

**LANDSCAPING**  
**PART 1 - GENERAL**

- 1.1 SCOPE:**  
Provide all labor, materials and equipment for complete installation of landscaping, as indicated on the drawings and specified herein.
- 1.2 RELATED WORK SPECIFIED ELSEWHERE:**  
A. Irrigation System  
B. Lawn
- 1.3 QUALITY ASSURANCE:**  
A. Provide plant materials in compliance with applicable State and Federal laws relating to inspection for diseases and insect infestation at growing site.  
B. Observation at growing site does not preclude right of rejection at job site. Plants damaged in transit or at job site may be rejected.
- 1.4 REFERENCED STANDARDS:**  
A. American Standard for Nursery Stock, approved 1986 by American National Standards Institute, Inc. - Plant materials.  
B. Hortus Third, 1976 - Cornell University - Plant nomenclature.  
C. ASTM - American Standard Testing Material - Sharp sand.
- 1.5 PRODUCT DELIVERY, STORAGE AND HANDLING:**  
A. Delivery:  
1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.  
2. Do not store more plant materials than can be planted in one day unless adequate storage and watering facilities are available on job site. Storage of materials and equipment at the job site will be at the risk of the landscape contractor. The owner will not be held responsible for theft or damage.  
3. If balled plants cannot be planted within 24 hours after delivery to site, protect root balls by heeling in with saw dust or other approved material.  
4. Protect during delivery to prevent damage to root ball or desiccation of leaves.
- 1.6 JOB CONDITIONS:**  
A. Planting Restrictions:  
Perform actual planting only when weather and soil conditions are suitable in accordance with locally accepted practices. In no way shall any trees, plants, ground cover or seasonal color obstruct drainage or block a 26 minimum positive slope away from buildings.  
B. Utilities:  
1. Determine locations of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, if required, to minimize possibility of damage to underground utilities.  
2. Coordinate work with irrigation contractor to prevent damage to underground sprinkler system.
- 1.7 WARRANTY:**  
A. Warranty for plants and trees shall be for one year after final acceptance. Replace dead materials and materials not in vigorous, thriving condition as soon as weather permits and on notification by Owner's Rep. Replace plants, including trees, which in opinion of Landscape Architect have partially died thereby damaging shape, size, or symmetry.  
B. Replace plants and trees with same kind and size as originally planted, at no cost to the Owner. Provide one-year warranty on replacement plants. These should be replaced at start of next planting or digging season. In such cases, remove dead trees immediately. Protect irrigation system and other piping conduits or other work during replacement. Repair any damage immediately.  
C. Warranty excludes replacement of plants after final acceptance because of injury by storm, drought, drowning, hail, freeze, insects or diseases.  
D. At the end of the warranty period, staking and guying materials if required shall be removed from the site.
- 1.8 MAINTENANCE:**  
A. Water: Will be available on site. Provide necessary hoses and other watering equipment required to complete work.  
moving, weeding, spraying, cleaning and replacing as necessary to keep landscape in a vigorous, healthy condition and rake bed areas as required.  
C. Following final acceptance, maintenance of plant material will become the Owner's responsibility. The Contractor shall provide Owner with a recommended maintenance program.

