

#### City of Lucas **Planning and Zoning Commission** May 14, 2020 7:00 PM City Hall – Council Chambers 665 Country Club Road – Lucas, Texas

On March 16, 2020 Governor Abbott has suspended some provisions of the Open Meetings Act in response to the COVID-19 emergency. Lucas Planning and Zoning Commission meetings will not be open to on-site visitors. In the interim, Planning and Zoning meetings will be available through Ring Central Webinar from your computer or smartphone. **To join the meeting, go to** 

you will be asked for your name and email address to join the meeting. By clicking on the link to join the meeting, the Ring Central software application will be downloaded to your computer.

If the public desires to speak during a specific agenda item, <u>they must email</u> <u>shenderson@lucastexas.us by 4:30 pm on the day of the meeting</u>. The email must contain the person's name, address, phone number, and the agenda item(s) for which comments will be made.

Notice is hereby given that a City of Lucas Planning and Zoning Commission meeting will be held on Thursday, April 9, 2020 at 7:00 pm at the Lucas City Hall, 665 Country Club Road, Lucas, Texas 75002 at which time the following agenda will be discussed.

#### **Call to Order**

- Roll Call
- Determination of Quorum
- Reminder to turn off or silence cell phones
- Pledge of Allegiance

#### **Regular Agenda**

#### **Executive Session Agenda**

As authorized by Section 551.071 of the Texas Government Code, the Planning and Zoning Commission may convene into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney regarding any item on the agenda at any time during the meeting. This meeting is closed to the public as provided in the Texas Government Code.

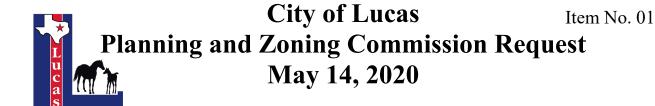
- 9. Executive Session: An Executive Session is not scheduled for this meeting.
- 10. Adjournment.

#### Certification

I do hereby certify that the above notice was posted in accordance with the Texas Open Meetings Act on the bulletin board at Lucas City Hall, 665 Country Club Road, Lucas, Texas 75002 and on the City's website at www.lucastexas.us on or before 6:00 p.m. on April 3, 2020.

Stacy Henderson, City Secretary

In compliance with the American with Disabilities Act, the City of Lucas will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services should be directed to Stacy Henderson at 972-912-1211 or by email at shenderson@lucastexas.us at least 48 hours prior to the meeting.



Requester: City Secretary Stacy Henderson

#### **Agenda Item Request**

Consider approval of the minutes of the April 9, 2020 Planning and Zoning Commission meeting.

#### **Background Information**

NA

#### **Attachments/Supporting Documentation**

1. April 9, 2020 Planning and Zoning Commission minutes.

#### **Budget/Financial Impact**

NA

#### Recommendation

NA

#### Motion

I make a motion to approve the minutes of the April 9, 2020 Planning and Zoning Commission meeting.



#### City of Lucas **Planning and Zoning Commission** Video Conference Regular Meeting April 9, 2020 7:00 PM City Hall – 665 Country Club Road – Lucas. Texas **MINUTES**

#### Call to Order

Chairman Keer called the video conference meeting to order at 7:00 pm.

It was determined that a quorum was present. Everyone was reminded to turn off or silence their cell phones and the Pledge of Allegiance was recited.

#### **Commissioners Present:**

Vice Chairman David Keer Commissioner Peggy Rusterholtz Commissioner Andre Guillemaud Commissioner Joe Williams Commissioner Tim Johnson Alternate Commissioner Tommy Tolson

#### **Staff Present:** City Manager Joni Clarke City Secretary Stacy Henderson Development Services Director Joe Hilbourn

**City Council Liaison:** Mayor Jim Olk

#### **Commissioner Absent:**

Alternate Commissioner Adam Sussman

#### **Public Hearing Agenda**

1. Public hearing to consider the request for a specific use permit submitted by the property owner Bill Shipley on behalf of Home Run Alley for indoor batting cages and an outdoor baseball infield for practice facilities on a 3.08 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas.

Development Services Director Joe Hilbourn gave a presentation explaining that the specific use permit request proposed a 15,950 square foot indoor batting cage with an area for outdoor batting cages, and an outdoor infield for practice. The outdoor practice field does require a specific use permit and the property is zoned Commercial Business. Staff recommended approval of the specific use permit with a correction to the site plan requiring a 40-inch wainscot of stone around the preimeter of the building.

Matt Moore with Clay Moore Engineering representing the applicant stated he was available to answer any questions.

Chairman Keer opened the public hearing at 7:06 pm, there being no one requesting to speak via the video conference links or registering to speak before the meeting, the public hearing was closed.

Commissioner Rusterholtz asked the hours of operation and the age range of the clientele.

Mr. Moore stated that the average age range is from persons 10 to 18 years of age that would host a combination of private lessons as well as group lessons. Mr. Moore stated the hours of operation would be longer in the summertime, but during the spring and fall it would be from late afternoon to 9 pm.

Commissioner Guillemaud asked if there would be outdoor lighting and fencing proposed.

Mr. Moore stated that no stadium lights were planned for the outdoor field and it was not a full field where games would be held, it was for infield practice only; therefore, no fencing was proposed.

The Commission discussed the need for fencing, such as chain link, and if a backstop was needed around the home plate area. The height of the fencing was also discussed along with the typical height of backstops.

Mr. Moore stated that the field was for defensive drills only, no hitting practice would take place and a backstop was not being proposed.

Commissioner Rusterholtz discussed her concern regarding the noise that would be generated from outdoor batting cages.

Mr. Moore explained that netting would be placed inside the batting cages to assist in absorbing the noise before the ball before it would hit a chain link fence.

Commissioner Guillemaud expressed his concern with the lack of fencing around the perimeter of the property, and that a condition to the specific use permit was needed that no batting practice would take place on the field to protect the nearby residential area and surrounding businesses.

The Commission discussed the need to ensure that no batting practice took place on the infield area, and no pitching machines would be used on the infield area. Mr. Hilbourn also discussed that hours of operation should be included with the specific use permit that included from 6 am to 10 pm.

Mr. Hilbourn summarized the conditions the Commission would like to see in place with the specific use permit request:

- Infield area to be used for defensive practice only, no live batters on the infield
- Chain link fence, six feet in height, to be placed on the north, south and west sides of the property with limited access gates
- No infield lighting allowed without amending the specific use permit
- Hours of operation from 6 am to 10 pm

- **MOTION:** A motion was made by Chairman Keer, seconded by Vice Chairman Johnson to recommend approval of the specific use permit by Home Run Alley for indoor batting cages and an outdoor baseball infield for practice facilities on a 3.08 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas with the following conditions:
  - Infield area to be used for defensive practice only, no live batters on the infield
  - Chain link fence, six feet in height, to be placed on the north, south and west sides of the property with limited access gates
  - No infield lighting allowed without amending the specific use permit
  - Hours of operation from 6 am to 10 pm

The motion passed by a 4 to 1 vote with Commissioner Rusterholtz voting in opposition.

2. Public hearing to consider the request for a specific use permit submitted by the property owner Walmart Real Estate on behalf of Ladera Properties for a 11,838 square foot tenant building to include a drive through window and outdoor dining area on a 1.426 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas, otherwise known as 2650 West Lucas Road, Lot 4, Block A of the Walmart Addition.

Development Services Director Joe Hilbourn gave a presentation noting that the specific use permit request included a 11,838 square foot brick and stucco tenant building that would include a drive through window and outdoor dining area. The lot was 1.426 acres and zoned Commercial Business.

Mr. Don Sopranzi with DFW Architects, representing the applicant stated that he did have a tenant for the west end portion of the building and was working with Walmart to finalize details. Mr. Sopranzi stated that he was available to answer any questions.

Chairman Keer opened the public hearing at 7:49 pm, there being no one requesting to speak via the video conference links or registering to speak before the meeting, the public hearing was closed.

Commissioner Rusterholtz asked where the outdoor seating was proposed at the west end of the building. Mr. Hilbourn responded that seating was proposed in front of the building on the sidewalk area. The sidewalk area was approximately 18-20 feet wide.

Mr. Sopranzi stated that there would be limited seating on the sidewalk area and would leave approximately 13 feet of walkway on the sidewalk remaining.

Commissioner Rusterholtz recommended that the dining area should not encroach into the required minimum five-foot walkway area.

**MOTION:** A motion was made by Vice Chairman Johnson, seconded by Commissioner Rusterholtz to recommend approval of the specific use permit on behalf of Ladera Properties for a 11,838 square foot tenant building to include a drive through window and outdoor dining area on a 1.426 acre tract of land in the William Snider Survey, Abstract Number 821 located at 2650 West Lucas Road with the condition that the dining area on the west end of the building does not encroach into the required five-foot sidewalk area. The motion passed unanimously by a 5 to 0 vote.

#### Regular Agenda

# 3. Consider approval of the minutes of the March 12, 2020 Planning and Zoning Commission meeting.

- **MOTION:** A motion was made by Commissioner Guillemaud, seconded by Commissioner Williams to approve the minutes of the March 12, 2020 Planning and Zoning Commission meeting as presented. The motion passed unanimously by a 5 to 0 vote.
- 4. Consider an application for a preliminary plat submitted by the property owner Bill Shipley on behalf of Home Run Alley for use as indoor batting cages and an outdoor baseball infield for practice facilities on a 3.08 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas.

Development Services Director Joe Hilbourn gave a presentation regarding the preliminary plat explaining that the site was 3.08 acres and zoned for Commercial Business. The lot had no road frontage, and none was required as the property was accessed by cross access through a fire lane between Lucas Plaza Phase 1 and Phase 2. The lot exceeds the minimum size lot in the district of 30,000 square feet, and the plat provides easements for drainage, utilities and stormwater detention. Mr. Hilbourn stated that the plat meets the City's requirements for a preliminary plat and staff recommends approval as presented.

Commissioner Tolson asked if the stormwater management plan was adequate to move forward. Mr. Hilbourn stated that the City Engineer has asked for some modifications to the stormwater management plan, but overall, the plan was adequate and would be approved before the final plat was submitted. Mr. Hilbourn stated that the applicant has gone above and beyond what is required to meet the City's drainage requirements.

- **MOTION:** A motion was made by Chairman Keer, seconded by Commissioner Guillemaud to recommend approval of the preliminary plat for Home Run Alley for use as indoor batting cages and an outdoor baseball infield for practice facilities on a 3.08 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas. The motion passed by a 4 to 1 vote with Commissioner Rusterholtz voting in opposition.
- 5. Consider an application for a site plan, landscape plan, and elevations submitted by the property owner Bill Shipley on behalf of Home Run Alley for use as indoor batting cages and an outdoor baseball infield for practice facilities on a 3.08 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas.

Development Services Director Joe Hilbourn gave a presentation on the site plan elements noting that the site proposed adequate stormwater runoff detention, minimal impervious cover and complies with the City's site plan requirements, including lighting. The total site requires 15 percent landscape or 20,139 square feet of landscape, 100,431 square feet of landscape was proposed.

There is 8,365 square feet of parking lot coverage, the parking lot requires five percent interior landscape or 576 square feet, and 627 square feet is provided or 7.5 percent. The perimeter parking lot requirements included one tree and eight shrubs for every 20 lineal feet of perimeter edge, and 150 lineal feet of parking lot perimeter requires eight shade trees and 64 shrubs. Staff recommends approving the site plan, landscape plan, and architectural plans as submitted.

Vice Chairman Johnson asked if a monument sign was proposed. Mr. Hilbourn stated that the only signage proposed was on the building.

- **MOTION:** A motion was made by Vice Chairman Johnson, seconded by Commissioner Guillemaud to recommend approval of the site plan, landscape plan, and elevations for Home Run Alley for indoor batting cages and an outdoor baseball infield for practice facilities on a 3.08 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas. The motion passed by a 4 to 1 vote with Commissioner Rusterholtz voting in opposition.
- 6. Consider an application for a site plan, landscape plan, and elevations submitted by property owner Walmart Real Estate on behalf of Ladera Properties consisting of an 11,838 square foot tenant occupied restaurant, which will include a drive-through window and an outdoor dining space on a 1.426 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas, otherwise known as 2650 West Lucas Road, Lot 4, Block A of the Walmart Addition.

Mr. Hilbourn asked that this item be tabled as the plans were not yet ready to be considered.

- **MOTION:** A motion was made by Chairman Keer, seconded by Commissioner Williams to table this request to a later meeting. The motion passed unanimously by a 5 to 0 vote.
- 7. Consider changes to Section 6.02.002 Prohibited Acts, and Section 6.02.003, Abatement, making it a violation of the City of Lucas Code of Ordinances to obstruct or fail to maintain drainage on properties in the City.

Development Services Director Joe Hilbourn gave a presentation discussing the review that had taken place thus far with the Commission regarding drainage in the City and updating the City's stormwater runoff requirements. Mr. Hilbourn noted that an area of concern discussed was homeowner maintenance of drainage on private property. Mr. Hilbourn stated that Staff has brought the following changes outlined below for consideration to be added to the Code of Ordinances:

Section 6.02.002 Prohibited Acts:

(d) It shall be unlawful for any person owning, claiming, occupying or having supervision or control of any real property in the city, including any adjacent and contiguous rights-of-way or easements, to permit or allow a ditch, water course, culvert, or other earthen structure, to obstruct, contribute to obstructions, through either direct action or failure to maintain and prevent flooding, or the accumulation or ponding of standing, stagnant, or non-maintained water thereon. Section 6.02.003 Abatement:

(b) Draining, filling or re-grading any lots, cleaning/repairing/replacing driveway culverts, ground, or yards which have standing or stagnant water thereon

Commissioner Rusterholtz recommended the following additional changes to be considered:

Section 6.02.002 (a) – remove the redundant language stating "including any contiguous right of way or easements. Mr. Hilbourn stated that he would check with the City Attorney as to whether that language was needed in both locations because it may be referring to two separate violations.

Commissioner Rusterholtz asked why Section 6.02.002 (c) "except for approved retention areas and reservoirs, was being exempted.

Mr. Hilbourn stated that because detention ponds are designed to restrict the flow of water it could not be considered a violation. Mr. Hilbourn stated that the Subdivision Ordinance handles the requirements associated with stagnation of detention ponds.

The Commission discussed right of way and easement maintenance, definition of obstruction in an easement, and requirements for maintenance.

The Commission was in agreement to move forward with the items presented in (a) and (b) above and include those as a recommendation to the City Council.

# 8. Discuss and provide direction to staff regarding the creation of regulations on private and public property for illicit discharge into the City's stormwater drainage system.

Development Services Director Joe Hilbourn gave a presentation outlining proposed regulations for illicit discharge containing substances that may not be introduced into the City's Municipal Separate Storm Sewer System (MS4) that included:

- a. No person shall introduce or cause to be introduced into the MS4 any discharge that causes or contributes to causing the City to violate a water quality standard, the City's Texas Pollutant Discharge Elimination System (TPDES) permit, or any state-issued discharge permit for discharges from its MS4.
- b. No person shall dump, drain, spill, leak, pump, pour, emit, empty, discharge, leach, dispose, throw, place or otherwise introduce or cause, allow, or permit to be introduced any of the following substances in or on any public street, alley, storm sewer, drainage structure, drainage channel, stream, river, pond or any other public property.

Commissioner Rusterholtz stated that currently there was not a definition for MS4 in the Code of Ordinances and suggested a definition be added for clarification and read the following definition for consideration:

"Definition for the City's Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains and similar means of collecting or conveying water runoff."

The Commission was in agreement with the proposed illicit discharge regulations outlined above and asked that the definition for MS4 also be included with the additional requirements.

#### 9. Executive Session.

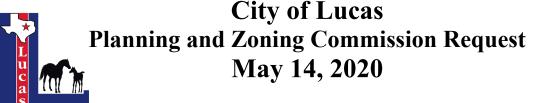
An Executive Session was not held at this meeting.

#### 10. Adjournment.

**MOTION:** A motion was made by Commissioner Williams, seconded by Commissioner Guillemaud to adjourn the meeting at 8:44pm. The motion passed unanimously by a 5 to 0 vote.

David Keer, Chairman

Stacy Henderson, City Secretary



Requester: Development Services Director Joe Hilbourn

#### Agenda Item Request

Consider an application for a site plan, landscape plan, and elevations submitted by property owner Walmart Real Estate on behalf of Ladera Properties consisting of an 11,838 square foot tenant occupied restaurant, to include a drive-through window and an outdoor dining space on a 1.426 acre tract of land in the William Snider Survey, Abstract Number 821, situated in the City of Lucas, Collin County, Texas, otherwise known as 2650 West Lucas Road, Lot 4, Block A of the Walmart Addition.

