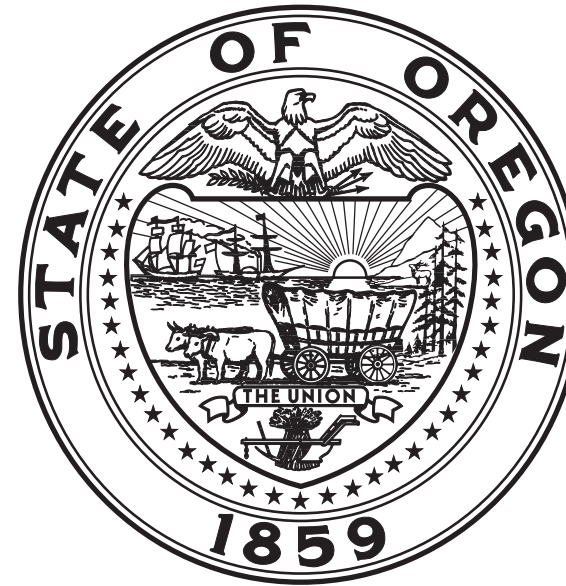


OREGON EMPLOYMENT DEPARTMENT
875 UNION ST NE, RM 207
SALEM, OREGON 97311

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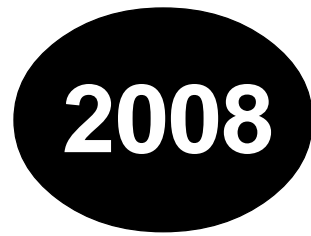


*Mandatory Survey
Required by Law*
(ORS 279C.815)

**CONSTRUCTION INDUSTRY
OCCUPATIONAL WAGE SURVEY 2008**

**FILING DEADLINE:
September 17, 2008**

FOR PUBLIC AND PRIVATE PROJECTS



BOLI

Construction Industry Occupational Wage Survey

Administered by the Oregon Employment Department
for the Oregon Bureau of Labor & Industries

FILING DEADLINE: SEPTEMBER 17, 2008

Thank you for participating in this survey. The data that you have provided will be aggregated with similar information collected from other sources and will be published in a manner that will **guarantee the confidentiality** of your information. If you have any questions, please call 503.947.1282, or toll free 800.262.3912, ext. 7-1282. TDD 503.947.1391, or you may fax us at 503.947.1210.

FIRM: _____

COMPLETED BY (PLEASE PRINT NAME): _____

TITLE: _____

CONSTRUCTION CONTRACTORS BOARD (CCB) NUMBER: _____

PHONE: () _____ E-MAIL: _____

FAX: () _____


I certify that the information provided on this form is correct and verifiable.

SIGNATURE: _____ DATE: _____

**THIS COVER AND THE NEXT FULL COLORED PAGE SHOULD BE REMOVED TO COMPLETE THE SURVEY.
ELECTRONIC FILING INSTRUCTIONS ARE INCLUDED ON THE BACK OF THE WAGE DATA FORM.**

QUESTION 1 Did your firm do any **non-residential construction work** in the state of Oregon between September 1, 2007, and August 31, 2008? This includes excavation, remodeling, painting, and temporary workers sent to construction sites. Labor performed on site in connection with material deliveries is also considered construction work. If your firm had no employees, other than the owner(s) or executive officers, please answer no.

**YES, CONTINUE TO THE
WAGE DATA FORM**

NO 
Go to Question 2

**PLEASE RETAIN A COPY OF YOUR COMPLETED FORMS FOR
YOUR RECORDS**

You are required by Oregon law (ORS 279C.815) to provide this information. The full text of the law is available at www.boli.state.or.us. Failure to return this survey or filing fraudulent or incomplete information may result in penalties. Please retain a copy of your forms for your records.


Wage Rate Regions Districts as per ORS 279C.800

COUNTY	REGION	COUNTY	REGION
BAKER	13	LAKE	11
BENTON	4	LANE	5
CLACKAMAS	2	LINCOLN	4
CLATSOP	1	LINN	4
COLUMBIA	1	MALHEUR	14
COOS	7	MARION	3
CROOK	10	MORROW	12
CURRY	7	MULTNOMAH	2
DESCHUTES	10	POLK	3
DOUGLAS	6	SHERMAN	9
GILLIAM	12	TILLAMOOK	1
GRANT	12	UMATILLA	12
HARNEY	14	UNION	13
HOOD RIVER	9	WALLOWA	13
JACKSON	8	WASCO	9
JEFFERSON	10	WASHINGTON	2
JOSEPHINE	8	WHEELER	12
KLAMATH	11	YAMHILL	3

QUESTION 2

Which of the following circumstances best describes why your firm answered no to Question 1:

- THE FIRM DID **ONLY RESIDENTIAL WORK** BETWEEN SEPTEMBER 1, 2007, AND AUGUST 31, 2008.
- THE FIRM IS **CLOSED**.
- THE FIRM HAD **NO EMPLOYEES** OTHER THAN OWNERS OR CORPORATE OFFICERS.
- THE FIRM HAD **NO WORK IN OREGON** WITHIN THE SURVEY PERIOD.
- THE FIRM **SUBCONTRACTED OUT ALL WORK**.
- THE FIRM **DOES NOT DO CONSTRUCTION WORK**.
(PLEASE WRITE BELOW A BRIEF DESCRIPTION OF THE TYPE OF WORK THE FIRM DOES.)

 If you answered **NO** to Question 1 and have checked a box for Question 2, please sign and return this form in the postage paid envelope. Do not complete the wage data form which is only for non-residential construction data.



Construction Industry Occupational Wage Survey

DIRECTIONS FOR ELECTRONIC FILING

- Complete and sign the the first page of the survey form on the cover of this booklet. This portion of the survey must be returned by mail. Please use the postage paid addressed envelope enclosed in the survey booklet.
- Create a spreadsheet or table similar to the wage data form. Identify the columns on the first line (the header row). The data must appear in the same order as they appear on the wage data form. **DO NOT CONCERN YOURSELF WITH STYLE**; the width and height of the columns do not have to be duplicated. You may have as many continuous lines as necessary.
- Once the data is entered, recheck the entries for accuracy.
- You may either e-mail the data to boli.survey@state.or.us or transfer the data to a diskette, CD, or ZIPdisk.

For e-mailed data:

- On the subject line of your e-mail please write: WAGE DATA FROM SURVEY ID (your survey ID is on the back cover of the survey booklet).
- In the message section of your e-mail: Please identify your firm name, the name of the person completing the survey, and a phone number at which this person can be reached.
- Attach the wage data. Please make sure that you have scanned the document for viruses and that no macros are included in the file.
- We will send verification that we received the wage data within 2 business days.
- Send the signed first page of the survey form and a statement that the data was sent via e-mail, or with a copy of the verification of receipt.

For data returned on diskette, CD, or ZIPdrive:

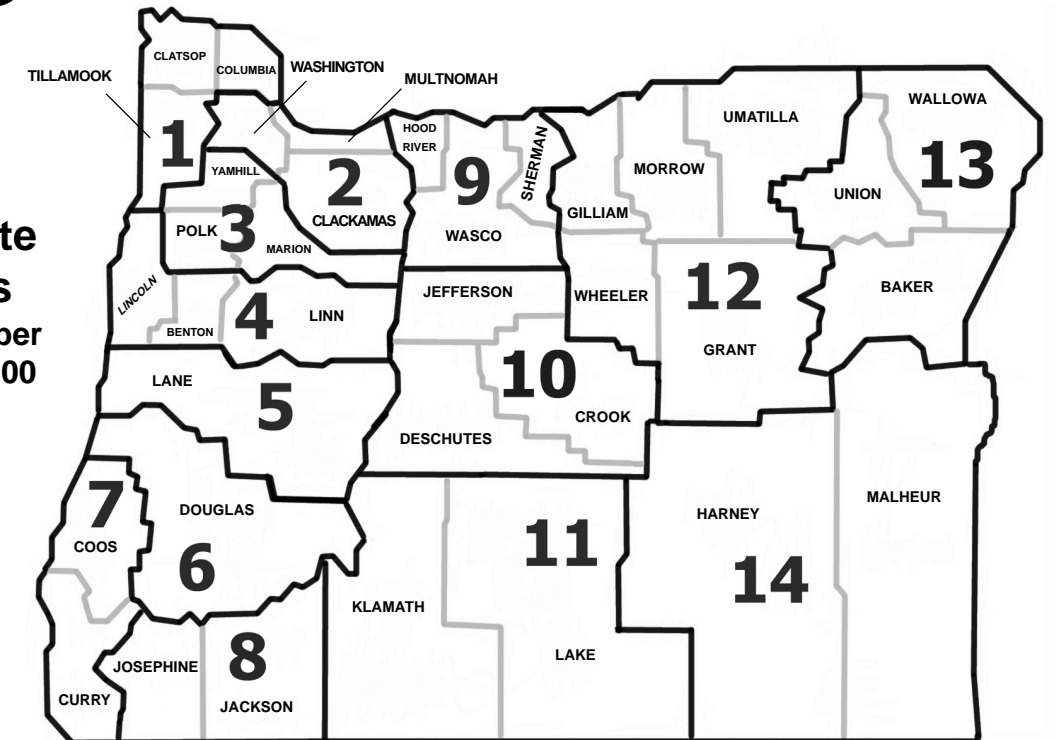
- Write your SURVEY ID on the label.
- Return the diskette, CD, or ZIPdrive with the signed front page of the survey form.

FILING DEADLINE: SEPTEMBER 17, 2008

2008

Construction Industry Occupational Wage Survey

Wage Rate
Regions
Districts as per
ORS 279C.800



THE COVER AND THIS PAGE SHOULD BE REMOVED TO COMPLETE THE SURVEY.

ELECTRONIC FILING INSTRUCTIONS ARE INCLUDED ON THE BACK OF THIS SURVEY FORM.

The enclosed postage paid envelope may be used to return your completed survey. The remainder of this booklet provides an explanation of this survey, step by step instructions to help you complete the survey, and a detailed glossary of occupational titles.

You are required by Oregon law (ORS 279C.815) to provide this information. The full text of the law is available at www.boli.state.or.us. Failure to return this survey or filing fraudulent or incomplete information may result in penalties. **Retain a copy of the survey for your records.**

If you have questions or need assistance with this survey you may call 503.947.1282, or toll free 800.262.3912 extension 7-1282, TDD 503.947.1391.

You may also obtain assistance via e-mail at boli.survey@state.or.us

WAGE DATA FORM - Construction Survey 2008

-Detailed instructions are listed on page 2 of the survey book-
 -Do Not Report Residential Construction Hours - see page 1 of the survey book-

Survey results will be posted on BOLI's website at www.oregon.gov/boli in January, 2009.

Firm Name: _____

You may send your firm's wage data electronically. You may either include a diskette in your mailed return, or send the wage data via e-mail to boli.survey@state.or.us. Please read the directions on the back of this page.

<p>1 Your Survey ID Number</p> <p>Your Survey ID is listed on the back cover of the survey book</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 10px;"></div>	<p>2</p> <p>A. Please isolate the non-residential construction hours performed on the construction site by your firm between September 1, 2007 and August 31, 2008.</p> <p>B. Identify the week in which your firm employed the greatest amount of non-owner labor at non-residential construction sites. This will be your Peak Week reference period. You will only report information for this week. Please do not report any residential construction hours.</p>	<p>3 Peak Week</p> <p>Please indicate the week in which the firm employed the greatest amount of non-owner hours at non-residential construction sites between September 1, 2007, and August 31, 2008. Only report wage information for your selected week.</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin-top: 10px;"> --/--/-- through --/--/-- </div>
---	--	--

4 Number of Workers*	5 Wage Rate Region** <small>(One region per line)</small>	6 Occupation of Employee <small>An index of occupations and codes is on page 5</small>	7 Skill Level		8 Is the contractor party to a Union Agreement under which workers were paid?		9 Construction Type***		10 Hours <small>Number of hours (including overtime hours) worked by employee in this occupation during the selected peak week</small>	11 Basic Hourly Rate (includes per diem and zone rates) [§] <small>Please use separate lines for each wage rate.</small>	12 FRINGE BENEFITS: Report only contributions made by the employer. ^{§§}				
			Journeyman or Skilled Craftsman	Sub-journey or Entry-level Craftsman	YES	NO	Building	Heavy / Highway			Health & Welfare	Pension	Holiday & Vacation	Apprentice Training	Other Benefits
If more than one employee see note below	SEE MAP	Occupational Code Required					Please check one box for each line		If more than one employee is reported on a line, please add hours together	hourly pay + per diem + zone pay	Monthly premium for employee, or adjusted hourly rate		Number of paid days off employee receives each year, or adjusted hourly rate.		Please Specify (i.e., cash)
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															

* You may report more than one employee per line if the employees worked in the same region, have the same pay rate, skill level, same construction type, and all of the same fringe benefits.
 ** Region numbers are provided on the map on the first page of the survey book and a list of counties on the survey form.
 *** See page 4 for definitions and illustrative examples.

