REPORT TO THE LAKES VEGETATION AND LANDSCAPING COMMITTEE

TO:	The LVL Committee	FOR:	February 14, 2019 LVLC meeting.
VIA:	Carlos Dougnac, Assistant Vice President, FP&C	FROM:	Keith Humphreys, Sr. Project Manager
REQUESTOR:	College of Education / Libraries	PRESENTERS:	Keith Humphreys

THIS SUBMITTAL:			HISTORY:	
	FOR PHASE:	Comments: (Record the Committee response to the previous submittals)	STATUS:	DATE:
X	CONSTRUCTION	Requesting approval for tree mitigation for the COE Center Addition		

BACKGROUND INFORMATION:

PROJECT:
UF-221, Norman Hall Rehabilitation and College of Education Center Addition

SITE:
Norman Complex.

STATUS:

- Project under construction
- Site work and underground utilities are ongoing
- Building foundations are scheduled to start.

OBJECTIVES:

- Seek Approval to mitigate 1 Live Oak tree due to on site circumstances.

RESPONSE TO LAKES, VEGETATION AND LANDSCAPING COMMITTEE'S RESPONSIBILITIES:
Information is provided relative to the specific construction phases the Committee is tasked with providing recommendations to the Vice President for Finance and Administration on:

1. Programming: general site suitability - having evaluated impacts to trees, landscape, natural areas, and lakes.
2. Schematic design: tree removal - plans for transplants, replacements and/or mitigation, based on the building footprint, utility corridors, and other construction activities.
3. Design development: new landscaping - appropriateness and inclusion of any mitigation for tree removal.

PROJECT PHASE AND PRESENTATION NARRATIVE:
See attached presentation

FILE: LVLC Report, Programming

UF-221

Norman Hall Rehabilitation and College of Education Center Addition

Construction Phase

LVL Committee Approval
February 14, 2019

Keith Humphreys, Sr. Project Manager
Planning, Design & Construction

UF-221
Norman Hall Rehabilitation
and
Conference Center Addition

- Additional Tree Impact
- Current Status
- Committee approval

Tree Impact

During removal of the Laurel Oak, the North side of the Live Oak root system will be severely damaged.

Tree Impact

The Heritage 38 DBH Live Oak completely hangs to the south and with removal of the Laurel Oak stump and excavation for the building footer, the Live Oak may come down.

Tree Impact

Utility lines need to be replaced which will require excavation on the south side of the tree that will also damage the root system

Current Status

Laurel Oak has been approved for mitigation.

Request:

Approval to mitigate Live Oak south of Laurel Oak at south entrance to Norman hall.

Questions?

Tiny Environmental Area

Gator Pond TEA garden

University of Florida Department of Landscape Architecture
Kevin Thompson, Associate Professor. gday@ufl.edu and students enrolled in
LAA 6525L: Advanced Graduate Construction and Design, 2019

Gator Pond TEA Garden

This presentation introduces our proposal for the temporary installation of a tiny environmental area at Gator Pond on UF's Campus.

We are graduate students enrolled in an Advanced Landscape Architecture Construction and Design Studio. The course focuses on sustainable building methods and approaches.

This presentation explains the purpose and objectives of environmental centers, describes how these objectives are interpreted in our proposal for a tiny environmental area and provides details of the two main elements we propose installing for demonstration purposes: a small, artfully-conceived and bespoke tiny tool storage structure and a demonstration floating wetland.

Environmental Centers

Purpose

Environmental centers provide environmental education opportunities and insights into local environmental characteristics and challenges.

They serve an important role in interpreting local ecological processes and are critical in strengthening the visitor's understanding and appreciation of local conservation values.

They also serve as demonstration sites and as models that embody state-of-the-art environmental management practices and in many cases, include sensitively-designed and sustainably-constructed architecture.

Gator Pond TEA Garden

Environmental Centers

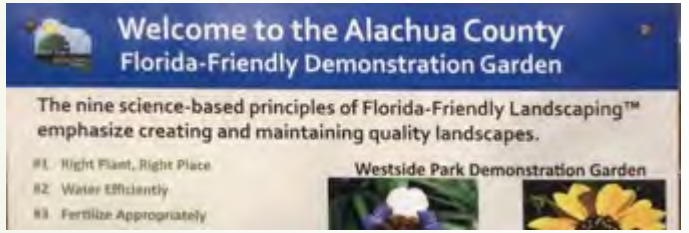
Local examples

Sweetwater Sheet Flow Park

125 acre wetland park that teaches visitors about the Floridan Aquifer, the Alachua Sink and the 1300 acres of prairie wetlands south of Gainesville

SEEP: Stormwater Ecological Enhancement Project

A 3 acre lowland wetland within a 40 acre watershed, the SEEP provides opportunities to learn about local wetland ecology, and species diversity and is one of only 3 wetland centers in the United States.



Alachua County Florida-Friendly Demonstration Garden

This small demonstration garden located near Westside Park provides examples of native vegetation and sustainable home landscaping approaches

Gator Pond TEA Garden

The University of Florida's program in Landscape Architecture trains students to advocate for the environment through education and training in the practice of landscape architecture. Alumni of the program work throughout the state of Florida and around the world and the training they receive here on the Gainesville campus has far-reaching impacts on conservation mindsets, and on the health of natural and built environments

The tiny environmental garden area (or TEA garden) that we are proposing provides for important demonstration opportunities at our school. This TEA Garden would provide additional detailed information about the region's Karst geology, UF's sinkholes, regional aquifers, local watersheds, best stormwater management practices, aquatic environments and small patch wildlife habitats on UF's campus.

