

701 - GENERAL

701.1 Scope of Work

The work under this section shall consist of furnishing all labor, equipment, materials, tools, supplies, supervision, incidentals, utilities, and transportation to complete all restoration in accordance with the plans and contract documents for the project.

701.2 Damage by the Contractor

The Contractor shall be responsible for the restoration of all areas outside the construction work area shown on the plans or otherwise described in the contract documents. This shall include, but shall not be limited to; lawn, pavement, sidewalk, curb and gutter, utilities, trees and other vegetation, to previous condition including size, species, variety, etc..

The contractor shall repair and/or replace all lawn, pavement, sidewalk, curb & gutter, trees and/or other vegetation, and all privately owned structures damaged by his operations to existing conditions, or better, at no cost to the Village of Slinger.

701.3 Materials Source

The source of materials for use on the project shall be subject to the approval of the Engineer.

701.4 Watering

The contractor shall water all areas in which he plants landscape materials or restores area disturbed within the Village of Slinger. Water shall be clean and free from harmful materials. The contractor shall provide a sufficient amount of water to assure an adequate amount of moisture to ensure initial growth and root development.

Watering shall be adequate to saturate the topsoil to a depth of one and one-half (1 ½) inches.

Water shall be furnished and applied by the Contractor. The Village Water Utility may permit the use of hydrant connections provided that the Contractor make all arrangements, abide by any Utility requirements, and pay any fees to the Utility.

In addition to the initial watering, the contractor shall continue to water the area at least once a week for a minimum of four (4) weeks if sufficient rainfall is not received. Sufficient rainfall shall be defined as a minimum of one (1) inch per week, or intermittent rainfalls of one-quarter (1/4) inch, or more, for three (3) of the seven (7) days per week.

701.5 Traffic Control

Landscaping work shall not commence until traffic control devices, meeting the requirements of Section 900 of these standards have been furnished and installed.

702 - MATERIALS

702.1

Screened Topsoil

Topsoil materials shall conform to the requirements of Section 625.1 through 625.2.2 of the WDOT Specifications.

Topsoil shall consist of natural loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to the sustenance of plant life and such topsoil shall be neither excessively acidic nor excessively alkaline.

Topsoil shall be screened and be free from foreign material and 95% by weight shall pass through a three-quarter (3/4) inch screen. Topsoil shall be without lumps or stones not able to pass through a two (2) inch screen.

702.2

Salvaged Topsoil

In accordance with the contract documents, salvaged topsoil may be permitted for restoration of Village projects provided that the salvaged topsoil meets the requirements specified for screened topsoil.

702.3

Seed

All seed mixtures shall meet the requirements of Sections 630.2.1.2 and 630.2.1.3 of the Wisconsin DOT specifications for purity, germination, and inoculation. The Contractor shall supply the vendor's certificate to the Engineer prior to seeding in order to verify that the seed used meets the specifications of the project.

The seed shall be as specified and delivered to the project site in tagged bags with certified labels indicating the percentage of purity and germination. The seed shall have been tested within one (1) year prior to the date of seeding and shall conform to the latest State and Federal seed laws.

All grass seed shall be fresh, clean, new-crop seed. Grass seed shall not have been exposed to weather prior to delivery to the project site, and after delivery, until used, it shall be completely protected from the weather at all times. It shall not be stored in direct contact with the ground, or in areas of excessive heat, cold, or moisture.

All disturbed areas within the Village of Slinger shall be restored with seed meeting the requirements of Table 700-1, entitled "Approved Seed Mixtures".

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702.4

Sod

Sod shall consist of a dense, well-rooted growth of permanent and desirable grasses, indigenous to the general locality where it is to be used, and shall be practically free from weeds or undesirable grasses. At the time the sod is cut, the grass on the sod shall have a length of approximately two inches (if longer, the grass shall be cut approximately to this length) and the sod shall have been raked free from debris.

