

**Denton County
Juli Luke
County Clerk**

Instrument Number: 46571

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DECLARATION

Recorded On: April 29, 2019 08:03 AM

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" Examined and Charged as Follows: "

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Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
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STATE OF TEXAS
COUNTY OF DENTON

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time
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Juli Luke
County Clerk
Denton County, TX

AFTER RECORDING RETURN TO:

Bellinger & Suberg, L.L.P.
Attn: Glen A. Bellinger
12221 Merit Drive, Suite 1750
Dallas, Texas 75251

**SEVENTH SUPPLEMENTAL
MASTER DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS
FOR
THE VILLAGES OF CARMEL**

STATE OF TEXAS §
 §
COUNTY OF DENTON §

KNOW ALL MEN BY THESE PRESENTS:

This SEVENTH SUPPLEMENTAL MASTER DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR THE VILLAGES OF CARMEL (this "**Seventh Supplemental Declaration**"), is made and entered into to be effective as of the 24th day of April, 2019 (the "**Effective Date**") by ASTRA CARMEL, LLC, as the successor "Declarant" to HOLIGAN LAND DEVELOPMENT, LTD., a Texas limited partnership ("**Holigan**").

RECITALS:

WHEREAS, Holigan filed for record that certain Master Declaration of Covenants, Conditions and Restrictions for The Villages of Carmel, recorded as Instrument Number 2006-101525 in the Official Records of Denton County, Texas (the "**Initial Declaration**"), as amended and/or supplemented by that certain First Supplemental Declaration of Covenants, Conditions and Restrictions for The Villages of Carmel (The Villages of Carmel Phase III), recorded as Instrument Number 2006-150332 in the Official Records of Denton County, Texas (the "**First Supplemental Declaration**"), that certain Second Supplemental Declaration of Covenants, Conditions and Restrictions for The Villages of Carmel, recorded as Instrument Number 2007-54404 in the Official Records of Denton County, Texas (the "**Second Supplemental Declaration**"), that certain Third Supplemental Declaration of Covenants, Conditions and Restrictions for The Villages of Carmel, recorded as Instrument Number 2012-138510 in the Official Records of Denton County, Texas (the "**Third Supplemental Declaration**"), that certain Fourth Supplemental Declaration of Covenants, Conditions and Restrictions for The Villages of Carmel, recorded as Instrument Number 2014-56338 in the Official Records of Denton County, Texas (the "**Fourth Supplemental Declaration**"), that certain Fifth Supplemental Declaration of Covenants, Conditions and Restrictions for The Villages of Carmel, recorded as Instrument Number 2014-120547 in the Official Records of Denton County, Texas (the "**Fifth Supplemental Declaration**"), and that certain Sixth Supplemental Declaration of Covenants, Conditions, and Restrictions for The Villages of Carmel, recorded as Instrument Number 2018-116663 in the Official Records of Denton County,

Texas (the "**Sixth Supplemental Declaration**"); the Initial Declaration, First Supplemental Declaration, Second Supplemental Declaration, Third Supplemental Declaration, Fourth Supplemental Declaration, Fifth Supplemental Declaration and Sixth Supplemental Declaration are hereinafter collectively referred to as the "**Original Declaration**").

WHEREAS, pursuant to **Section 12.2** of the Original Declaration, Declarant, in its sole discretion and without a vote or the consent of any Owners or other parties, has the right to amend the Original Declaration for any purpose; and

WHEREAS, Declarant desires to amend the Declaration for the purposes set forth herein.

A M E N D M E N T:

NOW, THEREFORE, Declarant hereby amends the Original Declaration as follows:

1. Pursuant to the approval of an Alternative Environmentally Sensitive Area Plan by the city council of the City of Denton (the "**City**") on March 26, 2019, a copy of which is attached hereto as "**Exhibit A**" ("**AESA**"), the City is requiring that The Villages of Carmel Homeowners' Association, Inc. (the "**Association**") maintain certain property in the Villages of Carmel, Phase 4B. As such, this Seventh Supplemental Declaration shall confirm that the Association shall have a maintenance obligation for both Lot 14, Block F, and Lot 20, Block 28 in the Villages of Carmel Phase 4B, as depicted on the final plat filed as Document Number 2017-426 in the Official Records of Denton County, Texas. Such maintenance obligation shall comply with the AESA and the Subchapter 17 ESA standards in the City's Code of Ordinances including irrigation, trash removal as needed, and paying special attention to infrequent or no-mow schedules to promote a natural habitat progression. An infrequent mowing schedule is defined as no more than once per year, if needed.

2. Except as amended herein, the terms and conditions of the Original Declaration shall continue in full force and effect and are hereby ratified in their entirety.

3. In the event of any conflict or inconsistency between the provisions of this Seventh Supplemental Declaration and the provision of the Original Declaration, the provisions of this Seventh Supplemental Declaration shall govern and control to the extent of such conflict or inconsistency.

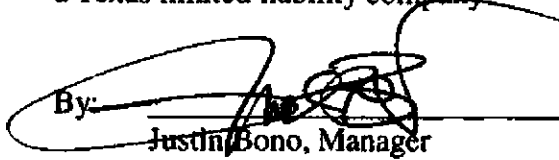
4. All references to "**Declaration**" set forth in the Original Declaration shall mean the Original Declaration as amended by this Seventh Supplemental Declaration.

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EXECUTED to be effective as of the Effective Date.

DECLARANT:

ASTRA CARMEL, LLC,
a Texas limited liability company

By: 
Justin Bono, Manager

STATE OF TEXAS

§
§
§

COUNTY OF DALLAS

The foregoing instrument was acknowledged before me on this the 24th day of April, 2019, by Justin Bono, Manager of Astra Carmel, LLC, a Texas limited liability company, on behalf of such partnership and in the capacity therein stated.


