

**TURF AREA GENERAL NOTES**

**SOIL PREPARATION:** Areas of annual grasses such as cheat, crab grass, tripleawn, etc. shall be destroyed by thorough disking and then replanted using the specified seed. The areas to be planted shall be prepared for planting by cultivation, removal of all objectional material, and filling of gullies or depressions. The soil preparation shall be accomplished by disking, harrowing and firming. The minimum depth of the soil preparation shall be four inches (4"). Existing weed stubble, small weeds and grass which can be disked shall be cut by the disk and completely incorporated into the soil. Several diskings and harrowings may be required on some areas to provide a satisfactory seed bed. Areas inaccessible for disking and harrowing shall be prepared by hand methods. The minimum depth of preparation for the seed bed where hand methods must be employed shall be two inches (2").

**Fall Planting Season:** (Aug. 15 to Oct. 15)

**SEED REQUIREMENTS:** Seed shall be a mixture of Fescue, Brome and Rye. Seed shall be labeled in accordance with the latest U.S. Department of Agriculture rules and regulations under the Federal Seed Act in effect at the time of purchase. Seed which has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The seed supplier shall furnish a certified statement for the seed furnished stating the purity percent, germination percent, and the sproutable seed percent. Sproutable seed is the product of the percentage of purity and the percentage of germination. All grass seed will meet minimum of 95% Purity and 85% Germination, or better, as indicated on the labels. All seeds shall be blended by supplier prior to delivery. The pure live grass seed mix to be used shall be as follows (weed seed shall not exceed 0.5 percent by weight of the total of pure live seed and other material in the mixture).

Seed Type	Pounds of PLS* per Acre
K-31 Fescue	275
Smooth Brome	75
*Pure Live Seed: $\frac{\% \text{ purity} \times (\% \text{ germination} + \% \text{ firm seed})}{100}$	

**FERTILIZER REQUIREMENTS:** Fertilizer shall be a commercial grade 16-8-8 ratio fertilizer and applied at the rate of 850 pounds per acre. Fertilizer shall be uniform in composition, free flowing, and suitable for application with approved equipment. Fertilizer shall be delivered to the sites fully labeled, conforming to the applicable State Fertilizer Laws, and bearing the same trade name or trademark, analysis and warranty of the producer. Should the commercial fertilizer be furnished in bulk, the successful Bidder shall furnish certified weight tickets and a certified quantitative analysis report from a recognized testing laboratory, certifying the nutrient ratio of the materials.

**MULCH REQUIREMENTS:** Mulch all disturbed areas with prairie hay 2 pounds/acre, no mulch is required in areas covered by hydroseed or erosion control blankets.

**HYDRO-SEEDING:**

Seeds shall be uniformly distributed with acceptable hydraulic-slurry using equipment approved by the engineer. Broadcasting with an approved broadcasting grass seeder will be required on certain areas that can not be reached by other approved methods. See project special provisions for additional requirements.

**Spring Planting Season:**

Native seeding shall be performed between March 1 and May 1 or outside this time frame only with prior approval from the ENGINEER. If the grading is completed outside of this time frame then seed with perennial rye per instructions and then return to project the next growing season to plant the native seed mixes. A no-till drill intended for native seeds shall be used to the greatest extent possible when planting. Hydro-seeding will be required for all inaccessible areas to drill only after ground is disturbed to create a suitable seedbed as per note 1.

All non-hydroseeded areas shall be immediately mulched w/prairie hay at 2 tons/acre. Anchor mulch by crimping into topsoil with suitable mechanical equipment.

All seeding areas shall be prepared on 6 inches of loosen top soil. Grade areas to a smooth uniform surface plain, free of sticks, small stones and other extraneous material.

All seed shall be distributed with an acceptable drill or hydro seeder intended for such operations. Seeding drill depth shall be 1/4".