**PART 2 - PRODUCTS**

- 2.1 PLANTS:**  
A. Quantities: The drawings and specifications are complementary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.  
B. Plants shall be equal to well formed No. 1 grade of better, symmetrical, heavily branched with an even branch distribution, densely foliated and/or bushy, and a strong straight, distinct leader where this is characteristic of species. Plants shall possess a normal balance between height and spread. The Landscape Architect will be the final arbiter of acceptability of plant form, either before or after planting and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plants as specified.  
C. Plants shall be healthy and vigorous, free of disease, insect pests and their eggs, and larvae.  
D. Plants shall have a well-developed fibrous root system.  
E. Plants shall be free of physical damage such as scorpae, broken or split branches, scars, bark abrasions, sun scalds, fresh limb cuts, disfiguring knots, or other defects.  
F. Plants shall meet the sizes indicated on the Plant List. Where a size or caliper range is stated, at least 50% of the material shall be closer in size to the top of the range stated.  
G. Plants indicated "B&B" shall be balled and burlapped. Plants shall be nursery grown unless otherwise specified in plant list. Balls shall be firm, neat, slightly tapered and well wrapped. Non-biodegradable ball wrapping material will not be accepted. Any tree loose in the ball or with broken ball at time of planting will be rejected. Balls shall be ten (10) inches in diameter for each one (1") inch of trunk diameter, measured six (6") inches above ball.  
H. Container grown plants shall be well rooted and established in the container in which they are growing. They shall have grown in the container for a sufficient length of time for the root system to hold the planting medium when taken from the container, but not long enough to become root bound.
- 2.2 SOIL PREPARATION MATERIALS:**  
A. Peat Moss: Commercial sphagnum moss or high quality, or decomposed gin trash with pH between 5 and 7. The gin trash shall be sterilized to eliminate all active residuals, i.e. insecticides, pesticides, herbicides, fungus, virus and defoliant chemicals.  
B. Pre mixed soils will be considered as "approved equals" when samples are submitted with manufacturer's data and laboratory test reports. Approved suppliers include Vitrol Earth Complete Mix by Vitrol Earth Resources, Glendale, Texas and Acid Gard Complete Mix by Soil Building Systems, Inc., Dallas, Texas.  
C. Sandy Loam:  
1. Fricole, fertile, dark, loamy soil, free of clay lumps, silt, stones, and other extraneous material and reasonably free of weeds and foreign grasses. Soil containing Dallegrae or Nitrograe shall be rejected.  
2. Physical properties as follows:  
Clay - between 7-21 percent  
Silt - between 28-50 percent  
Sand - less than 52 percent
- 2.3 COMMERCIAL FERTILIZER:**  
A. Fertilizer shall be delivered in manufacturer's standard container, printed with manufacturer's name, material weight, and guaranteed analysis. Fertilizers with N-P-K analysis other than that specified may be used provided that the application rate per square foot of nitrogen, phosphorus, and potassium is equal to that specified.  
B. Commercial Fertilizer for Planting Beds: Complete fertilizer 5-10-5 element ratio with minimum 8% sulfur and 4% iron plus micro-nutrients.  
C. Controlled-Release fertilizer planting bases for tree planting pits, shall be equal to AgriForm 20-20-20 planting tablets as manufactured by Sierra Chemical Co., Milpitas, California 45035 or approved equal.

**2.4 MULCH:**  
Bark mulch shall be hardwood mulch chips, ranging in size from 1/4-inch to 1-inch in size, medium fine texture, shredded.