#### **Background Information**

Ladera Properties is requesting approval for use of the site as an 11,838 square foot tenant occupied restaurant building that will include a drive-through window and an outdoor dining space that requires a specific use permit. The lot is 1.426 acres and zoned for Commercial Business.

#### Site data:

- Total site area: 62,290 square feet (1.43 acres)
- Impervious cover: 65% maximum allowed = 40,489 square feet
- Landscape area: 16,501 square feet
- Permeable paver area: 7,614 square feet
- Minimum pervious cover required: 35% or 21,801 square feet
  - Total pervious cover provided: 24,115
- Landscape area: 15% or 9,344 square feet minimum allowed
  - Landscape area provided: 19.5% or 12,182 square feet
- Interior parking lot area: 30,066 square feet
- Required Interior parking lot landscaping area: 5% minimum allowed or 1,503 square feet
  - Interior Parking lot landscaping area provided: 1,507.6 square feet

#### Parking data:

- Retail: 5,141 square feet at a ratio of 1:200 = 26 spaces required
- Dental office: 2,364 square feet at a ratio of 1:300 = 8 spaces required
- Restaurant: 3,810 square feet, plus 1,905 square feet dining area 1,905 square feet dining area at a ratio of 15 square feet per occupant = 127 occupants

127 occupants at a ratio of 1:3 = 43 spaces required

- Total parking required: 77 spaces
  - Total parking provided: 82 spaces



#### **Building data:**

- Leasable area: 11,315 square feet
- Riser room: 68 square feet
- Total building area: 11,383 square feet

#### Landscape data:

Gross landscape Area: Minimum 15 percent of lot area to be landscaped – total lot area 62,106 feet.

- Required 9,316 square feet
  - provided 17,769 square feet

Parking lot interior landscaping: 1 tree required per 10 parking spaces - 92 spaces.

- Required 10 trees
  - provided 5 trees

Interior planting area for 29,008 square feet lot

- Required 5 percent, 1451 square feet
  - provided 5.7 percent, 1644 square feet

Parking lot perimeter landscaping: 1 tree and 8 shrubs required for every 20' linear feet – 325' linear feet

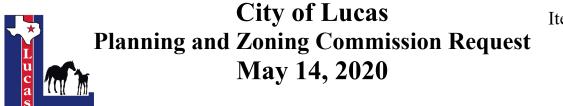
- Required 17 trees
  - provided 17 trees
- Required 130 shrubs
  - provided 130 shrubs

Landscape edge – West Lucas Road: 1 tree and 8 shrubs required for every 20' linear feet – 240' linear feet

- Required 12 trees, provided 12 trees
  - Required 96 shrubs, provided 96 shrubs

#### **Attachments/Supporting Documentation**

- 1. Elevations
- 2. Landscape and Irrigation Plan
- 3. Material Board
- 4. Photometric Plan
- 5. Rendering 1, 2 & 3
- 6. Site Data



#### **Budget/Financial Impact**

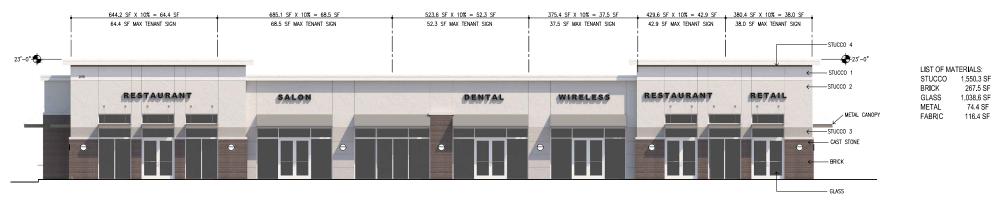
NA

#### Recommendation

Staff recommends approving the specific use permit as presented

#### Motion

I hereby make a motion to approve/deny the site plan, landscape plan, and elevations submitted by property owner Walmart Real Estate on behalf of Ladera Properties consisting of an 11,838 square foot tenant occupied restaurant, which will include a drive-through window and an outdoor dining space on a 1.426 acre tract of land in the William Snider Survey, Abstract Number 821, at 2650 West Lucas Road.



#### SOUTH ELEVATION (FRONT)

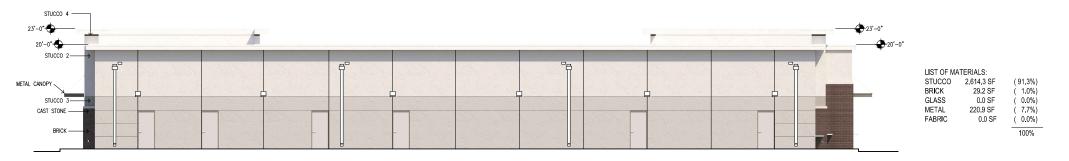
TOTAL SURFACE AREA = 3,047.2 SF





EAST ELEVATION

TOTAL SURFACE AREA = 1,789.1 SF



NORTH ELEVATION TOTAL SURFACE AREA = 2,864.4 SF

#### FACADE NOTES:

THESE FACADE PLANS ARE FOR CONCEPTUAL PURPOSES ONLY. ALL BUILDING PLANS REQUIRE REVIEW AND APPROVAL OF THE BUILDING INSPECTION DEPARTMENT.

ALL MECHANICAL UNITS SHALL BE SCREENED FROM PUBLIC VIEW.

WHEN PERMITTED, EXPOSED UTILITY BOXES AND CONDUITS SHALL BE PAINTED TO MATCH THE BUILDING.

ALL SIGNAGE AREAS AND LOCATIONS ARE SUBJECT TO APPROVAL BY THE BUILDING INSPECTION DEPARTMENT

ROOF ACCESS SHALL BE PROVIDED INTERNALLY, UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL.

(50.8%)

(8.7%)

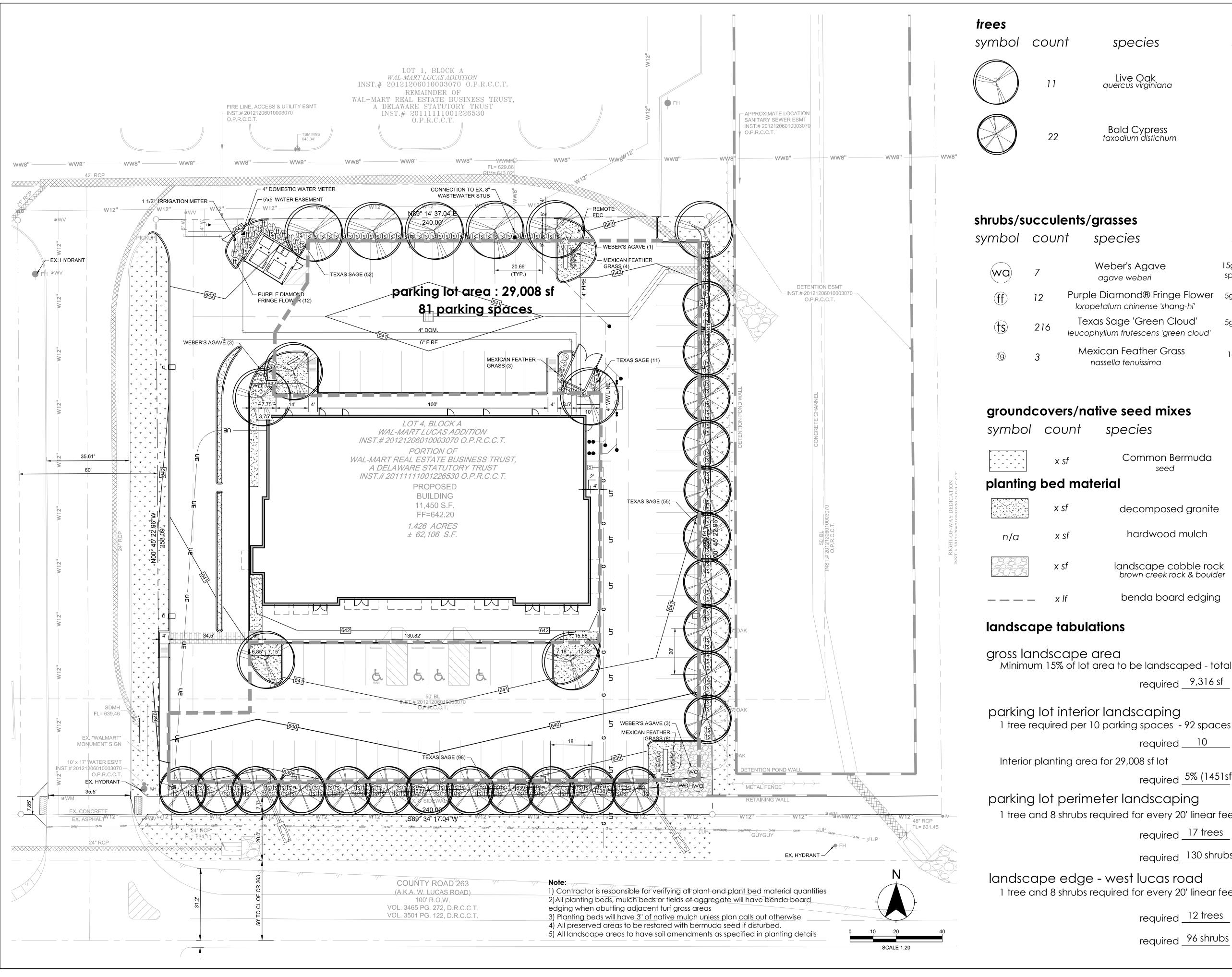
(34.2%) ( 2.6%)

(3.8%) 100%

# BUILDIN C E LUCAS MULTI-

MULTI-TENANT

Ű



species

Live Oak quercus virginiana

Bald Cypress taxodium distichum

species

Weber's Agave

loropetalum chinense 'shang-hi'

Texas Sage 'Green Cloud'

leucophyllum frutescens 'green cloud'

Mexican Feather Grass

nassella tenuissima

agave weberi

## specifications

4" caliper, minimum 10' height, full canopy

4" caliper, minimum 10' height, full canopy

## specifications

15g, 24" rosette width minimum, spacing per plan

Purple Diamond® Fringe Flower 5g, 2' on center

5g, 3' on center. 4' height minimum

1g, 18" on center, ref. details

specifications

ref. seedsource.com for

seeding rates/instructions

4" thick, compacted every inch

use for all planting beds

specify, ref. details & notes

sourced from alpine materials

when plan does not

alpinematerials.com

color - sand , 1" x 4"

817.685.2448

# groundcovers/native seed mixes

species

Common Bermuda seed

x sf

x sf

x sf

x sf

decomposed granite

hardwood mulch

landscape cobble rock brown creek rock & boulder

benda board edging

gross landscape area Minimum 15% of lot area to be landscaped - total lot area 62,106 sf provided <u>17,769</u> sf required <u>9,3</u>16 sf

required <u>10</u>

Interior planting area for 29,008 sf lot

required <u>5</u>% (1451sf)

provided 5.7% (1644sf)

provided <u>5</u>

parking lot perimeter landscaping

1 tree and 8 shrubs required for every 20' linear feet - 325' linear feet

required <u>17 trees</u>

required 130 shrubs

provided \_17 trees

provided \_130 shrubs

1 tree and 8 shrubs required for every 20' linear feet - 240' linear feet

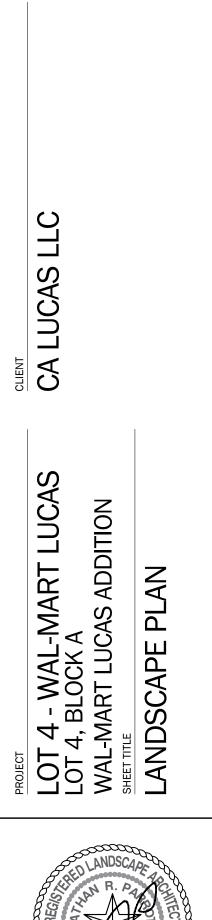
required <u>1</u>2 trees

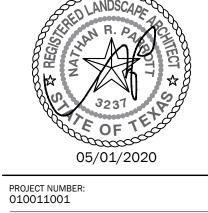
required \_96 shrubs

provided <u>12</u> trees

provided <u>96 shrubs</u>







L1.00

DESIGNED BY: CHECKED BY: JAM DMP

DRAWN BY: ALM

DATE: 2020/05/01

SHEET:

#### VERIFICATION

- ALL SCALED DIMENSIONS ON THE DRAWINGS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES. AND SHALL IMMEDIATELY INFORM THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE DRAWINGS AND THE ACTUAL CONDITIONS, REFRAINING FROM DOING ANY WORK IN SAID AREAS UNTIL GIVEN APPROVAL TO DO SO BY THE OWNER'S REPRESENTATIVE.
- . IN THE CASE OF A DISCREPANCY IN THE PLANT QUANTITIES BETWEEN THE PLAN DRAWINGS AND THE PLANT CALL OUTS, LIST OR PLANT SCHEDULE, THE NUMBER OF PLANTS OR SQUARE FOOTAGE OF THE PLANTING BED ACTUALLY DRAWN ON THE PLAN DRAWINGS SHALL BE DEEMED CORRECT AND PREVAIL.
- 2 PERMITS AND REGULATIONS A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS RELATED TO THIS SECTION OF THE WORK UNLESS PREVIOUSLY EXCLUDED UNDER PROVISION OF THE CONTRACT OR GENERAL CONDITIONS. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS AND ORDINANCES BEARING ON THE OPERATION OR CONDUCT OF THE WORK AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT A CONFLICT EXISTS BETWEEN PERMIT REQUIREMENTS AND THE WORK OUTLINED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING INCLUDING A DESCRIPTION OF ANY NECESSARY CHANGES AND CHANGES TO THE
- CONTRACT PRICE RESULTING FROM CHANGES IN THE WORK. WHEREVER REFERENCES ARE MADE TO STANDARDS OR CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS AND CODES CURRENT ON THE EFFECTIVE
- DATE OF THIS CONTRACT SHALL APPLY, UNLESS OTHERWISE EXPRESSLY SET FORTH. IN CASE OF CONFLICT AMONG ANY REFERENCED STANDARDS OR CODES OR BETWEEN ANY REFERENCED STANDARDS AND CODES AND THE SPECIFICATIONS, THE MORE RESTRICTIVE STANDARD SHALL APPLY OR OWNER'S
- REPRESENTATIVE SHALL DETERMINE WHICH SHALL GOVERN. β PROTECTION OF WORK, PROPERTY AND PERSON
- A. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGES OR INJURY DUE TO HIS/HER ACTIONS.
- 4 CHANGES IN THE WORK
- . THE OWNER'S REPRESENTATIVE MAY ORDER CHANGES IN THE WORK, AND THE CONTRACT SUM SHOULD BE ADJUSTED ACCORDINGLY. ALL SUCH ORDERS AND ADJUSTMENTS PLUS CLAIMS BY THE CONTRACTOR FOR EXTRA COMPENSATION MUST BE MADE AND APPROVED IN WRITING BEFORE EXECUTING THE WORK INVOLVED.
- 3. ALL CHANGES IN THE WORK, NOTIFICATIONS AND CONTRACTOR'S REQUEST FOR INFORMATION (RFI) SHALL CONFORM TO THE CONTRACT GENERAL CONDITION REQUIREMENTS.

#### 5 CORRECTION OF WORK

- A. THE CONTRACTOR, AT THEIR OWN COST, SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP UPON WRITTEN NOTICE FROM THE OWNER'S REPRESENTATIVE, AT THE SOONEST AS POSSIBLE TIME THAT CAN BE
- COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS. .6 OBSERVATION OF THE WORK
- A. THE OWNER'S REPRESENTATIVE MAY OBSERVE THE WORK AT ANY TIME. THEY MAY REMOVE SAMPLES OF MATERIALS FOR CONFORMITY TO SPECIFICATIONS. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE COST OF TESTING MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.
- . THE OWNER'S REPRESENTATIVE SHALL BE INFORMED OF THE PROGRESS OF THE WORK SO THE WORK MAY BE OBSERVED AT THE FOLLOWING KEY TIMES IN THE CONSTRUCTION PROCESS. THE OWNER'S REPRESENTATIVE SHALL BE AFFORDED SUFFICIENT TIME TO SCHEDULE VISIT TO THE SITE. FAILURE OF THE OWNER'S REPRESENTATIVE TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION.
- 1. PLANT QUALITY: REVIEW OF PLANT QUALITY AT THE TIME OF DELIVERY AND PRIOR TO INSTALLATION. REVIEW TREE QUALITY PRIOR TO UNLOADING WHERE POSSIBLE, BUT IN ALL CASES PRIOR TO PLANTING. 2. COMPLETION OF THE PLANTING: REVIEW THE COMPLETED PLANTING.