Seed Type	Pounds of PLS* per Acre
Blue Grama	6.5
Sideoats Grama	6.5
Western Wheatgrass	2.0
Indiangrass	2.0
Little Bluestem	2.0
Big Bluestem	2.0
Illinois Bundleflower	2.0
Partridge Pea	2.0

Temp. Seeding  
Perennial Rye @ 200 #/acre  
Fertilize 10-20-10 @ 350 #/acre

Note 1: The Contractor shall be responsible for maintaining (including watering) the specified seeding, guaranteeing germination and a stand of vegetation that covers the entire project limits with grass density equal or exceeding ninety percent. The vegetation cover final acceptance will be made by the City's Flood Control and Stormwater Supervisor, Doug Arvidson and Stormwater Engineer. Final acceptance of the project will be based on the approval of 90% vegetation.

**TREE PLANTING GENERAL NOTES**

Contractor shall provide all labor, materials and service necessary to furnish and install planting as specified herein and as shown on the plans.

No material substitution shall be made without City's approval.

All plant locations are approximate. Adjust as necessary to avoid conflicts.

Utilities have been shown on plan for rough location of services. Contractor shall locate all utilities before work. Locate exact utility locations by contacting Kansas One-Call Center at (316) 687-2470. Contractor will be responsible for the repair of any damage he may cause to utilities.

When clay soil is encountered in the establishment of turf or the installation of the plant material if shall be improved in accordance with standard trade practice.

Trees shall be in accordance with ANSI 60.1.

**FERTILIZER TABLETS:**

Fertilizer shall be a commercially prepared tablet, tightly-compressed and formulated to be long-lasting (2 year min.) with a slow-release analysis of 20-10-5 derived from urea-formaldehyde, calcium phosphates, potassium sulfate, calcium sulfate, ferrous sulfate and meeting the following minimum guaranteed analysis:

Total Nitrogen (N) *	- 20.0%
7% Water Soluble Organic Nitrogen	
13% Water Insoluble Nitrogen	
Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	- 10.0%
Soluble Potash (K <sub>2</sub> O)	- 5.0%
Calcium (Ca)	- 2.6%
Sulfur (S)	- 1.6%
Iron (Fe)	- 0.35%

\*17% slowly available nitrogen from urea-formaldehyde.

Tablets shall be 21 gram min. weight.

Tablets shall be uniformly placed halfway up the root ball about 1" from the root tips. Do not place tablets in the bottom of the hole. The rate of application shall be the number of 21 gram tablets per each plant as shown below:

Each bare root plant	- 3 Tablets
Each plant with a 16" soil ball	- 8 Tablets
Each plant with a 18" soil ball	- 9 Tablets
Each plant with a 20" soil ball	- 10 Tablets
Each plant with a 24" soil ball	- 12 Tablets

Furnishing and application of fertilizer tablets shall not be paid directly, but shall be Subsidiary to planting trees.

After planting is completed, repair injuries to all plants as required. Limit amount of pruning to a minimum necessary to remove dead or injured twigs and branches. Prune in such a manner as not to change natural habit or shape of plant. Make cuts flush, leaving no stubs. Central leaders shall not be removed.

Use wood chip mulch in all tree rings. Contractor shall supply the project engineer with a sample of mulch for approval prior to starting construction. Size of material to range from 1"-3" only. Place 4" of mulch in all tree saucers.