[§] Please do not include production bonuses, safety awards, or overtime differentials. Report cash received in lieu of fringe benefits in the Other Benefits column.
^{§§} Fringe Benefits: Report only the contributions made or costs incurred by the employer (not the contributions or amounts paid by employees) for any of the types of fringe benefits noted above. Do not report any payments required by either Federal, State, or local law, such as worker's compensation or unemployment insurance.



Dear Construction Contractor:

Oregon law (ORS 279C.815) requires the Commissioner of the Bureau of Labor and Industries to conduct an annual survey to determine prevailing wage rates for specified trades and occupations in non-residential construction. The bureau has contracted with the Oregon Employment Department to conduct this survey and collect relevant data for determining prevailing wage rates in fourteen regions specified in the law.

The law (ORS 279C.815(3)) requires you, as a construction contractor, to provide the information needed in this survey. The information you provide is protected by law. It will be kept strictly confidential and will not be published in a manner allowing identification of your firm.

What information is required? You are required to provide accurate information about the wages and benefits paid to construction workers in the trades and occupations defined. The information you provide must:

Include:

- ② geographic location where work was performed;
- ② all construction workers by skill level;
- ② all construction work performed during the survey period—both prevailing wage and non-prevailing wage work;
- ② all fringe benefits. (Where cash is paid in lieu of fringe benefits, include amounts under “Other Benefits.”)

Exclude:

- ② *residential* construction (see page 1);
- ② business owners and exempt supervisors;
- ② work *not* performed on the site of construction;
- ② material suppliers or fabricators *not* employed at the site of construction.

Your timely response and cooperation are essential for determining accurate and fair wage rates for Oregon’s contractors and workers. **Please return your completed survey form in the enclosed postage-paid envelope no later than September 17, 2008.** Since this survey is funded by contractor-paid fees, by responding now, you are helping to save contractor dollars. **Failure to return a completed survey form or filing fraudulent information may result in a monetary fine (civil penalty) of up to \$5,000.** (ORS 279C.865) Random checks will be conducted in order to verify the accuracy of the data submitted.

If you need to request a form, or if you have any questions regarding this survey, please contact us at: (503) 947-1282, or toll free in Oregon at 1-800-262-3912, extension 7-1282. If you are aware of any contractor who did not receive a survey, please have the contractor contact us to request one. (If you use a TDD for the hearing-impaired, call (503) 947-1391 or 1-800-262-3912, extension 7-1391.)

Thank you for your cooperation in providing this important information!

Sincerely,

Laurie A. Warner, Director
Employment Department
875 Union Street NE.
Salem, OR 97311

Brad Avakian, Commissioner
Oregon Bureau of Labor and Industries
800 N.E. Oregon, Suite 1045
Portland, OR 97232

Survey Enclosures:

Construction Industry Occupational Wage Survey Form
Definitions of Covered Occupations

CONSTRUCTION INDUSTRY WAGE DATA FORM

- * Do not provide information for owners, exempt supervisory workers, or office staff.
- * If you need more lines, you may make copies of the wage data form.
- * Make sure to write your SURVEY ID number at the top of each wage data form.
- * Provide information for each construction employee in each occupation worked during the selected peak week on the wage data form.
- * You may prepare the survey data on a spreadsheet. Please follow the guidelines for electronic filing on the back of the wage data form.
- * Sign and return your completed survey form(s) in the enclosed postage paid envelope.
- * Provide data for non-residential projects only.

IF ALL OF YOUR WORK FOR THE SURVEY PERIOD WAS DONE ON RESIDENTIAL CONSTRUCTION PROJECTS:

- * Check the Residential Only box on the survey form.
- * Return the survey form to our office in the postage paid envelope.

WHAT IS RESIDENTIAL CONSTRUCTION?¹

Residential projects are those involving the construction, alteration, or repair of single family houses or apartment buildings of no more than four stories in height. This includes all work incidental to the residential project such as site work, parking areas, utilities, streets, and sidewalks.

EXAMPLES OF RESIDENTIAL CONSTRUCTION

- Town or row houses
- Apartment buildings (4 stories or less)
- Single family houses
- Mobile home developments
- Multi-family houses
- Married student housing
- All work incidental to residential projects
 - Residential sitework
 - Residential parking areas
 - Residential utilities
 - Residential streets
 - Residential sidewalks

¹ SOURCE: US DEPT. OF LABOR, EMPLOYMENT STANDARDS ADMINISTRATION, WAGE AND HOUR DIVISION, AGENCY MEMORANDUM No. 130, MARCH 17, 1978.

INSTRUCTIONS FOR COMPLETING THE WAGE DATA FORM

The circled numbers below correspond to the circled numbers on the wage data form.

- 1 YOUR SURVEY ID NUMBER** - This number can be found on the back of your survey book.
- 2** Indicates how to isolate the required information from your records. If you have further questions regarding what is required information to report, please call 800.262.3912 ext. 7-1282, or 503.947.1586.
- 3 PEAK WEEK** - The week in which your firm employed the greatest amount of **non-owner** labor hours at **non-residential** construction sites. The answers to question **2** will determine your Peak Week. Please indicate the beginning and ending date for the week you are referencing.
- 4 NUMBER OF WORKERS** - You may report several workers on a single line when all information (wage rate region, occupation, skill level, wages and benefits) is exactly the same. The Number of Hours column **10** should reflect the combined hours worked by all employees on this line.

NOTE: If an employee was paid more than one rate of pay, or worked in more than one occupation or region, you need to provide the hours and wages for each case. When this occurs, you will need to use more than one line on the survey form for that employee.
- 5 WAGE RATE REGION** - The region where the work took place. A list of Oregon counties and the appropriate wage region is provided on this page. You can also refer to the map on the first page of the survey book for Wage Rate Region numbers.

OREGON COUNTIES	WAGE RATE REGION
BAKER	13
BENTON	4
CLACKAMAS	2
CLATSOP	1
COLUMBIA	1
COOS	7
CROOK	10
CURRY	7
DESCHUTES	10
DOUGLAS	6
GILLIAM	12
GRANT	12
HARNEY	14
HOOD RIVER	9
JACKSON	8
JEFFERSON	10
JOSEPHINE	8
KLAMATH	11
LAKE	11
LANE	5
LINCOLN	4
LINN	4
MALHEUR	14
MARION	3
MORROW	12
MULTNOMAH	2
POLK	3
SHERMAN	9
TILLAMOOK	1
UMATILLA	12
UNION	13
WALLOWA	13
WASCO	9
WASHINGTON	2
WHEELER	12
YAMHILL	3

If you have questions, please call 503.947.1586, or toll free 800.262.3912 extension 7-1282 (TDD 503.947.1391).
You may also obtain assistance via e-mail: boli.survey@state.or.us

6 OCCUPATION OF EMPLOYEE - The occupational code for all the employees listed on this line. If a single employee worked in more than one occupation, or in more than one region during your peak week, report the employee on more than one line according to the hours worked. The Occupational Codes and the Definitions of Covered Occupations begin on page 11 and provide occupational codes, titles and descriptions.

7 SKILL LEVEL:

JOURNEYMAN Licensed (where licensing required) or fully skilled craftsman who works independently in all aspects of the trade or occupation.

SUB-JOURNEY Entry-level worker who has not worked previously in the occupational classification and who does not yet perform all tasks independently; may be referred to as an “assistant”, “trainee” or “helper”. For example: a laborer who has never worked on a construction site before may be classified as “sub-journey level”, but an experienced laborer is classified as a “journey laborer”.

APPRENTICE You are not required to submit information for the Registered Apprentices within your firm.

8 Was the job covered by a union contract, or under a specific project labor agreement?

9 CONSTRUCTION TYPE - (see page 4 for illustrative examples and expanded definitions)

BUILDING The construction of non-residential sheltered enclosures with walk-in access for the purpose of housing persons, equipment, or supplies is generally considered building construction. It includes the installation of utilities and equipment as well as incidental grading and paving related to the construction of a building. Such structures need not be “habitable” to be considered this construction type. This survey does not require or include information related to residential construction.

HEAVY / HIGHWAY The construction, alteration, or repair of roads, bridges, water and sewer lines, parking areas and similar projects not incidental to Building construction are considered “Heavy/ Highway” construction.

10 HOURS - The number of hours worked by the employee during the selected peak week reporting period. Include overtime hours. If several employees are reported together on one line, combine the individual hours and report the total hours worked by all employees.

11 BASIC HOURLY RATE - Rate of hourly wage including per diem and zone pay. Please do not include production bonuses or safety awards. Do not include shift or overtime differentials. Where a worker receives a differential for being a crew leader, site supervisor, or non-exempt supervisor, include ONLY the basic worker rate. Do not include cash paid in lieu of fringe benefits.

12 FRINGE BENEFITS - Report only the contributions made or costs incurred by the employer. For Health & Welfare benefits, please provide either the monthly premium paid for the employee, or the adjusted hourly rate. For Holiday & Vacation please provide either the number of paid days off the employee receives each year, or the adjusted hourly rate. Cash paid in lieu of fringe benefits should be reported in the “Other Benefits” column.

Building Construction

Building Construction generally is the construction of non-residential sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. It includes all construction of such structures, the installation of utilities and the installation of equipment, both above and below grade level, as well as incidental grading, utilities and paving. Such structures need not be "habitable" to be Building Construction. The installation of heavy machinery and/ or equipment does not generally change the project's character as a building. Building Construction does not include site work, parking areas, utilities and sidewalks incidental to residences or apartment buildings that are four stories or less.

Examples of Building Construction:

<i>Alterations and additions to buildings</i>	<i>Hotels</i>
<i>Apartment buildings (5 stories or more)</i>	<i>Industrial Buildings</i>
<i>Arenas (enclosed)</i>	<i>Libraries</i>
<i>Auditoriums</i>	<i>Mausoleums</i>
<i>Automobile Parking Garages</i>	<i>Motels</i>
<i>Banks and financial buildings</i>	<i>Museums</i>
<i>Barracks</i>	<i>Nursing Facilities</i>
<i>Churches</i>	<i>Office Buildings</i>
<i>City Halls</i>	<i>Passenger and Freight Terminal</i>
<i>Civic Centers</i>	<i>Buildings</i>
<i>Commercial Buildings</i>	<i>Police Stations</i>
<i>Court Houses</i>	<i>Restaurants</i>
<i>Detention Facilities</i>	<i>Schools</i>
<i>Dormatories</i>	<i>Shopping Centers</i>
<i>Farm Buildings</i>	<i>Stores</i>
<i>Fire Stations</i>	<i>Theaters</i>
<i>Hospitals</i>	<i>Warehouses</i>

Heavy / Highway Construction

The construction, alteration, or repair of trails, roads, bridges, water and sewer lines, parking areas and similar projects not incidental to Building Construction or Residential Construction are considered Heavy / Highway construction.

Examples of Heavy / Highway Construction

<i>Alleys</i>	<i>Dikes</i>
<i>Antenna Towers</i>	<i>Docks</i>
<i>Bituminous treatments</i>	<i>Dredging</i>
<i>Bridges</i>	<i>Flood Control Projects</i>
<i>Canals</i>	<i>Levees</i>
<i>Concrete Pavement</i>	<i>Locks</i>
<i>Curbs (non-residential)</i>	<i>Sewers (sanitary, storm, etc.)</i>
<i>Channels</i>	<i>Ski Tows</i>
<i>Cofferdams</i>	<i>Storage Tanks</i>
<i>Dams</i>	<i>Subways</i>
<i>Excavation (non-residential or incidental to a building)</i>	<i>Tunnels</i>
	<i>Water Mains</i>

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1) 47-2132.....Asbestos Worker/Insulator

Primary Purpose: Installs insulation on mechanical systems for thermal and acoustical purposes. Installs fire stop penetrations on electrical and mechanical systems. Mechanical systems include heating systems, air handling systems, pipes, boilers, evaporators, turbines, ducts, flues, breaching, storage tanks, refrigeration units, grease ducts, acid ducts, and all insulation connected with steam, condensate, feedwater, and/or chilled water. Includes all labor connected with the handling and distribution of materials for these systems.