Gator Pond TEA Garden

Sustainable Design and Building Practices

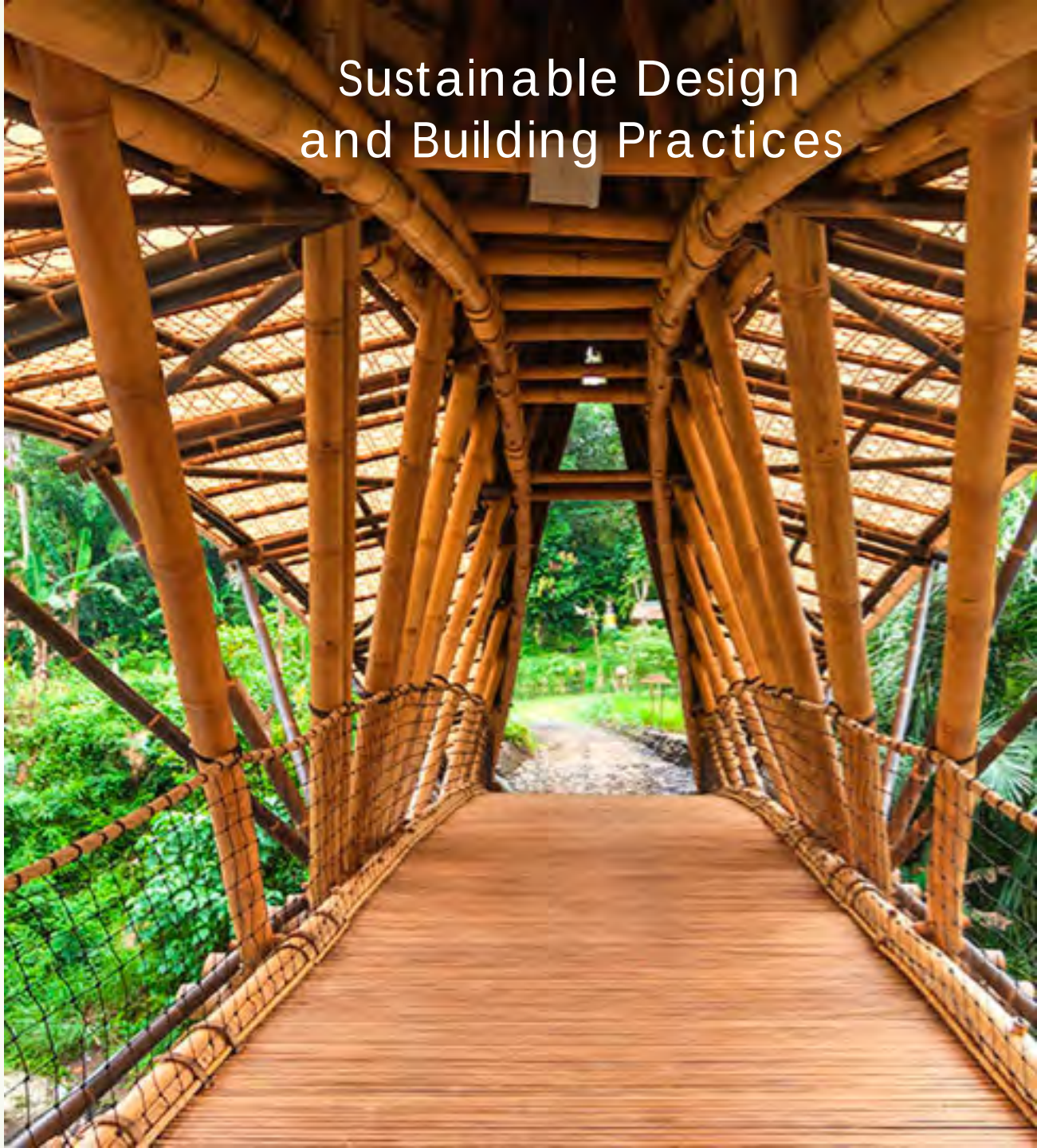
Sustainable design is concerned with approaches and methods of sustainable building and with creating environments that are enduring, joyful and that contribute to the health and well being of their users.

Sustainable building prioritizes environmentally responsible practices and uses renewable resources in the production of structures and built environments.

We interpret these principles as prioritizing the use of sustainably produced and harvested timber, locally-sourced renewable or recycled materials, and using materials and building practices that are tailored towards low-maintenance requirements and product longevity.

Sustainable design must also lift the human spirit and be sensitive to its site and its context.

Gator Pond TEA Garden



Floating Wetlands

Both natural and manufactured floating islands offer similar benefits. They can provide small patch wildlife habitat, assist in reducing shoreline disturbance and erosion and can help improve water quality.

The environmental benefits of floating islands has been the subject of increasing scientific study and these studies show impressive results. The use of these manufactured ecologies is on the rise throughout the state of Florida and their design and specification in landscape projects is reducing and in some cases replacing the need for mechanical or chemical management of the aquatic environment.

Gator Pond TEA Garden

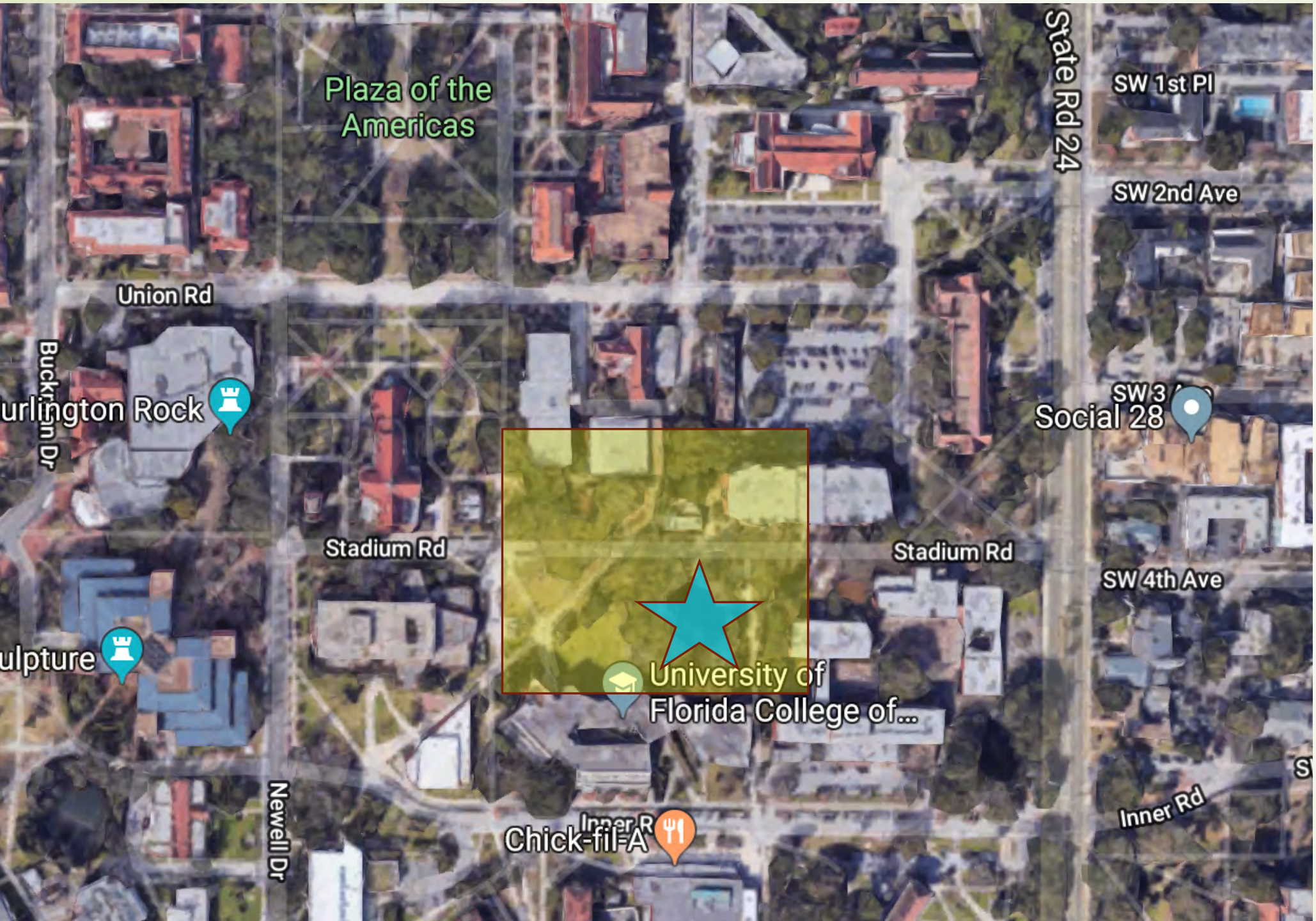
Mindfulness

Like meditation, the practice of mindfulness and mindful activities reduces stress, increases self awareness and enhances emotional intelligence.

