

PART TWO – PRODUCTS**2.01 Nailers**

- A. All nailers shall be #2 or better, construction grade lumber, FRTW.
- B. Size to be as indicated on the drawings.
- C. Minimum nailer size shall be 2" x 6" (nominal)
- D. Minimum top nailer thickness shall be 1 ½" (nominal)
- E. Nailers shall extend ½" beyond metal flanges.

2.02 Plywood

- A. All plywood is to be minimum ½", APA Rated Exterior, Structural 1, FRTW. Only waterproof glue is acceptable.
- B. Refer to drawings for plywood thickness at each detail.

2.03 Carbon Steel Fasteners

- A. All fasteners must be carbon steel with corrosion-resistant coating. Fasteners shall meet FM 4470.
- B. Masonry / Concrete Fasteners
 - 1. Corrosion-resistant, threaded fastener with low profile head.
 - 2. Fasteners shall be a minimum of 3/16" diameter with a 1" minimum embedment.
 - 3. Fastener to be FM Global approved.
 - 4. Approved Products
 - a. Tapcon Flat-Head Phillips with Blue Climaseal or White UltraShield by ITW Buildex
 - b. Tapper Flat-Head Phillips with Perma-Seal Coating by Powers Fasteners, Inc.
- C. Steel / Wood Fasteners
 - 1. Corrosion-resistant, self-tapping, self-drilling screw with low profile head.
 - 2. Fastener to be FM Global approved.
 - 3. Approved Products
 - a. Roof Grip by OMG with Climaseal Coating

- b. Dekfast by SFS Intec, Inc., with Sentri Coating
 - c. Standard roofing fastener by OMG, with CR-10 coating.
4. Fasteners to be #12 minimum and of sufficient length to penetrate into steel ¾" and wood 1".
- D. Gypsum / Cementitious Wood Fiber Decking
- 1. Corrosion-resistant, ¼" toggle bolt with low profile head. Fastener to be carbon steel with fluorocarbon, corrosion-resistant coating.
 - 2. Fastener shall be FM Global approved.
 - 3. Approved Products
 - a. Speed-Lock Toggle by Powers Fasteners, Inc.
 - b. Iron-Lok Toggle bolt by OMG
 - 4. Fastener shall be of sufficient length to penetrate deck as required for proper application, in accordance with manufacturer's recommendations.
- E. Washers
- 1. Round, carbon steel, Federal Specification FF-2-92. Minimum diameter 5/8".

PART THREE – EXECUTION

3.01 Nailers

- A. Nailers are to be installed as per detail drawings.
- B. Discard units of material with defects that might impair quality of work and units that are too small to use in fabricating work with minimum joints or optimum joint arrangement.
- C. Set nailers to required levels and lines with members plumb and true.
- D. All perimeter nailers shall be of uniform height within a given roof section.
- E. Nailers shall be installed with ¼" gap between ends of adjoining pieces.
- F. Stacked nailers shall have the joints staggered a minimum of 24".
- G. Nailers shall be fastened in accordance with the following schedule:
 - 1. Fasteners in 6" or wider (nominal) lumber shall be installed in two (2) rows, staggered on-third of nailer width. Listed spacing's indicate distance between fasteners in adjacent rows.
 - 2. Two (2) fasteners shall be installed within 6" of each nailer end.
 - 3. Corner fastener spacing shall extend 8' from all outside building corners.
 - 4. Where two or more nailers are installed, each nailer shall be fastened independently.

5. Over all deck types, the bottom nailer shall be fastened using the specified fasteners and 5/8" diameter washers. Countersink washers and fasteners level with top of wood using spade bit or similar method, Fasten subsequent nailers, where specified, using the specified screws without washers.
6. Nailer Attachment Schedule (unless noted otherwise on the drawings)

Attachment Substrate	Perimeter Fastener Spacing (maximum)	Corner Fastener Spacing (maximum)
Structural Concrete	12" o.c.	6" o.c.
CMU (fastener into solid material)	12" o.c.	6" o.c.
Steel Deck	12" o.c.	6" o.c.
Wood	12" o.c.	6" o.c.

3.02 Plywood

- A. Plywood is to be installed as per detail drawings.
- B. Plywood joints must be true and well fitting, allowing for expansion and contraction. Allow 1/8" at end and edge joints.
- C. Plywood fasteners shall be installed in a uniform grid pattern, with a maximum spacing of 18" o.c. between adjacent fasteners.