SECTION 06 10 53 – MISCELANEOUS ROUGH CARPENTRY

PART 1 GENERAL

1. SUMMARY
   a. Section Includes:
      1) Rooftop equipment bases and support curbs.
      2) Wood blocking, cants, and nailers.
   b. Unit Prices: Refer to Division 01 Section "Unit Prices" for work of this Section affected by unit prices.

2. DEFINITIONS
   a. Boards or Strips: Lumber of less than 2 inches nominal (38 mm actual) size in least dimension.
   b. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater size but less than 5 inches nominal 5 inches nominal (114 mm actual) size in least dimension.
   c. Board Foot: Unit of measure for volume of lumber, equal to 144 cubic inches.

3. ACTION SUBMITTALS
   a. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
      1) Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
      2) Include copies of warranties from chemical treatment manufacturers for each type of treatment.

4. QUALITY ASSURANCE
   a. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.
5. DELIVERY, STORAGE, AND HANDLING
   a. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 PRODUCTS

1. WOOD PRODUCTS, GENERAL
   a. Lumber: American Softwood Lumber Standard PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
      1) Factory mark each piece of lumber with grade stamp of grading agency.
      2) Where nominal sizes are indicated, provide actual sizes required by American Softwood Lumber Standard PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
      3) Provide dressed lumber, S4S, unless otherwise indicated.
   b. Maximum Moisture Content of Lumber: 19 percent unless otherwise indicated.

2. WOOD-PRESERVATIVE-TREATED MATERIALS
   a. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2.
      1) Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
   b. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
   c. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

3. MISCELLANEOUS LUMBER
   a. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
      1) Blocking.
      2) Nailers.
3) Rooftop equipment bases and support curbs.

4) Cants.

b. For items of dimension lumber size, provide Construction or No. 2 grade lumber of any species.

c. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

d. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

4. FASTENERS

a. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

   1) Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in areas of high relative humidity, provide fasteners of Type 304 Stainless Steel.


e. Screws for Fastening to Metal Framing: ASTM C954, length as recommended by screw manufacturer for material being fastened.

f. Lag Bolts: ASME B18.2.1 (ASME B18.2.3.8M).

g. Bolts: Steel bolts complying with ASTM A307, Grade A (ASTM F568M, Property Class 4.6); with ASTM A563 (ASTM A563M) hex nuts and, where indicated, flat washers.

h. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488/E488M conducted by a qualified independent testing and inspecting agency.

5. MISCELLANEOUS MATERIALS
   
a. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch (0.6 mm).

PART 3 EXECUTION

1. INSTALLATION, GENERAL
   
a. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

b. Where wood-preservation-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

c. Framing Standard: Comply with AF&PA’s WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

d. Do not splice structural members between supports unless otherwise indicated.

e. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

f. Provide fire blocking in furred spaces, stud spaces, and other concealed cavities as indicated and as follows:

   1) Fire block concealed spaces behind combustible cornices and exterior trim at not more than 20 feet (6 m) o.c.

   2) Use inorganic boron for items that are continuously protected from liquid water.

   3) Use copper naphthenate for items not continuously protected from liquid water.

   4) Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
1) Table 2304.9.1, "Fastening Schedule," in ICC’s International Building Code.

j. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

2. WOOD BLOCKING, AND NAILER INSTALLATION

a. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

b. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

3. PROTECTION

a. Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 06 10 53