Notary Public in and for the State of Texas



EXHIBIT A



Villages of Carmel Phase 4B

Restoration Plan

January 2018

For compliance with:

City of Denton Alternate Environmentally Sensitive Area Plan
(AES18-0002 Pockrus Paige Road)

Prepared by:

Kimley-Horn and Associates Inc.
13455 Noel Road
Two Galleria Tower – Suite 700
Dallas, Texas 75240

Prepared for:

Astra Carmel, LLC
3625 Hall Street, Suite 720
Dallas, TX 75219

Kimley»Horn



Introduction and Authority/Purpose and Need for Action

Kimley-Horn and Associates, Inc. was retained by Astra Carmel, LLC ("Astra") for Environmental Services for the Villages of Carmel Phase 4B Development (Sheet 1 of 1 in Appendix A). The land encompassing Villages of Carmel Phase 4B is owned by two parties, VOC1B, LLC ("VOC1B") and Astra. Both parties have signed applications relative to this Restoration Plan. Astra has a contractual agreement with VOC1B to develop all of the property in Villages of Carmel Phase 4B, and as such, will be referred to herein as the developer and will be taking responsibility for this plan. Astra applied for and received authorization on August 1, 2016 to remove a 100-foot wide riparian buffer ESA located on the southeast corner of Phase 4 in exchange for the preservation of two acres of remnant Cross Timber forest located in the northwest corner of the property. The riparian buffer ESA (also referred to as the "original ESA") also met the definition of waters of the U.S. and was subject to the regulations and protection of the U.S. Army Corps of Engineers (USACE). The remnant Cross Timbers habitat in the northwest corner is now an Alternate ESA (AESA). The two ESA areas (Original ESA and AESA) are shown on Sheet 2 of 2 in Appendix A and in Figure 1 below. However, during construction of the development, a portion of the trees on the AESA were inadvertently cleared due to an inconsistency between the approved construction plans and the approved final plat. It was noted by Astra to the City of Denton that approximately 0.23-acres of the AESA area had been graded. Table 1 below summarizes the trees that were inadvertently removed from the disturbed area (two lots) within the AESA.

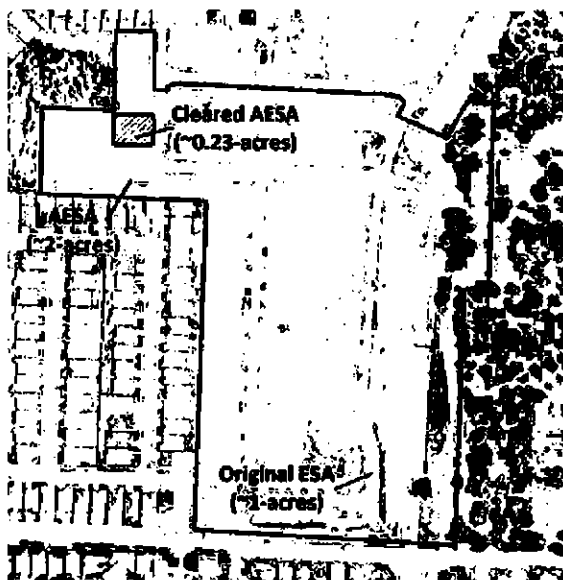


Figure 1. The locations of the two ESA areas: Alternate ESA (orange) and Original ESA (yellow), and the cleared portion of

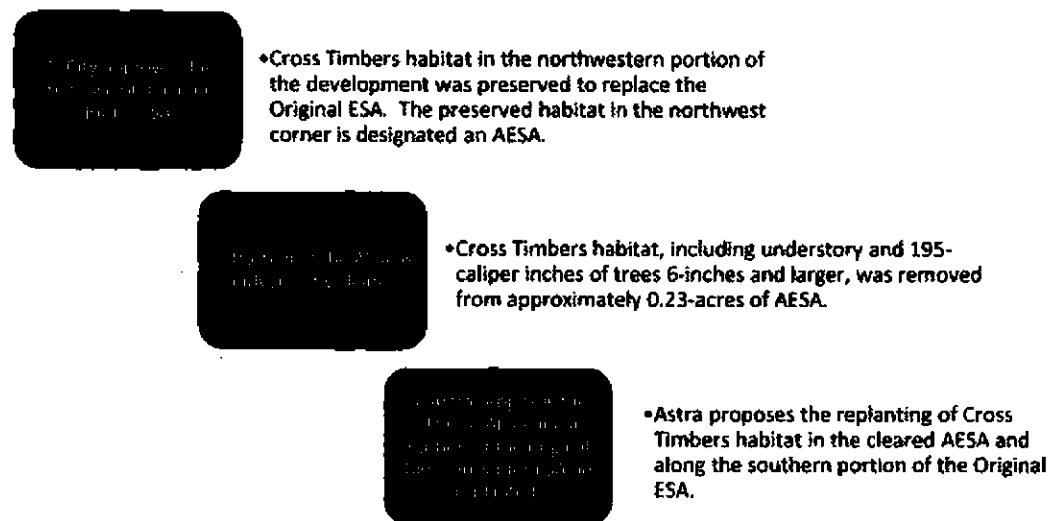
Table 1. Summary of trees removed from the Alternate ESA (AESA).

| Tag No. | City Category | Inches | Type | Condition |
|---------|---------------|--------|-------|-----------|
| 2432 | Quality | 8 | Oak | Good |
| 2429 | Protected | 24 | Oak | Good |
| 2424 | Quality | 6 | Oak | Good |
| 2413 | Quality | 16 | Cedar | Good |
| 2430 | Protected | 24 | Oak | Good |
| 8202 | Quality | 15 | Oak | Good |
| 8201 | Quality | 16 | Oak | Good |
| 8203 | Quality | 12 | Oak | Good |
| 8200 | Quality | 14 | Oak | Good |
| 2431 | Quality | 8 | Oak | Good |
| 8198 | Quality | 17 | Oak | Good |
| 8199 | Quality | 6 | Cedar | Good |
| 8232 | Quality | 12 | Oak | Good |
| 8233 | Quality | 9 | Oak | Good |
| 8196 | Quality | 8 | Oak | Good |
| Total | | 195 | | |
| | | inches | | |

Approximately 195-inches of trees 6-inches and larger were removed from the AESA based on a tree survey included in the Phase 4B construction plans submitted to the City of Denton. The tree survey is included in Appendix B. Only trees 6-inches and larger were included on the tree survey, and the 195-inches does not include the understory and shrubs less than 6-inches in diameter.

