

A CareerZone Occupational Brief for:

# First-Line Supervisors/Managers of Construction Trades and Extraction Workers

An occupation in Engineering and Technologies

New York State Department of Labor

David A. Paterson, Governor

## Job Description

Directly supervise and coordinate activities of construction or extraction workers.

## Interests

**Enterprising** - Enterprising occupations frequently involve starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.

## Tasks

1. Examine and inspect work progress, equipment, and construction sites to verify safety and to ensure that specifications are met.
2. Read specifications such as blueprints to determine construction requirements and to plan procedures.
3. Estimate material and worker requirements to complete jobs.
4. Supervise, coordinate, and schedule the activities of construction or extractive workers.
5. Confer with managerial and technical personnel, other departments, and contractors in order to resolve problems and to coordinate activities.
6. Coordinate work activities with other construction project activities.
7. Order or requisition materials and supplies.
8. Locate, measure, and mark site locations and placement of structures and equipment, using measuring and marking equipment.
9. Record information such as personnel, production, and operational data on specified forms and reports.
10. Assign work to employees, based on material and worker requirements of specific jobs.
11. Provide assistance to workers engaged in construction or extraction activities, using hand tools and equipment.

## Skills

**Time Management** - Managing one's own time and the time of others.

**Coordination** - Adjusting actions in relation to others' actions.

**Instructing** - Teaching others how to do something.

**Judgment and Decision Making** - Considering the relative costs and benefits of potential actions to choose the most appropriate one.

**Speaking** - Talking to others to convey information effectively.

**Active Listening** - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

**Equipment Selection** - Determining the kind of tools and equipment needed to do a job.

## Knowledge

**Building and Construction** - Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.

**Administration and Management** - Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**Customer and Personal Service** - Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

**Mechanical** - Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

**Public Safety and Security** - Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.

**Design** - Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

## Education

### Job Zone Three: Medium Preparation Needed

**Education:** Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

**Training:** Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

## School Programs

**Mason/Masonry.** - A program that prepares individuals to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, hard tile, marble and related materials, using trowels, levels, hammers, chisels, and other hand tools. Includes instruction in technical mathematics, blueprint reading, structural masonry, decorative masonry, foundations, reinforcement, mortar preparation, cutting and finishing, and applicable codes and standards.

**Carpentry/Carpenter.** - A program that prepares individuals to apply technical knowledge and skills to lay out, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. Includes instruction in technical mathematics, framing, construction materials and selection, job estimating, blueprint reading, foundations and roughing-in, finish carpentry techniques, and applicable codes and standards.

**Electrical and Power Transmission Installation/Installer, General.** - A program that generally prepares individuals to apply technical knowledge and skills to install indoor and outdoor residential, commercial, and industrial electrical systems, and associated power transmission lines. Includes instruction in electricity, safety procedures, wiring, insulation and grounding, schematic blueprint interpretation, equipment operation and maintenance, and applicable codes and standards.

**Electrician.** - A program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and DC and AC motors, controls, and electrical distribution panels. Includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.

**Lineworker.** - A program that prepares individuals to apply technical knowledge and skills to install, operate, maintain and repair local, long-distance, and rural electric power cables and communication lines; erect and construct pole and tower lines; and install underground lines and cables. Includes instruction in cable installation and repair, fibre-optic technology, trenching, mobile equipment and crane operation, high-voltage installations, maintenance and inspection, safety, remote communications, and applicable codes and standards.

**Electrical and Power Transmission Installers, Other.** - Any instructional program in electrical and power transmission installation not listed above.

**Building/Property Maintenance and Management.** - A program that prepares individuals to apply technical knowledge and skills to keep a building functioning, and to service a variety of structures including commercial and industrial buildings and mobile homes. Includes instruction in the basic maintenance and repair skills required to service building systems, such as air conditioning, heating, plumbing, electrical, major appliances, and other mechanical systems.

**Concrete Finishing/Concrete Finisher.** - A program that prepares individuals to prepare, construct, and finish buildings, components, and related structures using compound masonry mixtures of stone, gravel, sand, cement, and water. Includes instruction in site preparation, applied mathematics, mixing formulas and applications, job estimation, concrete design, finishing techniques, mold preparation, reinforcement installation, site safety, and equipment operation and maintenance.

