

Montrose Boulevard Improvements Project – Segment 1

The goal of the Montrose TIRZ is, and always has been, to have a community-driven process for the projects for which it is responsible. Maintaining a commitment to this goal often requires a balanced design approach – an approach that accommodates the project's design goals and constraints and is informed by community feedback.

The purpose of the Montrose Boulevard Improvements Project is to improve the overall mobility and safety for all users, improve drainage, and promote a pedestrian-friendly environment along Montrose Boulevard from US-59 to Allen Parkway.

The process to develop the Montrose Boulevard Improvements Project began with a drainage study in 2019 to determine how to improve flooding and drainage within Montrose. Increasing drainage capacity from the existing 48-inch and 54-inch circular pipes to a 10-foot by 10-foot box culvert was the key driver in prioritizing the project, as it can significantly reduce flash flooding during rain events. Next, a livable centers study was conducted to determine community priorities for infrastructure in the area. This study revealed that the Montrose community desired an improved pedestrian realm to make it easier and safer to walk and bike in Montrose, that prioritized street trees and shade cover, and preserved legacy oaks, particularly along the southern end of the corridor. Next, the design process began and an initial plan was presented to the public in December 2022. A community workshop was then held in January 2023 and feedback received was incorporated as the design progressed.

Additionally, the project team has always been ready and willing to meet with any civic clubs, parent-teacher organizations, interest groups and others who have wanted to share their concerns and input regarding the project, including the Hyde Park Civic Association, WAMM, First Montrose Commons, Neartown Superneighborhood, parents from Wharton Elementary School and others. As we have on other projects, the project team will continue to do so for the Montrose Boulevard Improvements Project, and any other project the Montrose TIRZ undertakes.

As a result of the community meetings, the project team has carefully considered and incorporated several improvements to the project design as a result. The feedback received to date has addressed several topics of concern, including pedestrian safety, tree preservation / maintaining a shaded pedestrian realm, and bicycle facilities. As a result, the Montrose TIRZ and the project team have incorporated the following elements into the project design while striving to achieve a balanced design approach:

- A 10-foot-wide shared use path
- Improved pedestrian safety for signalized and closed median intersections
- Opportunities to incorporate public art
- Preservation of many healthy trees and additional tree plantings along the project corridor.

The Montrose community has also conveyed throughout this process that the preservation and planting of street trees should be a priority. To that end, the existing legacy oaks in the median will all be preserved and have a tree protection plan in place for each individual tree. To improve the pedestrian experience, the design team, including the engineer, landscape architect, and urban forester, sought to design a project that significantly expanded the pedestrian realm and provided space for street trees to thrive by expanding the planting area and relocating utilities to prevent them from interfering with the tree canopy. To accomplish that goal, many trees along the east and west side of Montrose Boulevard will have to be replaced as they are currently unhealthy, in conflict with power lines, and planted in small areas not conducive to growth. For every tree removed, two will be planted in a manner that provides for them to thrive for decades to create the legacy trees of the future. The design team has provided a detailed memorandum addressing the plans for all trees throughout the project area and can be accessed online under the Montrose Blvd tab at www.montrosehtx.org/projects/.



The goal of the Montrose TIRZ is, and always has been, to have a community-driven process for the projects for which it is responsible and welcomes feedback on all aspects of the project, including trees. "We learned from our previous studies and the public's input that a connected, inclusive, and thriving neighborhood was of utmost importance," said Montrose TIRZ Chair, Joe Webb. "Achieving those goals requires thoughtful design in whatever we do. As we enhance the perceived walkability of Montrose, we work to maximize and balance our community assets, be they trees, bikeways, sidewalks, parks, public spaces, or streets, and doing so with safety in mind. Montrose Boulevard is a prime example of that effort to create that harmonious balance and maintain the ambiance. We look forward to continuing to work with and for the community."

As we have done throughout the process, comments from the community will be addressed in detail and accommodated wherever possible. Responses to feedback received will be posted online under the Montrose Blvd tab (www.montrosehtx.org/projects/) prior to the Montrose TIRZ's next regular Board meeting on October 16th, and, where possible, such feedback will be incorporated into the project design. Additionally, a presentation will be provided by the project team during the Board meeting.

The Montrose TIRZ will hold additional public meetings to share updates about the project and encourage the public to continue providing feedback throughout the project design process at info@montrosehtx.org.

Additional information about the project can be found at www.montrosehtx.org/projects/, and information about upcoming Board meetings, including date, time, location, and online access information, can be found at www.montrosehtx.org/meetings/.



Project: Montrose Boulevard Improvements – Segment 1

Project Limits: Allen Parkway to W Clay Street

Subject: Project Update - Existing and Proposed Trees

Date: September 2023

Executive Summary

This Project Update Memo addresses public comments that were expressed since the September 18, 2023 Montrose Boulevard Improvements Project public open house regarding the replacement of certain trees as part of Segment 1 from Allen Parkway to W Clay Street, a distance of approximately 1,600 feet / 0.3 miles. The information provided in this memo only relates to Segment 1 of the Montrose Boulevard Improvements Project (the "Project").

The Project is a significant infrastructure project that undertakes necessary improvements to drainage, safety and traffic for vehicles, bicyclists, and pedestrians, and the beautification of one of the neighborhood's most vibrant corridors. The improvement plans for Montrose Boulevard Segment 1 have been under development for more than 24 months, during which the TIRZ has held four public meetings, elicited feedback, and responded to significant numbers of constituent questions and concerns. Preservation of trees and the addition of new trees have always been a key goal of the Project and every opportunity is being taken to protect the mature trees that help define the special character of Montrose.

In the most recent design plan for Segment 1, fifty-seven existing trees will be removed that are unhealthy, growth-constrained, planted directly underneath overhead utilities, or otherwise are inappropriate species for the urban conditions, and they will be replaced with **137 new trees** that are more resilient and better suited for deleterious roadway conditions. Replacement trees will be at least sixty-five-gallon, 3.5-inch caliper trees which are expected to enhance survivability and long-term tree growth.

NO HEALTHY, MATURE LIVE OAK TREES WILL BE REMOVED OR REPLACED. Segment 1 contains fourteen ordinance-protected mature Live Oak trees with a 14-inch to 22-inch caliper. All fourteen of these trees will be preserved and have an individualized tree protection plan designed by an urban forester.

