

EXTERIOR PLANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The following are minimum requirements and shall govern, except that local, state and/or federal codes and ordinances shall govern when their requirements are in excess hereof.

1.2 SUMMARY

- A. Furnish labor, exterior plants and related materials, and equipment necessary to perform operations for planting of plants shown on drawings and as specified herein.
- B. Landscape work includes, but is not limited to the following:
 - 1. Trees.
 - 2. Tree staking.

1.3 DEFINITIONS

- A. **Quality** refers to structure and form, evidenced by density and number of canes and branches, compactness, symmetry, and general development, without consideration of size or conditions. Standard quality indicates the least acceptable quality. Such plants shall be of good average uniform growth, free from irregularities, typical of the species and variety, nursery grown, well formed, uniformly branched, having the minimum number of canes specified or conform to minimum quality index. American National Standard ANSI Z60.1-2004, Nursery Stock, shall apply where the number of canes is not specifically shown or specified for quality. In this case, the number of canes and other factors for the appropriate classification under "quality definition" in ANSI Z60.1 shall be the quality index. Exterior plant materials below specified standard shall be considered "Culls" and will not be accepted.
- B. **Specimen** means an exceptionally heavy, symmetrical, tightly knit plant, so trained or favored in its development and appearance as to be unquestionably and outstandingly superior in form, number of branches, compactness, and symmetry.
- C. **Size** is the factor controlled by dimensions representing height or spread or both, without consideration of quality or condition. For standard quality a dimension is given for height or spread, whichever is typical characteristic of the plant. For specimen quality, a dimension is given for height as well as spread.
- D. **Height** is usually indicated with a tolerance. The smaller dimension is the minimum acceptable. The larger dimension represents the maximum permissible. The average of all plants must equal the average of the tolerance figures shown for each item. Where trimmed plants are indicated, plant dimensions shall conform.

- E. **Spread** is the single dimension that represents the minimum acceptable. A spread tolerance of not more than forty percent upward in diameter is acceptable. Spread shall meet the minimum in all directions and shall be considered as pivoting on center of plant. Where tolerance is shown between two spread dimensions, the closest is the minimum acceptable.
- F. **Condition** is the factor controlled by vitality and ability to survive, thrive, and be comparable with normal plants of the same species and variety in the vicinity, at the same season of the year. In addition, plants shall be free from physical damage or adverse condition that would prevent thriving with the specified result. Condition also sometimes refers to stage of growth, i.e. whether "dormant condition" or "growing condition," and this state shall be comparable to plants of similar species in the vicinity of-the project at a given season with regard to coverage, size and color of leaves, formation of bud and the like.
- G. **Clump** is a plant having a minimum of three stems originating from a common base at the groundline.
- H. **Caliper** shall be taken 6" above the ground up to 4" caliper size as a guide for uniformity and degree of maturity. Trees larger than 4" caliper shall be measured 12" above the ground line.
- I. **Branching point** is the distance above ground where balanced branching occurs.
- J. **Foliage line** is maximum dimension in case of specimen plants measured from ground to lowest part of body of plant.
- K. **Root Flare:** Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk
- L. **Girdling Root:** is a root that circles the base of the tree at or just below the surface
- M. **Included Bark:** is the abnormality of wood fiber which usually occurs between branch and trunk or between co-dominant stems.

1.4 SUBMITTALS

- A. Submit a list of proposed nurseries from which plant materials will be obtained for acceptance by the Owner's Representative prior to placement of order. List of proposed nurseries from which plant materials will be obtained shall be submitted within 7 days of contract award by the Owner.
 - 1. Shade and ornamental trees may be selected and tagged at the nursery by the Owner's Representative, within 14 days of approval of nursery sources.
 - 2. Plant tags shall remain on the plant material until after material has been installed and initially accepted by the Owner's Representative.
- B. Submissions - Submit Certificates of Compliance all products and materials specified to show compliance with reference standards.

1.5 QUALITY ASSURANCE

- A. Landscape Contractors Qualifications: Landscape work to be performed by a single firm specializing in landscape work. Contractor must submit proof to the owner's representative that he meets the following experience requirements:
- B. Exterior Plant Material Standards:
 - 1. All plant material shall conform to the current issue of the "American Standard for Nursery Stock (ANSI Z60.1)", published by the American Nursery & Landscape Association. Exterior plant materials shall be of standard quality true to name and type and first class representatives of their species and variety. Shape, size and branching pattern shall conform to the standards listed above. The Landscape Architect reserves the right to reject plants not deemed satisfactory in his opinion as to quality, size, type or color.
 - a. Trees shall be sized according to method established by the American Association of Nurserymen.
 - b. Deciduous shade trees shall be straight and symmetrical with a crown having a **dominant main leader**. No co-dominant stems (as appropriate for species), included bark or girdling roots will be accepted.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver plants freshly dug.
- B. Do not prune trees before delivery, except as approved by Owner's Representative. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during delivery. Do not drop plants during delivery.
- C. Handle planting stock by root ball.
- D. Deliver other packaged materials to the site in manufacturer's standard unopened containers labeled to show ingredients and analysis and store in a protected location.

1.7 OBSERVATION

- A. The Owner's Representative retains the right to observe plant material either at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size and quality. The Owner's Representative retains right to further observe plant material for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. If observation is at site, Contractor shall remove rejected plant material immediately from project site.
- B. The Contractor shall be responsible for all certificates of inspection of plant materials as required by federal, state or other authority to accompany shipments of plants.

1. Nursery or greenhouse identification tags must accompany all shipments of nursery stock.
- C. Unless otherwise specified in the contract documents, the Contractor shall provide at least fifteen (15) days notice to the Owner's Representative stating the date, time and place where specified nursery observations may be conducted. The Contractor shall be represented at all observations.

