

REVISION OF SECTION 214
yExtended LANDSCAPE PRESERVATION

Section 214 of the Standard Special Provision, Revision of Section 214, Nursery Stock Container and Unrooted Cuttings, is hereby revised for this project as follows:

Subsection 214.01 shall include the following:

This work consists of maintaining all plant material and seeded areas in a healthy and vigorous growing condition, and ensuring vigorous vegetation. This includes performing nursery stock replacement work and landscape preservation work.

Subsection 214.03 shall include the following:

(j) *Record Keeping.* The contractor shall create and keep a Preservation Binder, which shall be brought to each of the inspections and copies of the information shall be provided to the Engineer upon request. The Preservation Binder shall contain the following information.

(1) Approved preservation plan prepared by the contractor.

(2) Product information and Safety Data Sheets (SDS) for all fertilizers, herbicides and pesticides.

(3) A diary documenting all landscape preservation activities including type of work, locations, equipment and time spent.

(4) Licensing documentation from the Colorado Department of Agriculture for all commercial pesticide applicators working on the project.

Delete subsection 214.04 and replace with the following:

214.04 Extended Landscape Preservation. After all nursery stock and unrooted cuttings on the project are installed, a plant inspection shall be held including the Contractor, Engineer and the Region Environmental Staff to determine acceptability of nursery stock. During the inspection, an inventory of rejected material will be made, and corrective and necessary cleanup measures will be determined. A Notice of Substantial Landscape Completion will be issued by the Engineer when all nursery stock in the Contract have been planted and all work under Sections 212, 213, 214 and 623, except Extended Landscape Preservation, has been performed and accepted.

The Contractor shall perform landscape preservation work in accordance with Table 214-1 for a period of 12-36f months starting immediately after receiving acceptance of the Notice of Substantial Landscape Completion. . The site shall be maintained in a similar condition of the landscape improvements were in when the project received the acceptance of the Notice of Substantial Landscape Completion from the Engineer.

Contractor access to private property for the landscape preservation work will not be extended beyond the terms of the temporary construction easement(s) for the project, unless another temporary easement agreement or extension of the original temporary easement is granted.

(a) *Submittals.* Within the first two weeks of the Extended Landscape Preservation period the Contractor shall provide the following to the Engineer until written acceptance is provided:

(1) A Landscape Preservation plan, which includes details and suggested changes to the requirements of Table 214-1 to the Engineer for approval. At a minimum, the plan shall provide a schedule showing the number of hours or days personnel will be present, the type of work to be performed, supervision, and equipment to be used.

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The plan shall provide the person to contact for emergency work and the inspection schedule.

(2) Product submittals and Safety Data Sheets (SDS) for all fertilizers, herbicides and pesticides.

(3) A plan for safe access into and route though the site during the preservation period to the Engineer for approval. The plan shall include permits or permissions for access to and from public roads or adjacent properties. Access and route shall avoid areas protected during construction (i.e., Wetlands, riparian zones, threatened and endangered species, etc.).

(b) *Contractor Qualifications.* The work shall be performed by a landscaping subcontractor having at least 5-years of experience with maintaining a project of similar size and scope.

**TABLE 214-1
WORK TO BE PERFORMED DURING Extended LANDSCAPE PRESERVATION**

Work Item	FUNCTION	FUNCTION BY MONTH												NOTES
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Inspections	Inspections: The Engineer or a designated representative, and a representative from the contractor will be required to attend each inspection.	X	X	X	X	X	X	X	X	X	X	X	X	Inspections shall be twice monthly, April through October, and once monthly, November through March. ■ Before each inspection is to occur, the Contractor shall notify the Engineer at least 72 hours in advance.
Mowing, weeding, and trimming of seeded lawn or sodded lawn areas	Area shall be kept free of harmful insects, disease and weeds. Chemical applications may be required.			X	X	X	X	X	X	X	X	X		Areas shall be mowed when grasses have reached a height of 6" or as directed by the Engineer. Grasses shall be maintained at a height of 3" to 4".

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Fertilizing seeded lawn or sodded lawn areas	In spring and summer application, slow release turf fertilizer with a nutrient analysis not exceeding 8-8-8- (organic fertilizer) shall be applied at an application rate of 1 lb/1,000 sq. ft.				X		X			X			
Weed control in seeded lawn or sodded lawn areas.●	Areas shall be kept free of harmful insects, disease and all weed species (species not included in the original seed mix). Chemical applications are anticipated in the following months.												Weed management strategies shall be discussed during inspections All chemical applications must be approved by the Engineer.
Mowing of areas having native seed	Can be mowed as a weed management plan to control re-seeding of weeds. Mowing shall only be recommended when the grasses reach a height of 18" and mowed no shorter than 6".												All mowing must be approved by the Engineer.
Weed control of areas having native seed●	Areas shall be kept free of harmful insects, disease weeds. Chemical applications are anticipated in the following months.			X	X	X				X	X		Weed management strategies shall be discussed during inspections All chemical applications will require approval by the Engineer.