The fifty-seven remaining trees impacted by the project and the reasons for their inclusion are covered in detail in the remainder of the memo. The removal of every tree is subject to analysis and approval by the City.

This document will be made available online under the Montrose Blvd tab at www.montrosehtx.org/projects/ and will be presented at the October 16th Montrose Board meeting.



Ordinance Protected Trees to Replaced: 53 total

The following trees will be removed and replaced with greater detail on the specific trees being removed in later sections within this document:

- Nine Eastern Redbud trees from 2-inch to 5-inch caliper.
- Twenty-two Live Oak and Cedar Elm trees from 3inch to 9-inch caliper.
- Fourteen Live Oak and Cedar Elm trees from 10inch to 14-inch caliper.
- Three Live Oak trees from 15-inch to 18-inch caliper.
- Three Post Oak trees from 25-inch to 27-inch caliper.
- Two Crepe Myrtles that are 24-inch and 28-inch caliper.

Ordinance Not Protected Tree: 4 total.

Trees need to be removed due to inappropriate species for streets, short lifespan, growth in a very constrained

situation that has impacted the root system and proper tree development, and lack of shade for the sidewalk when compared to Live Oaks. The following trees will be removed and will not be replanted:

- One 17-inch caliper Huisache tree.
- One 10-inch caliper Bradford Pear tree.
- Two 17-inch to 18-inch caliper Crepe Myrtles.

Trees to be planted: 137 total.

- Between W Dallas Street and W Clay Street: All suitable and available planting space will receive new Live Oak trees. Fourty-four 65-gallon, 3.5-inch caliper Live Oak trees will replace 40 trees from W Dallas Street to W Clay Street. Live Oaks will reinforce and build on the beautiful streetscape canopy that already exists along Montrose Boulevard.
- <u>Between W Dallas Street and Allen Parkway</u>: All suitable and available planting space will be planted with the new Bald Cypress. Ninety-three 65-gallon, 3.5-inch caliper Bald Cypress trees will replace 17 trees from Allen Parkway to W Dallas Street. The Bald Cypress will extend the character of the Buffalo Bayou Park with its abundance of beautiful, hearty Bald Cypress trees.
- Sixty-five-gallon, 3.5-inch caliper trees will be planted because they are more resilient in constrained and deleterious urban roadway conditions (trees will not be irrigated); proceeding this way enhances survivability and long-term tree growth.

Project Overview: A Balance of Goals and Benefits

The Project presents a once-in-a-lifetime opportunity to privilege the Montrose neighborhood with the features and benefits sought by the community and create a beautiful, safe boulevard that will last for the next 80 years.

Based on community feedback, the Montrose TIRZ developed a design for Montrose Boulevard in conjunction with professional engineers, urban foresters, and landscape architects that significantly improves drainage underground and accommodates a balance of transportation for cars, buses, pedestrians, and bicyclists above ground.

<u>Transportation</u>: Montrose Boulevard is a vital transportation corridor through the neighborhood, providing a two-mile continuous connection from US 59 to Allen Parkway. Segment 1 of the Project runs from Allen Parkway to just south of W Clay Street, 0.3 miles in length. Feedback gained from numerous planning efforts and community meetings conducted in recent years envisioned Montrose Boulevard as

What Does Tree Caliper Mean? Tree caliper is the diameter of a tree's trunk, usually measured at about chest height. The tree caliper measurement is one way of describing the size of a tree. 3-Inch Caliper Tree 6-Inch Caliper Tree Trunk diameter Trunk diameter about the size about the size of an of a soup can ice cream carton Approx. 12-14 feet tall* Approx. 18-20 feet tall* *Tree height varies based on species, growing conditions, and other factors.



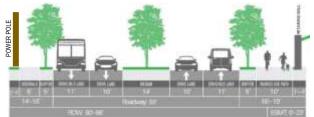
a signature, multimodal urban corridor, linking regional parks, trails, and destinations including the Museum District / Hermann Park / Texas Medical Center and Buffalo Bayou Park. Accordingly, the Project will maintain two lanes in each direction for vehicular traffic.

Drainage: The Project will significantly improve drainage by installing 10-foot by 10-foot box culverts to replace 48-inch and 54-inch circular pipes, which add 5 acre-feet of detention. This is the first part of a drainage master plan since Montrose Boulevard is a vital drainage corridor and is the primary outfall to Buffalo Bayou, into which future projects may connect for further drainage improvements.

Community: The Project envisions building a minimum of 6- to 10-foot-wide sidewalk on the west side, and a 10-foot-wide shared-use path (pedestrian/bicyclist facility) along the east side of the corridor. These pathways improve pedestrian and bicyclist safety and link the community directly to Buffalo Bayou Park and its extensive, connecting trail system. The intention is to build a robust, healthy, and continuous tree canopy alongside these improvements that provides shade along this pedestrian corridor for generations to come.

Trees: Preservation of trees and the addition of new trees has always been a key goal. A beautiful canopy of the Live Oak and Bald Cypress trees can only be achieved by planting the trees in a position that will allow them to grow and thrive over their lifespan. This tree canopy will provide shade for the sidewalks and reduce the heat island effect.

The Project optimizes the tree canopy for the long term. Of the existing trees in the public right-of-way, approximately 57 are in locations where trees are either seriously compromised by overhead utility lines or are in unhealthy, constrained planting areas. This applies primarily to the one block of public right-ofway between West Dallas and West Clay. In these circumstances, the streetscape will be rebuilt by installing new 4- to 6-foot-wide planting spaces, which will enhance tree growth and allows for the development of a continuous tree canopy with shaded sidewalks. This requires removing some of the existing trees and replacing them with new trees placed in more optimal locations for their long-term growth and health to last for generations. Even more new trees will be added in areas where trees are largely absent. Between West Clay and Allen Parkway, 93 new trees will be planted. All new trees will be at least 65-gallon, 3.5-inch caliper trees, which is a size that is most conducive to survival and growth. Wooden utility poles, currently located in the same line as the existing street trees of Montrose Boulevard, would be relocated between the outside edge of sidewalk and property line to reduce future impacts to the growth of the trees.