Landscape and nature contact are important elements for many who practice mindfulness.

Outdoor mindfulness exercises include the activity of walking a labyrinth but others might involve repetitive tasks and stewardship chores such as raking.

Gator Pond TEA Garden



Gator Pond TEA Garden

This proposal seeks to install two small demonstration elements adjacent to the Gator Pond.

The Gator Pond is located:

South of Stadium Drive

East of SW 13th Street

West of Newell Drive

and

North of Inner Drive

Gator Pond
TEA Garden

And:

South of Little Hall Express

North of the Architecture Building

East of the Music Building

and

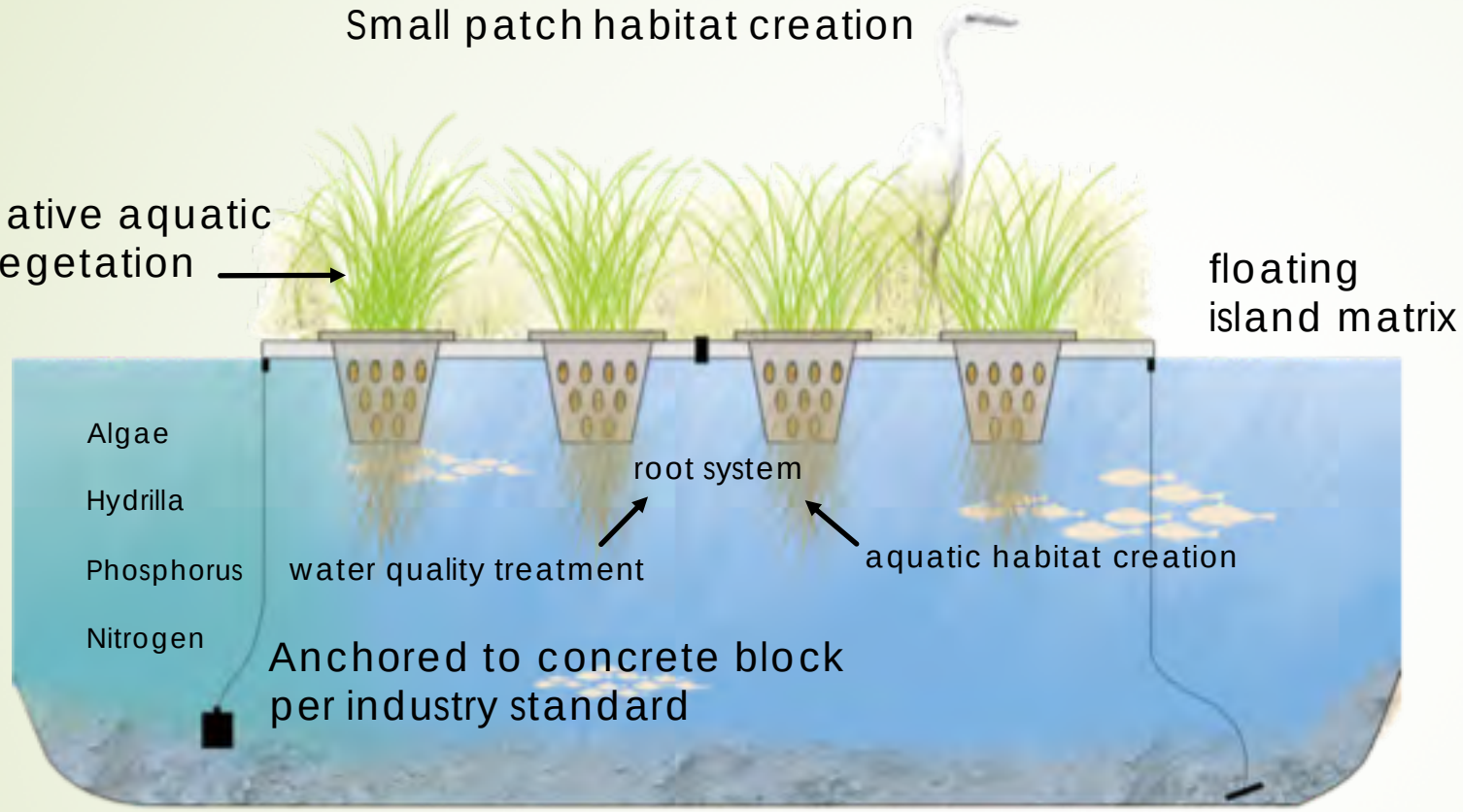
West of the Fine Arts Plaza

Our plan proposes the installation of two elements: a floating wetland designed, manufactured and installed by BEEmats Floating Wetlands of New Smyrna Beach, Florida.

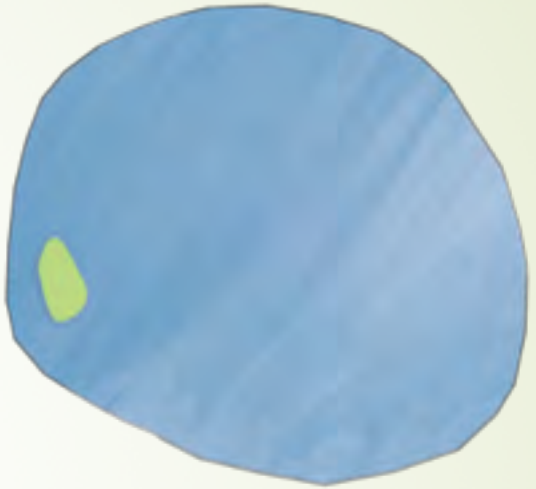
It also includes an artfully-designed and bespoke storage structure scaled to house two rakes and green waste disposal bags.

Artist’s rendering: View to the Floating Island from the Northeast B

Artist’s rendering: View to the Floating Island from the North and East Banks



Floating Wetland Section



Plan

Floating wetland ≈ 150 ft²

Gator Pond Surface ≈ 10232 ft²

Plants used on the floating wetland will be field tested native aquatic species selected by experts at BEEmats. A list of possible plants for this application can be seen on the following slide.

Marginal Plants: flowers

Fen-flower Milkweed. Asciepias lanceolate. Larval food plant for monarch and queen butterflies.

Leavenworth's Tickseed *Coreopsis l eavenworthii.* Attracts butterflies, bees and wasps.

Redroot, *Lachnanthes caroliana.* E mergent to marginal. White flowers attract butterflies.

Goldenrod, *Solidago stricta.* Seeds eaten by song birds and small mammals; plants. Flowers attract butterflies.

Lobelia, *L.Cardinalis.* Red flowers attract hummingbirds, birds, butterflies.

Marginal plants: grasses

Muhly Hair Grass, Muhlenbergia capillaris. Seeds eaten by birds and wildlife.

