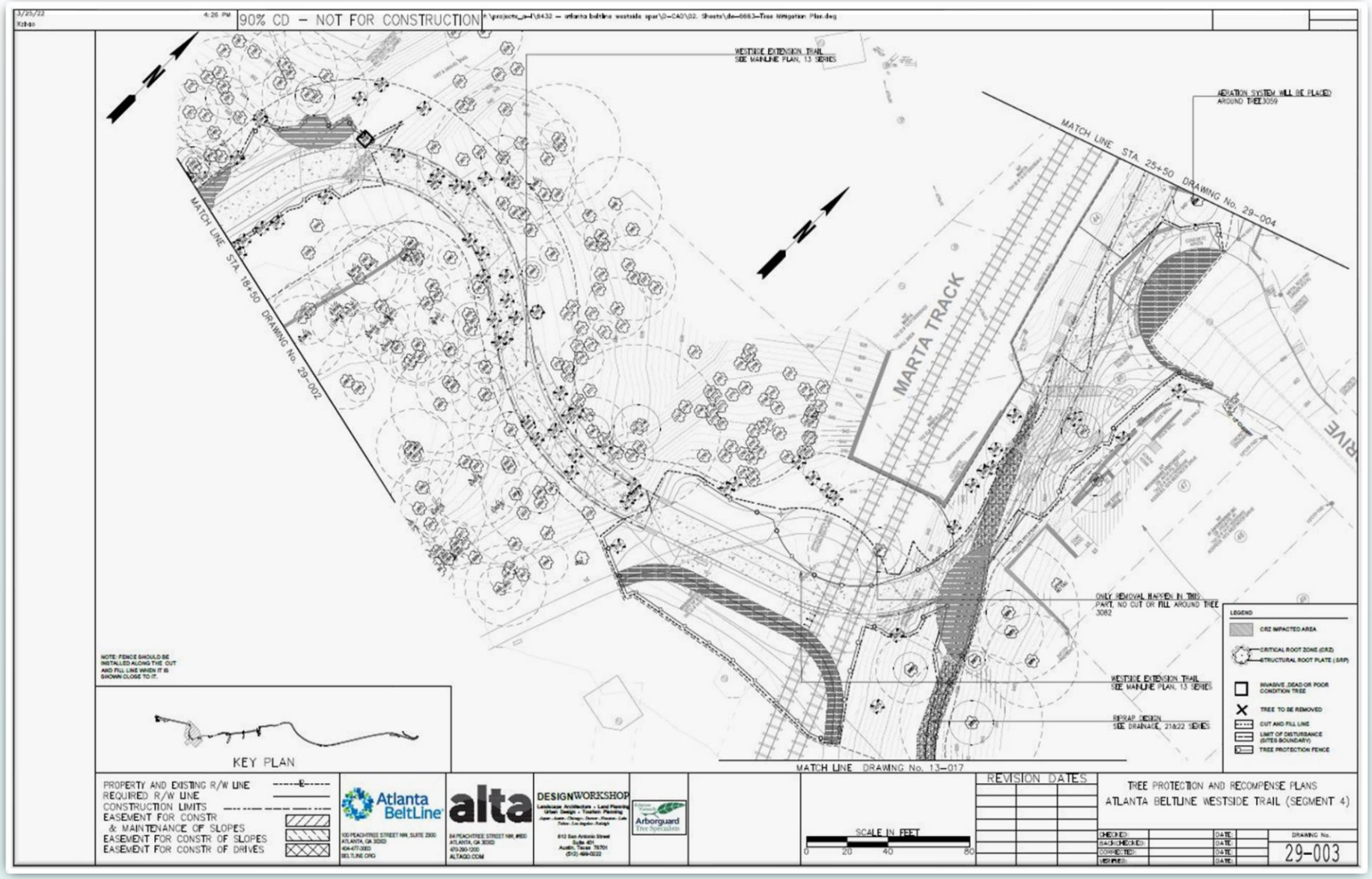


Picture Courtesy of D. Dechant

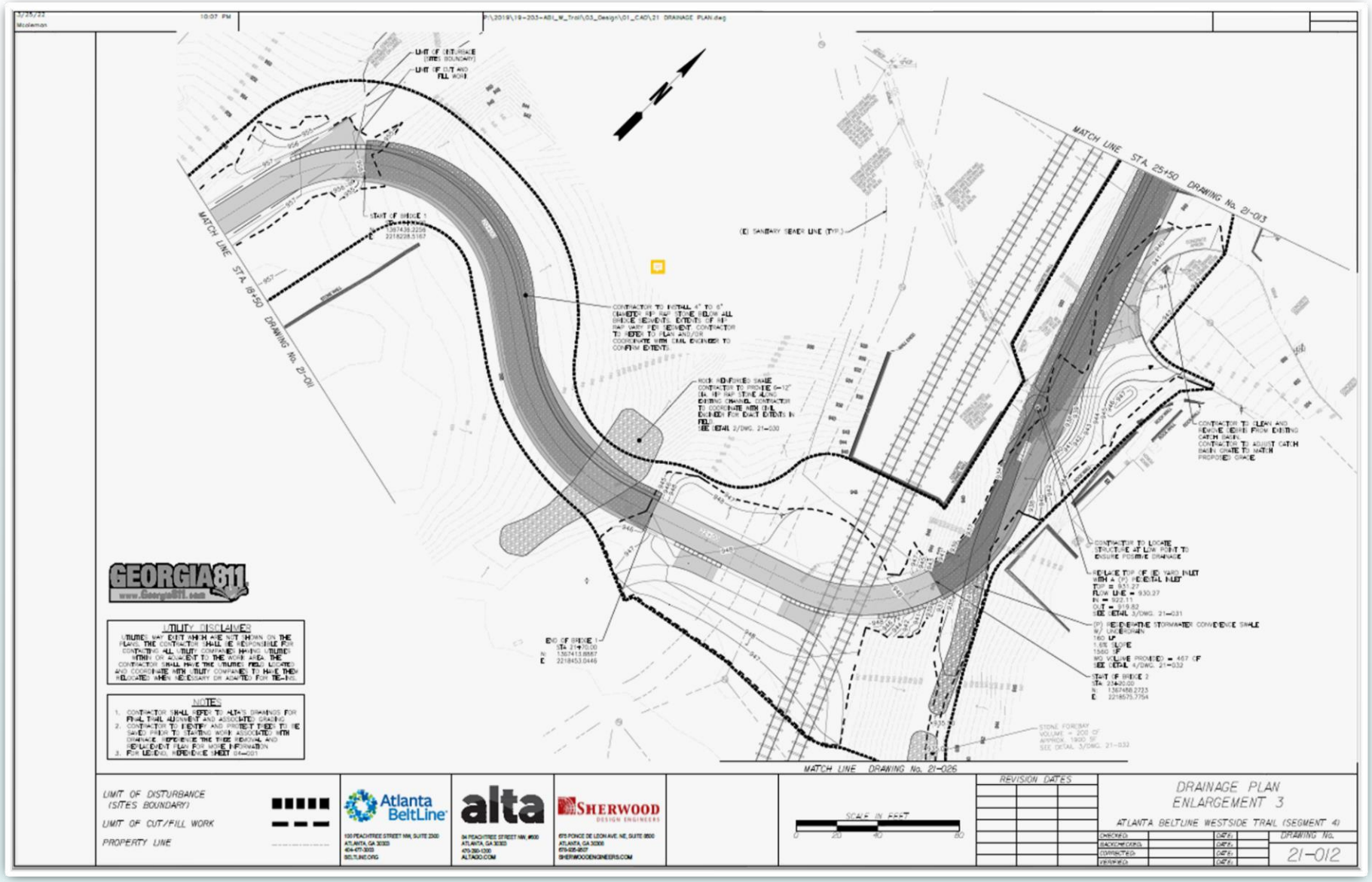
Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



