

CEMENT MASON

RAPIDS: 0075D

O*NET/SOC: 47-2051.00

REVISION DATE: 09/2019

TRADE DESCRIPTION: Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.

TASK PERFORMANCE: 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 skill areas. Actual work time must be recorded in the Work Experience Log; each skill area must be completed.

Applicable Ratings/MOS/NEC

USMC MOS: 1302, 1371

USCG: None

USN: BU, CU

USA MOS: 12D, 12H, 12W

Related Instruction:

Trade related On-The-Job-Training (OJT) or Any Trade related schools/courses totaling 216 or more hours.

Additional Requirement:

None

Total Hours: **3000**

Skill	Description	Hours
A	FORMS	300

	<ul style="list-style-type: none"> -- Set the forms that hold concrete to the desired pitch and depth, and align them. -- Check the forms that hold the concrete to see that they are properly constructed. -- Build wooden molds, and clamp molds around area to be repaired, using hand tools. 	
B	<p>RODDING CONCRETE</p> <ul style="list-style-type: none"> -- Cut out damaged areas, drill holes for reinforcing rods, and position reinforcing rods to repair concrete, using power saw and drill. 	100
C	<p>HAND FLOATING</p> <ul style="list-style-type: none"> -- Darby and float finish; waterways, spillways, floor slabs, sidewalks, curbs and gutters. -- Float concrete surface to eliminate high and low spots. -- Use float for final non-skid surface. 	800
D	<p>PATCHING AND RUBBING EXPOSED CONCRETE</p> <ul style="list-style-type: none"> -- Clean chipped area, using wire brush, and feel and observe surface to determine if it is rough or uneven. -- Apply hardening and sealing compounds to cure surface of concrete, and waterproof or restore surface. -- Chip, scrape, and grind high spots, ridges, and rough projections to finish concrete, using pneumatic chisels, power grinders, or hand tools. 	200
E	<p>SURFACE FINISHES</p> <ul style="list-style-type: none"> -- Produce rough concrete surface, using broom. -- Wet surface to prepare for bonding, fill holes and cracks with grout or slurry, and smooth, using trowel. -- Polish surface, using polishing or surfacing machine. -- Wet concrete surface, and rub with stone to smooth surface and obtain specified finish. -- Apply a pattern or stamp the surface to provide a decorative finish. 	300
F	<p>TROWELING, EDGING, AND JOINTING FLAT SURFACES</p> <ul style="list-style-type: none"> -- Spread, level, and smooth concrete, using rake, shovel, hand or power trowel, hand or power screed, and float. -- Mold expansion joints and edges, using edging tools, jointers, and straightedge. -- Hand or power trowel concrete surfaces. -- Edge concrete surfaces. 	800

	<ul style="list-style-type: none"> -- Layout joints in special designs (square, diagonal, etc.) -- Joint and form drains. 	
G	<p>DRY-PACKING OR GROUTING BASE PLATES</p> <ul style="list-style-type: none"> -- Prepare surface to be grouted, roughen to remove laitance and expose sound concrete. -- Review technical data sheet for specific grout being used. -- Construct a properly braced and oiled form with proper relief openings. -- Properly mix and place grout. -- Trim grout surfaces with trowel once grout begins to stiffen. -- Cut back and finish grout shoulder edges. 	200
H	<p>POINTING UP CONCRETE</p> <ul style="list-style-type: none"> -- Clean and prepare surface/joint for pointing. -- Mix pointing material. -- Using a trowel and tuck pointer pack mortar joints. -- Smooth and finish mortar joints. 	100
I	<p>MISCELLANEOUS</p> <ul style="list-style-type: none"> -- Monitor how the wind, heat, or cold affect the curing of the concrete throughout the entire process. -- Direct the casting of the concrete and supervise laborers who use shovels or special tools to spread it. -- Signal truck driver to position truck to facilitate pouring concrete, and move chute to direct concrete on forms. -- Operate power vibrator to compact concrete. -- Waterproof or restore concrete surfaces, using appropriate compounds. -- Fabricate concrete beams, columns, and panels. -- Install anchor bolts, steel plates, door sills and other fixtures in freshly poured concrete. 	200