#### 7 QUALITY ASSURANCE

- A.SUBSTANTIAL COMPLETION ACCEPTANCE ACCEPTANCE OF THE WORK PRIOR TO THE START OF THE WARRANTY PERIOD:
- 1. ONCE THE CONTRACTOR COMPLETES THE INSTALLATION OF ALL ITEMS IN THIS SECTION, THE OWNER'S REPRESENTATIVE WILL OBSERVE ALL WORK FOR SUBSTANTIAL COMPLETION ACCEPTANCE UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE OF THE OBSERVATION.
- 2. SUBSTANTIAL COMPLETION ACCEPTANCE BY THE OWNER'S REPRESENTATIVE SHALL BE FOR GENERAL CONFORMANCE TO SPECIFIED SIZE, CHARACTER AND QUALITY AND NOT RELIEVE THE CONTRACTOR OF
- RESPONSIBILITY FOR FULL CONFORMANCE TO THE CONTRACT DOCUMENTS, INCLUDING CORRECT SPECIES. 3. ANY PLANTS THAT ARE DEEMED DEFECTIVE AS DEFINED UNDER THE PROVISIONS BELOW SHALL NOT BE ACCEPTED.

THE OWNER'S REPRESENTATIVE WILL PROVIDE THE CONTRACTOR WITH WRITTEN ACKNOWLEDGMENT OF THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND THE BEGINNING OF THE WARRANTY PERIOD AND PLANT MAINTENANCE PERIOD (IF PLANT MAINTENANCE IS INCLUDED).

CONTRACTOR'S QUALITY ASSURANCE RESPONSIBILITIES: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL OF THE WORK

#### 8 PLANT WARRANTY A.PLANT WARRANTY

- 1. THE CONTRACTOR AGREES TO REPLACE DEFECTIVE WORK AND DEFECTIVE PLANTS. THE OWNER'S REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION IF PLANTS MEET THESE SPECIFICATIONS OR THAT PLANTS ARE DEFECTIVE PLANTS WARRANTY SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND CONTINUE FOR THE FOLLOWING PERIODS, CLASSED BY PLANT TYPE:
- a) TREES 1 YEAR(S). b) SHRUBS - 1 YEAR(S)
- 2. WHEN THE WORK IS ACCEPTED IN PARTS, THE WARRANTY PERIODS SHALL EXTEND FROM EACH OF THE PARTIAL SUBSTANTIAL COMPLETION ACCEPTANCES TO THE TERMINAL DATE OF THE LAST WARRANTY PERIOD. THUS, ALL WARRANTY PERIODS FOR EACH CLASS OF PLANT WARRANTY, SHALL TERMINATE AT ONE TIME.
- . ALL PLANTS SHALL BE WARRANTIED TO MEET ALL THE REQUIREMENTS FOR PLANT QUALITY AT INSTALLATION IN THIS SPECIFICATION. DEFECTIVE PLANTS SHALL BE DEFINED AS PLANTS NOT MEETING THESE REQUIREMENTS. THE OWNER'S REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION THAT PLANTS ARE DEFECTIVE. 4. PLANTS DETERMINED TO BE DEFECTIVE SHALL BE REMOVED IMMEDIATELY UPON NOTIFICATION BY THE OWNER'S
- REPRESENTATIVE AND REPLACED WITHOUT COST TO THE OWNER, AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN THE SPECIFIED PLANTING PERIOD 5. THE CONTRACTOR IS EXEMPT FROM REPLACING PLANTS, AFTER SUBSTANTIAL COMPLETION ACCEPTANCE AND DURING THE WARRANTY PERIOD, THAT ARE REMOVED BY OTHERS, LOST OR DAMAGED DUE TO OCCUPANCY OF
- PROJECT, LOST OR DAMAGED BY A THIRD PARTY, VANDALISM, OR ANY NATURAL DISASTER. 3. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS SHALL BE SUBJECT TO ALL REQUIREMENTS STATED IN THIS SPECIFICATION. MAKE ALL NECESSARY REPAIRS DUE TO PLANT
- REPLACEMENTS. SUCH REPAIRS SHALL BE DONE AT NO EXTRA COST TO THE OWNER. . THE WARRANTY OF ALL REPLACEMENT PLANTS SHALL EXTEND FOR AN ADDITIONAL ONE-YEAR PERIOD FROM THE DATE OF THEIR ACCEPTANCE AFTER REPLACEMENT. IN THE EVENT THAT A REPLACEMENT PLANT IS NOT ACCEPTABLE DURING OR AT THE END OF THE SAID EXTENDED WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE MAY ELECT ONE MORE REPLACEMENT ITEMS OR CREDIT FOR EACH ITEM. THESE TERTIARY REPLACEMENT ITEMS ARE NOT PROTECTED UNDER A WARRANTY PERIOD.

. END OF WARRANTY FINAL ACCEPTANCE - ACCEPTANCE OF PLANTS AT THE END OF THE WARRANTY PERIOD. . AT THE END OF THE WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE SHALL OBSERVE ALL WARRANTED WORK, UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE FOR FINAL OBSERVATION.

9 SELECTION AND OBSERVATION OF PLANTS A. THE OWNER'S REPRESENTATIVE MAY REVIEW ALL PLANTS SUBJECT TO APPROVAL OF SIZE, HEALTH, QUALITY, CHARACTER, ETC. REVIEW OR APPROVAL OF ANY PLANT DURING THE PROCESS OF SELECTION, DELIVERY, INSTALLATION AND ESTABLISHMENT PERIOD SHALL NOT PREVENT THAT PLANT FROM LATER REJECTION IN THE EVENT THAT THE PLANT QUALITY CHANGES OR PREVIOUSLY EXISTING DEFECTS BECOME APPARENT THAT WERE NOT OBSERVED

.PLANT SELECTION: THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO SELECT AND OBSERVE ALL PLANTS AT THE NURSERY PRIOR TO DELIVERY AND TO REJECT PLANTS THAT DO NOT MEET SPECIFICATIONS AS SET FORTH IN THIS SPECIFICATION. IF A PARTICULAR DEFECT OR SUBSTANDARD ELEMENT CAN BE CORRECTED AT THE NURSERY, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, THE AGREED UPON REMEDY MAY BE APPLIED BY THE NURSERY OR THE CONTRACTOR PROVIDED THAT THE CORRECTION ALLOWS THE PLANT TO MEET THE REQUIREMENTS SET FORTH IN THIS SPECIFICATION. ANY WORK TO CORRECT PLANT DEFECTS SHALL BE AT THE CONTRACTOR'S EXPENSE. 1 THE OWNER'S REPRESENTATIVE MAY MAKE INVASIVE OBSERVATION OF THE PLANT'S ROOT SYSTEM IN THE AREA

- OF THE ROOT COLLAR AND THE TOP OF THE ROOT BALL IN GENERAL IN ORDER TO DETERMINE THAT THE PLANT MEETS THE QUALITY REQUIREMENTS FOR DEPTH OF THE ROOT COLLAR AND PRESENCE OF ROOTS ABOVE THE ROOT COLLAR. SUCH OBSERVATIONS WILL NOT HARM THE PLANT. 2. CORRECTIONS ARE TO BE UNDERTAKEN AT THE NURSERY PRIOR TO SHIPPING.
- THE CONTRACTOR SHALL BEAR ALL COST RELATED TO PLANT CORRECTIONS.

D. ALL PLANTS THAT ARE REJECTED SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE REPLACEMENT PLANTS PROVIDED AT NO COST TO THE OWNER.

- SUBMIT TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL, PLANT SOURCES INCLUDING THE NAMES AND LOCATIONS OF NURSERIES PROPOSED AS SOURCES OF ACCEPTABLE PLANTS, AND A LIST OF THE PLANTS THEY WILL PROVIDE. THE PLANT LIST SHALL INCLUDE THE BOTANICAL AND COMMON NAME AND THE SIZE AT THE TIME OF SELECTION. OBSERVE ALL NURSERY MATERIALS TO DETERMINE THAT THE MATERIALS MEET THE REQUIREMENTS OF THIS SECTION. TREES SHALL BE PURCHASED FROM THE GROWING NURSERY. RE-WHOLESALE PLANT SUPPLIERS SHALL NOT BE USED AS SOURCES UNLESS THE CONTRACTOR CAN CERTIFY THAT THE REQUIRED TREES ARE NOT DIRECTLY AVAILABLE FROM A GROWING NURSERY. WHEN RE-WHOLESALE SUPPLIERS ARE UTILIZED, THE CONTRACTOR SHALL SUBMIT THE NAME AND LOCATION OF THE GROWING NURSERY FROM WHERE THE TREES WERE OBTAINED BY THE RE-WHOLESALE SELLER. THE RE-WHOLESALE NURSERY SHALL BE RESPONSIBLE FOR ANY REQUIRED PLANT QUALITY CERTIFICATIONS. EACH TREE SHALL HAVE A NUMBERED SEAL APPLIED BY THE CONTRACTOR. THE SEAL SHALL BE PLACED ON A LATERAL
- BRANCH ON THE NORTH SIDE OF THE TREE. THE SEAL SHALL BE A TAMPER PROOF PLASTIC SEAL BEARING THE CONTRACTORS NAME AND A UNIQUE SEVEN-DIGIT NUMBER EMBOSSED ON THE SEAL THE OWNER'S REPRESENTATIVE MAY CHOOSE TO ATTACH THEIR SEAL TO EACH PLANT, OR A REPRESENTATIVE SAMPLE. VIEWING AND/OR SEALING OF PLANTS BY THE OWNER'S REPRESENTATIVE AT THE NURSERY DOES NOT
- PRECLUDE THE OWNER'S REPRESENTATIVE'S RIGHT TO REJECT MATERIAL WHILE ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ANY UP CHARGE FOR THE OWNER'S REPRESENTATIVE TO ATTACH THEIR SEAL TO SPECIFIC PI ANTS WHERE REQUESTED BY THE OWNER'S REPRESENTATIVE, SUBMIT PHOTOGRAPHS OF PLANTS OR REPRESENTATIVE
- SAMPLES OF PLANTS. PHOTOGRAPHS SHALL BE LEGIBLE AND CLEARLY DEPICT THE PLANT SPECIMEN. EACH SUBMITTED IMAGE SHALL CONTAIN A HEIGHT REFERENCE, SUCH AS A MEASURING STICK. THE APPROVAL OF PLANTS BY THE OWNER'S REPRESENTATIVE VIA PHOTOGRAPH DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE'S RIGHT TO REJECT MATERIAL WHILE ON SITE.
- 10 PLANT SUBSTITUTIONS FOR PLANTS NOT AVAILABLE A. SUBMIT ALL REQUESTS FOR SUBSTITUTIONS OF PLANT SPECIES, OR SIZE TO THE OWNER'S REPRESENTATIVE, FOR

APPROVAL, PRIOR TO PURCHASING THE PROPOSED SUBSTITUTION. REQUEST FOR SUBSTITUTION SHALL BE ACCOMPANIED WITH A LIST OF NURSERIES CONTACTED IN THE SEARCH FOR THE REQUIRED PLANT AND A RECORD OF OTHER ATTEMPTS TO LOCATE THE REQUIRED MATERIAL. REQUESTS SHALL ALSO INCLUDE SOURCES OF PLANTS FOUND THAT MAY BE OF A SMALLER OR LARGER SIZE, OR A DIFFERENT SHAPE OR HABIT THAN SPECIFIED, OR PLANTS OF THE SAME GENUS AND SPECIES BUT DIFFERENT CUI TIVAR ORIGIN, OR WHICH MAY OTHERWISE NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS, BUT WHICH MAY BE AVAILABLE FOR SUBSTITUTION.

- 1.11 SITE CONDITIONS A.IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE AND SUB-SURFACE CONDITIONS, AND TO NOTIFY THE OWNER'S REPRESENTATIVE, IN WRITING, OF ANY CIRCUMSTANCES THAT WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 1. SHOULD SUBSURFACE DRAINAGE OR SOIL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO GROWTH OR SURVIVAL OF PLANT MATERIAL. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN
- WRITING, STATING THE CONDITIONS AND SUBMIT A PROPOSAL COVERING COST OF CORRECTIONS. IF THE CONTRACTOR FAILS TO NOTIFY THE OWNER'S REPRESENTATIVE OF SUCH CONDITIONS, HE/SHE SHALL REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTY CLAUSE OF THE SPECIFICATIONS. B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE LOCAL GROWING CONDITIONS. AND IF ANY SPECIFIED PLANTS WILL BE IN CONFLICT WITH THESE CONDITIONS. REPORT ANY POTENTIAL CONFLICTS, IN WRITING, TO
- THE OWNER'S REPRESENTATIVE C. THIS SPECIFICATION REQUIRES THAT ALL PLANTING SOIL AND IRRIGATION (IF APPLICABLE) WORK BE COMPLETED AND ACCEPTED PRIOR TO THE INSTALLATION OF ANY PLANTS. 1. PLANTING OPERATIONS SHALL NOT BEGIN UNTIL SUCH TIME THAT THE IRRIGATION SYSTEM IS COMPLETELY
- OPERATIONAL FOR THE AREA(S) TO BE PLANTED, AND THE IRRIGATION SYSTEM FOR THAT AREA HAS BEEN PRELIMINARILY OBSERVED AND APPROVED BY THE OWNER'S REPRESENTATIVE D. ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL PRACTICES. 1. DO NOT INSTALL PLANTS INTO SATURATED OR FROZEN SOILS. DO NOT INSTALL PLANTS DURING INCLEMENT
- WEATHER, SUCH AS RAIN OR SNOW OR DURING EXTREMELY HOT, COLD OR WINDY CONDITIONS. 1.12 PLANTING AROUND UTILITIES A.CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING.
- B. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. MAINTAIN GRADE STAKES SET BY OTHERS UNTIL PARTIES CONCERNED MUTUALLY AGREE UPON REMOVAL.

#### PLANTING - PRODUCTS

- 2.1 PLANTS A.STANDARDS AND MEASUREMENT: PROVIDE PLANTS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OR CULTIVARS
- AS SHOWN AND SCHEDULED IN CONTRACT DOCUMENTS. 1. ALL PLANTS INCLUDING THE ROOT BALL DIMENSIONS OR CONTAINER SIZE TO TRUNK CALIPER RATIO SHALL CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" LATEST EDITION, UNLESS MODIFIED BY
- THIS SPECIFICATION SECTION SHALL BE CONSIDERED CORRECT 2. PLANTS LARGER THAN SPECIFIED MAY BE USED IF ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. IF LARGER PLANTS ARE ACCEPTED THE ROOT BALL
- SIZE SHALL BE IN ACCORDANCE WITH ANSI Z-60.1. LARGER PLANTS MAY NOT BE ACCEPTABLE IF THE RESULTING ROOT BALL CANNOT BE FIT INTO THE REQUIRED PLANTING SPACE. 3. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND NOT LESS THAN 50 PERCENT OF THE PLANTS SHALL BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED. THE MEASUREMENTS SPECIFIED ARE THE MINIMUM AND MAXIMUM SIZE ACCEPTABLE AND ARE THE MEASUREMENTS AFTER PRUNING, WHERE PRUNING IS
- REQUIRED B. PROPER IDENTIFICATION: ALL TREES SHALL BE TRUE TO NAME AS ORDERED OR SHOWN ON PLANTING PLANS AND
- SHALL BE LABELED INDIVIDUALLY OR IN GROUPS BY GENUS, SPECIES, VARIETY AND CULTIVAR.
- C.COMPLIANCE: ALL TREES SHALL COMPLY WITH FEDERAL AND STATE LAWS AND REGULATIONS REQUIRING
- OBSERVATION FOR PLANT DISEASE, PESTS, AND WEEDS. OBSERVATION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT OF PLANTS.
- D.PLANT QUALITY:
- 1. GENERAL: PROVIDE HEALTHY STOCK, GROWN IN A NURSERY AND REASONABLY FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. AT THE TIME OF PLANTING ALL PLANTS SHALL HAVE A ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY AND HEALTH FOR THE EXPECTED LIFE OF THE PLANTS.
- BUD) AT LEAST ONE-HALF THE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT. 2. ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN
- THE PLANT LIST OR DRAWINGS. b) TRUNK CALIPER AND TAPER SHALL BE SUFFICIENT SO THAT THE LOWER FIVE FEET OF THE TRUNK REMAINS VERTICAL WITHOUT A STAKE. AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT LEADER IN THE UPPER HALF OF THE TREE
- 3. AT TIME OF OBSERVATIONS AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED, DISCOLORED, DISTORTED, OR DEAD ROOTS.
- E. SUBMITTALS: SUBMIT FOR APPROVAL THE REQUIRED PLANT QUALITY CERTIFICATIONS FROM THE GROWER WHERE PLANTS ARE TO BE PURCHASED, FOR EACH PLANT TYPE. THE CERTIFICATION MUST STATE THAT EACH PLANT MEETS ALL THE ABOVE PLANT QUALITY REQUIREMENTS
- F. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS 1. CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
- 2. PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE CONTAINERS. 3. CONTAINER CLASS SIZE SHALL CONFORM TO ANSI Z60.1 FOR CONTAINER PLANTS FOR EACH SIZE AND TYPE OF PLANT.
- 2.2 PLANTING SOIL
- A.PLANTING SOIL AS USED IN THIS SPECIFICATION MEANS THE SOIL AT THE PLANTING SITE. OR IMPORTED AS MODIFIED AND DEFINED IN SPECIFICATION SECTION PLANTING SOIL. IF THERE IS NO PLANTING SOIL SPECIFICATION, THE TERM PLANTING SOIL SHALL MEAN THE SOIL AT THE PLANTING SITE WITHIN THE PLANTING HOLE. 2.3 MULCH
- A.MULCH SHALL BE FROM TREE AND WOODY BRUSH SOURCES. THE SIZE RANGE SHALL BE A MINIMUM (LESS THAN 25% OR LESS OF VOLUME) FINE PARTICLES 3/8 INCH OR LESS IN SIZE, AND A MAXIMUM SIZE OF INDIVIDUAL PIECES (LARGEST 20% OR LESS OF VOLUME) SHALL BE APPROXIMATELY 1 TO 1-1/2 INCH IN DIAMETER AND MAXIMUM LENGTH APPROXIMATELY 4 TO 8". PIECES LARGER THAN 8 INCH LONG THAT ARE VISIBLE ON THE SURFACE OF THE MULCH AFTER

PROVISIONS IN THIS SPECIFICATION. WHEN THERE IS A CONFLICT BETWEEN THIS SPECIFICATION AND ANSI Z60.1,

a) TREES SHALL HAVE ONE CENTRAL LEADER. IF THE LEADER WAS HEADED, A NEW LEADER (WITH A LIVE TERMINAL

INSTALLATION SHALL BE REMOVED.

