

SECTION 02900 - LANDSCAPE

PART 1 - GENERAL

1.1 REFERENCED DOCUMENTS

Refer to bidding requirements, special provisions, and schedules for additional requirements.

1.2 DESCRIPTION OF WORK

Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:

1. Planting (trees, shrubs, and grass)
2. Bed preparation and fertilization
3. Notification of sources
4. Water and Maintenance until final acceptance
5. Guarantee

1.3 REFERENCE STANDARDS

A. American Standard for Nursery Stock published by American Association of Nurserymen: 27 October 1980, Edition, by American National Standards Institute, Inc (Z60.1)-plant material.

B. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.

C. Texas Association of Nurserymen, Grades and Standards.

D. Hortis Third, 1976 - Cornell University

1.4 NOTIFICATION OF SOURCES AND SUBMITTALS

A. The Contractor shall, within ten (10) days following acceptance of bid, notify the Architect/Owner of the sources of plant materials and bed preparation required for the project.

B. Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel, and crushed stone. Samples shall be approved by Architect before use on project.

C. Product Data: Submit complete product data and specifications on all other specified materials.

D. Submit three representative samples of each variety of ornamental trees, shrubs, and groundcover plants for Architect's approval. When approved, tag, install, and maintain as representative samples for final installed plant materials.

E. File Certificates of Inspection of plant material by state, county, and federal authorities with Architect, if required.

F. Soil Analysis: Provide sandy loam soil analysis if requested by the Architect.

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

A. Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.

B. All planting areas shall be conditioned as follows:

1. Prepare new planting beds by removing away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per manufacturers recommendations. Add six (6") inches of compost and till at a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1,000) square feet.
2. All planting areas shall receive a two (2") inch layer of specified mulch.
3. Bedding for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps rocks, debris, caliche, subsoils, etc., placed in nine (9") inch layers and watered in thoroughly.

C. Grass Areas:

1. Areas to be Solid Sod Bermudagrass: Blocks of sod should be laid joint to joint, (disengaged joints) after fertilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.
2. Areas to be Hydromulch Common Bermudagrass: Hydromulch with bermudagrass seed at a rate of two (2) pounds per one thousand (1,000) square feet. Use a 4' x 8' batter board against the bed areas.

3.2 INSTALLATION

A. Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all construction has been satisfactorily accomplished.

B. Plant materials shall be delivered to the site only after the beds are prepared and area ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transport. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and sun. Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.

C. Position the trees and shrubs in their intended location as per plan.

D. Notify the Landscape Architect for inspection and approval of all positioning of plant materials.

E. Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that, when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.

JOB CONDITIONS

- A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (3") inches below finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the finish grade of sidewalks, drives, and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.
- B. General Contractor shall provide topsoil as described in Section 02200 - Earthwork.
- C. Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

1.6 MAINTENANCE AND GUARANTEE

- A. Maintenance:
1. The Landscape Contractor will be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show a healthy growth and satisfy the standards of the contract.
 2. Maintenance shall include watering of trees and plants, cultivation, weeding spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary of maintenance.
 3. A written notice requesting final inspection and acceptance should be submitted to the Owner at least seven (7) days prior to completion. An on-site inspection by Owner and Landscape Contractor will be completed prior to written acceptance.
 4. After final acceptance of installation, the Landscape Contractor will not be required to do any of the above listed work.

B. Guarantee:

1. Trees shall be guaranteed for a twelve (12) month period after acceptance. Shrubs and groundcover shall be guaranteed for twelve (12) months. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry has been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
- a. Plants used for replacement shall be of the same size and kind as those previously removed. All work, including materials, labor and equipment used in replacement, shall carry a twelve (12) month guarantee. Any damage, including rutting in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
- b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
- c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and reinspected for full compliance with Contract requirements. All replacements are to be included under "Work" of this section.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Preparation:
1. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape, and future development.
 2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

2. The Owner agrees that for the guarantees to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a completed, undamaged condition, and there is a stand of grass in all lawn areas. At this time, the Owner will assume maintenance on the accepted work.

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. Dried only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
 3. Protect root balls by heelin in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
 4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves.
 5. Notify Architect of delivery schedule 72 hours in advance so plant material may be cleared upon arrival at job site.
 6. Remove rejected plant material immediately from site.
 7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

1.7 QUALITY ASSURANCE

- A. General: Comply with applicable Federal, State, County and Local regulations governing landscape materials and work.
- B. Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.
- C. Selection of Plant Material:
1. Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will insure the purchased materials will meet and/or exceed project specifications.
 2. Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules to site.
 3. Owner and/or Architect shall inspect all plant materials when reasonable at place of growth for compliance with requirements for genus, species, cultivar/variety, size and quality.
 4. Owner and/or Architect retains the right to further inspect all plant material upon arrival at the site and during installation for size and condition of root balls, limbs, trunks, etc. and to reject any material.
 5. Owner and/or Architect may reject unsatisfactory or defective material at any time during the process of work. Remove rejected materials from the site immediately. Plants damaged in transit or at job site shall be rejected.