Kimley-Horn environmental staff conducted site visits to the project area on July 3, 2018 and October 4, 2018 to make general observations at the areas of the disturbed AESA, as well as the original ESA area. Photos from these site visits are included in Appendix C. City of Denton staff and Kimley-Horn met to discuss the issue on July 25, 2018. The City has requested that Astra prepare a restoration plan for the impacts associated within the AESA.

Summary of events sketch:



The Cross Timbers ecological region extends from central Texas, northward through eastern Oklahoma, and into southeastern Kansas. The name, Cross Timbers, was coined by early settlers because the forested areas acted as barriers to their travels through open prairies and acted as points of reference for the travelers. The Cross Timbers region is divided into four subregions: East Cross Timbers, Fort Worth Prairie, Lampasas Cut Plains, and West Cross Timbers. Denton County contains portions of the East Cross Timbers region (TPWD, n.d.).

The Cross Timbers region is a mosaic of deciduous forest, savanna, and prairie, that connects the eastern forests and southern Great Plains. The region's unique geology and climate has resulted in a mixture of prairies, including grasses and wildflowers, and forests, with an understory of shrubs, vines, and brambles. Cross Timbers woodlands are dominated by post oak (*Quercus stellata*) and blackjack oak (*Quercus marilandica*), but also contains populations of other woody species such as cedar elm (*Ulmus crassifolia*), hickory (*Carya spp.*), eastern redcedar (*Juniperus virginiana*), mesquite (*Prosopis glandulosa*), and greenbrier (*Smilax spp.*). Herbaceous species common to the Cross Timbers habitat include little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), and sideoats grama (*Bouteloua curtipendula*) (Texas A&M Forest Service, 2018).

The Cross Timbers region has been fragmented by agricultural use, urban and rural development, oil and gas development, and the introduction of invasive species. Consequently, the remaining fragments of Cross Timbers habitat provide valuable habitat for native flora and fauna. Historically, the region housed bison, prairie dogs, black-footed ferrets, burrowing owls, mountain lions and black bears. These species are rare, if not completely removed, from the region. Present day species now include white-tailed deer,

coyotes, foxes, bobcats, and wild turkey. The Cross Timbers region is also a pass-through area or stop over for migratory birds, waterfowl, and birds of prey (Bob Jones, n.d.).

Notification and Review

This restoration plan will be provided to the City of Denton for review.

Affected Environment and Summary of Impacts

The attached vicinity map (Sheet 1 of 2 in Appendix A) shows the location of the project. Sheet 2 of 2 in Appendix A shows the Original ESA and the AESA, including the portion of the AESA that was inadvertently removed. Photos from various site visits conducted by Kimley-Horn and Astra are included in Appendix C. The photographs included in Appendix C show the portion of the AESA that was inadvertently removed and the original ESA area that is to be restored.

AESA

Based on a tree survey of the AESA, included in the Phase 4B Construction Plans (Appendix B), Astra has determined that 195-caliper inches of oaks and cedars were inadvertently removed. The tree survey does not include trees and shrubs less than 6-inches in diameter; however, it is understood that the understory was present in the AESA and removed along with the 195-caliper inches.

Original ESA

Based on the Riparian ESA Assessment Form (Appendix D) completed for the Original ESA area on March 25, 2015, prior to the removal of the stream, the main understory vegetation was greenbriar (*Smilx bona-nox*) and little bluestem (*Schizachyrium scoparium*). This is consistent with the understory observed in the photos of the remaining forested habitat provided with the Assessment Form and the photos included in Appendix C. The assessment also lists Chinese privet (*Ligustrum sinense*) as being present, and the privet is visible in the accompanying pictures. Chinese privet is an invasive plant species and appeared to be a dominant plant in the Original ESA, and has a continued presence in the remaining forest in the project area. Figures 2 and 3 below are representative photos taken of the forested areas within the project area.



Figure 2 (left). A photo taken on October 4, 2018 of the AESA Cross Timbers forest on site. Post Oak, Cedar, and Chinese privet are visible.

Figure 3 (right). A photo taken on March 24, 2015, and included in the ESA Assessment (Appendix D), of the riparian forest present prior to the removal of the stream. Post Oak, Cedar, and Chinese privet are visible.

Sidewalk Area

The understory vegetation was removed from a portion of the AESA along Harbour Mist Trail. This activity was completed prior to the formal designation of the AESA to remnant Cross Timbers Forest and was included in the approved construction plans (area shown in the Photos taken on November 16, 2017 in Appendix C). Trees greater than 6-inches were avoided in the clearing activities. This activity was allowed at the time it occurred because the ESA designation had been removed from the forested area at the time of the clearing and the trees 6-inches and greater were preserved according to the tree survey (Appendix B). During the recent construction of a sidewalk along Harbour Mist Trail, soil was placed around the remaining trees along the edge of the AESA. The excess soil from the construction of the sidewalk has been removed (shown in photo 11 taken on October 4, 2018). Beautyberry and post oak seedlings will be planted within the sidewalk area in order to encourage the redevelopment of the understory.

Restoration Activities

Kimley-Horn recommends the original ESA and the disturbed portion of the AESA to be reestablished as Cross Timbers habitat. It is proposed that Astra replant the original ESA and AESA with Cross Timbers vegetation that will include the same number of caliper inches of trees that were inadvertently removed from the AESA, as well as, native shrubs, grasses, and post oak seedlings. Stormwater Best Management Practices (BMPs) may be needed until the planted vegetation has established. If BMPs are determined in the field to be needed, they will be maintained in accordance with Integrated Stormwater Management (iSWM) standards.