Typical Duties:

- Sprays chemical solution over asbestos covered mechanical systems using tank with attached hose and nozzle, to soften asbestos.
- Cuts and scrapes asbestos from mechanical systems using knife and scraper in connection with the installation of insulation.
- Shovels asbestos into plastic disposal bags and seals bags with duct tape.
- Applies insulating material to mechanical systems such as air ducts, hot and cold pipes, storage tanks, and cold storage rooms.
- Prepares and applies fire stopping materials on mechanical systems.
- Covers or seals insulation with preformed plastic covers, canvas strips, sealant or tape to secure insulation to mechanical system using staple gun, trowel, paintbrush or caulking gun.
- Assembles scaffolding incidental to insulation or asbestos abatement work.
- Seals off work area using plastic sheeting and duct tape.

Note: For asbestos removal from mechanical systems which are NOT to be scrapped, see "Hazardous Material Handler/Mechanic." For asbestos removal from walls, ceilings, floors or from mechanical systems which ARE to be scrapped, see "Laborer Group 3." For installation of non-irritating insulation in walls, ceilings, floors, etc., see "Carpenter Group 1." For installation of irritating insulation in walls, ceilings, floors, etc., see "Carpenter Group 2."

2) 47-2011.....Boilermaker

Primary Purpose: Construct, assemble, install, maintain, renovate, and repair stationary steam boilers, boiler house auxiliaries, vats, and other large vessels that hold liquids and gases.

Typical Duties:

- Fabricates steel for construction of steam boilers, boiler house auxiliaries, vats and other large vessels that hold liquids and gases.
- Positions, aligns and secures structures or plate sections to assemble boiler frame tanks or vats, following blueprints.
- Locates and marks reference points for columns or plates on foundations, following blueprints and using straightedges, squares, transits and tape measures.
- Lays out plate, sheet steel, or other heavy metal, and locates and marks bending and cutting lines using protractors, compasses, and drawing instruments or templates.
- Drills, reams, chips, caulks, rivets, hammers, flame-cuts, files, and grinds structures and sections; bolts or welds them together.
- Bolts or welds casing sections, uptakes, stacks, baffles, and fabricated parts such as chutes, air heaters, fan stands, feeding tubes, catwalks, ladders, coal hoppers and safety hatches to frame.
- Fabricates stacks, uptakes and chutes to adapt boiler to premises in which installed, if necessary.

- Uses hand and power tools, plumb bobs, levels, edges, dogs or turnbuckles.
- Bells and beads with power hammer, or welds pressure vessel tube ends to ensure leak-proof joints.
- Positions drums and headers into supports; bolts or welds supports to frames.
- Attaches rigging and signals crane operators to lift parts to specified positions.
- May watch confined entry holes.
- Examines and tests assembled vessels for leaks or other defects.
- Directs cleaning of boiler furnaces.
- Inspects, repairs and reconstructs boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines.
- Aligns and attaches accessories such as manholes, handholds, taps, tubes, fans, stacks, valves, and gauges, using hand tools or power wrenches.
- Unloads and loads materials that the Boilermakers are to erect.

3) 47-2021.....Bricklayer/Stonemason

Primary Purpose: Lays out, lays, cuts, installs, and finishes all brick, structural tile, refractory materials, precast units, concrete, cinder, glass, gypsum, terra cotta block, and all other natural and artificial masonry products to construct or repair walls, partitions, stacks, furnaces, or other structures.

Sets stone to build stone structures such as piers, walls, and abutments, and lays walks, curbstones, or special types of masonry for vats, tanks, and floors. May set, cut, and dress ornamental and structural stone in buildings.

This classification is tended by Tender to Masons Trades: Brick and Stonemason, Mortar Mixer, Hod Carrier.

Typical Duties:

- Measures distance points from reference points and marks guidelines on working surface to lay out work.
- Determines vertical and horizontal alignment of courses using plumb bob, gauge line (tightly stretched cord) and level.
- Spreads soft layer of mortar that serves as base and binder for brick or block using trowel.
- Breaks or cut bricks or blocks to size, using power or hand tools.
- Shapes stone preparatory to setting, using a chisel hammer and other shaping tools.
- Applies mortar to end of brick or block and positions same in mortar bed.
- Spreads mortar over stone and foundation with trowel and sets stone in place by hand or with aid of a crane.
- Removes excess mortar from face using trowel.
- Taps brick or block with trowel to level, align and embed in mortar, allowing for specified thickness of joint.
- Aligns stone with plumb line and finishes joints between stone with a pointing trowel.
- Fastens brick, block, or terra cotta veneer to face of buildings or structures with appropriate ties embedded in mortar between units or in anchor holes in units.
- Grouts, insulates, and places all reinforcing rods, anchors, and flashing in masonry walls.
- Lays refractory brick, block, and insulation in place by spreading, dipping, or spraying materials to build furnaces, line boilers or like fire resistant structures.
- Finishes mortar between brick and block with pointing tool or trowel.
- Points, cleans, caulks and waterproofs masonry.

- Cleans excess mortar or grout from surface of stone using sponge, brush, water, or acid.

4) **47-2072.....Bridge and Highway Carpenter**

Primary Purpose: Performs rough carpentry work related to the construction of bridges, overhead crossings, subways, underpasses, viaducts, and similar structures.

Typical Duties:

- Builds and sets forms for concrete work and precast concrete used in the construction of bridges and highways. See "Piledriver" for form work related to the construction of piles. See "Cement Mason" for the setting of sidewalk forms. See "Ironworker" for the erection of structural steel.
- For bridges over water, builds and sets forms for the piers, columns, or abutments of the approaches to the first pier or abutment on the water's edge. See "Piledriver" for the construction and setting of forms for the first pier or abutment on the water's edge.
- Erects and removes falsework used to perform work under the Bridge and Highway Carpenter classification. See "Piledriver" for the erection and removal of heavy timber or pile falsework.
- Strips and repairs reusable forms and reusable form materials, including component forms, for concrete work used in the construction of bridges and highways. See "Piledriver" for the stripping and repairing of reusable forms used in the construction of piles. See "Laborer Group 1" for the stripping of non-reusable forms and non-reusable form materials. Also see "Laborer Group 1" for cleaning and prepping of reusable forms.

5) **Carpenter Group 1 & 2**

Primary Purpose: Constructs, erects, installs and renovates buildings and structures, structural members, and fixtures made of wood, plywood, wallboard, and materials that take the place of wood such as plastic, light gauge metals, metal studs, fiberglass, transite sheeting, and cemesto board by using carpentry hand tools, power tools, and woodworking machines and by measuring materials and distances, cutting materials to required size, assembling, anchoring, erecting and aligning forms or framework.

Note: Scope of work does not include carpentry work associated with the building of bridges; see instead "Bridge and Highway Carpenter" or "Piledriver."

47-2031.....Carpenter Group 1

Typical Duties

- Lays out and frames buildings or structures on-site. (Does not include the laying out or erection of prefabricated metal buildings: See instead "Ironworker.")
- Erects and removes suspended scaffolding, specialty scaffold systems, scaffolding to be used by 2 or more trades, and self-supporting scaffolding over 14 feet, but does not include scaffolding to be used by masons (see instead, "Mason" or "Tender to Mason Trades") or plasterers (see instead, "Plasterer" or "Tender to Plasterer"). May erect or remove self-supporting scaffolding below 14 feet to be used by one trade, but see also "Laborer Group 1," or see the particular trade to use the scaffolding.
- Builds wooden stairs and installs wooden ladders, wooden handrails, wooden walkways, wooden platforms, and wooden gangways.
- Installs/applies siding to buildings, excluding brick/stone siding, plaster/stucco siding, and/or sheet

metal siding. (For brick/stone siding, see instead "Bricklayer/Stone Mason." For prefabricated metal building, see instead "Ironworker." For plaster/stucco siding, see instead "Plasterer." For sheet metal siding, see instead "Sheet Metal Worker."

- Installs wood doors, bi-fold doors, automatic doors (excluding the wiring), and overhead garage doors (excluding the wiring) in non-prefabricated metal buildings. May also install hollow metal doors, but see also "Ironworker."
- Installs interior signs (excluding the wiring).
- Installs wood and metal rough frames for windows and bucks in which finished frames are inserted.
- Installs weatherstripping and hardware such as locks, letterdrops, kickplates, and door tracks.
- Installs awnings, laminated wooden beams, and trusses.
- Installs or applies sun-control film to the inside of windows.
- Installs metal decking for the placement of concrete slabs only where metal decking is removed after concrete pour. For metal decking that is bolted, welded or becomes permanent member of structure, see instead "Ironworker."
- Lays out, installs, aligns, and repairs wood or metal cabinets, shelving, cabinet doors, cabinet hardware, molding, mill work, casework, paneling and all decorative woodwork to include composite.
- Installs wood or metal cabinets and shelving.
- Installs furniture systems, including modular office equipment, when connected to a building. Furniture systems are "connected to a building" when they are bolted to a building's walls or floors or connected to the electrical and/or communication/cable wiring system of a building. (Scope of work excludes wiring. For wiring of communication/cable systems, see, instead, "Limited Energy Electrician." For wiring of electrical systems, see instead "Electrician." For installation of free-standing furniture systems not connected to a building, see instead "Laborer Group 1.")
- Installs high-density filing or storage equipment.
- Operates auto nailing machine.
- Insulates ceilings, walls, floors with non-irritating insulation.
- Installs folding, steel-framed, gymnasium bleacher or auditorium seating, but see also "Ironworker." May set seats on structural steel framed exterior stadium seating; but for installation of the structural steel frame for exterior stadium seating, see instead "Ironworker."
- Installs cast-on-site and pre-cast concrete panels.
- Makes and installs all types of concrete forms, but does not include concrete forms for sidewalks, curbs, gutters, and pavement. (For installation of concrete forms that are used for sidewalks, curbs, gutters, or pavement, see, instead, "Cement Mason.")
- Erects and removes building shoring necessary for overhead form work. (See "Laborer Group 1" for shoring work related to excavation and trenches.)
- Strips reusable forms. (See "Laborer Group 1" for stripping of non-reusable forms or for cleaning or prepping of reusable forms.)
- Builds manholes. (Work may also be completed by "Laborers Group 3.")
- Caulks boats.

47-2032.....Carpenter Group 2

Typical Duties

- Lays sub-floors and all hardwood floors, including nailed, mastic set, parquet and wood-type tiles, and block floors. (For laying of soft tile, linoleum, or carpet, see instead "Soft Floor Layer.")
- Sands and finishes all hardwood floors.
- Installs irritating insulation in walls, ceilings, and floors.

6) 47-2051.....Cement Mason

Primary Purpose: Smooths and finishes surfaces of poured concrete to specified textures using hand or power tools, including floats, trowels, and screeds.

Typical Duties:

- Levels, smooths, edges and finishes surfaces of poured concrete floors, walls, sidewalks, curbs, steps and stairways, or any other concrete surface.
- Patches, repairs, or removes rough or defective areas on concrete surfaces to impart a finish, including the application of any cementitious product to such surfaces.
- Applies cement, sand, pigment or marble chips to concrete in order to attain durable and/or decorative surfaces.
- Grouts and plugs holes on concrete surfaces, including dry packing and end pointing.
- Joints concrete surfaces, including expansion, control, or decorative.
- Grinds or chips concrete in preparation of patching or to produce a finished concrete product.
- Sets all curb, gutter, and sidewalk forms, and planks, lines, stakes, grades, and screeds. (For concrete wall forms see "Carpenter Group 1.")
- Installs and finishes epoxy compounds or systems and other resinous toppings to concrete surfaces, when utilizing a hand or power trowel application.
- Operates power machines, such as concrete power trowels.

Note: Tenders to Cement Masons are found under "Laborer Group 2."

7) 49-9092.....Diver

Primary Purpose: Works primarily underwater supplied with air, usually by a pipeline from the surface while wearing a diving suit or using scuba gear. May work at water's surface utilizing a snorkel.

Typical Duties:

- Inspects, repairs, removes, dismantles, salvages or installs equipment and underwater structures (such as underwater pipelines and hookups which includes petroleum, gas, water and sewage systems), hulls, docks, bridges, dams, cables, underwater suction and discharge lines (such as those used at chemical plants, pulp mills and desalinization plants) and below water line on vessels and ships.
- Places recording instruments below surface of water preparatory to conducting tests or experiments.
- Drills holes in rocks preparatory to rigging explosives.
- Photographs underwater structures or marine life.
- Lays foundations for bridge piers, reconstruct underwater walls, and use underwater cutting and welding tools and the cement gun.
- May also do underwater carpentry, steel plating and shipwright's work.
- Performs numerous duties with power and hand tools such as torches, pry bars, drills, sledgehammers.
- Burns and welds in marine salvage operations.
- Inspects, removes, rescues and recovers objects below the water's surface.
- Completes underwater wells.
- Lays underwater power and/or communications cables where diving is necessary.
- Operates hyperbaric chambers and underwater equipment and ROV's used in the above operations.