The sod shall be cut in uniform strips approximately eighteen (18) by seventy-two (72) inches, but no longer than is convenient for handling and transporting.

The thickness of the sod shall be as uniform as possible, approximately three-quarter (3/4) inch or more in thickness of thatch and soil (not including length of grass blades), depending on the nature of the sod, so that practically all of the dense root system of the grasses will be retained, but exposed, in the sod strip and so that the sod can be handled without undue tearing or breaking.

In the event the sod which is to be cut is in a dry condition so as to cause crumbling or breaking during cutting operations, the Contractor at his own expense shall, at least 12 hours before cutting the sod, apply water to it in sufficient quantities to provide a well moistened condition of the sod to the depth to which it is to be cut.

702.5

Hydro Seeding

All seed used for hydro seeding shall meet the requirements set forth in section 702.3 of these standard specifications.

All fertilizer used in hydro seeding shall meet the requirements set forth in section 702.6 of these standard requirements.

All mulch used in hydro seeding shall meet the requirements set forth in section 702.7 of these standard specifications.

702.6

Fertilizer

Fertilizers for use in connection with seeding and/or sodding shall be standard, commercially packaged or bulk products in granular form conforming to the latest requirements of State of Wisconsin and Federal laws. All fertilizers shall be in such physical condition to assure uniform, even application over all areas to be fertilized and seeded.

Fertilizers shall be delivered to the project site in original, unopened packages or containers, each plainly marked with the manufacturer's guaranteed analysis of the contents. Fertilizers shall meet the following minimum requirements:

<u>Ingredient</u>	<u>Minimum Percentages by Weight (%)</u>	
	<u>First Fertilizing</u>	<u>Second Fertilizing</u>
Nitrogen	10%	20
Phosphoric Acid	18%	10
Potash	10%	20

Sum of nitrogen, phosphoric acid, and potash shall not be less than forty (40%) percent.

Fertilizer shall be completely protected at all times and shall not be exposed to weather or damaged prior to delivery, during storage on site and prior to use. Any fertilizer which becomes unsuitable for use, in the sole judgement of the Engineer, will not be accepted.

702.7

Mulch

All mulch used within the Village of Slinger shall meet the requirements set forth in section 627.1 through 627.2 of the WDOT Specifications.

702.7.1

Wood Chips

Wood chips shall consist of material which is at least ninety (90%) percent hardwood chips having average dimensions of one-quarter (1/4") inch to one-half (1/2") inch thick and one (1 sq. in.) square inch to two (2 sq. in.) square inch of topside surface area. The wood chips shall be free from injurious insects, insect eggs, borers, plant diseases and any other plant pests, branches, fasteners, string and debris.

703 - CONSTRUCTION STANDARDS

703.1

Protection

The Contractor shall be responsible for providing adequate protection, including barricades, fencing, mulch, matting, or other devices to protect the work from damage from acts of nature as well as vandalism until acceptance by the Owner.

703.2

Damage Assessment of Landscape Materials

Damage to trees due to the Contractor's negligence shall be repaired by the Contractor at no cost to the Village.

Tree damage appraisals and diminution of tree value, shall be determined in accordance with the latest revision of "A Guide To Professional Evaluation of Landscape Trees, Specimens, Shrubs, and Evergreens" as published by the International Society of Arboriculture. Any loss of value, as determined by the Village Engineer, shall be assessed against the Contractor prior to final payment.

703.3

Root Removal

The Contractor shall exercise care to assure that tree trunks, limbs, and root systems are adequately protected and are not unnecessarily damaged by his operation. Root removal or cutting shall not occur without approval of the Engineer prior to the work being performed.

When work on the project occurs immediately adjacent to an existing tree, the area of the work shall be carefully excavated, prior to cutting the roots. Roots shall be cut not more than six (6) inches outside the proposed work area. Root cutting will be allowed only if the remaining root system is adequate to withstand heavy windstorms.

The Contractor shall not remove roots more than six (6) inches below the proposed work without prior review and approval of the Engineer.

