

CARPENTRY, 46.0400.30

These technical knowledge and skill standards were validated by a Skill Standards Validation Committee on October 24, 2007 and used in the adaptation, adoption, and development of test items for pilot testing in Spring 2008.

STANDARD 1.0 MAINTAIN A SAFE WORK ENVIRONMENT IN CARPENTRY

- 1.1 Identify regulations pertaining to job site hazards and safety in carpentry
- 1.2 Use appropriate personal protective equipment for carpentry
- 1.3 Apply the procedures for the handling of hazardous materials/chemicals including the use of MSDS (Material Safety Data Sheets)
- 1.4 Evaluate types of fires and use of appropriate fire extinguishers
- 1.5 Maintain worksite safety and housekeeping (lighting, safety, etc.)
- 1.6 Identify first aid procedures
- 1.7 Identify safety plan for emergency situations
- 1.8 Demonstrate safe procedures for lifting heavy objects
- 1.9 Follow safe procedures in set up of scaffold and use of ladder
- 1.10 Demonstrate safe work procedures around electrical hazards
- 1.11 Explain the purpose of OSHA and how it promotes safety on the job
- 1.12 Use correct procedures for lockout/tag out
- 1.13 Report safety hazards

STANDARD 2.0 OPERATE HAND AND POWER TOOLS/EQUIPMENT UTILIZED IN CARPENTRY

- 2.1 Use and maintain hand tools
- 2.2 Use and maintain portable power tools, powder actuated tools, pneumatic tools, and extension cords
- 2.3 Use and maintain stationary power equipment
- 2.4 Inspect condition of hand and power tools before use

STANDARD 3.0 USE PLANS, SPECIFICATIONS AND CODES

- 3.1 Identify blueprint terms, components, and symbols
- 3.2 Identify a set of drawings/symbols/scales and legends
- 3.3 Read material schedules on blueprints
- 3.4 Relate information on blueprints to actual locations
- 3.5 Identify and use drawing dimensions
- 3.6 Recognize building codes (i.e. national, state, and local)

STANDARD 4.0 LAY OUT BUILDING LINES

- 4.1 Identify the use and care of precision measuring instruments
- 4.2 Recognize building lines
- 4.3 Use a builder's level to determine site and building elevations

STANDARD 5.0 PERFORM CONCRETE/MASONRY WORK

- 5.1 Prepare and pour a footing
- 5.2 Construct a foundation wall or pier
- 5.3 Lay brick/block to specification
- 5.4 Cut brick and block accurately
- 5.5 Demonstrate the process of depositing, spreading, consolidating, and striking off concrete in a form

Note: In this document i.e. explains or clarifies the content whereas e.g. provides examples of the content that must be taught.

STANDARD 6.0 CUTTING AND SHAPING STOCK

- 6.1 Crosscut stock to size
- 6.2 Bore holes
- 6.3 Square stock to 90 degrees
- 6.4 Cut miter joint

STANDARD 7.0 ASSEMBLING AND FASTENING COMPONENTS

- 7.1 Apply clamping devices
- 7.2 Fasten stock with metal fasteners (for example, nails, screws, staples, and other mechanical fasteners)
- 7.3 Identify nailing schedules for selected materials according to national, state, and local building codes
- 7.4 Explain the safe use of nail guns

STANDARD 8.0 LAYOUT AND INSTALL FLOOR SYSTEMS

- 8.1 Install sill plate(s)
- 8.2 Set posts
- 8.3 Construct and/or place girders/beams
- 8.4 Match selected fasteners used in floor framing to their correct uses according to national, state, and local building codes
- 8.5 Estimate the amount of material needed to frame a floor assembly
- 8.6 Construct floor assembly
- 8.7 Install joists for a cantilever floor
- 8.8 Install a subfloor using tongue and groove/OSB panels
- 8.9 Identify different floor systems (e.g. cantilever, TGI truss, conventional, etc.)

STANDARD 9.0 DEMONSTRATE WALL AND CEILING FRAMING

- 9.1 Lay out basic wall lines including plates, corner posts, door and window openings, partition Ts, bracing and plan for installation of fire stops
- 9.2 Assemble wood stud walls
- 9.3 Assemble metal stud walls
- 9.4 Lay out, assemble, erect, and brace exterior walls for a frame building
- 9.5 Cut and install ceiling joists on a wood frame building

STANDARD 10.0 FRAME AND FINISH A ROOF

- 10.1 Construct conventional roof or set truss systems
- 10.2 Install roof sheathing
- 10.3 Frame a roof opening
- 10.4 Erect a gable roof using trusses

STANDARD 11.0 IDENTIFY THERMAL AND MOISTURE PROTECTION

- 11.1 Install insulation material
- 11.2 Install vapor barrier
- 11.3 Identify type and use of vapor barrier
- 11.4 Identify type and use of insulation

STANDARD 12.0 APPLY EXTERIOR FINISHES

- 12.1 Install frieze boards or soffit
- 12.2 Install exterior moldings and trim

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- 12.3 Demonstrate the installation of various types of siding
- 12.4 Apply correct installation to eliminate water intrusion

STANDARD 13.0 INSTALL DOORS AND WINDOWS

- 13.1 Install doors
- 13.2 Install door hardware
- 13.3 Install windows

STANDARD 14.0 INSTALL INTERIOR TRIM AND STAIRS

- 14.1 Install baseboards and casings
- 14.2 Lay out and cut stringers
- 14.3 Determine the number and sizes of risers and treads required for a stairway
- 14.4 Build a small stair unit
- 14.5 Lay out a skirt board

STANDARD 15.0 INSTALL INTERIOR WALL AND CEILING FINISH

- 15.1 Demonstrate the proper techniques for cutting drywall
- 15.2 Fasten drywall to ceiling and walls

STANDARD 16.0 INSTALLING, MOLDINGS, PANELING, AND OTHER MILLWORK

- 16.1 Install ceiling molding(s)
- 16.2 Install threshold
- 16.3 List wall paneling installation procedures
- 16.4 Define steps in casing a window

STANDARD 17.0 INSTALLING CABINETS AND CABINET TOPS

- 17.1 Install wall cabinet(s)
- 17.2 Install base cabinet(s)
- 17.3 Install medicine cabinet
- 17.4 Assemble prefabricated cabinet(s)
- 17.5 Install pulls and knobs
- 17.6 Install prefabricated cabinet top(s)

STANDARD 18.0 INSTALLING SHELVING AND ACCESSORIES

- 18.1 Install shelving
- 18.2 Install accessories (e.g. grab bars, door knobs, toilet paper dispensers, etc.)
- 18.3 Install mirrors

STANDARD 19.0 INSTALLING WOOD FLOORING AND FLOOR COVERING

- 19.1 Install underlayment
- 19.2 Install finished wood flooring
- 19.3 Install tongue and groove flooring
- 19.4 Identify different kinds of flooring material

STANDARD 20.0 PAINTING AND FINISHING

- 20.1 Prepare exterior surface(s)
- 20.2 Caulk exterior surfaces
- 20.3 Prepare interior surface(s)

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- 20.4 Repair damaged drywall
- 20.5 Repair damaged plaster
- 20.6 Apply finish to ceilings, walls, and sidings
- 20.7 Apply finish to trim and moldings
- 20.8 Apply stain to surface
- 20.9 Install wall covering(s)

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