**Building/Home/Construction Inspection/Inspector.** - A program that prepares individuals to apply industrial, labor, and governmental standards and laws to the oversight of construction projects and the maintenance of completed buildings and other structures. Includes instruction in construction processes and techniques, materials analysis, occupational safety and health, industry standards, building codes and specifications, blueprint interpretation, testing equipment and procedures, communication skills, accident investigation, and documentation.

**Drywall Installation/Drywaller.** - A program that prepares individuals to apply technical knowledge and skills to install, tape, and plaster drywall installations in interior and exterior construction jobs. Includes instruction in drywall handling and transport, cutting and mounting, taping and spackling, finishing, job analysis and estimation, site safety, tool operation and maintenance, blueprint and specification interpretation, and applicable codes and standards.

**Glazier.** - A program that prepares individuals to apply technical knowledge and skills to install and repair fixtures, sheets, windows, and skylights made of glass, plexiglass, and other transparent materials. Includes instruction in site measurement, job analysis and estimation, material cutting and trimming, window and door installation, site safety, equipment operation and maintenance, specification interpretation, and applicable codes and standards.

**Painting/Painter and Wall Coverer.** - A program that prepares individuals to apply technical knowledge and skills to finish exterior and interior structural surfaces by applying protective or decorative coating materials, such as paint, lacquer, and wallpaper. Includes instruction in surface preparation; selecting, preparing, and applying paints and other coatings; hanging wallpaper; equipment operation and maintenance; finish selection; safety and clean-up; environmental effects on finishes; adhesion properties; and applicable codes and standards..

**Roofer.** - A program that prepares individuals to apply technical knowledge and skills to prepare, install, and maintain exterior roofing materials and roofs. Includes instruction in building materials, flashing, lag bolts, site safety, equipment operation and maintenance, layering, site preparation, basic internal structural design, finishing, waterproofing, and applicable codes and standards.

**Building/Construction Site Management/Manager.** - A program that prepares individuals to supervise, manage, and inspect construction sites, buildings, and associated facilities. Includes instruction in site safety, personnel supervision, labor relations, diversity training, construction documentation, scheduling, resource and cost control, bid strategies, rework prevention, construction insurance and bonding, accident management and investigation, applicable law and regulations, and communication skills.

**Building/Construction Finishing, Management, and Inspection, Other.** - Any instructional program in building/construction finishing, management, and inspection not listed above.

## Wages

In NY the average wage for this occupation was:

\$47,610 for entry level workers, and \$88,580 for experienced workers.

## Job Outlook

Based on the total number of annual openings and its growth rate, the employment prospects for this occupation are described as Very Favorable.

In 2006, employment for First-Line Supervisors/Managers of Construction Trades and Extraction Workers in NY was: 33,510.

It is anticipated that in the year 2016, employment in this area will number 37,840. There will be an increase of 430 new positions annually (0.01%). In addition, 470 jobs per year (0.01%) will become available due to employee turnover.

## Similar Jobs

**Construction Managers** - Plan, direct, coordinate, or budget, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, and implementation.

**Civil Engineering Technicians** - Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.

**Geophysical Data Technicians** - Measure, record, and evaluate geological data, using sonic, electronic, electrical, seismic, or gravity-measuring instruments to prospect for oil or gas. May collect and evaluate core samples and cuttings.

**First-Line Supervisors/Managers of Housekeeping and Janitorial Workers** - Supervise work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.

**First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers** - Plan, organize, direct, or coordinate activities of workers engaged in landscaping or groundskeeping activities, such as planting and maintaining ornamental trees, shrubs, flowers, and lawns, and applying fertilizers, pesticides, and other chemicals, according to contract specifications. May also coordinate activities of workers engaged in terracing hillsides, building retaining walls, constructing pathways, installing patios, and similar activities in following a landscape design plan. Work may involve reviewing contracts to ascertain service, machine, and work force requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.

**First-Line Supervisors/Managers of Logging Workers** - Directly supervise and coordinate activities of logging workers.

**Construction and Building Inspectors** - Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.