2.2 SOIL PREPARATION MATERIALS

- A. Sandy Loam:
1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallasgrass or Nutgrass shall be rejected.
 2. Physical properties as follows:
 - Clay - between 7-27 percent
 - Sand - between 15-25 percent
 - Silt - between 58-75 percent
 3. Organic matter shall be 3%-10% of total dry weight.
 4. If requested, provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above requirements.
- B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of coarse and fine textured material.
- C. Premixed Bedding Soil as supplied by Vital Earth Resources, Gladewater, Texas; Professional Bedding Soil as supplied by Living Earth Technology, Dallas, Texas or Acid Gro Municipal Mix as supplied by Soil Building Systems, Dallas, Texas or approved equal.
- D. Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.
- E. Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown. Living Earth Technologies or approved equal.
- F. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.

PART 2 - PRODUCTS

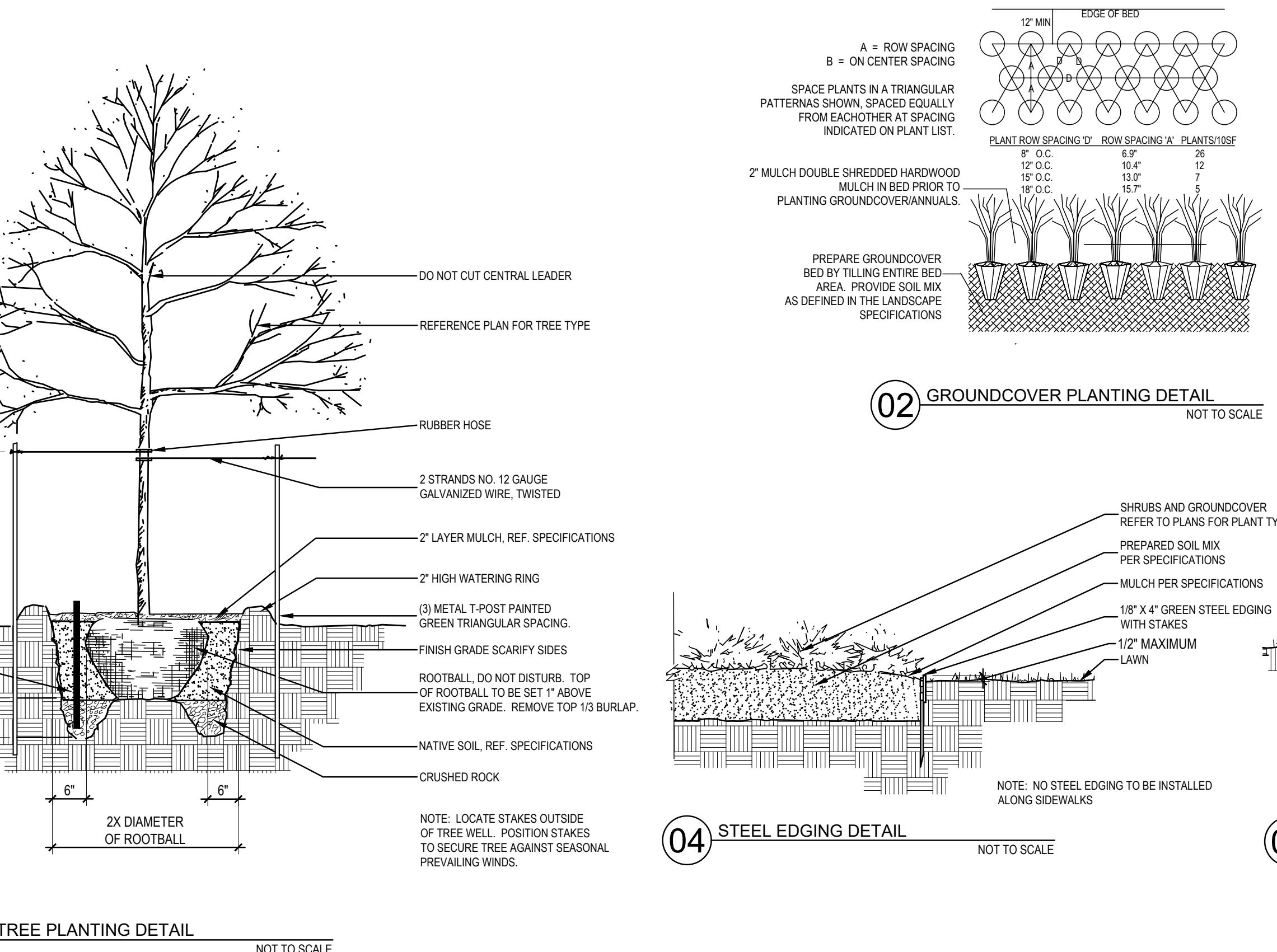
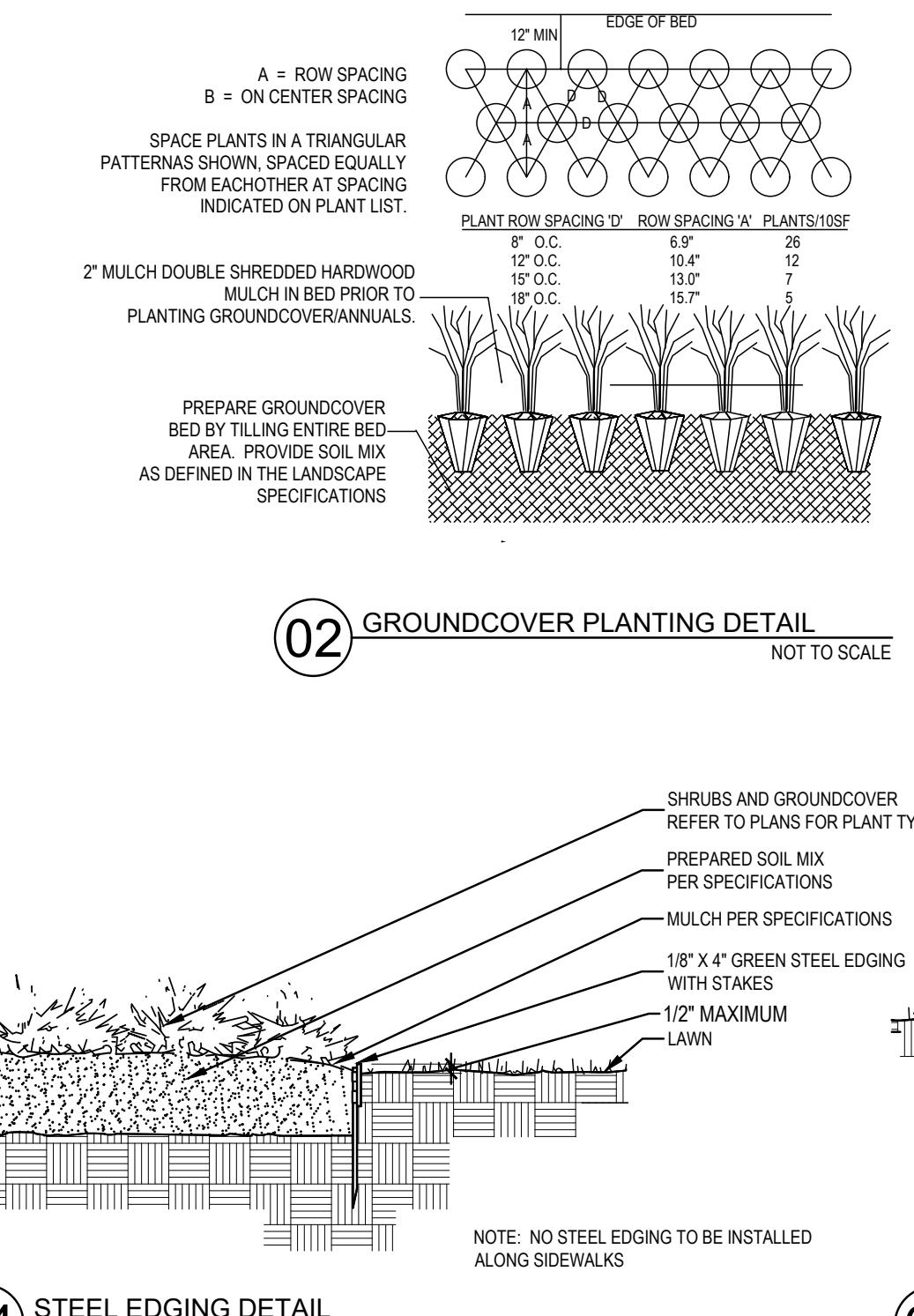
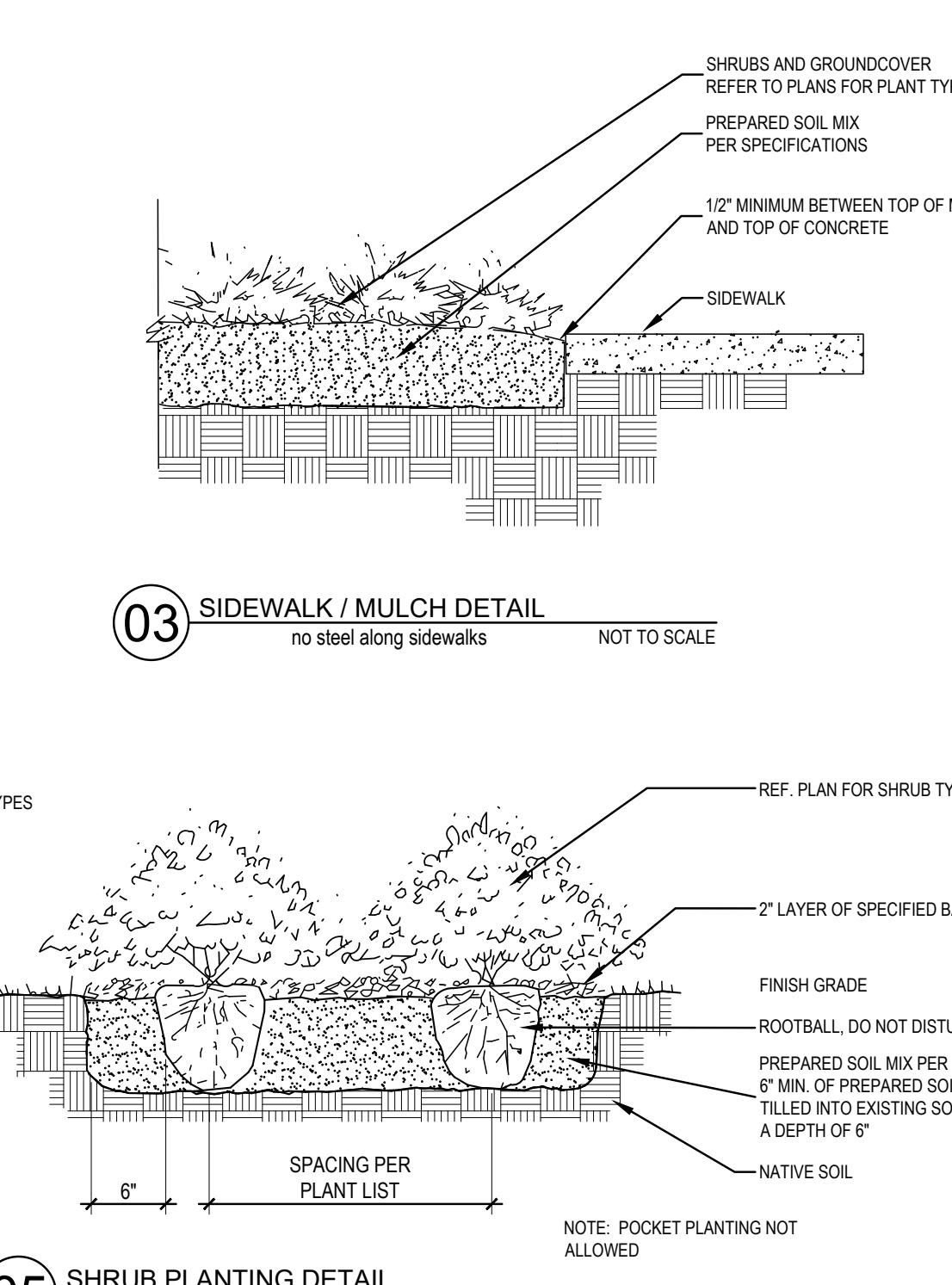
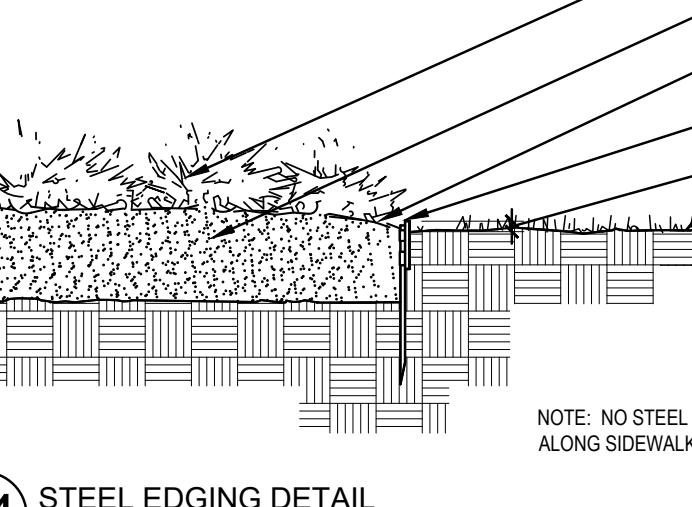
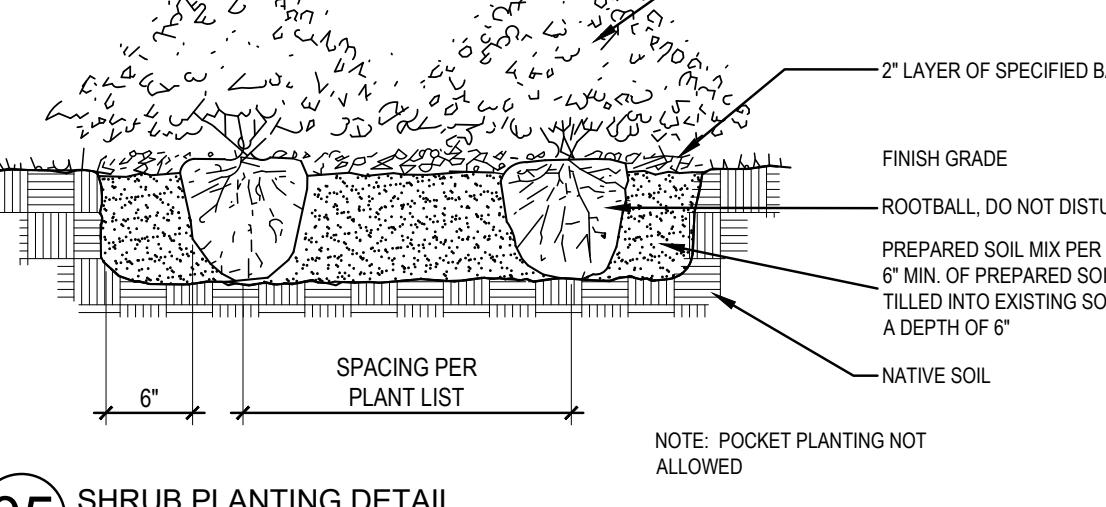
2.1 PLANTS