**PART 3 - EXECUTION**

- 3.1 CONDITION OF SURFACES:**  
A. New bed areas will be left within one tenth of a foot of finish grade by other trades. Contractor will be responsible for raking and smoothing of grade.
- 3.2 SHRUB PLANTING:**  
A. All shrubs to be pocket planted. Excavate planting hole 3" larger than the width and height of the root ball. Backfill with 1/3 compost, 1/3 native soil and 1/3 sandy loam.  
B. Plant where located, setting plants with tops of balls even with tops of beds, and compact soil carefully around each plant ball.  
C. Water each plant thoroughly with hoses to eliminate air pockets.  
D. Carefully prune plants to remove dead or broken branches, various tags, and hand-rake bed areas to smooth even surfaces, and mulch bed areas 1 inch deep.
- 3.3 GROUNDCOVER PLANTING:**  
A. Till 2 inches minimum of thoroughly mixed prepared soil or equal in all planting bed areas as follows:  
1. 1 part sandy loam  
1 part peat moss  
1 part sharp sand  
Add a portion commercial fertilizer per 100 SF of bed area and mix thoroughly.  
B. Plant where located, setting plants with tops of balls even with tops of beds, and compact soil carefully around each plant ball.  
C. Water each plant thoroughly with hoses to eliminate air pockets.  
D. Carefully prune plants to remove dead or broken branches and hand-rake bed areas to smooth even surfaces, and mulch bed areas 1 inch deep.
- 3.4 TREE PLANTING:**  
A. Place ornamental trees in pits 12-inches larger than the root ball. Plant shade trees in pits two feet greater in diameter than root ball and equal to depth of root ball.  
B. After excavation of tree pits, review water percolation.  
C. If tree pit does not drain adequately prepare hole for use with a tree sump. Paint PVC stand pipe and cover dark green. After tree is installed, pump water out on a daily basis.  
D. In the event rock or underground construction work or obstructions are encountered in any plant pit excavation work, to be done under this section, alternate locations may be selected by the Landscape Architect. Where locations cannot be changed the obstructions shall be removed to a depth of not less than six (6") inches below bottom of ball when plant is properly set at the required depth. The work of this section shall include the removal from the site of such rock or underground obstructions encountered at the cost of the Landscape Contractor.  
E. Prepare backfill soil by thoroughly mixing a two part soil mixture as follows:  
50% of the soil mix to be organic compost material. The final 50% of the soil mix to be a 50/50 mix of sand and clean, native black clay soil approved by the town.  
F. Backfill tree pits with a clean, native black clay soil.  
G. Lightly tamp every 6-inches to fill all voids and pockets. When pit is 2/3 full, water thoroughly and give water to complete backfilling and form a saucer around the tree.  
H. Completely fill each tree saucer with mulch to a depth of two inches.  
I. Contractor shall keep trees planted until established. During grading staking to maintain that plants shall be at the Contractor's discretion. However, if trees are not planted, the Contractor will be required to guy and/or stake those trees in a method acceptable, at no additional cost to the owner.  
J. Completely fill each tree saucer with mulch to a depth of two inches.
- 3.5 SEASONAL COLOR PLANTING:**  
A. Beds shall be excavated to a depth of 2 inches. Soil shall be replaced with 100% Living Earth Technology Complete Mix or equal.  
B. Plant where located, setting plants with tops of balls even with tops of beds, and compact soil carefully around each plant ball.  
C. Water each plant thoroughly with hoses to eliminate air pockets.  
D. Carefully prune plants to remove dead or broken branches and hand-rake bed areas to smooth even surfaces and mulch bed areas 1 inch deep.
- 3.6 CLEANUP:**  
During work, keep premises neat and orderly including organization of storage areas. Remove trash, including debris resulting from removing weeds and rocks from planting areas, preparing beds, or planting plants from site daily as work progresses. Keep walk and driveway areas clean by sweeping or hosing.

**END OF LANDSCAPING SECTION**

**LAWNS**

**PART 1 - GENERAL**

- 1.1 SCOPE:**  
Furnish all labor, tools, transportation, materials, equipment, supervision, etc., required to adequately establish a dense lawn of permanent grasses, free from lumps and depressions as indicated by plans and specifications.  
Raze any part of the area failing to show uniform cover until a dense lawn is established. The cost of miscellaneous labor and materials for topsoil, weeding, tilling, pest control, fertilizing, etc., are not separate pay items and shall be included in the bid price for grassing.
- 1.2 RELATED WORK SPECIFIED ELSEWHERE:**  
A. Irrigation System  
B. Landscaping
- 1.3 MAINTENANCE OF GRASS:**  
The contractor shall maintain the grass until final acceptance. Such maintenance shall include spraying, weeding, cultivation, fertilizing, watering, disease and insect control, top dressing low spots, plus any procedures consistent with horticultural practice necessary to insure normal, vigorous, and healthy grass.
- 1.4 JOB CONDITIONS:**  
A. Water: Will be available on site. Provide necessary hoses and other watering equipment required to complete work.  
B. Lawn areas will be left within 1/10 of a foot of finish grade by other trades. Final grading, raking and smoothing will be the responsibility of the contractor.
- 1.5 SCHEDULE:**  
A. Seeding/hydrumulching - Bermudagrass: Complete only between May 1 to August 31 under favorable conditions. (warm season)  
B. Seeding/hydrumulching - Perennial Ryegrass: Complete only between September 1 to April 30, except at front of project, as determined by owner, under favorable climatic conditions.  
C. Sodding: Sod bermuda between March 15 and September 30. Between October 1 and March 14 overseed sod with Perennial ryegrass under favorable conditions. (Use nursery overseeded sod, in lieu of seeding after installation, if available.)  
D. Qualifications: Due to unseasonable weather, the above dates may vary; however, do not proceed with grassing operations beyond these dates without assuming full responsibility for a stand of grass.
- 1.6 ACCEPTANCE:**  
The work will be accepted when a complete, undamaged stand of grass is achieved, as approved by the Owner's Representative.

