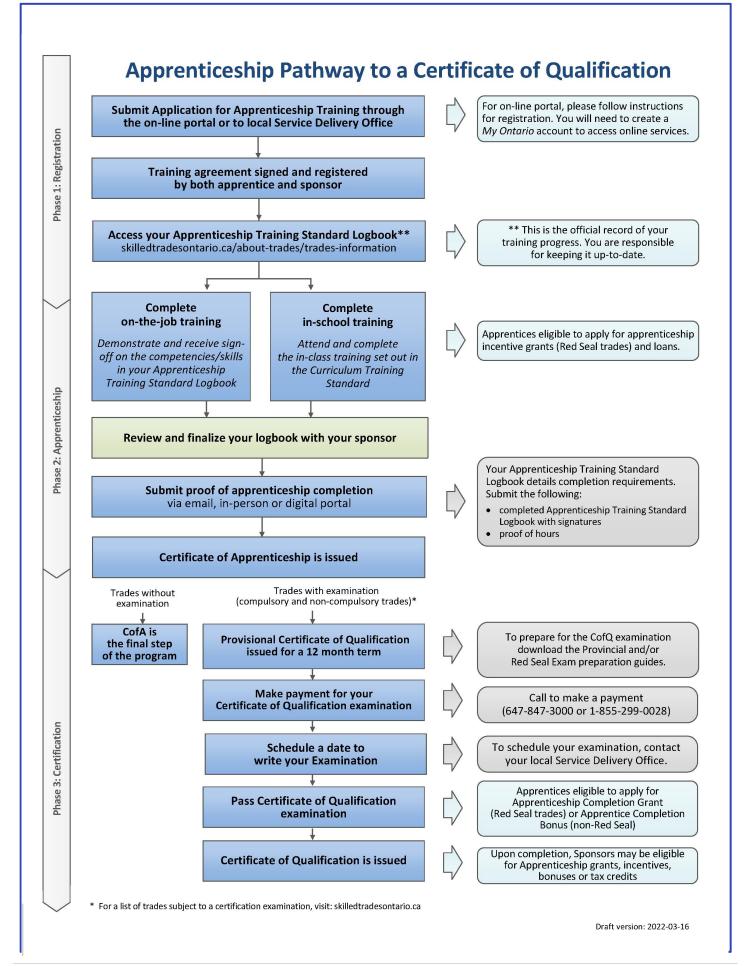


Horticultural Technician (441C) Training and Curriculum Standard Supplemental Resource Guide

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Curriculum Standard Reportable Subjects — Program Summary

The structure of this Horticultural Technician curriculum consists of 2 levels of in school training. The program is substantively harmonized with the 2017 Red Seal Occupational Standard (RSOS) for the trade of Landscape Horticulturist, in that the content progresses in a similar sequence. Level 1 of this curriculum covers content from Level 1 and 2 in the RSOS and Level 2 covers, the content from Level 3 and 4 from RSOS.

| Number | Reportable Subjects | Hours Total | Hours Theory | Hours Practical | Pre-requisite |
|---------|---|----------------|-----------------|--------------------|---------------|
| Level 1 | | | | | |
| 3625 | Trade Practices -Safety, Tools and Equipment | 48 | 36 | 12 | |
| 3626 | Work and Project Organization | 24 | 24 | 0 | |
| 3627 | Communication Skills | 24 | 18 | 6 | |
| 3628 | Horticultural Principles | 60 | 48 | 12 | |
| 3629 | Environmental Principles-Soil, Water, Environmental Stewardship | 36 | 30 | 6 | |
| 3630 | Pre-Construction Activities | 30 | 24 | 6 | |
| 3631 | Hardscape Installation and Maintenance | 48 | 12 | 36 | |
| 3632 | Softscape Installation and Maintenance- Turf | 30 | 24 | 6 | |
| 3633 | Softscape Installation and Maintenance | 48 | 36 | 12 | |
| 3634 | First Aid-CPR | 12 | 6 | 6 | |
| | Total | 360 | 258 | 102 | |
| Level 2 | | | | | |
| 3635 | Site Preparation and Protection | 48 | 18 | 30 | 3626 |
| 3636 | Project Preparation | 24 | 18 | 6 | 3626 |
| 3637 | Marketing and Sales | 24 | 18 | 6 | 3627 |
| 3638 | Plant Identification and Management | 42 | 30 | 12 | 3628 |
| 3639 | Environmental Practices | 48 | 48 | 0 | 3629 |
| 3640 | Hardscape Structures Installation and Maintenance | 48 | 12 | 36 | 3630 |
| 3641 | Plant Health Care – Pest, Diseases & Invasive Species Management | 30 | 24 | 6 | 3631 |
| 3642 | Interior Landscape Installation and Maintenance | 24 | 18 | 6 | 3636 |
| 3643 | Green Infrastructure Installation and Maintenance | 48 | 42 | 6 | 3628 |
| 3644 | Mentoring and Training Techniques | 24 | 18 | 6 | 3632 |
| | Total | 360 | 246 | 114 | |