Exposed tree roots shall be covered with mulch and watered from the time of exposure of the roots until the area is properly backfilled.

Roots shall be cut only by use of sharp hand implements, including chain saws, axes, loppers, etc.. Mechanical root cutting machines shall not be used unless specifically approved by the Engineer, prior to construction. Bucket mounted rippers, or other methods which do not provide a clean cut will not be allowed.

703.4

Root Pruning

The contractor shall properly prune roots located within the work area to prevent damage to the root system of the trees. Root pruning shall be allowed only with approval of the Engineer prior to the work being performed.

Cutting, pruning and removal of roots shall be performed in accordance with section 703.3 of these standard specifications.

703.5

Topsoil

This work shall consist of the furnishing, hauling and placing topsoil in accordance with the requirements set forth in section 625.3 of the WDOT specifications.

All topsoil shall meet the requirements set forth in section 702.1 and 702.2 of these standard specifications.

703.6

Fertilizing

When the contract contains an item of Fertilizer, such work shall, unless otherwise provided, consist of furnishing and incorporating fertilizing material in the soil for the first fertilizing on areas to be seeded or in the surface of areas to be sodded, all in accordance with the requirements of the specifications.

The fertilizer selected for the seeding areas shall be uniformly applied thereon and incorporated into the soil by light discing, or harrowing. Granular fertilizer shall be well pulverized and free from lumps when applied.

Fertilizer shall be applied at a rate of ten (10) pounds per one-thousand (1000) square feet.

When fertilizer is incorporated with topsoiled area, the fertilizer may be applied just prior to, or in conjunction with, the final discing or harrowing operations of the topsoil, or in the event the topsoil is manipulated by hand, just prior to the final raking and leveling.

In the event fertilizer is to be placed on surfaces on which no topsoil is placed, the soil shall be prepared by discing, or harrowing to a minimum depth of three (3") inches and the fertilizer then incorporated as set forth above.

In the event fertilizer is to be placed on seeding areas, where the seed is to be sown by means of hydroseeding, the required amount of fertilizer may be placed in the tank and mixed together with the water and the seed and applied in the seeding operation. Fertilizer applied by this method will not require discing or harrowing after being placed.

703.7

Seeding

This work shall consist of preparing seed beds and furnishing and sowing the required seed on the slopes, ditches, parkways, and other graded areas to be seeded.

Unless allowed otherwise in the Contract Documents, seeding shall be done in seasons extending from April 1 to May 20, and from August 15 to September 20, when temperatures and moisture conditions are adapted to work of this nature.

Grading, shouldering, topsoiling, and fertilizing shall be completed before seeding, except that when equipment designed for the purpose is used, fertilizer and seed mixture may be placed in one operation.

The area to be seeded shall be worked with discs, harrows, or other appropriate equipment, until it becomes a reasonably even and loose seed bed, a minimum of four (4) inches deep, immediately in advance of seeding.

The seed mixture shall be sown by means of equipment, or may be scattered uniformly over the areas to be seeded, and lightly raked, or dragged, to cover the seed with one-quarter (1/4) inch to three-eighths (3/8) inch of topsoil to assure good seed-to-soil contact. Scattering seed by hand shall be done only with satisfactory hand seeders, and only at such times when the air is sufficiently quiet to prevent seed from blowing away.

The seed mixture and sowing rate for seeds shall be as shown on Tale 700-1 entitled Approved Seed Mixtures.

After seeding, the area shall be lightly rolled by means of suitable equipment, preferably of the cultipacker type when such equipment can be operated, or by means of light hand tampers.

703.7.1 Acceptance of Work

The Village shall accept seeded areas after the grass has been established to a uniform growth of two (2) inches over a minimum of ninety (90) percent of the seeded area.

703.8 Sodding

This work shall consist of furnishing and laying of live sod on all locations specified in the contract documents. Preparation of the bed, placing and staking the sod, and cleanup shall be in accordance with sections 631.3.1 through 631.3.3 of the WDOT specifications.