**PART 2 - MATERIALS**

**2.1 GRASS:**

- A. Bermuda Grass: Extra fancy hulled and treated, lawn type seed, delivered to site in original, unopened containers meeting requirements of Texas State Seed Law. Minimum purity germination 90 percent.  
B. Annual Ryegrass: Extra fancy, hulled and treated, lawn type seed, delivered to site in original, unopened containers meeting requirements of Texas State Seed Law. Minimum purity germination 90 percent.

**2.2 FERTILIZER:**

- Fertilizer shall be organic base, uniform in composition, dry and free flowing. Deliver fertilizer to site in original, unopened containers, each bearing manufacturer's guaranteed analysis of analysis.  
A. First application: 12-12-12 element percentage with minimum 8% sulfur and 4% iron, plus micro nutrients.  
B. Second application: 3-1-2 element ratio. Nitrogen source to be a minimum 50% slow release organic nitrogen (SCU or UF) plus minimum 8% sulfur and 4% iron plus micro nutrients.

**PART 3 - EXECUTION**

**3.1 PREPARATION:**

- A. Scarify lawn areas where excessive compaction is greater than 85% Standard Proctor to a depth of 4-inches by discing or rototilling. Repeat cultivation as required to thoroughly loosen soil.  
B. Leave areas free of weeds and ready for final grading.  
C. Provide barricades around scarified areas to prevent compaction by construction vehicles.

**3.2 FINAL GRADING:**

- A. Remove from site and legally dispose of stones 3/4-inch and larger, sticks and other debris exposed during this operation.  
B. Provide final grading leaving surface uniform without depressions and undulations, graded approximately 1-inch below paving.

**3.3 HERBICIDE:**

- Apply herbicide to remove any remaining weeds. This work is to be performed by a licensed applicator following the manufacturer's recommendations.

**3.4 FERTILIZER:**

- A. Place first application with hydromulch at rate of 12 pounds per 1,000 square feet.  
B. Uniformly distribute second application using a rotary type fertilizer spreader 3-4 weeks after first application at 12 pounds per 1,000 square feet.

**3.5 HYDRUMULCH/SEEDING:**

- A. At the time of hydromulch/seeding, soil shall be moist but not muddy, and wind velocity shall not exceed ten (10) miles per hour. Add water if required to moisten soil.  
B. Hydromulch seed uniformly at the rate of 2 pounds of Bermudagrass seed per 1,000 square feet.  
C. Add tackifier to hydromulch mix for slopes 5:1 or greater at the rate of 1 lb. per bag of mulch.  
D. Use a 4' x 8' batter board against bed areas.

**3.6 MECHANICAL SEEDING:**

- Seed uniformly at a rate of 125 pounds of Bermudagrass seed per acre or 350 pounds of Ryegrass per acre. Use grass drill, brilliant seeder, or viking roller.

**3.7 SOLID SOD:**

- A. Solid Sod: Plant grass by hand, edge to edge with staggered joints. Topdress with sharp sand raked in carefully to fill joints. Roll to eliminate undulations and provide complete soil contact.  
B. Fertilizing: Fertilize immediately after grass is planted at rate of 4 lbs. per 1,000 square foot. Repeat fertilizing at the same rate 3-4 weeks later.

