

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. Contract Number	Page of Pages	
				1	17
2. Amendment/Modification Number	3. Effective Date	4. Requisition/Purchase Request No.		Green Roofs on Multiple Buildings at Van Ness Campus Phase I – Building 44, Installation of Green Roof & Renovation of Greenhouse	
GF-2013-B-0102-004	May 31, 2013				
6. Issued By: University of the District of Columbia Capital Procurement Division 4200 Connecticut Avenue, NW Building 38, Room C04 Washington, DC 20008		Code	7. Administered By (If other than line 6) University of the District of Columbia Capital Procurement Division 4200 Connecticut Avenue, NW Building 38, Room C03 Washington, DC 20008		
8. Name and Address of Contractor (No. Street, city, country, state and ZIP Code)			(X)	9A. Amendment of Solicitation No. GF-2013-B-0102-004	
				9B. Dated (See Item 11) May 31, 2013	
				10A. Modification of Contract/Order No.	
				10B. Dated (See Item 13)	
Code	Facility				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of <input type="checkbox"/> is extended. <input checked="" type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning <input type="checkbox"/> copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or fax, provided each letter or telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. Accounting and Appropriation Data (If Required)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14					
A. This change order is issued pursuant to: (Specify Authority)					
The changes set forth in Item 14 are made in the contract/order no. in item 10A.					
B. The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation date, etc.) set forth in item 14, pursuant to the authority of 27 DCMR, Chapter 36, Section 3601.2.					
C. This supplemental agreement is entered into pursuant to authority of:					
D. Other (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copy to the issuing office.					
14. Description of amendment/modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)					
Solicitation No. GF-2013-B-0102 for the Green Roofs on Multiple Buildings at Van Ness Campus Phase I – Building 44, Installation of Green Roof & Renovation of Greenhouse is hereby amended as follows:					
1) Questions & Answers (Attachment A)					
2) Additional Specifications (Attachment B)					
3) All other Terms and Conditions remain unchanged.					
Except as provided herein, all terms and conditions of the document referenced in Item (9A or 10A) remain unchanged and in full force and effect					
15A. Name and Title of Signer (Type or print)			16A. Name of Contracting Officer SHERRY JONES-QUASHIE		
15B. Name of Contractor		15C. Date Signed	16B. District of Columbia		16C. Date Signed
			Sherry Jones-Quashie		5/31/13
(Signature of person authorized to sign)			(Signature of Contracting Officer)		

ATTACHMENT A

QUESTIONS & ANSWERS

University of the District of Columbia – Green Roofs on Multiple Buildings at Van Ness Campus
Phase I – Building 44

Solicitation No. GF-2013-B-0102

Amendment No. 0004

ANSWERS TO OFFERORS QUESTIONS

Quest. No.	Question	Answer
1.	Please provide planting plan (size of the plants, the quantities, the spacing, etc.)	The planting system is a product purchased from LiveRoof. They provide the planting trays planted and fully mature. They only need to be ordered per the drawings.
2.	Please provide irrigation plans and design?	There is a performance specification. Please refer to it in preparing pricing. If any details are shown on the drawings, they are for information only.
3.	Detail 1/A501 is showing the vegetated roof going over the existing waterproofing and roof assembly. However, the specification section 071354 calls out a thermoplastic .60 mil PVC membrane from CETCO. Is it the intent to have the CETCO membrane act as the root barrier? In addition, it also calls out the CETCO Aquadrain drainage mat to be placed on top of the PVC membrane. Are the drainage mats to be provided under the built up vegetated areas, modular trays and the pavers?	The specification section 071354 pertains to the waterproofing at the greenhouse topping slab not the vegetative roof areas. The details on sheet 4-A501 pertain to the above mentioned specification section. The paragraph for the root barrier, as referred to in the details on sheet 00 A501, should be found in specification section 329500 (See Attachment B). After further review, we noticed this paragraph was missing from this specification section. We have updated this section to include the missing paragraph. See the revised spec section attached. The revised paragraph is located at 329500-2.3. In summary, provide a root barrier per the manufacture of the vegetative roof assembly's standard.
4.	Can we provide a substitute green roof product and composite deck tiles?	The root barrier, pavers and vegetative roof are to be installed per the details on 00 A501. No to the green roof product. The composite deck tiles may be substituted if they are judged to be strictly equal to the specified tiles. The Bidder must demonstrate all aspects of equivalency or superiority (calculations, warranties, samples, etc.) in making any and all substitutions, at the bidders cost. Please note that the structural capacity of the building is severely restricted. In the attached specification, 329500-2.2A4, we revised the weight of the composite walkway tile from 7lbs (for a 24" x 12") to 3.5lbs/sq.ft. for clarity.

