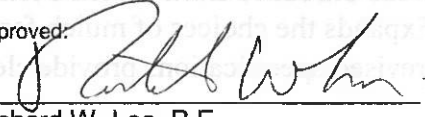


MODIFIED BY EI 13-023 EFFECTIVE 5/8/14		<i>New York State Department of Transportation</i> ENGINEERING INSTRUCTION	EI 12-001
Title: REVISIONS TO STANDARD SPECIFICATIONS – SECTIONS 610-615 and SECTION 713 and SPECIAL SPECIFICATIONS FOR POST-PLANTING CARE WITH REPLACEMENT			
SUPERSEDED BY EB 15-031 EFFECTIVE 9/28/15	_____ yors (33) iltants (34) actors (39) _____ ()	Approved:  Richard W. Lee, P.E. Acting Deputy Chief Engineer (Design)	<u>3/15/12</u> Date

ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for the letting of September 6, 2012.
- This EI supersedes EI 09-036, EI 08-013, EI 06-23, EI 06-024, EI 03-040 and EB 03-059.
- The revisions issued with this EI will be incorporated into the next update of the Standard Specifications. The special specification issued will be available on the department website through <https://www.dot.ny.gov/main/business-center/engineering/specifications>.

PURPOSE: The purpose of this EI is to issue revised Standard Specifications related to Landscape Development within Sections 610-615 and Section 713 of the Standard Specifications. Also being issued is a special specification for Post Planting Care with Replacement for various plants and trees.

TECHNICAL INFORMATION:

- Re-writes to Section 610 of the Standard Specifications include the following:
 1. Revises construction details and methods.
 2. Modifies and adds pay items to achieve better results.
 3. Combines existing Section 610, Section 612, Section 613 and the watering pay item from Section 615 of the Standard Specifications to improve D/M/WBE certification and include similar work types under the same Section.
 4. Creates performance specifications for Turf Establishment, Wildflower Establishment and Sodding pay items.
- Re-writes to Section 611 of the Standard Specifications include the following:
 1. Revises construction details and methods.
 2. Adds Transplanting to the Standard Specifications to allow for the salvage of existing plant material.
 3. Replaces the Care of Planting and Period of Establishment Sections with a new POST PLANTING CARE pay item. The revised specifications do not provide automatic replacements of dead plant materials.
- Section 612 – Vacant.
- Section 613 - Vacant.
- Re-writes to Section 614 of the Standard Specifications include the following:
 1. Updates construction details and methods.
 2. Tree Root Aeration and Root pruning are added to the Standard Specifications.
 3. There is no longer a separate pay item for removal of trees 4 inches and under in diameter at breast height. Removal of plant material in this size range must be included for payment under clearing and grubbing.
- Revision to Section 615 of the Standard Specifications:
 1. Changes the title of Section 615 to Landscape Appurtenances.

2. Updates Specification to clearly indicate purpose of Section 615.
- Re-writes to Section 713 of the Standard Specifications include the following:
 1. Revises Material Requirements for the Landscape Development Materials.
 2. Refines the topsoil choices available under Section 713-01.
 3. Removes un-sustainable materials such as peat moss.
 4. Adds Leaf Compost to Section 713-15 Organic Material.
 5. Adds Shredded Bark Mulch Section 713-16.
 6. Expands the choices of mulch for turf establishment.
- The revised specifications provide clearer direction which should result in fewer disputes.

IMPLEMENTATION:

- Main Office Design Quality Assurance Bureau will insert the revisions to the standard specifications into contract proposals beginning with the projects submitted for the letting of 9/6/2012.

DISAPPROVED STANDARD SPECIFICATIONS:

- Disapproved Standard Specifications - Sections 610, 611, 612, 613, 614, 615, 713 of the May 4, 2006 and May 1, 2008 Standard Specifications are disapproved as of 9/6/2012.
- Disapproved proposal insert notes – Proposal insert notes for Section 610, Section 611, Section 713 issued by EI 08-013 3/28/08 are hereby disapproved as of 9/6/2012.
- Disapproved contract pay items as of 9/6/2012:

Item No.	Item Description
610.0101	Applying Soil Amendments
610.0110	Applying Fertilizer
610.0111	Applying Limestone
610.0112	Applying Mycorrhizal Fungi
610.0113	Applying Moisture Retention Additive
610.0203	Establishing Turf
610.03	Establishing Wildflowers
610.04	Compost
611.0101XY	Planting- Major Deciduous Trees
611.0201XY	Planting- Minor Deciduous Trees
611.0301XY	Planting- Coniferous Trees
611.0401XY	Planting- Deciduous Shrubs
611.0501XY	Planting- Evergreen Shrubs
611.0601XY	Planting- Vines & Groundcovers
611.0701XY	Planting- Special Plant Material
612.01	Sodding including Topsoil Bed
613.02	Placing Topsoil-Type A
613.03	Placing Topsoil-Type B
614.01xx	Care of Trees
614.02	Selective Thinning
614.03xx	Tree Removal
615.03	Watering Vegetation

DISAPPROVED SPECIAL SPECIFICATIONS:

- All current special specifications (Regional and Main Office), in both Metric and US Customary, starting with 610, 611, 612, 613, 614 and 615 are hereby disapproved.

NEW STANDARD SPECIFICATIONS:

- New Contract Pay Items issued as of 9/6/2012.

Item No.	Item Description
610.0501	Fertilizer
610.0502	Fertilizer
610.06	Limestone
610.0701	Mycorrhizal Fungi
610.0702	Mycorrhizal Fungi
610.08	Moisture Retention Additive
610.0901	Sulfur
610.0902	Sulfur
610.10	Compost
610.1101	Mulch for Planting Type A, B & D – Wood Chips and Shredded Bark
610.1102	Mulch for Planting Type C – USDA APHIS Protocol Wood Chips
610.1103	Mulch for Planting Type E – Pine Nugget
610.1201	Permeable Weed Control Landscape Fabric
610.1202	Permeable Weed Control Landscape Fabric with Herbicide
610.13	Weed Removal
610.1401	Topsoil – Reuse On-Site Materials
610.1402	Topsoil –Roadside
610.1403	Topsoil – Lawns
610.1404	Topsoil – Special Planting Mix
610.1405	Topsoil - Acidic
610.1406	Topsoil – On-Site Wetland Materials
610.1407	Topsoil – Wetland Materials
610.15	Preparation of Subsoil for Turf Establishment
610.1601	Turf Establishment – Roadside
610.1602	Turf Establishment - Lawns
610.17	Wildflower Seeding
610.18	Sodding
610.19	Watering Vegetation(1000 Gal.)
610.21	Mowing
610.22	Mowing Limits Markers
611.01xy	Planting - Major Deciduous Trees
611.02xy	Planting - Minor Deciduous Trees
611.03xy	Planting - Coniferous Trees Each
611.04xy	Planting - Deciduous Shrubs Each
611.05xy	Planting - Evergreen Shrubs Each
611.06xy	Planting - Vines & Groundcovers
611.07xy	Planting –Herbaceous Plants
611.10	Transplanting, 0 to 48 inches in height
611.11	Transplanting, over 48 inch to 72 inches in height
611.12	Transplanting, over ¾ inch to 3 inches DBH
611.13	Transplanting, over 3 to 6 inches DBH