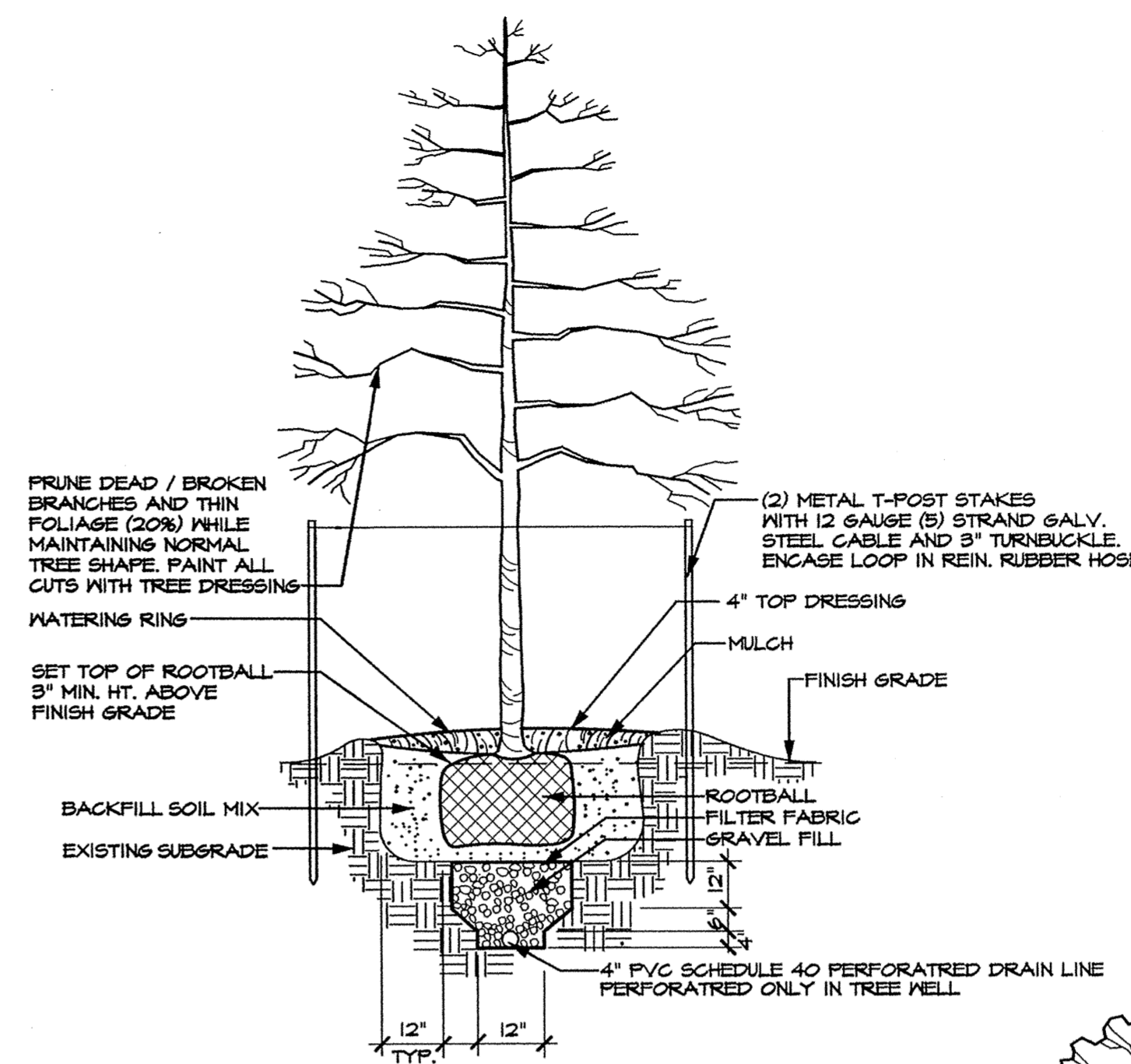
**3.8 ESTABLISHMENT AND MAINTENANCE OF LAWN AREAS:**