University of the District of Columbia – Green Roofs on Multiple Buildings at Van Ness Campus
Phase I – Building 44

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ANSWERS TO OFFERORS QUESTIONS

<p>5. Drawing P201, note #2 calls for ¾" cold and hot water to serve the greenhouse where required. Can you define this so we can calculate our bids correctly?</p>	<p>Final locations of hose bibs shall be coordinated with architect and greenhouse users. For bidding purposes allow four on each side (total of 8) of the greenhouse to run horizontally along the CMU walls.</p>
<p>6. Will the evaporative coolers require cold water make-up? If so please provide a detail showing what appurtenances are needed (PRV, Backflow Preventer, and etc.).</p>	<p>Evaporative coolers will require ½ water fill connection at each one but only one 1-inch PRV and BFP with shut-off valve for the entire system</p>
<p>7. Will the evaporative coolers require any drains? If so, where will they be draining to?</p>	<p>Evaporative coolers can drain to the roof since they are clean water with no chemicals.</p>
<p>8. Is there a building control system for the mechanical system that we need to interface with? If so, please provide the name of the manufacturer of the control system.</p>	<p>UDC has not communicated their desire to have the system connected to a building automation system. The greenhouse control system is a standalone system that is provided by the Greenhouse manufacturer. There is no requirement for tie-in to a building automation system since this is mainly a heating and ventilation system.</p>
<p>9. We are not able to locate the planting method for the raised planters for Building 44 at UDC. This is for both the perimeter planters and interior.</p>	<p>Please refer to the attached revised specification Section 329300 (See attachment B)</p>
<p>10. The Wilshire Planter Box called for in the drawing 60" (L) x 24" (W) x 18" (H) is not available. The closest size would be 60" (L) x 18" (W) x 24" (H). Can this Planter Box be used? This will be 6" taller than the design intent. Please advise.</p>	<p>The specified size planter by Turnesol is available for the project. We worked closely with them on this project and are fully aware of the specified planter size even though it doesn't appear in their catalog. You will have to contact them directly for pricing. For inquiries, contact: Brian Mitalo, Turnesol Siteworks, (842)-867-9290 (mobile) bmitalo@turnesolsiteworks.com</p>

ATTACHMENT B

SECTION 32 95 00 - VEGETATED ROOF ASSEMBLIES**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Tray-type vegetated roof assemblies.
 - 2. Walkway pavers.
 - 3. Root Barrier
- B. Related Sections:
 - 1. Section 12 93 00 "Site Furnishings" for exterior unit planters.

1.3 DEFINITIONS

- A. Captured Water: Water that is retained in the drainage layer of a vegetated roof assembly after new water additions have ceased and that cannot escape the roof except through evaporation or plant transpiration.
- B. Finish Elevation: Elevation of finished growing-media surface of planting area.
- C. Planting Area: Areas to be planted.
- D. Plant, Plants, Plant Material: Vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.
- E. Growing Medium: Manufactured, lightweight soil mixture that promotes good growing conditions for specific varieties of plants.

1.4 ACTION SUBMITTALS

- A. Product Data: For each vegetated roof assembly and each component, including each growing medium.
- B. LEED Submittals:
 - 1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.

- C. **Shop Drawings:** For vegetated roof assembly. Include roof plans, slopes, and drain locations; details of vegetated roof assembly, walkway pavers accessories; depth of growing media; and attachments to other work.
- D. **Samples for Verification:** For each of the following components of vegetated roof assembly:
 - 1. Preplanted Vegetative Mat: 12 by 12 inches.
 - 2. Root Barrier: 12 by 12 inches.
 - 3. Walkway paver, 12 x 24 in each color and texture required; include installation accessories to illustrate assembly.