All sodded areas shall be fertilized in accordance with section 703.6 of these standard specifications.

703.9 Hydro Seeding

This work shall consist of sowing or spreading upon the prepared seed bed, by means of a spray or stream of water under pressure operated by an approved type of machine designed for that purpose, the seed, mulch, and fertilizer, as required by the Contract Documents.

Hydro seeding will be permitted in lieu of Fertilize, Seed, and Mulch. Hydro Seeding shall conform to Section 630.3.3.2 Method "B" of the WDOT specifications, with the addition of Fertilizer and Mulch material.

Seed, mulch and fertilizer shall conform to the materials section, Section 702, of these Standard Specifications.

The contractor shall meet the requirements for watering as specified in section 701.4 of these standard specifications.

703.9.1 Acceptance of Work

The Village shall accept hydroseeded areas after the grass has been established to a uniform growth of two (2) inches over a minimum of ninety (90) percent of the hydroseeded areas

703.10 Mulch

All mulch used on village projects shall be placed in accordance with section 627.3 of the Wisconsin DOT specifications.

703.11 Trees, Shrubs, and Perennials

703.11.1 Scope of Work

The work under this section consists of furnishing and planting trees, shrubs, and perennials of the species, varieties, and sizes specified at the locations designated in the Contract Documents or as directed by the Engineer. This work shall include furnishing all necessary materials and performing all necessary labor such as excavating plant holes, topsoil backfilling, pruning, watering, fertilizing, staking, disposing of surplus and waste materials, necessary care and required placements pending acceptance, and all other work necessary, or incidental thereto, to complete

the requirements of this section in full accordance with the plans and specifications.

703.11.2

Plant List

A complete list of plants, including a schedule of quantities, sizes, and other requirements is shown on the plans or in the Contract Documents. In the event that discrepancies occur between the quantities of plants indicated in the Plant List and on the plans, the plant quantities indicated on the plans shall govern.

703.11.3

Substitution

No substitutions shall be accepted, except where evidence is submitted that a specified plant cannot be obtained. Substitution may be made only upon written approval of the Engineer with equitable adjustment of the contract price.

703.11.4

Quality

All plants shall be nursery grown within the states of Wisconsin, Minnesota, Iowa, Michigan, or that part of Illinois, Indiana or Ohio located within Zone 4 of the "Plant Hardiness Zone Map" of the United States Department of Agriculture.

All plants shall be nursery grown for at least two (2) years prior to date of planting on the project.

All plants shall be typical of their species or variety and have normal, well formed branches and vigorous root systems and shall be free from injurious insects, insect eggs, borers, plant diseases or other plant pests.

Plants furnished shall be sound, healthy and vigorous and free from the following defects:

1. Serious injuries to top, branches, trunk, bark, or roots
2. Disfiguring knots/shapes
3. Sunscald injuries
4. Dried out roots
5. Prematurely opened buds
6. Thin or poor tops and/or roots systems
7. Evidence of molding
8. Dry, loose or broken ball of earth in B. & B. stock
9. Central leader of trees cut or damaged

703.11.5

Grading Standards

Plant stock shall conform to the code of standards set forth in the current edition of American Standard for Nursery Stock recommended for general use and adoption by the American Nursery and Landscape Association. Park grade plant stock shall not be planted within the Village of Slinger.

Plant stock shall be dimensioned as it stands in its natural position. When plants are specified in the plant list by a height range, the stock furnished shall be **a fair average** between the minimum and maximum sizes specified, measured from the level of the plant's root collar. When plants are specified by a caliper range, the furnished stock shall be a fair average between the minimum and maximum calipers specified. The DBH (Diameter at Breast Height) caliper of the stock shall be as measured at four (4) feet above final finished grade of the surrounding ground level.