8) 49-9098.....Divers' Tender

Primary Purpose: Works on the surface to monitor gauges for divers and coordinates topside activity.

Typical Duties:

- Works on the upkeep and repair of diving gear, or such work as ordered by the diver.
- Aids in the dressing and undressing of the diver.

9) 53-7031.....Dredger

Primary Purpose: Operates power-driven dredge to mine sand, gravel, rock or other materials from harbors, bays, lakes, ponds, rivers or streams, and to excavate and maintain navigable channels in waterways (excludes Floating Construction Equipment - see "Power Equipment Operator"). This classification includes Assistant Engineers (including Machinists, Mechanics, Oilers, Watch Engineers, and Welders), Assistant Mates ("Deckhands"), Boatmen, Fill Equipment Operators, and Levermen.

Typical Duties:

- May restore wetlands and other aquatic habitats, reclaim land, and create and maintain beaches.
- Directs or assists workers placing shore anchors and cables, laying additional pipes from dredges to shore, and pumping water from pontoons.
- Moves levers to position dredges for excavation, to engage hydraulic pumps, to raise and lower suction booms, and to control rotation of cutterheads.
- Lowers anchor poles to verify depths of excavations, using winches, or scan depth gauges to determine depths of excavations.
- Pumps water to clear machinery pipelines.
- Starts and stops engines to operate equipment.
- Starts power winches that draw in or let out cables to change positions of dredges, or pulls in and lets out cables manually.

10) 47-2081.....Drywall, Lather, Acoustical Carpenter & Ceiling Installer

Drywall Installer

Primary Purpose: Applies wallboard that requires tape and finish to ceilings and interior walls using hand and portable tools.

Typical Duties:

- Installs wallboard using screws, nails, and glue to interior walls and ceilings.
- Fits and fastens wallboard or drywall into position on wood or metal frameworks using lifts or hoists to adjust panel height when necessary.

Lather, Acoustical Carpenter & Ceiling Installer

Primary Purpose: Fasten wooden, metal or rockboard lath to walls, ceilings and partitions of buildings and structures to provide a supporting base for plaster, fireproofing or acoustical material using hand and portable power tools. Includes ceiling tile installers and acoustical carpenters (excludes carpet, wood, or hard tile installers). Mounts acoustical or egg crate tile to walls and ceilings of buildings and

structures to reduce reflection of sound and to decorate rooms.

Typical Duties:

- Erects horizontal metal framework to which lath is fastened using nails, bolts and stud gun.
- Drills holes in floor and ceiling and drives ends of wooden or metal studs into holes to provide anchor for furring or rockboard lath.
- Wires horizontal strips to furring to stiffen framework.
- Wires, nails, clips or staples lath to framework, ceiling joists, and flat concrete surfaces.
- Bends metal lath to fit corners or attaches preformed corner reinforcements.
- Wires plasterer's channels to overhead structural framework to provide support for plaster or acoustical ceiling tile.
- May install metal casings around openings, metal window stools and metal trim and plaster grounds (wood or metal strips) nailed to studding to provide guide for plasterer.
- Cuts angle iron and channel iron to specified size and suspending angle iron grid and channel iron from ceiling, using wire.
- Trims rough edges from wallboard to maintain even joints.
- Nails prefabricated metal pieces around windows and doors and between dissimilar materials to protect drywall edges.
- Mounts tile either by applying a cement adhesive or by nailing screwing, stapling, or wire-tying the lath directly to the structural framework.
- Measures and marks surface to lay out work according to blue prints and drawings.
- Nails or screws molding to wall to support and seal joint between ceiling tile and wall.
- Scribes and cuts edges of tile to fit wall where wall molding is not specified.
- Drives hanger inserts into reinforced concrete ceiling.

11) 47-2082.....Drywall Taper

Primary Purpose: Seals corners, joints, angles, and fastener heads in gypsum wallboard assemblies to prepare wall surface for painting, papering, soundproofing or fire control purposes.

Typical Duties:

- Mixes sealing compound by hand or with portable electric mixer.
- Applies successive coats of joint compound in order to achieve specified level of finish.
- Embeds tape in joint compound and coats over all joints, angles, and fastener heads, and trims using hand tools and automatic taping tools.
- Countersinks nails or screws below surfaces of walls before applying sealing compounds, using hammers or screwdrivers.
- Sands rough spots of dried cement between applications of compounds.
- Fills cracks and holes in walls and ceiling with sealing compound.
- Installs tape-on and other metal molding at corners, joints, and angles, as necessary to achieve a specified finish.
- May apply texturing compound and primer to walls and ceiling prior to final finishing using brushes, roller, or spray gun.
- May erect, move and dismantle scaffolding less than 14 feet in height which is to be used for interior wall, ceiling, or exterior drywall that requires the application of special finishes or textures. See also "Laborer Group 1." For the erection and removal of scaffolding that is 14 feet or higher, see "Carpenter Group 1." For the erection, dismantling, and removal of scaffolding of any height that is used by "Plasterer," see "Tender to Plasterer."

12) 47-2111.....Electrician

Primary Purpose: Installs and repairs electrical wiring, control equipment, apparatus, and fixtures. Includes Electrician (Inside Wireman), Cable Splicer, and Electrical Material Handler.

Typical Duties:

- Measures, cuts, bends, threads, assembles, and installs electrical conduit.
- Pulls wiring through conduit.
- Splices wire, twists or solders wire together, and applies tape or terminal caps.
- Connects wiring to lighting fixtures and power equipment.
- Installs control and distribution apparatus including but not limited to switches, relays, and circuit-breaker panels and fastens such apparatus in place.
- Installs chasing and channeling necessary to complete any electrical work.
- Tests continuity of circuit to ensure electrical compatibility and safety of components.
- As Cable Splicer, connects, joins, or splices together electrical lead-covered conductor cables.

47-3013.....Electrical Material Handlers

Primary Purpose: As Electrical Material Handler, handles and maintains order of electrical materials, equipment, and tools at the site of work, delivers materials to licensed electricians, and may perform cleanup work in connection with the work of an electrical contractor. An electrical material handler may not install electrical material or utilize equipment (for example, switch gears, motor control centers, transformers, motors, or light fixtures).

Note: This classification applies exclusively to electrical materials. The Electrical Material Handler may perform clean-up work in connection with the work of an electrical contractor.

13) 47-4021.....Elevator Constructor, Installer and Mechanic

Primary Purpose: Assembles and installs all commercial and residential conveyances; maintains, replaces, repairs, tests, adjusts, demolishes and renovates electric, cable driven, rack & pinion and hydraulic freight and passenger elevators, escalators, moving walkways, material lifts (which are similar to elevators in design), stair lifts, wheelchair lifts and ramps, dumbwaiters and similar equipment in new and old buildings using hand tools, power tools and testing devices/equipment.

Typical Duties:

- Attaches guide shoes and rollers.
- Installs outer doors and door frames (at the elevator entrances on each floor); installs safety and control devices and installs landing door entrances; installs elevator cabs complete.
- Performs preventative maintenance such as oiling and greasing moving parts; replacing worn parts; testing devices/equipment with test lamps, ammeters, voltmeters and gauges; and adjusting equipment for optimal performance.
- Erects and assembles theatre stage and curtain elevator equipment and guides or rigging, including organ consoles and orchestra elevators.
- Installs all electrical wiring and components, controls, conduit, raceways and related devices from the first point of attachment of main line feeder terminals on the controller to other elevator apparatus and operating circuits required at each floor and at the main control panel in the machine room which includes elevator enclosures, fronts, fascias, sills, frames and bucks. Connects

electrical wiring to control panels and electric motors.

- Sinks, bores, drills or digs cylinder wells.
- Performs all cleanup required in connection with the installation of elevators.
- Adjusts safety controls, counterweights, door mechanisms, and components such as valves, ratchets, seals, and brake linings.
- Assembles electrically powered stairs, steel frameworks, and tracks, and installs associated motors and electrical wiring.
- Drills holes in concrete or structural steel members with portable electric drill; drills doors for mounting of closing devices; drills angle supports for mounting of closing devices except one template hole; drills sills for sill trips; drills overhead beams for attaching machines, sheaves, kick angles, and all other elevator equipment.
- Cuts prefabricated sections of framework, rails, and other elevator components to specified dimensions, using acetylene torch, power saw, and disc grinder. Secures anchor bolts or weld brackets to support rails and framework, and verifies alignment with plumb bob and level.
- Installs indicators, grating, cables, counterweights, pumps, motor foundations, escalator drives, guide rails, elevator cars (which includes the platform, walls and doors), control panels, machinery, cylinders and plunger foundations, counterweight screens, overhead work, either wood or iron, and all material used for mounting of elevator apparatus in machine room, overhead or below.
- Connects electrical wiring to control panels and electric motors.
- Positions electric motor and equipment on top of elevator shaft, using hoists and cable slings.
- Sets all templates.
- Erects all electrical or mechanical automatic or semi-automatic gates.
- Hangs all automatic or semi-automatic elevator hoistway doors, together with the installation of hangers and tracks.
- Installs all devices for opening and closing, and locking of elevator car and hoistway doors and gates.
- Operates temporary cars.
- Sets hydraulic power units which include motor, pump, drive valve system, internal piping, muffler, internal wiring, controller and tank, and sets all elevator pressure open or pit tanks.

14) 47-4032.....Fence Constructor (Non-metal)

Primary Purpose: Erects and renovates wooden fences, using hand and power tools. See "Fence Erector (Metal)" for installation of wire and chain link fencing.

Typical Duties:

- Lays out fence line and marks for postholes.
- Digs postholes by hand or using power tools.
- Sets wooden posts in holes, aligns posts, and verifies vertical alignment of posts.
- Pours concrete around base of posts or tamps soil into holes to embed posts.
- Attaches fence rail supports to posts.
- Saws required length of lumber to make rails for wooden fences.
- Nails top and bottom rails to fence posts or inserts them in slots on posts.
- Nails pointed slats to rails to construct picket fences.
- Assembles wooden gates for fences and fastens gates into position.

15) 47-4031.....Fence Erector (Metal)

Primary Purpose: Erects and renovates metal fences of wire, wire mesh, barbed wire, or chain link fencing around highways and industrial and commercial establishments, using hand and power tools.

See "Ironworker" for installation of fences made of ornamental metal. See "Fence Constructor (Non-metal)" for construction of wooden fences.

Typical Duties:

- Lays out fence line and marks for postholes.
- Digs postholes by hand or using power tools.
- Sets metal posts in holes, aligns posts, and verifies vertical alignment of posts.
- Pours concrete around base of posts or tamps soil into holes to embed posts.
- Attaches fence rail supports to posts.
- Cuts metal tubing and inserts tubing through rail supports.
- Completes top fence rails by connecting tube sections, using metal sleeves.
- Attaches rails or tension wire along bottoms of posts to form fencing frames.
- Stretches wire, wire mesh, barbed wire, or chain link fencing between posts and attaches fencing to frames.
- Assembles metal gates for fences and fastens gates into position.

16) 47-2066.....Flagger

Primary Purpose: Controls the movement of vehicular traffic through a construction project. Delivers, sets-up, maintains and removes temporary traffic control devices.

Typical Duties:

- Directs movement of traffic through site, using sign, hand and flag signals, warning paddles, and radio communication.
- Informs drivers of detour routes through construction sites.
- Loads, unloads, and sets-up signs, markers, flares, barricades, plastic channelizer drums, safety cones, temporary flashing lights not to exceed 115 volts, and other traffic control devices along construction sites in designated patterns.
- Inspects traffic control devices on a periodic basis to ensure they are clean, clearly visible and properly positioned.
- Removes traffic control devices.

Note: For Traffic Control Supervisor see "Laborer Group 1."

17) 47-2121.....Glazier

Primary Purpose: Installs glass in windows, skylights, and storefronts or on such surfaces as building fronts, interior walls, and ceilings at construction sites.

Typical Duties:

- Cuts, prepares, handles, installs, and removes all types of glass, including but not limited to window glass, plate glass, structural glass, mirror glass, tempered and laminated glass, safety or protection glass, and insulating glass units as well as all plastics or other materials when these are used in place of glass and are set or glazed with putty, molding rubber, cement, lead, and other types of mastic or similar materials.
- Measures and marks outlines or patterns on glass to indicate cutting lines.
- Installs metal window and door frames into which glass panels are to be fitted, such as fixed or sliding patio doors and fixed, sliding, or vented windows.
- Fastens glass panes into wooden sash with glazier's points and seals joints by spreading putty around edges of panes.