1.5 INFORMATIONAL SUBMITTALS

- A. **Qualification Data:** For qualified Installer.
- B. **Product Certificates:** For each type of manufactured product, from manufacturer, and complying with the following:
 - 1. Manufacturer's certified analysis of standard products.
 - 2. Analysis of other materials by a recognized laboratory, according to methods established by the Association of Official Analytical Chemists, where applicable.
- C. **Product Test Reports:** For each growing medium, including complete analysis demonstrating compliance with specified requirements.
- D. **Field quality-control reports.**
- E. **Warranty:** Sample of each special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. **Maintenance Data:** Recommended maintenance plan including procedures for inspection and care of vegetated roof assembly and plants during a calendar year. Submit before start of required warranty and maintenance periods.

1.7 QUALITY ASSURANCE

- A. **Installer Qualifications:** A qualified vegetated roof assembly Installer, approved, authorized, or licensed by membrane roofing manufacturer, whose work has resulted in successful establishment of vegetated roofs.
 - 1. **Field Supervision:** Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
- B. **Source Limitations:** Obtain vegetated roof assembly components growing medium and accessories from single source from single manufacturer.
- C. **Preinstallation Conference:** Conduct conference at Project site.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. **Packaged Materials:** Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.
- B. **Bulk Materials:**
 - 1. Do not dump or store bulk materials on or near structures, utilities, walkways and pavements, or existing roof areas or plants.
 - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of debris-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 - 3. Accompany each delivery of bulk materials with product certificates.

1.9 PROJECT CONDITIONS

- A. **Weather Limitations:** Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

1.10 WARRANTIES

- A. **Special Warranty for Vegetated Roof Assembly:** Installer agrees to repair or replace vegetated roof assembly and components that fail in materials or workmanship within specified warranty period.
 - 1. Failure includes, but is not limited to, ponding water or prolonged wetness of growing medium caused as a result of failure of the assembly to properly drain.
 - 2. Warranty Period: 10 years from date of Planting Completion.

1.11 MAINTENANCE SERVICE

- A. **Initial Maintenance Service:** Provide maintenance by skilled employees of vegetated roof assembly Installer approved by membrane roofing manufacturer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than the following maintenance period:
 - 1. Maintenance Period: 12 months from date of Planting Completion.
- B. **Continuing Maintenance Proposal:** From vegetated roof assembly Installer approved by membrane roofing manufacturer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.

PART 2 - PRODUCTS

2.1 VEGETATED ROOF ASSEMBLIES

- A. Tray-Type Vegetated Roof Assembly: Modular assembly consisting of manufacturer's standard , pre-planted trays for field-assembly adjacent to and interlocking with each other over membrane roofing.
1. Products: Subject to compliance with requirements and as a basis of design,:
LiveRoof
Riverbend Nursery
1295 Mt. Elbert Road, NW
Riner, VA 24149
(800) 638-3362
 2. Tray Depth, Nominal: As shown on drawings.
 3. Tray Size: 12 x 24 Manufacturer's standard.
 4. Plantings: Preplanted vegetative mat as selected by Architect from manufacturer's standard mixes As shown on Drawings.

2.2 WALKWAY PAVERS

- A. Walkway Pavers:
1. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
 - a. Resideck
 2. Thickness: 1-3/16".
 3. Face Size: As indicated.
 4. Weight: 3.5lbs / sq ft.
 5. Color: Woodsmoke.

2.3 ROOT BARRIER

- A. Root Barrier: Manufacturer's standard black plastic sheet manufactured from recycled polyethylene or polypropylene plastic; formulated to resist root growth and bacteria.
1. Recycled Content: Provide root barrier material with recycled content so postconsumer recycled content plus one-half of preconsumer recycled content not less than 50% percent by weight.
 2. Root barrier is required at entire roof area where vegetated roof assemblies are installed. Install below ballast and preplanted modules as well as any loose-laid walkway pavers.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine each area to receive vegetated roof assembly for compliance with requirements for installation tolerances and other conditions affecting performance.
 - 1. Verify that roof insulation over membrane roofing is in place, secure, and flush along all seams.
 - 2. Verify that perimeter and other flashings are in place and secure along entire lengths where they will be covered by vegetated roof assembly.
- B. Flood Testing: Flood test each deck area for leaks, according to recommendations in ASTM D 5957, after completing and protecting membrane roofing but before placing overlaying construction. Install temporary containment assemblies, plug or dam drains, and flood with potable water.
 - 1. Flood to an average depth of 2-1/2 inches with a minimum depth of 1 inch and a maximum depth of 4 inches. Maintain 2 inches of clearance from top of sheet flashings.
 - 2. Flood each area for 24 hours.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- D. Inspect growing medium. If growing medium is contaminated by foreign or deleterious material or liquid, remove growing medium and contamination and replace with new growing medium.