Plan Courtesy of alta



Plan Courtesy of alta

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

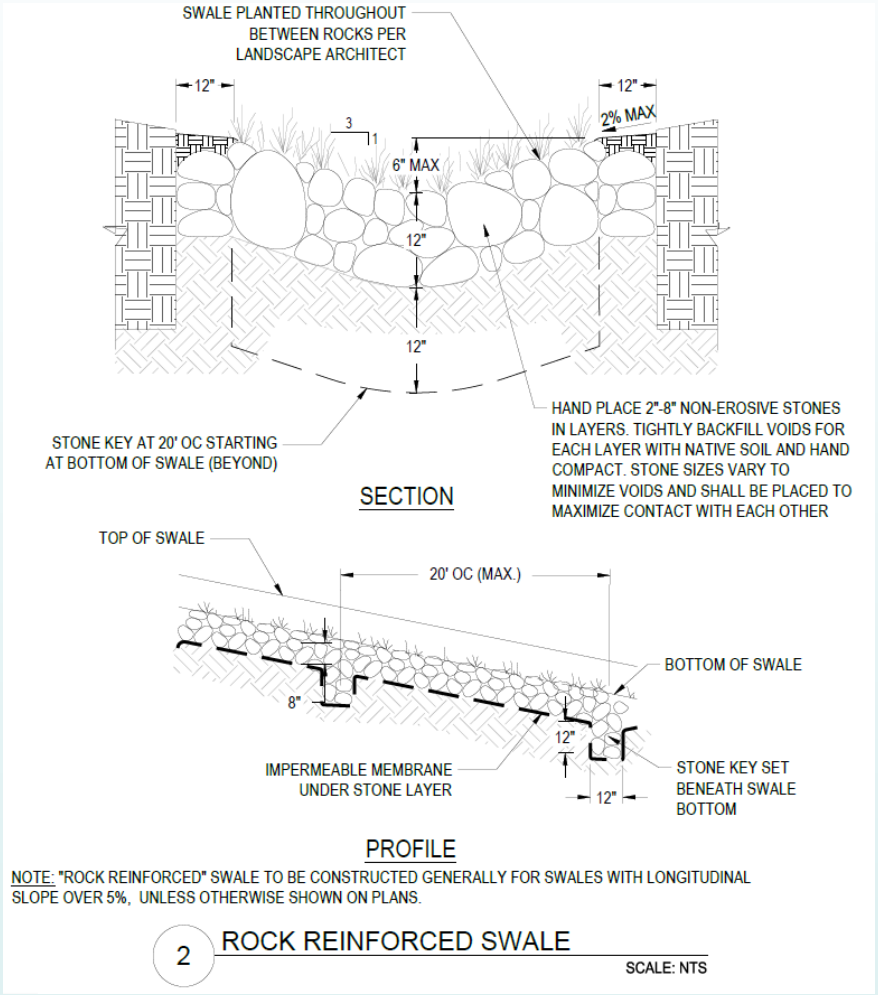
DAVEY Institute
A Division of The Davey Tree Expert Company

- Accuracy·is·critical·when·dealing·with·the·City·of·Atlanta·Parks·Department·plan·reviewers,·it·is·strongly·recommended·that·someone·on·this·team·go·thru·this·table·with·the·plan·and·**accurately·one·tree·at·a·time·mark·the·poor,·dead·and·invasive·trees·with·the·box·symbol·on·the·plan·and·correct·if·needed·any·deficiencies·on·the·tree·table,·no·exceptions·to·this·will·be·acceptable·anywhere·on·the·29·plan·series.**¶

¶

General·note:·every·sheet·in·this·series·has·significant·inconsistency·regarding·the·symbol·for·poor,·dead·and·invasive·trees.··Some·trees·have·the·symbol·while·most·trees·that·should·have·the·symbol·do·not.··**It·is·critically·important·that·this·symbol·be·shown·on·all·trees·in·the·29-Series·that·require·this·symbol,·whether·they·are·being·removed·or·not.**¶

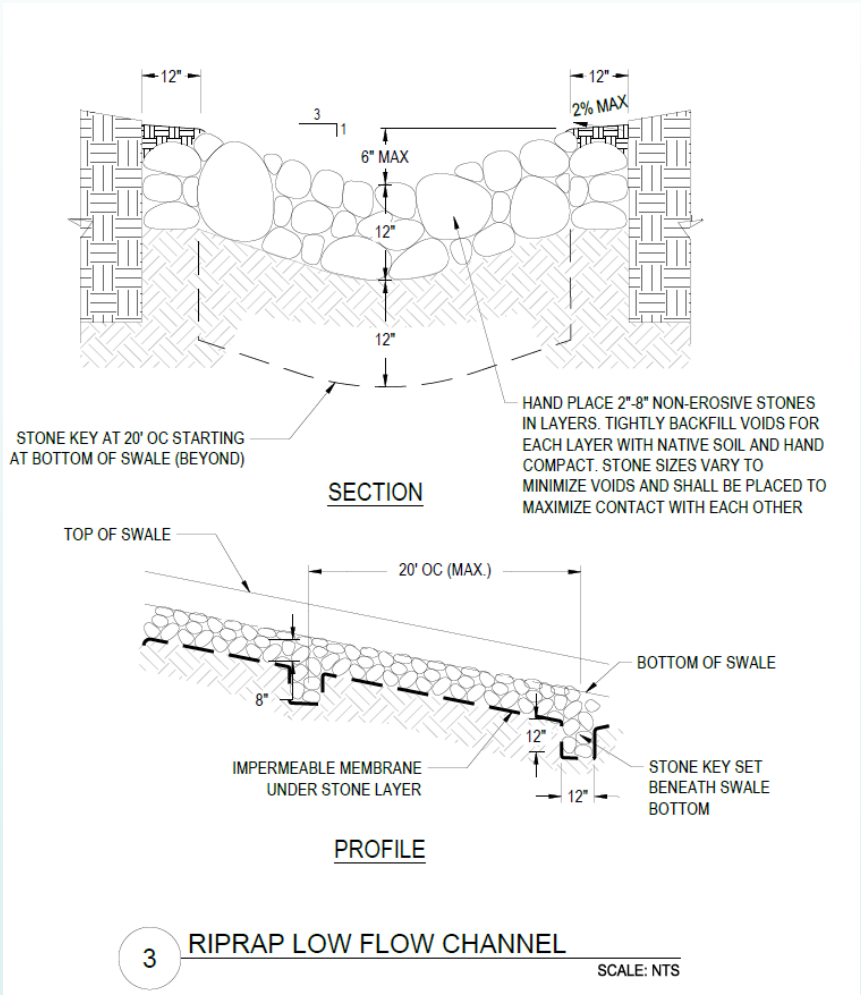
- 001,¶
  - remove·"X"·from·tree·#301·¶
  - NOTE:·Tree·#·1906·&·1907·will·be·removed·and·relocated·on-site,·to·read·"will·be·relocated·on-site,·remove·"X"·from·both·trees·use·a·unique·designation·for·relocated·trees.··I·never·identified·on·the·planting·plan·where·these·trees·are·to·be·located·to¶
- 002,¶
  - No·tree·impact·shown·to·CRZ's·within·the·bioswale/riprap·area¶
  - #2004·shown·in·a·bioswale,·should·it·be·removed?¶
  - Multiple·trees·require·the·DDH·symbol¶
- 003,¶
  - #2640·has·trees·being·removed·immediately·adjacent·to·it,·need·a·note·stating·"Tree·removal·shall·not·damage·adjacent·trees·to·be·saved"¶
  - #2745·shown·to·have·a·23%·impact·in·the·table,·but·no·shaded·CRZ·or·impact·shown·on·the·plan¶
  - #3078·shows·riprap·thru·a·large·portion·of·the·CRZ·with·a·5%·impact·shown·in·the·table·and·no·root·zone·impact·shown·on·the·plan.··Please·refer·to·the·details·pages·in·the·21·series·set·to·see·how·this·riprap·area·is·going·to·be·constructed·and·revise·the·tree·impact·accordingly¶
  - No·tree·protection·fence·shown·adjacent·to·Bridge·1,·there·will·be·tree·removal·and·riprap·installation·under·the·bridge·that·will·impact·the·CRZ's·of·adjacent·protected·trees.·SRP's·are·to·be·protected·on·both·sides·of·the·bridge,·see·attached·jpg·of·marked·up·site·plan¶
  - Multiple·trees·require·the·DDH·symbol¶
- 004,¶
  - @·#3031,·TPF·encroaches·into·riprap·feature·(?)¶
  - No·TPF·@·#3057,·should·at·least·follow·the·LOD¶