Safety, communication, grading and drainage in pre-construction activities are concepts that are reinforced throughout all subjects.

| Horticu | Itural Technician Curriculum-Level One | | |
|---------|--|--------------------------------------|---|
| Number | Reportable Subjects | | |
| 3625 | Trade Practices -Safety, Tools and Equipment | | |
| 3626 | Work and Project Organization | | |
| 3627 | Communication Skills | | |
| 3628 | Horticultural Principles | | |
| 3629 | Environmental Principles-Soil, Water, Environmental Stewardship | | |
| 3630 | Pre-Construction Activities | | |
| 3631 | Hardscape Installation and Maintenance | | |
| 3632 | Softscape Installation and Maintenance-Turf | | |
| 3633 | Softscape Installation and Maintenance | | |
| 3634 | First Aid-CPR | | |
| Horticu | Itural Technician- Level Two | | |
| | Reportable Subjects | | Prerequisite |
| 3635 | Site Preparation and Protection | 3626 | Work and Project Organization |
| 3636 | Project Preparation | 3626 | Work and Project Organization |
| 3637 | Marketing and Sales | 3627 | Communication Skills |
| 3638 | Plant Identification and Management | 3628 | Horticultural Principles |
| 3639 | Environmental Practices | 3629 | Environmental Principles-Soil, Water, Environmental Stewardship |
| 3640 | Hardscape Structures Installation and Maintenance | 3630 3631 3636 | Pre-Construction Activities Hardscape Installation and Maintenance Project Preparation |
| 3641 | Plant Health Care –Pest, Diseases & Invasive Species Management | 3628 | Horticultural Principles |
| 3642 | Interior Landscape Installation and Maintenance | 3632 3633 | Softscape Installation and Maintenance-Turf Softscape Installation and Maintenance |
| 3643 | Green Infrastructure Installation and Maintenance | 3629 3630 3631 3633 3633 | Environmental Principles Pre-Construction Activities Hardscape Installation and Maintenance Softscape Installation and Maintenance |
| 3644 | Mentoring and Training Techniques | 3627 | Project Preparation Communication Skills |
| 3044 | Mentoring and Training Techniques | 3027 | |

Training Standard Skill Sets Mapped to Reportable Subjects

| Training Standard | Curriculum Standard Banartable | | |
|---|--|--|--|
| Training Standard | Curriculum Standard Reportable | | |
| Skill Sets | Subjects | | |
| 9290 Perform Safety-Related Functions | 3625 Trade Practices -Safety, Tools and | | |
| | | | |
| | 3634 First Aid-CPR | | |
| 9291 Use Tools, Equipment and Vehicles | 3625 Trade Practices -Safety, Tools and | | |
| | Equipment | | |
| 9292 Organize Work | 3626 Work and Project Organization | | |
| | 3636 Project Preparation | | |
| 9293 Participate in Marketing and Sales | 3637 Marketing and Sales | | |
| 9294 Communication and Mentoring | 3627 Communication Skills | | |
| Techniques | 3644 Mentoring and Training Techniques | | |
| 9295 Manage Plant Health and Growing | 3628 Horticultural Principles | | |
| Conditions | 3638 Plant Identification and Management | | |
| 9296 Manage Pests, Diseases and Invasive | 3641 Plant Health Care –Pest, Diseases & | | |
| Species | Invasive Species Management | | |
| 9297 Apply Environmental Practices | 3629 Environmental Principles-Soil, | | |
| | Water, Environmental stewardship | | |
| | 3639 Environmental Practices | | |
| 9298 Perform Pre-Construction Activities | 3630 Pre-Construction Activities | | |
| | 3635 Site Preparation and Protection | | |
| | 3636 Project Preparation | | |
| 9299 Install Hardscapes | 3631 Hardscape Installation and | | |
| | Maintenance | | |
| 9300 Install Irrigation Systems and Water | 3640 Hardscape Structures Installation | | |
| Features | and Maintenance | | |
| 9301 Install Softscapes | 3632 Softscape Installation and | | |
| | Maintenance-Turf | | |
| | 3633 Softscape Installation and | | |
| | Maintenance | | |
| | 3642 Interior Hardscape Installation and | | |
| | Maintenance | | |
| 9302 Install Green Infrastructure Systems | 3643 Green Infrastructure Installation and | | |
| | Maintenance | | |
| 9303 Maintain Hardscapes | 3640 Hardscape Structures Installation | | |
| | and Maintenance | | |
| 9304 Maintain Softscapes | 3633 Softscape Installation and | | |
| | Maintenance | | |
| | 3643 Green Infrastructure Installation and | | |
| 9305 Maintain Green Infrastructure | 3043 Green millastructure installation and | | |