Emergents

Yellow Canna, *Canna flaccida*. Attracts butterflies and dragonflies. Protects fish and aquatic life.

String Lily, *Crinum americanum.* Frag rant. Ducks and mammals feed on seeds

Soft Rush, *Juncus effuses.* Emergent or marginal. Ducks and mammals eat seeds.

Golden Club, *Orontium aquaticum*.

Duck Potatoes, *S. lancifolia*. Water birds and mammals feed on seeds and tubers; flowers attract butterflies.

Short Stemmed Marginal Plants

Hatpins, *E. compressum*

Rake Shack

Sustainably harvested, locally sourced, naturally insect and rot resistant timber

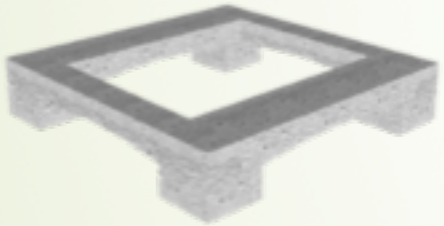
Hurricane strapping

1000# Anchors

Minimal footprint, low-impact design

Gator Pond TEA Garden

Roof
Salvaged metal roofing,
timber framed



Foundation
Precast Concrete

Framing
Southern Yellow Pine, Cypress

Cladding
Cypress and metal. QR Code
Plaques Ceramic or other

Interpretation and information about the TEA Garden will be provided through QR code links to a UF faculty managed and UF approved website.

These codes will be integrated with the design of the rake shack to minimize visual intrusion.

Raking activities and use pattern data will be collected through participant self-reporting using surveys available on the website.

Users may also record observations of wildlife or reflections on their TEA Garden experiences

Project Site Stewardship

Non-native and invasive species removal.

Working closely with UF facilities this semester, our group will assist in removing invasive and non-native plant species within the designated landscape area and will contribute to restoration planting of natives selected on the basis of:

- erosion control
- habitat provision
- natural area aesthetics contribution

Soil protection

Establishing vegetative cover in the long term and mulch protection in the short term. Mulch will be un-died, shredded bark and decomposed green waste

Previous Studies Summary

- UF Landscape Master Plan Report, October 2018
- UF EPA Stormwater Challenge Entries

Resources

(n.d.). Retrieved from https://sites.duke.edu/eelandscape/round-i/tbilisi-goals-and-objectives/

AlachuaCounty.us. (n.d.). Retrieved from http://www.alachuacounty.us/Pages/AlachuaCounty.aspx

Gainesville, C. O. (n.d.). Paynes Prairie Sheetflow Project. Retrieved from http://www.cityofgainesville.org/GOVERNMENT/CityDepartmentsNZ/PublicWorks/PaynesPrairieSheetflowproject/tabid/648/Default.aspx

Navigation. (n.d.). Retrieved from https://www.cemexusa.com/environmental-education-centers

Nsu. (n.d.). Marine Environmental Education Center at the Carpenter House. Retrieved from https://cnso.nova.edu/carpenter-house-meec/index.html

PLT Environmental Education Centers. (n.d.). Retrieved from http://sfrc.ufl.edu/plt/programs/plt_ee_centers.shtml

Sweetwater Wetlands Park - City of Gainesville, Florida. (n.d.). Retrieved from http://www.sweetwaterwetlands.org/

UF's Natural Area Teaching Laboratory (NATL). (n.d.). Retrieved from http://natl.ifas.ufl.edu/index.php

UF LA Graduate Studio (2017). *Revealing Invisible Process at University of Florida*. University of Florida.

Cypressguy. (2015, March 27). Sustainable Cypress. http://cypresssiding.com/sustainable-cypress/

https://i.pinimg.com/736x/94/03/58/9403583bc7fc5c692114cf649389c265--power-tool-storage-garden-tool-storage.jpg

DIY vs PAID – 16 Garden Tool Organizer Solutions (for Inside or Outside of Your Shed). (n.d.). https://zacsgarden.com/how-to-build-a-shed/shed-accessories/cheap-garden-tool-organizer-solutions-shed/

https://archive.epa.gov/greenbuilding/web/html/about.html

What Makes a Building Green ? (2014, March 03). https://freshome.com/2013/08/06/what-makes-a-building-green/

Description, retrieved from: http://static.nsta.org/connections/middleschool/201507Bhattacharya.pdf

Section, retrieved from: https://tcwp.tamu.edu/floating-wetland-islands/

Thank you!

UNIVERSITY OF FLORIDA

ALPHA GAMMA RHO FRATERNITY

LAKES, VEGETATION, AND LANDSCAPE

COMMITTEE REVIEW

FEBRUARY 14, 2019

ALPHA GAMMA RHO FRATERNITY

Location:
2291 Museum Road

Project:
New Construction - Fraternity House

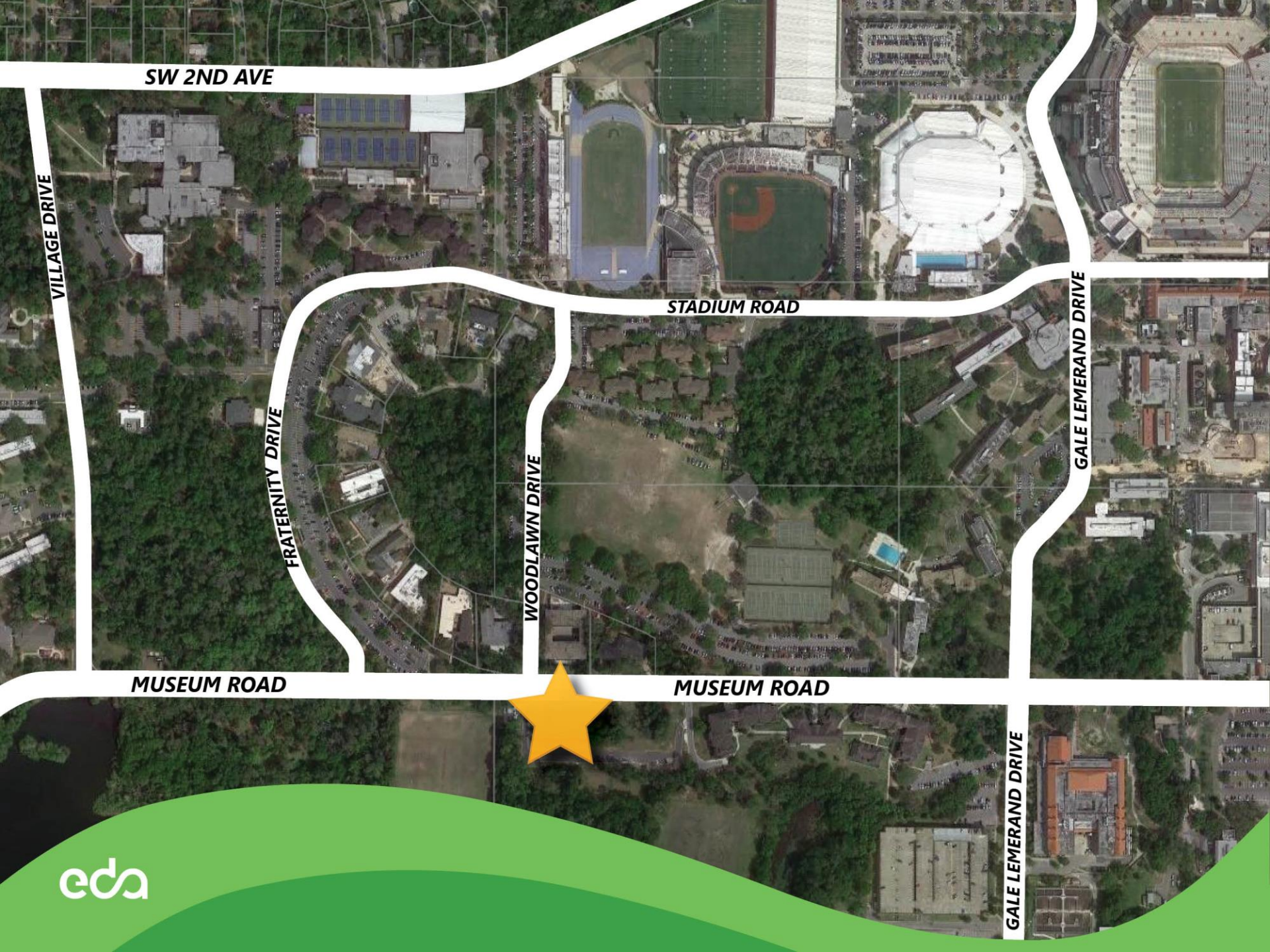
- 3 Stories
- 25,000 Square Feet
- 50 Bed