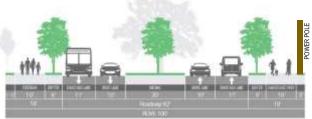


Figure 2: Typical Section – W Dallas Street to W Clay Street

Tree Protection, Replacement, and Planting

Protecting trees is a core value of the Project and is an integral part of this balance of goals. Montrose TIRZ has contracted a design team that includes a landscape architect and an urban forester that regularly work on roadway corridors with mature trees in West University Place. Below is a summary of the trees' conditions and proposals for the project corridor.



(A) W Dallas Street to W Clay Street

(1) Median

The medians between W Dallas and W Clay are where the mature Live Oak trees are located in Segment 1. All of these Live Oak trees will be preserved. Nine Eastern Redbud trees will be removed and replaced with new Live Oak trees.



Figure 3: Trees to be Protected in green and Replaced in red on Aerial.



Figure 4: Median Trees to be Protected.

Trees to be Preserved and Protected:

- Ten 10-inch to 19-inch caliper Live Oak trees
- Two 20-inch to 22-inch caliper Live Oak trees
- Three 4-inch Eastern Redbud trees
- All the mature Live Oak trees within the median will be protected and preserved.

Trees to be Planted:

• Eight 65-gallon, 3.5-inch caliper Live Oak trees

Ordinance Protected Trees to be Replaced:

- Nine 2-inch to 5-inch caliper Eastern Redbud trees
 - Eastern Redbud trees are not an appropriate street tree because City and national fire code clearance requires at least 13'-6" of space over the roadway. At the trees' species expected height of 20-ft to 30-ft, the trees would require significant trimming to be in compliance with the fire code.
 - These trees were planted in 2015 in a portion of the median that narrows. The replacement Live Oaks will better allow for reduction of the heat island effect.

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Figure 5: Eastern Redbud trees planted in 2015.
(Google Streetview Image)



Figure 6: Eastern Redbud trees to be Removed.

(2) East Side

The Project's planned shared use path will be located on the east side of Montrose Boulevard from W Dallas Street to just south of W Clay Street. As visible in the following photographs, the trees here are growing in a very constrained situation in the public right of way. Most are located directly underneath overhead utility lines, which results in the trees having been deleteriously pruned by CenterPoint whose concern is the power line, not preserving the tree canopy.



Figure 7: Trees to be Replaced on Aerial.



Figure 8: East Side Vulnerable Trees to be Replaced.



Fifteen 65-gallon, 3.5-inch caliper Live Oak trees.

Ordinance Protected Trees to be Replaced:

- One 8-inch caliper Live Oak tree
- Twelve 10-inch to 19-inch caliper Live Oak trees
 - The existing trees are growing in a very constrained situation and are directly underneath overhead utilities. To preserve the power grid, the tops of these trees are routinely trimmed by utility companies. These trees are not well-located to thrive in the current situation and conflict with the shared use path.
 - The design in this section of the street for the shared use path provides for 4-6 feet of planting space to allow the new trees the space needed for to enhance tree growth and allow for the development of continuous tree growth with shaded sidewalks.

Ordinance Not Protected Tree. No replacement is required.

- One 10-inch caliper Bradford Pear tree.
 - Bradford Pear trees are short-lived and not optimal as a street tree.

(3) West Side

The Project's planned 6-ft minimum width sidewalk will be located on the west side of Montrose Boulevard. The existing trees are growing in a constrained situation and are not optimally located for the pedestrian sidewalk. The proposed location for the replacement trees will give ample room to mature without as much risk for damaging the sidewalk.



Figure 9: Trees to be Replaced on Aerial.



Figure 10: West Side Trees to be Replaced.



Eighteen 65-gallon 3.5-inch caliper Live Oak trees

Ordinance Protected Trees to be Replaced:

- Nine 3-inch to 6-inch caliper Live Oak trees
- Four 10-inch to 12-inch caliper Live Oak trees
- Two 24-inch to 28-inch caliper Crepe Myrtle trees

Ordinance Not Protected Tree. No replacement is required.

- Two 17-inch to 18-inch caliper Crepe Myrtle trees
 - Crepe Myrtles are a flowering tree that provides little to no shade for pedestrians compared to the proposed replacement tree, Live Oaks. The subject Crepe Myrtles exist within a very constrained planting environment and will be heavily impacted by construction.

(B) Allen Parkway to W Dallas Street

(1) East Side

From Allen Parkway to W Dallas Street the roadway will shift east to make room for a western sidewalk and planting space for new trees. Today, this portion of the project is generally devoid of trees both along the sidewalk (east side only) and the median. The Magnolia Cemetery that is located along the west right-of-way makes it impractical to widen the right-of-way, which is only 80 feet wide (four lane boulevards typically have 100 feet of right-of-way). This shift places the roadway into conflict with small Cedar Elm trees.



Figure 11: Trees to be Replaced on Aerial.





Figure 12: East Side Trees to be Replaced.



- Thirty-seven 65-gallon, 3.5-inch caliper Bald Cypress trees.
 - 65-gallon trees are being recommended for the new trees; this is a tree size that is more adaptative in constrained and deleterious urban roadway conditions (trees will not be irrigated); these best practices enhance survivability and long-term tree growth.

Ordinance Protected Trees to be Replaced:

- Twelve 6-inch to 10-inch caliper Cedar Elm trees.
 - Trees have been adversely impacted by pruning for overhead utility protection and are in declining condition.
- One dead 6-inch caliper Cedar Elm tree.
 - The tree is dead and needs to be replaced.

(2) Median

There is a small existing concrete median that has no trees.

Trees to be Planted:

Sixteen 65-gallon, 3.5-inch caliper Bald Cypress trees.

(3)West Side

The right-of-way is too narrow, only 80 feet wide for a four-lane road with a median. The road shifting to the east displaces the power poles and overhead utilities. These power poles currently transition from east to west in the middle of the block. This transition will be shifted further south where there is room for the power lines to cross. The power poles will conflict with the three existing post oak trees, one of which already has significant trunk decay. The huisache tree needs to be removed to make room for the sidewalk.



