

Work Processes Schedule

DRAFTER, CIVIL (PROFESSIONAL & KINDRED)

RAPIDS: 0128N

O*NET/SOC: 17-3011.02

REVISION DATE: 12/2014

Prepare drawings and topographical and relief maps used in civil engineering projects, such as highways, bridges, pipelines, flood control projects, and water and sewerage control systems. Demonstrate knowledge and skills for qualifying as Journeyman. Applicable Job Qualification Requirements will be used as a guide in performing tasks and demonstrating knowledge in the following areas. Actual work time must be recorded in the Work Experience Log.

Applicable Ratings/MOS

USMC MOS 1361

USCG None

USN EA

Related Instruction

Any trade related schools/courses totaling 432 hours.

Additional Requirement

None

Total Hours: **6000**

Skill	Description	Hours
A	<p>FUNDAMENTALS OF DRAFTING</p> <p>Use and care of drafting equipment, lettering and titling, blueprint and map reading, tracing plotting and mapping, filing of plans, basic surveying and care of surveying equipment, preparation of charts and graphs, model making, operation of office machines (calculators, planimeters, pantographs, and drafting machines).</p>	1200
B	<p>HIGHWAY DRAFTING</p> <p>Orientation, roads, curbs, drainage structures (plan, elevation, profile and sections). Estimating of quantities and costs, computation of horizontal and vertical curves, detailing of bridges, field surveying and investigations, ozalid printing, and assessment rolls.</p>	800
C	<p>LAND WORK DRAFTING</p> <p>Orientation, layout and preparation of land maps and gathering survey data from other agencies. Computation of land areas, traverse and triangulation computations, field surveying and investigations including procuring of land maps and other maps and information.</p>	800
D	<p>WATERWORKS DRAFTS</p> <p>Orientation, preparation of piping, electrical layouts, and diagrams. Waterline plans and profiles, detailing of special waterworks structures, estimating of quantities and costs, field surveying and investigations.</p>	800
	<p>SEWERAGE DRAFTING</p>	

E	<p>Orientation, preparation of piping and electrical layouts and diagrams, sewer line plans and profiles, detailing of special sewage works structures, estimating of quantities and costs, field surveying and investigations, contours, printing and operation of multigraph machine.</p>	1200
F	<p>CAD EQUIPMENT OPERATIONS</p> <p>Use computer assisted drafting (CAD) equipment and software. Operate computer-aided design (CAD) system and peripheral equipment to resize or modify architectural buildings and to generate a computer tape of the artwork for future use in building the structure. Review work orders and procedural manuals to determine critical dimensions of design. Calculate figures to convert design dimension to resizing dimensions specified for subsequent processes using conversion chart and calculator. Locate files relating to specified design projection data base library and loads program into computer. Enter specified commands into computer using keyboard to retrieve design information from files and display design on CAD equipment display screen. Type commands on keyboard to enter resizing specifications into computer. Confer with engineering and design staff to determine design modifications and enters editing information into computer. Key in specified information using keyboard connected to on-line or off-line peripheral equipment (plotter) to produce graphic representations (hard copy) of design for review and approval by engineering and design staff. Enter specified information into computer to generate computer tape of approved design.</p>	1200