- Bolts metal hinges, handles, locks, and other hardware to prefabricated glass doors; sets glass doors into frames and fits hinges.

18) 47-4041.....Hazardous Materials Handler/Mechanic

Primary Purpose: Removes regulated material from mechanical systems which are not going to be scrapped. Mechanical systems include pipes, boilers, ducts, flues, breaching, grease ducts and acid ducts. This also includes all labor connected with the handling and distribution of materials for these systems. The removal of all regulated materials from mechanical systems is exclusively the work of Hazardous Materials Handlers, unless the mechanical systems are going to be scrapped.

Note: Regulated materials are those materials that are regulated for the purpose of protecting the environment or for personal protection by EPA, OSHA, DEQ or Federal OSHA.

Typical Duties:

- Identifies asbestos, lead, or other regulated hazardous materials that need to be removed, using monitoring devices.
- Cleans contaminated mechanical systems of regulated materials for re-use, using water, detergents and solvents, filter pumps, and steam cleaners.
- Operates machines and equipment to remove and package waste materials, including positioning portable air evacuation and filtration systems inside work area.
- Applies chemical compounds to lead-based paint, allows compounds to dry, then scrapes the hazardous material into containers for removal and/or storage.
- Removes asbestos from mechanical systems and removes asbestos pipes.
- Sprays chemical solution over asbestos covered surfaces, using tank with attached hose and nozzle, to soften asbestos.
- Cuts and scrapes asbestos from surfaces, using knife and scraper. Shovels asbestos into plastic disposal bags and seals bags, using duct tape.

Note: For asbestos removal from walls, ceilings, floors or from mechanical systems which ARE to be scrapped, see "Laborer Group 3". "Asbestos Worker" installs insulation on mechanical systems. For installation of non-irritating insulation in walls, ceilings, floors, etc., see "Carpenter Group 1." For installation of irritating insulation in walls, ceilings, floors, etc., see "Carpenter Group 2."

19) 47-7051.....Highway and Parking Striper

Primary Purpose: Paints highway and parking structural surfaces of streets, highways, parking lots, airports, airfields, game courts, curbs, etc., using manually or mechanically propelled machines, brushes, rollers, and/or spray guns. Includes installation of any device or application of any material used in lieu of paint for traffic delineation, such as buttons, tapes, plastics, rumble bars, etc.

Typical Duties:

- Applies and installs lines, arrows, bumpers, and paints curbs, etc.
- Handles, paints and installs car stops, stop signs and any other type sign installed for the purpose of regulating traffic on such surfaces.
- Installs plastic, metal or composition buttons or lines used instead of paint.
- Applies seal coating, slurry coating and other surface protection; i.e., fog seal and latex based coal tar pitch emulsion used for the protection of the asphalt surface.
- Removes lines, sands using chemicals and hydro-blasting, works on paint and button.
- Manufactures and installs car stops, per example: metal, wood, concrete, plastic, etc., and similar

traffic regulators.

- Manufactures, paints, stencils, services, repairs, places and removes traffic safety and control devices (barricades).
- Prepares and maintains surfaces as outlined above.
- Performs cleanup required in connection with highway and parking stripers work.
- Marks out and grinds in rumble strips and recessed pavement markings using a machine designed exclusively for this purpose. For grinding pavement using heavy equipment, see "Power Equipment Operator."
- Transports, sets up, maintains and takes down variable message signs in work zones when it is incidental to highway and parking stripers work.

20) 47-2154.....HVAC Testing Adjusting and Balancing (TAB) Technician

Primary Purpose: On the site of construction, inspects, tests, adjusts, and balances air-handling equipment and duct work in commercial and industrial buildings, using specialized tools and test equipment, to attain performance standards specified in system design. Inspects system to verify system compliance with plans and specifications and to detect malfunctions in system component parts. Tests performance of air-handling systems, using specialized tools and test equipment, such as pitot tube, flow hood, manometer, and anemometer. Adjusts dampers, fans, sheaves, and other system components, using hand tools such as pliers, screwdrivers, or wrenches.

21) 47-2155.....Hydronics Testing Adjusting and Balancing (TAB) Technician

Primary Purpose: On the site of construction, inspects, tests, adjusts, and balances water distribution systems in commercial and industrial buildings, using specialized tools and test equipment, to attain performance standards specified in system design. Inspects system to verify system compliance with plans and specifications and to detect malfunctions in system component parts. Tests performance of water distribution systems, using specialized tools and test equipment, such as flowmeters, manometers, pressure gauges, and thermometers. Adjusts valves, fittings, and other components in piping systems, using hand tools such as pliers, screwdrivers, or wrenches.

22) 47-2221.....Ironworker

Primary Purpose: Raises, places, installs, and erects all structural steel beams, columns, joists, and trusses, including prefabricated or pre-cast beams, to form completed structures and structural frameworks. Places and secures steel reinforcing bars in concrete. Fabricates and installs ornamental ironwork, including metal window and door frames, handrails, stairs, and walkways.

Typical Duties:

- Sets and installs structural steel girders, beams, columns, rebar cages and mats, and other components to form buildings, bridges, towers, and other structures.
- Performs all work related to the signaling, rigging, hoisting, aligning, bolting, riveting, or welding of structural steel members.
- Loads, unloads, moves, and handles prefabricated steel, including reinforcing bars, at the site of

work.

- Assembles hoisting equipment, machinery, and rigging, such as cables, pulleys, and hooks, used to move materials and equipment.
- Erects pre-engineered metal buildings, including the bolting of members, girts, and perkins, and the installation of sheet metal siding, roofing, insulation, down spouts, gutters, and flashing.
- Positions and fastens steel bars in concrete forms to reinforce concrete, using wire, pliers, and welding or rod bending machinery; cuts steel bars to required lengths with tools or machinery; performs layout work related to the placement of steel bars.
- Attaches post-tensioning cables and pre-stressed cables at the site of work; performs work related to the tensioning and grouting of cables and the removal of excess cable.
- Fabricates and installs such ornamental metal as balconies, stairs, walkways, catwalks, handrails, fences, gates, and window and door frames. See "Fence Erector (Metal)" for installation of wire and chain link fencing.
- Installs steel overhead doors in metal buildings.
- May install steel security and hollow metal doors. See also "Carpenter Group 1."
- May install large industrial storage shelves.
- May spin suspension bridge cables or perform other related ironwork duties.

23) Laborer

Primary Purpose: Performs a variety of tasks involving physical labor, including but not limited to digging, lifting, carrying, holding, mixing, spreading, and cleaning, and which may include the operation of equipment powered by air, electricity, or gas. Note: While a Laborer may provide incidental assistance to workers in other classifications, this classification excludes construction laborers who primarily assist a craft worker. Refer to the Tender to Mason Trades and Tender to Plasterer classifications for additional information.

47-2061.....Laborer Group 1

Typical Duties:

- Assists carpenters engaged in construction, erection, installation, and repair of wooden structures and fixtures by moving and lifting building materials, tools, and supplies; handing materials, tools, and supplies to carpenters; dismantling temporary wooden structures; and cleaning materials, equipment, tools, and work areas.
- Assists in setting up drills, sorting drill steels, and inserting drill steel into drill chuck.
- Attends tool room located at the work site.
- Carries powder or other explosives to powderman and assists by placing prepared explosive in hole and connecting lead wire to blasting machine.
- Cleans and dresses the slopes of roadway cuts and embankments.
- Cleans work area, tools, equipment, and materials, except when such work is performed by the classification using the tools, equipment, and materials.
- Cures concrete.
- Digs and fills holes and trenches.
- Erects and repairs guard rails, median rails, guide and reference posts, sign posts, and right of way markers along highways.
- Erects and dismantles shoring for the protection of workers in excavations or trenches.
- Levels earth to fine grade specifications, using pick and shovel.
- Lifts and moves building materials, including loading, unloading, and stockpiling, except when such

work is performed by the classification installing the materials.

- Mixes, pours, and spreads asphalt, gravel, and other materials, using hand tools.
- Operates chipper (Pittsburg or similar types).
- Operates control lever on non-powered asphalt spreader.
- Performs rigging and shoring activities for installation of sewer pipes, including laying out pipes and fittings above ground and handing materials to pipelayer.
- Places rip rap by hand.
- Removes roof, including the cleaning up and handling of roofing material, when at least one new story is added or in demolition work, where no re-roofing will occur. See "Roofer" for the removal of roof and roofing materials that is not related to demolition or the addition of at least one new story.
- Removes trees, vegetation, and debris by hand, including the cutting and burning of brush and the felling and bucking of timber. See "Line Constructor" for tree trimming activities related to power line construction or maintenance.
- Signals operators of construction equipment to facilitate alignment, movement, and adjustment of machinery to conform to grade specifications.
- Sprays material such as water or steam through hoses to clean, coat, or seal surfaces.
- Strips forms and form materials used for pouring concrete when forms or form materials are to be discarded. Cleans and preps reusable forms. See "Carpenter Group 1" for the removal and repair of reusable forms.
- Supervises traffic control persons (flaggers).
- Tears down and wrecks building structures and moves demolished materials.
- Weighs materials using batching scale and discharges materials from weighing bin into mixer, truck, or other kind of carrier.
- May erect, dismantle, and remove self-supporting scaffolding up to 14 feet in height. For the erection, dismantling, and removal of scaffolding of any height that is used by bricklayers or plasterers, see "Tender to Mason Trades" and "Tender to Plasterers."

47-2062.....Laborer Group 2

Typical Duties:

- Cleans and prepares surfaces by the use of sandblasting equipment (wet).
- Cleans surfaces by the use of pressure washing equipment.
- Digs postholes, using tools driven by air, gas, or electric power. See "Fence Constructor (Non-metal)" and "Fence Erector (Metal)" for postholes connected with fencing.
- Dopes and wraps pipe.
- Drives self-propelled buggy to transport concrete from mixer or source of supply to place of deposit.
- Measures distances from grade stakes, sets stakes, and stretches string line.
- Mixes concrete, using portable mixer, pours, places, and spreads concrete, and mixes cement products used in the patching, grouting, or dry packing of concrete. See "Cement Mason" for the leveling, smoothing, edging, and finishing of poured concrete surfaces.
- Operates power tools to perform such work as breaking old pavement or large rocks or loosening or digging hard earth (dry pack machine, jackhammer, chipping guns, paving breakers).
- Places rip rap by hand (lead worker).

47-2063.....Laborer Group 3

Typical Duties:

- Builds manholes. See also "Carpenter Group 1."
- Cleans and prepares surfaces by the use of sandblasting equipment (dry).

- Cleans up and demolishes building materials and heating, ventilation, and air conditioning systems contaminated with mildew, mold, or other kinds of toxic microbes.
- Operates hand-guided vibratory compactor.
- Operates laser guidance equipment to place pipes.
- Operates power-driven chain saw to clear areas of timber; fells trees. See "Line Constructor " for tree trimming activities related to power line construction or maintenance.
- Removes regulated materials such as asbestos from mechanical systems (including but not limited to pipes, boilers, ducts, flues, breaching, grease ducts, and acid ducts) to be scrapped and any non-mechanical insulation (including walls, ceilings, floors, and beams); loads regulated materials that have been removed, bagged, and tagged; cleans site of removal activities. See "Asbestos Worker/Insulator" or "Hazardous Materials Handler/Mechanic" for removal of regulated materials from mechanical systems that will not be scrapped.
- May operate drills (air track, cat drill, wagon drill, and similar types).

47-2064.....Laborer Group 4

Typical Duties:

- Checks grade for site work.
- Distributes asphaltic road-building materials evenly over road surface by raking.
- Handles the hose or nozzle equipment and directs the placement of concrete, mortar, or gunite.
- Lays, joins, aligns, wraps, and seals pipe sections. See "Plumber/Pipefitter/Steamfitter" for the installation of piping and tubing systems that are to conduct water, steam, air, and other fluids or gases in and around buildings.
- Locates, loads, and fires blast holes; charges hole by placing explosive and depresses handle of blasting machine or lights fuse to fire explosive. See "Line Constructor " for use of explosives related to power line construction or maintenance.
- Performs scaling duties while suspended by swinging stage, chair, or belt (high scaling).
- Performs underground tunnel and shaft work, including but not limited to drilling, laying tracks, loading and removing debris, operating laser guidance equipment, preparing blasting material and holes for explosives, scaling, and shotcreting.