| Skill | Training Standard Skill Competencies | Corresponding Section in the Curriculum |
|---------|--|--|
| 9290.01 | Comply with federal and provincial legislation and regulations and municipal by- laws | 3625 Trade Practices -Safety, Tools and Equipment (3625.01) |
| 9290.02 | Use personal protective equipment (PPE) | 3625 Trade Practices -Safety, Tools and Equipment (3625.02) |
| 9290.03 | Maintain safe work environment | 3625 Trade Practices -Safety, Tools and Equipment (3625.02, 3625.04) |
| 9290.04 | Handle hazardous job materials | 3632.04, 3633.01, 3633.05. 3641.11 |
| 9290.05 | Control pedestrian and vehicular traffic | 3625 Trade Practices -Safety, Tools and Equipment (3625.02) |
| 9290.06 | Transport tools, equipment and materials | 3625 Trade Practices -Safety, Tools and Equipment (3625.02) |
| 9290.07 | Mount and dismount equipment safely | 3625 Trade Practices -Safety, Tools and Equipment (3625.07) |
| 9290.08 | Work safely around operating equipment | 3625 Trade Practices -Safety, Tools and Equipment (3625.02, 3635.07) |
| 9290.09 | Respond to job-site emergencies | 3625 Trade Practices -Safety, Tools and Equipment (3625.03) |
| 9291.01 | Use hand tools and equipment | 3625 Trade Practices -Safety, Tools and Equipment (3625.05) |
| 9291.02 | Use power tools and equipment | 3625 Trade Practices -Safety, Tools and Equipment (3625.06) |
| 9291.03 | Use measuring equipment | 3630 Pre-construction Activities (3630.01, 3630.02) |
| 9291.04 | Maintain tools and equipment | 3625 Trade Practices -Safety, Tools and Equipment (3625.05, 3625.06) |
| 9291.05 | Use vehicles, motorized equipment, trailers and attachments | 3625 Trade Practices -Safety, Tools and Equipment (3635.07) |
| 9291.06 | Maintain vehicles, motorized equipment, trailers and attachments | 3625 Trade Practices -Safety, Tools and Equipment (3635.07) |
| 9292.01 | Perform site assessments | 3630 Pre-construction Activities (3630.04) 3626 Work and Project Organization (3626.02) |

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|---------|--|--|
| 9292.02 | Use documentation | 3625 Trade Practices -Safety, Tools and Equipment (3625.08) |
| | | 3626 Work and Project Organization (3626.01 3626.03, 3626.04) |
| | | 3630 Pre-Construction Activities |
| | | (3630.04, 3630.05) |
| | | 3636 Project Preparation (3636.01, 3636.03, 3636.04) |
| | | 3633 Softscape Installation and Maintenance (3633.01, 3633.03, |
| | | 3633.08) |
| | | 3635 Site Preparation and Protection (3635.01) |
| | | 3636 Project Preparation (3636.01, |
| | | 3636.02, 3636.03, 3636.04, 3636.05) |
| | | 3637 Marketing and Sales (3637.01 3637.03) |
| | | 3638 Plant Identification and |
| | | Management (3638.05) |
| | | 3640 Hardscape Structures Installation |
| | | and Maintenance (3640.02, |
| | | 3640.06, 3640.08) |
| | | 3641 Plant Health Care (3641.08) 3642 Interior Landscape Installation and |
| | | Maintenance (3642.04, 3642.05, |
| | | 3642.06) |
| 9292.03 | Maintain records | 3625 Trade Practices -Safety, Tools and |
| | | Equipment (3625.08) |
| | | 3626 Work and Project Organization |
| | | (3626.01) |
| | | 3636 Project Preparation (3636.03) |
| | | 3637 Marketing and Sales (3637.01, 3637.05) |
| | | 3641 Plant Health Care (3641.08) |
| 9292.04 | Participate in job planning | 3630 Pre-Construction Activities |
| | activities | (3630.09) 3636 Project |
| | | Preparation (3636.04) |
| 9292.05 | Order materials | Marketing and Sales (3637.01) |
| 9292.06 | Monitor inventory | Marketing and Sales (3637.01) |
| 9292.07 | Organize materials, plants and equipment | 3626 Work and Project Organization (3626.03) |
| 9292.08 | Solve problems | 3627 Communication Skills (3627.03, 3627.04) |
| 9292.09 | Transport materials | 3626 Work and Project Organization (3626.04) |