NOTE: "ROCK REINFORCED" SWALE TO BE CONSTRUCTED GENERALLY FOR SWALES WITH LONGITUDINAL SLOPE OVER 5%, UNLESS OTHERWISE SHOWN ON PLANS.

2 ROCK REINFORCED SWALE

SCALE: NTS



3 RIPRAP LOW FLOW CHANNEL

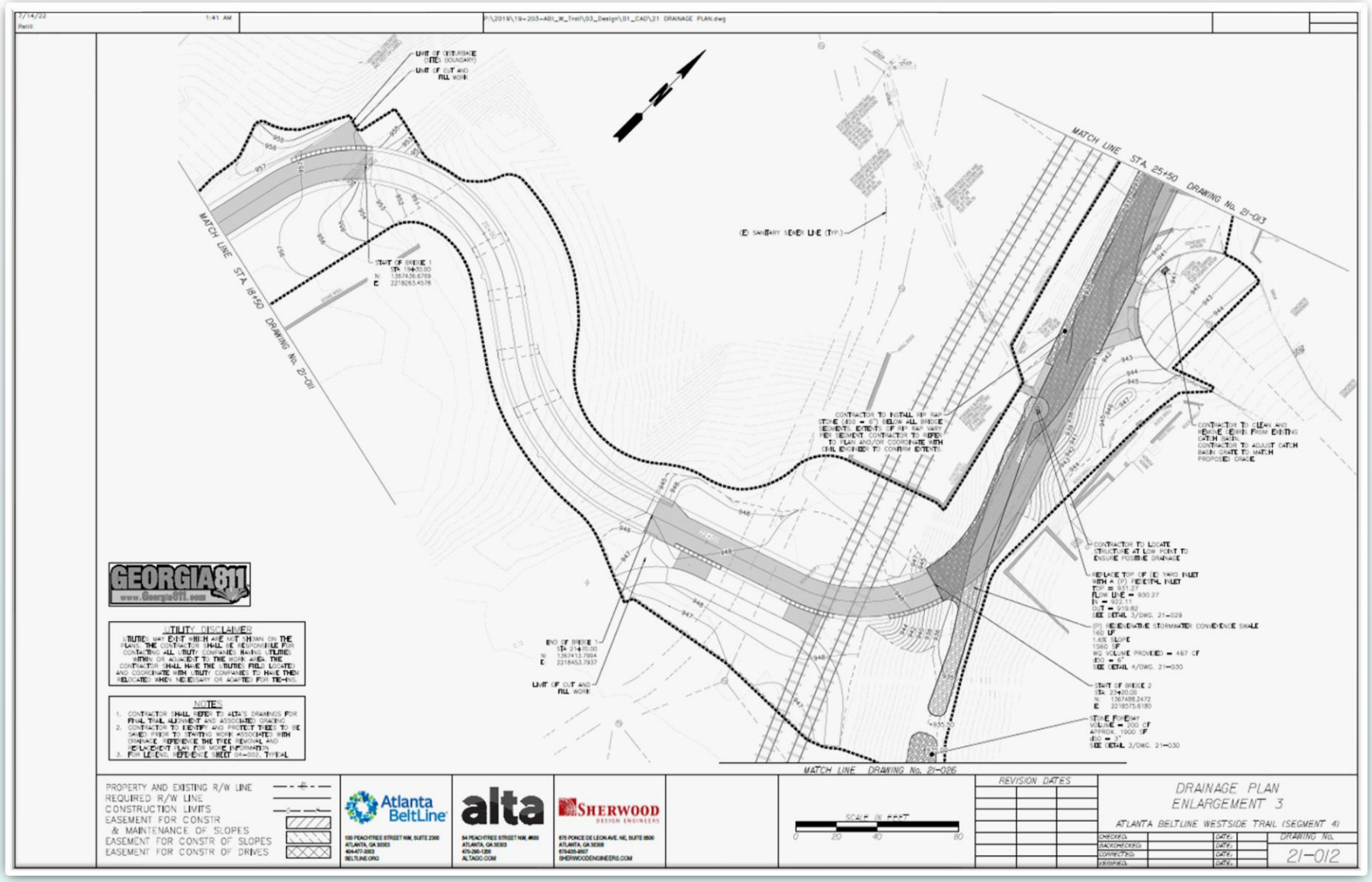
SCALE: NTS

Plan Courtesy of alta

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council — Sustaining Georgia's Green Legacy

