This master should be used by designers working on Port of Portland construction projects and by designers working for PDX tenants (“Tenants”). Usage notes highlight a few specific editing choices, however the entire section should be evaluated and edited to fit specific project needs.

Use this section only at specific request of Project Manager and only for PDX projects. Spec Writer: be sure to use correct front ends.

SECTION 329000 - LANDSCAPE MAINTENANCE

1. GENERAL
	* + 1. DESCRIPTION
				1. This section describes maintenance of plants, lawn, and irrigation system for a period of one year after date of substantial completion of their construction.
			2. SUBMITTALS
				1. Submit a written plan for each month of the landscape maintenance period. Include when each item in the PDX Landscape Maintenance Schedule will be performed. The schedule is included in Part 3 of this section.
2. PRODUCTS
	* + 1. FERTILIZER
				1. 206N 5P 10K with 40 percent nitrogen slow release and with trace elements (Bluechip), as approved by the Port.
			2. GRASS SEED
				1. Where required, match seed mix initially installed.
			3. SELECTIVE HERBICIDE
				1. Post‑emergence herbicide, as required to control broadleaf weeds.
				2. Pre‑emergence herbicide, required to control germination of annual and perennial weeds in planting areas shall be Barricade, Dimension, Surflan, or equal.
				3. Contact herbicide shall be Roundup Pro, or equal.
			4. LIME
				1. Dolomite lime, No. 10.
			5. EQUIPMENT
				1. Mower blades shall be in sharpened condition, properly adjusted, and free from nicks, burrs, or flat spots.
3. EXECUTION
	* + 1. GENERAL
				1. One‑year landscape maintenance shall begin on the day following substantial completion of landscape construction.
				2. Perform items listed in table at end of this section at the frequencies (number of times per month) indicated in the table and as specified in this section.
				3. Inspect the area once a week and adjust exact timing of the listed activities to maintain a healthy growing condition of landscape items.
				4. Promptly perform required maintenance and notify the Maintenance Warranty Administration, (503) 460-4693, upon completion of task(s) for Port inspection and acceptance.
				5. Walk through area and pick up noticeable trash and debris. Pull noticeable weeds.
				6. On every visit, inspect for weeds in order to maintain control of weed growth.
				7. No substitutes to specified chemical herbicides or fertilizers will be allowed without approval of the Port.
				8. At least one week prior to application, notify the Port of intent to apply herbicide or fertilizer.
				9. Apply herbicide and fertilizer strictly according to the manufacturer’s recommendations. Provide the name, analysis, and rate of application.
				10. Do not apply herbicide and fertilizer to impervious areas unless specifically directed to do so by the contract documents. Use deflectors to prevent improper fertilizer application.
				11. Blower-clean sidewalks, driveways, vaults, and other hard surfaces.
			2. LAWN AREAS
				1. Remove barriers around lawn areas when the grass has become established.
				2. Maintain healthy growing conditions by mowing, edging, hand clipping, fertilizing, weeding, applying herbicide, and performing other essential maintenance operations.
				3. Mow lawn areas following the frequencies shown in the maintenance service program table.

Mow to a height of 2 1/2 inches.

Do not remove more than 1/3 of existing grass height in a single cutting.

Remove clippings, unless cut with a reel mower and clipping length is less than 1/2 inch.

Change mowing pattern every mowing to reduce rutting and compaction of newly established grades. Patterns shall compliment grades and shape of lawn areas.

* + - * 1. Fertilize at a rate of five pounds per 1,000 square feet. Apply as listed in table at the end of this section. Other applications of fertilizer shall be at the option of the Port and shall be applied on a time-and-materials basis. Obtain Port approval prior to ordering materials or beginning work.
				2. Apply lime at the rate of 50 pounds per 1,000 square feet.
				3. Inspect lawn condition on every visit and make watering time clock adjustments as required to keep lawn area in a healthy, growing, and lush green condition, free from stress. Determination of condition shall be made by the Port.
				4. In October, reseed sparse or bare areas of lawn at the rate of 10 pounds per 1,000 square feet. Use the same seed mix as originally installed for lawn area.
				5. Keep lawn substantially free of broadleaf weeds. Control, if necessary, with weed killer approved by the Port, and applied at the manufacturer’s directions.
				6. Within 15 days of discovery or notification, control lawn diseases with applicable products and in accordance with the manufacturer’s recommendation.
				7. Treat a 24‑inch buffer zone around undeveloped edges with herbicide for control of unwanted vegetation.
			1. PLANT MAINTENANCE
				1. Replace broken tree tie stakes.
				2. Maintain healthy growing conditions by watering (including hand watering), pruning, spraying, controlling insects, weeding, and performing other essential maintenance operations.
				3. Inspect plant materials every 21 days and replace dead or impaired plants within seven days of inspection.
				4. Make watering time clock adjustments as required to keep plant materials in a healthy, growing, and lush condition, free from stress. Determination of condition will be made by the Port.
				5. Adjust tree and shrub ties as required to prevent girdling.
				6. Prune and trim shrubs, trees, and plants according to the individual species requirements.
				7. Keep all ground cover trimmed 6 inches in from curbs, sidewalks, and utility covers.
			2. IRRIGATION SYSTEM
				1. Maintain and regulate irrigation system for optimum growing conditions for plants.
				2. Perform maintenance, including replacement, repair, and adjustments of irrigation system to ensure proper continual irrigation function from March to November.

