National Occupational Standards

Introduction to Streetscaping

Unit Code: ICE/CON/N0208

Version: 1.0

NSQF Level: 2

INTEGRATED COUNCIL FOR ENTREPRENEURSHIP AND SKILLING || 533-R
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Description

The Standalone NOS Introduction to Streetscaping defines planning and basic execution of road streetscaping activities that aimed at improving traffic safety, pedestrian movement and environmental sustainability along road corridors. The role involves identifying and reporting road classification elements, traffic patterns, signage/signal requirements, roadside infrastructure and plantation arrangements under the supervision of a site engineer or supervisor. The candidate also participates in basic maintenance and safety-related activities during streetscaping works.

Scope

The scope covers the following :

- Understand Road Streetscaping and its Purpose
- Analyze Traffic Volume for Road Classification
- Assess Speed, Signage and Signalization Factors
- Identify Roadside Infrastructure and Planting Requirements
- Apply Road streetscaping for Planning, Resource Allocation and rainwater harvesting
- Follow Safety Norms and Address Hazards and Maintenance Concerns

Elements and Performance Criteria

Understand Road Streetscaping and its Purpose

To be competent, the user/individual on the job must be able to:

PC1. define the term “Road Streetscaping” and its significance in traffic and infrastructure planning

PC2. identify key factors used to classify roads such as traffic volume, speed, signage and lighting

PC3. explain the role of streetscaping in optimizing traffic flow and ensuring road safety

PC4. differentiate structural and functional streetscaping methods

PC5. list and describe types of roads (e.g. expressways, arterials, collectors, local roads) with their general characteristics

PC6. understand the implications of road classification in urban and rural development planning

Analyze Traffic Volume for Road Classification

To be competent, the user/individual on the job must be able to:

PC7. define traffic volume and its significance in road performance and classification

PC8. categorize roads by high, medium or low traffic volumes using observational or collected data

PC9. explain how varying traffic loads influence pavement wear, design requirements and maintenance cycles

PC10. distinguish between arterials, collectors and local roads based on traffic intensity

PC11. interpret traffic survey findings and recommend appropriate classification adjustments

Assess Speed, Signage and Signalization Factors

To be competent, the user/individual on the job must be able to:

PC12. identify typical speed limits for different road types such as highways, expressways and residential streets

PC13. explain the relationship between speed regulations and road safety

PC14. recognize and report damaged or missing speed limit signs and traffic signals

PC15. differentiate between regulatory, warning and informational signage and their roles in streetscaping

PC16. describe how traffic lights contribute to road classification and signal patterns affect flow

PC17. support in setting up temporary traffic control measures during maintenance or emergencies

Identify Roadside Infrastructure and Planting Requirements

To be competent, the user/individual on the job must be able to:

PC18. explain the importance of street lighting and lane markings in enhancing visibility and safety, especially at night

PC19. recognize areas needing enhanced features such as reflectors, zebra crossings or pedestrian paths

PC20. participate in the maintenance and reporting of damaged or missing infrastructure (signs, lights, markings)

PC21. understand how plant selection (based on root structure, growth pattern and maintenance needs) impacts safety, visibility and ecological sustainability along roadsides

PC22. match appropriate infrastructure features and vegetation types to road categories

Apply Road Streetscaping for Planning, Resource Allocation and Rainwater Harvesting

To be competent, the user/individual on the job must be able to:

PC23. describe how well-structured road classification supports effective traffic control, strategic planning and integration of rainwater harvesting systems

PC24. explain the economic benefits of streetscaping in terms of reduced congestion, cost-efficient design, timely maintenance and long-term savings from rainwater harvesting and flood prevention

PC25. identify how clearly categorized roads improve resource distribution, repair prioritization and selection of suitable sites for rainwater harvesting structures

PC26. participate in updating road inventories based on observed usage, changing conditions and evolving stormwater flow patterns for rainwater harvesting

PC27. communicate streetscaping data, including traffic management and rainwater harvesting potential, clearly to team members and supervisors for operational planning

Follow Safety Norms and Address Hazards and Maintenance Concerns

To be competent, the user/individual on the job must be able to:

PC28. recognize hazards during road maintenance activities such as handling fertilizers, pesticides or chemical agents used in plantation or landscaping

PC29. understand personal protective equipment (PPE) requirements while managing chemical applications near roads

PC30. identify safety risks related to poor road lighting, worn signage and traffic congestion

PC31. report maintenance needs proactively and assist in safe execution of minor repair or upkeep tasks

PC32. adhere to environmental safety norms when selecting plant types for slopes, medians or roundabouts to prevent soil erosion and preserve air quality

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. understand the concept and purpose of road streetscaping and its role in safe and efficient transport

KU2. know the factors used in classifying roads including traffic volume speed limits signage lighting and markings

KU3. understand different road categories such as expressways highways arterial roads and local streets

KU4. identify how traffic volume and speed limits influence safety traffic flow and maintenance needs

KU5. know the importance and placement of road signs signals and pavement markings for vehicle and pedestrian movement

KU6. recognize the need for street lighting and additional features like cycle lanes and pedestrian crossings to enhance safety

KU7. understand how streetscaping supports efficient resource allocation for repair and maintenance

KU8. know the relationship between road design classification and road user behavior including congestion reduction

KU9. be familiar with methods for recording inspecting and reporting road conditions and defective elements

KU10. understand the significance of updating road classifications based on changing traffic patterns and environmental factors

KU11. recognize temporary traffic control measures used during maintenance activities

KU12. know the tools and safety equipment required for road inspections and minor repairs