- 703.11.6 Plant Inspection and Legal Requirements
All shipments and deliveries of plant material shall comply with State and Federal laws and regulations governing the inspection, shipping, selling, and handling of plant stock. A tag or label bearing the name and address of the licensed dealer or nurseryman and a certification that the material is from an officially inspected source shall accompany each shipment or delivery of plant material, and shall be filed with the Engineer upon arrival of the plant material at the project site.
- 703.11.7 Plant Names and Labels
The nomenclature used herein and on the plans conforms to that of the current edition of Standardized Plant Names as adopted by the American Joint Committee on Horticultural Nomenclature.

All plants shall be true to name, with each plant legibly and securely labeled with the name and size of the plant material, as required or specified.
- 703.11.8 Plant Approval
No plant material shall be planted by the Contractor until it is inspected and approved by the Engineer or his representative at the Project Site. All rejected plants shall be immediately removed from the site and replaced with acceptable plants of the same species, variety, and size, at no additional cost to the Village unless otherwise directed in writing by the Engineer.

The Contractor shall furnish a written list of the sources from which he proposed to obtain plant materials for the work. Such a list shall be furnished at least fifteen (15) days prior to the date that such plant materials are to be delivered to the project site.
- 703.11.9 Digging, Handling, and Packing Plant Stock

All plant stock shall be dug and handled with care and skill to prevent injuries to the trunks, branches, and roots, and shall be packed in an approved manner to ensure arrival at the Project Site in good condition.

Transplanted trees shall be transplanted using a correctly sized tree spade approved by the Engineer or his representative.

The plant stock shall be transported in enclosed vehicles or, in lieu of the enclosed vehicle, the plant tops shall be suitably protected from drying.
- 703.11.10 Balled and Burlapped Stock (B. & B.)
Plant stock to be furnished balled and burlapped (B. & B.) shall be moved with a compact dug ball of earth so firmly wrapped in burlap that upon delivery the soil in the ball is still firm and compact about the small bedding roots. Each ball shall be of sufficient size to encompass all the fibrous feeding roots necessary to ensure successful recovery and development of the plant. The minimum sizes of the root balls shall be in accordance with Recommended Balling and Burlapping Specifications, as set forth in the current edition of the American Standard for Nursery Stock sponsored by the American Association of Nurserymen, Inc. Broken, cracked, loose, dry, or damaged root balls will be rejected.

703.11.11

Planting Season

Planting of trees and shrubs shall be done within the following dates:

September 1 to November 15

April 1 to June 1

If special conditions exist, which may warrant a variance in the above planting dates, a written request shall be submitted stating the special conditions and the proposed variance. Written permission for the variance will be given if, in the opinion of the Engineer, the variance is warranted.

No planting shall be done when the ground is frozen.

703.11.12

Delivery and Temporary Storage

At least three (3) days prior to each delivery of plant material to the planting or storage site, the Contractor shall notify the Engineer of such delivery and furnish an itemized list of the actual quantity, sizes, and types of plant material in each delivery.

Plant stock shall be planted on the day of delivery to the project site. In the event that this is not possible, the plant stock shall be temporarily stored in a well ventilated, cool, moist storage facility and shall be adequately protected against drying by adequately watering and/or misting. Watering should be on the root ball only. The foliage shall not be watered.

703.11.13

Planting

Plants shall be furnished and planted in accordance with the requirements of the Contract Documents, Section 632 of the Wisconsin DOT specifications, and the American Standard for Nursery Stock, latest editions.

703.11.14

Layout of Planting

The layout of planting and location of plant holes shall be staked out by the Contractor in locations shown on the Plans. Stakes shall be labeled with the name of the plant to be planted at that location. No planting may commence until the planting layout has been approved by the Engineer.

703.11.15

Standards For Excavating For Planting Area

For planting beds where shrubs, plants, and trees are to be planted, the Contractor shall till the area to a depth of ten (10) inches, till in three (3) inches of compost, and remove and dispose of any excess material.