- 1. IT IS UNDERSTOOD THAT MULCH QUALITY WILL VARY SIGNIFICANTLY FROM SUPPLIER TO SUPPLIER AND REGION TO REGION. THE ABOVE REQUIREMENTS MAY BE MODIFIED TO CONFORM TO THE SOURCE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- 2.4 TREE STAKING AND GUYING MATERIAL A. TREE GUYING TO BE FLAT WOVEN POLYPROPYLENE MATERIAL, 3/4 INCH WIDE, AND 900 LB. BREAK STRENGTH. COLOR TO BE GREEN. PRODUCT TO BE ARBORTIE MANUFACTURED BY DEEP ROOT PARTNERS, L.P. OR APPROVED EQUAL. B. STAKES SHALL BE LODGE POLE STAKES FREE OF KNOTS AND OF DIAMETERS AND LENGTHS APPROPRIATE TO THE SIZE
- OF PLANT AS REQUIRED TO ADEQUATELY SUPPORT THE PLANT. C.BELOW GROUND ANCHORAGE SYSTEMS TO BE CONSTRUCTED OF 2 X 2 DIMENSIONAL UNTREATED WOOD SECURING (USING 3 INCH LONG SCREWS) HORIZONTAL PORTIONS TO 4 FEET LONG VERTICAL STAKES DRIVEN STRAIGHT INTO THE GROUND OUTSIDE THE ROOT BALL.

PLANTING -EXECUTION **3.1 SITE EXAMINATION** 

- A.EXAMINE THE SURFACE GRADES AND SOIL CONDITIONS TO CONFIRM THAT THE REQUIREMENTS OF THE SPECIFICATION SECTION - PLANTING SOIL - AND THE SOIL AND DRAINAGE MODIFICATIONS INDICATED ON THE PLANTING SOIL PLAN AND DETAILS (IF APPLICABLE) HAVE BEEN COMPLETED. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY UNSATISFACTORY CONDITIONS.
- 3.2 DELIVERY, STORAGE AND HANDLING
- A.PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND STORAGE. ADEQUATELY PROTECT PLANTS FROM DRYING OUT, EXPOSURE OF ROOTS TO SUN, WIND OR EXTREMES OF HEAT AND COLD TEMPERATURES. IF PLANTING IS DELAYED MORE THAN 24 HOURS AFTER DELIVERY, SET PLANTS IN A LOCATION PROTECTED FROM SUN AND WIND. PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE DURING THE SHIPPING AND STORAGE PERIOD.
- 1. ALL PLANT MATERIALS MUST BE AVAILABLE FOR OBSERVATION PRIOR TO PLANTING. 2. USING A SOIL MOISTURE METER, PERIODICALLY CHECK THE SOIL MOISTURE IN THE ROOT BALLS OF ALL PLANTS
- TO ASSURE THAT THE PLANTS ARE BEING ADEQUATELY WATERED. VOLUMETRIC SOIL MOISTURE SHALL BE MAINTAINED ABOVE WILTING POINT AND BELOW FIELD CAPACITY FOR THE ROOT BALL SUBSTRATE OR SOIL. B. DO NOT DELIVER MORE PLANTS TO THE SITE THAN THERE IS SPACE WITH ADEQUATE STORAGE CONDITIONS. PROVIDE A SUITABLE REMOTE STAGING AREA FOR PLANTS AND OTHER SUPPLIES.
- C.PROVIDE PROTECTIVE COVERING OVER ALL PLANTS DURING TRANSPORTING.
- 3.3 PLANTING SEASON
- A.PLANTING SHALL ONLY BE PERFORMED WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE FOR PLANTING THE MATERIALS SPECIFIED IN ACCORDANCE WITH LOCALLY ACCEPTED PRACTICE.IN THE EVENT THAT THE CONTRACTOR REQUEST PLANTING OUTSIDE THE DATES OF THE PLANTING SEASON, APPROVAL OF THE REQUEST DOES NOT CHANGE THE REQUIREMENTS OF THE WARRANTY.
- 3.4 ADVERSE WEATHER CONDITIONS
- A.NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY OR FREEZING WEATHER. 3.5 COORDINATION WITH PROJECT WORK
- A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK. B. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS ENCOUNTERED.
- 3.6 LAYOUT AND PLANTING SEQUENCE
- A.RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE. B. WHEN APPLICABLE, PLANT TREES BEFORE OTHER PLANTS ARE INSTALLED.
- C.IT IS UNDERSTOOD THAT PLANTS ARE NOT PRECISE OBJECTS AND THAT MINOR ADJUSTMENTS IN THE LAYOUT WILL BE REQUIRED AS THE PLANTING PLAN IS CONSTRUCTED. THESE ADJUSTMENTS MAY NOT BE APPARENT UNTIL SOME OR ALL OF THE PLANTS ARE INSTALLED. MAKE ADJUSTMENTS AS REQUIRED BY THE OWNER'S REPRESENTATIVE INCLUDING RELOCATING PREVIOUSLY INSTALLED PLANTS.
- 3.7 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION A.PROTECT SOIL FROM COMPACTION DURING THE DELIVERY OF PLANTS TO THE PLANTING LOCATIONS, DIGGING OF PLANTING HOLES AND INSTALLING PLANTS
  - 1. WHERE POSSIBLE DELIVER AND PLANT TREES THAT REQUIRE THE USE OF HEAVY MECHANIZED EQUIPMENT PRIOR TO FINAL SOIL PREPARATION AND TILLING. WHERE POSSIBLE, RESTRICT THE DRIVING LANES TO ONE AREA INSTEAD OF DRIVING OVER AND COMPACTING A LARGE AREA OF SOIL.
- B. TILL TO A DEPTH OF 6 INCHES, ALL SOIL THAT HAS BEEN DRIVEN OVER DURING THE INSTALLATION OF PLANTS.
- 3.8 INSTALLATION OF PLANTS: GENERAL
- A.OBSERVE EACH PLANT AFTER DELIVERY AND PRIOR TO INSTALLATION FOR DAMAGE OF OTHER CHARACTERISTICS THAT MAY CAUSE REJECTION OF THE PLANT. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONDITION OBSERVED. B.NO MORE PLANTS SHALL BE DISTRIBUTED ABOUT THE PLANTING BED AREA THAN CAN BE PLANTED AND WATERED ON THE SAME DAY.
- C.THE OUTER SURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH OF ROOT MAT OR UP TO 2 INCHES AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.
- D. CONTAINER (INCLUDES BOXED AND ABOVE-GROUND FABRIC CONTAINERS) PLANTS 1. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.
- 2 REMOVE THE CONTAINER
- 3. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS: GENERAL ABOVE.
- 4. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS TO ROOT OBSERVATIONS DETAIL.
- E. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS. 3.9 STAKING AND GUYING
- A.DO NOT STAKE OR GUY TREES UNLESS SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS, OR IN THE EVENT THAT THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.
- 3.10 INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES A.DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSPLANTING UNLESS SOL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IS REQUIRED. APPLY CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- B. CONTROLLED RELEASE FERTILIZERS SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND STANDARD HORTICULTURAL PRACTICES. 3.11 PRUNING OF TREES AND SHRUBS

- A.PRUNE PLANTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN DETAILS; FOLLOW RECOMMENDATIONS IN "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY" PUBLISHED BY URBAN TREE FOUNDATION
- B. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING. C.EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE OWNER'S
- REPRESENTATIVE PRESERVE OR CREATE A CENTRAL LEADER
- D.PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUNERS OR IF NEEDED, FROM A LADDER OR HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE. DO NOT CLIMB IN NEWLY PLANTED TREES. SMALL TREES CAN BE STRUCTURALLY PRUNED BY LAYING THEM OVER BEFORE PLANTING. PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPING
- E. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER. F. NO TREE PAINT OR SEALANTS SHALL BE USED.

3.12 WATERING

- A. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS FROM THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR ADJUST FOR LESS WATER USING HOSES AS REQUIRED.
- B. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT POINT AND BELOW FIELD CAPACITY. TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE THE ROOT BALL TO DETERMINE THE WATER CONTENT
- 3.13 CLEAN-UP A DURING INSTALLATION. KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY, REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS
- THAN ONCE A WEEK. 1. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE
- CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY
- B. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF THE WARRANTY PFRIOD
- C.MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER WORK AT THE D.REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL
- BROUGHT TO THE SITE BY THE CONTRACTOR. 3.14 PROTECTION DURING CONSTRUCTION
- A. THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR REPLACE DAMAGED WORK IMMEDIATELY
- B. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR SUB-CONTRACTORS TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING ROOTS, TRUNK OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO
- 3.15 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

SHALL MAINTAIN ALL PLANTS.

- 3.16 SUBSTANTIAL COMPLETION ACCEPTANCE A DETERMINATION IF THE WORK IS SUBSTANTIALLY COMPLETE.
- 3.17 MAINTENANCE DURING THE WARRANTY PERIOD BY OTHERS

- STATE AND THE PLANTING AREAS CLEAN AND NEAT. B. GENERAL REQUIREMENTS:
- AND FEDERAL REQUIREMENTS.
- UNDERTAKEN

- C.PROVIDE THE FOLLOWING MAINTENANCE TASKS: MOISTURE CONTENT FOR PLANT GROWTH a. MAINTAIN ALL WATERING SYSTEMS AND EQUIPMENT AND KEEP THEM OPERATIONAL
- OF CHEMICAL UPTAKE BY THE PLANT.
- SHEAR PLANTS OR MAKE HEADING CUTS.
- NOTICED.

- APPLICATIONS.

REPRESENTATIVE

SURFACE

A.DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR

B. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAKES TIGHTENING AND REPAIRING OF GUYS REPAIRING AND REPLACING OF DAMAGED TREE WRAP MATERIAL RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

A. UPON WRITTEN NOTICE FROM THE CONTRACTOR, THE OWNERS REPRESENTATIVE SHALL REVIEW THE WORK AND MAKE

1. NOTIFICATION SHALL BE AT LEAST 7 DAYS PRIOR TO THE DATE THE CONTRACTOR IS REQUESTING THE REVIEW. B. THE DATE OF SUBSTANTIAL COMPLETION OF THE PLANTING SHALL BE THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION SECTIONS IS COMPLETE. THE PLANT WARRANTY PERIOD BEGINS AT DATE OF WRITTEN NOTIFICATION OF SUBSTANTIAL COMPLETION FROM THE OWNER'S REPRESENTATIVE. THE DATE OF SUBSTANTIAL COMPLETION MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.

A. AFTER SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAKE SUFFICIENT SITE VISITS TO OBSERVE THE OWNER'S MAINTENANCE AND BECOME AWARE OF PROBLEMS WITH THE MAINTENANCE IN TIME TO REQUEST CHANGES, UNTIL THE DATE OF END OF WARRANTY FINAL ACCEPTANCE.

1. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING IF MAINTENANCE, INCLUDING WATERING, IS NOT SUFFICIENT TO MAINTAIN PLANTS IN A HEALTHY CONDITION. SUCH NOTIFICATION MUST BE MADE IN A TIMELY PERIOD SO THAT THE OWNER'S REPRESENTATIVE MAY TAKE CORRECTIVE ACTION.

a) NOTIFICATION MUST DEFINE THE MAINTENANCE NEEDS AND DESCRIBE ANY CORRECTIVE ACTION REQUIRED. 2. IN THE EVENT THAT THE CONTRACTOR FAILS TO VISIT THE SITE AND OR NOTIFY, IN WRITING, THE OWNER'S REPRESENTATIVE OF MAINTENANCE NEEDS, LACK OF MAINTENANCE SHALL NOT BE USED AS GROUNDS FOR VOIDING OR MODIFYING THE PROVISIONS OF THE WARRANTY.

3.18 MAINTENANCE DURING THE WARRANTY PERIOD BY THE PLANT INSTALLER

A.DURING THE WARRANTY PERIOD, PROVIDE ALL MAINTENANCE FOR ALL PLANTINGS TO KEEP THE PLANTS IN A HEALTHY

1. ALL WORK SHALL BE UNDERTAKEN BY TRAINED PLANTING CREWS UNDER THE SUPERVISION OF A FOREMAN WITH A MINIMUM OF 5 YEARS EXPERIENCE SUPERVISING COMMERCIAL PLANT MAINTENANCE CREWS. 2. ALL CHEMICAL AND FERTILIZER APPLICATIONS SHALL BE MADE BY LICENSED APPLICATORS FOR THE TYPE OF CHEMICALS TO BE USED. ALL WORK AND CHEMICAL USE SHALL COMPLY WITH ALL APPLICABLE LOCAL, PROVINCIAL

3. ASSURE THAT HOSES AND WATERING EQUIPMENT AND OTHER MAINTENANCE EQUIPMENT DOES NOT BLOCK PATHS OR BE PLACED IN A MANNER THAT MAY CREATE TRIPPING HAZARDS. USE STANDARD SAFETY WARNING BARRIERS AND OTHER PROCEDURES TO MAINTAIN THE SITE IN A SAFE MANNER FOR VISITORS AT ALL TIMES. 4. ALL WORKERS SHALL WEAR REQUIRED SAFETY EQUIPMENT AND APPAREL APPROPRIATE FOR THE TASKS BEING

5. THE CONTRACTOR SHALL NOT STORE MAINTENANCE EQUIPMENT AT THE SITE AT TIMES WHEN THEY ARE NOT IN USE UNLESS AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE.

6. MAINTENANCE VEHICLES SHALL NOT PARK ON THE SITE INCLUDING WALKS AND LAWN AREAS AT ANY TIME WITHOUT THE OWNER'S REPRESENTATIVE'S WRITTEN PERMISSION. 7. MAINTAIN A DETAILED LOG OF ALL MAINTENANCE ACTIVITIES INCLUDING TYPES OF TASKS, DATE OF TASK, TYPES

AND QUANTITIES OF MATERIALS AND PRODUCTS USED, WATERING TIMES AND AMOUNTS, AND NUMBER OF EACH CREW. PERIODICALLY REVIEW THE LOGS WITH THE OWNER'S REPRESENTATIVE, AND SUBMIT A COPY OF THE LOGS AT THE END OF EACH YEAR OF THE MAINTENANCE AGREEMENT.