During the period when the system is active, provide routine inspection of the system at least every 7 days and make repairs within 48 hours. This includes balancing, adjusting, and tightening of nozzles.

Any damage to the system that prevents use during scheduled watering periods shall be considered urgent and repairs shall be made by the Contractor within 24 hours of being brought to his attention.

Perform major repairs due to vandalism or vehicular accidents, etc., on a time-and-materials basis. Obtain Port approval prior to ordering materials or beginning work.

* + - * 1. Winterize the system between November 1 and November 15, and start up the system between March 1 and March 15. Utilize both procedures as an instruction session for Port landscape personnel. Contact the Port to set instruction date.
			1. CLEANUP
				1. Keep area free from accumulation of work-related materials, equipment, and debris.
				2. Unhealthy or dead shrubs, trees, and plants shall be replaced when identified. They shall not be left until the end date of the Service Agreement for replacement.
			2. CLOSEOUT
				1. A final walk through and site review shall be conducted with the Contractor and the Port no later than two weeks before the end date of the Service Agreement.
			3. PDX LANDSCAPE MAINTENANCE SCHEDULE
				1. The one-year landscape maintenance service program shall be performed in accordance with the following schedule:

|  |  |
| --- | --- |
| Fill in project title. Abbreviate if necessary.ONE-YEAR LANDSCAPE MAINTENANCE SERVICE PROGRAM | NO. OF DAYS PER MONTH ITEMS OF WORK SHALL OCCUR\*Schedule as required |
| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|  1. MOWING: Reel or rotary cut | 1 | 1 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 1 |
|  2. EDGING: Power edge curbs and mowing strip |  |  | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 |  |
|  3. HAND CLIPPING: Around trees, utility poles, signs, and fire hydrants |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |
|  4. FERTILIZE TURF |  | 1 |  | 1 |  | 1 |  |  | 1 |  | 1 |  |
|  5. APPLY LIME | 1 |  |  |  |  |  |  |  |  |  |  |  |
|  6. POST-EMERGENCE HERBICIDES - TURF: Control of broadleaf weeds |  |  |  |  | 1 |  | 1 |  | 1 |  |  |  |
|  7. POLICE/HAND WEED: Pick up noticeable trash and weeds | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 |
|  8. HAND SPRAY: Weed control for planting areas |  |  |  | 1 | 1 | 1 | 1 | 1 | 1 |  |  |  |
|  9. PRE-EMERGENCE HERBICIDE - PLANTING AREAS: Control germination of annual and perennial weeds |  | 1 |  |  |  |  |  |  |  | 1 |  |  |
| 10. LEAF CLEAN-UP: Pick up and remove from planting areas |  | 1 |  |  |  |  |  |  |  |  | 1 |  |
| 11. IRRIGATION: Turn on, balance out system for coverage – Turn off, drain, winterize |  |  | ON |  |  |  |  |  |  |  | OFF |  |
| 12. IRRIGATION: Additional hand watering - new trees only |  |  |  |  | 2 | 2 | 2 | 2 | 2 | 1 |  |  |
| 13. IRRIGATION: Watering time clock adjustments  |  |  | \* | \* | \* | \* | \* | \* | \* | \* |  |  |
| 14. IRRIGATION: Typical day-to-day maintenance  |  |  | \* | \* | \* | \* | \* | \* | \* | \* | \* |  |
| 15. IRRIGATION: Major repairs required due to vandalism or vehicles | \* | \* | \* | \* | \* | \* | \* | \* | \* | \* | \* | \* |
| 16. PRUNING SHRUBS/TREES | 1 |  |  |  |  | 1 |  | 2 |  |  |  |  |
| 17. TRIMMING GROUNDCOVER |  |  |  |  |  |  | 1 |  |  | 1 |  |  |

Note: Only major scheduled items are included in this table.

END OF SECTION 329000