For planting of individual trees and shrubs the Contractor shall layout an area equal to three (3) times the diameter of the planting ball. He shall then excavate to loosen and mix the soil in this entire area to a depth of about twelve (12) inches or to a depth level with the bottom of the root ball, whichever is less. In the area outside of the planting ball the Contractor shall excavate an additional two (2) inches or more in depth, leaving an undisturbed mound directly under the planting ball. The Contractor shall scarify the vertical sides of the excavated area to a one (1) inch minimum penetration. To improve the soil characteristics for satisfactory plant growth, the Contractor shall add organic matter to the loosened soil uniformly throughout the area.

In the center of the prepared area, the Contractor shall dig a shallow hole to set the tree, root ball and all. The hole should allow the root ball to sit on solid ground rather than loose soil. With the ball set in the hole, the root collar shall be two (2) inches above the finished ground grade.

After the tree is properly situated, the Contractor shall cut and remove the rope or wires holding the burlap in place and securing any part of the tree. The Contractor shall position the tree so that it is perpendicular to the ground and the main stem is growing straight up. For the upper third of the root ball the Contractor shall remove the burlap and scarify the sides of the root ball to release the roots.

The Contractor shall backfill around the root area, and gently pack the soil to prevent major air pockets. It is a mistake to pack the soil too hard. Water can be used instead of manual compaction to help the soil settle and prevent overpacking. The Contractor shall rake the soil so that it lays evenly over the entire planting area, and cover it with four (4) inches of hardwood chips, keeping the chips about three (3) inches away from the trunk of the tree. Some mulches decompose quickly and will have to be replenished by the Contractor during the guarantee period.

A water retaining berm shall not be constructed around the perimeter of the excavation, unless the slope through the excavation is such that excessive erosion could result.

703.11.16

Excavation of Plant Holes

All plant holes shall be centered at the location stake.

The plant hole shall be excavated as noted in this section above, to permit placement of backfill material around the root system of the ball of B. & B. stock. The plant holes shall be cylindrical in shape and shall have sloped sides and a flat bottom. The diameter of the planting hole shall be two (2) to three (3) times the diameter of the root ball. When planting on a slope, the minimum depth of the plant hole shall be measured from the downward side of the slope at the hole.

In the event it is necessary to suspend planting operations until the following working day, any open plant holes shall be covered and properly barricaded to prevent injury to any user of the site. If planting operations are suspended until the following planting season, any open plant holes shall be backfilled before suspending the work.

703.11.17

Setting Plants

No planting holes shall be dug until the proposed locations have been staked on the ground, by the Contractor, and until such locations have been approved by the Engineer.

To insure the life of the plant, the planting operations shall proceed without delay to avoid undue evaporation and drying of the roots while exposed to air and sun. The Contractor shall have available a liberal supply of burlap or covering so that the roots of the plant stock arriving from the nursery or temporary storage will, at all times, be kept covered to prevent them from drying out while awaiting actual placement. Covering shall be kept moist or wet at all times.

Reasonable care shall be exercised to have the holes dug and soil prepared prior to moving plants to their respective locations for planting to ensure that they will not be unnecessarily exposed to drying elements or to physical damage.

No balled plant shall be planted if the ball is cracked or broken either before or during the planting operation. Planting of balled and burlapped (B. & B.) plants, unless otherwise directed, shall be performed in accordance with the specifications herein provided.

The Contractor shall be responsible for planting at correct grades and alignments.

All plant holes shall be backfilled with soil that was originally located in the planting hole.

The backfill material shall be placed in layers of no more than nine (9) inches around the roots of each ball. Each layer shall be carefully tamped in place in a manner to avoid injury to the ball or disturbance to the position of the plant. All air pockets shall be eliminated.