3.2 PREPARATION

- A. General: Protect structures, utilities, sidewalks, pavements, and other facilities and areas from damage caused by installation.
- B. Protection Course: Cover membrane roofing with protection board with butted and fully taped joints before membrane roofing is subject to vegetated roof assembly installation work.

3.3 INSTALLATION, GENERAL

- A. Install vegetated roof assembly according to manufacturer's written instructions.

3.4 PLANTING

- A. Preplanted Vegetative Trays: Install per manufacturer's written instructions.

3.5 WALKWAY-PAVER INSTALLATION

- A. General: Install walkway pavers in locations and of widths shown on Drawings and according to manufacturer's written instructions.

- B. Accurately install paver supports and accessories in locations and to elevations required. Adjust for final level and slope with shims.

3.6 FIELD QUALITY CONTROL

- A. **Manufacturer's Field Service:** Engage membrane roofing manufacturer's authorized service representative to provide full-time inspection of vegetated roof assembly installation and prepare inspection reports.
- B. Correct deficiencies in work that do not comply with requirements.

3.7 PLANT MAINTENANCE

- A. **General:** During maintenance period, maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing devices, resetting plants to proper elevations or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
- B. Replace growing medium that becomes displaced or eroded because of settling or other processes.
- C. Apply treatments as required to keep plant materials, planted areas, and growing medium free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.
- D. Use only products and methods acceptable to membrane roofing manufacturer.

3.8 CLEANING AND PROTECTION

- A. During planting and maintenance, keep adjacent areas and construction clean and maintain work area in an orderly condition.
- B. Protect vegetated roof assemblies from damage due to planting operations and operations of other contractors and trades. Repair or replace damaged vegetated roof assemblies.

END OF SECTION 329500

SECTION 32 9300 - EXTERIOR PLANTS

PART 1 – GENERAL

1.1 SUMMARY

- A. Provide all exterior planting as shown on the drawings or inferable therefrom and/or as specified in accordance with the requirements of the Contract Documents. This section includes the planting of plants moved from the project site prior to the start of the project and held in a commercial nursery.
- B. Related sections:
 - 1. Division 32 Section “Exterior Plants”
 - 2. Division 32 Section “Irrigation”

1.2 QUALITY ASSURANCE

- A. Installer: planting and related work shall be performed by a firm with a minimum of five years experience specializing in this type of work. The Architect shall approve all landscape contractors.
- B. Applicable Specifications and Standards; except modified by the Contract Documents comply with the applicable provisions of the following, where standards conflict, the more stringent shall apply.
 - 1. “American Standard for Nursery Stock” ANSI 260.1.
 - 2. “American National Standards for Tree Care Operations” ANSI A 300.
- C. Requirements of Regulatory Agencies: Certificates of inspection shall accompany the invoice for each shipment of plants as may be required by law for transportation. File certificates with the Architect prior to acceptance of the material. Inspection by Federal or State authorities at place of growth does not preclude rejection of the plants at the site.

1.3 INSPECTION AND ACCEPTANCE OF PLANTS

- A. Preliminary Inspection:
 - 1. Plants shall be subject to inspection by the Architect at their place of growth and upon delivery for conformity to specification requirements. Such inspection shall not impair the right of rejection during progress of the work.
- B. Acceptance: The Architect will inspect all work for substantial completion upon written request of the Contractor. The request shall be received at least ten calendar days before the anticipated date of inspection. Acceptance of plant material by the Architect shall be for general conformance to specified size, character and quality and not relieve the Contractor of responsibility for full conformance to the contract documents, including correct species.

- C. Final Inspection: At the end of the warranty period, the Architect shall inspect all warranted work, upon written request of the Contractor. The request shall be received at least ten calendar days before the anticipated date for final inspection.