8. MEET WITH THE OWNER'S REPRESENTATIVE A MINIMUM OF THREE TIMES A YEAR TO REVIEW THE PROGRESS AND DISCUSS ANY CHANGES THAT ARE NEEDED IN THE MAINTENANCE PROGRAM. AT THE END OF THE WARRANTY PERIOD ATTEND A HAND OVER MEETING TO FORMALLY TRANSFER THE RESPONSIBILITIES OF MAINTENANCE TO THE OWNER'S REPRESENTATIVE. PROVIDE ALL INFORMATION ON PAST MAINTENANCE ACTIVITIES AND PROVIDE A LIST OF CRITICAL TASKS THAT WILL BE NEEDED OVER THE NEXT 12 MONTHS. PROVIDE ALL MAINTENANCE LOGS AND SOIL TEST DATA, MAKE THE CONTRACTOR'S SUPERVISOR AVAILABLE FOR A MINIMUM OF ONE YEAR AFTER. THE END OF THE WARRANTY PERIOD TO ANSWER QUESTIONS ABOUT PAST MAINTENANCE.

1. WATERING; PROVIDE ALL WATER REQUIRED TO KEEP SOIL WITHIN AND AROUND THE ROOT BALLS AT OPTIMUM

b. MONITOR SOIL MOISTURE TO PROVIDE SUFFICIENT WATER. CHECK SOIL MOISTURE AND ROOT BALL MOISTURE WITH A SOIL MOISTURE METER ON A REGULAR BASIS AND RECORD MOISTURE READINGS. DO NOT OVER WATER. 2. SOIL NUTRIENT LEVELS: TAKE A MINIMUM OF 4 SOIL SAMPLES FROM AROUND THE SITE IN THE SPRING AND FALL AND HAVE THEM TESTED BY AN ACCREDITED AGRICULTURAL SOIL TESTING LAB FOR CHEMICAL COMPOSITION OF PLANT REQUIRED NUTRIENTS, PH, SALT AND % ORGANIC MATTER. TEST RESULTS SHALL INCLUDE LABORATORY RECOMMENDATIONS FOR NUTRIENT APPLICATIONS. APPLY FERTILIZERS AT RATES RECOMMENDED BY THE SOIL

3. MAKE ANY OTHER SOIL TEST AND/OR PLANT TISSUE TEST THAT MAY BE INDICATED BY PLANT CONDITIONS THAT MAY NOT BE RELATED TO SOIL NUTRIENT LEVELS SUCH AS SOIL CONTAMINATED BY OTHER CHEMICALS OR LACK

4. PLANT PRUNING: REMOVE CROSS OVER BRANCHING, SHORTEN OR REMOVE DEVELOPING CO DOMINANT LEADERS, DEAD WOOD AND WINTER-DAMAGED BRANCHES. UNLESS DIRECTED BY THE OWNER'S REPRESENTATIVE, DO NOT

5. RESTORE PLANTS: RESET ANY PLANTS THAT HAVE SETTLED OR ARE LEANING AS SOON AS THE CONDITION IS

6. GUYING AND STAKING: MAINTAIN PLANT GUYS IN A TAUGHT POSITION. REMOVE TREE GUYS AND STAKING AFTER THE FIRST FULL GROWING SEASON UNLESS DIRECTED BY OWNER'S REPRESENTATIVE. 7. WEED CONTROL: KEEP ALL BEDS FREE OF WEEDS. HAND-REMOVE ALL WEEDS AND ANY PLANTS THAT DO NOT

APPEAR ON THE PLANTING PLAN. CHEMICAL WEED CONTROL IS PERMITTED ONLY WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE. SCHEDULE WEEDING AS NEEDED BUT NOT LESS THAN 12 TIMES PER YEAR. 8. TRASH REMOVAL: REMOVE ALL TRASH AND DEBRIS FROM ALL PLANTING BEDS AND MAINTAIN THE BEDS IN A NEAT AND TIDY APPEARANCE. THE NUMBER OF TRASH AND DEBRIS REMOVAL VISITS SHALL BE NO LESS THAN 12 TIMES PER YEAR AND MAY COINCIDE WITH OTHER MAINTENANCE VISITS.

9. PLANT PEST CONTROL: MAINTAIN DISEASE, INSECTS AND OTHER PESTS AT MANAGEABLE LEVELS. MANAGEABLE LEVELS SHALL BE DEFINED AS DAMAGE TO PLANTS THAT MAY BE NOTICEABLE TO A PROFESSIONAL BUT NOT TO THE AVERAGE PERSON. USE LEAST INVASIVE METHODS TO CONTROL PLANT DISEASE AND INSECT OUTBREAKS. 10. THE OWNER'S REPRESENTATIVE MUST APPROVE IN ADVANCE THE USE OF ALL CHEMICAL PESTICIDE

11. PLANT REPLACEMENT: REPLACE ALL PLANTS THAT ARE DEFECTIVE AS DEFINED IN THE WARRANTY PROVISIONS. AS SOON AS THE PLANT DECLINE IS OBVIOUS AND IN SUITABLE WEATHER AND SEASON FOR PLANTING AS OUTLINED IN ABOVE SECTIONS. PLANTS THAT BECOME DEFECTIVE DURING THE MAINTENANCE PERIOD SHALL BE COVERED AND REPLACED UNDER THE WARRANTY PROVISIONS.

12. MULCH: REFRESH MULCH ONCE A YEAR TO MAINTAIN COMPLETE COVERAGE BUT DO NOT OVER MULCH. AT NO TIME SHALL THE OVERALL MULCH THICKNESS BE GREATER THAN 4 INCHES, DO NOT APPLY MULCH WITHIN 6 INCHES OF THE TRUNKS OR STEMS OF ANY PLANTS. REPLACEMENT MULCH SHALL MEET THE REQUIREMENTS OF THE ORIGINAL APPROVED MATERIAL. MULCH SHALL BE NO MORE THAN ONE INCH ON TOP OF THE ROOT BALL

13. BED EDGING: CHECK AND MAINTAIN EDGES BETWEEN MULCH AND LAWN AREAS IN SMOOTH NEAT LINES AS ORIGINALLY SHOWN ON THE DRAWINGS.

14. LEAF, FRUIT AND OTHER PLANT DEBRIS REMOVAL: REMOVE FALL LEAF, SPENT FLOWERS, FRUIT AND PLANT PART ACCUMULATIONS FROM BEDS AND PAVED SURFACES MAINTAIN ALL SURFACE WATER DRAINS FREE OF DEBRIS DEBRIS REMOVAL SHALL BE UNDERTAKEN AT EACH VISIT TO WEED OR PICK UP TRASH IN BEDS.

15. DAMAGE FROM SITE USE: REPAIR OF DAMAGE BY SITE VISITORS AND EVENTS. BEYOND NORMAL WEAR, ARE NOT PART OF THIS MAINTENANCE. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT THE CONTRACTOR REPAIR DAMAGE BEDS OR PLANTINGS FOR AN ADDITIONAL COST. ALL ADDITIONAL WORK SHALL BE APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.

3.19 END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION

A.AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD THE OWNER'S REPRESENTATIVE SHALL OBSERVE THE WORK AND ESTABLISH THAT ALL PROVISIONS OF THE CONTRACT ARE COMPLETE AND THE WORK IS SATISFACTORY. 1. IF THE WORK IS SATISFACTORY, THE MAINTENANCE PERIOD WILL END ON THE DATE OF THE FINAL OBSERVATION. 2. IF THE WORK IS DEEMED UNSATISFACTORY, THE MAINTENANCE PERIOD WILL CONTINUE AT NO ADDITIONAL EXPENSE TO THE OWNER UNTIL THE WORK HAS BEEN COMPLETED, OBSERVED, AND APPROVED BY THE OWNER'S

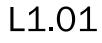
B. FAILURE TO PASS OBSERVATION: IF THE WORK FAILS TO PASS FINAL OBSERVATION, ANY SUBSEQUENT OBSERVATIONS MUST BE RESCHEDULED AS PER ABOVE. THE COST TO THE OWNER FOR ADDITIONAL OBSERVATIONS WILL BE CHARGED TO THE CONTRACTOR AT THE PREVAILING HOURLY RATE OF THE OWNERS REPRESENTATIVE.







PROJECT NUMB 010011001	ER:	
DRAWN BY: ALM	DESIGNED BY: JAM	CHECKED BY: DMP
DATE: 2020/05/01		



#### PLANTING SOIL - PRODUCTS

4.1 MODIFIED EXISTING SOIL (SOIL SUITABLE FOR PLANTING WITH INDICATED MODIFICATION)

- A. GENERAL DEFINITION: SURFACE SOIL IN PLANTING BED AREAS. SOIL HAS BEEN ALTERED AND OR GRADED BEFORE OR DURING THE CONSTRUCTION PROCESS BUT IS STILL CONSIDERED ACCEPTABLE FOR PLANTING AND LONG TERM HEALTH OF THE PLANTS SPECIFIED WITH THE PROPOSED MODIFICATIONS. MODIFICATIONS RESPOND TO THE SOIL
- PROBLEMS EXPECTED OR ENCOUNTERED. GENERAL REQUIREMENTS FOR ALL SOIL MODIFICATIONS 1. UNLESS OTHERWISE INSTRUCTED, REMOVE ALL EXISTING PLANTS, ROOT THATCH, AND NON-SOIL DEBRIS FROM THE SURFACE OF THE SOIL USING EQUIPMENT THAT DOES NOT ADD TO THE COMPACTION IN THE SOIL.
- 2. ALL SOIL GRADING, TILLING AND LOOSENING MUST BE COMPLETED AT TIMES WHEN THE SOIL MOISTURE IS BELOW FIELD CAPACITY. ALLOW SOIL TO DRAIN FOR AT LEAST TWO DAYS AFTER ANY RAIN EVENT MORE THAN 1 INCH IN 24 HOURS, OR LONG ENOUGH SO THAT THE SOIL DOES NOT MAKE THE HAND MUDDY WHEN SQUFF7FD 3. PROVIDE PRE-EMERGENT WEED CONTROL AFTER THE SOIL WORK IS COMPLETE AND PLANTS PLANTED BUT
- PRIOR TO ADDING MULCH TO THE SURFACE, IF INDICATED BY WEED TYPE AND DEGREE OF THREAT. B. MODIFIED EXISTING SOIL - SOIL REMOVED. STOCKPILED. AND SPREAD
- 1. DESCRIPTION OF CONDITION TO BE MODIFIED: EXISTING SOIL THAT IS SUITABLE FOR REUSE AS PLANTING SOIL BUT IS IN THE WRONG PLACE OF ELEVATION. OR CANNOT BE ADEQUATELY PROTECTED DURING CONSTRUCTION. SOIL IS TO BE HARVESTED, STOCKPILED AND RE-SPREAD WITH OR WITHOUT FURTHER MODIFICATIONS AS INDICATED.
- 2. MODIFICATIONS:
- a) EXCAVATE EXISTING SOIL FROM THE AREAS AND TO DEPTHS DESIGNATED ON THE DRAWINGS. STOCKPILE IN ZONES NOTED ON THE DRAWINGS OR IN AREAS PROPOSED BY THE CONTRACTOR. b) EXCAVATE SOIL USING EQUIPMENT AND METHODS TO PRESERVE THE CLUMPS AND PEDS IN THE SOIL. GENERALLY THIS MEANS USING THE LARGEST PIECE OF EQUIPMENT THAT IS PRACTICAL FOR THE PROJECT
- SIZE AND SCOPE. c) PROTECT STOCK PILES FROM EROSION BY COMPACTING OR TRACKING THE SOIL SURFACE, COVERING WITH BREATHABLE FABRIC OR PLANTING WITH ANNUAL GRASSES AS APPROPRIATE FOR THE SEASON, LOCATION, AND LENGTH OF EXPECTED TIME OF STORAGE.
- d) RE-SPREAD SOIL AS REQUIRED IN PART 3 OF THIS SPECIFICATION. C.MODIFIED EXISTING SOIL - COMPACTED SURFACE SOIL (TILLING OPTION)
- 1. DESCRIPTION OF CONDITION TO BE MODIFIED: SURFACE SOIL COMPACTION TO A MAXIMUM OF 6 INCHES DEEP FROM TRAFFIC OR LIGHT GRADING. ORIGINAL A HORIZON MAY BE PREVIOUSLY REMOVED OR GRADED BUT LOWER PROFILE INTACT WITH ACCEPTABLE COMPACTION LEVELS AND LIMITED GRADING. THE SOIL ORGANIC MATTER, PH AND CHEMISTRY IN THE A HORIZON MAY NOT BE SUITABLE FOR THE PROPOSED PLANTS AND MAY NEED TO BE MODIFIED AS REQUIRED.
- 2. MODIFICATIONS
- a) TILL TOP 6 INCHES OR DEEPER OF THE SOIL SURFACE, WITH A ROTO TILLER, SPADE TILLER, RIPPER OR AGRICULTURAL PLOW. SPREAD 2 - 3 INCHES OF COMPOST ON THE SURFACE OF THE TILLED SOIL AND MAKE ANY CHEMICAL ADJUSTMENT AS RECOMMENDED BY THE SOIL TEST.
- b) TILL OR DISK THE COMPOST INTO THE LOOSENED SOIL. SMOOTH OUT GRADES WITH A DRAG RAKE OR DRAG

#### PLANTING SOIL - EXECUTION

- 5.1 SITE EXAMINATION A.PRIOR TO INSTALLATION OF PLANTING SOIL, EXAMINE SITE TO CONFIRM THAT EXISTING CONDITIONS ARE SATISFACTORY FOR THE WORK OF THIS SECTION TO PROCEED.
- 1. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. SUBGRADE ELEVATIONS SHALL SLOPE TOWARD THE UNDER DRAIN LINES AS SHOWN ON THE DRAWINGS.
- 2. CONFIRM THAT SURFACE ALL AREAS TO BE FILLED WITH PLANTING SOIL ARE FREE OF CONSTRUCTION DEBRIS, REFUSE, COMPRESSIBLE OR BIODEGRADABLE MATERIALS, STONES GREATER THAN 2 INCHES DIAMETER, SOIL CRUSTING FILMS OF SILT OR CLAY THAT REDUCES OR STOPS DRAINAGE FROM THE PLANTING SOIL INTO THE SUBSOIL; AND/OR STANDING WATER. REMOVE UNSUITABLE MATERIAL FROM THE SITE. 3. CONFIRM THAT NO ADVERSE DRAINAGE CONDITIONS ARE PRESENT
- 4. CONFIRM THAT NO CONDITIONS ARE PRESENT WHICH ARE DETRIMENTAL TO PLANT GROWTH.
- 5. CONFIRM THAT UTILITY WORK HAS BEEN COMPLETED PER THE DRAWINGS.
- 6. CONFIRM THAT IRRIGATION WORK, WHICH IS SHOWN TO BE INSTALLED BELOW PREPARED SOIL LEVELS, HAS BEEN COMPLETED. B. IF UNSATISFACTORY CONDITIONS ARE ENCOUNTERED, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY TO DETERMINE CORRECTIVE ACTION BEFORE PROCEEDING.
- 5.2 COORDINATION WITH PROJECT WORK
- A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK. B. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES
- C.COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS ENCOUNTERED. 5.3 GRADE AND ELEVATION CONTROL
- A.PROVIDE GRADE AND ELEVATION CONTROL DURING INSTALLATION OF PLANTING SOIL. UTILIZE GRADE STAKES, SURVEYING EQUIPMENT, AND OTHER MEANS AND METHODS TO ASSURE THAT GRADES AND CONTOURS CONFORM TO THE GRADES INDICATED ON THE PLANS.
- 5.4 SITE PREPARATION A.EXCAVATE TO THE PROPOSED SUBGRADE. MAINTAIN ALL REQUIRED ANGLES OF REPOSE OF THE ADJACENT MATERIALS AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY THIS SPECIFICATION. DO NOT OVER EXCAVATE COMPACTED SUBGRADES OF ADJACENT PAVEMENT OR STRUCTURES. MAINTAIN A SUPPORTING 1:1 SIDE SLOPE OF COMPACTED SUBGRADE MATERIAL ALONG THE EDGES OF ALL PAVING AND STRUCTURES WHERE THE BOTTOM OF THE PAVING OR STRUCTURE IS ABOVE THE BOTTOM ELEVATION OF THE EXCAVATED PLANTING AREA. B. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIAL INCLUDING ANY CONSTRUCTION MATERIALS FROM THE
- SUBGRADE. C.CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. SUBGRADE ELEVATIONS SHALL SLOPE APPROXIMATELY PARALLEL TO THE FINISHED GRADE AND/OR TOWARD THE SUBSURFACE DRAIN LINES AS SHOWN ON THE DRAWINGS
- D.IN AREAS WHERE PLANTING SOIL IS TO BE SPREAD, CONFIRM SUBGRADE HAS BEEN SCARIFIED. E. PROTECT ADJACENT WALLS, WALKS AND UTILITIES FROM DAMAGE OR STAINING BY THE SOIL. USE 1/2 INCH
- PLYWOOD AND OR PLASTIC SHEETING AS DIRECTED TO COVER EXISTING CONCRETE, METAL AND MASONRY WORK AND OTHER ITEMS AS DIRECTED DURING THE PROGRESS OF THE WORK. 1. AT THE END OF EACH WORKING DAY, CLEAN UP ANY SOIL OR DIRT SPILLED ON ANY PAVED SURFACE.
- 2. ANY DAMAGE TO THE PAVING OR SITE FEATURES OR WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE