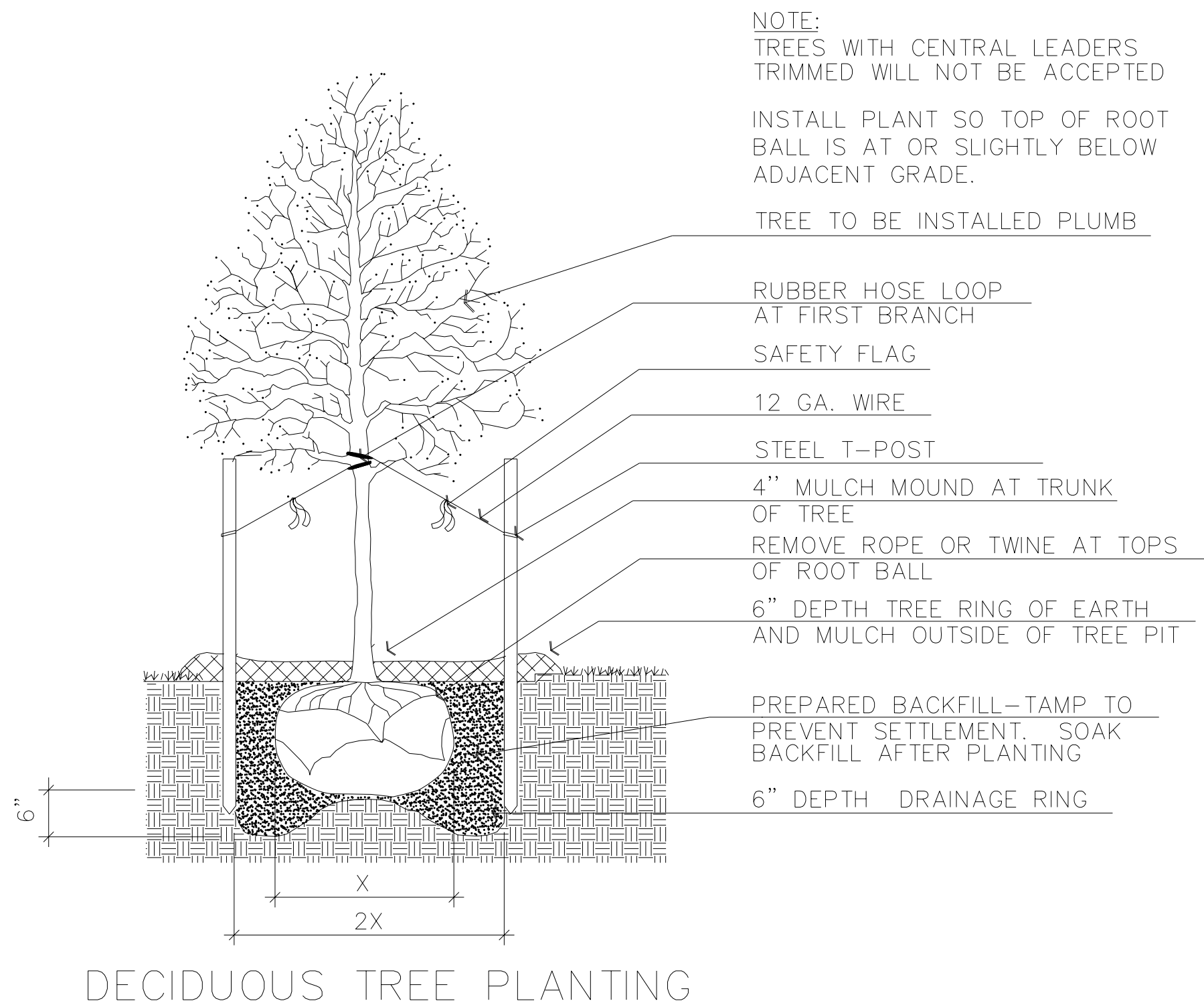
The contractor shall provide all water, watering devices and labor needed to irrigate plant materials until provisional acceptance of the project. The contractor shall supply enough water to maintain the plants healthy condition.

Contractor shall remove tree stakes, tree wrap, and all dead wood on trees and shrubs one year after provisional acceptance.

Report any discrepancies in the planting plan to the project engineer prior to starting construction.