| 9292.10 | Transport equipment | 3626 Work and Project Organization (3626.04) |
|---------|---|---|
| 9293.01 | Sell products and services | 3637 Marketing and Sales (3637.02, 3637.04) |
| 9293.02 | Maintain customer relations | 3637 Marketing and Sales (3637.02, 3637.05) |
| 9293.03 | Prepare estimates | 3637 Marketing and Sales (3637.03) |
| 9294.01 | Write job documents | 3627 Communication Skills (3627.06, 3627.07) |
| 9294.02 | Practice communication methods to support comprehension | 3627 Communication Skills 3644 Mentoring and Training Techniques (3644.01) |
| 9294.03 | Coach and mentor apprentice or colleague | 3644 Mentoring and Training Techniques (3644.03) |
| 9294.04 | Demonstrate leadership | 3644 Mentoring and Training Techniques (3644.02) |
| 9294.05 | Participate in continuous learning | 3644 Mentoring and Training Techniques (3644.04) |
| 9295.01 | Identify plants and plant requirements | 3628 Horticultural Principles-Plant Science (3628.01, 3628.02, 3628.03. 3628.04, 3628.09) 3642 Interior Landscape Installation and Maintenance (3642.01. 3642.02, 3642.03) |
| 9295.02 | Assess the health and vigor of plants | 3628 Horticultural Principles-Plant Science (3628.04, 3628.05, 3628.06) |
| | | 3633 Softscape Installation and Maintenance (3633.07) |
| | | 3641 Plant Health Care (3641.01)3642 Interior Landscape Installation and Maintenance (3642.06) |
| 9295.03 | Assess plant location for suitability | 3628 Horticultural Principles-Plant Science |
| | | 3633 Softscape Installation and Maintenance (3633.01) |
| | | 3642 Interior Landscape Installation and Maintenance (3642.02) |
| 9295.04 | Implement corrective measures | 3633 Softscape Installation and Maintenance (3633.07) |
| | | 3641 Plant Health Care –Pest, Diseases & Invasive Species Management (3641.02) |
| | | 3642 Interior Landscape Installation and Maintenance (3642.06) |

