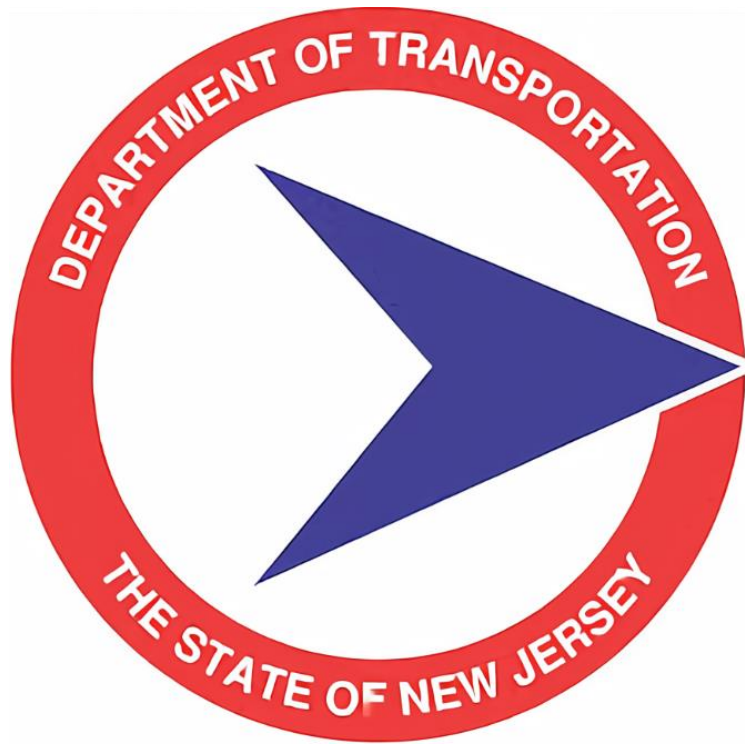


Feature Presentation

**Construction &
Maintenance Technician
Apprenticeship Training Program**

**Kelly Hutchinson,
NJDOT Assistant Commissioner**



Construction & Maintenance Technician Apprenticeship Training Program

Why an Apprenticeship?

Construction and Maintenance Technician

1. Former entry point to the title series required candidates to possess related experience
2. Title was Competitive = Candidates and appointees required to take and pass a Civil Service exam

- Lack of qualified job applicants
- Applicants selected did not always pass the Civil Service exam
 - Unable to achieve permanent status needed for advancement
 - Displaced by potentially less desirable candidates who passed the exam

Inefficient and disruptive way to do business! Unsustainable!

Why an Apprenticeship?.... Continued

- Inconsistent
 - ✓ Skill sets
 - ✓ Training
 - ✓ Use of NJDOT inspectors
- Increased need to augment staffing for inspection work



Change Needed

● Change Entry Level Requirements

- No experience
- No Civil Service exam

● Change Philosophy

- No longer expect candidates with experience
- Must “grow” our own inspectors

● Change Training Format

- Create a consistent training program
- Start with basics and build upon that base
- Measurable achievement factors
- Reasonable, but structured completion timeframe



Title Modification

Construction & Maintenance Technician **Apprentice**

New Requirements

- ✓ High school diploma
 - ✓ Geometry
 - ✓ Algebra 1 and 2

Experience no longer required

New Title Classification

- ✓ Non-Competitive
 - ✓ No Civil Service Exam

Permanent status and advancement after successfully completing the training period

Added Training Period

- ✓ Two-year apprenticeship
 - ✓ Requires satisfactory performance to advance to the primary (journeyman) title

Training period built into the title's official job specification

Training and Development

Structured and Consistent

- Employees clearly understand the training requirements and timelines
- Employees receive uniform training and better exposure to more diverse hands-on work
- Supervisors have a consistent method of training delivery and clear evaluation standards

Reasonable and Measurable Completion Requirements

- Covering a broad range of topics in a strategic way
- Including differing training methods
- Providing clear and measurable completion requirements

Resulting in More Broadly Knowledgeable Inspectors

- Providing more equitable advancement opportunities
- Providing better cross-training opportunities allowing for employee mobility
- Creating a more diverse knowledge base, increasing effectiveness and efficiency
- Reducing need to augment staffing for inspection work



What the Training Looks Like

SEGMENT 1

Independent study of NJDOT's Standard Specifications for Road and Bridge Construction manual

- ✓ Online, interactive and broken down into easily digestible segments
 - ✓ Regular knowledge checks
 - ✓ Quizzes at the end of each section – 80% pass rate requirement

SEGMENT 2

Completion of a select collection of online training modules designed and delivered by the Transportation Curriculum Coordination Council (TC3)

- ✓ Approximately 70 hours
- ✓ Addressing key construction and inspection topics including work site videos
- ✓ Regular knowledge checks



SEGMENT 3

Completion of select in-person and online Transportation Inspection Certification courses

- ✓ Improve internal Inspection Certification expectations
- ✓ 11 courses/certifications for all Apprentice personnel
- ✓ 3 additional courses/certifications for Apprentice personnel assigned to the Bureau of Materials
- ✓ Obtain and maintain the certifications

SEGMENT 4

Successful completion of field training exercises demonstrating field inspection competency

- ✓ Identified field inspection tasks
 - ✓ Assigned points to each task
 - ✓ Points determined by expected frequency of exposure to the task
- ✓ Developed questions and appropriate responses for each task
 - ✓ Apprentice expected to correctly answer questions selected by the task supervisor
 - ✓ If answered correctly, Apprentice is credited with task's assigned number of points
- ✓ Must achieve 80% of total possible task points to demonstrate full competency



What the Training Looks
Like....Continued

Implementation Plan



Date: Fall 2024

Target Group: All non-supervisory C&M Technicians

Completion Timeframe: 18 months

New Apprentice Appointees: Assigned upon hire