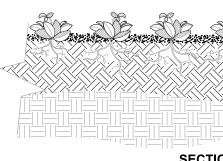
#### 5.5 CLEAN-UP

- A. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK
- 1. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY
- B. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE OWNER'S REPRESENTATIVE SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF THE WARRANTY PERIOD
- 1. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE TO THE WORK OR OTHER WORK AT THE SITE. 2. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.
- 5.6 PLANTING SOIL AND MODIFIED EXISTING SOIL PROTECTION A. THE CONTRACTOR SHALL PROTECT INSTALLED AND/OR MODIFIED PLANTING SOIL FROM DAMAGE INCLUDING CONTAMINATION AND OVER COMPACTION DUE TO OTHER SOIL INSTALLATION, PLANTING OPERATIONS, AND OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL ACCEPTANCE. UTILIZE FENCING AND MATTING AS REQUIRED OR DIRECTED TO PROTECT THE FINISHED SOIL WORK. TREAT, REPAIR OR REPLACE DAMAGED PLANTING SOIL IMMEDIATELY.
- B. LOOSEN COMPACTED PLANTING SOIL AND REPLACE PLANTING SOIL THAT HAS BECOME CONTAMINATED AS DETERMINED BY THE OWNER'S REPRESENTATIVE. PLANTING SOIL SHALL BE LOOSENED OR REPLACED AT NO EXPENSE TO THE OWNER.
- 1. TILL AND RESTORE GRADES TO ALL SOIL THAT HAS BEEN DRIVEN OVER OR COMPACTED DURING THE INSTALLATION OF PLANTS.
- 2. WHERE MODIFIED EXISTING SOIL HAS BECOME CONTAMINATED AND NEEDS TO BE REPLACED, PROVIDE IMPORTED SOIL THAT IS OF SIMILAR COMPOSITION, DEPTH AND DENSITY AS THE SOIL THAT WAS REMOVED. 7 PROTECTION DURING CONSTRUCTION
- A. THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS 1. MAINTAIN PROTECTION DURING INSTALLATION UNTIL THE DATE OF PLANT ACCEPTANCE (SEE SPECIFICATIONS SECTION - PLANTING). TREAT, REPAIR OR REPLACE DAMAGED WORK IMMEDIATELY.
- 2. PROVIDE TEMPORARY EROSION CONTROL AS NEEDED TO STOP SOIL EROSION UNTIL THE SITE IS STABILIZED WITH MULCH. PLANTINGS OR TURF B. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR SUB-CONTRACTORS TO EXISTING OR INSTALLED PLANTS,
- OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHEN SUCH CLEANING. REPLACEMENT OR REPAIR IS SATISFACTORY. DAMAGE TO EXISTING TREES SHALL BE ASSESSED BY A CERTIFIED ARBORIST. .8 SUBSTANTIAL COMPLETION ACCEPTANCE
- A. UPON WRITTEN NOTICE FROM THE CONTRACTOR, THE OWNERS REPRESENTATIVE SHALL REVIEW THE WORK AND MAKE A DETERMINATION IF THE WORK IS SUBSTANTIALLY COMPLETE. B. THE DATE OF SUBSTANTIAL COMPLETION OF THE PLANTING SOIL SHALL BE THE DATE WHEN THE OWNER'S
- REPRESENTATIVE ACCEPTS THAT ALL WORK IN PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION SECTIONS IS COMPLETE.

5.9 FINAL ACCEPTANCE / SOIL SETTLEMENT

- A.AT THE END OF THE PLANT WARRANTEE AND MAINTENANCE PERIOD, (SEE SPECIFICATION SECTION PLANTING) THE OWNER'S REPRESENTATIVE SHALL OBSERVE THE SOIL INSTALLATION WORK AND ESTABLISH THAT ALL PROVISIONS OF THE CONTRACT ARE COMPLETE AND THE WORK IS SATISFACTORY. 1. RESTORE ANY SOIL SETTLEMENT AND OR EROSION AREAS TO THE GRADES SHOWN ON THE DRAWINGS. WHEN
- DO NOT ADD SOIL OVER THE ROOT BALLS OF PLANTS OR ON TOP OF MULCH. B. FAILURE TO PASS ACCEPTANCE: IF THE WORK FAILS TO PASS FINAL ACCEPTANCE, ANY SUBSEQUENT OBSERVATIONS MUST BE RESCHEDULED AS PER ABOVE. THE COST TO THE OWNER FOR ADDITIONAL OBSERVATIONS WILL BE CHARGED TO THE CONTRACTOR AT THE PREVAILING HOURLY RATE OF THE OWNER'S **REPRESENTATIVE**
- 1. DEBRIS REMOVAL SHALL BE UNDERTAKEN AT EACH VISIT TO WEED OR PICK UP TRASH IN BEDS. 2. DAMAGE FROM SITE USE: REPAIR OF DAMAGE BY SITE VISITORS AND EVENTS, BEYOND NORMAL WEAR, ARE NOT PART OF THIS MAINTENANCE. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT THE CONTRACTOR REPAIR DAMAGE BEDS OR PLANTINGS FOR AN ADDITIONAL COST. ALL ADDITIONAL WORK SHALL BE APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
- 5.10 END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION A.AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD THE OWNER'S REPRESENTATIVE SHALL OBSERVE THE
- WORK AND ESTABLISH THAT ALL PROVISIONS OF THE CONTRACT ARE COMPLETE AND THE WORK IS SATISFACTORY. 1. IF THE WORK IS SATISFACTORY, THE MAINTENANCE PERIOD WILL END ON THE DATE OF THE FINAL OBSERVATION
- OWNER'S REPRESENTATIVE.

2. IF THE WORK IS DEEMED UNSATISFACTORY, THE MAINTENANCE PERIOD WILL CONTINUE AT NO ADDITIONAL EXPENSE TO THE OWNER UNTIL THE WORK HAS BEEN COMPLETED, OBSERVED, AND APPROVED BY THE B. FAILURE TO PASS OBSERVATION: IF THE WORK FAILS TO PASS FINAL OBSERVATION, ANY SUBSEQUENT OBSERVATIONS MUST BE RESCHEDULED AS PER ABOVE. THE COST TO THE OWNER FOR ADDITIONAL OBSERVATIONS WILL BE CHARGED TO THE CONTRACTOR AT THE PREVAILING HOURLY RATE OF THE OWNERS REPRESENTATIVE



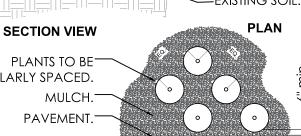
TRIANGULARLY SPACED.

MULCH. PAVEMENT.

NOTES: 1- SEE PLANTING LEGEND FOR SPECIES, SIZE, AND SPACING DIMENSION. 2- Small Roots ( $l_4'''$  or less) that grow around, UP, or down THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL). 3- SETTLE SOIL AROUND EACH ROOT BALL PRIOR TO MULCHING.