47-2065.....Laborer Group 5

Typical Duties:

- Carries out fire watch duties; may carry out confined space (hole) watch duties.
- Performs such final cleanup duties as cleaning ceilings, floors, walls, and windows of a building after construction has been completed. See "Laborer Group 1," for general cleanup of a work site during construction.

24) 37-3011.....Landscape Laborer/Technician

Primary Purpose: Beautifies plots of land by changing natural features through the addition or modification of lawns, trees, and bushes.

Typical Duties:

- Performs seeding, planting, mulching, land clearing, and topsoil spreading by the use of hand tools.
- Mixes and spreads ground covers, soil amendments, decorative bark or decorative rock.
- Using hand tools and power equipment with less than 90 horsepower, clears land, trenches to a maximum depth of three feet below finish grade, hydroseeds, and applies chemicals and fertilizers.

- Tills, spreads, and grades topsoil.
- Establishes lawns and plants trees, shrubs, and plants.
- Installs, services, or replaces aboveground and underground lawn or landscape irrigation systems.
- Installs French drains or other subsurface water collection systems to a maximum depth of three feet below finish grade.
- Installs, services, or repairs low voltage outdoor landscape lighting and irrigation valves.
- Assembles or places pre-manufactured and custom fabrication trelliswork, play equipment, benches and picnic tables.

25) 47-2112.....Limited Energy Electrician

Primary Purpose: Installs, inspects, maintains, and repairs cables, devices, lines, and wires related to alarm, data communication, and telecommunication systems. (This classification may only be used for electrical work not exceeding 100 va in class II and III installations, as defined in Article 725 of the National Electrical Code).

Typical Duties:

- Assembles and installs such communication equipment as computer, data communication, telephone, and television cables, wiring, distribution frames, and related devices and enclosures.
- Installs security and fire alarm systems.

26) 49-9051.....Line Constructor

Primary Purpose: Installs, maintains, and repairs electrical distribution and transmission systems, including conduits, cables, wires, and related equipment. Erects, maintains, and repairs transmission poles (whether constructed of wood, metal, or other material) and light or heavy-duty transmission towers. This classification includes cable splicers, groundmen (including head groundman), linemen, line equipment men, pole sprayers (including lead man), powdermen, tree trimmers, and troubleshooters. Excludes repairers of transformers and substation equipment and telephone and telegraph communications workers.

Typical Duties:

- Joins, splices, insulates, and terminates power cables which are designed to be used for voltages above 2,000.
- Joins, splices, insulates, and terminates gas or liquid filled power cables when part of a distribution system outside of buildings.
- Erects, maintains, and repairs transmission poles, towers, and similar electrical structures for transmission and distribution power lines; performs welding related to such work.
- Climbs poles or towers and installs wires, cables, transformers, insulators, and other electrical equipment.
- Operates equipment used primarily for erection of steel towers, steel poles, or wood high-line structures, when such equipment is capable of operating with 100 or more aggregate feet of boom. Equipment includes cranes, backhoes, clam shells, drag lines, and shovels. For operation of power equipment not related to the construction or maintenance of power lines, see "Power Equipment Operator."
- Applies preservative treatment to wood poles.
- Prunes or trims treetops, limbs, branches and brush interfering with electrical power lines.
- Climbs trees to reach branches to be trimmed, using climbing equipment or working from the bucket of an extended truck boom.
- Operates caterpillars, trucks equipped with winches or booms, hydraulically operated backhoes

- with or without front-end loaders, hydraulic mounted booms, and other such equipment to perform work related to power line construction or maintenance. For operation of power equipment related to other purposes, see "Power Equipment Operator."
- Uses equipment to hoist steel and insulators to linemen or for sagging or stringing wire.
 - Operates jackhammer to perform work related to power line construction or maintenance.
 - Handles, places, and detonates explosives used for purposes of power line construction or maintenance.
 - Loads, unloads, and moves materials and equipment used for the construction of power lines.
 - Manually digs and backfills pole holes, anchor holes, and trenches.
 - Assists in framing and erecting poles, in making, installing, and pulling guys, and in assembling and erecting fixtures.

27) 47-2044.....Marble Setter

Primary Purpose: Cuts, tools, and sets marble or granite slabs on floors, walls, and other structures in buildings and repairs and polishes slabs previously set in buildings. This classification is assisted by Marble Finisher.

Typical Duties:

- Trims, faces, and cuts marble or granite to specified size, using power sawing, cutting, and facing equipment and hand tools.
- Drills holes in slabs and attaches brackets.
- Spreads mortar on bottom of slabs and on sides of adjacent slabs.
- Sets blocks in position, tamps them into place, and anchors bracket attachments with wire.
- Fills joints with grout and removes excess grout from marble or granite with sponge.
- Cleans and bevels cracks or chips on slabs, using hand tools and power tools.
- Heats cracked or chipped areas with blowtorch and fills defects with composition mastic that matches grain of marble.
- Polishes marble and other ornamental stone to high luster, using power tools or by hand.

28) 49-9044.....Millwright

Primary Purpose: Assembles, installs, aligns, and dismantles mechanical, hydraulic, pneumatic, and electrical machinery in commercial and industrial sites. This group includes Millwright, Machine Erector, and Machinist. Performs welding related to the assembly and installation of mechanical, hydraulic, pneumatic, and electrical machinery in commercial and industrial sites.

Typical Duties:

- Assembles and installs machines and equipment including but not limited to motors, generators, compressors, and conveyors according to layout plans, blueprints, and other drawings, using hand and power tools.
- Constructs foundations for machines, using hand tools and such building materials as wood, cement, or steel.
- Bolts, rivets, or otherwise fastens machines to foundations or other structures, using hand and power tools.
- Aligns machines and equipment, using hoists, jacks, hand tools, squares, rules, micrometers, and plumb bobs.
- Moves machines and equipment, using hoists, dollies, rollers, and trucks.

- Dismantles machines, using hammers, wrenches, crowbars, and other hand tools.
- Performs welding to assemble, install, or fasten machines and equipment.

29) 47-2141.....Painter

Primary Purpose: Paints walls, equipment, buildings, bridges, and other structural or decorative surfaces, using brushes, rollers, spray guns, and trowels. Applies wall coverings and fabrics. As Commercial Painter, performs painting work upon or within sheltered enclosures having the purpose of housing persons, machinery, equipment, or supplies, including but not limited to schools, institutional buildings, detention facilities, fire and police stations, court houses, office buildings, commercial buildings, and other types of building structures. As Industrial Painter, performs painting work upon or within structures or facilities that have been established or constructed for industrial, transportation, energy, or sanitation purposes, including but not limited to treatment plants, pipelines, bridges, towers, dams, power facilities, shipyards, and other similar structures, all of which contain extensive use of metal components in their construction.

Typical Duties:

- Applies paint, varnish, stain, enamel, lacquer, vinyl, wall coverings, and fabrics for acoustical stretch panels to decorate and protect interior and exterior surfaces, trimmings, and fixtures of buildings and structures, including the application of epoxy coating on floors and walls with brush, roller, spray equipment, or trowel.
- Removes old paint or other coatings from surfaces, using paint remover, scraper, wire brush, or handheld power tools, or by sandblasting or needle gunning; cleans, smooths, and washes surfaces in preparation for painting, using sandpaper, brushes, or steel wool.
- Fills nail holes, cracks, and joints with caulk, putty, or other fillers.
- Tapes, masks, and covers surfaces to protect or contain them during painting.
- Mixes paints, oils, stains, varnishes, and lacquers to obtain desired color or consistency.

30) 47-2073.....Piledriver

Primary Purpose: Performs pile work and drives piles of any type, including but not limited to wood, steel, concrete, and composite materials. Includes pile driving work related to waterfront and marine installations. See "Power Equipment Operator" for operation of pile driver equipment.

Typical Duties:

- Constructs bridges made of heavy timber; erects and removes falsework made of heavy timber.
- Constructs such waterfront and marine facilities as docks, piers, wharves, bulkheads, jetties, and similar structures.
- Erects and removes falsework used to perform work under Piledriver classification.
- Sets up equipment for raising and placing of piles.
- Rigs piles in leads, places cushion caps on piles to prevent splitting, guides piles, plumbs piles, and signals operators to begin or cease hammering except when equipment is controlled remotely from the ground.
- Drives, sets, stays, stresses, tests, splices, welds, cuts off, and caps piles.
- Drives sheet piling to shore and braces excavations related to pile driving work, including but not limited to the installation of lagging and all attachments to piles.

- For bridges over water, erects forms for the capping of piles, piers, and columns and for the pier or abutment on land that is nearest to the water's edge. Strips and repairs such forms and form materials, including form components, if reusable. See "Laborer Group 1" for stripping of non-reusable forms and form materials. Also see "Laborer Group 1" for cleaning and prepping of reusable forms.
- Constructs and installs cofferdams and caissons, and places and removes all casings, permanent or temporary, required to install piling. Includes drilled vertical shafts that serve as a form to support piles or pylons.

31) 47-2161.....Plasterer and Stucco Mason

Primary Purpose: Applies coats of plaster or stucco to interior or exterior walls, ceilings, and partitions of buildings and structures to produce a finished surface. Fireproofs building assemblies with plaster materials, sprayed fiberglass, or other similar materials, whether applied to gypsum, metal lath, or directly.

Typical Duties:

- Applies plaster to lath, masonry, drywall, or other bases; applies stucco to exterior walls. For the sealing of joints between plasterboard or other wallboards to prepare the wall surface for painting or papering, see "Drywall Taper."
- Sprays fireproof insulation onto gypsum, lath, or other surfaces.
- Creates decorative textures in finish coat systems.
- Molds and installs ornamental plaster pieces, panels, and cornices.
- Applies plaster or stucco siding materials.

32) 47-2152.....Plumber/Pipefitter/Steamfitter

Primary Purpose: Fabricates, assembles, installs, alters, dismantles, and replaces pipe systems and related appurtenances (including but not limited to metal, plastic, ceramic, and composition) for the transportation of solids, liquids, or gases. Installs plumbing fixtures.

Typical Duties:

- Fabricates, assembles, and installs piping and tubing systems that are to conduct water, steam, air, and other fluids, solids, or gases in and around buildings and structures, including hangers, restraints, and supports for such systems.
- Installs vacuum piping systems.
- Installs drainage and sewage lines (laterals) from buildings to the point of attachment to sewer mains.
- Installs distribution lines, including but not limited to oil and gas lines.
- Installs plumbing fixtures, including but not limited to sinks, faucets, drinking fountains, and commodes, water closets, medical gas, backflow devices, and residential fire sprinkler systems that connect into potable water systems. See "Sprinkler Fitter" for the installation of residential fire sprinkler systems that do not connect to the plumbing system.
- Installs piping systems for refrigeration, cooling, and heating equipment, including but not limited to compressors, pumps, tanks, gauges, valves, tubes, and pipes. See "Sheet Metal Worker" for the installation of sheet metal duct work.
- Cuts, threads, bends, connects, and secures pipes.
- Performs welding and burning which is incidental to the work of plumbing, pipefitting, or steamfitting.

- Handles and moves materials and equipment to be used by plumbers, pipefitters, and steamfitters.
- Dismantles piping systems to be replaced or reconditioned.

33) Power Equipment Operator

Primary Purpose: Operates a variety of power construction equipment at the site of work, including but not limited to bulldozers, cranes, excavators, loaders, power shovels, and scrapers. Classification is based on the specific type of equipment that is being operated.

Typical Duties:

- Operates all types of self-propelled equipment, whether controlled mechanically, electrically, electronically, hydraulically, automatically, or remotely.
- Operates stationary equipment including but not limited to asphalt plants, concrete batch plants, crushing plants, and screening plants.
- Loads and moves dirt, rocks, equipment, and materials.
- Drives, mixes, places, pumps, rolls, and spreads various kinds of materials, using heavy machinery.
- Repairs, maintains, and services equipment, as needed.

47-7011.....Power Equipment Operators Group 1

Typical Duties:

- Concrete Batch Plant and or Wet Mix, three (3) units or more.
- Crane, Floating, one hundred fifty (150) tons but less than two hundred fifty (250) tons (Assistant to Engineer required).
- Crane, Hydraulic, ninety (90) tons through one hundred ninety-nine (199) tons, with luffing or tower attachment.
- Crane, Hydraulic, two hundred (200) tons through three hundred ninety-nine (399) tons.
- Crane, Lattice Boom, two hundred (200) tons through two hundred ninety-nine (299) tons, with two hundred (200) foot boom or less.
- Crane, Lattice Boom, ninety (90) tons through one hundred ninety-nine (199) tons, with over two hundred (200) foot boom.
- Crane, Tower, with over one hundred seventy-five (175) foot tower or over two hundred (200) foot jib.
- Crane, Whirley, ninety (90) tons and over.
- Helicopter when used in erecting work.
- Tunnel Boring Machine.
- Tunnel, Micro Boring Tunnel Machine

47-7012.....Power Equipment Operators Group 1A

Typical Duties:

- Crane, Floating, two hundred fifty (250) tons and over (Assistant to Engineer and Deckhand required) shall receive the Group 1 rate plus 5%.
- Crane, Hydraulic, two hundred (200) tons and through three hundred (300) tons, with luffing or tower attachment, shall receive Group 1 rate plus 5%.
- Crane, Lattice Boom, two hundred (200) tons through two hundred ninety-nine (299) tons, with over two hundred (200) foot boom, shall receive the Group 1 rate plus 5%.