Original ESA

The original ESA will be replanted with native trees and shrubs included on the City of Denton Native Plant List (Appendix E). A consolidated list is shown in Table 2 below.

Table 2. A selection of trees considered for planting in the restoration areas chosen from the City's Native Plant List (Appendix D)

| Habitat Type/Species Scientific Name | Common Name |
|--------------------------------------|------------------|
| <u>Riparian Trees</u> | |
| <i>Ulmus crassifolia</i> | Cedar elm |
| <i>Prunus mexicana</i> | Mexican plum |
| <i>Quercus stellata</i> | Post oak |
| <i>Diospyros virginianum</i> | Common persimmon |
| <i>Rhus aromatic</i> | Fragrant sumac |
| <i>Quercus macrocarpa</i> | Bur oak |
| <i>Ilex decidua</i> | Deciduous holly |
| <i>Sophora affinis</i> | Eve's necklace |
| <i>Quercus shumardii</i> | Shumard red oak |
| <i>Cercis canadensis</i> | Redbud |

Astra proposes to plant a minimum of 195 caliper inches of quality native tree species 2-inches and larger, selected from Table 2, in order to offset at a ratio of 1:1 for the caliper inches of trees 6-inches and greater removed. In an effort to restore the understory and shrubs, that were also removed from the AESA and are an essential element of Cross Timbers habitat, native grasses and forbs, American beautyberry (*Callicarpa americana*) and post oak seedlings, will also be planted within the original ESA area. Trees and shrubs will be planted in the winter or early spring (during their dormancy). Forbs and

grass seeds will be sown in the spring or late fall, depending on the species. In the interim, temporary vegetative cover will be established by hydro-mulching or installing erosion control blankets.

USACE Stream Restoration Area

A portion of the original ESA is under the jurisdiction of the USACE, and has additional restoration requirements outside of those from the City of Denton. The additional requirements are outlined in the Restoration Plan submitted to the USACE by Groundwater & Environmental Services, Inc. (GES) on April 9, 2018 (Appendix F). In the report, GES states that 592-linear feet of stream would be restored. However, after further discussions, GES recognized that only 402-linear feet of stream is required to be restored. As part of the restoration of 402-linear feet of ephemeral stream in the eastern portion of the development, a riparian buffer is required to be replaced along the length of the restored stream. The riparian buffer is 25-feet on either side of the stream channel, totaling 0.52-acres for the entire stream restoration area (0.06-acres of channel and 0.46-acres of riparian buffer). Based on the GES Restoration Plan, vegetation within the restoration area will result from plantings and, to a limited extent, the natural establishment of plants. Plant species are to be selected from Table 2. The stream restoration area will be seeded with a riparian recovery seed mix and trees and shrubs will be planted to achieve a 50 stem /acre density. An additional 0.5-acres adjacent to the stream restoration area will also be planted with tree species selected from Table 2, shrub species common to the area, and reseeded with native grasses and forbs (Blackland Prairie Seed Mix).

Figure 4 below is an illustration of the landscape plan for the Original ESA and is accompanied by a summary of the proposed trees and shrubs to be planted (Table 3). Images of the resulting landscape from the two seed mixes are shown in Figures 5 and 6.

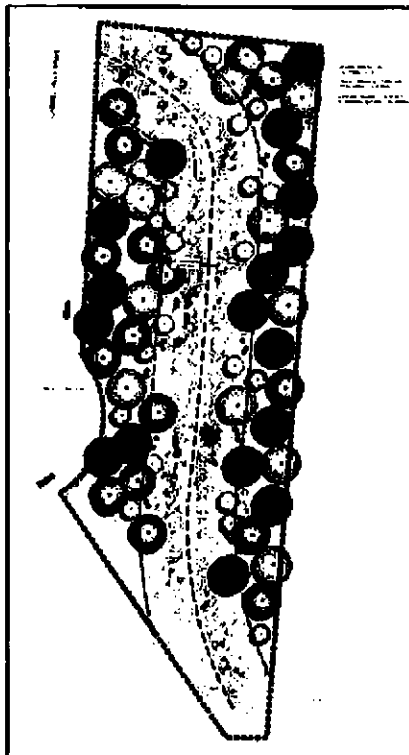


Table 3. Summary of trees and shrubs included in the Landscape Plan for the Original ESA.

| Species | Size (caliper in.) | Quantity | Total Inches |
|---|-----------------------|----------|-----------------|
| <i>Cercis canadensis</i> / Eastern Red Bud | 2" cal | 10 | 20 |
| <i>Prunus Mexicana</i> / Mexican Plum | 2" cal | 11 | 22 |
| <i>Quercus shumardii</i> / Shumard Red Oak | 3" cal | 11 | 33 |
| <i>Quercus stellata</i> / Post Oak | 3" cal | 17 | 51 |
| <i>Ulmus crassifolia</i> / Cedar Elm | 3" cal | 17 | 51 |
| <i>Callicarpa americana</i> / American Beautyberry | N/A | 35 | N/A |
| Total | | | 177" |

Figure 4 (left). An illustration of the landscape plan for the Original ESA. The full version of the Landscape Plan is included in Appendix G.



Figure 5 (left). An example of a field similar to the resulting landscape from the Blackland Prairie Seed Mix.
Figure 6 (right). Examples of the riparian zone similar to the Riparian Recovery Mix, proposed for the USACE Mitigation Area. The seed mixtures will be sourced from www.seedsources.com.

AESA

The disturbed area of the AESA will be restored with top soil and revegetated with a combination of a native blackland prairie seed mixture, post oak seedlings (*Quercus stellata*), and a line of 2-inch or larger native trees. The line of trees is intended to separate the planted prairie from the street and discourage the un-authorized maintenance of the prairie (i.e. mowing). Figure 7 below is an illustration of the landscape plan for the disturbed portion of the AESA and is accompanied by a summary of the proposed trees to be planted (Table 4).