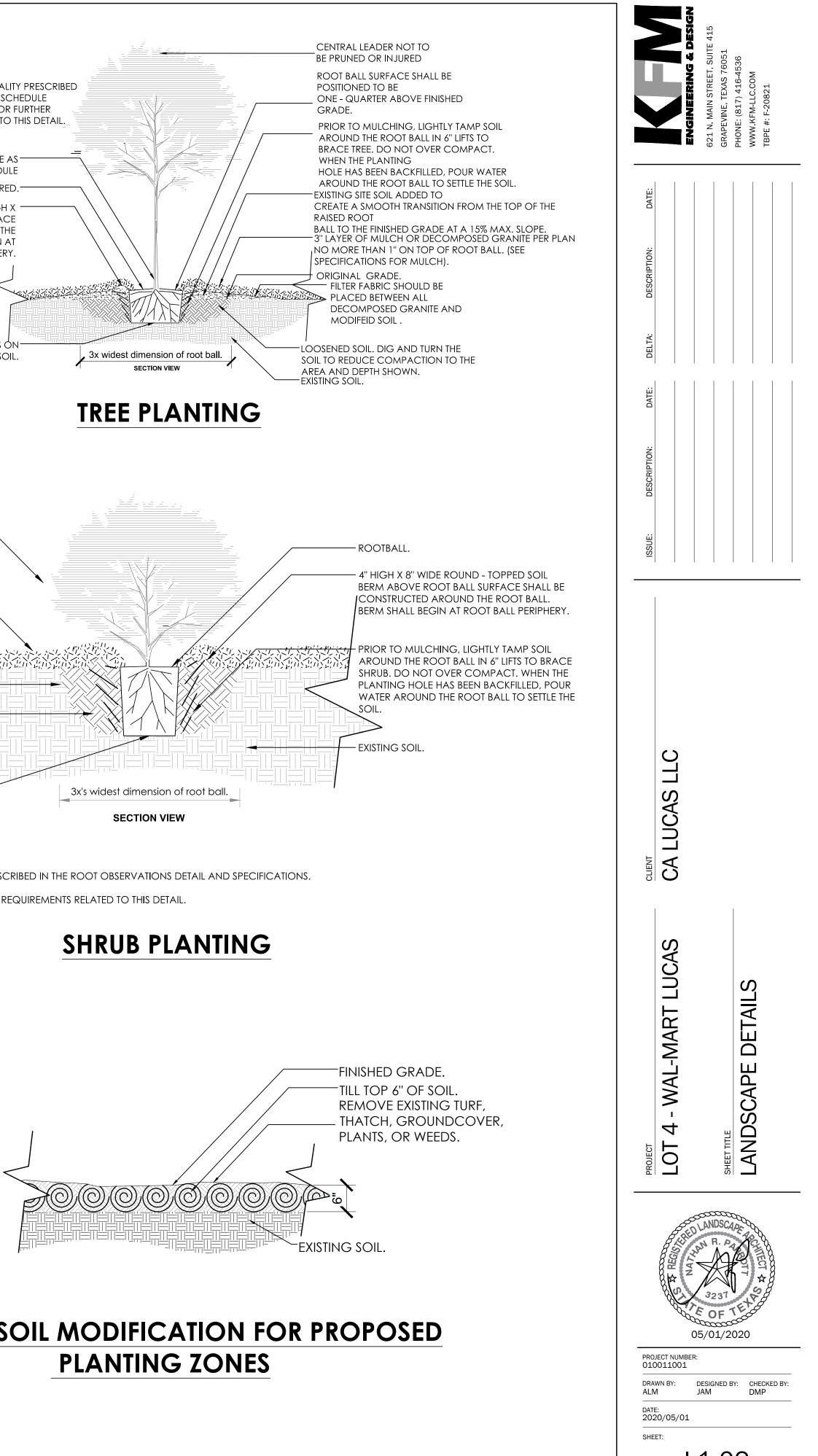


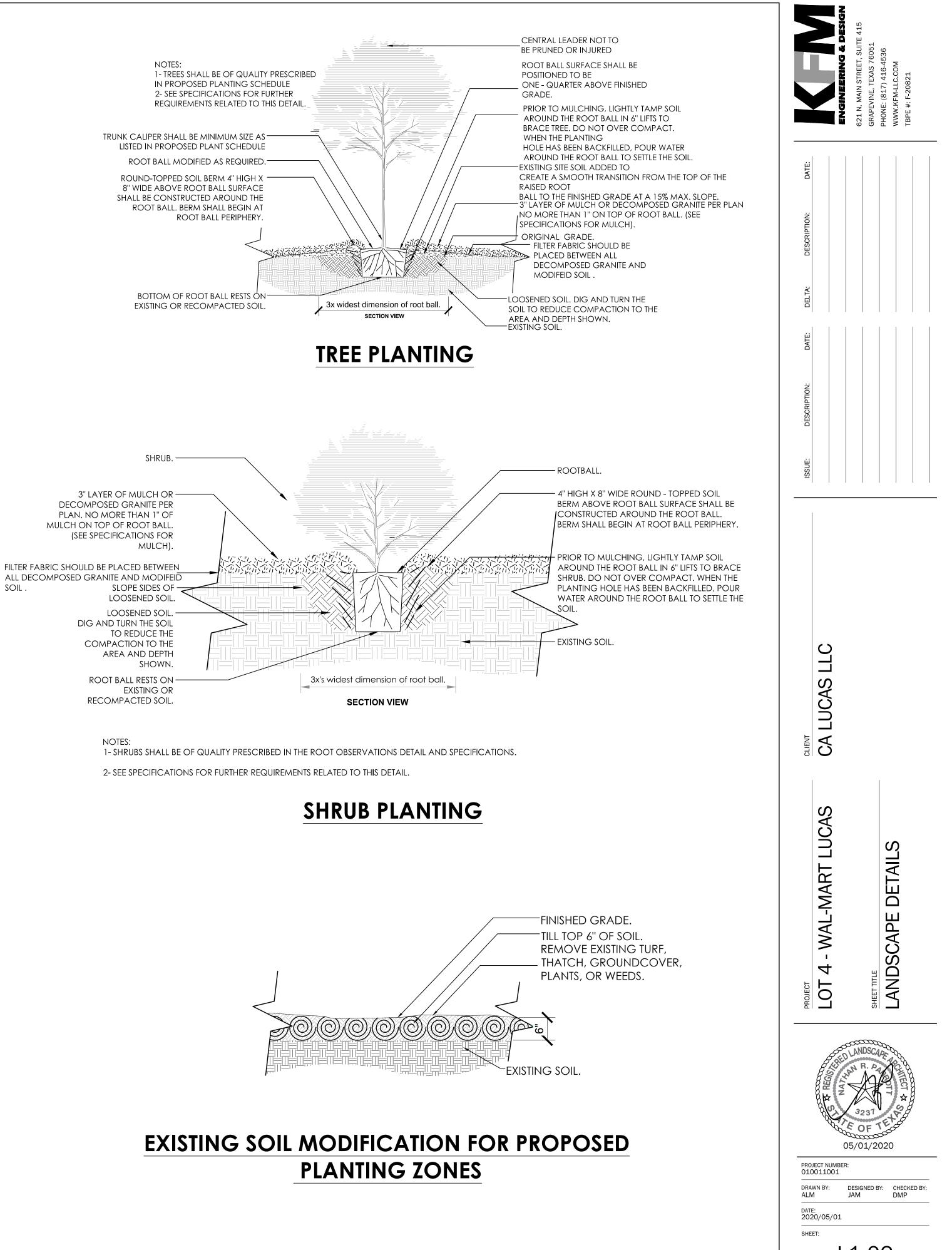
# SHRUB AND GROUNDCOVER SPACING

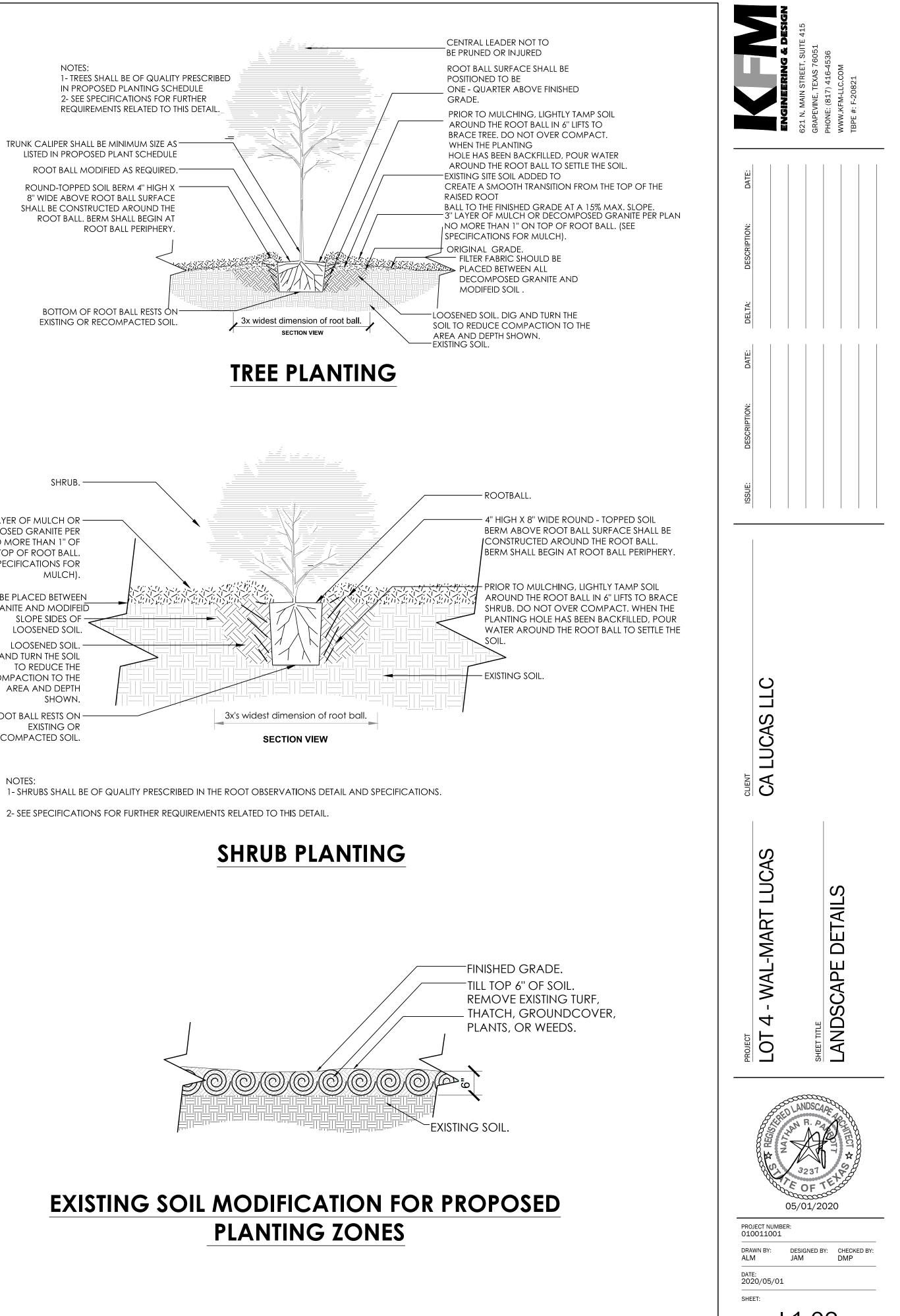


DECOMPOSED GRANITE PER PLAN FILTER FABRIC SHOULD BE PLACED BETWEEN DECOMPOSED GRANITE AND MODIFIED SOIL MODIFIED SOIL. DEPTH VARIES. (SEE SPECIFICATIONS FOR SOIL MODIFICATION).

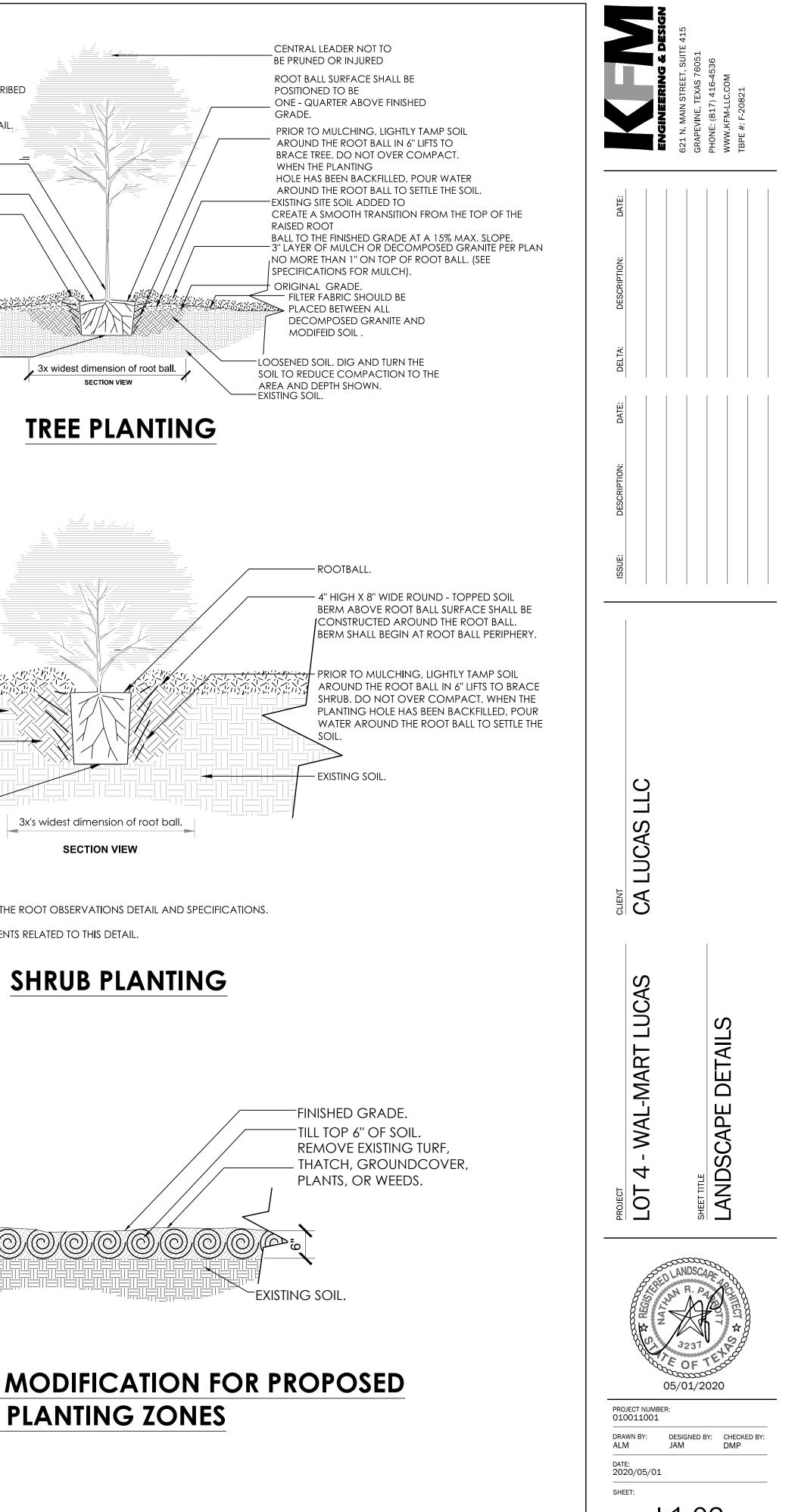
3" THICK LAYER OF MULCH OR







RESTORING SOIL GRADES REMOVE PLANTS AND MULCH AND ADD SOIL BEFORE RESTORING THE PLANTING.



L1.02



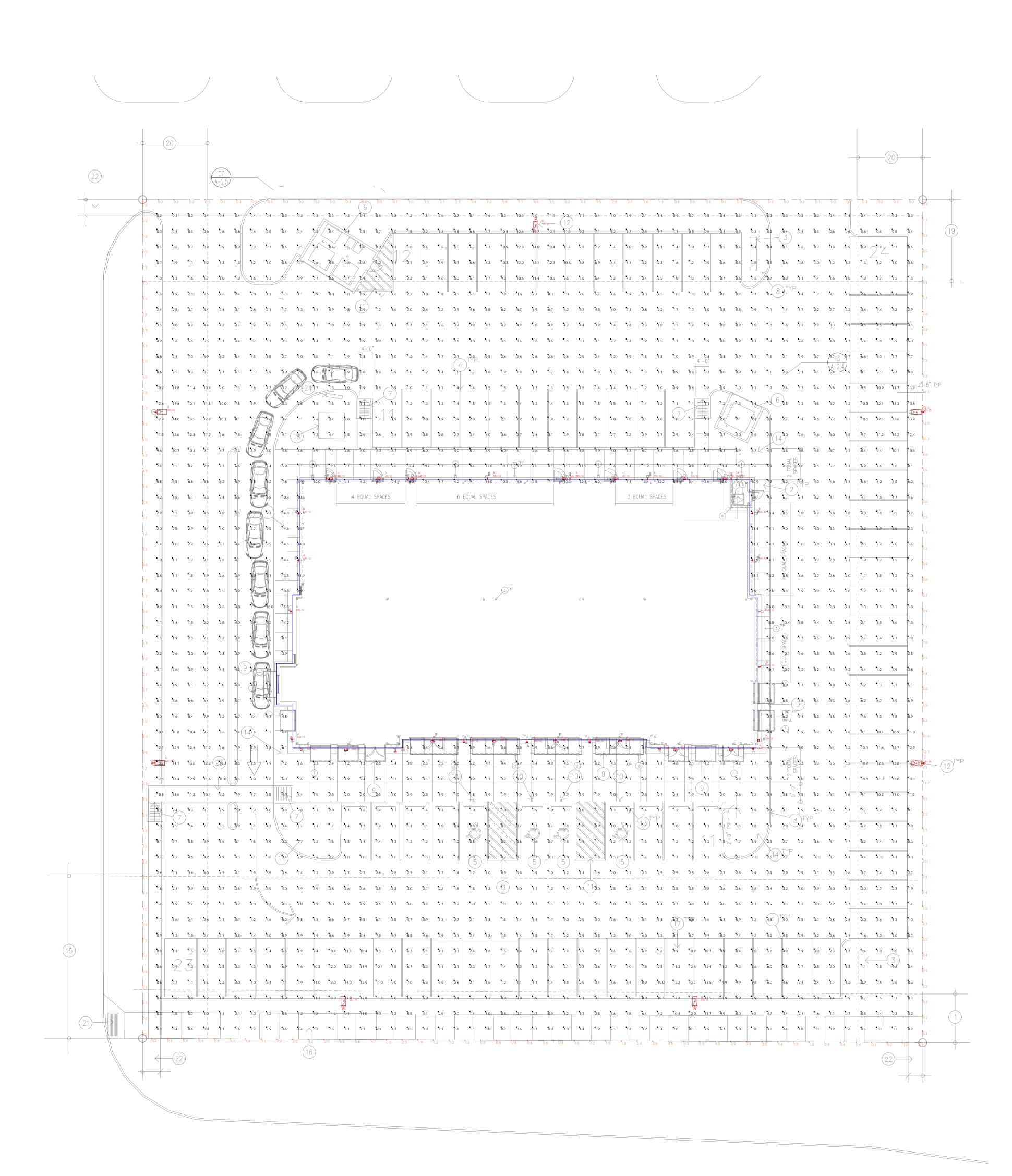
# LUCAS MULTI-TENANT BUILDING - MATERIAL SELECTIONS

# LUCAS, TEXAS DEVELOPER

**JCD HOLDINGS LLC** 

# LUCAS MULTI-TENANT BUILD

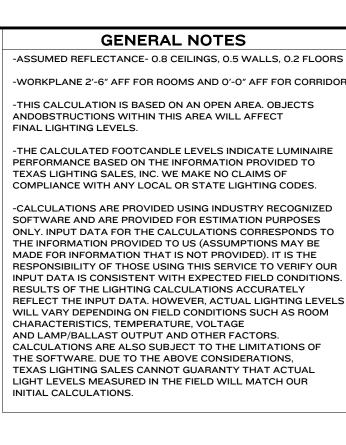




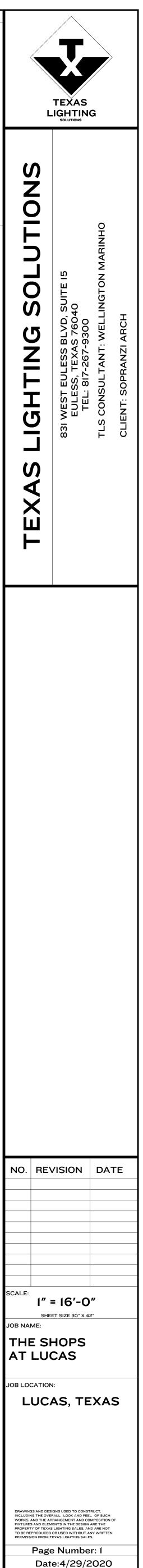
Calculation Summary										
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb	CALC HT
PROPERTY LINE	Illuminance	Fc	2.62	12.6	0.0	N.A.	N.A.	5	N.A.	N.A
SITE	Illuminance	Fc	4.25	16.8	0.0	N.A.	N.A.	5	5	0

Luminaire S	Luminaire Sche			
Symbol	Q			
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ty	Label	Arrangement	LLF	Description	Lum. Watts	Total Watts	Lum. Lumens
	Α	SINGLE	0.900	3061-S100	120	1080	1422
3	в	SINGLE	0.900	XTOR4B	37.7	490.1	4269
4	D	SINGLE	0.900	SELW25	0.66	9.240001	60
	G	SINGLE	0.900	T322LEDB-300-UNI12-40-T3	299.2	2094.4	36079















# LUCAS MULTI-TENANT BUILDING



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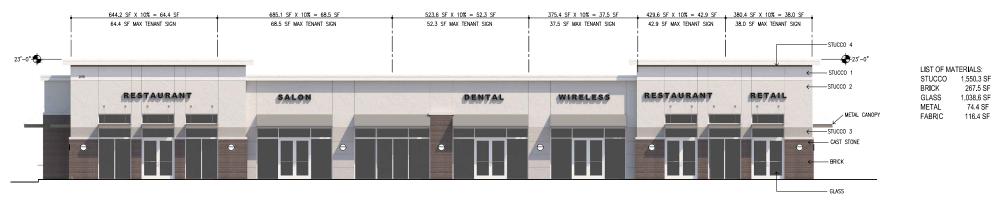
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#### SOUTH ELEVATION (FRONT)

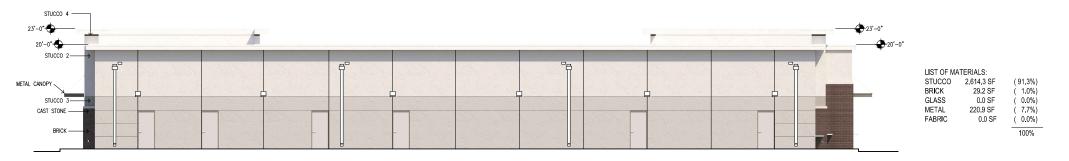
TOTAL SURFACE AREA = 3,047.2 SF





EAST ELEVATION

TOTAL SURFACE AREA = 1,789.1 SF



NORTH ELEVATION TOTAL SURFACE AREA = 2,864.4 SF

#### FACADE NOTES:

THESE FACADE PLANS ARE FOR CONCEPTUAL PURPOSES ONLY. ALL BUILDING PLANS REQUIRE REVIEW AND APPROVAL OF THE BUILDING INSPECTION DEPARTMENT.

ALL MECHANICAL UNITS SHALL BE SCREENED FROM PUBLIC VIEW.

WHEN PERMITTED, EXPOSED UTILITY BOXES AND CONDUITS SHALL BE PAINTED TO MATCH THE BUILDING.

ALL SIGNAGE AREAS AND LOCATIONS ARE SUBJECT TO APPROVAL BY THE BUILDING INSPECTION DEPARTMENT

ROOF ACCESS SHALL BE PROVIDED INTERNALLY, UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL.