- A. Watering:**  
1. Water lawn areas immediately after grassing operation.  
2. Continue watering as required to keep soil uniformly moist to a minimum depth of 4-inches.  
3. Be alert to over-watering newly planted grass, particularly in heavy clay soils.  
**B. Replanting/Erosion Control:**  
1. Correct any erosion that may occur during the establishment of grass.  
2. Reseed (sod) any areas not showing sufficient growth within 3 weeks after initial grassing. Continue seeding (sodding) until a stand of grass is achieved.  
3. A stand of grass will be defined as a uniform cover of actively growing turf.  
**C. Mowing/Weed Control:**  
1. Mow lawn areas weekly until a stand of grass is achieved. Begin mowing when the lawn reaches a height of 3-inches; set mower to cut at 2-inches. A minimum of two mowings is required.  
2. Weed lawn areas until acceptance, removing all foreign vegetation, either by hoeing or pulling. If approved, herbicide spot treatments may be used.

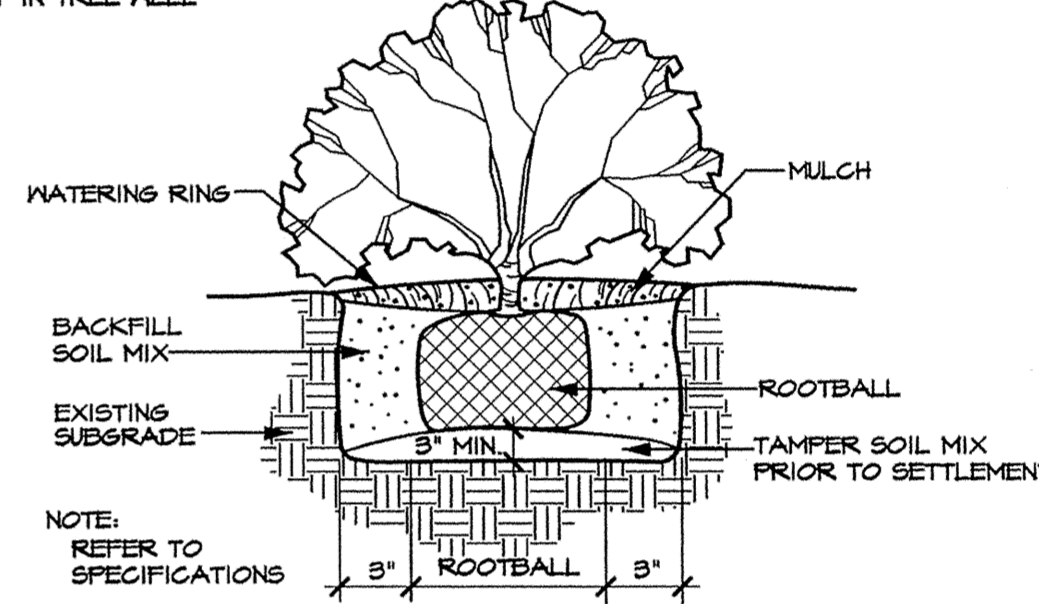
**3.9 CLEANUP:**

- During work, keep premises neat and orderly, including organization of storage areas. Remove trash, including debris resulting from removing weeds and rocks from site daily as work progresses. Keep paved areas clean by sweeping or hosing.