DAVEY Institute — A Division of The Davey Tree Expert Company

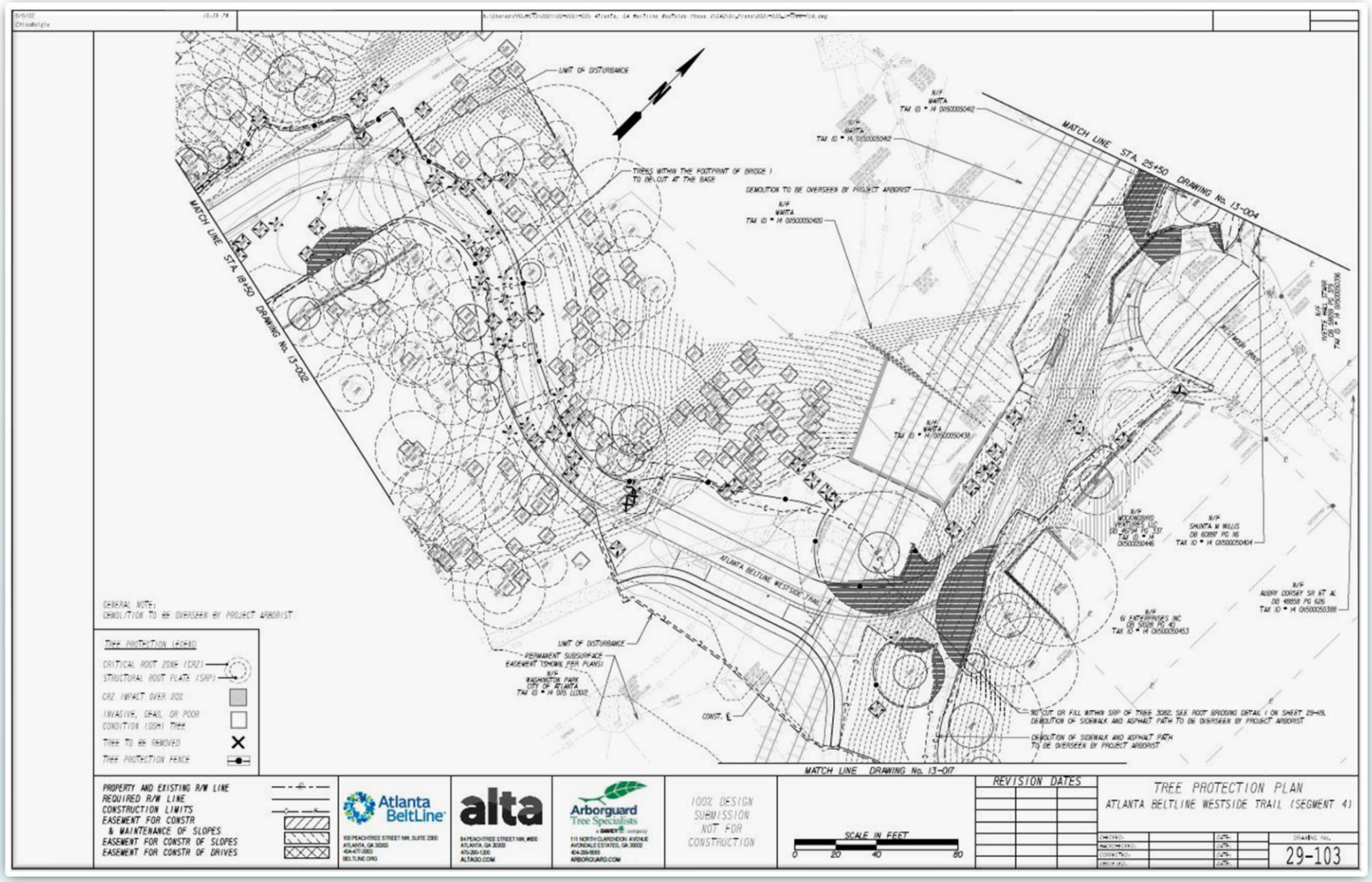


Plan Courtesy of alta

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

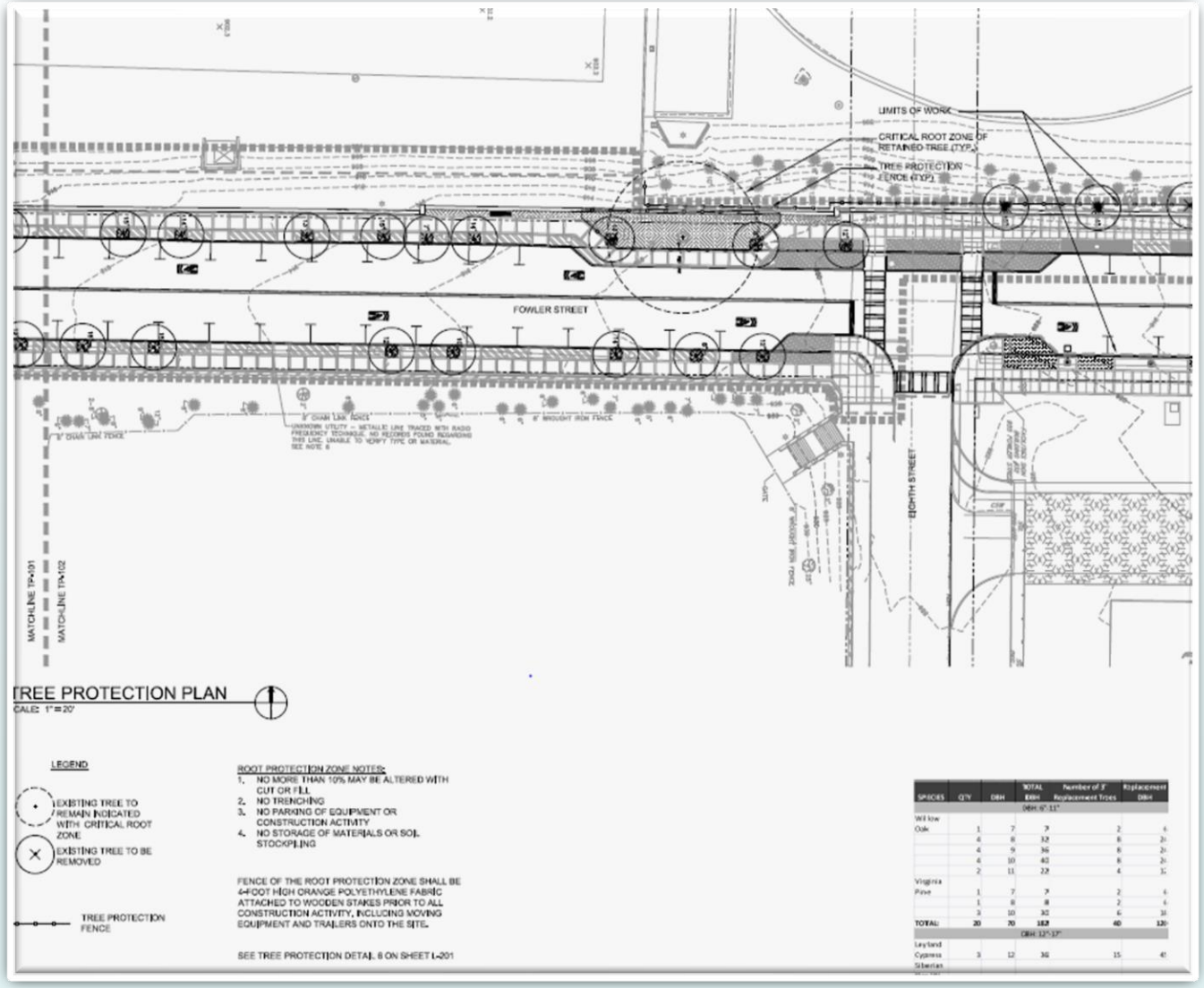


Plan Courtesy of alta

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

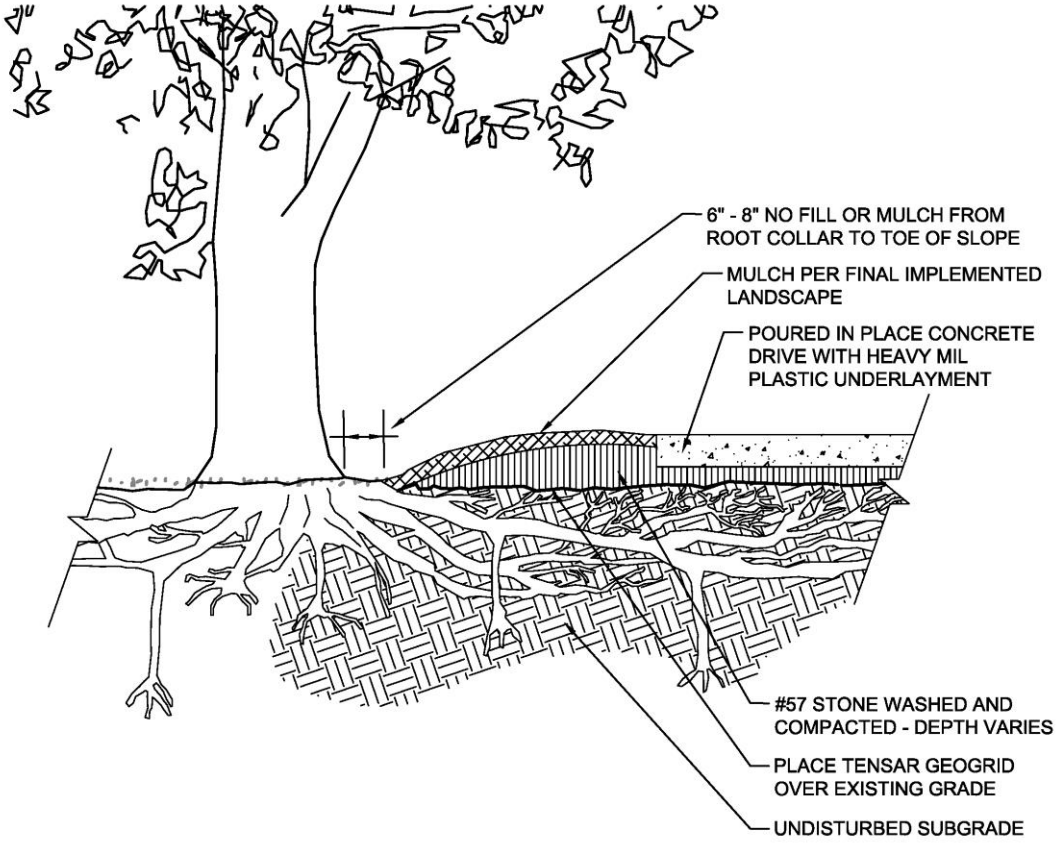


Plan Courtesy of POND & CO.

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

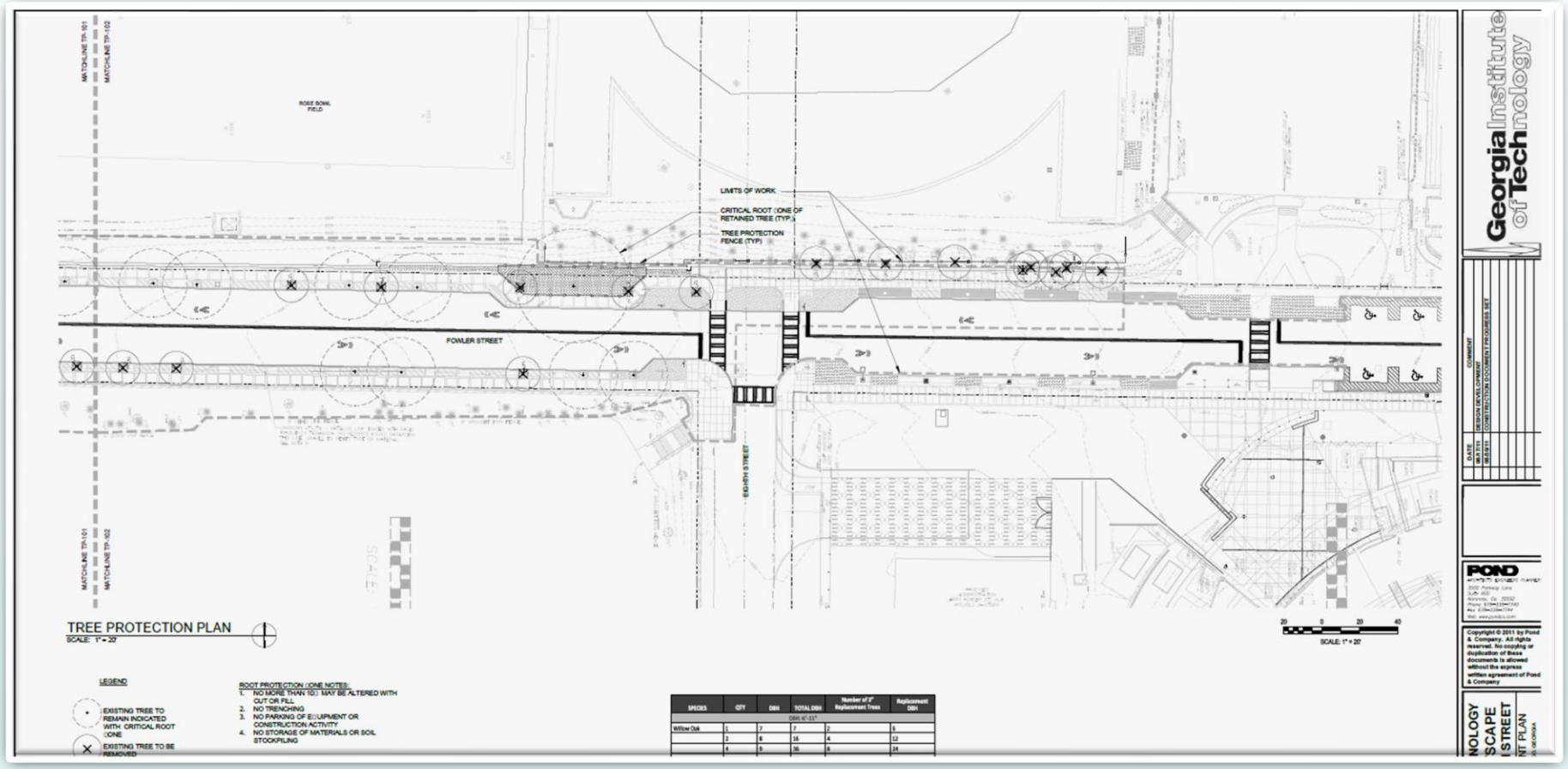


NOTES:

1) NO COMPACTION OF EXISTING GRADE SHALL OCCUR WITHIN THE CRZ OF TREES BEING PRESERVED.
2) SOIL CUTS AND/OR ROOT DISTURBANCE SHALL ONLY OCCUR UNDER THE DIRECT SUPERVISION OF THE PROJECT ARBORIST.
3) IF EXISTING GRADE IS GREATER THAN 5% SLOPE, LOW RETAINING WALL MAY BE NECESSARY TO REQUIRED TO HOLD MATERIAL IN PLACE.

ROOT BRIDGING DETAIL

NOT TO SCALE



Solutions Naturally
Arborguard Tree Specialists

Georgia Tree COUNCIL
Sustaining Georgia's Green Legacy

Plan Courtesy of POND & CO.