Budget:
$7 million

Construction Schedule:
Summer 19' – Summer 20'

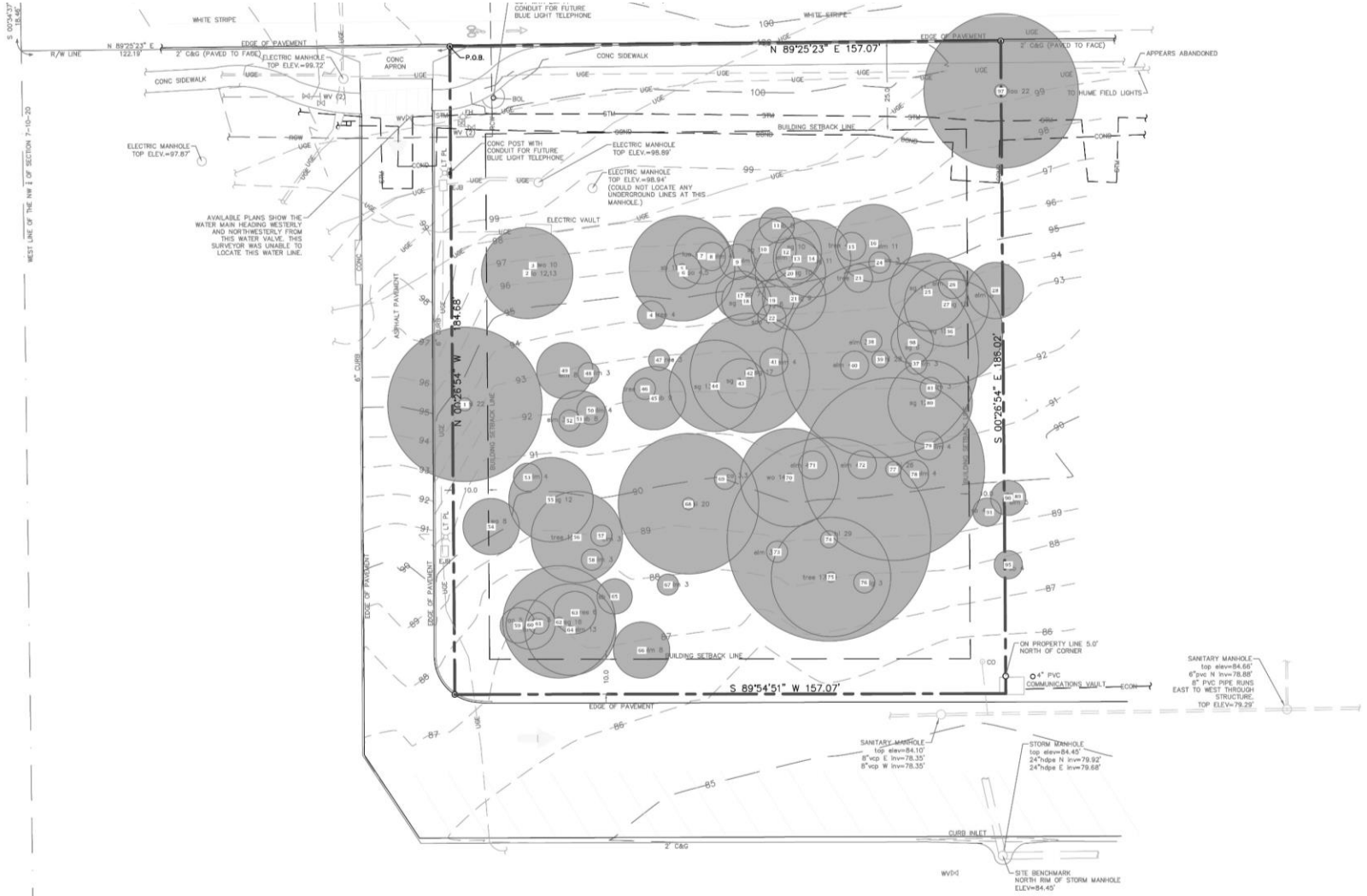

ΑΓΡ

eda engineers • surveyors • planners

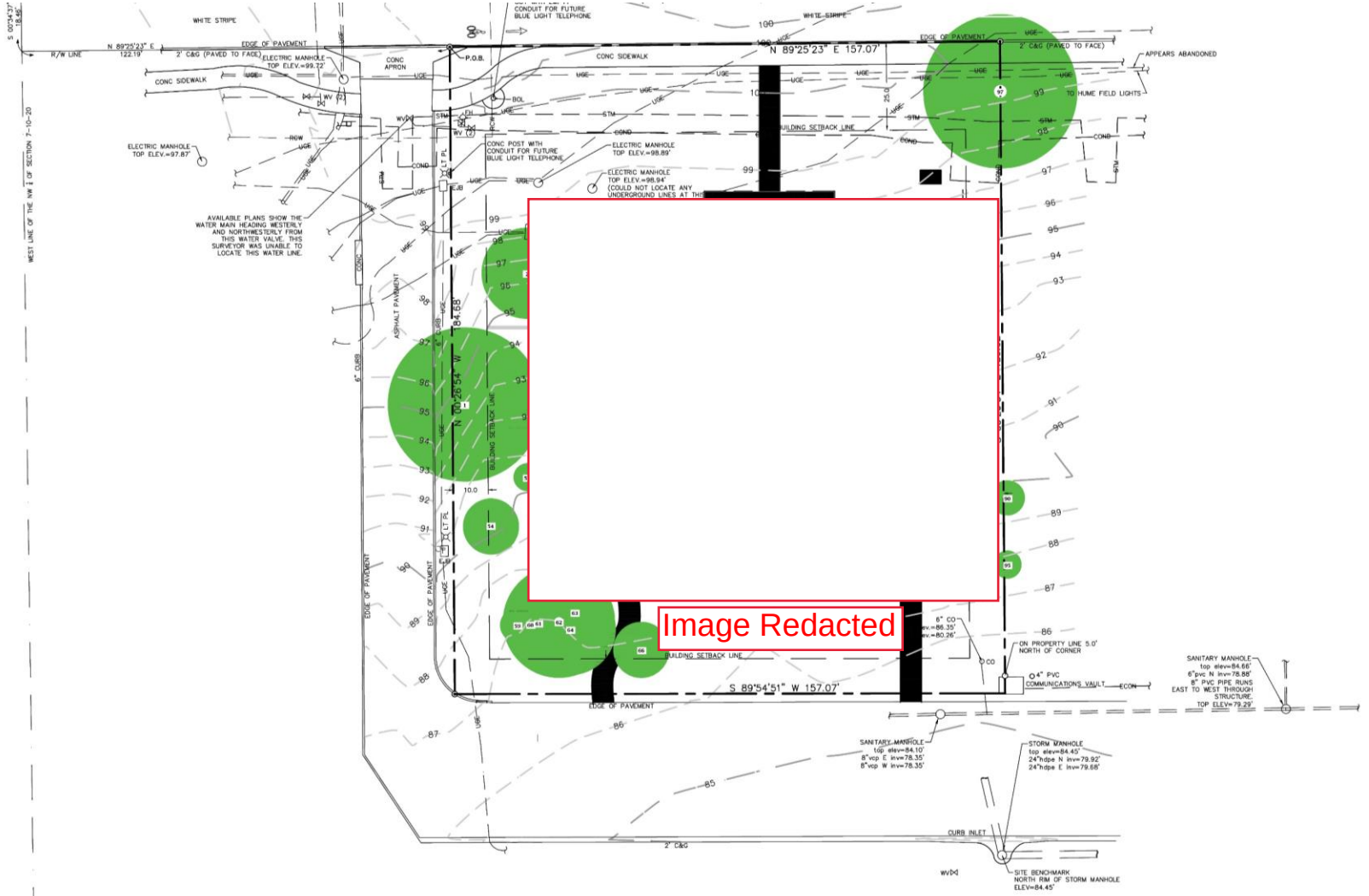

SW 2ND AVE
VILLAGE DRIVE
FRATERNITY DRIVE
WOODLAWN DRIVE
STADIUM ROAD
GALE LEMERAND DRIVE
MUSEUM ROAD
MUSEUM ROAD
GALE LEMERAND DRIVE


LAMBDA CHI ALPHA FRATERNITY
WOODLAWN DRIVE
SIGMA ALPHA EPSILON FRATERNITY
CHI PHI FRATERNITY
MUSEUM ROAD
MUSEUM ROAD
PROPOSED
ALPHA GAMMA RHO
LAKE ALICE FIELD
HUME HALL

EXISTING TREES



EXISTING TREES TO REMAIN



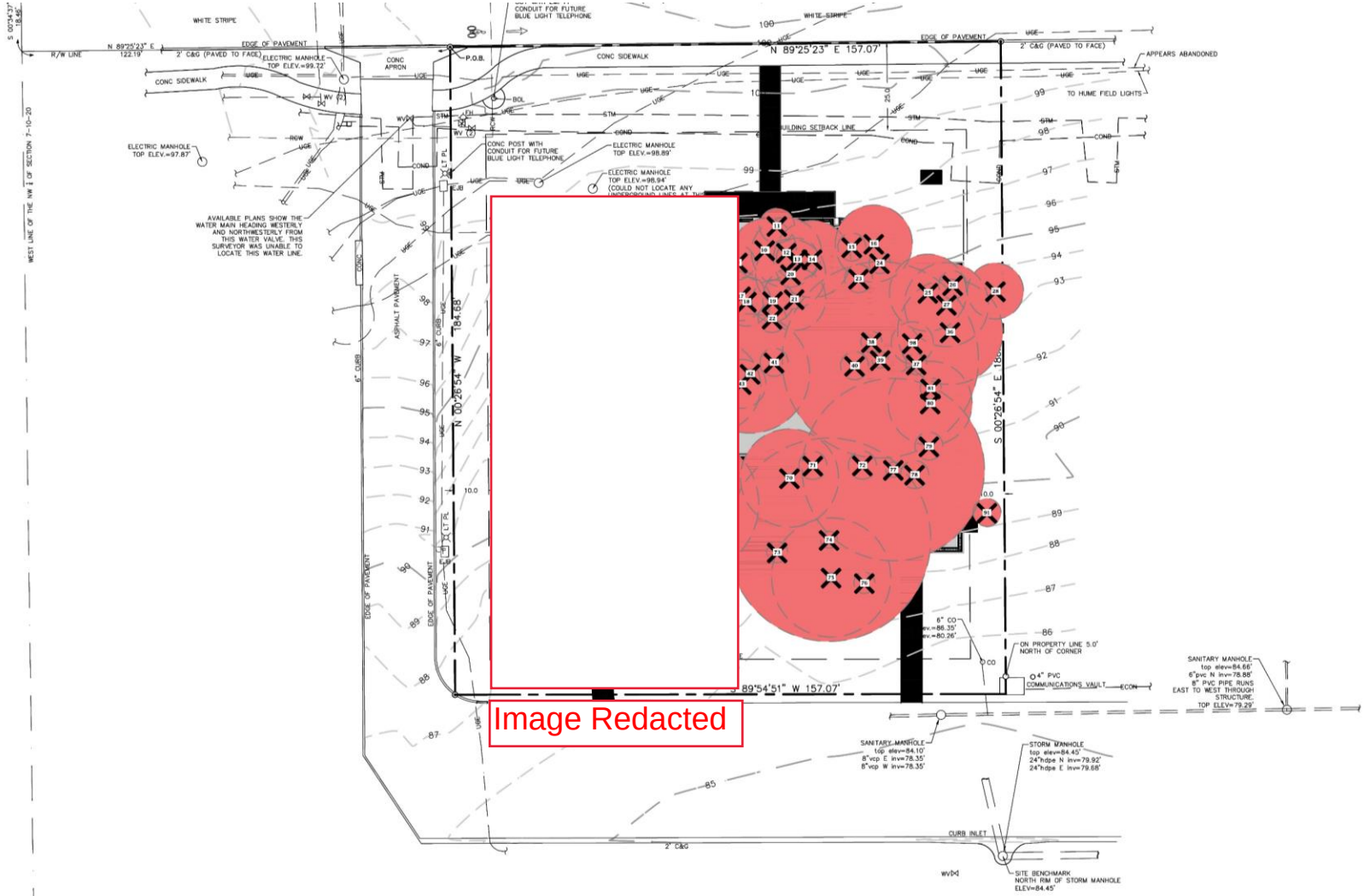
EXISTING TREES TO REMAIN

Existing Trees To Remain

Tree #	Type	Common Name	Scientific Name	DBH (in)
1	hi	Hickory	Carya sp.	22
2	lo	Live Oak	Quercus virginiana	12,13
53	elm	Elm	Ulmus sp.	4
54	Wo	Water Oak	Quercus nigra	8
59	lao	Laurel Oak	Quercus hemisphaerica	5
60	hi	Hickory	Carya sp.	7
61	elm	Elm	Ulmus sp.	3
62	sg	Sweet Gum	Liquidambar styraciflua	16
63	tree	Unidentified Tree	Unidentified Tree	6
64	elm	Elm	Ulmus sp.	13
66	elm	Elm	Ulmus sp.	8
90	elm	Elm	Ulmus sp.	5
95	sb	Sugarberry	Celtis Laevigata	4
97	lao	Laurel Oak	Quercus hemisphaerica	22