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Hand watering of areas having native seed	All areas that received native seeding shall be watered to insure the successful germination and maintain the grasses in a healthy vigorous growing condition. Watering shall be adjusted based on weather and infiltration rates of the soil. At no time shall watering operations be applied at a rate or intensity that causes surface run off.				X X X X	X X X X	X X X X	X X X X	X X X X	X X X X	X X X X			Areas shall be watered one time per week during the first three months and one time every other week after the first three months. If temperatures exceed 80 degrees the frequency for the first three months should be increased to two times per week. During each watering apply at least a ¼ inch of water over the entire area (converts to 6,789 gallons/acre). To get moisture into the soil repeated passes will probably be required.
Reseeding of areas having native seed	All areas that have been eroded or damaged based on conditions outside of the control of the Contractor shall be assessed during the monthly inspection for soil conditioning, seeding and mulching applications.	X	X	X	X	X	X				X	X	X	Areas shall be evaluated during each of the inspections and if reseeding is determined necessary the Contractor shall provide an estimate to the Engineer. No repair work shall take place until written approval is provided.

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Weeding and mulching of perennial planting beds●	Area shall be kept free of harmful insects, disease and weeds. Weed removal by hand or by "touch, wand or sponge" method of chemical application.				X	X	X	X	X	X	X		X	Perennial beds shall be kept completely free of weeds and grasses at all times.
Removal of dead perennials	Hand removal of dead perennials, top foliage and pruning of dead branches, etc. Removal of any other debris present.			X								X		Perennial beds shall be kept completely clean and clear of debris at all times during the winter season.
Cultivating, Weeding and Mulching◆◆	Guying material shall be repaired or replaced. Mulched beds shall be kept at a depth as stated originally in the plans. Area shall be kept free of harmful insects, disease and weeds. Chemical applications may be required.			X	X	X	X	X	X	X	X	X	X	Tree and shrub areas shall be kept completely free of weeds, weeds and grasses at all times. The contractor shall repair guying, reshape plant saucers and replace wood mulch material as needed or as directed by the Engineer.
Fertilization of trees and shrubs	Root inject slow release fertilizer with a nutrient analysis of 10-10-10.			X						X				Root feeding of trees and shrubs shall be done in spring and fall or as directed by the Engineer.

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Pruning of trees and shrubs	Prune any diseased, dead or broken limbs or branches as soon as identified, following accepted and approved methods. Any equipment or hand tools used on trees and shrubs shall be cleaned by a sterilizing solution after use on each tree or shrub. No pruning of trees and shrubs shall be done to change the natural appearance or growth of the plant.				X				X					Base sucker growth is to be removed as needed or directed by the Engineer. Prune flowering trees and shrubs after flowering period.
Chemical application to trees and shrubs	Plants, trees and shrubs shall be kept free of harmful insects and disease.			X					X					Only as needed, or as directed by the Engineer.
Hand watering trees	All plant material shown on the plans (excluding seeded areas) shall be watered to ensure successful establishment of the tree. Rate of flow must allow the water to soak into the soil adjacent to the planting. At no time shall watering operations be applied at a rate or intensity that causes surface run off.	X	X	X	X	X	X	X	X	X	X	X	X	Trees shall be watered two times a week at a rate of 10 gallons for each diameter inch of the tree for the months of May through October. One time per month for the months of November through April.

