cooperative governance
Department:
Cooperative Governance
REPUBLIC OF SOUTH AFRICA

MUNICIPAL INFRASTRUCTURE SUPPORT AGENT (MISA)

MISA
MUNICIPAL INFRASTRUCTURE SUPPORT AGENT
Today, Creating a Better Tomorrow

CPD 2 credits (ECSA)

Getting Acquainted with Basic Stormwater Design

The Municipal Infrastructure Support Agent (MISA) in partnership with SAICE Professional Development & Projects (SAICE-PDP) invites you to attend this 2-day course which aims to explain the fundamentals of stormwater systems, with emphasis on designing stormwater collection systems in urban environments.

Attend this course and learn about:

- Policies, guidelines & community requirements to consider when designing stormwater systems and associated infrastructure
- The composition of complete stormwater systems, including the conveyance network, sustainable drainage systems and associated infrastructure
- The selection of appropriate stormwater management systems and the challenges associated with operations and maintenance
- The design of urban stormwater networks, including kerb inlet design, selection of pipes and the parameters to be considered when laying pipes

Benefits include:

- Participation in an interactive workshop
- Various practical activities to equip attendees to handle projects when back in the workplace
- A comprehensive course document that will serve as a reference manual
- 2 CPD credits (ECSA)

Presenter:

Andrew Brodie Pr Eng

COURSE SCHEDULE

Venue:
Dates:
Time:

REGISTRATION

To register, visit www.saicepdp.org
For more details contact Nompumelelo Nyaba:
Email nompumelelo@saicepdp.org /
Tel: 011 476 4100

WHO SHOULD ATTEND

The course helps municipal attendees to apply their theoretical training in practice.

It is therefore recommended for:

- Staff involved in the design of stormwater management and conveyance networks
- Staff involved in the planning, design, operations and maintenance of stormwater conveyance networks or about to become involved in the field
- Engineers, technologists and technicians
- Experienced staff in need of a refresher

COURSE OUTLINE

INTRODUCTION AND APPLICABLE LEGISLATION

- Introduction
- Objectives of Stormwater Management
- Overview of SA Legislation

PLANNING CONSIDERATIONS

- General Planning for Stormwater Systems
- Stormwater Management Plans
- The Dual Stormwater Drainage System
- Environmental Considerations in Stormwater Design

OVERVIEW OF SUSTAINABLE DRAINAGE SYSTEMS

- Rainwater Harvesting
- Permeable Pavements
- Soakaways
- Swales
- Infiltration Trenches
- Bio-Retention Areas
- Detention Ponds and Retention Ponds
- Constructed Wetlands
- Litter Traps

HYDROLOGY AND RUNOFF

- Risk Philosophy and Selection of Suitable Flood Return Period
- Flood Runoff Calculations

STORMWATER RETICULATION DESIGN

- Design Methodology Overview
- Survey Data for Design Area
- Soils / Ground Investigation
- Typical Urban Stormwater Reticulation Design Specifications
- Stormwater Reticulation Design Methodology
- Hydraulic Design
- Kerb Inlet Design
- Rigid Pipe Loading Calculations and Selection of Pipe Class

OPERATION AND MAINTENANCE ASPECTS

- Introduction to Stormwater Infrastructure Maintenance Aspects
- Fundamentals of Maintenance
- Typical Stormwater Infrastructure Maintenance Programme

WHAT TO BRING TO THE COURSE

- Scientific calculator
- Pencil and eraser
- Scale ruler

For online courses, it is recommended to have the following installed on your computer:

- MS Excel
- The Zoom app

ABOUT YOUR FACILITATOR

Andrew Brodie graduated with a National Higher Diploma in Civil Engineering in 1993 and a Bachelor of Science Degree in Civil Engineering in 1998. He has over 20 years of experience in design, project management and supervision of civil, structural and geotechnical projects.

Andrew has worked in both the municipal and private engineering sectors and has significant experience in the design and implementation of urban and rural engineering services. He is a registered Professional Engineer and a member of SAICE.

saice professional development & projects
A Non-Profit Company (NPC)

SAICE-PDP's Municipal Academy was established to support practitioners employed in local government with applying theoretical knowledge and relevant legislation in practice.

municipal academy
the road to service delivery

MISA
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MISA's mandate is to provide technical support and advice to municipalities, whilst strengthening their capacity, for effective infrastructure planning, delivery, operations and maintenance.