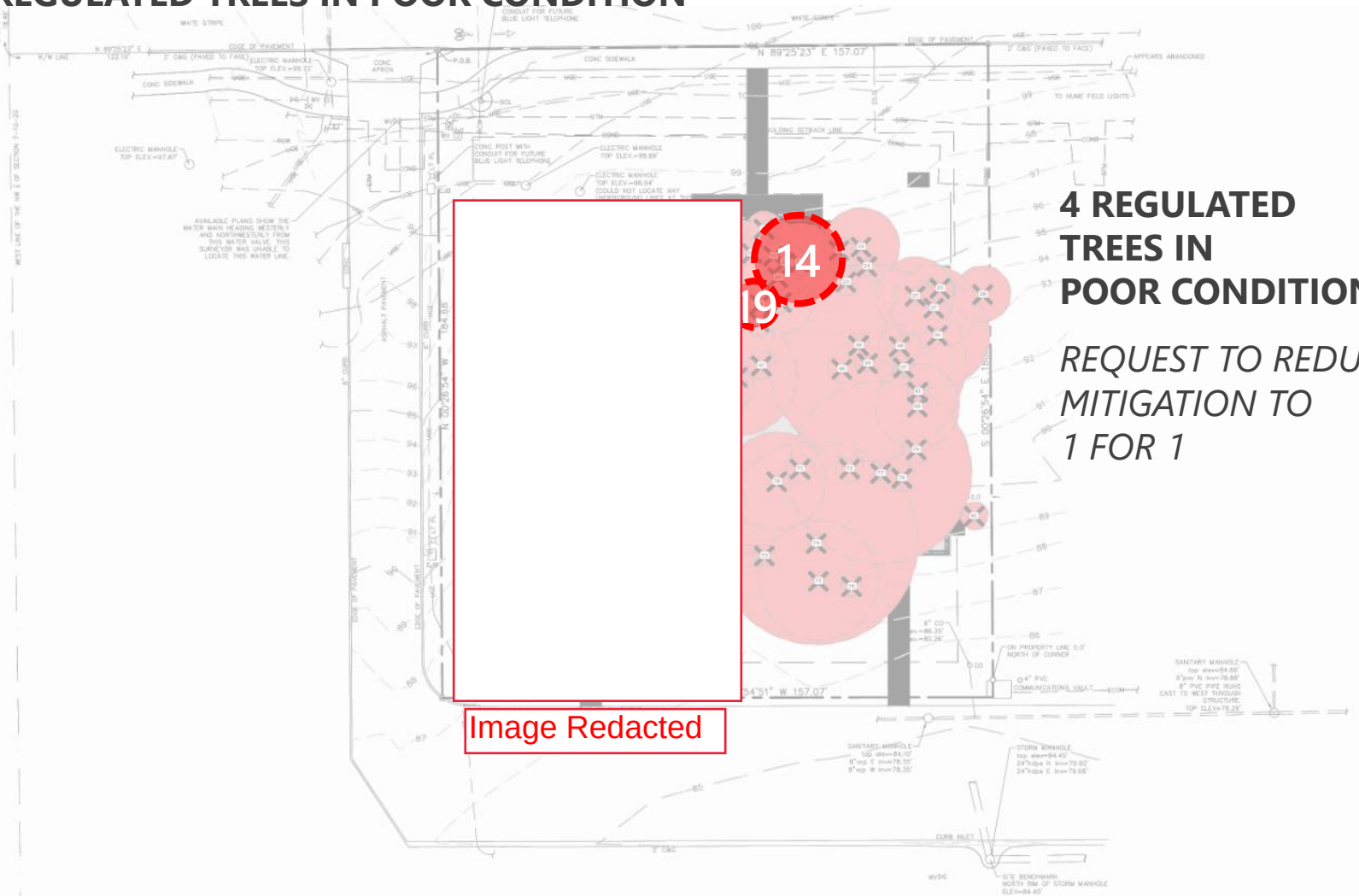
Trees between 3'' DBH and 20'' DBH located at 2291 Museum Road, Proposed site for Alpha Gamma Rho Fraternity House.