Figure 13: Trees to be Replaced on Aerial.





Figure 14: West Side Trees to be Replaced.



Forty 65-gallon, 3.5-inch caliper Bald Cypress trees.

Ordinance Protected Trees to be Replaced:

- Two 25-inch to 26-inch caliper Post Oak trees.
 - Existing trees are growing in a very confining strip of planting area that is heavily slanted and adjacent to the cemetery wall. The project improvements, the sidewalk in particular, will likely irrevocably impact these trees.
- One 27-inch Post Oak
 - o The trunk is decaying and is structurally compromised, making it a falling hazard.

Ordinance Not Protected Tree. No replacement is required.

- One 17-inch caliper, very low branching Huisache tree
 - The Huisache has many beneficial qualities but is not optimal as a street tree in a pedestrian environment. It is also growing in a very confining strip of planting area that is heavily slanted and adjacent to the cemetery wall. The project improvements, the sidewalk in particular, will likely irrevocably impact these trees.

Landscape Plan

The proposed landscape plan for Montrose Boulevard – Segment 1 is summarized below:

- Between W Dallas Street and W Clay Street: All suitable and available planting space will receive new Live Oak trees. A total of 155 caliper inches or 44 new trees will be planted. Live Oaks will reinforce and build on the beautiful streetscape canopy that already exists along Montrose Boulevard.
- Between W Dallas Street and Allen Parkway: All suitable and available planting space will be planted with the new Bald Cypress. A total of 325 caliper inches or 93 new trees will be planted. The Bald Cypress will extend the character of the Buffalo Bayou Park with its abundance of beautiful, hearty Bald Cypress trees.

See Appendix for the Planting Plans.

APPENDIX PLANTING PLANS

DRAFT

MONTROSE
TAX INCREMENT REINVESTMENT ZONE 27



swa

SURVEYED BY: KUO & ASSOCIATES, INC.

CITY OF HOUSTON HOUSTON PUBLIC WORKS

MONTROSE BOULEVARD IMPROVEMENTS - SEGMENT 1 PLANT SCHEDULE

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WBS NUMBER	FOR C
N-T27000-0005-7	

-T27000-0005-7
DRAWING SCALE

as noted

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SYM.	Botanical Name	Common Name	Quantity		Size	Cal.	Height	Spread	Remarks
QV	Quercus virginiana	Live Oak	44	EA	65 Gal.	3 1/2"	10'	6'	Full, well branched
TM	Taxodium lanana	Bald Cypress	93	EA	65 Gal.	3 1/2"	12'	6'	Full, well branched

Vine

SYM.	Botanical Name	Common Name	Units	Size	Height	Spread	Spacing	Remarks
FP	Ficus pumila	Creeping Fig	EA	1 Gal	24"	48" O.C.	18" w/runners	Full, rooted to container

