

O.13
WORK PROCESS SCHEDULE
PILEDRIIVER
O*NET-SOC CODE: 47-2072 RAPIDS CODE:

This trade schedule is attached to and a part of the Apprenticeship Standards for the above identified occupation. This sequence of Related Classroom Instruction is competency based and will be offered as traditional classroom training or independent study, which may include electronic media.

1. TERM OF APPRENTICESHIP

The term of the occupation shall be four (4) years with an OJL attainment of 8,000 hours supplemented by the required hours of related technical instruction.

2. RATIO OF APPRENTICES TO JOURNEYPERSONS

One (1) Apprentice to three (3) Journeypersons: one apprentice for the first skilled journeyperson employed, and one additional apprentice for each three (3) additional skilled journeypersons employed thereafter. A fraction-there-of will be adhered to.

3. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journeyperson wage rate.

Term: 8,000 Hours

- 1st 1000 hours = 60 % of journeyperson's rate
- 2nd 1000 hours = 65 % of journeyperson's rate
- 3rd 1000 hours = 70 % of journeyperson's rate
- 4th 2000 hours = 75 % of journeyperson's rate
- 5th 1000 hours = 80 % of journeyperson's rate
- 6th 1000 hours = 85 % of journeyperson's rate
- 7th 1000 hours = 90 % of journeyperson's rate
- 8th 1000 hours = 95 % of journeyperson's rate

4. SCHEDULE OF WORK EXPERIENCE (See attached Work Process Schedule)

Apprenticeship Oversight Committee may add to the work processes prior to submitting these Standards to the Division of Apprentice Training for approval.

5. SCHEDULE OF RELATED TECHNICAL INSTRUCTION (See attached Related Classroom Instruction Outline)

Instruction can incorporate elements of both electronic media and traditional classroom including online training, distance learning, or independent study of established curriculum.

Curricula modules are based on industry standardized applications of current construction practices. Modules are knowledge and skill based including a system for assessment. The assessment will include task objectives, procedures, review materials, and competency-based performance tests.

O.13- WORK PROCESS SCHEDULE

HOURS

This instruction and experience shall include the following operations, but not necessarily in the listed sequence. Time spent on specific operations need not be continuous.

Tools and Materials	200
Layout	300
Pile driving equipment -- hammers, leads and rigs, motors and pumps	500
Rigging and signaling	400
Driving of piles -- wood, concrete, steel, etc.	1000
Coffer dams and caissons	300
Bridge, dock and wharf construction	800
Heavy timber construction	400
Care and maintenance of tools and equipment	200
Form building	1200
Rough framing	1200
Welding	500
Diving and diver tending	500
Miscellaneous -- safety, scaffolding, shoring, etc.	500
	Total 8000

O.13 - PILEDRIIVER RELATED CLASSROOM INSTRUCTION

Note: Due to regional and local code differences and climate conditions, duration of instructional competencies/modules is suggested estimates only.

Accident prevention, first aid, safety hazards, State and federal safety codes and regulations. Safety courses per the Occupational Safety and Health Administration, U.S. Department of Labor

- A. Basic mathematics
- B. Blueprint reading
- C. Pile driver equipment and materials:
 1. Pile drivers
 - a. Floating of water drivers:
 1. Construction
 2. Rigging: anchors, lines, buoys, hammer line, pile line, jet rigging, lead rigging, deck winches, and rigger heads
 - b. Skid drivers: construction, rigging, skid ways
 - c. Crane with swinging leads
 - d. Swinging leads from marine stiffleg derrick
 2. Hammers and leads (drop, steam, pneumatic diesel):

- a. Hammer rigging
- b. Lead construction (stationary, swinging, pendulum, false, pile extractors).
- 3. Tools: drilling and setting with long augers
- 4. Piling:
 - a. Material: wood; treated wood; steel H. tube and sheet; concrete, cutoffs
 - b. Driving of material: driving to bearing, jetting
- 5. Rigging: building sections, stressed beams, knots, hitches, and splices (manila and wire), stiff legs, gin pole, shear legs, mobile cranes, righting capsized drivers
- 6. Excavations and shoring excavations
- 7. Form building
- 8. Construction and releasing of false work
- 9. Construction of coffer dams: steel sheet piling, wood construction, sealing of coffer dams, removal
- 10. Construction of wood trestles: truss types, heavy framing
- 11. Constructing bridges -- overpasses, underpasses: abutments, sills, columns, vertical curves and supers, beams (cast in place; precast; prestressed and poststressed)
- 12. Dock building: wood, concrete
- 13. Float and pontoon
- 14. Safety course per the Occupational Safety and Health Administration, U.S. Department of Labor
- 15. Welding and burning
- 16. Construction of engines, jets, jet pumps, bilge pumps, etc.

TOTAL HOURS

600

DAT apprenticeship program standards recommend 150 hours of related technical instruction per year.