1.8 PROJECT CONDITIONS

- A. Determine locations of underground utilities and perform work in a manner that will avoid damage. All excavators must call Dig Safely New York at 1-800-962-7962 at least three (3) working days prior to the start of excavation, but not more than ten. The complete list of responsibilities for excavators is contained within New York State Industrial Code Rule 753.
- B. Exterior planting shall be done during normal planting seasons for each type of plant, and only during periods that are suitable, as judged from the standpoint of weather conditions and locally accepted practices, and which are approved.
- C. Observe precautionary measures to protect existing paved areas against damage during the planting operation.

1.9 SUBSTITUTIONS

- A. Substitutions will not be permitted unless proof is submitted that specific plants or sizes are unobtainable after all resources have been exhausted.
- B. Substitutions may be required to replace specific plants that do not survive guarantee period, and/or are a fall planting risk.
- C. Contractor will submit proposal for substitution(s) for Owner's Representative approval, to be considered for nearest size or variety with equitable adjustment to contract price.

PART 2 - PRODUCTS

2.1 EXTERIOR PLANT MATERIALS

- A. The scientific and common names of plants required are in conformity with the approved names given in L.H. Bailey's "Cyclopedia of Horticulture" (1922). When a name is not found in this reference, refer to the accepted name used in the nursery trade.
- B. The plants required are shown on the plant list. Provide each plant shown.
- C. Exterior plants shall meet requirements of the plant list and types shown, and shall be in accordance with the botanical names and applicable standards of quality, size,

condition and type shown or specified. Collected plants shall not be used without written approval and procured through registered nursery. Right is reserved by the Owner's Representative to accept or to reject plants upon delivery to the site.

- D. Exterior plants shall be sound, healthy, vigorous, and free of plant disease, borers, insect eggs and larvae, defects, decay, disfiguring roots, sunscald injuries, and abrasions of the bark. Plants shall also be well branched and full foliated when in leaf; shall have healthy normal root systems; shall have a normal habit of growth; and shall conform to the measurements shown in the plant list, which are minimum sizes.
 - 1. Exterior plants shall be measured before pruning with branches in a normal position. Plants larger than specified may be used with the approval of the Owner's Representative. However, the use of larger plants will not constitute a change in contract price.
 - 2. If the use of larger plants is approved, the ball of earth or spread of roots shall be increased proportionately
- E. Exterior plants shall be freshly dug and nursery grown. Cold storage plants will be accepted.
- F. Plants shall be handled so that roots and foliage are adequately protected at all times from drying out and from other injury. The balls of balled and burlapped plants which cannot be planted immediately on delivery shall be well protected with soil or other acceptable material, but not with manure or mushroom manure. Heeled-in plants shall be properly maintained until transplanted.
- G. Exterior plants shall not be pruned prior to delivery except upon special approval by the Owner's Representative.
- H. Exterior plants shall be marked for identification.

2.2 STAKING MATERIALS

- A. Stakes: 2" by 2" by 8', uniform hardwood stake with one end pointed, and shall be straight and free from knots, rot, warp or bend.
- B. Tree Ties: Prolock ½" wide poly chain lock as manufactured by Dimex LLC, Herrietta, OH or acceptable equivalent.

2.3 MULCH

- A. Double hammered seasoned hardwood mulch as commercially available.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing plants from damage caused by planting operations.

3.2 EXTERIOR PLANTING PROCEDURE

A. Exterior planting Pits

1. Pits to be dug as detailed on Drawings. Suitable excavated soil from pits may be used to backfill planting pit.
2. Where unsuitable soils are encountered planting pit shall be backfilled with topsoil.

B. Planting

1. The Contractor is responsible for planting to correct grades and alignment and all plants shall be set so that **root flare is visible 2" above finished grade**. No filling will be permitted around trunks or stems.
2. Cut and remove all twine and tags from main stem and branches, as well as cut and remove burlap and push back or remove metal basket from top 1/3rd of root ball.
3. Thoroughly soak plant material immediately after planting by sprinkler or slow stream.

3.3 STAKING

- A. Trees to be supported and protected immediately after planting, as detailed and specified.

3.4 MULCHING

- A. Tree pits shall be mulched with a 3" layer of mulch as specified, spread neatly and left with a uniform flat surface. **No filling will be permitted within 2" of trunks or stems.**

3.5 FINAL REVIEW, ACCEPTANCE AND GUARANTEE

- A. After material has been planted, the Owner's Representative will make an inspection of the work to determine condition of the plants and establish date of acceptance.

- B. Plants that are found to be unsatisfactory and/or not in a healthy, growing condition shall be removed from the site and replaced with new plants of the same kind, sizes, and quality originally specified, unless substitutes are approved and/or required by Owner's Representative (as per Section 1.9). Plants that are found to be planted too deeply and the root flare is not visible 2" above finished grade shall be rejected, no compensation shall be made to the Contractor until the work is corrected and found to be in satisfactory condition. Such replacements and corrections shall be made in the same manner as specified for the original planting and at no extra cost to the Owner.
- C. All trees must be guaranteed for 18 months from date of acceptance. Plants that are found dead or unhealthy, in the opinion of the Owner's Representative, before the end of the guarantee period shall be replaced in the next appropriate planting season. Any substitutes for replacements must be approved by Owner's Representative (as per section 1.9).

3.6 CLEAN-UP OPERATIONS

- A. Upon completion of the work, the Contractor shall clear the site of debris and superfluous materials and equipment as a result of planting work to the satisfaction of the Owner's representative. Pavements shall be clean.

END OF SECTION