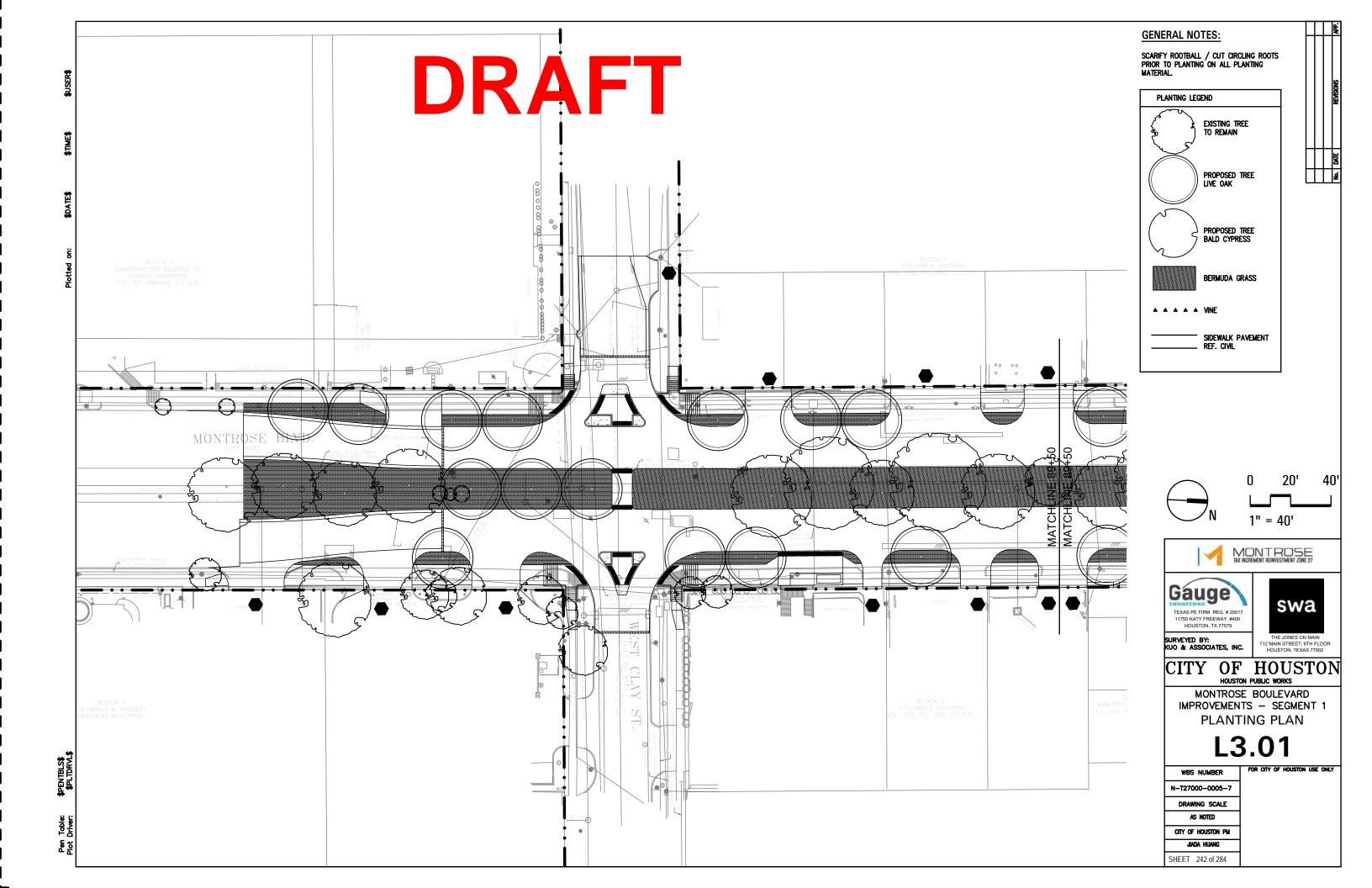
TURF GRASSES

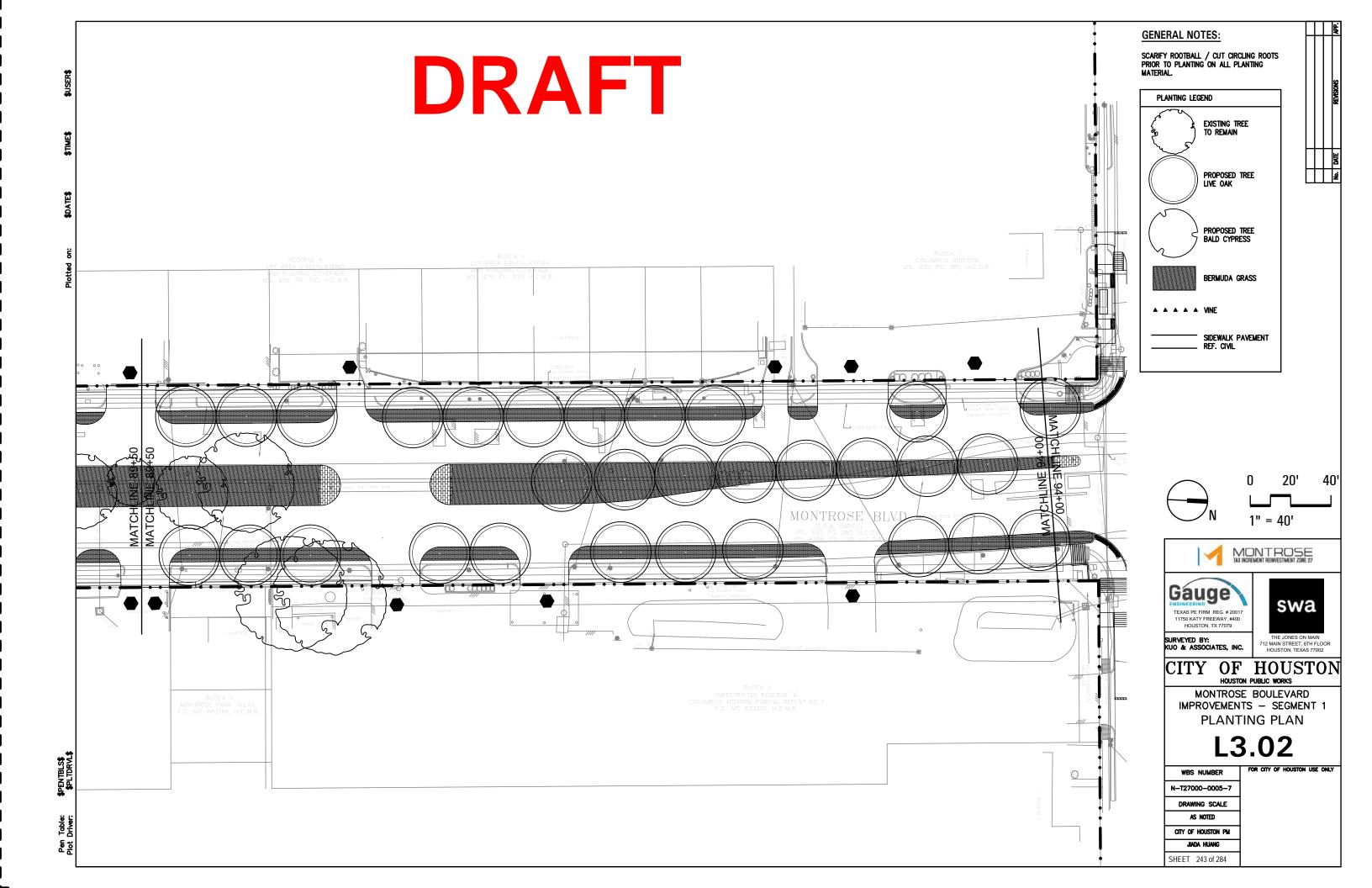
	SYM.	Botanical Name	Common Name	Units	Size	Height	Spread	Spacing	Remarks
		Cynodon dactylon	Bermuda Turf	-	-	-	-	-	Solid Sod
