

# Sierra Premium™ Shake *plus* & Sierra Premium™ Smooth

## Preparation

Follow all general instructions on page one of this guide.

- Sierra Premium™ Shake Plus and Smooth boards can be installed directly on braced wood construction spaced at a maximum of 24" o.c. or over sheathing with vertical solid wood backing. Please contact Nichiha regarding installation over steel frame construction. (Fig. 12.1)

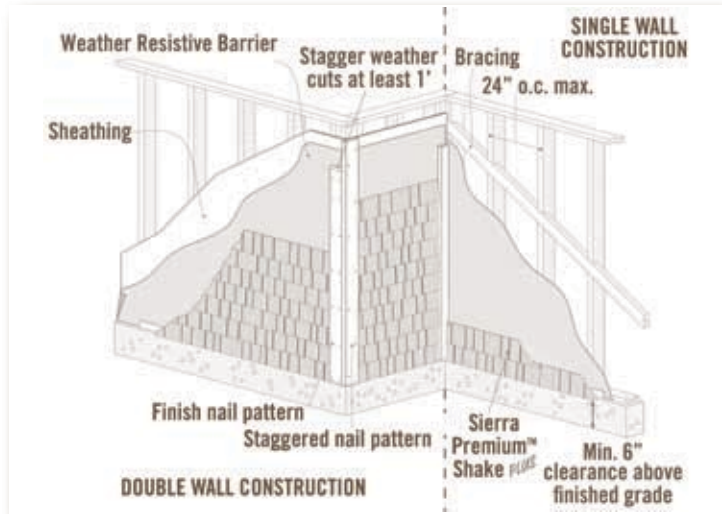


Fig. 12.1

- When installing Sierra Premium™ Shake Plus and Smooth boards, it is recommended that an APA rated 7/16" OSB or plywood sheathing be used. Boards may be installed over non-structural sheathing such as foam, fiber builder board, and gypsum type panels. Non-structural sheathing thickness should not exceed 1". Due to the compressive nature of some non-structural sheathings, care must be taken not to overdrive the fastener and compress the sheathing. The fastener length must be increased by the thickness of the non structural sheathing.
- Ensure all weather resistive barriers are in place in accordance with local code.
- Framing misalignment or irregularities in the sheathing application should be corrected prior to siding installation. These irregularities may mirror through the finished installation.

## Fastening

- Corrosion resistant fasteners, such as hot-dipped galvanized nails and screws that are appropriate to local building codes and practices must be used. Stainless steel fasteners are highly recommended in high-humidity and high-moisture regions. Nichiha is not liable for corrosion resistance of fasteners. Do not use aluminum fasteners, staples, clipped head or T-head nails, or fasteners that are not rated or designed for intended use.
- Corrosion resistant, full round head siding nails or appropriate screws may be used to install Sierra Premium™ Shake Plus and Smooth boards to wood framing members. Fasteners must penetrate into wood a minimum of 1".
- The fastener head must be flush to the board surface. Do not over drive or under drive fasteners.

## Installation

Follow all general instructions on page one of this guide.

### Starter Strip & First Course (Fig. 12.2)

- A starter strip is required to set the first course on the proper angle and to create a drip edge at the bottom course of siding. The starter strip material may be a cut piece of Sierra Premium™, FS 1010 1/2" Nichiha Spacer, PVC, or pressure treated lumber. Do not use untreated lumber, plywood, OSB, or other engineered wood products as a starter strip.
- Install the starter strip level with the bottom of the wall sheathing or mudsill.
- Ensure the first course of boards is level as it will be the guide for entire installation. Use a level and chalk line to establish a level and straight reference point for the first course. Continue to check for level lines throughout installation.
- The first course of siding must hang below the starter strip a minimum of 1/4".
- The siding should not extend below the corner trim.
- The bottom edge of the first course must have at least 6" clearance above finished grade.
- It is recommended the course heights remain aligned and transfer around corners.