When approximately two-thirds (2/3) of the plant hole has been backfilled, the hole shall be filled with water and the soil allowed to settle around the roots. The top one-third (1/3) of the burlap shall be cut away or folded back from the top of the ball. All rope, twine, wire, etc. that was used to keep the earth ball intact shall be removed from around the base of the trunk and removed from the planting hole. If wire or a wire basket was used around the root ball, all wire shall be cut and removed from the top half of the root ball. After the water has been absorbed, the fertilizer packet(s) shall be placed and the plant hole filled with backfill material and tamped lightly to grade. The plants shall be watered after the plant has been properly set.

When planted, watered, and fully settled, the plant shall be vertical.

The tree may be staked and supported, if it is expected that it will be subjected to high winds and/or vandalism, utilizing two (2) inch wide black cotton fabric, or approved equal. The two (2) inch wide black cotton fabric specified is available through Shelton-Reynolds, Inc., Milwaukee, Wisconsin (Stock No. 150-42-99 T250 Cotton), first or seconds. Tree support shall be one complete piece per stake, no splices.

Tree wrap wire and hoses will not be permitted.

703.11.18 Topsoil Backfill

All plant holes shall be backfilled with screened topsoil.

703.11.19 Mulching of Trees and Plants

The Contractor will furnish and install the mulch material. Mulch shall be placed, after all necessary backfilling, watering and adjustment has been performed, within the prepared planting area to a depth of four (4) inches. The mulch shall be kept about three (3) inches away from the trunk of the tree or plant. Mulch shall be placed within two (2) days of planting.

703.11.20 Fertilizer

Fertilizer to be used in plant holes shall be a standard manufactured slow release, water soluble fertilizer contained in one (1 oz.) ounce packets. The amount of fertilizer in each packet shall be stated, by weight, in ounces.

The fertilizer shall meet the following minimum requirements:

Nitrogen	16%
Phosphoric Acid	8%
Potash	16%

The fertilizer for plant holes shall not exceed the rate of three (3) pounds of nitrogen per 1,000 square feet.

Each plant shall be fertilized according to manufacturer's recommended rates.

703.11.21 Watering

All plants shall be watered during planting operations when approximately two-thirds (2/3) of the hole has been backfilled. The hole shall be filled with water and the soil allowed to settle around the roots. After the water has been absorbed, the fertilizer packet(s) shall be placed and the plant hole filled with backfill material and tamped lightly to grade.

Each plant shall be thoroughly watered immediately after planting.

Each plant shall be thoroughly watered immediately after planting.

All water required during and after planting shall be provided by the Contractor. The Contractor shall provide his own hoses and/or containers.

A sufficient amount of water shall be placed in each plant hole at the time of each watering to keep the backfill material in a moist condition and to keep the plant in a healthy growing condition. The watering shall be of a slow enough rate to provide deep soaking of the root ball and surrounding soil.

Care must be taken when watering not to wash away mulch and backfilled material. Mulch and backfill material displaced must be immediately replaced by the Contractor.

The Contractor shall notify the Owner one (1) day in advance of all watering.

703.11.22 Acceptance and Replacement of Plant Material

Near the end of the first full growing season, but no later than the expiration of the plant guarantee period, an inspection of the plantings will be made by the Engineer and only those plants that are alive and normally healthy will be accepted. **Unacceptable material shall be removed and replaced by the Contractor, at his own expense, during the next planting season.**

Material and method of replacement planting shall be the same as specified for the original planting.

All replacements will be subject to the same one (1) year guarantee period. Only those plants that are alive and healthy will be accepted.

703.11.23 Guarantee

The Contractor shall guarantee the plant material under this contract **for a period of one (1) year from the date of acceptance.** Plants which die during the guarantee period shall be removed and replaced under the original specifications, no later than the following planting season, at the Contractor's expense. The Contractor shall be responsible for providing no more than the original plant and two (2) replacements under the guarantee. All replacement plants shall have a one (1) year guarantee period from the time of their acceptance.

The end of the original guarantee period does not release the Contractor from his responsibility to care for the replacement plants.