EXISTING TREES TO BE REMOVED



EXISTING TREES TO BE REMOVED

4 REGULATED TREES IN POOR CONDITION

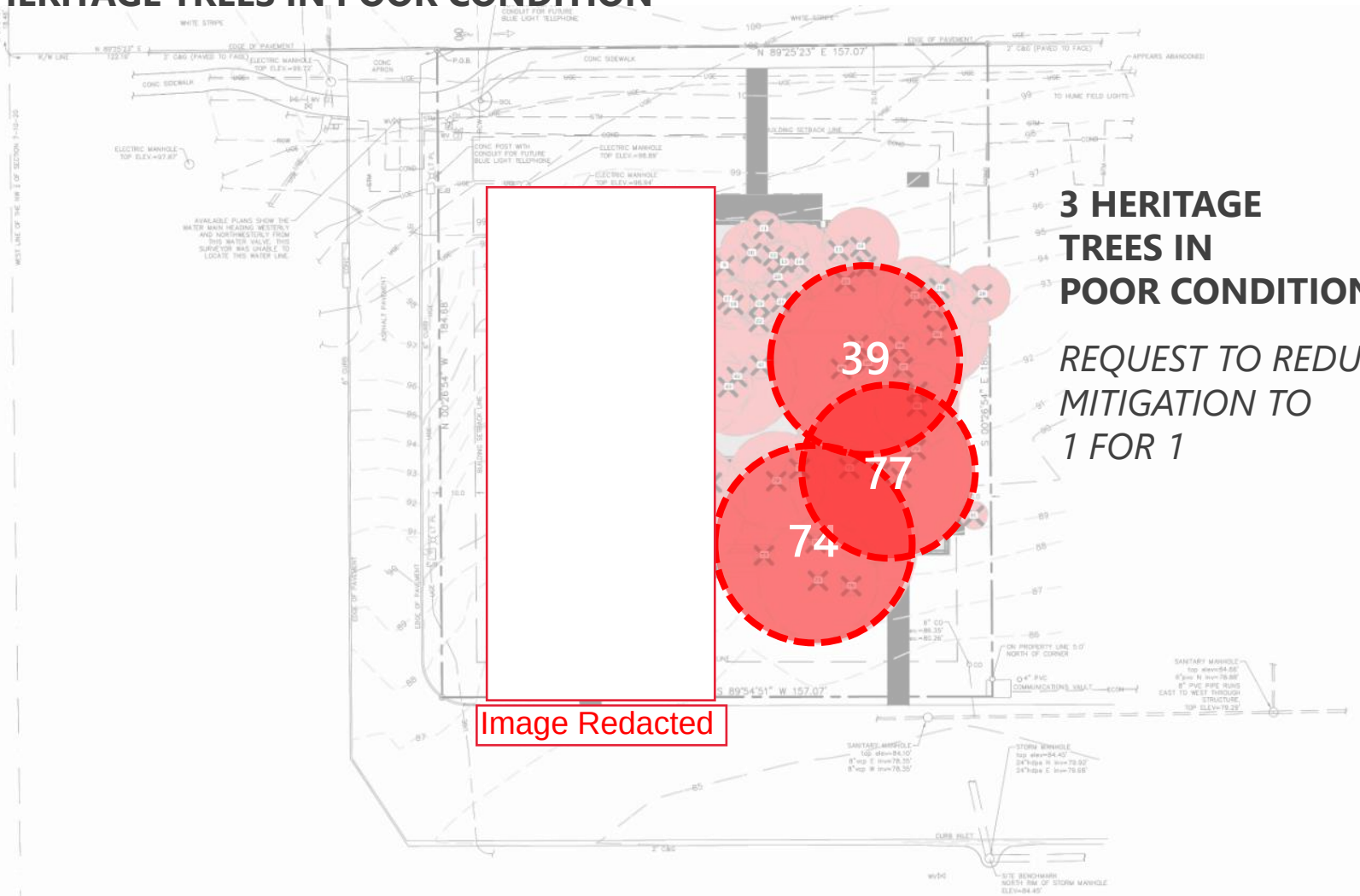


4 REGULATED TREES IN POOR CONDITION

REQUEST TO REDUCE MITIGATION TO 1 FOR 1

EXISTING TREES TO BE REMOVED

3 HERITAGE TREES IN POOR CONDITION

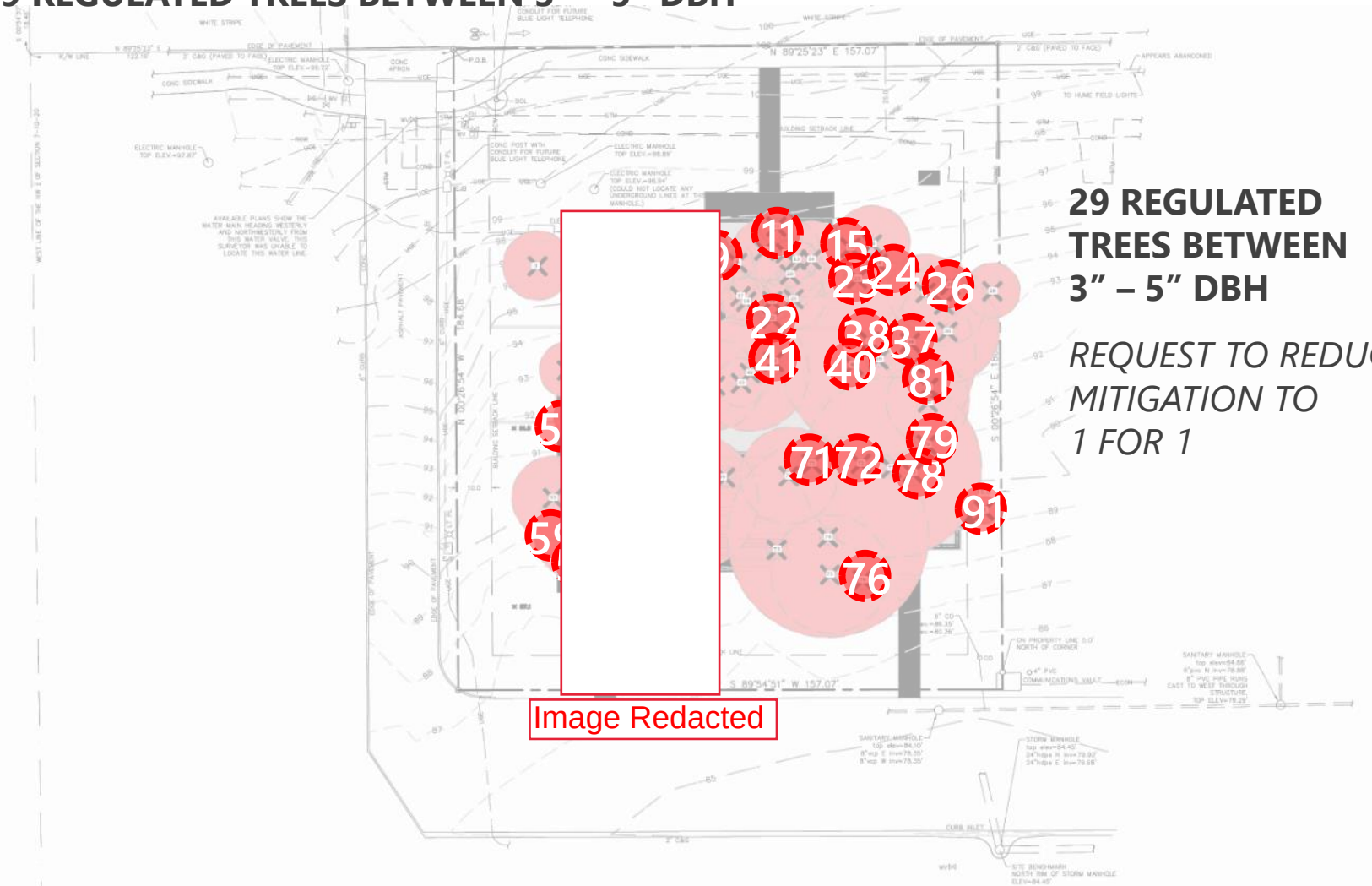


3 HERITAGE TREES IN POOR CONDITION

REQUEST TO REDUCE MITIGATION TO 1 FOR 1

EXISTING TREES TO BE REMOVED

29 REGULATED TREES BETWEEN 3” – 5” DBH



29 REGULATED TREES BETWEEN 3” – 5” DBH

REQUEST TO REDUCE MITIGATION TO 1 FOR 1

TREE MITIGATION ESTIMATE

<u>Existing Trees To Be Removed</u>	
Trees between 5″ DBH and 20″ DBH	
Total Mitigation	33 trees
Total Estimated Cost to Mitigate	$15,250
Trees between 3″ DBH and 5″ DBH	
Total Mitigation	29 trees
Total Estimated Cost to Mitigate	$7,500
Heritage Trees 20″ DBH or greater	
Total Mitigation	4 trees
Total Estimated Cost to Mitigate	$1,500
Total Estimated Mitigation	**66 trees**
Total Estimated Cost to Mitigate	**$24,250**