611.14	Transplanting, over 6 to 12 inches DBH
611.15	Transplanting, Vines & Groundcovers
611.16	Transplanting, Herbaceous Plants
611.17	Portable Drip Irrigation System
611.18	Removal of Portable Drip Irrigation System
611.19	Post Planting Care
611.20	Post Planting Care
611.21	Rodent Guard
614.0411	Care of Trees up to 12" Diam. at Breast Height -- Pruning
614.0421	Care of Trees Over 12" to 24" Diam. at Breast Height - Pruning
614.0431	Care of Trees Over 24" to 36" Diam. at Breast Height - Pruning
614.0441	Care of Trees Over 36" to 48" Diam. at Breast Height -- Pruning
614.0451	Care of Trees Over 48" to 60" Diam. at Breast Height -- Pruning
614.0461	Care of Trees Over 60" Diam. at Breast Height -- Pruning
614.05	Improvement of Vegetated Areas
614.0601nn	Tree Removal Over 4" to 6" Diam. Breast High
614.0602nn	Tree Removal Over 6" to 12" at Breast Height
614.0603nn	Tree Removal Over 12" to 18" at Breast Height
614.0604nn	Tree Removal Over 18" to 24" at Breast Height
614.0605nn	Tree Removal Over 24" to 36" at Breast Height
614.0606nn	Tree Removal Over 36" to 48" at Breast Height
614.0607nn	Tree Removal Over 48" to 60" at Breast Height
614.0608nn	Tree Removal Over 60" to 72" at Breast Height
614.0701	Pre-Existing Stump Removal up to 24" diameter at 6 inches above grade
614.0702	Pre-Existing Stump Removal over 24" to 48" diameter at 6 inches above grade
614.0703	Pre-Existing Stump Removal over 48" diameter at 6 inches above grade
614.08	Tree Root Zone Treatment(Vertical Mulching/Aeration)
614.09	Tree Root Pruning

NEW STATEWIDE SPECIAL SPECIFICATION:

US Customary

Item No. Item Description

611.19010024	Post Planting Care with Replacement - Major Deciduous Trees
611.19020024	Post Planting Care with Replacement - Minor Deciduous Trees
611.19030024	Post Planting Care with Replacement - Coniferous Trees
611.19040024	Post Planting Care with Replacement - Deciduous Shrubs
611.19050024	Post Planting Care with Replacement - Evergreen Shrubs
611.19060024	Post Planting Care with Replacement-- Vines, Groundcovers
611.19070024	Post Planting Care with Replacement - Herbaceous Plants

Metric

611.1901--24	Post Planting Care with Replacement - Major Deciduous Trees
611.1902--24	Post Planting Care with Replacement - Minor Deciduous Trees
611.1903--24	Post Planting Care with Replacement - Coniferous Trees
611.1904--24	Post Planting Care with Replacement - Deciduous Shrubs
611.1905--24	Post Planting Care with Replacement - Evergreen Shrubs
611.1906--24	Post Planting Care with Replacement-- Vines, Groundcovers
611.1907--24	Post Planting Care with Replacement - Herbaceous Plants

TRANSMITTED MATERIALS:

This EI transmits standard specification revisions *Landscape Development* and *Landscape Development Materials* Sections 610-615 and Section 713. Both Metric and U.S. Customary revisions are attached. It also transmits Special Specifications for Post Planting Care and Replacements items 611.190X0024 in both metric and USC versions.

BACKGROUND: This update to the Standard Specifications is intended to address some long standing issues with the current specifications and material requirements. The current specifications do not always result in a cost effective quality product. This major revision should bring the Standard Specifications more in line with current construction practices and materials available to the contracting industry.

CONTACT: Direct questions regarding this issuance to Peter Dunleavy, 518-457-1730 or via E-mail at pdunleavy@dot.state.ny.us.

LANDSCAPE DEVELOPMENT

Make the following changes to the Standard Specifications dated May 1, 2008.
Pages 541 to 556, **Delete** Sections 610 – 615 in their entirety and, **Replace** them with the following:

SECTION 610 – GROUND VEGETATION – PREPARATION, ESTABLISHMENT AND MANAGEMENT

610-1 DESCRIPTION.

610-1.01 Topsoil. This work shall consist of furnishing, screening, storing, stockpiling and placing topsoil in accordance with the contract documents and as directed by the Engineer.

610-1.02 Preparation of Subsoil for Turf Establishment. This work shall consist of ground preparation when topsoil is not included in the work prior to establishment of turf in accordance with the contract documents and as directed by the Engineer.

610-1.03 Turf Establishment. The work shall consist of ground preparation and establishing turf in accordance with the contract documents and as directed by the Engineer.

610-1.04 Wildflower Seeding. The work shall consist of ground preparation, furnishing and placing wildflower seeding materials and caring for wildflower areas in accordance with the contract documents and as directed by the Engineer.

610-1.05 Sod. The work shall consist of ground preparation, furnishing, installing and caring for sod in accordance with the contract documents and as directed by the Engineer.

610-1.06 Soil Amendments. The work consists of furnishing and placing soil amendments in accordance with the contract documents and as directed by the Engineer.

610-1.07 Compost. The work consists of furnishing, placing and incorporating compost in accordance with the contract documents and as directed by the Engineer.

610-1.08 Mulch for Planting. The work consists of furnishing and placing mulch, in accordance with the contract documents and as directed by the Engineer.