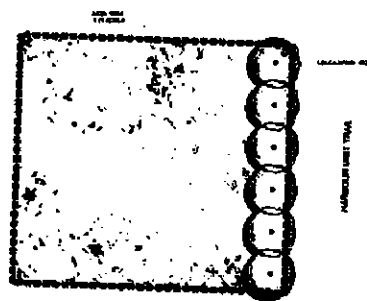


Table 4. Summary of trees included in the Landscape Plan for the disturbed portion of the AESA.

| Species | Size (caliper in.) | Quantity | Total Inches |
|---|-----------------------|----------|-----------------|
| <i>Quercus shumardii</i> / Shumard Red Oak | 3" cal | 6 | 18 |
| Total | | | 18" |

Figure 7 (left). An illustration of the landscape plan for the disturbed portion of the AESA. The full version of the Landscape Plan is included in Appendix G.

In an effort to protect the existing trees at the ec returned to the area and graded to match the su grading plan. Soil that was piled along the tree By replacing the soil and grading the area to me forbs should be able to establish with minimal maintenance beyond the initial irrigation and monitoring. To maintain the prairie it will be expected that: 1) no mowing will be allowed in AESA, 2) litter be removed on a regular basis, and 3) the area is to be reseeded if a large portion of the vegetation is disturbed (from weather or misuse), following the same irrigation schedule and maintenance plan performed during the initial seeding.

Figures 8 and 9 are the Plant Schedules for the Original ESA and AESA areas and the Notes included with the Landscape Plan. The figures are taken from the ESA Restoration Exhibits (also referred to as the Landscape Plans) required by the City of Denton (Appendix G). A contractor will be selected by Astra to follow the ESA Restoration Exhibit. This area will be clearly demarked with signage indicating that it is an ESA area and is not to be disturbed.

An educational sign will be placed along the pedestrian sidewalks of both the AESA and original ESA that describes the history, characteristics, and importance of the Cross Timbers habitat, as well as, suggestions on how to maintain the habitat. An example of this sign is shown in Figure 10.











| PLANT SCHEDULE ORIGINAL ESA | | | | | |
|---|------|-----|--|---|-------------------------------|
| TREES | CODE | QTY | BOTANICAL NAME / COMMON NAME | SPECIFICATIONS | REMARKS |
|  | OC | 7 | <i>Cercis canadensis</i> / Eastern Redbud | 2" cal 8'-10' ht. 5'-6" spr | Full, Straight, Single Leader |
|  | MR | 8 | <i>Prunus mexicana</i> / Mexican Plum | 2" cal 8'-10' ht. 5'-6" spr | Full, Straight, Single Leader |
|  | QR | 5 | <i>Quercus shumardi</i> / Shumard Red Oak | 3" cal 10' ht. 5' spr | Full, Straight, Single Leader |
|  | QS | 11 | <i>Quercus stellata</i> / Post Oak | 3" cal 10' ht. 5' spr | Full, Straight, Single Leader |
|  | UC | 11 | <i>Ulmus crassifolia</i> / Cedar Elm | 3" cal 10' ht. 5' spr | Full, Straight, Single Leader |
| SHRUBS | CODE | QTY | BOTANICAL NAME / COMMON NAME | SPECIFICATIONS | REMARKS |
|  | CBA | 35 | <i>Calceola americana</i> / American Beautyberry | 18" ht. 24" spr. 24" oc | Full |
| MIX | CODE | QTY | BOTANICAL COMMON | SPECIFICATIONS | |
|  | SHX | TBD | Blackland Prairie Mix with Post Oak Seedlings | Height and Spread Varies. 10 lbs. of BPH Per Acre, 50 Seedlings | |
|  | MUX | TBD | Riparian Recovery Mix | Height and Spread Varies. 10 lbs. Per Acre | |
| PLANT SCHEDULE AESA AREA | | | | | |
| TREES | CODE | QTY | BOTANICAL NAME / COMMON NAME | SPECIFICATIONS | REMARKS |
|  | QR | 8 | <i>Quercus shumardi</i> / Shumard Red Oak | 3" cal 10' ht. 5' spr | Full, Straight, Single Leader |
| MIX | CODE | QTY | BOTANICAL COMMON | SPECIFICATIONS | |
|  | MUX | TBD | Blackland Prairie Mix with Post Oak Seedlings | Height and Spread Varies. 10 lbs. of BPH Per Acre, 25 Seedlings | |

Figure 8. The plant schedules for the original ESA and AESA included in the Landscape Plans (Appendix G).

CITY OF DENTON NOTES

1. CONTRACTOR NOT TO INTRODUCE NON-NATIVE SPECIES OF PLANTS.
2. THE CITY OF DENTON NATIVE PLANT LIST HAS BEEN UTILIZED IN SELECTED SPECIES.
3. BLACKLAND PRAIRIE MIX TO BE UTILIZED. THIS MIX INCLUDES LITTLE BLUE STEM.
4. ASTRA WILL PREPARE AN ANNUAL REPORT EACH YEAR FOR THREE (3) CONSECUTIVE YEARS BEGINNING TWELVE (12) MONTHS FOLLOWING THE COMMENCEMENT OF THE IMPLEMENTATION OF THE AESA MITIGATION PLAN.
5. THE CITY SHALL INSPECT THE PLANTINGS AND DETERMINE WHETHER 90% OF THE PLANTINGS ARE HEALTHY AND HAVE A REASONABLE CHANCE OF SURVIVING TO MATURITY. AFTER CITY INSPECTION IF MORE THAN 10% OF VEGETATION IS FOUND TO BE DISEASED OR NOT HAVING A REASONABLE CHANCE OF SURVIVING, THEN ASTRA SHALL BE NOTIFIED TO REPLACE ANY UNHEALTHY OR DEAD PLANTINGS.