| r | 1 | 1 | |
|---------|----------------------------------|------|---|
| 9295.05 | Establish pruning objectives | 3628 | Horticultural Principles-Plant Science (3628.10) |
| | | 3633 | · · · · · · · · · · · · · · · · · · · |
| | | | Maintenance (3633.05) |
| 9295.06 | Prune plant material | 3628 | Horticultural Principles-Plant |
| 0200.00 | | 0020 | Science (3628.10) |
| | | 3633 | Softscape Installation and |
| | | 0000 | Maintenance (3633.05) |
| 9295.07 | Propagate Plants | 3628 | Horticultural Principles-Plant |
| 9293.07 | Flopagate Flattis | 3020 | Science (3628.11) |
| 9295.08 | Maintaining propagation | 3628 | |
| 9295.00 | Maintaining propagation | 3020 | Horticultural Principles-Plant |
| 0005.00 | environment | 2020 | Science (3628.11) |
| 9295.09 | Condition plants for growing-on | 3628 | Horticultural Principles-Plant |
| | | 0000 | Science (3628.11) |
| | | 3633 | Softscape Installation and |
| | | | Maintenance (3633.01, 3633.02, |
| | | | 3633.03, 3633.06) |
| 9296.01 | Identify pests, beneficial | 3641 | Plant Health Care (3641.03 |
| | insects, diseases and invasive | | 3641.04, 3641.05) |
| | species | | |
| 9296.02 | Determine course of action for | 3641 | Plant Health Care (3641.05, |
| | managing pests, diseases and | | 3641.06, 3641.07, 3641.08) |
| | invasive species | | |
| 9296.03 | Implement prevention | 3641 | Plant Health Care (3641.01 |
| | strategies | | 3641.06, 3641.07) |
| 9296.04 | Apply treatment | 3641 | Plant Health Care (3641.05 |
| | | | 3641.08, 3641.09) |
| 0000 05 | | 0044 | Diant Lia alth Cana (2011.07) |
| 9296.05 | Monitor and document results | 3641 | Plant Health Care (3641.07) |
| | Dispose of pest infected and | 3641 | Plant Health Care (3641.04 |
| 9296.06 | disease-ridden plant material | | 3641.09) |
| | and invasive species | | , |
| 9296.07 | Maintain tools and equipment | 3641 | Plant Health Care (3641.02,3641.09 |
| 9297.01 | Use sustainable horticultural | | Environmental Practices (3639.03) |
| | and landscaping materials | | |
| 9297.02 | Use sustainable materials and | 3639 | Environmental Practices (3639.03) |
| 0207.02 | elements | 0000 | |
| 9297.03 | Select and maintain tools and | 3625 | Trade Practices -Safety, Tools and |
| 0201.00 | equipment minimize negative | 0020 | Equipment (3625.05) |
| | impact on environment and | | |
| | ecosystem | | |
| 9297.04 | | 3639 | Environmental Practices |
| 5291.04 | Use practices to integrate on- | 2028 | |
| 0207.05 | site elements | 2020 | (3639.01, 3639.02, 3639.03) |
| 9297.05 | Select plants such as natives | 3639 | Environmental Practices (3639.03) |
| | and edibles to create habitats, | | |
| | including wetlands, that support | | |
| | a diverse range of species | | |

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|----------|--------------------------------|--------|-------------------------------------|
| 9297.06 | Identify soil quality and | 3628 | |
| | condition | | Science (3628.07) |
| | | 3629 | Environmental Principles |
| | | | (3629.01, 3629.02, 3629.03) |
| | | 3630 | Pre-Construction Activities |
| | | | (3630.06) |
| | | | Environmental Practices (3639.04) |
| 9297.07 | Implement a soil stewardship | 3639 | Environmental Practices |
| | plan | | (3639.04) |
| 9297.08 | Identify water quality | 3642 | Interior Landscape Installation and |
| | | | Maintenance (3642.05) |
| 9298.01 | Participate in elementary | 3636.0 | 02 Interpret landscape drawings and |
| | landscape design activities | | design intent |
| | | | Describe basic landscape |
| | | | horticultural design principles |
| 9298.02 | Interpret landscape drawings | 3636 | Project Preparation |
| | | | (3636.02)Interpret landscape |
| | | | drawing and design intent |
| | | | |
| 9298.03 | Prepare construction site | 3630 | Pre-Construction Activities |
| | | | (3630.09) |
| 9298.04 | Perform grading | 3630 | Pre-Construction Activities |
| | 6 6 | | (3630.05) |
| 9298.05 | Install drainage systems | 3630 | Pre-Construction Activities |
| | 3 , | | (3630.07) |
| 9299.01 | Install landscape structures | 3640 | Hardscape Structures Installation |
| | ' | | and Maintenance (3640.01, |
| | | | 3640.02) |
| 9299.02 | Install base materials | 3631 | Hardscape Installation and |
| | | | Maintenance (3631.02) |
| 9299.03 | Install surface materials | 3631 | Hardscape Installation and |
| | | | Maintenance (3631.02) |
| 9299.04 | Finishing surface materials | 3631 | |
| | | | Maintenance (3631.02) |
| 9299.05 | Install base for steps and | 3631 | Hardscape Installation and |
| | retaining walls | | Maintenance (3631.02) |
| 9299.06 | Assemble steps and retaining | 3631 | Hardscape Installation and |
| | wall components | | Maintenance (3631.02) |
| 9299.07 | Complete installation of steps | 3631 | Hardscape Installation and |
| | and retaining walls by | | Maintenance (3631.02) |
| 9300.01 | Install irrigation systems | 3640 | |
| | | | and Maintenance (3640.04) |
| 9300.02 | Install water feature | 3640 | Hardscape Structures Installation |
| | infrastructure | | and Maintenance (3640.07) |
| 9300.03 | Install live and decorative | 3640 | y t |
| 0000.00 | components in water features | | and Maintenance (3640.07) |
| 9300.04 | Install low voltage landscape | 3640 | Hardscape Structures Installation |
| 3300.04 | J | 3040 | and Maintenance (3640.06) |
| | lighting | | and Maintenance (3040.00) |