610-1.09 Permeable Weed Control Landscape Fabric. The work consists of furnishing and placing permeable landscape fabric for weed control, in accordance with the contract documents and as directed by the Engineer.

610-1.10 Watering Vegetation. This work shall include watering turf, sod, wildflower seeding, trees, shrubs, ground covers, vines, other plants, and filling portable drip irrigation systems in accordance with the contract documents and as directed by the Engineer.

610-1.11 Weed Removal. This work shall consist of removal and disposal of all native and non-native weeds including roots from newly established turf and sod areas, wildflower seeded areas, tree and shrub pits and plant beds in accordance with the contract documents and as directed by the Engineer.

610-1.12 Mowing. This work shall consist of mowing newly established seeded or sodded areas including the removal and disposal of any debris and litter which has accumulated prior to or between mowings, in accordance with the contract documents and as directed by the Engineer.

610-1.13 Mowing Limits Markers. This work consists of furnishing and installing mowing limit markers in accordance with the contract documents and as directed by the Engineer.

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610-2 MATERIALS

610-2.01 Topsoil. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*. Excavated material from earthwork operations defined in Section 203 *Excavation and Embankment* that is unsuitable for embankments but conforms to §713-01 *Topsoil* is acceptable.

Topsoil	713-01
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610-2.02 Preparation of Subsoil for Turf Establishment. None specified.

610-2.03 Turf Establishment. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Water	712-01
Seeds	713-04
Mulch For Turf Establishment and Erosion Control	713-11
Mulch anchorage	713-12
Straw	713-19

610-2.04 Wildflower Seeding. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Water	712-01
Seeds	713-04
Mulch For Turf Establishment and Erosion Control	713-11
Mulch anchorage	713-12
Straw	713-19

610-2.05 Sod. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Water	712-01
Topsoil	713-01
Sod	713-14

610-2.06 Soil Amendment. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Water	712-01
Limestone	713-02
Fertilizer	713-03
Mycorrhizal Fungi	713-09
Moisture Retention Additive	713-10
Sulfur	713-17

610-2.07 Compost. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Compost	713-15
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610-2.08 Mulch for Planting. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Mulch for Planting	713-05
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610-2.09 Permeable Weed Control Landscape Fabric. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Weed Control Barriers	713-18
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610-2.10 Watering Vegetation. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Water

712-01

610-2.11 Weed Removal. None specified.

610-2.12 Mowing. None specified.

610-2.13 Mowing Limits Markers. The materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Materials for the Protection of Plants

713-08

610-3 CONSTRUCTION DETAILS

610-3.01 Topsoil.

A. General. The subsoil within the areas to be covered by topsoil shall be graded so that the completed work after the topsoil is placed shall conform to the specified lines and grades. The Contractor shall scarify or till the surface of the subsoil to a depth of 6 inches before the topsoil is placed to permit bonding the topsoil with the subsoil. Tillage by disking, harrowing, raking or other approved methods shall be accomplished in such a manner that depressions and ridges formed by tillage shall be parallel to the contours.

Topsoil in an unworkable condition due to excessive moisture, frost, or other conditions shall not be placed until its consistency is workable for spreading. Topsoil shall be placed on the designated area and spread to the depth specified in the contract documents or a minimum of 4 inches for turf areas and 3 inches for sod areas.

The finished surface shall be maintained for subsequent contract work such as seeding, sodding, mulching or planting.

The sites of all stockpiles shall be graded and maintained for subsequent contract work. Surplus topsoil will become the property of the Contractor.

Roots and top growth of non-native weeds or invasive species that emerge from topsoil stockpiles or after placement of the topsoil shall be eradicated and disposed of in accordance with §610-3.11 *Weed Removal* immediately upon emergence. Weed removal, treatment and disposal of invasive species will be paid for separately.

B. Topsoil – Reuse On-Site Materials. Topsoil stripping shall be completed prior to starting the general excavation in an area. The Contractor shall take reasonable care that the topsoil is not contaminated during the stripping and other handling operations.

Topsoil identified for reuse that has a known, established population of invasive species shall be treated to eliminate the presence of invasive species per §610-3.11 *Weed Removal*. The invasive species material shall be disposed appropriately and then the resulting topsoil may be used within the limits. Treatment and disposal of invasive species will be paid for separately.

C. Topsoil – Roadside, Lawn, Special Planting Mix and Acidic. The Contractor shall place topsoil only from approved stockpiles.

D. Topsoil – On-Site Wetland and Wetland Off-Site or Manufactured. The Contractor shall not use topsoil wetlands materials which exhibit the presence of invasive species. Care shall be taken not to impact wetland areas remaining.

On-site wetland topsoil stripping shall be completed prior to starting the general excavation in an area. After stripping, on-site wetland topsoil shall be placed within 24 hours or stored within the contract limits at a location approved by the Engineer.

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610-3.02 Preparation of Subsoil for Turf Establishment. Prior to establishment of turf in areas that are not to receive topsoil or other permanent erosion control measures, the Contractor shall remove all loose stones and other objects over 2 inches in size to a 4 inch depth. The Contractor shall mix compost with subsoil in accordance with §610-3.07 B. *Turf Establishment With No Topsoil/ On Subsoil* within the areas to be seeded and grade the surface so that the completed work shall conform to the specified finished lines and grades. Compost will be paid for separately.

610-3.03 Turf Establishment. The Contractor shall coordinate establishment of turf with other site and construction activities.

The Contractor shall clean all equipment involved in turf establishment to remove plants, seeds and propagules prior to commencement of work. Any work to clean equipment shall be at no additional cost to the State.

The Contractor shall apply the seed mix at one and one half to two times the manufacturer's recommended rate. Any method of sowing that does not injure the seeds and achieves even coverage in the process of spreading will be acceptable.

The Contractor shall perform the initial watering and shall spread straw uniformly in a continuous blanket to hide the soil from view or mulch Types I – V as specified in the contract documents. Rolled Erosion Control products shall be installed according to manufacturer's recommendations and paid for separately. Mulch anchorage shall be applied.

The Contractor shall water, mow, and weed the turf establishment areas for the duration of the contract or until turf areas are accepted. Watering, mowing, and weeding to care for the turf will be paid for separately. Any work required to correct initial seeding (installation) shall be done at no additional cost to the State.