KU13. be aware of local and national standards for road design speed limits signage and lighting

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read and comprehend simple instructions, signage standards and traffic control guidelines

GS2. communicate clearly with team members regarding road conditions and observations

GS3. fill out basic forms or checklists related to road inspections and maintenance needs

GS4. record measurements, observations and traffic volume counts accurately

GS5. interpret basic road maps, traffic surveys and maintenance schedules

GS6. use simple tools and equipment safely for field inspections and repairs

GS7. follow verbal instructions from supervisors regarding road classification and maintenance activities

GS8. plan daily tasks effectively to inspect or report multiple road features

GS9. prioritize urgent maintenance needs based on safety risk assessments

GS10. identify problems such as missing signs or faulty lights and escalate appropriately

GS11. maintain attention to detail while observing road conditions and features
GS12. work collaboratively with others during road surveys and maintenance operations
GS13. follow health, safety and environmental guidelines during outdoor and roadside activities

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Understand Road Streetscaping and its Purpose	5	10	-	1
PC1. define the term "Road Streetscaping" and its significance in traffic and infrastructure planning	-	-	-	-
PC2. identify key factors used to classify roads such as traffic volume, speed, signage and lighting	-	-	-	-
PC3. explain the role of streetscaping in optimizing traffic flow and ensuring road safety	-	-	-	-
PC4. differentiate structural and functional streetscaping methods	-	-	-	-
PC5. list and describe types of roads (e.g. expressways, arterials, collectors, local roads) with their general characteristics	-	-	-	-
PC6. understand the implications of road classification in urban and rural development planning	-	-	-	-
Analyze Traffic Volume for Road Classification	5	10	-	1
PC7. define traffic volume and its significance in road performance and classification	-	-	-	-
PC8. categorize roads by high, medium or low traffic volumes using observational or collected data	-	-	-	-
PC9. explain how varying traffic loads influence pavement wear, design requirements and maintenance cycles	-	-	-	-
PC10. distinguish between arterials, collectors and local roads based on traffic intensity	-	-	-	-
PC11. interpret traffic survey findings and recommend appropriate classification adjustments	-	-	-	-
Assess Speed, Signage and Signalization Factors	5	10	-	2

PC12. identify typical speed limits for different road types such as highways, expressways and residential streets	-	-	-	-
PC13. explain the relationship between speed regulations and road safety	-	-	-	-
PC14. recognize and report damaged or missing speed limit signs and traffic signals	-	-	-	-
PC15. differentiate between regulatory, warning and informational signage and their roles in streetscaping	-	-	-	-
PC16. describe how traffic lights contribute to road classification and signal patterns affect flow	-	-	-	-
PC17. support in setting up temporary traffic control measures during maintenance or emergencies	-	-	-	-
Identify Roadside Infrastructure and Planting Requirements	**5**	**10**	**-**	**2**
PC18. explain the importance of street lighting and lane markings in enhancing visibility and safety, especially at night	-	-	-	-
PC19. recognize areas needing enhanced features such as reflectors, zebra crossings or pedestrian paths	-	-	-	-
PC20. participate in the maintenance and reporting of damaged or missing infrastructure (signs, lights, markings)	-	-	-	-
PC21. understand how plant selection (based on root structure, growth pattern and maintenance needs) impacts safety, visibility and ecological sustainability along roadsides	-	-	-	-
PC22. match appropriate infrastructure features and vegetation types to road categories	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Apply Road Streetscaping for Planning, Resource Allocation and Rainwater Harvesting	5	10	-	2
PC23. describe how well-structured road classification supports effective traffic control, strategic planning and integration of rainwater harvesting systems	-	-	-	-
PC24. explain the economic benefits of streetscaping in terms of reduced congestion, cost-efficient design, timely maintenance and long-term savings from rainwater harvesting and flood prevention	-	-	-	-
PC25. identify how clearly categorized roads improve resource distribution, repair prioritization and selection of suitable sites for rainwater harvesting structures	-	-	-	-
PC26. participate in updating road inventories based on observed usage, changing conditions and evolving stormwater flow patterns for rainwater harvesting	-	-	-	-
PC27. communicate streetscaping data, including traffic management and rainwater harvesting potential, clearly to team members and supervisors for operational planning	-	-	-	-
Follow Safety Norms and Address Hazards and Maintenance Concerns	5	10	-	2
PC28. recognize hazards during road maintenance activities such as handling fertilizers, pesticides or chemical agents used in plantation or landscaping	-	-	-	-
PC29. understand personal protective equipment (PPE) requirements while managing chemical applications near roads	-	-	-	-
PC30. identify safety risks related to poor road lighting, worn signage and traffic congestion	-	-	-	-
PC31. report maintenance needs proactively and assist in safe execution of minor repair or upkeep tasks	-	-	-	-

PC32. adhere to environmental safety norms when selecting plant types for slopes, medians or roundabouts to prevent soil erosion and preserve air quality	-	-	-	-
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	ICE/CON/N0208
NOS Name	Introduction to Streetscaping
Sector	Construction
Sub-Sector	Real Estate Infrastructure and Construction
Occupation	Ability to Read and Write
NSQF Level	2
Credits	4
Minimum Job Entry Age	18
Minimum Educational Qualification & Experience	5th grade pass
Version	1.0
Last Reviewed Date	07-10-2025
Next Review Date	07-10-2028
NSQC Clearance Date	07/10/2025
Reference code on NQR	NG-02-CO-046402025-V1-ICES
NQR Version	1.0
CCN Category	1