| 9301.01 | Install growing media | 3633 Softscape Installation and |
|---------|-----------------------------------|--|
| | | Maintenance (3633.02) |
| 9301.02 | Install exterior landscape plants | 3633 Softscape Installation and Maintenance (3633.01) |
| 9301.03 | Transplant plants | 3633 Softscape Installation and |
| | | Maintenance (3633.06) |
| 9301.04 | Install mulch | 3633 Softscape Installation and |
| | | Maintenance (3633.03) |
| 9301.05 | Install sod | 3632 Softscape Installation and |
| | | Maintenance-Turf (3632.03, |
| | | 3632.04) |
| 9301.06 | Install interior landscape plants | 3642 Interior Landscape Installation and |
| | | Maintenance (3642.01- 3642.05) |
| 9302.01 | Select green infrastructure | 3643 Green Infrastructure Installation |
| | technologies, methods and | and Maintenance (3643.03) |
| | products | |
| 9302.02 | Install green roofs, walls and | 3643 Green Infrastructure Installation |
| | components | and Maintenance (3643.04) |
| 9302.03 | Install stormwater management | 3643 Green Infrastructure Installation |
| | systems | and Maintenance (3643.07) |
| 9302.04 | Install erosion control | 3643 Green Infrastructure Installation |
| | | and Maintenance (3643.02) |
| 9302.05 | Install biodiverse plantings and | 3639 Environmental Practices |
| | natural areas | (3639.02,3639.03) |
| 9303.01 | Maintain drainage systems | 3640 Hardscape Structures Installation |
| | | and Maintenance (3640.05) |
| 9303.02 | Maintain landscape structures | 3640 Hardscape Structures Installation |
| | and features | and Maintenance (3640.03) |
| 9303.03 | Maintain surface materials | 3640 Hardscape Structures Installation |
| 9303.03 | | and Maintenance (3640.02) |
| 9303.04 | Maintain steps and retaining | 3631 Hardscape Installation and |
| 3303.04 | walls | Maintenance (3631.03) |
| 9303.05 | Maintain irrigation systems | 3640 Hardscape Structures Installation |
| 3000.00 | Maintain inigation systems | and Maintenance (3640.05) |
| 9303.06 | Maintain water features | 3640 Hardscape Structures Installation |
| 9303.00 | | and Maintenance (3640.08) |
| 9303.07 | Maintain landscape lighting | 3640 Hardscape Structures Installation |
| 9000.07 | | and Maintenance |
| | | 3640 Hardscape Structures Installation |
| 9303.08 | Perform snow and ice control | and Maintenance |
| 9303.09 | Repair hardscapes | 3640 Hardscape Structures Installation |
| 0000.00 | | and Maintenance (3640.03) |
| 9304.01 | Maintain exterior softscape | 3633 Softscape Installation and |
| 0004.01 | Maintain exterior soltsdape | Maintenance (3633.04) |
| 9304.02 | Maintain interior softscapes | 3642 Interior Landscape Installation and |
| 0007.02 | | Maintenance (3642.06) |
| | | |

| 9304.03 | Maintain turfgrass | 3632 | Softscape Installation and Maintenance-Turf |
|---------|---|--------------|---|
| 9304.04 | Repair softscapes | 3632 | Softscape Installation and Maintenance-Turf (3632.07) |
| 9305.01 | Maintain green roofs and walls and components | 3643 | Green Infrastructure Installation and Maintenance (3643.04, 3643.05) |
| 9305.02 | Maintain stormwater management systems | 3643 | Green Infrastructure Installation and Maintenance (3643.07) |
| 9305.03 | Maintain erosion control | 3629 3639 | Environmental Principles (3629.03) Environmental Practices (3639.02) |
| | | 3643 | Green Infrastructure Installation and Maintenance (3643.02) |
| 9305.04 | Maintain biodiverse plantings and natural areas | 3639 | (3639.01, 3639.03) |
| | | 3643 | Green Infrastructure Installation and Maintenance (3643.08) |