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

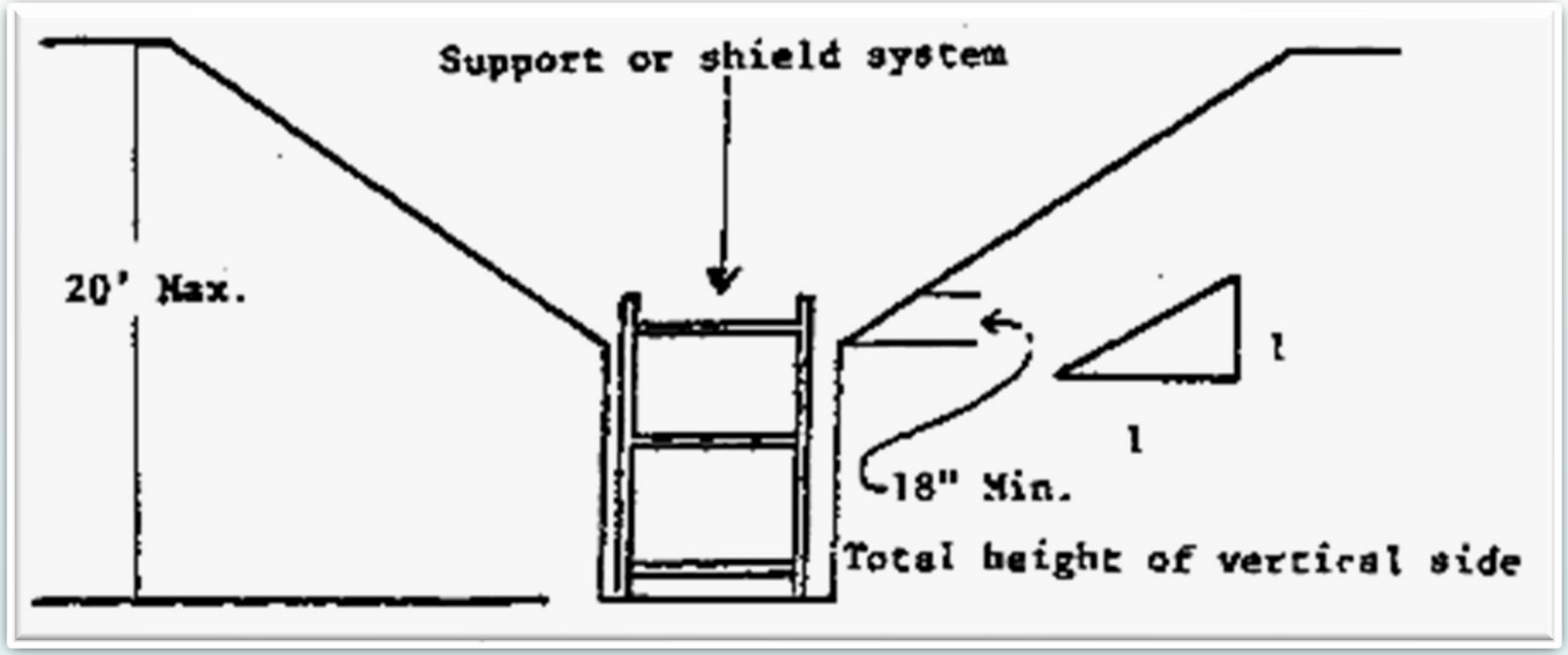
DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