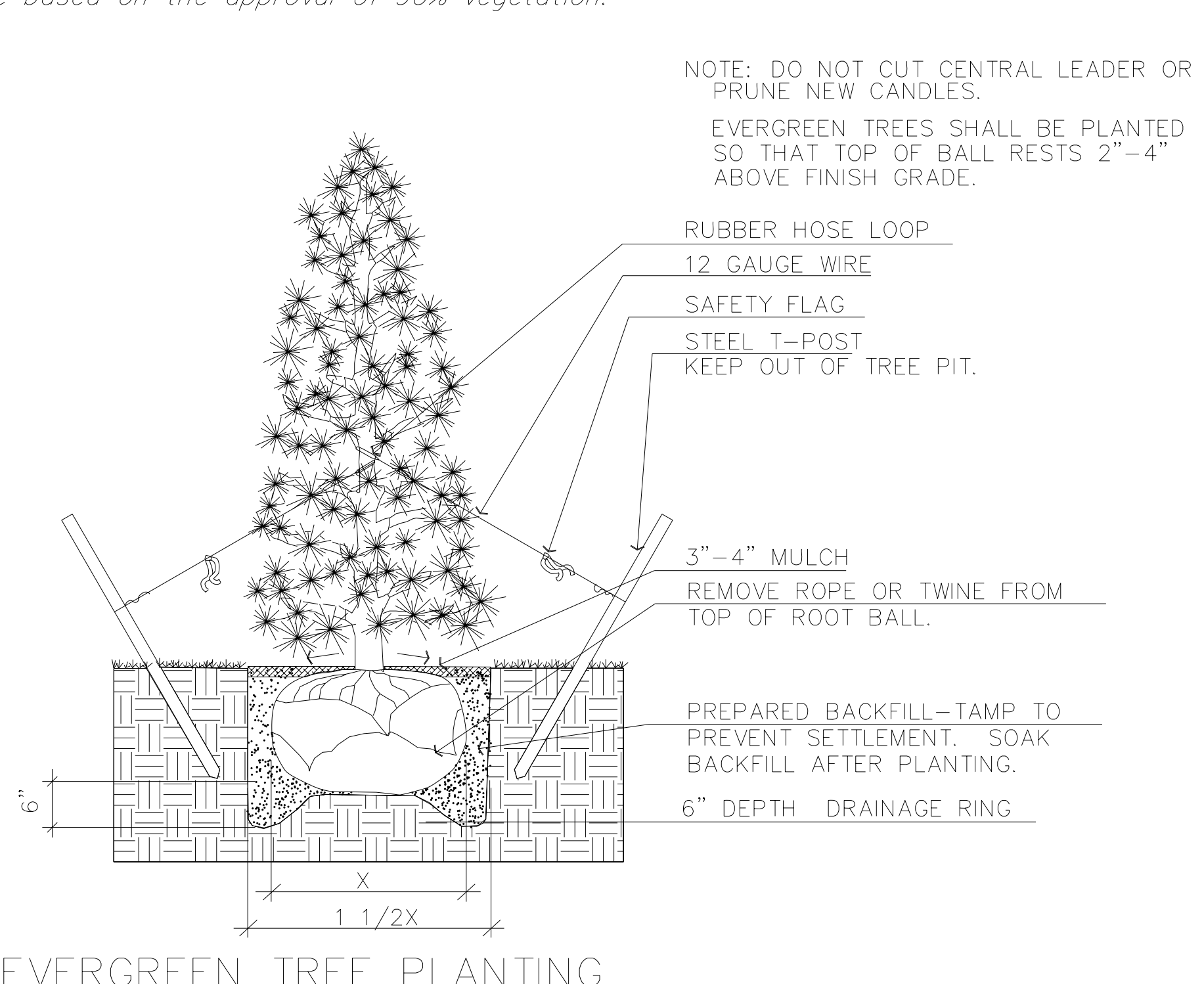
Upon completion of the planting, all excess soil, stones, and debris which have not previously been cleaned up shall be removed from the site or disposed of, as directed by the Engineer. All ground area disturbed as a result of planting operations shall be restored to its original condition or to the desired new appearance.

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**DECIDUOUS TREE PLANTING**

Deciduous Trees 2 1/2" Caliper & Smaller  
Evergreen Trees 6' Height & Smaller



**EVERGREEN TREE PLANTING**

CITY OF WICHITA JAMES ARMOUR, P.E., CITY ENGINEER		
GYPSUM CREEK LANDSCAPE PLAN		
CITY OF WICHITA PROJECT NO. 468-82473		
SCALE	DATE 10/31/2007	DWG No. 32158A