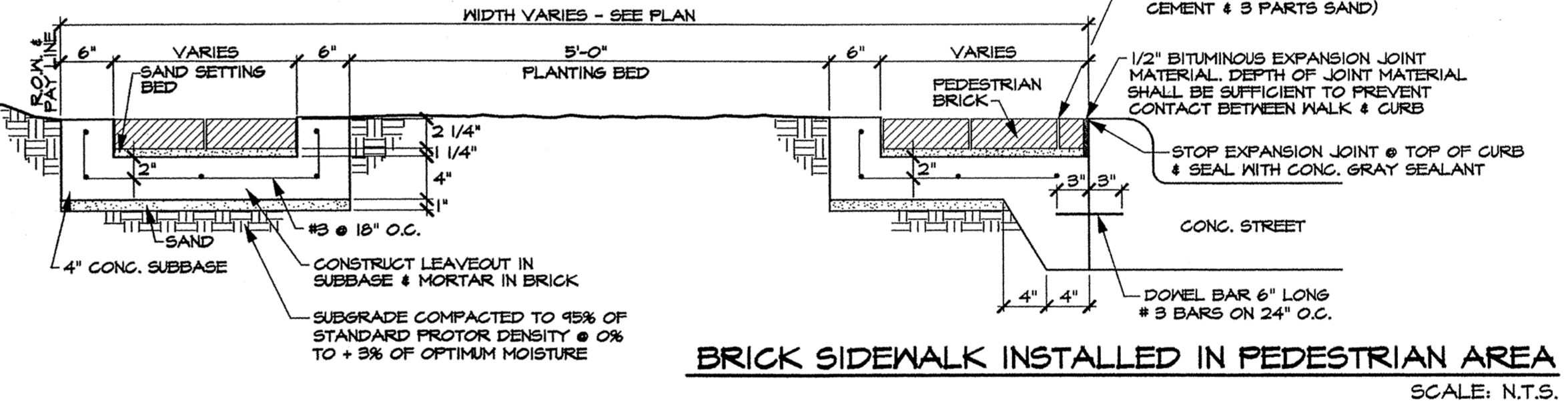
**END OF LAWN SECTION**



**TREE PLANTING DETAIL (TYPICAL) WITH DRAINLINE**  
SCALE: N.T.S.



**SHRUB PLANTING DETAIL (TYPICAL)**  
SCALE: N.T.S.



**BRICK SIDEWALK INSTALLED IN PEDESTRIAN AREA**  
SCALE: N.T.S.

TREES					
QUANTITY	SYMBOL	CALLOUT	COMMON NAME	SCIENTIFIC NAME	SIZE & CONDITION
28		RED OAK	Red Oak	Quercus shumardii	100 gallon, 4" caliper min., 14' ht. / 7' spread, straight trunk, matching specimen.
31		CEDAR ELM	Cedar Elm	Ulmus crassifolia	100 gallon, 4" caliper min., 14' ht. / 7' spread, straight trunk, matching specimen.
17		PISTACHE	Pistache	Pistacia chinensis	100 gallon, 4" caliper min., 14' ht. / 7' spread, straight trunk, matching specimen.

SHRUBS					
QUANTITY	SYMBOL	CALLOUT	COMMON NAME	SCIENTIFIC NAME	SIZE AND CONDITION
1,170	(d)	D.Y. HOLLY	Dwarf Yaupon Holly	Ilex vomitoria 'Nana'	5 gallon, 18"-20" Ht./15" spread, full, bushy to ground
14	(s)	SPIREA	Double Knockout Radtko Rose	Rosa hybrida 'Radtko'	5 gallon, 24" Ht./24" spread, full, bushy to ground

GROUNDCOVER / PERENNIAL					
QUANTITY	SYMBOL	CALLOUT	COMMON NAME	SCIENTIFIC NAME	SIZE AND CONDITION
1,500		MONDO	Mondo Grass	Ophiopogon japonicum	4" pots @ 9" o.c.
55		S. IRIS	Siberian Iris	Iris sibirica Various Purple Colors	1 gallon

**RECORD DRAWINGS** September 30, 2009  
NOTE: THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE IMPROVEMENTS ACCORDING TO THESE PLANS AS APPROVED BY THE TOWN OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED ON THE PLANS.

#	Revisions:	Date:

**Grubbs Design Group**  
Landscape Architecture - Construction Management

STATE OF TEXAS  
JOE D. GRUBBS  
1713  
REGISTERED LANDSCAPE ARCHITECT

**Meridian Square**  
R.O.W. Improvements  
Addison, Texas

Issued For:  
**CONSTRUCTION**  
Job No.  
08132.00  
Scale  
N.T.S.  
Drawn By:  
JDS  
Date  
1-19-2009

**Landscape Specifications**

Sheet Number:  
**L2**  
of L4 Sheets