



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Wastewater Reticulation System Pipe Laying Training

Physical Planning and Construction / Civil Engineering Construction

Unit Standard 115904 · NQF Level 3 · 10 Credits · 7 Days

COURSE OVERVIEW

This course provides learners with the essential skills and knowledge to install wastewater reticulation systems safely and in compliance with industry standards. Participants will learn to interpret technical specifications, prepare trenches, lay pipes, and conduct pressure tests. The training ensures that pipe-laying operations are executed efficiently, minimising environmental impact and adhering to municipal by-laws.

Category	Physical Planning and Construction
Subfield	Civil Engineering Construction
Unit Standard	115904
Accreditation	SAQA Accredited · NQF Level 3 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Interpret engineering drawings and specifications for wastewater reticulation systems.
- Prepare trenches and bedding to required levels and gradients.
- Install pipes, fittings, and appurtenances according to manufacturer guidelines.
- Conduct jointing and testing procedures to ensure system integrity.
- Apply health, safety, and environmental regulations during pipe-laying operations.
- Complete work records and report deviations from specifications.

WHO SHOULD ATTEND

- This course is designed for construction workers, plumbing technicians, and site supervisors involved in sewer and stormwater pipe installation.
- It is also suitable for municipal infrastructure teams and contractors seeking formal accreditation.

COURSE OUTLINE

Day 1: Introduction to Wastewater Reticulation Systems and Safety

- Overview of wastewater reticulation systems
- Roles and responsibilities of a pipe layer
- Legal framework: OHS Act, SANS 1200, and municipal by-laws
- Hazard identification and risk assessment
- PPE requirements and emergency procedures
- Environmental considerations: spill prevention and erosion control

Day 2: Site Preparation and Surveying

- Reading construction drawings and symbols
- Setting out pipe routes using pegs and string lines
- Locating existing services (water, electricity, gas)
- Trench excavation methods and shoring requirements
- Dewatering techniques
- Traffic management and barricading

Day 3: Pipe Materials, Handling, and Storage

- Types of pipes: uPVC, HDPE, concrete, ductile iron
- Pipe dimensions, pressure ratings, and stiffness classes
- Safe lifting and manual handling techniques
- Storage requirements to prevent damage
- Jointing methods: rubber ring, solvent weld, electrofusion, flanged
- Quality checks and material rejection criteria

Day 4: Trench Preparation and Bedding

- Trench bottom preparation: trimming and compaction
- Bedding types: granular, sand, and concrete cradle
- Compaction methods and testing (Proctor density)
- Geotextile placement for soil separation
- Laser leveling and grade checking
- Inspection and approval of bedding before pipe laying

Day 5: Pipe Laying and Jointing Techniques

- Pipe laying sequence and alignment control
- Jointing uPVC pipes with rubber ring and solvent cement
- HDPE pipe butt fusion and electrofusion
- Concrete pipe jointing with mortar or rubber gaskets
- Installing bends, tees, and manhole connections
- Visual inspection and leak testing (low pressure air test)

Day 6: Ancillary Works and Special Installations

- Manhole construction: brickwork, precast, and in-situ
- Inspection chamber installation and benching
- Thrust blocks at bends and tees
- Pipe laying on steep gradients
- River crossings and trenchless techniques (basics)

- Backfilling in layers and compaction testing

Day 7: Testing, Commissioning, and Handover

- Hydrostatic pressure test procedure and acceptance criteria
- Air test for low-pressure systems
- CCTV inspection of pipe interior
- Defect identification and remedial actions
- As-built drawings and record keeping
- Disinfection and flushing (if applicable)
- Handover documentation and warranty

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **10 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 28,200.00	R 28,200.00
1	In-House	R 36,700.00	R 36,700.00
1	On-Campus (Pretoria)	R 42,300.00	R 42,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	17 Aug 2026	On-Campus	Dubai, UAE
10 Aug 2026	18 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	19 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	19 Aug 2026	On-Campus	Mauritius
12 Aug 2026	20 Aug 2026	On-Campus	Cape Town, South Africa
13 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
14 Aug 2026	24 Aug 2026	On-Campus	Pretoria, South Africa
17 Aug 2026	25 Aug 2026	On-Campus	Durban, South Africa

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 115904) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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