A. Turf Establishment – Roadside. Areas will be accepted when:

- free from thin or bare ground greater than one foot in diameter;
- at least 80 percent of the ground surface is covered with established specified permanent turf grass species;
- they have had one mowing cycle in accordance with §610-3.12 unless conditions prevent mowing, in which case turf grass shall be an average minimum height of 5 inches; and
- they exhibit healthy green color.

B. Turf Establishment- Lawns. Areas will be accepted when:

- free from thin or bare spots greater than six inches in diameter;
- at least 90 percent of the ground surface is covered with established specified permanent turf grass species;
- they have had one mowing cycle in accordance with §610-3.12 unless conditions prevent mowing, in which case turf grass shall be an average minimum height of 3 inches; and
- they exhibit healthy green color.

610-3.04 Wildflower Seeding. The Contractor shall clean all equipment involved in wildflower seeding to remove plants, seeds and propagules prior to commencement of work at no additional cost to the State.

The Contractor shall install wildflower seeding materials in accordance with the contract documents. Any method of sowing that does not injure the seeds and provides soil contact in the process of spreading will be acceptable. The Contractor shall apply the seed mix at twice the seed supplier's recommended rate.

The Contractor shall perform the initial watering and spread straw or mulch Types I – V as specified in the contract documents, uniformly at a rate consistent with seed supplier recommendations. Mulch anchorage is required unless otherwise specified in the contract documents. Wildflower seeding areas

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will be accepted after the seeding operation is complete. Any work required to correct initial seeding (installation) shall be done at no additional cost to the State.

The Contractor shall water the wildflower seeding areas for the duration of the contract. Watering to care for the wildflower seeding areas will be paid for separately.

610-3.05 Sod. The Contractor shall generally place sod during the seasons identified in Table 610-1 *Sodding Seasons*. The Contractor may request extension of seasons, provided the other conditions are met.

TABLE 610-1 SODDING SEASONS		
Geographic locations	Spring	Fall
R1-Essex, Warren (north of towns of Bolton & Warrensburg), R2-Hamilton, Herkimer (towns of Ohio and Webb) R7-Lewis, St. Lawrence, Franklin, Clinton, Jefferson (east of Rte 81)	4/15-6/30	8/15-10/15
R1- Greene, Rensselaer, Schenectady, Saratoga, Washington, Albany, Warren (towns of Bolton & Warrensburg & south) R2- Montgomery, Fulton, Oneida, Madison, Herkimer (south of town of Ohio) R3,6,9 - All counties R7- Jefferson (west of Route 81)	4/1-6/15	8/15-10/31
R4, 5 & 8- All counties	4/1 - 5/31	8/15 - 10/31
R10, 11- All counties	3/1-4/30	8/21-11/15

The subgrade of areas to be sodded shall be excavated and firmed to a sufficient depth below the finished grade of the sod to accommodate the tamped or rolled thickness of topsoil and sod. No frozen sod shall be placed nor shall sod be placed on frozen ground surface.

The Contractor shall exercise care to retain the soil existing on the roots of the sod during transporting, handling and transplanting operations.

Sod shall be placed on a minimum of 3 inches of moist topsoil. The topsoil will be paid for separately.

The finished sod soil surface shall be flush with surface of the adjacent soil and adjacent structures. It shall meet the finished grades as shown in the contract documents.

Sod will be accepted when:

- It has been in place a minimum of 60 days after installation,
- It is 95 percent covered with permanent grass species,
- It has had one mowing cycle in accordance with §610-3.12 *Mowing*,
- It exhibits healthy green color,
- It is free from thin, bare or brown spots greater than 6 inches in diameter, and
- It is firmly rooted in the soil.

Sod not meeting the standards for acceptance, shall be re-sodded until a satisfactory turf has been established, at no additional expense to the State.

The Contractor shall water, mow and weed the sodded areas as necessary until contract final acceptance. These items will be paid for separately.

610-3.06 Soil Amendments. The Contractor shall place, apply or incorporate fertilizer, limestone, mycorrhizal fungi, sulfur and/or moisture retention additive where shown in the contract documents.

When mycorrhizal fungi are specified, application rates for turf shall ensure an even distribution of 100,000 propagules minimum per acre for drill seeding and 1,000,000 propagules minimum per acre for hydroseeding. Application rates for planting and Tree Root Zone Treatment, as well as any other aspects of distributing and/or incorporating mycorrhizal fungi, shall be in accordance with the manufacturer's recommendations.

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All other amendments shall be mixed with topsoil prior to placing, spread evenly over the surface of turf, wildflower or sod areas, applied within shrub saucers or applied over the plant beds as appropriate, at the rates recommended by the manufacturer or as specified in the contract documents. The method of application shall ensure an even distribution. When hydraulic application is used, the minimum rate of water application shall be in accordance with manufacturer's recommendation.

Trees shall be fertilized using Method No. 1, No. 2 or No. 3 in accordance with the contract documents.

A. Method No. 1. Holes shall be made in the earth about 18 inches deep and 18 inches apart, and located in the outer two-thirds (as measured on the radius) of the circular area lying under the limits of the tree branches. The holes shall be made with a crowbar, soil auger, pneumatic equipment or other approved tools and care shall be taken to avoid injury to the roots. Fertilizer shall be applied at the rate specified; placing equal amounts of fertilizer in the lower 12 inches of each hole.

B. Method No. 2. Fertilizer shall be applied to soil's surface hydraulically at the rate specified with sufficient water to saturate the soil for the area and depth of the tree roots without creating air pockets.

C. Method No. 3. Fertilizer rate and method of application shall be as specified in the contract documents.

610-3.07 Compost.

A. Existing Soil: The Contractor shall spread 2 inches of Compost Type A or E within the limits shown in the contract documents and tilled into existing soil to a total depth of six inches.

B. Turf Establishment With No Topsoil/ On Subsoil. The Contractor shall spread 2 inches of Compost Type A, D or E within the limits shown in the contract documents and tilled into subsoil to a minimum depth of four inches.

C. Turf Establishment With Topsoil. The Contractor shall mix Compost Type A, D or E with topsoil as specified in the contract documents.