1.4 SUBMITTALS

- A. Manufacturers Data: Submit copies of manufacturer's and/or source data for all materials specified. The growing nursery shall submit a list of all pesticides and herbicides used in the past three years on the fields where the plants were grown.
- B. Samples: Submit samples of all mulch materials. Samples shall weigh one (1) lb. And should be packaged in labeled plastic bags. Samples shall be typical of the lot of material to be delivered to the site and provide accurate indications of color, texture, and organic make-up of the material.
- C. Plant Photographs: Submit color photographs of representative specimens of each type of plant on the plant list. Photos shall be taken from an angle that depicts the size and condition of the typical plant to be furnished. A scale rod or other measuring device shall be included in the photograph. For species where more than 20 plants are required, include a minimum of three photos that show the average plant, the best quality plant and the worse quality plant to be provided. Label each photograph with the plant name, size and name of growing nursery.
- D. Nursery Sources: Submit a list of all nurseries that will supply plants, along with a list of the plants they will provide and the location of the nursery.

1.5 WARRANTY

- A. All plant material shall be warranted by the Contractor to be in good, healthy, and flourishing condition according to the following schedule:
 - 1. Plant Warranty Schedule:
 - a. Ground Covers and Vines: For a period of one year from the date of substantial completion.
 - 2. The Contractor shall replace, without cost to the Owner, and as soon as weather conditions permit, and within a specified planting period, all dead plants and all plants not in a vigorous, thriving condition as determined by the Architect during and at the end of the warranty period. The plant shall be free of dead or dying branches and branch tips, and shall bear foliage of a normal density, size and color. Replacements shall closely match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification.
 - 3. The Contractor shall make all necessary repairs due to plant replacements. Such repairs shall be done at no extra cost to the Owner.

- a. Any plant whose branch tips have died over more than 25% of the crown volume during the warranty period, shall be considered dead and shall be replaced at the next suitable planting period.
4. The warranty of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement. In the event that a replacement plant is not acceptable during or at the end of the said extended warranty period, the Owner may elect subsequent replacement at one-half the cost or receive a credit for one-half the purchase and installation cost for each item.

PART 2 – PRODUCTS

2.1 PLANTS

- A. **General:** Refer to PLANT LIST on the drawings for specific types and quantities of plants to be furnished.
 1. Plants shall be nursery grown in accordance with good horticultural practices, and grown under climatic conditions similar to those in the locality of the project for at least two years. They shall have been root pruned within the last two years.
 - a. The Architect shall approve all nursery sources.
 - b. Plants that have been grown in nurseries more than 200 miles north or south of the job site will not be accepted unless approved by the Architect.
 2. Unless specifically noted otherwise, all plants shall be of specimen quality, 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.
 3. Plants shall be sound, healthy and vigorous, well branched and densely foliated when in leaf. They shall be free of disease, insect pests, eggs or larvae, and shall have healthy, well-developed root systems. They shall be free from physical damage or adverse conditions that would prevent thriving with the specified result.
 4. Plants shall be true species and variety and shall conform to measurements, specified in the plant lists except that plants larger than specified may be used if acceptable to the Architect. Use of such plants shall not increase the contract price. If larger plants are accepted the ball-of-earth shall be increased in proportion to the size of the plant.
 5. Container-grown stock shall have been grown in a container long enough for the root system to have developed sufficiently to hold its soil together but not so long as to have developed a girdling root mat around the edge of the container.
- B. **Plant Size:**
 1. Plants shall be measured when branches are in their normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to tip.

2. If a range of size is given, no plant shall be less than the minimum size and not less than 50 percent of the plants shall be as large as the maximum size specified. The measurements specified are the minimum size acceptable and are the measurements after pruning, where pruning is required.
3. Plants that meet the measurements specified, but do not possess a normal balance between height and spread, shall be rejected.

2.2 MATERIALS FOR PLANTING

- A. Mulch shall be shredded pine bark. Material shall be mulching grade, uniform in size and free of deciduous materials and foreign matter.
- B. Anti-desiccant: A water insoluble emulsion, which provides a protective film over plant surfaces, permeable enough to permit transpiration, delivered in containers of the manufacturer, shall be mixed according to the manufacturer's directions: "Wiltpruf," Wiltpruf Products, Inc.
- C. Bone Meal: Commercial, raw, finely ground; 4 percent nitrogen, and 20 percent phosphoric acid.