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<p>Hand watering trees, shrubs, herbaceous plants and unrooted cuttings</p>	<p>All plant material shown on the plans (excluding seeded areas) shall be watered to ensure successful establishment of the plant. Rate of flow must allow the water to soak into the soil adjacent to the planting. At no time shall watering operations be applied at a rate or intensity that causes surface run off.</p>	X	X	X	X	X X	X X	X X	X X	X X	X X	X	<p>All plant material shown on the plans (excluding seeded areas) shall be watered to ensure successful establishment of the plant. Rate of flow must allow the water to soak into the soil adjacent to the planting. At no time shall watering operations be applied at a rate or intensity that causes surface run off. Trees shall be watered two times a week at a rate of 10 gallons per planting for the months of May through October. One time per month for the months of November through April.</p>
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<p>Maintaining and repairing sprinkler system</p>	<p>Shall include a visual inspection of irrigated areas: sprinkler heads (head placement, direction, operation, broken or missing) irrigation line breaks or leaks, wires and power from controllers to valves, all water lines from the manifold boxes out to the fields (including the valves and lines located inside the manifold boxes), valve leaks and controller status.</p>			<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>			<p>Inspections of irrigation system shall be done on a weekly basis and after each mowing. Repair of system shall begin upon discovery.</p>
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Spring startup and winterization of sprinkler system	The Contractor shall be responsible for Spring start up (pressurization) and Fall winterization. Winterization. Work shall include, as a minimum, draining all of the equipment and pipe networks, purging water from the system with compressed air, opening manual drain valves. Power shall remain on to clocks during the winter.				X						X			Spring start-up shall be April 1 or the first working day after (or as directed by the Engineer). Fall start-up shall be October 15 or the first working day after or as directed by the Engineer.
Litter Control	Weekly trash pickup	X	X	X	X	X	X	X	X	X	X	X	X	Litter removal a minimum of 1 hour per acre, per month.
Removal of tree staking material	The Engineer or a designated representative at the end of the preservation period will determine which staking material should be removed													Contractor shall coordinate at the end of the landscape preservation period.
Removal of temporary sediment and erosion control measures	The Engineer or a designated representative at the end of the preservation period will determine which control measures should be removed													Contractor shall coordinate at the end of the landscape preservation period.

Variations to Table 214-1 shall be included in the Landscape Preservation Plan for approval.

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(c) *Final acceptance.* Upon completion of 12-36f months of Landscape Preservation, the Contractor shall request a walkthrough of the project site. The walkthrough shall include the Engineer, the designated representative of the Contractor, and Region Environmental staff. During the inspection, the Engineer will identify on a punch list any necessary repairs or replacements, which shall be made at the Contractor’s expense.

All plants shall be healthy and in flourishing condition, free of dying branches and branch tips. During the growing season plants must bear foliage of normal density, size and color. At the end of the preservation period, the seeded areas as shown in the plans shall contain no ‘A’ list noxious weeds and no more than 10% (by individual plant density) all other weeds growing on the project. All temporary access and route shall be reclaimed and seeded in accordance with applicable seeding and planting requirements. Upon completion and re-inspection of full repairs or replacements necessary the Engineer will issue a notice of final acceptance of the landscape preservation period. The contract performance bond, as required in subsection 103.03, shall include all required work involved during the Nursery Stock Warranty Period.

Subsection 214.05 shall include the following:

The following items will not be included in Extended Landscape Preservation:

- (1) Herbicide
- (2) Seeding
- (3) Mulching

Extended Landscape Preservation will not be measured but will be paid as a lump sum in installments as follows:

- (1) 90 percent of the lump sum amount shall be divided by the number of months in the contract and will be paid this amount each of the months.
- (2) The remaining 10 percent will be paid upon completion of the work.

In subsection 214.06, delete the fifth paragraph and replace with the following:

All costs associated with replacing nursery stock and unrooted cuttings, shall be at the Contractor’s expense.

Replacement of nursery stock and unrooted cuttings may occur more than once during the Extended Landscape Preservation period, as directed.

Subsection 214.06 shall include the following:

Pay Item	Pay Unit
Extended Landscape Preservation	Lump Sum

Water used for Extended Landscape Preservation will not be measured and paid for separately, but shall be included in the work.

Additional slow-release organic fertilizer for Extended Landscape Preservation will not be measured and paid for separately, but shall be included in the work.

Herbicide will be measured and paid for in accordance with Section 217.

Seeding will be measured and paid for in accordance with Section 212.

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Mulching will be measured and paid for in accordance with Section 213.

Required replacement control measures along with maintenance of control measures (sediment removal and disposal) shall be measured and paid for in accordance with Section 208.

Mobilization required for Extended Landscape Preservation will not be measured and paid for separately, but shall be included in the work.

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INSTRUCTIONS TO DESIGNERS: (Please delete these instructions and associated symbols before including in the project.)

y Include this project special specification on projects with major landscaping component.

f Select 12, 24 or 36 Months

◆ Include only items from this list deemed appropriate by the Regional Environmental Staff. Consider work from this list that that should be included for the contractor based on the site improvements included in the project.

■ Applies only to projects with irrigated treatments in urban areas.

● Herbicide will be measured and paid for in accordance with Section 217. Make sure to include a pay item for this.

♠ Seeding, mulching and 216 pay items, when required, should be checked for pay items under these Sections for additional quantities to cover the work in the One-Year Landscape Preservation.