- A. General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Architect and his decision as to their acceptability shall be final.
- B. 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.
- C. Quality and Size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched, and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae and are to be of specimen quality.
- D. Approval: All plant materials shall be subject to the approval of the Owner. All plants which are found unsuitable in growth, or in any unhealthy, badly shaped or undersized condition, will be rejected by the Landscape Architect, either before or after planting, and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plants as specified.

- E. Trees shall be healthy, full-branched, well-shaped and shall meet the trunk schedule and height requirements of the plant schedule. Balls shall be firm, neat, slightly tapered, and well wrapped in twine. Avoid loose root ball or with broken ball at time of planting will be rejected. Ball size shall be 10" inches in diameter for each one (1") inch of trunk diameter. Measured six (6") inches above the ball.
- Nomenclature conforms to the customary nursery usage. For clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.
- F. Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect, shall be executed by the Landscape Contractor at no additional cost to the Owner.

2.3 MISCELLANEOUS MATERIALS

- A. Steel Edging: Shall be Ryerson "Estate Curbing", 1/8" x 4" with stakes 4" on center.
- B. Staking Material for Shade Trees:
- 1. Post: Studied T-Post, #1 Armco with anchor plate, 6'-0" length; paint green.
 - 2. Wire: 12 gauge, single strand, galvanized wire.
 - 3. Rubber hose: 2' ply fiber reinforced hose, minimum 1/4 inch inside diameter. Color: Black.
- C. Gravel: Washed native pea gravel, graded 1 in. to 1-1/2 in.
- D. Filter Fabric: Mirafi 140N by Celanese Fibers Marketing Company, available at Loftland Co., (214) 631-5250 or approved equal.

01 TREE PLANTING DETAIL
NOT TO SCALE02 GROUNDCOVER PLANTING DETAIL
NOT TO SCALE03 SIDEWALK / MULCH DETAIL
no steel along sidewalks
NOT TO SCALE04 STEEL EDGING DETAIL
NOT TO SCALE05 SHRUB PLANTING DETAIL
NOT TO SCALEISSUE:

_____DATE:
07.26.2022SHEET NAME:
LANDSCAPE SPECIFICATIONSSHEET NUMBER:
L.3C-STORE
CLARK ROAD
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