D. Plant Pits or Beds: Compost Type A, D or E shall be applied at a ratio of 1 part compost to 5 parts existing soil.

610-3.08 Mulch for Planting. The Contractor shall apply mulch consisting of wood chips, pine nuggets or shredded bark to the surface of the beds and tree pit areas in accordance with the contract documents. The Contractor shall apply mulch to a uniform depth of 3 inches over the shrub bed and tree pit areas and 2 inches over groundcover beds. The mulch shall be distributed so as to create a smooth, level cover over the exposed soil. Mulch shall not cover plants or be in contact with tree root flare, tree trunks, and plant stems.

610-3.09 Permeable Weed Control Landscape Fabric. Areas where landscape fabric is to be installed shall be smooth, firm, stable and free of rocks, clods, foliage, roots, trash, debris or other material that will prevent the matting from lying in direct contact with the soil surface.

The landscape fabric shall be placed where shown in the contract documents and as required by the manufacturer.

610-3.10 Watering Vegetation. The Contractor shall provide water without damage to plants, mulch, stakes, plant saucers, sod or other areas to be watered. Damage resulting from watering operations shall be repaired at no additional cost to the State.

LANDSCAPE DEVELOPMENT

Watering shall be applied in accordance with §610-3.03 *Turf Establishment*, §610-3.04 *Wildflower Seeding*, §610-3.05 *Sod* or §611-3.01 *General*. Watering for existing vegetation shall be as specified in the contract documents.

Watering shall be applied at the following rates:

A. Turf, Wildflowers, Sod, Planting Beds. In the absence of 1 inch of rainfall within 5 consecutive calendar days the Contractor shall water all turf, wildflowers, sod and planting beds once a week to a depth of 1 inch.

B. Trees and Planting Pits. Between April 1st and November 15th, in the absence of 1 inch of rainfall within 5 consecutive calendar days, the Contractor shall apply water to trees and planting pits once per week, except during July and August, when water shall be applied twice per week, with a minimum of 2 days between applications. Soil saucers or portable drip irrigation systems shall be filled once per watering.

610-3.11 Weed Removal. The Contractor shall perform weed removal in accordance with the contract documents. The Contractor shall remove and dispose of weeds including roots prior to flowering and seed formation by manual, chemical or mechanical means. Any method of weed removal that leaves live roots in the soil will not be permitted. An appropriately licensed applicator is required for chemical weed control methods. The Contractor shall ensure the preservation of desirable vegetation. Treatment and removal of invasive species will be paid for separately.

610-3.12 Mowing. The schedule may be modified to accommodate prevailing or forecast weather conditions. The Contractor shall be responsible, prior to each mowing, for the removal and disposal of any debris and litter which has accumulated since the last mowing. Care shall be taken to avoid damage to existing plant materials.

A. Roadside. The Contractor shall mow all turf establishment areas to a height of 5 inches whenever growth reaches 8 inches for the duration of the contract. Clippings shall be left in place.

B. Lawns. The Contractor shall mow all turf establishment areas to a height of 3 inches after initial growth reaches 5 inches, and then mowed to a height of 3 inches whenever a 5 inch height is reached thereafter for the duration of the contract. Clippings shall be mulched in place.

C. Sod. The Contractor shall mow all sodded areas to a height of 3 inches after initial growth reaches 5 inches, and then mowed to a height of 3 inches whenever a 5 inch height is reached thereafter for the duration of the contract. Clippings shall be mulched in place.

610-3.13 Mowing Limits Markers. The Contractor shall install mowing limit markers plumb to a depth in accordance with the manufacturer's instruction.

610-4 METHOD OF MEASUREMENT

610-4.01 Topsoil. The quantity to be measured for payment will be in cubic yards of each type of topsoil measured to the nearest whole cubic yard of topsoil placed, from payment lines shown in the contract documents.

Cross sectioning, for the purpose of determining quantities for payment, will be employed only where payment lines are not shown on the Plans and cannot be reasonably established by the Engineer.

610-4.02 Preparation of Subsoil for Turf Establishment. The quantity to be measured for payment will be in square yards on slope to the nearest whole square yard of subsoil area prepared for turf establishment.

LANDSCAPE DEVELOPMENT

610-4.03 Turf Establishment. The quantity to be measured for payment will be in square yards on slope to the nearest whole square yard of turf established.

610-4.04 Wildflower Seeding. The quantity to be measured for payment will be in square yards on slope to the nearest whole square yard of wildflower seeding.

610-4.05 Sod. The quantity to be measured for payment will be in square yards on slope to the nearest whole square yard of sod placed.

610-4.06 Soil Amendments. The quantity to be measured for payment will be in pounds to the nearest whole pound or in gallons to the nearest whole gallon of soil amendments (fertilizer, limestone, mycorrhizal fungi, sulfur and/or moisture retention additive) applied.

610-4.07 Compost. The quantity to be measured for payment will be in cubic yards to the nearest whole cubic yard of compost placed or incorporated.

610-4.08 Mulch for Planting. The quantity to be measured for payment will be in cubic yards to the nearest whole cubic yard of mulch placed.

610-4.09 Permeable Weed Control Landscape Fabric. The quantity to be measured for payment will be in square yards on slope to the nearest whole square yard.

610-4.10 Watering Vegetation. The quantity to be measured for payment will be in 1000 gallons (MGal) to the nearest MGal of water applied, determined from approved measuring devices, or by measurement in tanks or containers of known capacity.

610-4.11 Weed Removal. The quantity to be measured for payment will be in square yards on slope weeded per occurrence to the nearest whole square yard.

610-4.12 Mowing. The quantity to be measured for payment will be the number of square yards on slope mowed per occurrence to the nearest whole square yard.

610-4.13 Mowing Limits Markers. The quantity to be measured for payment will be by the number of complete markers satisfactorily installed.

610-5 BASIS OF PAYMENT

610-5.01 Topsoil. The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work, including the handling, storing, stockpiling, and placement.

610-5.02 Preparation of Subsoil for Turf Establishment. The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work

610-5.03 Turf Establishment. The unit price bid shall include the cost of all labor, materials and equipment including initial water, mulch and mulch anchorage as necessary to satisfactorily complete the work.

610-5.04 Wildflower Seeding. The unit price bid shall include the cost of all labor, materials and equipment including initial water, mulch and mulch anchorage necessary to satisfactorily complete the work.

LANDSCAPE DEVELOPMENT

610-5.05 Sod. The unit price bid shall include the cost of all labor, materials and equipment including initial water, necessary to complete the work. Topsoil bed placed under the sod shall be paid for separately.