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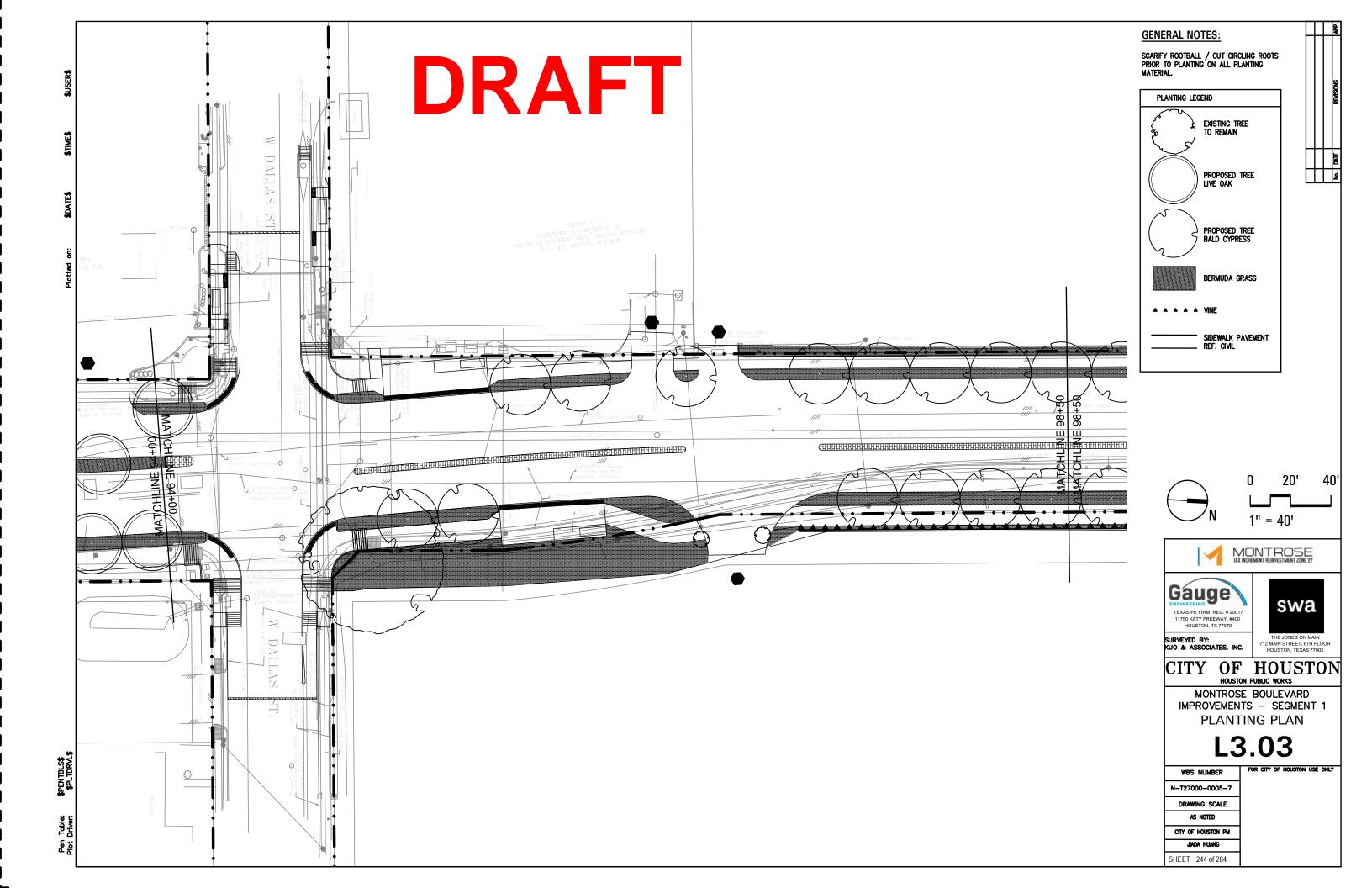
CONCTRACTOR TO REPAIR ALL DISTURBED AREA TO CONDITIONS EQUAL TO OR BETTER THAN THESE RECEIVED AT THE START OF CONSTRUCTION.