- Crane, Lattice Boom, three hundred (300) tons through three hundred ninety-nine (399) tons shall receive Group 1 rate plus 5%.

47-7013.....Power Equipment Operators Group 1B

Typical Duties:

- Crane, Hydraulic, over three hundred (300) tons through three hundred ninety-nine (399) tons, with luffer or tower attachment, shall receive the Group 1 rate plus 10%.
- Crane, Hydraulic, four hundred (400) tons and over shall receive the Group 1 rate plus 10%.
- Crane, Lattice Boom, three hundred (300) tons through three hundred ninety-nine (399) tons, with over two hundred (200) foot boom, shall receive Group 1 rate plus 10%.
- Crane, Floating, three hundred fifty (350) tons and over shall receive Group 1 rate plus 10% (Assistant to Engineer and Deckhand required).
- Crane, Lattice Boom, four hundred (400) tons and over shall receive Group 1 rate plus 10%.

47-7022.....Power Equipment Operators Group 2

Typical Duties:

- Asphalt Plant (any type) (Assistant to Engineer required).
- Asphalt Roto-Mill, pavement profiler, eight (8) foot lateral cut and over.
- Auto Grader or "Trimmer" (Grade Checker required).
- Band Wagons (in conjunction with wheel excavator).
- Blade, Robotic.
- Bulldozer, Robotic Equipment (any type).
- Bulldozer, over one hundred twenty thousand (120,000) pounds and above.
- Cableway, twenty-five (25) tons and over.
- Canal Trimmer (Grade Oiler required).
- Concrete Batch Plant and or Wet Mix, one (1) and two (2) drum.
- Concrete Canal Liner Operator (Assistant to Engineer required).
- Concrete Diamond Head Profiler.
- Concrete, Automatic Slip Form Paver (Assistant to Engineer required).
- Crane, Floating (derrick barge), thirty (30) tons but less than one hundred fifty (150) tons (Assistant to Engineer required).
- Crane, Floating Clamshell, three (3) cu. yards and over (Fireman or Diesel Electric Engineer required).
- Crane, Hydraulic, fifty (50) tons through eighty-nine (89) tons with luffing or tower attachment.
- Crane, Hydraulic, ninety (90) tons through one hundred ninety-nine (199) tons.
- Crane, Lattice Boom, ninety (90) tons through one hundred ninety-nine (199) tons with one hundred fifty (150) foot through two hundred (200) foot boom.
- Crane, Lattice Boom, fifty (50) through eighty-nine (89) tons with over one hundred fifty (150) foot boom.
- Crane, Tower, with one hundred seventy-five (175) foot tower or less and with less than two hundred (200) foot jib.
- Crane, Whirley, under ninety (90) tons.
- Crusher Plant (subject to Article XVII-Manning Conditions).
- Excavator, over one hundred thirty thousand (130,000) pounds.

- Heavy Equipment Robotics Operator or Mechanic.
- Loader, one hundred twenty thousand (120,000) pounds and above.
- Master Environmental Maintenance Mechanic.
- Remote Controlled Earth-Moving Equipment.
- Shovel, Dragline, Clamshell, five (5) cu. yards and over.
- Underwater Equipment, remote or otherwise, when used in construction work.
- Wheel Excavator, any size (Grade Oiler required).

47-7033.....Power Equipment Operators Group 3

Typical Duties:

- Bulldozer, over seventy thousand (70,000) pounds up to and including one hundred twenty thousand (120,000) pounds.
- Crane, Hydraulic, fifty (50) tons through eighty-nine (89) tons.
- Crane, Lattice Boom, fifty (50) tons through eighty-nine (89) tons with one hundred fifty (150) foot boom or less.
- Crane, Shovel, Dragline or Clamshell, three (3) cu. yards but less than five (5) cu. yards (Assistant to Engineer required).
- Excavator, over eighty thousand (80,000) pounds through one hundred thirty thousand (130,000) pounds.
- Loader, sixty thousand (60,000) pounds and less than one hundred twenty thousand (120,000) pounds.

47-7044.....Power Equipment Operators Group 4

Typical Duties:

- Asphalt, Screed.
- Asphalt Paver (Screed man required).
- Asphalt, Roto-Mill, pavement profiler, under eight (8) foot lateral cut.
- Back Filling Machine (Assistant to Engineer required).
- Backhoe, Robotic track and wheel type, up to and including twenty thousand (20,000) pounds, with any attachments.
- Blade (any type).
- Boatman, Licensed.
- Boring Machine (Assistant to Engineer required).
- Bulldozer, over twenty thousand (20,000) pounds and more than one hundred (100) horsepower up to seventy thousand (70,000) pounds.
- Cable-Plow (any type).
- Cableway, up to twenty-five (25) tons.
- Cat Drill (John Henry).
- Challenger.
- Chippers (Assistant to Engineer required).
- Combination Heavy Duty Mechanic-Welder, when required to do both.
- Compactor, multi-engine.
- Compactor, Robotic.

- Compactor, with blade, self propelled.
- Concrete Breaker (Assistant to Engineer required).
- Concrete, Grout Plant.
- Concrete, Mixer Mobile.
- Concrete, Paving Road Mixer.
- Concrete, Reinforced Tank Banding Machine (Assistant to Engineer required).
- Crane, Bridge Locomotive, Gantry, Overhead.
- Crane, Carry Deck.
- Crane, Chicago Boom and similar types.
- Crane, Floating Clamshell, Dragline, etc., under three (3) cu. yards or less than thirty (30) tons (Diesel-Electric Engineer required).
- Crane, Hydraulic, under fifty (50) tons.
- Crane, Lattice Boom, under fifty (50) tons.
- Derrick Operator, under one hundred (100) tons (two operators required when swing control is remote from hoist).
- Diesel-Electric Engineer (Plant or Floating).
- Directional Drill, over twenty thousand (20,000) pounds pullback.
- Drill Cat Operator.
- Drill Doctor and or Bit Grinder.
- Drill Oscillator.
- Driller, Percussion, Diamond, Core, Cable, Rotary and similar type.
- Excavator Operator, over twenty thousand (20,000) pounds through eighty thousand (80,000) pounds.
- Generator Operator.
- Grade Setter/layout from plans.
- Grade-all.
- Guardrail Machines, i.e. Punch, Auger, etc.
- Hammer Operator (Piledriver).
- Hoist, stiff leg, guy derrick or similar type, fifty (50) tons and over.
- Hoist, two (2) drums or more.
- Hydro Axe (loader mounted or similar type).
- Jack Operator, Elevating Barges, Barge Operator, self-unloading (Assistant to Engineer required).
- Loader Operator, front end and overhead, twenty five thousand (25,000) pounds and less than sixty thousand (60,000) pounds.
- Log Skidder.
- Mechanic, Heavy Duty.
- Piledriver Operator (not crane type) (Assistant to Engineer required).
- Pipe Bending, Cleaning, Doping, and Wrapping Machines.
- Rail, Ballast Tamper Multi-purpose.
- Rubber-tired Dozers and Pushers.
- Scraper, all types.
- Side-Boom.
- Skip Loader, Drag Box.
- Stump Grinder (loader mounted or similar type).
- Surface Heater and Planer.
- Tractor, rubber-tired, over fifty (50) horsepower flywheel.
- Trenching Machine, three (3) foot depth and deeper (Assistant to the Operator if required).
- Tub Grinder (used for wood debris).

- Tunnel Boring Machine Mechanic - hyperbaric pay: additional \$10.00 per hour, includes prep and decompress.
- Tunnel, Mucking Machine.
- Tunnel, Segment Plant.
- Tunnel, Separation Plant.
- Tunnel, Shaef Loader.
- Tunnel, Shield Operator.
- Ultra High Pressure Water Jet Cutting Tool System Operator.
- Vacuum Blasting Machine Operator.
- Water Pulls, Water Wagons.
- Welder, Heavy Duty, certified or not.

47-7055.....Power Equipment Operators Group 5

Typical Duties:

- Asphalt Burner and Reconditioner (any type) (Assistant).
- Asphalt, Extrusion Machine.
- Asphalt Roller (any asphalt mix).
- Asphalt, Roto-Mill, pavement profiler ground man.
- Bulldozer, twenty thousand (20,000) pounds or less, or one hundred (100) horsepower or less.
- Cement Pump.
- Chip Spreading Machine.
- Churn Drill and Earth Boring Machine.
- Compactor, self-propelled, without blade.
- Compressor (any power), one thousand two hundred fifty (1,250) cu. feet and over total capacity.
- Concrete, Batch Plant Quality Control.
- Concrete, Combination Mixer and Compressor Operator, gunite work.
- Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter.
- Concrete, Finishing Machine.
- Concrete, Grouting Machine.
- Concrete, Joint Machine.
- Concrete, Mixer, single drum any capacity.
- Concrete, Paving Machine, eight (8) feet and less (Assistant to Engineer if required).
- Concrete, Placing Boom.
- Concrete, Planer.
- Concrete, Pump.
- Concrete, Pump Truck.
- Concrete, Pumpcrete Operator (any type).
- Concrete, Slip Form Pumps,-Power driven hydraulic lifting device for concrete forms.
- Concrete, Spreader.
- Concrete, Telebelt.
- Concrete, Treated Base Roller Operator, Oiling.
- Conveyored Material Hauler.
- Boom type lifting device, five (5) tons capacity or less.
- Drill, Directional type, less than twenty thousand (20,000) pounds pullback.
- Drill, Mud Mixer.

- Elevating Grader Operator, Tractor towed requiring Operator or Grader.
- Elevating Loader Operator (any type).
- Elevator to move personnel or materials.
- Fork Lift, over ten (10) tons or Robotic.
- Helicopter Hoist.
- Hoist Operator, single drum.
- Hydraulic Backhoe, track type, up to and including twenty thousand (20,000) pounds.
- Hydraulic Backhoe, wheel type (any make).
- Laser Screed.
- Lime Spreader, construction job site.
- Loaders, rubber-tired type, less than twenty-five thousand (25,000) pounds.
- Internal Full Slab Vibrator.
- Pavement Grinder and or Grooving Machine (riding type).
- Pipe, cast in place pipe laying machine.
- Pulva-Mixer or similar types.
- Pump Operator, more than five (5) pumps (any size).
- Rail, Ballast Compactor, Regulator, or Tamper machines.
- Rail, Car Mover.
- Rail, Clip Applicator.
- Rail, High Rail Self Loader Truck.
- Rail, Locomotive, forty (40) tons and over (Assistant to Engineer required).
- Rail, Lo-Railer.
- Rail, Shuttle Car Operator.
- Rail, Speedswing.
- Rail, Track Liner.
- Service Oiler (Greaser).
- Sweeper, self-propelled, construction job site.
- Tractor, rubber-tired, fifty (50) horsepower flywheel and under.
- Trenching Machine Operator, maximum digging capacity three (3) feet depth.
- Truck, All Terrain or Track type.
- Truck, Barrel type.
- Truck, Boom.
- Truck, Offroad Trucks, Articulated and Non-Articulated Trucks.
- Truck, Vacuum.
- Truck, Water.
- Tunnel, Locomotive, Dinkey.
- Tunnel, Power Jumbo setting slip forms, etc.

47-7066.....Power Equipment Operators Group 6

Typical Duties:

- Air Filtration Equipment.
- Asphalt, Pugmill (any type).
- Asphalt, Raker.
- Asphalt, Truck Mounted Asphalt Spreader, with screed.
- Auger Oiler.