610-5.06 Soil Amendments. The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work, including water for hydraulic application.

610-5.07 Compost. The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work

610-5.08 Mulch for Planting. The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work.

610-5.09 Permeable Weed Control Landscape Fabric. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work.

610-5.10 Watering Vegetation. The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work.

610-5.11 Weed Removal. The unit price bid shall include the cost of labor, materials, and equipment necessary to satisfactorily complete the work.

610-5.12 Mowing. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work.

610-5.13 Mowing Limits Markers. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work.

Payment will be made under:

Item No.	Item	Pay Unit
610.0501	Fertilizer	Pound
610.0502	Fertilizer	Gallon
610.06	Limestone	Pound
610.0701	Mycorrhizal Fungi	Pound
610.0702	Mycorrhizal Fungi	Gallon
610.08	Moisture Retention Additive	Pound
610.0901	Sulfur	Pound
610.0902	Sulfur	Gallon
610.10	Compost	Cubic Yard
610.1101	Mulch for Planting Type A, B & D – Wood Chips and Shredded Bark	Cubic Yard
610.1102	Mulch for Planting Type C – USDA-APHIS Protocol Wood Chips	Cubic Yard
610.1103	Mulch for Planting Type E – Pine Nugget	Cubic Yard
610.1201	Permeable Weed Control Landscape Fabric	Square Yard
610.1202	Permeable Weed Control Landscape Fabric with Herbicide	Square Yard
610.13	Weed Removal	Square Yard
610.1401	Topsoil – Reuse On-Site Materials	Cubic Yard
610.1402	Topsoil - Roadside	Cubic Yard
610.1403	Topsoil - Lawns	Cubic Yard
610.1404	Topsoil - Special Planting Mix	Cubic Yard
610.1405	Topsoil – Acidic	Cubic Yard
610.1406	Topsoil – On-Site Wetland Materials	Cubic Yard
610.1407	Topsoil – Wetland Materials	Cubic Yard
610.15	Preparation of Subsoil for Turf Establishment	Square Yard

LANDSCAPE DEVELOPMENT

610.1601	Turf Establishment - Roadside	Square Yard
610.1602	Turf Establishment -Lawns	Square Yard
610.17	Wildflower Seeding	Square Yard
610.18	Sodding	Square Yard
610.19	Watering Vegetation	1,000 Gallons
610.21	Mowing	Square Yard
610.22	Mowing Limits Markers	Each

SECTION 611 – PLANTING, TRANSPLANTING AND POST PLANTING CARE

611-1 DESCRIPTION.

611-1.01 General. Vacant

611-1.02 Planting. This work consists of furnishing, and planting trees, shrubs, vines, groundcovers and other plants in accordance with the contract documents and as directed by the Engineer.

611-1.03 Transplanting. This work consists of transplanting existing plants from existing locations to new locations in accordance with the contract documents and as directed by the Engineer.

610-1.04 Portable Drip Irrigation System. This work shall consist of furnishing, delivering, placing and removing Portable Drip Irrigation System (PDIS) for watering around newly planted trees and other vegetation in accordance with the contract documents and as directed by the Engineer.

611-1.05 Post-Planting Care. This work consists of the care of newly planted and transplanted trees, shrubs, vines, groundcovers and other plants in accordance with the contract documents and as directed by the Engineer.

611-1.06 Rodent Guards. This work shall consist of furnishing, delivering and placing rodent guards around newly planted trees and other vegetation in accordance with the contract documents and as directed by the Engineer.

611-2 MATERIALS

611-2.01 General. Materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Water	712-01
Topsoil	713-01
Mulch for Landscape Bedding	713-05
Materials for the Protection of Plants	713-08
Compost	713-15

611-2.02 Planting. Trees, shrubs, vines, groundcovers and other plants shall be as specified under §713-06 and as further specified in the contract documents.

611-2.03 Transplanting. Plants shall be existing plants in accordance with §713-06.

611-2.04 Portable Drip Irrigation System. The materials shall meet the requirements of the following subsections of *Section 700 Materials and Manufacturing*. Materials may be new or previously used that meet the following material requirements.

Materials for the Protection of Plants	713-08
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LANDSCAPE DEVELOPMENT

611-2.05 Post Planting Care. Materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Pesticides

713-13

611-2.06 Rodent Guards. Materials shall meet the requirements of the following subsections of Section 700 *Materials and Manufacturing*.

Materials for the Protection of Plants

713-08

611-3 CONSTRUCTION

611-3.01 General. Locations for plants shall be as specified in the contract documents. All plants for planting and transplanting shall be protected from damage and drying out, including during transportation, handling or while in temporary storage. No planting or transplanting shall be done when the soil is frozen, saturated (except in wetland conditions) or otherwise in an unsatisfactory condition for working. Planting seasons represent average times of suitable conditions between weather extremes. In general, planting or transplanting shall occur during these seasons. The Contractor may request an extension of the planting seasons.

TABLE 611-1 PLANTING SEASONS					
Planting Seasons	Spring		Fall		
Geographic locations (NYSDOT Regions and Counties)	Deciduous & Evergreen B&B	Deciduous & Evergreen Container Grown	Evergreen B&B	Deciduous B&B	Deciduous & Evergreen Container Grown
(USDA 3b-4a) R1- Essex, Warren (north of towns of Warrensburg & Bolton) R2-Hamilton, Herkimer (towns of Ohio & Webb) R7-Lewis, St. Lawrence, Franklin, Clinton, Jefferson (east of Route 81)	4/15-5/31	4/15-5/31	8/15-9/30	9/15-10/31	8/15 - 10/31
(USDA 4a-5a) R1-Greene, Rensselaer, Schenectady, Saratoga, Washington, Albany, Warren (towns of Bolton & Warrensburg & south) R2- Montgomery, Fulton, Oneida, Madison, Herkimer (south of town of Ohio) R3,6,9 – All counties R7- Jefferson (west of Route 81)	4/1-5/15	4/1 – 5/31	8/15-9/30	9/15-11/15	8/15-11/15
(USDA 5a-6a) R4, 5 & 8- All counties	3/15-5/15	3/15 – 5/31	8/15-10/15	9/15-11/30	8/15-11/30
(USDA 6b-7a) R10, 11- All counties	3/1-5/15	3/1 – 5/31	8/15-10/31	10/1-12/15	8/15-12/15
All Locations	Bare Root stock shall be planted while dormant				

LANDSCAPE DEVELOPMENT

Locations for plants and outlines of areas to be planted shall be staked or marked out on the ground by the Contractor and approved by the Engineer before any plant pits or plant beds are dug. Where non-movable underground obstructions are encountered, the plant pits shall be relocated as approved by the Engineer.