PART 3 – EXECUTION

3.1 PREPARATION OF PLANT MATERIALS

- A. Immediately before digging and following consultation with the Architect, spray all evergreen or deciduous trees in full leaf with Transplant Biostimulant, applying an adequate film over trunks, branches, twigs and foliage and apply Transplant Biostimulant to the root ball area
- B. All plant material in transit or temporary stored shall be covered with burlap or similar covering to keep plants from drying out.

3.2 PLANTING

- A. Planting Season: Planting shall be done only with the following dates. If the specific conditions exist which may warrant a variance in the planting dates, a written request shall be submitted to the Architect stating the special conditions and the proposed variance. Permission for the variance will be given, if, in the opinion of the Architect, the variance is warranted. Variance from the normal planting season shall not affect the warranty.
 1. Feb. 1 to May 1 or Sept. 1 to Dec. 15.
- B. Planting Operations.

1. Set plants in the number shown on the drawings. Do not place soil on top of the root ball. Use plant mix specified in Section 02921 TOPSOIL AND PLANTING MIX to backfill pit approximately 2/3 full. Water thoroughly before installing remainder of the plant mix to top of pit, eliminating all air pockets.
 - a. Remove plastic, paper or fiber pots from containerized plant material. Pull roots out of the root mat, cut circling roots with a sharp knife. Loosen the potting medium and shake away from the root mat. Pack planting mix with fingers around the exposed roots while planting.
 2. Set planting plumb and brace rigidly in position until the mix has been tamped solidly around the ball and roots.
 3. Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately upon delivery shall be kept in the shade, well protected with soil, wet mulch or other acceptable material and shall be kept well watered. Plants shall not remain unplanted for longer than three days after delivery.
 4. Remove all tags, labels, strings, etc. from all plants.
- C. Pruning.
1. Prune plants as directed by the Architect only at a time of planting and according to standard horticultural practice to preserve the natural character of the plant.
 2. Remove all dead wood, suckers, broken or badly bruised branches, cross over and co-dominant leaders.
 3. Use only clean, sharp tools.
- D. Mulching.
1. Mulch all planting areas with mulch having a thickness of 2" .

3.3 MAINTENANCE OF PLANTS

- A. Maintenance shall begin immediately after planting and shall continue until the end of the date of acceptance.
- B. After planting but prior to substantial completion, planting areas and plants shall be protected at all times against trespassing and damage of all kinds. If any plants become damaged or injured, they shall be treated or replaced as directed by the Architect at no additional cost to the Owner.
- C. Maintenance of new plantings shall consist of all maintenance normally required to keep the plantings healthy, vigorous, trim and neat. Maintenance tasks shall include the following:
 1. Pruning: In addition to the initial pruning, all plants shall be pruned once during the first year of the warranty. Pruning will include work that is necessary to maintain the plants

- in their normal growth pattern. The Architect shall determine pruning dates and shall direct the pruning operation.
2. Disease and Insect Control: Spray as required to keep plantings free of insects.
 3. Mulching: At the end of the first year of the warranty period, re-mulch all mulched areas with 1" layer of mulch.
 4. Weeding: Maintain all planting beds free of any plant not specified on the drawings.
 5. Watering: The Contractor shall be fully responsible to ensure that adequate water is provided to all plants. The Contractor shall apply additional water, using hoses as required.
 - a. Hand water root balls of all plants weekly to assure that the root balls have adequate moisture.
 6. Miscellaneous Maintenance: Reset plants to proper grade and upright position.

3.5 MAINTENANCE INSPECTIONS:

- A. The Owner will maintain all plants from the date of acceptance through the end of the warranty period. During the Warranty period, the contractor shall periodically inspect the plantings and report in writing any maintenance practice or lack of maintenance that may impact upon the health of the plants. In the event that, at the end of the Warranty period, plants are required to be replaced, no exceptions to the provisions of the Warranty requirements will be allowed on account of inadequate maintenance practices on the part of the owner if the contractor has not previously identified those problems in his written maintenance reports.

END OF SECTION