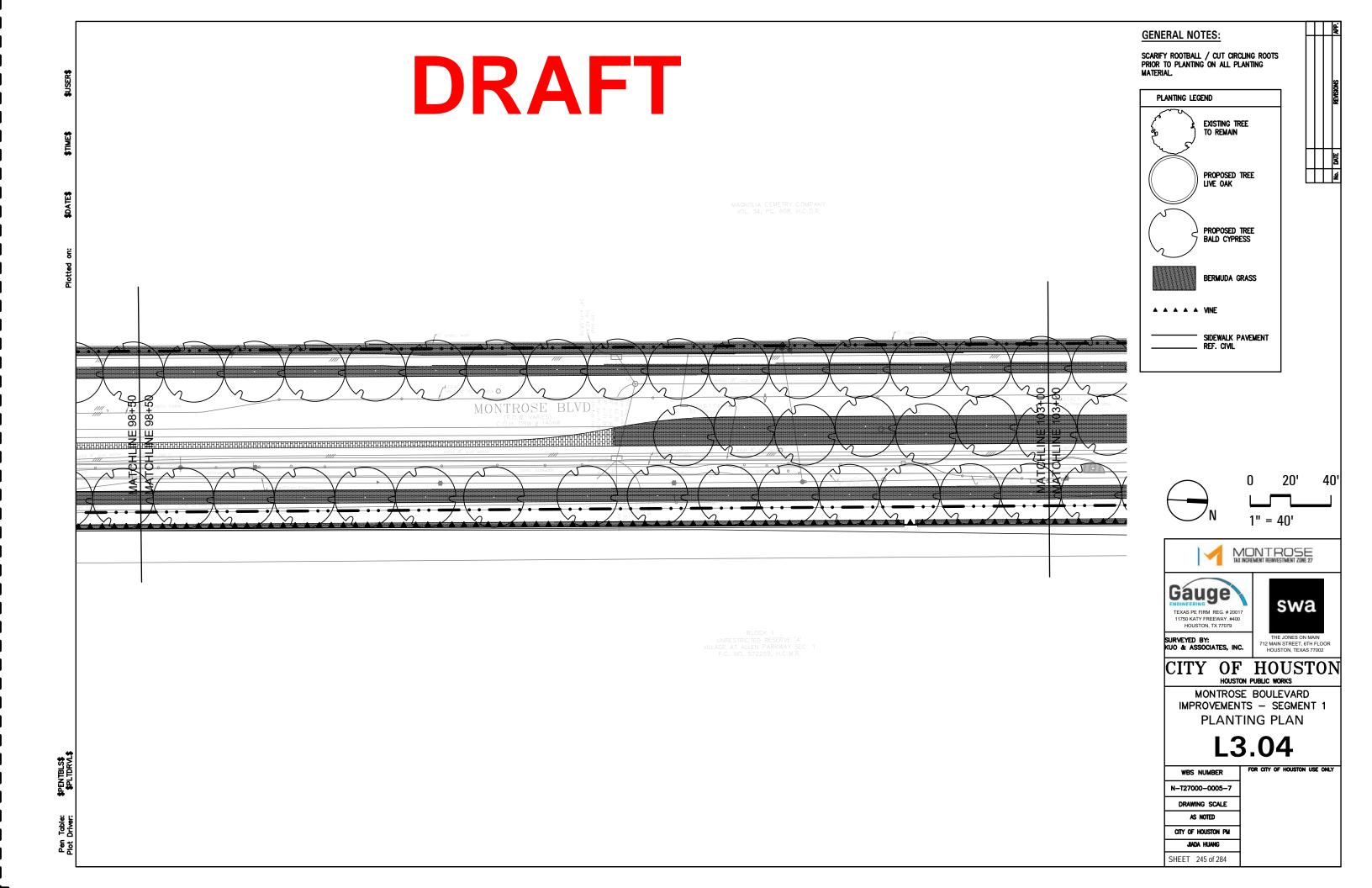
ALL DAMAGED PLANTING MATERIAL TO BE REPLACED. ALL DAMAGED LAWN TO BE ADDED

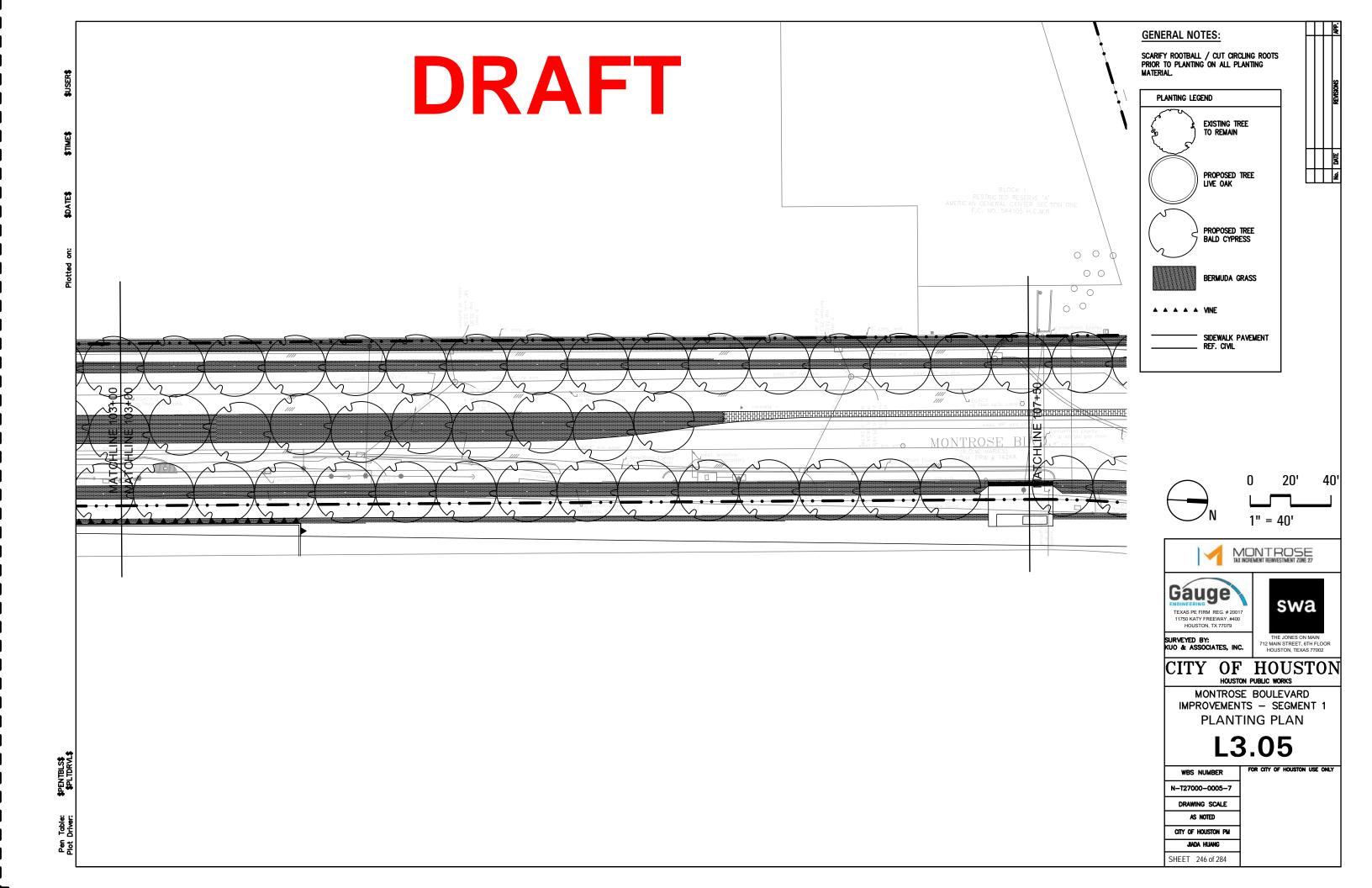
CONTRACTOR RESPONSIBLE FOR CONFIRMING PLANT QUANTITIES REQUIRED TO MEET ALL PLANT SPACING REQUIREMENTS BASED ON PLANT BED LAYOUT DIMENSIONS, SLOPE CONDITIONS AND SPACING REQUIREMENTS.