PLANTING NOTES

1. ALL PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES AND SHALL MEET ALL STANDARDS AS STATED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. NO SUBSTITUTIONS IN PLANT MATERIALS SHALL BE MADE WITHOUT WRITTEN AUTHORIZATION FROM OWNER OR LANDSCAPE ARCHITECT. IN THE EVENT OF DISCREPANCIES BETWEEN THE DRAWING AND THE PLANT LIST, THE DRAWING SHALL PREVAIL.
3. LOCATE ALL UTILITIES PRIOR TO ANY DIGGING OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES INCURRED BY HIS WORK.
4. REFERENCE IRRIGATION PLAN FOR BED IRRIGATION INFORMATION.
5. STAKING AND GUYING ALTERNATIVES: METHODS INDICATED ON DRAWING DETAILS ARE PREFERRED. CONTRACTOR MAY SUGGEST ALTERNATE METHODS, ASSUMING FULL RESPONSIBILITY FOR THEIR IMPLEMENTATION. CONTRACTOR SHALL REPLACE PLANT OR UPRIGHT ANY TREES BLOWN OVER OR DAMAGED DUE TO INADEQUATE STAKING AT NO ADDITIONAL COST TO THE OWNER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING UNTIL FINAL ACCEPTANCE. ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THE WORK SHALL INCLUDE, BUT NOT TO BE LIMITED TO: MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, AND OTHER SUCH ACTIVITIES COMMON TO THE MAINTENANCE OF LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR. PLANT MATERIAL THAT DIES SHALL BE REPLACED WITH THE PLANT MATERIAL OF SIMILAR SIZE AND VARIETY.
7. CONTRACTOR SHALL WARRANTY PLANT MATERIAL TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. WARRANTY SHALL NOT INCLUDE DAMAGE FOR LOSS OF PLANT MATERIAL DUE TO NATURAL CAUSES, ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.
8. ALL LANDSCAPE BED AREAS TO BE PREPARED USING READY TO PLANT BEDDING MIX BY SCS, BUILDING SOLUTIONS FOR APPROVED EQUALS. INSTALL TO DEPTHS PER PLANTING DETAILS (12" DEPTH MIN.) FINISHED GRADES OF PLANTING BEDS TO BE 2" BELOW FINISHED GRADE OF ADJACENT PAVING OR AS SHOWN ON GRADING PLAN.
9. TOPSOIL SHALL BE NATURAL, FRABLE, FERTILE, pH RANGE OF 5.5-7.4, AND FREE OF TRASH, DEBRIS, STONES, WEEDS, AND TWIGS/BRANCHES.
10. ALL TREES TO BE PLACED A MINIMUM OF 4' FROM ANY UTILITY.

MAINTENANCE NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING UNTIL FINAL ACCEPTANCE.
2. ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THE WORK SHALL INCLUDE, BUT NOT TO BE LIMITED TO: MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, AND OTHER SUCH ACTIVITIES COMMON TO THE MAINTENANCE OF LANDSCAPING.
3. ALL PLANT MATERIALS SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR. PLANT MATERIAL THAT DIES SHALL BE REPLACED WITH THE PLANT MATERIAL OF SIMILAR SIZE AND VARIETY.
4. NO MOWING WILL BE ALLOWED IN UPLAND HABITAT OR RIPARIAN AREAS.
5. ALL LITTER AND DEBRIS IS TO BE REMOVED.
6. RESTORE AREAS AS NEEDED.
7. IRRIGATE AS NEEDED.

Figure 9. The notes accompanying the Landscape Plans (Appendix G).

Cross Timbers Ecoregion

This field and surrounding forest has been designated as an Upland Habitat Environmentally Sensitive Area (ESA). The preserved ESA is a remnant of the Eastern Cross Timbers Ecoregion and provides vital habitat for native plants and animals.

In order to maintain a healthy ecosystem the following steps should be taken:

- 1.) The prairie is to remain un-mowed in order to allow for the natural succession of the vegetation.
- 2.) Litter should be removed from the prairie and forest.
- 3.) The prairie will be reseeded if the vegetation is disturbed from weather or misuse.

History

The Cross Timbers ecological region extends from central Texas, northward through eastern Oklahoma, and into southeastern Kansas. The name, Cross Timbers, was coined by early settlers because the forested areas acted as barriers to their travels through open prairies and acted as points of reference for the travelers.

Wildlife

The Cross Timbers region has been fragmented by agricultural use, urban and rural development, oil and gas development, and the introduction of invasive species. Consequently the remaining fragments of cross timbers habitat provide valuable habitat for native flora and fauna.

Historically, the region housed blue, black-footed ferrets, burrowing oaks, mountain lions and black bears. These species are rare, if not completely removed, from the region.

Today, species now include white-tailed deer, coyotes, fawns, bobcats, and wild turkeys. The Cross Timbers region is also a pass-through area or stop over for migratory birds, waterfowl, and birds of prey.

Vegetation

The region's unique geology and climate has resulted in a mixture of prairies, consisting of grasses and wildflowers, and forests, with an understory of shrubs, vines, and brambles.

Common herbaceous species found in Cross Timbers Prairies include little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), Indiangrass (*Leptachnium nuttallii*), and tickseed grass (*Desmodium illinoense*).

Common tree species found in Cross Timbers Woodlands include post oak (*Quercus stellata*), blackjack oak (*Quercus marilandica*), cedar elm (*Ulmus crassifolius*), Hickory (*Carya* spp.), eastern redcedar (*Juniperus virginiana*), and magnolia (*Phoradendron glandulosum*).