Existing vegetation shall be removed from all new planting beds.

Where an impervious layer of soil (hardpan, fragipan and soils with greater than 20% clay content) is encountered during the excavation of plant pits or beds, all such soil shall be removed up to a depth of one foot beyond required plant pit depth in order to provide adequate drainage for the plant. The pits or beds shall be backfilled with topsoil. Any additional excavation required to properly plant or transplant in impervious soils will be considered extra work.

Planting soil shall be unamended existing soil excavated from the plant pit unless otherwise specified. Watering shall accompany backfilling of plant. The Contractor shall perform the initial watering for backfilling plant so that no voids occur in the plant pit.

No tree shall be staked, guyed or anchored unless otherwise specified in the contract documents.

Mulch shall Type A or B unless otherwise specified in the contract documents and shall be placed at the time of planting or transplanting.

The Contractor shall water, weed and maintain mulch at no cost to the state until the newly planted or transplanted material is accepted.

Plants will be accepted when all specified plants meet the following conditions:

- Species has been verified and plant is in its designated location
- Planted or transplanted in accordance with ANSI A 300, Part 1, 2, 3 and 6 *Standard Practices*
- Planted or transplanted in accordance with 611 Standard sheets
- living, healthy, unimpaired and in an undamaged condition

Watering, if specified, shall begin upon acceptance of the planting or transplanting and unless otherwise specified continue for one year or the duration of the contract, whichever is later. Watering after acceptance shall be performed as required in Section 610-3.09 *Watering Vegetation* and paid for separately. Installation of rodent guards if specified are paid for separately.

Plants that die after acceptance at any time during the contract duration shall be removed and unless otherwise specified, the surface area shall be restored to the condition of the adjacent surface at no additional cost to the state.

611-3.02 Planting. The Contractor shall notify the Engineer at least four calendar days before intended delivery of plants or planting materials to the site. The Contractor shall furnish the Engineer legible copies of the certificates of inspection of plant materials and documentation for each shipment showing point of origin, sizes, scientific names, quantities, and kinds of materials supplied.

Planting shall be in accordance with ANSI A300 Part 1, 2 and 3 *Standard Practices*.

Pruning at the time of planting shall be limited to the removal of dead, conflicting and broken branches; and to other pruning consistent with good horticultural practice in accordance with ANSI A300 Part 1 *Standard Practices*.

611-3.03 Transplanting. Transplanting shall be in accordance with ANSI A300 Part 1, 2, 3 and 6 *Standard Practices* and accomplished by a digging method intended to preserve the root system intact to the extent practicable. Planting soil shall be unamended existing soil excavated from the plant pit unless otherwise specified. Transplanted stock shall be pruned prior to transplanting in accordance with ANSI A300 Part 1 *Standard Practices*.

The Contractor shall take appropriate measures to avoid damage to plant during the transplanting operation including:

1. Provide trunk and branch Protection.
2. Treat plant with an anti-desiccant prior to being dug up
3. Protect all roots from drying out.
4. Prune damaged plant roots greater than 1 inch in diameter

LANDSCAPE DEVELOPMENT

Plants shall be set in a vertical position.

Where the contract duration allows plants greater than 6 inch DBH shall be root pruned up to one year prior to transplanting.

611-3.04 Portable Drip Irrigation System (PDIS). After the requirements for planting under Section 611 *Planting, Transplanting and Post Planting Care* are completed; the Contractor shall supply and install the required number and size of PDIS as recommended by the manufacturer for the trees planted. Watering shall be performed as required in Section 610-3.09 *Watering Vegetation* and paid for separately. All PDIS that are damaged and or missing shall be replaced at no added cost to the State.

The Contractor shall remove PDIS in the fall prior to the first frost. The PDIS shall remain the property of the Contractor.

611-3.05 Post-Planting Care. If specified, the Contractor shall care for planting as needed for one year following the satisfactory completion of all of the planting and/or transplanting or for the duration of the contract, which ever is later. The contractor shall prepare and submit a post-planting care work schedule for approval.

Post-planting care shall consist of:

1. Mulching – with materials to match those used in initial planting, twice to maintain a depth of 3 inches.
2. Weeding - twice
3. Integrated vegetation and pest management- in the event of threat of serious damage from insects or diseases the plants shall be treated by preventative or remedial measures.
4. Pruning (ANSI A300 Part 1) - once to prune dead or damaged branches.
5. Maintenance/Replacement/of tree support system if present – once every six months
6. Removal of tree support system if present at the end of the post-planting care period.
7. Removal of rodent guards if present at the end of the post-planting care period

611-3.06 Rodent Guards. Vacant

611-4 METHOD OF MEASUREMENT.

611-4.01 Planting. The quantity to be measured for payment will be the number of plants placed.

611-4.02 Transplanting. The quantity to be measured for payment will be the number of plants placed.

611-4.03 Portable Drip Irrigation System (PDIS). The quantity of PDIS to be measured for payment will be the number of PDIS placed.

The quantity of Removal of Portable Drip Irrigation System to be measured for payment will be the number of PDIS removed.

611-4.04 Post-Planting Care. The quantity to be measured for payment will be the number of plants cared for or nearest whole square yard on slope of plants cared for.

611-4.05 Rodent Guards. The quantity to be measured for payment will be the number of rodent guards placed.

611-5 BASIS OF PAYMENT.

611-5.01 Planting. The unit price bid for each plant shall include the cost of all labor, materials, and equipment, including initial watering and mulch, compost, plants and plant protection materials and topsoil necessary to satisfactorily complete the work.

LANDSCAPE DEVELOPMENT

611-5.02 Transplanting. The unit price bid for each plant shall include the cost of all labor, materials, and equipment, including initial watering, mulch, compost, plant and plant protection materials and topsoil necessary to satisfactorily complete the work.

611-5.03 Portable Drip Irrigation System. The unit price bid shall include the cost of all labor, materials, and equipment, necessary to satisfactorily complete the work.