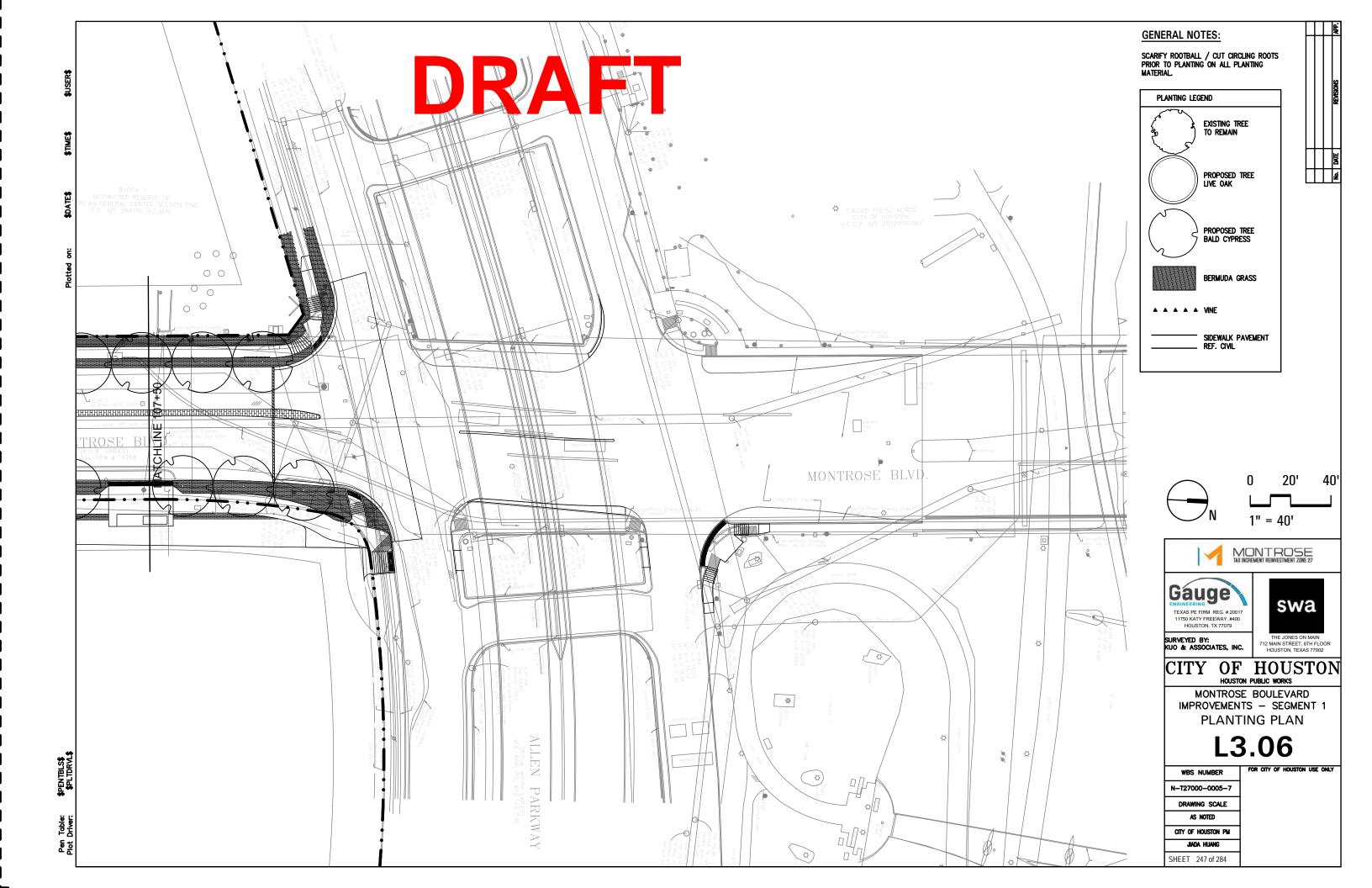


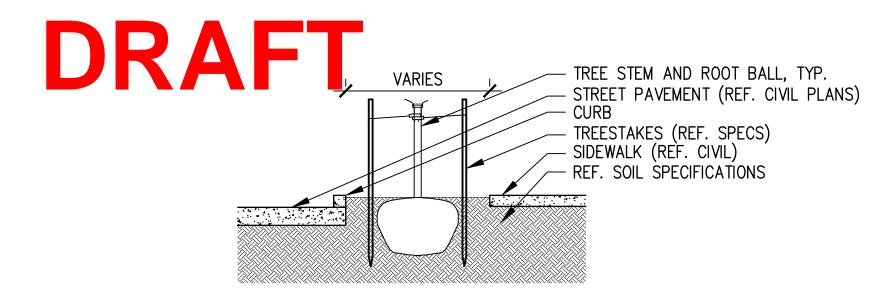






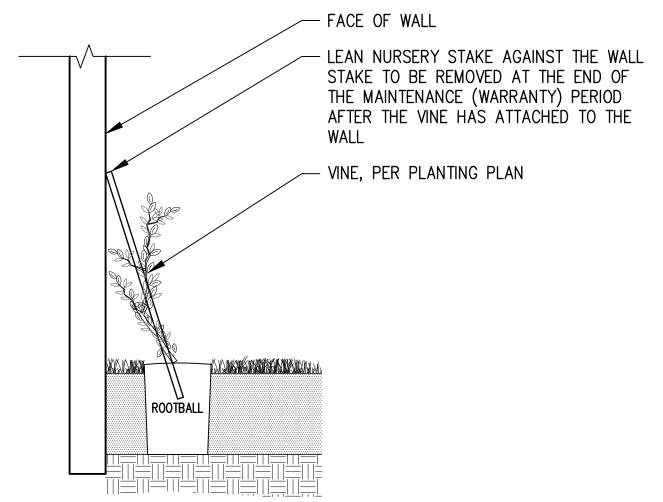






PROPOSED TREE PLANTING

1/4" = 1'-0"



 $O1 \overline{)3/4" = 1'-0"}$





THE JONES ON MAIN 712 MAIN STREET, 6TH FLOOR HOUSTON, TEXAS 77002

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

MONTROSE BOULEVARD IMPROVEMENTS — SEGMENT 1 PLANTING DETAILS

L4.02

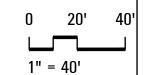
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Pen Table





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CITY OF HOUSTON HOUSTON PUBLIC WORKS

MONTROSE BOULEVARD IMPROVEMENTS - SEGMENT 1 LANDSCAPE ORDINANCE **ANALYSIS**

N-T27000-0005-7

DRAWING SCALE as noted

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	LANDSCAPE ORDINANCE				
	ANALYSIS				
	STREET TREES REQUIRED				
	STREET	LENGTH OF ROW	TREES REQUI RED *	TREES PROVIDED	
				SPECIES	NUMBER
	MONTROSE BLVD	4322	144	Quercus virginiana	44
				Taxodium lanana	93
	* - PER COH CODE OF ORDINANCES SEC. 33-126				
	PARKING LOT TREE & SHRUB PLANTING				
	PARKING SPOTS				0
	TREES REQUIRED*				0
	TREES PROVIDED (NOT INCL. STREET TREES)				0
₩	SHRUBS REQUIRED*				0
\$PLTDRVL\$	SHRUBS PROVIDED				0
	* - PER COH CODE OF ORDINANCES SEC. 33-127				
river:					

** PLANTING PLAN UTILIZES 100% OF AVAILABLE PLANTING SPACE IN THE PROJECT TO PLANT TREES, WITH THE EXCEPTION OF INSTANCES OF CONFLICTS WITH INFRASTRUCTURE/UTILITIES