Common Plants and Animals



White-tailed deer
(*Odocoileus virginianus*)



Bear
(*Ursus americanus*)



Wild turkey
(*Meleagris gallopavo*)



Bobcat
(*Lynx baileyi*)



Blue oak
(*Quercus laevis*)



Blackjack oak
(*Quercus marilandica*)



Cedar elm
(*Ulmus crassifolius*)



Little bluestem
(*Schizachyrium scoparium*)



Big bluestem
(*Andropogon gerardii*)



Wild turkey
(*Meleagris gallopavo*)



White-tailed deer
(*Odocoileus virginianus*)

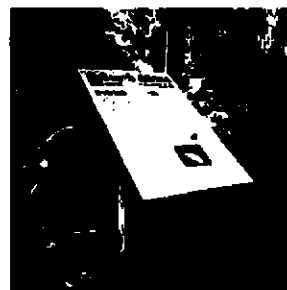


Figure 10. An example layout for an educational sign that will be located along the cleared portion of the AESA and the Original ESA along with examples of sign frames that can be used (from Pannier Graphics).

Compliance with Authorities

City of Denton is the authority over compliance with this mitigation plan. The USACE is also the authority over the stream restoration area; however, the survival standards for vegetation required by the Corps is less stringent than that of the City of Denton. The City of Denton standards will apply to all restoration areas.

Annual Reporting

Astra will prepare an annual report each year for three consecutive years, beginning 12 months following the commencement of the implementation of the ESA Mitigation Plan, for the purposes of describing the cumulative mitigation work that has been performed as of the reporting period, and to report on the current survivability of the plantings. Upland trees along the edge of the existing AESA, impacted by the construction activity, will also be assessed in the annual report. These annual reports will be submitted to the City for review.

The first two annual reports will contain actions items that may include: the replanting of dead trees within the cleared portion of the AESA or the Original ESA, reseeding the blackland prairie seed mixture or riparian recovery seed mixture (as needed), making repairs to the irrigation system (as needed), and removing invasive species.

Upon completion of the three-year monitoring and reporting period, the City shall inspect the tree plantings and determine whether 90% of the tree plantings 2-caliper inches and larger are healthy and have a reasonable chance of surviving to maturity. After the City inspection, if more than 10% of tree plantings are found to be diseased or not having a reasonable chance of surviving, then Astra shall be notified to replace any unhealthy or dead plantings to maintain the 90% survival requirement. Astra will replace the caliper inches of trees, shown to be preserved on the tree survey submitted previously (Appendix B), that die as a result of the construction activity abutting the AESA. If Astra does not take remedial steps to bring the property into compliance, the City may use all legal remedies to enforce this provision.

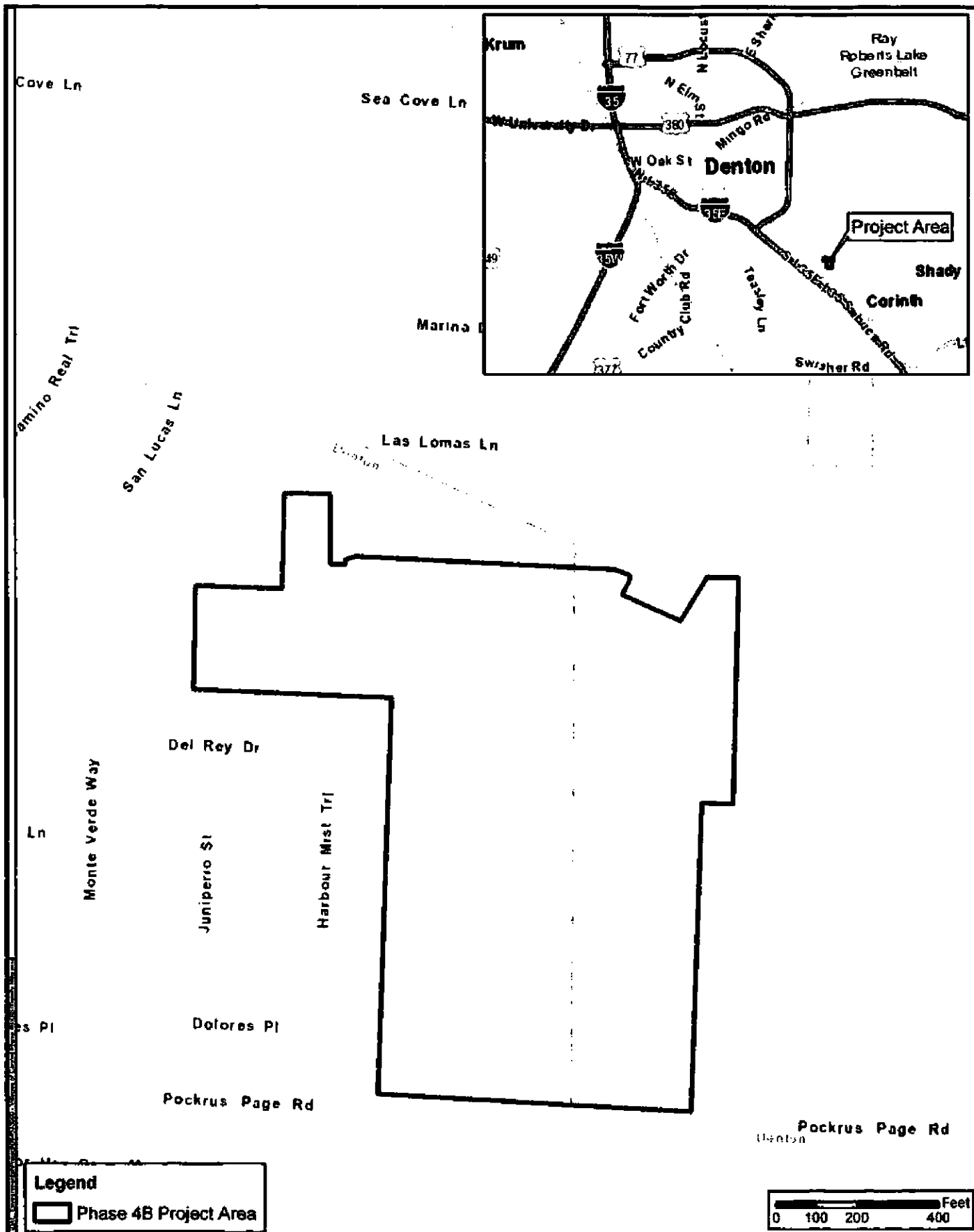
If changes need to be made to the restoration plan during the three year monitoring period, the City of Denton will be notified prior to making the plan modifications.