611-5.04 Post-Planting Care. The unit price bid for each plant shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work. Progress payments for work satisfactorily performed may be paid at the mid point of the post-planting care in amounts not to exceed forty percent (40%) of the unit price bid for the respective work.

611-5.05 Rodent Guards. The unit price bid shall include the cost of all labor, materials, and equipment, necessary to satisfactorily complete the work.

Payment will be made under:

Item No.	Item	Pay Unit
611.011x	Planting - Major Deciduous Trees – size as specified	Each
611.012x	Planting - Major Deciduous Trees – 1 ¼ inch Caliper	Each
611.013x	Planting - Major Deciduous Trees – 1 ½ inch Caliper	Each
611.014x	Planting - Major Deciduous Trees – 1 ¾ inch Caliper	Each
611.015x	Planting - Major Deciduous Trees – 2 inch Caliper	Each
611.016x	Planting - Major Deciduous Trees – 2 ½ inch Caliper	Each
611.017x	Planting - Major Deciduous Trees – 3 inch Caliper	Each
611.018x	Planting - Major Deciduous Trees – 3 ½ inch Caliper	Each
611.019x	Planting - Major Deciduous Trees – 4 inch Caliper	Each
611.021x	Planting - Minor Deciduous Trees – size as specified	Each
611.022x	Planting - Minor Deciduous Trees – 3 foot height	Each
611.023x	Planting - Minor Deciduous Trees – 4 foot height	Each
611.024x	Planting - Minor Deciduous Trees – 5 foot height	Each
611.025x	Planting - Minor Deciduous Trees – ¾ inch Caliper	Each
611.026x	Planting - Minor Deciduous Trees – 1 inch Caliper	Each
611.027x	Planting - Minor Deciduous Trees – 1 ¼ inch Caliper	Each
611.028x	Planting - Minor Deciduous Trees – 1 ½ inch Caliper	Each
611.029x	Planting - Minor Deciduous Trees – 1 ¾ inch Caliper	Each
611.020x	Planting - Minor Deciduous Trees – 2 inch Caliper	Each
611.031x	Planting - Coniferous Trees – size as specified	Each
611.032x	Planting - Coniferous Trees – 2 ½ foot height	Each
611.033x	Planting - Coniferous Trees – 3 foot height	Each
611.034x	Planting - Coniferous Trees – 4 foot height	Each
611.035x	Planting - Coniferous Trees – 5 foot height	Each
611.036x	Planting - Coniferous Trees – 6 foot height	Each
611.037x	Planting - Coniferous Trees – 7 foot height	Each
611.038x	Planting - Coniferous Trees – 8 foot height	Each
611.039x	Planting - Coniferous Trees – 9 foot height	Each
611.041x	Planting - Deciduous Shrubs – As Specified	Each
611.042x	Planting - Deciduous Shrubs – 15 inch Height/Spread	Each
611.043x	Planting - Deciduous Shrubs – 18 inch Height/Spread	Each
611.044x	Planting - Deciduous Shrubs – 2 foot Height/Spread	Each
611.045x	Planting - Deciduous Shrubs – 3 foot Height/Spread	Each
611.046x	Planting - Deciduous Shrubs – 4 foot Height/Spread	Each
611.047x	Planting - Deciduous Shrubs – 5 foot Height/Spread	Each
611.048x	Planting - Deciduous Shrubs – 6 foot Height/Spread	Each
611.051x	Planting - Evergreen Shrubs – As Specified	Each

LANDSCAPE DEVELOPMENT

611.052x	Planting - Evergreen Shrubs – 15 inch Height/Spread	Each
611.053x	Planting - Evergreen Shrubs – 18 inch Height/Spread	Each
611.054x	Planting - Evergreen Shrubs – 2 foot Height/Spread	Each
611.055x	Planting - Evergreen Shrubs – 2 ½ foot Height/Spread	Each
611.056x	Planting - Evergreen Shrubs – 3 foot Height/Spread	Each
611.057x	Planting - Evergreen Shrubs – 3 ½ foot Height/Spread	Each
611.058x	Planting - Evergreen Shrubs – 4 foot Height/Spread	Each
611.059x	Planting - Evergreen Shrubs – 5 foot Height/Spread	Each

x= Root Specification

1= Ball & Burlap, Field Potted or Field Boxed,

3 = Bare Root,

2 = Container or Box Grown,

4 = In Ground Fabric Bag Grown

611.061y	Planting – Vines, Groundcovers – As Specified	Each
611.062y	Planting – Vines, Groundcovers – Number SP3 Container	Each
611.063y	Planting – Vines, Groundcovers – Number SP4 Container	Each
611.064y	Planting – Vines, Groundcovers – Number SP5 Container	Each
611.065y	Planting – Vines, Groundcovers – Number 1 Container	Each
611.066y	Planting – Vines, Groundcovers – Number 2 Container	Each
611.071y	Planting - Herbaceous Plants – As Specified	Each
611.072y	Planting - Herbaceous Plants – Number SP4 Container	Each
611.073y	Planting - Herbaceous Plants – Number SP5 Container	Each
611.074y	Planting - Herbaceous Plants – Number 1 Container	Each
611.075y	Planting - Herbaceous Plants – Number 2 Container	Each

y = Type Specification

1 = Container Grown, 2 = Bare Root

3 = Field Potted,

611.10	Transplanting 0 to 48 inch in height	Each
611.11	Transplanting over 48 inch to 72 inches in height	Each
611.12	Transplanting, over ¾ inch to 3 inches Diameter at Breast Height	Each
611.13	Transplanting, over 3 inches to 6 inches Diameter at Breast Height	Each
611.14	Transplanting over 6 inches to 12 inches Diameter at Breast Height	Each
611.15	Transplanting Vines, Groundcovers,	Each
611.16	Transplanting Herbaceous Plants	Each
611.17	Portable Drip Irrigation System	Each
611.18	Removal of Portable Drip Irrigation System	Each
611.19	Post-Planting Care	Each
611.20	Post-Planting Care	Square yard
611.21	Rodent Guard	Each

Refer to the Contract Proposal for full item number and full description

SECTION 612 – (VACANT)

SECTION 613 (VACANT)

SECTION 614 - PRUNING, IMPROVING AND REMOVING EXISTING VEGETATION