1926 Subpart P App B - Sloping and Benching | Occupational Safety and Health Administration (osha.gov)

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

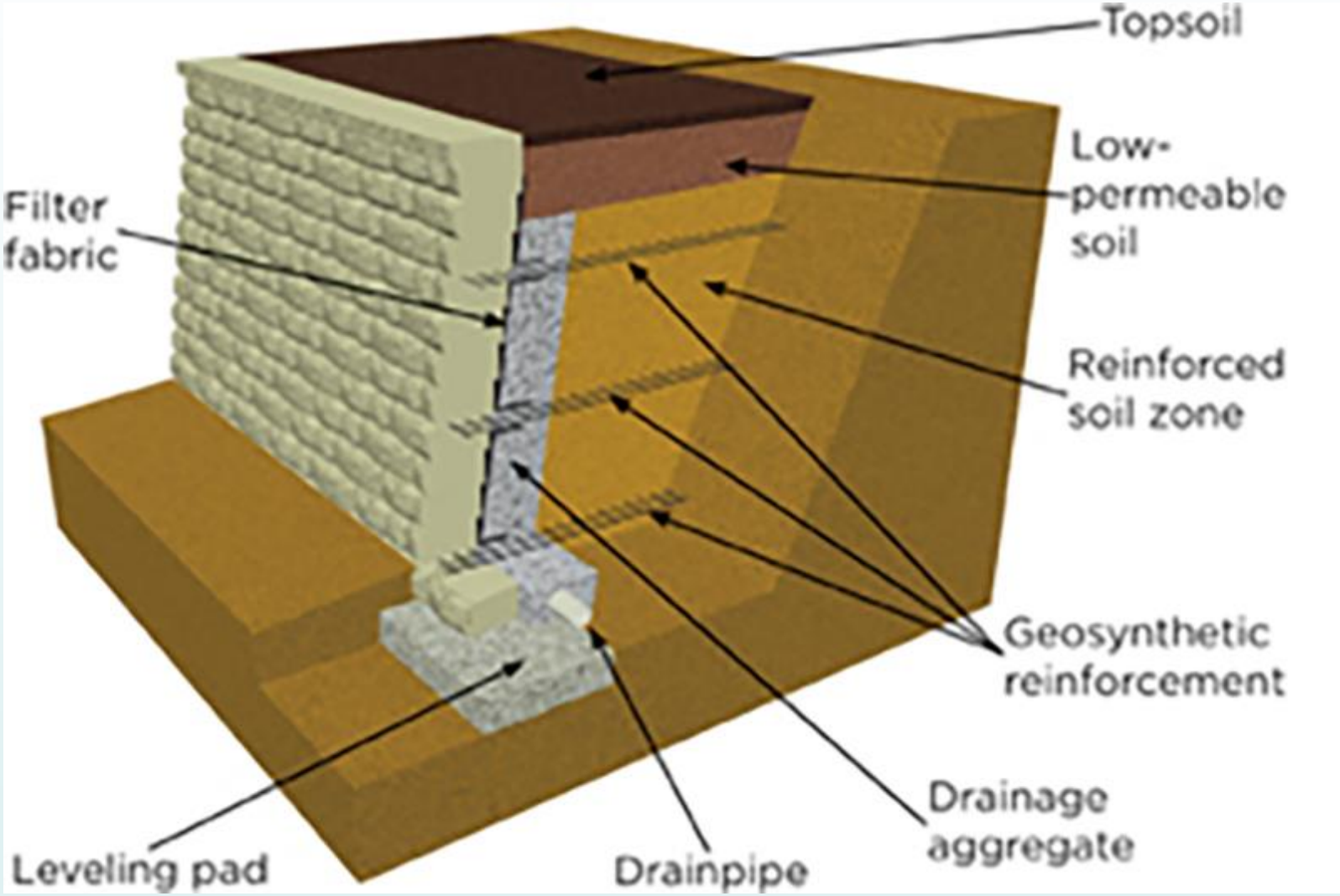


Diagram courtesy of anchor diamond

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

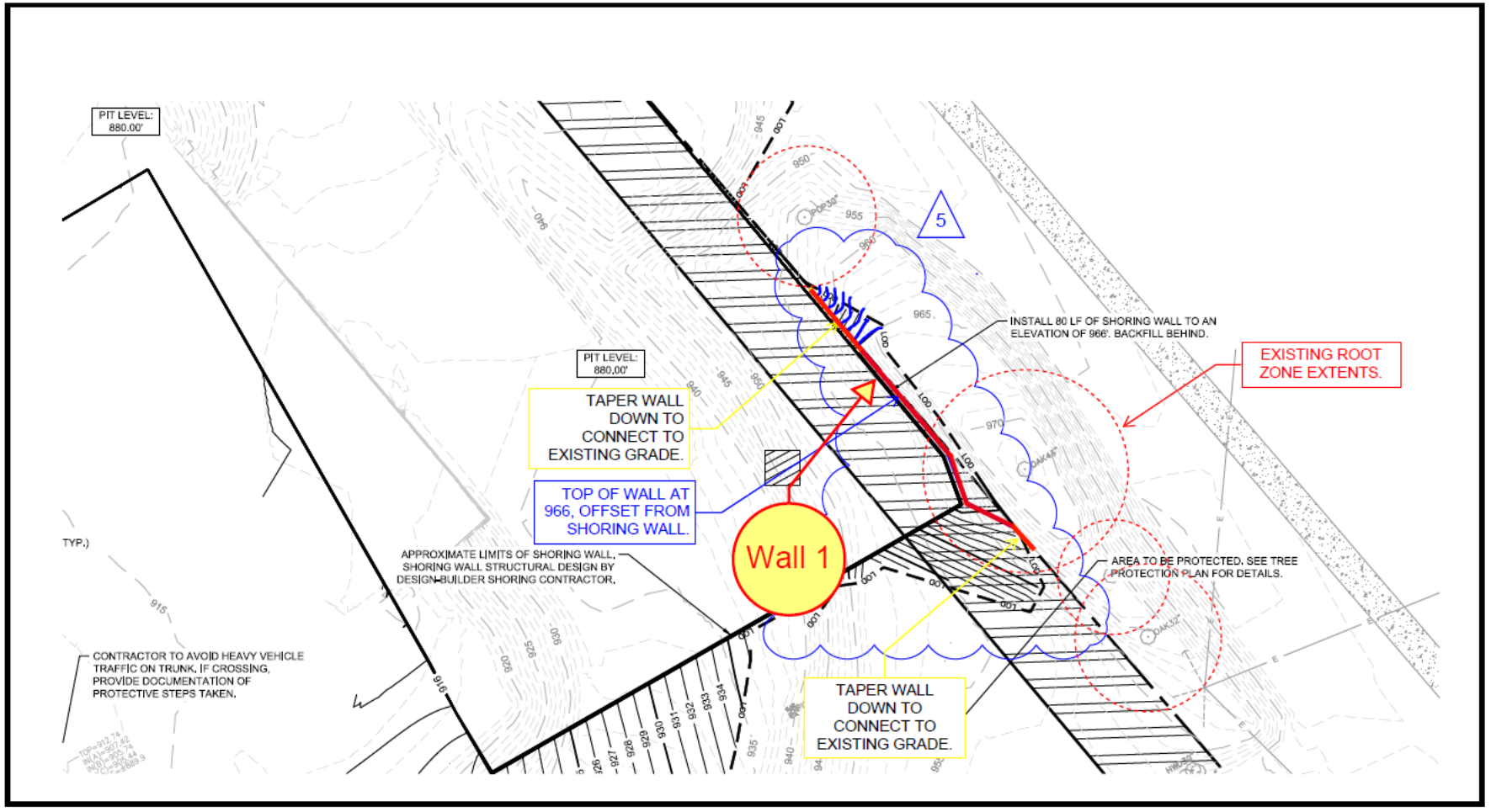


Diagram Courtesy of Brasfield & Gorrie

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

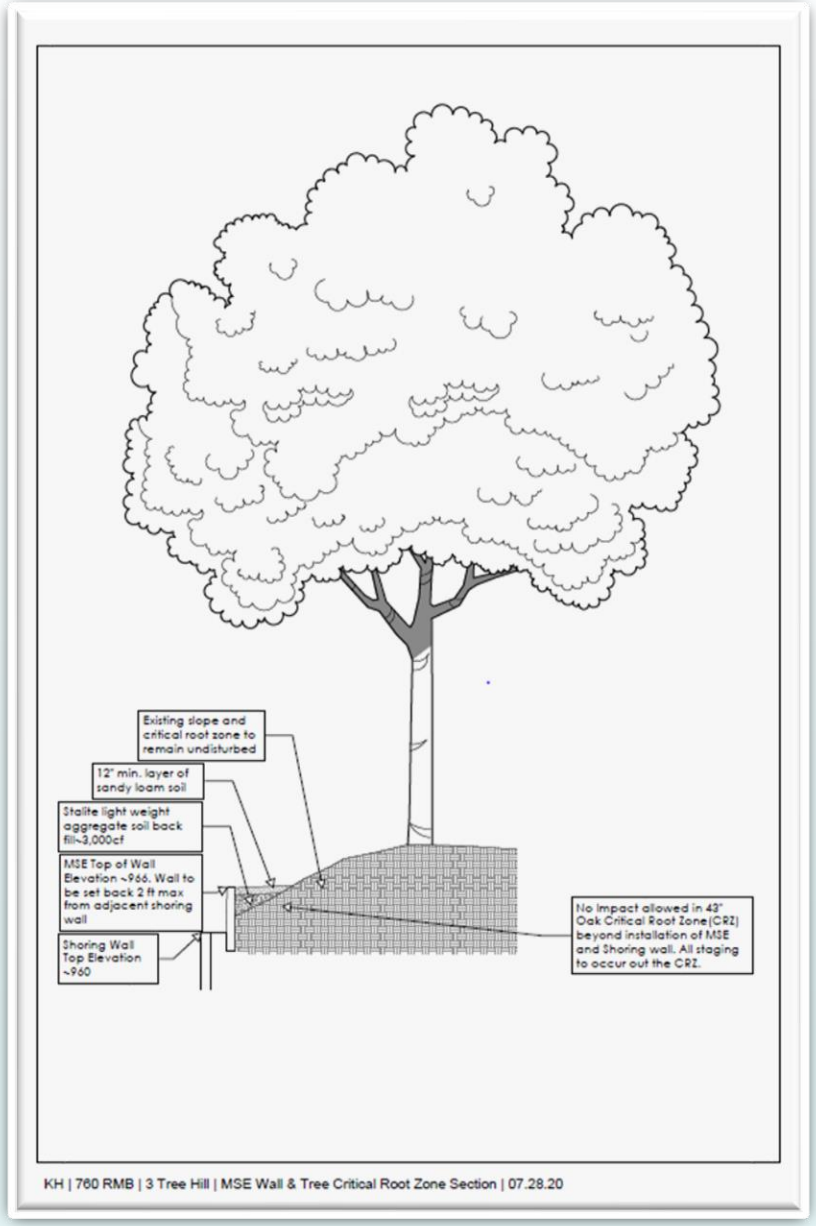
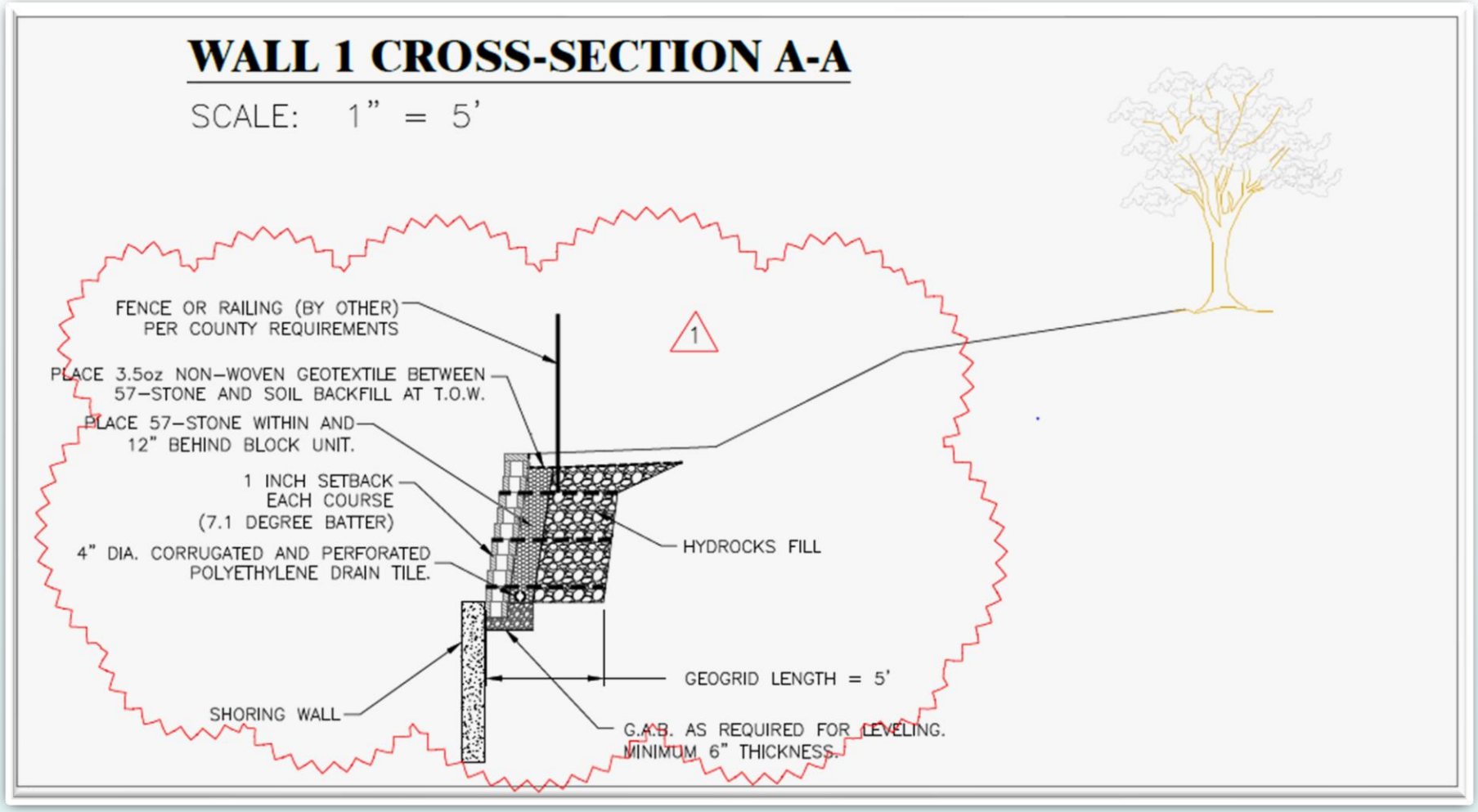


