

Masonry Trades Competency Profile



SAFETY

- Demonstrate basic first-aid techniques and qualifications
- Maintain safe work environment
- Erect scaffolding and ladders according to Occupational Safety and Health Administration (OSHA) guidelines

MASONRY MATERIALS

- Describe the manufacturing process for concrete units
- Identify typical sizes and shapes of clay products
- Identify typical sizes and shapes of concrete products
- Identify typical types of stone
- Identify types of grout and their uses in masonry
- Identify typical types of joint reinforcement used locally
- Identify methods of layout
- Identify types of bonds
- Identify types of reinforcements
- Identify types of reinforced masonry

MATERIALS PREPARATION

- Prepare mortar
- Stock wall

LAYING BRICK AND BLOCK

- Identify the types and functions of basic masonry tools
- Spread mortar for brick
- Spread mortar for block
- Identify bond patterns
- Lay running bond brick and block walls
- Construct brick veneer walls using a corner-pole masonry guide
- Construct brick or block pilasters
- Construct cavity walls
- Construct 90° corners in running bond
- Construct solid or hollow piers
- Construct rowlock windowsills
- Construct soldier courses
- Construct jambs
- Clean brick walls

JOINTING

- Demonstrate knowledge of joint types, functions, and construction techniques
- Construct various types of joints

BLUEPRINT READING, RECORD KEEPING, AND ESTIMATING

- Interpret drawings
- Interpret blueprints
- Estimate needed materials and costs
- Schedule jobs

JOB SITE PREPARATION

- Demonstrate knowledge of measurement devices
- Establish elevation reference points from a bench mark
- Construct footings

MASONRY CONSTRUCTION

- Prepare masonry jambs for steel-bearing
- Set lintels
- Select type of lintel required for job
- Set window frames
- Set door frames
- Lay flights of concrete steps

REINFORCED CONCRETE MASONRY

- Reinforce masonry wall
- Establish joint location in accordance with specifications
- Place control joint material

SPECIAL MASONRY APPLICATIONS

- Operate stationary masonry saw
- Install expansion joints in walls
- Tuckpoint masonry walls
- Construct veneer stone walls
- Lay glass blocks
- Lay masonry floors, walks, or driveways
- Repair masonry work
- Construct arches

CHIMNEY AND FIREPLACE CONSTRUCTION

- Identify the materials used in conventional fireplaces
- Identify the flues and dampers used in conventional fireplaces with two openings
- Identify the flue liner (e.g., tile) sizes used in conventional fireplaces with three openings
- Identify the factors to consider when constructing a chimney
- Identify specified location and dimensions
- Insert liner
- Install cap

BASIC CARPENTRY IDENTIFICATION AND PROCEDURE

- Perform basic cutting and fastening
- Identify lumber sizes
- Identify sub floor
- Identify joists
- Identify headers
- Identify regular stud
- Identify cripple stud
- Identify king stud
- Identify common rafters
- Identify valley rafters
- Identify fascia board
- Identify gable end

SKID STEER SAFETY COURSE

- Introduce skid steer
- Skid steer safety
- Skid steer operation
- Skid steer maintenance
- Skid steer obstacle course
- Skid steer certification