703.12 Measurement

703.12.1 Topsoil

Topsoil will be measured by the square yard in place and accepted by the Engineer. The quantity to be measured for payment shall be the actual number of square yards of area topsoil to the depth specified within the limits of construction designated on the plans or in the contract documents or as directed by the Engineer.

703.12.2 Fertilizing

Fertilizing will be measured by the square yard accepted by the Engineer. The quantity to be measured for payment shall be the amount of such material furnished and incorporated in the work as ordered by the Engineer and in accordance with the contract documents.

703.12.3 Seeding

Seeding will be measured by the square yard accepted by the Engineer. The quantity to be measured for payment shall be the actual number of square yards of area seeded within the limits of construction designated on the plans or in the contract documents or as directed by the Engineer.

703.12.4 Sodding

Sodding will be measured by the square yard accepted by the Engineer. The quantity to be measured for payment shall be the actual number of square yards of area sodded within the limits of construction designated on the plans or in the contract documents or as directed by the Engineer.

703.12.5 Hydroseeding

Hydroseeding will be measured by the square yard accepted by the Engineer. The quantity to be measured for payment shall be the actual number of square yards of area hydroseeded within the limits of construction designated on the plans or in the contract documents or as directed by the Engineer.

703.12.6 Trees, Shrubs, and Perennials

The method of measurement for trees, shrubs and perennials will be the number of units per species, variety, and size specified. The quantity to be measured for payment shall be the actual number of units per species, variety, and size planted in accordance with the contract documents and as ordered by the Engineer.

703.13 Payment

703.13.1 Topsoil

Topsoil, measured as provided above, will be paid for at the contract unit price per squared yard, which price shall be full compensation for furnishing, excavating, loading, hauling and placing this material; for undercutting of excavations or underfilling of embankments necessary to receive this material; and for furnishing all labor, material, equipment, tools and incidentals necessary to complete the work.

Payment for topsoil may be included in the price bid for other restoration items as described in the contract documents.

703.13.2 Fertilizing

Fertilizer, measured as provided above, will be paid for at the contract unit price per square yard, which price shall be full compensation for furnishing, hauling, placing, and incorporating in the work; and for all labor, materials, equipment, tools and incidentals necessary to complete the work.

Payment for fertilizing may be included in the price bid for other restoration items as described in the contract documents.

703.13.3 Seeding

This item, measured as provided above, will be paid for at the contract unit price per square yard, which price shall be full compensation for furnishing, handling and storing all seed; for furnishing the required culture and inoculating seed as specified; for preparing the seed bed, sowing, covering and firming the seed; and watering; and for all labor, tools, equipment and incidentals necessary to complete the work.

Payment for seeding may be included in the price bid for other restoration items as described in the contract documents.

703.13.4 Sodding

This item, measured as provided above, will be paid for at the contract unit price per square yard, which price shall be full compensation for preparing the earth bed; for furnishing, placing, staking, and rolling the sod; for water, and for all labor, equipment, tools and incidentals necessary to complete the work in accordance with the contract.

703.13.5 Mulching

This item, measured as provided above, will be paid for at the contract unit price per square yard, which price shall be full compensation for furnishing all materials, including tackifiers or nitrogen; for all hauling, treating, placing, spreading and anchoring of the mulch material; for maintenance of the work and repair of any damaged areas; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

Payment for topsoil may be included in the price bid for other restoration items as described in the contract documents.

703.13.6

Trees, Shrubs and Perennials

The number of plants furnished and planted will be measured as provided above, will be paid for at the contract unit price each for trees (species and size), shrubs (species and size), or perennials (species and size), as the case may be, which price shall be payment in full for furnishing, transporting, handling, potting, storing, pruning, placing and replacing plant materials; for all excavation of plant holes, salvaging of topsoil, mixing and backfilling; for furnishing and applying all required fertilizer, weed barrier fabric, mulch, water, wrapping, guys and braces, rodent protection, herbicides, and anti-desiccant spray; for removing guys and braces; for disposal of all excess and waste materials; for care; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

- END OF SECTION 700 -