Diagram Courtesy of Kimley-Horn

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company



[Diagram Courtesy of Schnabel]

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council — Sustaining Georgia's Green Legacy

DAVEY Institute — A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

Picture Courtesy of D. Dechant

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

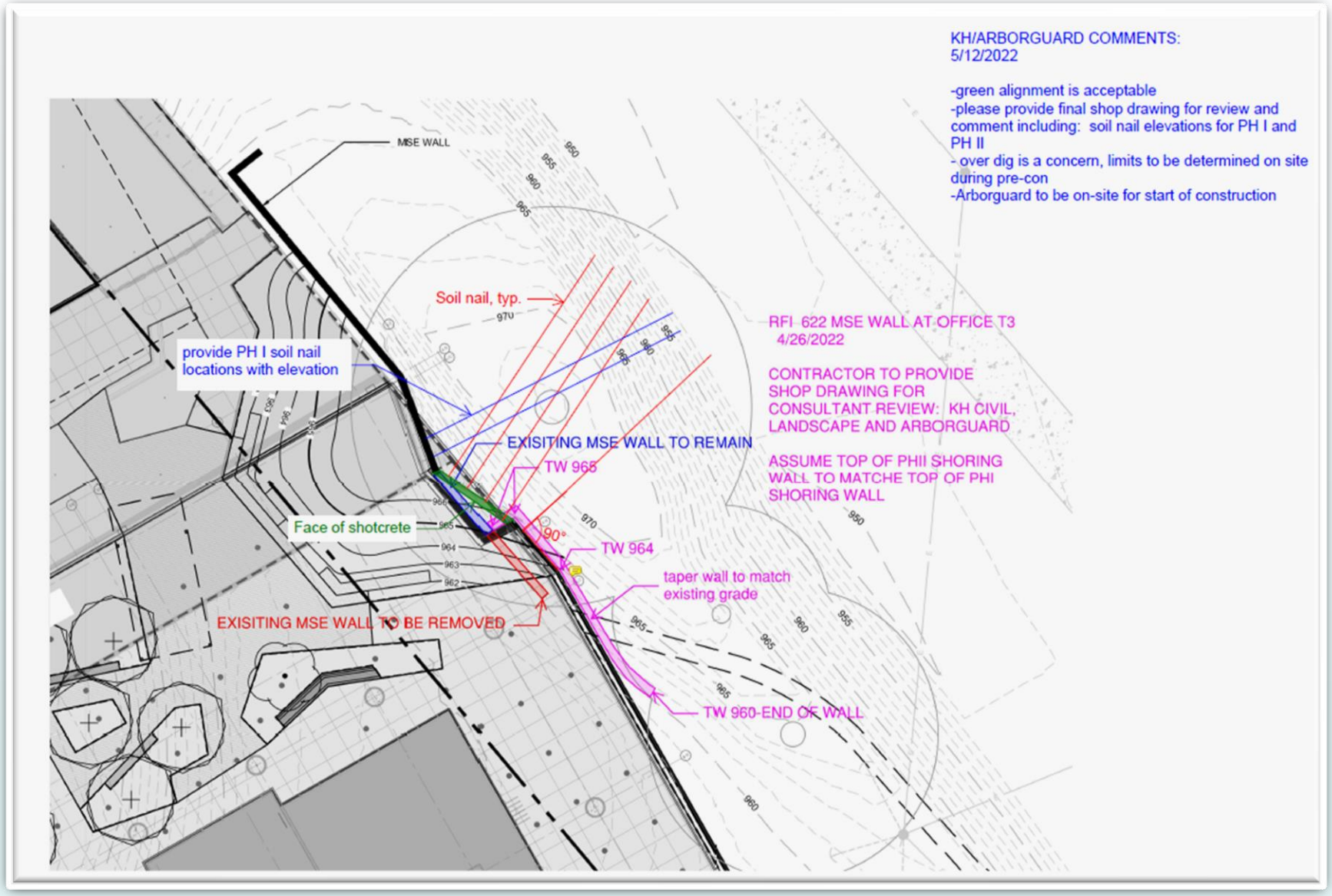


Diagram Courtesy of Brasfield & Gorrie

Solutions Naturally Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company

David Dechant LEED AP, SITES AP, ENV SP

ISA Board Certified Master Arborist
ISA Certified Municipal Specialist
ISA Qualified Tree Risk Assessor

Arborguard Tree Specialists
ddechant@arborguard.com
404-354-2638

Solutions Naturally
Arborguard Tree Specialists

Georgia Tree Council
Sustaining Georgia's Green Legacy

DAVEY Institute
A Division of The Davey Tree Expert Company