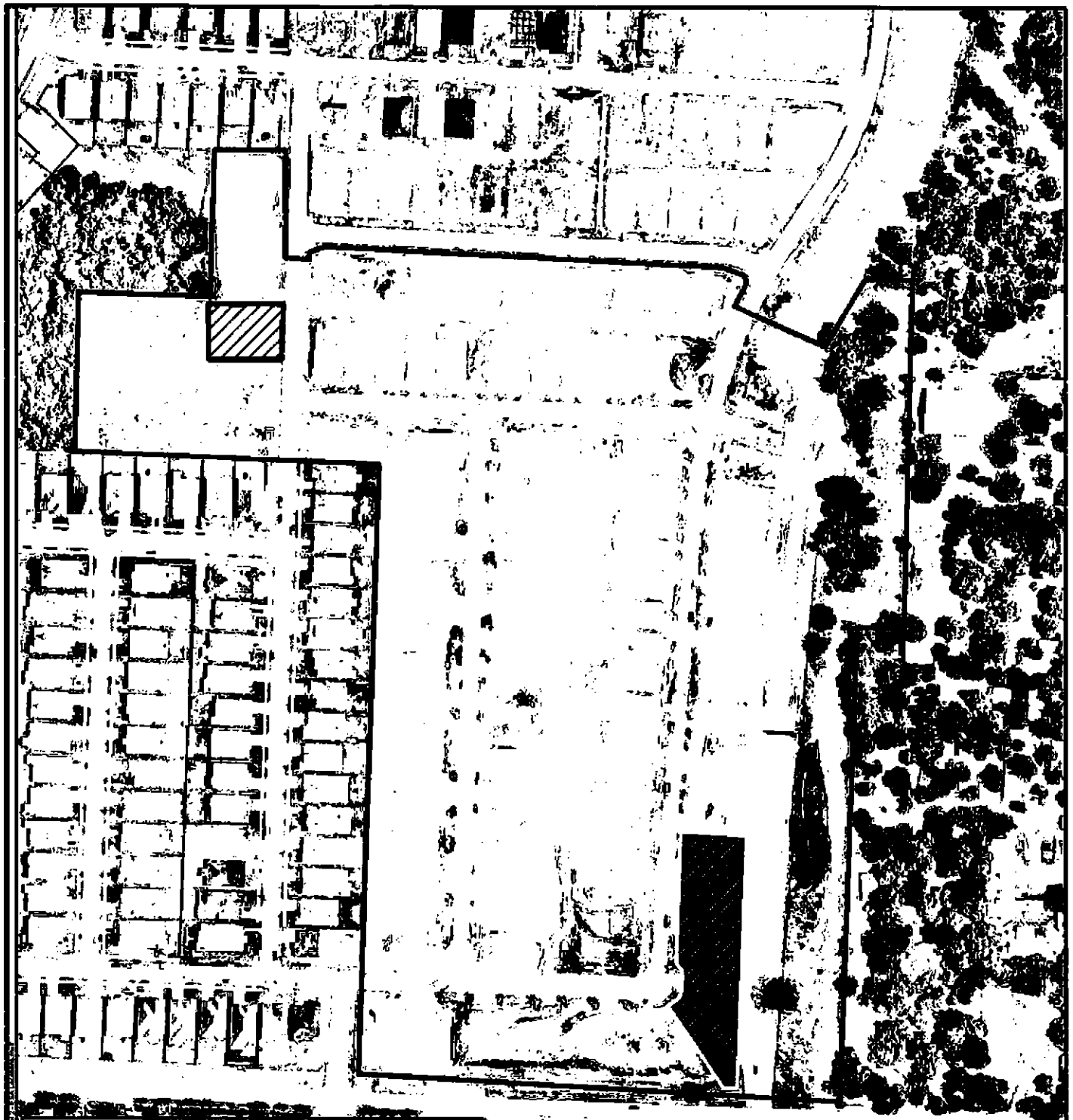
References

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- Texas A&M Forest Service. (2018) Trees of Texas. "Texas Ecoregions: Western Cross Timbers." [Online] (accessed on October 22, 2018). Available URL: <http://texastreeid.tamu.edu/content/texasEcoRegions/WesternCrossTimbers/>.
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Appendix A

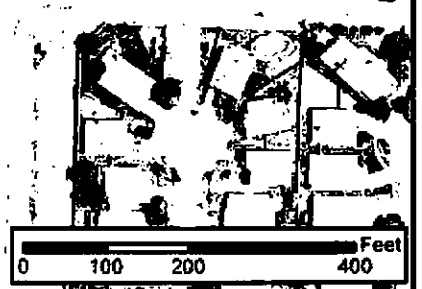
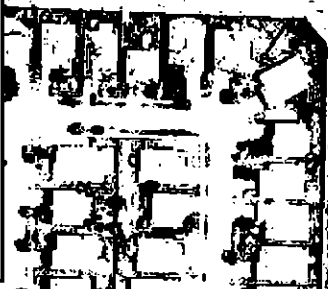
FIGURES





Legend

-  Phase 4B Project Area
-  Alternate ESA (AESA), ~2-acres
-  Cleared AESA, ~0.23-acres
-  Original ESA, ~1-acre
-  USACE Stream Restoration Area, ~0.52-acres
-  Upland Habitat, ~0.5-acres



SHEET

2

DATE 08/22/2018

DRAWN: SDG

CHECKED: LDC

KHA NO.: 064533000

ESA Location Map

Nearmap June 2018

Villages at Carmel Phase 4B

Denton, Denton County, Texas



Kimley»Horn

This product is for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and is provided only to the appropriate relevant location of property boundaries.

OF 2 SHEETS