



**Skilled
Trades**
Ontario

**Métiers
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Ontario

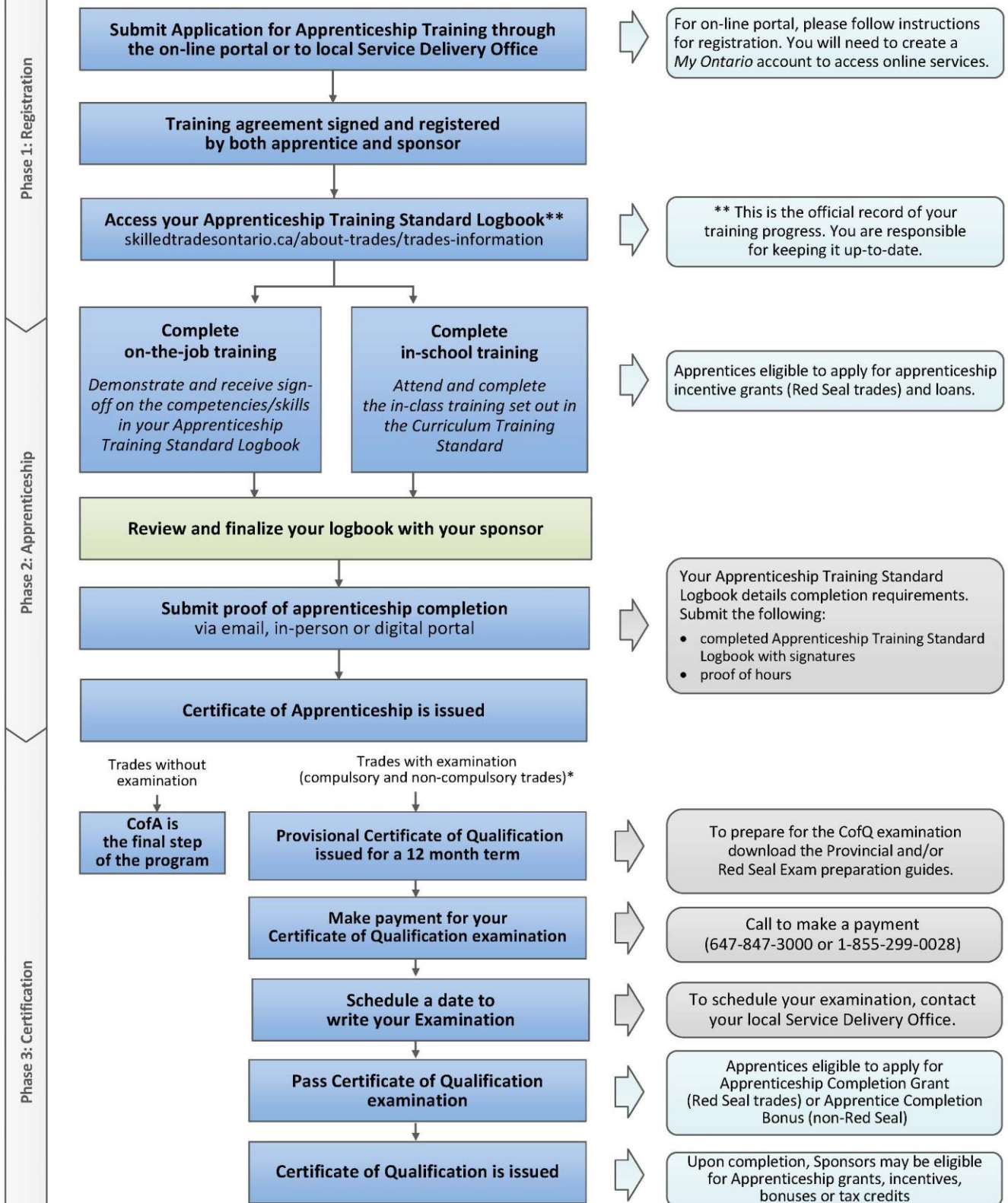
Horticultural Technician (441C)
Training and Curriculum Standard

Supplemental Resource Guide

Table of Contents

Pathway.....	4
Curriculum Standard Reportable Subjects — Program Summary	5
Training Standard Skill Sets Mapped to Reportable Subjects.....	7
Training Standard Skill Competencies and Corresponding Section in the Curriculum.....	8

Apprenticeship Pathway to a Certificate of Qualification



* For a list of trades subject to a certification examination, visit: skilledtradesontario.ca

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.