- Boatman
- Bobcat, Skid Steer (under 1 yard).
- Broom, self-propelled, construction job site.
- Compressor Operator (any power), under one thousand two hundred fifty (1,250) cu. feet total capacity.
- Concrete Curing Machine (riding type).
- Concrete Saw.
- Conveyor Operator or Assistant.
- Crane, Tugger.
- Crusher Feederman.
- Crusher Oiler.
- Deckhand.
- Drill Assistant.
- Drill, Directional Locator.
- Fireman.
- Forklift.
- Grade Checker.
- Guardrail Punch Oiler.
- Heavy Duty Repairman Assistant.
- Hydraulic Pipe Press.
- Hydrographic Seeder Machine, straw, pulp or seed.
- Hydrostatic Pump Operator.
- Material Handler.
- Mixer Box (C.T.B., dry batch, etc.).
- Oiler.
- Parts Man (Tool Room).
- Plant Oiler.
- Pump (any power).
- Rail, Brakeman, Switchman, Motorman.
- Rail, Switchman.
- Rail, Tamping Machine, mechanical, self-propelled.
- Rigger.
- Roller grading (not asphalt).
- Tar Pot Fireman (power agitated or not).
- Truck Crane Oiler-Driver.
- Welder's Assistant.
- Welding Machine.
- Wire Mat or Brooming Machine.

34) Rigger

Note: Classify riggers in the craft performing the work for which rigging is incidental. For example, a carpenter doing rigging is classified as a carpenter; an ironworker doing rigging is classified as an ironworker.

35) 47-2181.....Roofer

Primary Purpose: Applies and installs roofing materials other than sheet metal to roofs of commercial structures, using brushes, knives, punches, hammers, and other tools.

Typical Duties:

- Installs roofing materials, including but not limited to asphalt, composition, slate, tile, and wood, and necessary metal flashing to make roof system watertight.
- Lays felt or paper beneath roofing material.
- Cuts, dresses, and punches roofing material.
- Installs damp resisting preparations when applied to roofs with mop, three-knot brush, roller, swab or spray system; applies elastomeric and elastoplastic coatings and membranes for roofing, damp-resistance, and waterproofing, using squeegee, trowel, roller, or spray equipment. For waterproofing of concrete or masonry, see "Cement Mason Group 2," and Bricklayer/Stonemason.
- Tears off or removes roofs and roofing materials. See also "Laborer Group 1," for removal of roofs during demolition or when at least a single story is added to a structure.

36) 47-2211.....Sheet Metal Worker

Primary Purpose: Fabricates on site, assembles, installs, and replaces sheet metal products and equipment, including but not limited to control boxes, drainpipes, duct work, and furnace casings.

Typical Duties:

- Installs, repairs, and alters such assemblies as duct work for heating, ventilation, air-conditioning, and exhaust systems, rain gutters and down spouts, and furnace casings.
- Installs panels and structures for refrigeration equipment. See "Plumber/Pipefitter/Steamfitter" for installation of refrigeration units or systems.
- Installs sheet metal roofing or siding materials, including application of insulation to siding prior to installation. See "Ironworker" for installation of sheet metal roofing or siding materials on pre-engineered metal buildings.
- Sets up and operates fabricating machines to cut, bend and straighten sheet metal.
- Shapes metal over anvils, blocks, or forms, using hammer.
- Operates soldering and welding equipment to join sheet metal parts; inspects, assembles, and smooths seams and joints of burred surfaces.
- Removes sheet metal roofing when re-roofing with sheet metal materials will occur. See "Laborer Group 1," for removal of sheet metal roofing when re-roofing will not occur.

37) 47-2041.....Soft Floor Layer

Primary Purpose: Applies blocks, strips or sheets of shock-absorbing, sound-deadening or decorative coverings including but not limited to soft tile, linoleum, carpet, rubber, and cork, and may also include pre-finished wood and laminate flooring and plastic laminates to floors, walls, and cabinets. Prepares and installs synthetic turf.

Typical Duties:

- Removes covering materials from base surfaces to prepare for installation of new covering materials.
- Sweeps, scrapes, sands, or chips dirt and irregularities from base surfaces, and fills cracks with

putty, plaster, or cement grout to form smooth, clean foundations.

- Measures and cuts covering materials and such underlayment materials as felt or padding.
- Spreads adhesive cement over floors to secure underlayment material and to prevent covering from wearing at board joints.
- Fits devices for the attachment of covering materials, including fitting of metal edges, corners, and caps.
- Lays and installs underlayment, including self-leveling cementitious underlayments and moisture barriers, and covering materials, and rolls, presses, or stretches materials to produce smooth, finished surfaces.

38) 47-2153.....Sprinkler Fitter

Primary Purpose: Installs and maintains all fire protection and fire control systems and installs all piping, auxiliary devices, tubing, appurtenances, and equipment related to such systems. Excludes systems operated with steam.

Typical Duties:

- Installs and maintains overhead and underground water mains, fire hydrants and hydrant mains, standpipes and hose connections to sprinkler systems, sprinkler tank heaters, air lines and thermal systems used in connection with sprinkler and alarm systems, including all related tanks and pumps. See also "Plumber/Pipefitter/Steamfitter" for the installation of piping systems not related to fire protection and fire control systems and for the installation of residential fire sprinkler systems when such systems connect into a potable water system.
- Installs and maintains CO-2 and Cardox systems, dry chemical systems, foam systems, Halon systems, and all other fire protection systems.
- Cuts and cores holes for piping, and sets sleeves and inserts required for installation of fire protection systems.

39) 47-3011.....Tender to Mason Trades (Brick and Stonemason, Mortar Mixer, Hod Carrier)

Primary Purpose: Directly assists Brickmasons and Stonemasons.

Typical Duties:

- Mixes, supplies, and holds materials or tools.
- Mixes, handles, and conveys all other materials used by Masons, such as brick or stone.
- Cleans work area and equipment of Masons.
- Erects scaffolding of any height for use by Masons.

Note: Excludes placement of cement and concrete and cement pumping, which is performed by Laborer classification.

40) 47-3014.....Tender to Plasterer and Stucco Mason

Primary Purpose: Assists plasterers or stucco masons.

Typical Duties:

- Supplies and holds materials or tools.
- May mix and convey materials; may install overspray protection.
- Cleans work area and equipment of Plasterers.
- Erects scaffolding of any height for use by Plasterers.
- Operates stucco or fireproofing pumps.

Note: Excludes construction or maintenance laborers who do not primarily assist plasterers or stucco masons (See "Laborer Group 2" classification).

41) 47-2045.....Tile Setter/Terrazzo Worker: Hard Tile Setter

Primary Purpose: Applies tile to walls, floors, ceilings, and promenade roof decks, following design specifications. Creates durable and decorative surfaces on walls, floors, and ceilings. This classification is tended by Tile, Terrazzo, and Marble Finisher.

Typical Duties:

- Applies glazed, unglazed, mosaic, and other ceramic tiles which are used as a surface on floors, walls, ceilings, and other surfaces and which must be set to a specified grade.
- Cuts and shapes tile with tile cutters and biters.
- Mixes, applies, and spreads adhesive materials to form a bed for tiles.
- Levels and plumbs tiles to the specified grade; positions tiles and affixes them to adhesive base.
- Spreads mixture of sand, cement, and water over surface with a trowel to form terrazzo base.
- Cuts metal division strips and presses them into terrazzo base so that top edges form desired design or pattern and define level of finished floor surface.
- Spreads mixture of marble chips, cement, pigment, and water over terrazzo base, using float and trowel, to form finished surface.

42) 47-2046.....Tile, Terrazzo and Marble Finisher

Note: This classification does not lay or set any material and may not replace Tile Setter/ Terrazzo Worker, Bricklayer, or Marble Setter.

I. Tile and Terrazzo Finisher

Primary Purpose: Supplies and mixes construction materials for Terrazzo Worker and Tile Setter. Applies grout and finishes surface of installed terrazzo and tile.

Typical Duties:

- Handles, moves, hoists, stores, and distributes sand, mortar, cement, lime, terrazzo, tile, or any other materials that may be used by Terrazzo Worker and Tile Setter.
- Mixes mortar and grout and moves mortar and grout manually or using wheelbarrow.
- Cleans installed terrazzo and tile surfaces and work and storage areas.
- May repair and fill chipped, cracked, or broken pieces.
- Grinds and polishes terrazzo and tile surfaces.
- May assist Terrazzo Worker and Tile Setter.

II. Brick and Marble Finisher

Primary Purpose: Assists Bricklayer or Marble Setter in order to increase productivity.

Typical Duties:

- Strikes, saws, cleans, washes, and grouts brick or marble.

43) Truck Driver

Primary Purpose: Drives a tractor-trailer combination or a truck with a capacity of at least three (3) tons to transport goods or materials, including but not limited to dump trucks, flat beds, and water wagons. Classification is based on the specific type of vehicle that is being operated.

Typical Duties:

- Drives and maneuvers vehicles to move or transport materials.
- Performs repairs and maintenance on vehicles.

53-3031.....Truck Driver Group 1

- Articulated Dump Truck Driver
- A-Frame or Hydra-Lift Truck with load-bearing surface
- Battery Rebuilder
- Bus or Man-Haul Driver
- Concrete Buggies (power operated)
- Concrete Pump Truck
- Driver
- Dump Trucks, side, end and bottom dumps up to and including ten (10) cu. yards, including semi-trucks and trains or combinations thereof
- Fork Lifts used in loading, unloading and transporting material on job site
- Fuel Truck Driver
- Lift Jitney Driver
- Loader and/or Leverman on concrete dry batch plant, manually operated
- Lubrication Man
- Pickup Truck Driver
- Pilot Car Driver
- Slurry Truck Driver or Leverman
- Solo Flat Bed and miscellaneous body trucks (zero to ten (0-10) tons)
- Steam Cleaner or combination
- Tireman
- Transit Mix and Wet or Dry Mix Truck Driver, five (5) cu. yards and under
- Truck and Truck Mechanic Assistant
- Wash Rack Operator
- Water Wagon, up to three thousand (3,000) gallons

53-3032.....Truck Driver Group 2

- Boom Truck/Hydra-lift or Retracting Crane
- Challenger

- Dump Truck/Articulated Dump Driver, six (6) to ten (10) cu. yards
- Dumpsters or similar equipment, all sizes
- Flaherty Spreader Driver or Leverman
- Low Bed Equipment, Flat Bed Semi-Truck and Trailer or doubles driver transporting equipment or wet or dry materials
- Lumber Carrier, Driver-Straddle Carrier used in loading, unloading and transportation of material on job site
- Oil Distributor Driver or Leverman
- Transit Mix and Wet or Dry Mix Truck Driver, over five (5) cu. yards and including seven (7) cu. yards
- Vacuum Truck Driver
- Water Wagon Driver, three thousand (3,000) to five thousand (5,000) gallons

53-3033.....Truck Driver Group 3

- Ammonia Nitrate Distributor
- Dump Trucks, side end and bottom dumps over ten (10) cu. yards and including thirty (30) cu. yards, including semi-trucks and trains or combinations thereof, includes Articulated Dump Trucks
- Self-Propelled Street Sweeper
- Transit Mix and Wet or Dry Mix Trucks, over seven (7) cu. yards and including eleven (11) cu. yards
- Truck Mechanic -Welder -Body Repairman
- Utility and Clean-up Truck
- Water Wagons, five thousand (5,000) to ten thousand (10,000) gallons

53-3034.....Truck Driver Group 4

- Asphalt Burner
- Dump Trucks, side, end and bottom dumps over thirty (30) cu. yards and including fifty (50) cu. Yards, including semi-trucks and trains or combinations thereof, includes Articulated Dump Trucks
- Fire Guard
- Transit Mix and Wet or Dry Mix Truck Driver, over eleven (11) cu. yards and including fifteen (15) cu. yards
- Water Wagons, ten thousand (10,000) to fifteen thousand (15,000) gallons

53-3035.....Truck Driver Group 5

- Composite Crewman
- Dump Trucks, side, end and bottom dumps over fifty (50) cu. yards and including sixty (60) cu. yards, including semi-trucks and trains or combinations thereof, includes Articulated Dump Trucks

53-3036.....Truck Driver Group 6

- Bulk Cement Spreader without Auger
- Dry Pre-Batch Concrete Mix Trucks
- Dump Trucks, side, end and bottom dumps over sixty (60) cu. yards and including eighty (80) cu. yards, including semi-trucks and trains or combinations thereof, includes Articulated Dump Trucks
- Skid Truck

53-3037.....Truck Driver Group 7

- Dump Trucks, side, end, and bottom dumps over eighty (80) cu. yards and including one hundred (100) cu. yards, including semi-trucks and trains or combinations thereof, includes Articulated Dump Trucks.
- Industrial Lift Truck (mechanical tailgate)

44) Welder

Note: Classify welders in the craft performing the work for which welding is incidental. For example, a carpenter doing hand welding is classified as a carpenter; an ironworker doing welding is classified as an ironworker.