(50.8%)

(8.7%)

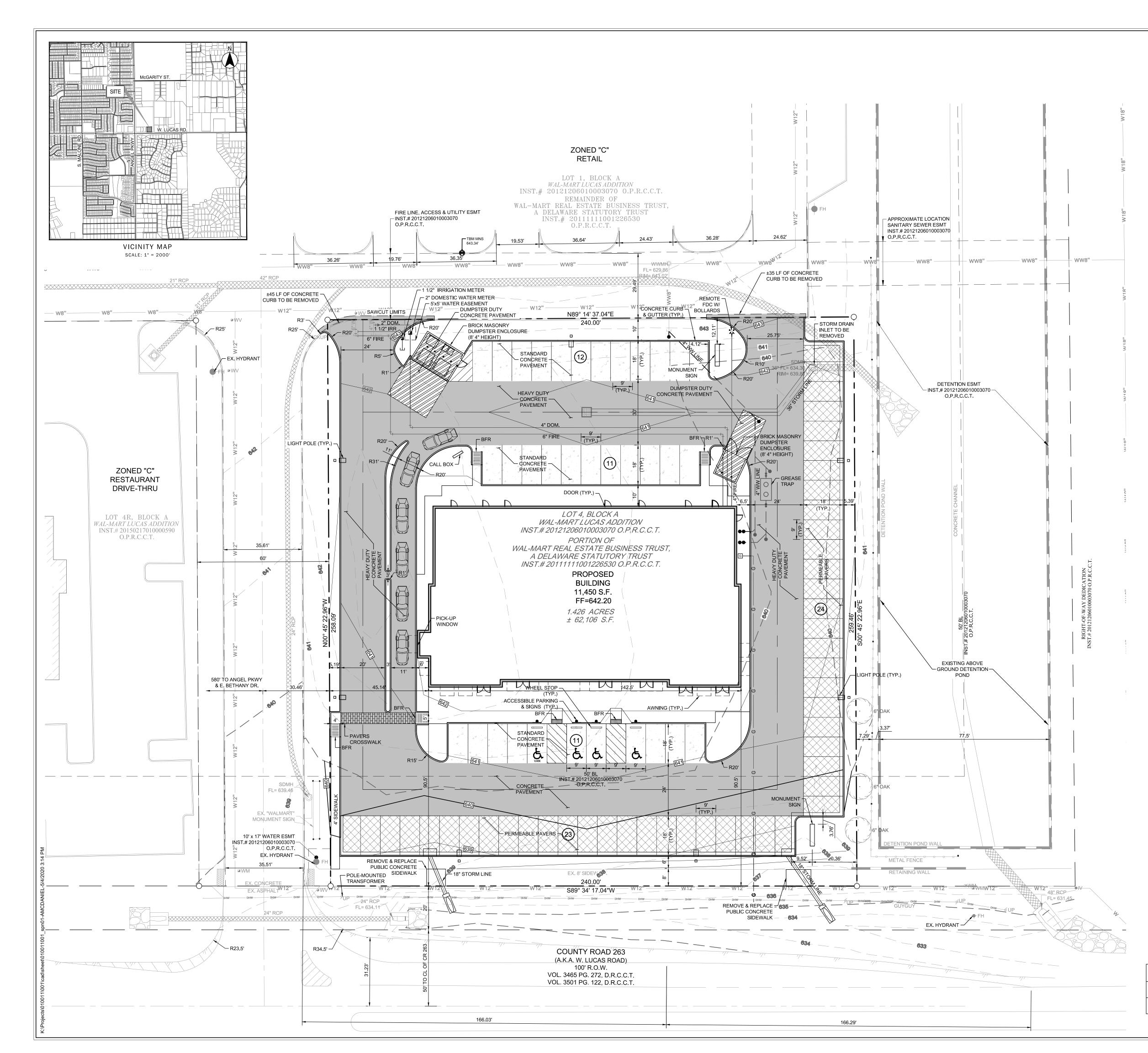
(34.2%) ( 2.6%)

(3.8%) 100%

# BUILDIN C E LUCAS MULTI-

MULTI-TENANT

Ű



	0 10 20 40 SCALE 1:20		
	LEGEND		
	PERMEABLE PAVERS		
	DUMPSTER DUTY PAVEMENT		
	STANDARD DUTY PAVEMENT		
	HEAVY DUTY PAVEMENT		
	BFR		
<b>ل</b> ا VA	VAN ACCESSIBLE PARKING		
Ę	ACCESSIBLE PARKING		
	LIGHT SIGN		
	SITE DATA SUMMARY TABLE		
SITE AREA:	1.42 AC (62,106 S.F.)		
	11,450 S.F.		
LOT COVERAGE: BUILDING HEIGHT:			
BUILDING USE:	23' - 0" 1-STORY RESTAURANT, RETAIL & OFFICE		
PARKING PROVIDED: REQ'D:	81 SPACES (4 ACCESSIBLE) 80 SPACES (4 ACCESSIBLE) RESTAURANT 4,175 SF X 50% = 2,087 SF DINNING AREA 2,087 SF @ 15 SF PER OCCUPANT = 139 OCCUPANTS 139 OCCUPANTS @ 1:3 = 46 SPACES REQUIRED RETAIL 5,091 SF @ 1:200 = 26 SPACES REQUIRED OFFICE 2,118 SF @ 1:300 = 8 SPACES REQUIRED		
ZONING:	"C" COMMERCIAL SUP - DRIVE-THRU RESTAURANT		
IMPERVIOUS COVER PERVIOUS:	ORDINANCE # 2020-04-00909 21,737 S.F. (35%)		
IMPERVIOUS:	40,369 S.F. (65%)		
	DIMENSIONAL CONTROL NOTES		
CONSTRUCTION NOTES	TION NOTES: REFER TO SHEET C0.03 "GENERAL CONSTRUCTION NOTES" FOR THE GENERAL S FOR THE PROJECT. VEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE		
CONTRACTOR. THE DE HORIZONTAL AND VEI SURVEYOR TO PERFO	EVELOPER SHALL PROVIDE THE PROPERTY CORNERS AND TWO BENCHMARKS FOR USE AS RTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND DRM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE		
CORNER MARKERS AN	PROJECT. PERTY CORNERS AND BENCHMARKS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY ID BENCHMARKS, AND WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING ALL BE PROPERLY REFERENCED AND IF DISTURBED, SHALL BE RESET BY A REGISTERED		
PUBLIC SURVEYOR AT 4. DIMENSIONAL CONTRO	THE EXPENSE OF THE CONTRACTOR. <b>OL:</b> ALL PAVING DIMENSIONS AND COORDINATES SHOWN ARE TO FACE OF CURB WHERE INSIONS SHOWN AT PL CURB POINTS ARE AT THE INTERSECTION OF THE FACE OF CURB.		
5. CURB RADII: ALL CURE	B RADII SHALL BE 3 FEET TO FACE OF CURB UNLESS OTHERWISE NOTED.		
DIMENSIONS AND COR	NERS SHOWN ARE TO FACE OF OUTSIDE WALLS OF BUILDING. DARY SURVEY: SURVEY INCLUDES PROPERTY LINE, LEGAL DESCRIPTION, EXISTING UTILITIES, VITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE		
JPH LAND SURVE JPH LAND SURVE 785 LONESOME D HURST, TEXAS 76 CONTACT: JEWEL PHONE: (817) 431- EMAIL: JEWEL@JF	/IDED BY: YING OVE TRAIL 5054 _ CHADD -4971		
COMPLY WITH REQUIR	HANDICAPPED PARKING AREAS SHALL BE CONSTRUCTED PER CITY STANDARDS AND SHALL EMENTS OF THE CURRENT, ADOPTED INTERNATIONAL BUILDING CODE.		
9. FIRE LANE: FIRE LANES SHALL BE CONSTRUCTED AND MARKED PER CITY STANDARDS REFERENCE PAVING PLAN FOR DETAILS.			
	TO PROVIDE HANDICAPPED PARKING SIGNS AND POLES.		

ENGINEERING & DESIGN

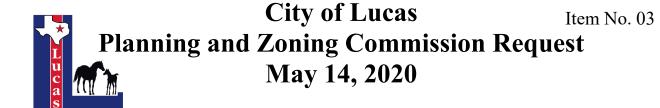
<u>OWNER:</u> CA LUCAS LLC 5525 N. MACARTHUR BLVD, STE 400 IRVING, TEXAS 75038 CONTACT: AUSTIN CLINKSCALES PHONE: (817) 368-9499

<u>ENGINEER:</u> KFM ENGINEERING & DESIGN 621 N. MAIN STREET, SUITE 415 GRAPEVINE, TEXAS 76051 CONTACT: CHARLES E. FOWLER PHONE: (817) 416-4KFM <u>SURVEYOR:</u> JPH LAND SURVEYING 785 LONESOME DOVE TRAIL HURST, TEXAS 76054 CONTACT: JEWEL CHADD PHONE: (817) 431-4971

SUBMITTAL LOG					
INITIAL SUBMITTAL	5/1/2020				
RESUBMITTAL	5/1/2020				

# SITE PLAN

LOT 4 WAL-MART LUCAS 1.42 ACRES LOT 4, BLOCK A, WAL-MART LUCAS ADDITION CITY OF LUCAS COLLIN COUNTY, TEXAS CITY PROJECT NO. \_\_\_\_-



Requester: Development Services Director Joe Hilbourn

#### **Agenda Item Request**

Discuss and provide direction to staff regarding amending the City's Code of Ordinances, Chapter 14 Zoning, Article 14.04 Supplementary Regulations, Division 8. Accessory Buildings, Structures and Uses, Section 14.04.302 Accessory structures, buildings and uses permitted and Section14.04.304 General accessory buildings and structures regulations.

#### **Background Information**

Due to changes in State law, the City can no longer prohibit building materials that are permitted by the State adopted building code. The question is do we want accessory buildings made from metal in front yards? Storage pods in front yards? Below is the current adopted code with the recommended changes highlighted in yellow.

#### Section 14.04.302 Accessory structures, buildings and uses permitted

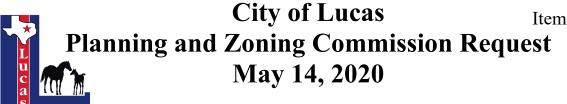
- (a) Accessory structures or buildings may be erected, maintained, and used for purposes which are clearly accessory to the principal or main structure, building or use permitted on the premises. Except in the agriculture district accessory buildings shall be built after the main building or structure. (Ordinance 2016-10-00845 adopted 10/20/16)
- (b) Accessory structures, buildings and uses shall be so constructed, maintained and utilized so that the use of the building or equipment located does not produce excessive noise, vibration, concussion, dust, dirt, smoke, odors, noxious gases, heat, traffic, glare from artificial illumination or from reflection of natural light and shall be on the premises of the principal or main use, structure, or building except as may be specifically provided herein.
- (c) For any accessory structure, a special exception may be required when the total square footage of the main building and any accessory buildings exceeds 50,000 square feet. Special exceptions may be granted by the city council when such property owner can show the following:
  - (1) Does not contain or support a use inconsistent with the zoning district regulation applicable to the property.
  - (2) Use of structure does not cause traffic congestion.
  - (3) Does not support use by any person other than owner or occupant of the main structure; and

- (4) That size and mass of the structure is consistent with the surrounding uses.
- (d) Except as provided herein, no trailers, containers, commercial boxes or other similar structures shall be used as accessory structures or buildings. Exceptions to this subsection (d) are as follows:
  - (1) Agriculture uses with five (5) acres or more may use trailers, containers, or commercial boxes for permanent storage located behind the main structure and obscured from public view; or
  - (2) Industrial and commercial users may use trailers, containers, or commercial boxes for temporary storage located behind the main structure obscured from public view for a period not to exceed ninety (90) days total in any one calendar year. The director of community development may extend the allowable time in thirty (30) day increments up to a maximum of 180 days, provided the property owner provides just cause for the extension.

#### Section 14.04.304 General accessory buildings and structures regulations

In all residential districts, accessory structures shall comply with the following standards except as may be otherwise specifically provided for in this code:

- (1) Types of accessory buildings and structures.
  - (A) Attached accessory building and structures. Accessory buildings and structures that are physically attached to a main building or located less than ten feet (10') from the main building shall be considered attached accessory buildings and shall meet the requirements set forth for attached accessory buildings. These may include but are not limited to garages, carports, guest/servants quarters, patio covers, outdoor kitchens or living areas, decks that exceed 30" in height, deck covers, shops, tool houses, pool houses, and other incidental accessory structures.
  - (B) Detached accessory buildings and structures. Accessory buildings and structures which are physically located ten feet (10') or more from a main building and a minimum of ten feet (10') behind the required front setback line may be considered detached accessory buildings and shall be required to meet the requirements set forth for detached accessory buildings. These may include but are not limited to garages, carports, guest/servants quarters, patio covers, outdoor kitchens or living areas, decks that exceed 30" in height, deck covers, shops, tool houses, pool houses, and other incidental accessory structures.



- (2) Design.
  - (A) Attached accessory buildings and structures shall be designed to be architecturally compatible with the main building and constructed of similar materials as the main building.
  - (B) Detached accessory buildings shall be constructed of materials designed for construction and have a minimum life expectancy of at least twenty (20) years.
  - (3) Setbacks.
    - (A) Accessory buildings.
      - (i) Front yard setback, a minimum of ten feet behind the rear build line of the main structure unless the building is attached and is designed to be architecturally compatible with the main building and constructed of similar materials as the main building. Then a fifty-foot front yard setback is required.

#### **Attachments/Supporting Documentation**

NA

#### **Budget/Financial Impact**

NA

#### Recommendation

Staff recommends approving the proposed code changes.

#### Motion

No motion required, provide direction to staff.

Requester: Development Services Director Joe Hilbourn

#### **Agenda Item Request**

Discuss and provide direction to staff regarding amending the City's Code of Ordinances, Chapter 14 Zoning, Article 14.04 Supplementary Regulations, Division 2 Off-street parking and loading, Section14.04.038 Driveways, and Chapter 10 of the Stormwater Design Manual.

#### **Background Information**

A resident and Planning and Zoning Commissioner Tommy Tolson has brought forward a concern about the City's requirements for culverts outlined below:

Chapter J Culvert Design:

Change the last sentence of the second paragraph to read:

"Under private driveways, the culvert pipe material shall be concrete or minimum 16 gauge galvanized or polymer-coated steel for culverts backfilled with reinforced concrete. For private culverts backfilled with soil, the culvert pipe shall be concrete. Under public roads all culvert pipe material shall be concrete."

Correct the language in the second sentence of the second paragraph that currently reads "Consideration shall be given to the discharge velocity from culverts, and the limitations specified culverts shall not be less than 18".

Culverts are addressed in Chapter 10 by referencing the Stormwater Design Manual and in Chapter 14. Below is an excerpt from the Stormwater Design Manual and the current adopted code from Chapter 14.

#### Storm Water Design Manual ~ Chapter 10

J. Culvert Design

At locations of stream or open channel crossings with proposed roadway improvements, it is sometimes necessary to receive and transport storm water under the roadway in culverts. The quantity of flow shall be determined by the appropriate method, and the friction loss through of the culvert shall be calculated by Manning's Formula.

Design of culverts shall include the determination of upstream backwater conditions as well as downstream velocities and flooding conditions. Consideration shall be given to the discharge velocity from culverts, and the limitations specified culverts shall not be less than 18". A headwall is required at exposed ends. Under private drives concrete or steel culverts, under public road concrete culverts are required.

# Chapter 14 Zoning, Article 14.04 Supplementary Regulations, Division 2. Off-street parking and loading:

#### Section 14.04.038 Driveways

- (a) The driveway entry radius must not overlap the common property lines as projected to the street.
- (b) Driveway culverts must be sized for each specific application. For new development, culvert size and material will be specified on the final plat drawings for each lot. For all other applications, the culvert size will be specified by the city at the time of the building permit or at the time a drive entry is required by the property owner. Culvert material must be either of reinforced concrete or galvanized corrugated metal.

Culvert Material	Minimum Inside Diameter	Minimum Extension*	Concrete Header Required
Reinforced concrete	18"	36"	No
Galvanized/corrugated metal	18"	N/A	Yes

\* Minimum extension beyond the edge of the driveway. If a header is used, no extension is required.

Corrugated metal culverts may be used only in conjunction with concrete headers.

# Staff recommends the following changes highlighted in yellow for the design manual referenced in Chapter 10:

At locations of stream or open channel crossings with proposed roadway improvements, it is sometimes necessary to receive and transport storm water under the roadway in culverts. The quantity of flow shall be determined by the appropriate method, and the friction loss through the culvert shall be calculated by Manning's Formula.

Design of culverts shall include the determination of upstream backwater conditions as well as downstream velocities and flooding conditions. Consideration shall be given to the discharge velocity from culverts, the specified design of culverts shall not be less than 18". A headwall is required at exposed ends. Under private drives concrete or steel culverts are required, under public roads concrete culverts are required. The design shall include bedding of B+ or better from the NTCOG design manual for all culvert installations.

# Staff recommends the following changes for Driveway culverts from Chapter 14 highlighted in yellow:

Section 14.04.038 Driveways

- (a) The driveway entry radius must not overlap the common property lines as projected to the street.
- (b) Driveway culverts must be sized for each specific application. For new development, culvert size and material will be specified on the civil construction plans for each lot. For all other applications, the culvert size will be specified by the city at the time of the building permit or at the time a drive entry is required by the property owner. Culvert material must be either of reinforced concrete or galvanized corrugated steel.

Culvert Material*	Minimum Inside Diameter	Minimum Extension*	Concrete Header Required
Reinforced concrete	18"	36"	No
Galvanized/corrugated metal	18"	N/A	Yes

\* bedding of B+ or better from the NTCOG design manual for all culvert installations.

\* Minimum extension beyond the edge of the driveway. If a header is used, no extension is required.

Corrugated steel culverts may be used only in conjunction with concrete headers and shall be a minimum of 16 gauge galvanized or polymer-coated steel.

#### **Attachments/Supporting Documentation**

NA

#### **Budget/Financial Impact**

NA

#### Recommendation

Staff is looking for a recommendation from the Planning and Zoning Commission.

#### Motion

No motion required, provide direction to staff.