Horticultural 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		
Horticultural 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 3636	Environmental Principles Pre-Construction Activities Hardscape Installation and Maintenance Softscape Installation and Maintenance Project Preparation
3644	Mentoring and Training Techniques	3627	Communication Skills

Training Standard Skill Sets Mapped to Reportable Subjects

Training Standard Skill Sets	Curriculum Standard Reportable Subjects
9290 Perform Safety-Related Functions	3625 Trade Practices -Safety, Tools and Equipment 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 Techniques	3627 Communication Skills 3644 Mentoring and Training Techniques
9295 Manage Plant Health and Growing Conditions	3628 Horticultural Principles 3638 Plant Identification and Management
9296 Manage Pests, Diseases and Invasive Species	3641 Plant Health Care –Pest, Diseases & 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 Features	3640 Hardscape Structures Installation 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
9305 Maintain Green Infrastructure	3643 Green Infrastructure Installation and Maintenance

Training Standard Skill Competencies and Corresponding Section in the Curriculum

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)
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)

Training Standard Skill Competencies and Corresponding Section in the Curriculum

		<p>3633 Softscape Installation and Maintenance (3633.01, 3633.03, 3633.08)</p> <p>3635 Site Preparation and Protection (3635.01)</p> <p>3636 Project Preparation (3636.01, 3636.02, 3636.03, 3636.04, 3636.05)</p> <p>3637 Marketing and Sales (3637.01 3637.03)</p> <p>3638 Plant Identification and Management (3638.05)</p> <p>3640 Hardscape Structures Installation and Maintenance (3640.02, 3640.06, 3640.08)</p> <p>3641 Plant Health Care (3641.08)</p> <p>3642 Interior Landscape Installation and Maintenance (3642.04, 3642.05, 3642.06)</p>
9292.03	Maintain records	<p>3625 Trade Practices -Safety, Tools and Equipment (3625.08)</p> <p>3626 Work and Project Organization (3626.01)</p> <p>3636 Project Preparation (3636.03)</p> <p>3637 Marketing and Sales (3637.01, 3637.05)</p> <p>3641 Plant Health Care (3641.08)</p>
9292.04	Participate in job planning activities	<p>3630 Pre-Construction Activities (3630.09) 3636 Project Preparation (3636.04)</p>
9292.05	Order materials	<p>3637 Marketing and Sales (3637.01)</p>
9292.06	Monitor inventory	<p>3637 Marketing and Sales (3637.01)</p>
9292.07	Organize materials, plants and equipment	<p>3626 Work and Project Organization (3626.03)</p>
9292.08	Solve problems	<p>3627 Communication Skills (3627.03, 3627.04)</p>
9292.09	Transport materials	<p>3626 Work and Project Organization (3626.04)</p>
9292.10	Transport equipment	<p>3626 Work and Project Organization (3626.04)</p>
9293.01	Sell products and services	<p>3637 Marketing and Sales (3637.02, 3637.04)</p>
9293.02	Maintain customer relations	<p>3637 Marketing and Sales (3637.02, 3637.05)</p>

Training Standard Skill Competencies and Corresponding Section in the Curriculum

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)
9295.05	Establish pruning objectives	3628 Horticultural Principles-Plant Science (3628.10) 3633 Softscape Installation and Maintenance (3633.05)

Training Standard Skill Competencies and Corresponding Section in the Curriculum

9295.06	Prune plant material	3628 Horticultural Principles-Plant Science (3628.10) 3633 Softscape Installation and Maintenance (3633.05)
9295.07	Propagate Plants	3628 Horticultural Principles-Plant Science (3628.11)
9295.08	Maintaining propagation environment	3628 Horticultural Principles-Plant Science (3628.11)
9295.09	Condition plants for growing-on	3628 Horticultural Principles-Plant Science (3628.11) 3633 Softscape Installation and Maintenance (3633.01, 3633.02, 3633.03, 3633.06)
9296.01	Identify pests, beneficial insects, diseases and invasive species	3641 Plant Health Care (3641.03, 3641.04, 3641.05)
9296.02	Determine course of action for managing pests, diseases and invasive species	3641 Plant Health Care (3641.05, 3641.06, 3641.07, 3641.08)
9296.03	Implement prevention strategies	3641 Plant Health Care (3641.01, 3641.06, 3641.07)
9296.04	Apply treatment	3641 Plant Health Care (3641.05, 3641.08, 3641.09)
9296.05	Monitor and document results	3641 Plant Health Care (3641.07)
9296.06	Dispose of pest infected and disease-ridden plant material and invasive species	3641 Plant Health Care (3641.04, 3641.09)
9296.07	Maintain tools and equipment	3641 Plant Health Care (3641.02, 3641.09)
9297.01	Use sustainable horticultural and landscaping materials	3639 Environmental Practices (3639.03)
9297.02	Use sustainable materials and elements	3639 Environmental Practices (3639.03)
9297.03	Select and maintain tools and equipment minimize negative impact on environment and ecosystem	3625 Trade Practices -Safety, Tools and Equipment (3625.05)
9297.04	Use practices to integrate on-site elements	3639 Environmental Practices (3639.01, 3639.02, 3639.03)
9297.05	Select plants such as natives and edibles to create habitats, including wetlands, that support a diverse range of species	3639 Environmental Practices (3639.03)
9297.06	Identify soil quality and condition	3628 Horticultural Principles-Plant Science (3628.07)

Training Standard Skill Competencies and Corresponding Section in the Curriculum

		3629 Environmental Principles (3629.01, 3629.02, 3629.03) 3630 Pre-Construction Activities (3630.06) 3639 Environmental Practices (3639.04)
9297.07	Implement a soil stewardship plan	3639 Environmental Practices (3639.04)
9297.08	Identify water quality	3642 Interior Landscape Installation and Maintenance (3642.05)
9298.01	Participate in elementary landscape design activities	3636.02 Interpret landscape drawings and design intent <ul style="list-style-type: none"> 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 (3630.05)
9298.05	Install drainage systems	3630 Pre-Construction Activities (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 Hardscape Installation and Maintenance (3631.02)
9299.05	Install base for steps and retaining walls	3631 Hardscape Installation and Maintenance (3631.02)
9299.06	Assemble steps and retaining wall components	3631 Hardscape Installation and Maintenance (3631.02)
9299.07	Complete installation of steps and retaining walls by	3631 Hardscape Installation and Maintenance (3631.02)
9300.01	Install irrigation systems	3640 Hardscape Structures Installation and Maintenance (3640.04)
9300.02	Install water feature infrastructure	3640 Hardscape Structures Installation and Maintenance (3640.07)
9300.03	Install live and decorative components in water features	3640 Hardscape Structures Installation and Maintenance (3640.07)

Training Standard Skill Competencies and Corresponding Section in the Curriculum

9300.04	Install low voltage landscape lighting	3640	Hardscape Structures Installation and Maintenance (3640.06)
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 technologies, methods and products	3643	Green Infrastructure Installation and Maintenance (3643.03)
9302.02	Install green roofs, walls and components	3643	Green Infrastructure Installation and Maintenance (3643.04)
9302.03	Install stormwater management systems	3643	Green Infrastructure Installation and Maintenance (3643.07)
9302.04	Install erosion control	3643	Green Infrastructure Installation and Maintenance (3643.02)
9302.05	Install biodiverse plantings and natural areas	3639	Environmental Practices (3639.02,3639.03)
9303.01	Maintain drainage systems	3640	Hardscape Structures Installation and Maintenance (3640.05)
9303.02	Maintain landscape structures and features	3640	Hardscape Structures Installation and Maintenance (3640.03)
9303.03	Maintain surface materials	3640	Hardscape Structures Installation and Maintenance (3640.02)
9303.04	Maintain steps and retaining walls	3631	Hardscape Installation and Maintenance (3631.03)
9303.05	Maintain irrigation systems	3640	Hardscape Structures Installation and Maintenance (3640.05)
9303.06	Maintain water features	3640	Hardscape Structures Installation and Maintenance (3640.08)
9303.07	Maintain landscape lighting	3640	Hardscape Structures Installation and Maintenance
9303.08	Perform snow and ice control	3640	Hardscape Structures Installation and Maintenance
9303.09	Repair hardscapes	3640	Hardscape Structures Installation and Maintenance (3640.03)

Training Standard Skill Competencies and Corresponding Section in the Curriculum

9304.01	Maintain exterior softscape	3633 Softscape Installation and Maintenance (3633.04)
9304.02	Maintain interior softscapes	3642 Interior Landscape Installation and 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 Environmental Principles (3629.03) 3639 Environmental Practices (3639.02) 3643 Green Infrastructure Installation and Maintenance (3643.02)
9305.04	Maintain biodiverse plantings and natural areas	3639 Environmental Practices (3639.01, 3639.03) 3643 Green Infrastructure Installation and Maintenance (3643.08)