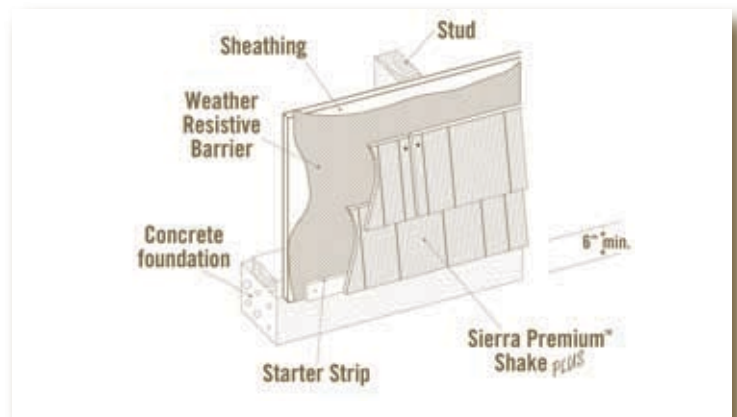


Fig. 12.2

# Sierra Premium™ Shake *PLUS* & Sierra Premium™ Smooth

## Overlap (Fig. 13.1-13.2)

- A minimum overlap of 1-1/4" is required.

## Blind Nailing (Fig. 13.1)

- For a more aesthetically pleasing installation, Sierra Premium™ Shake Plus and Smooth boards may be installed in a hidden, or blind nail application.
- Position the fastener 1" down from the top edge of the board and no closer than 3/4" from the board ends.
- Fasten from one end of the board to the other.

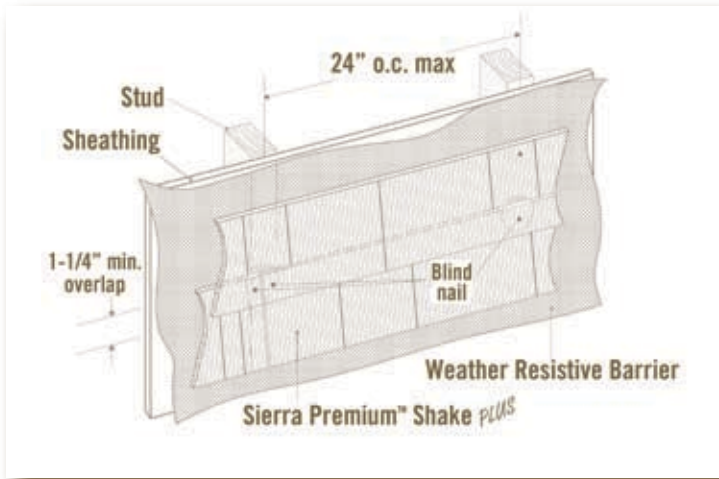


Fig. 13.1

## Face Nailing (Fig. 13.2)

- It is permissible to install Sierra Premium™ Shake Plus and Smooth boards in a face nail type installation to meet certain installation requirements or when specified by local code.
- Position the fastener a minimum distance of 3/4" up from the bottom edge of the board and no more than 1". This ensures the fastener will penetrate through the overlap and through both courses. Place the fastener no closer than 3/4" from board ends.
- Fasten from one end of the board to the other.

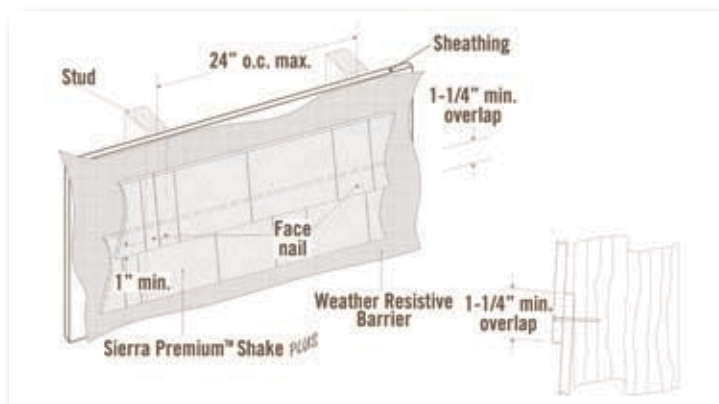


Fig. 13.2

## Vertical Joint Placement (Fig. 14.1)

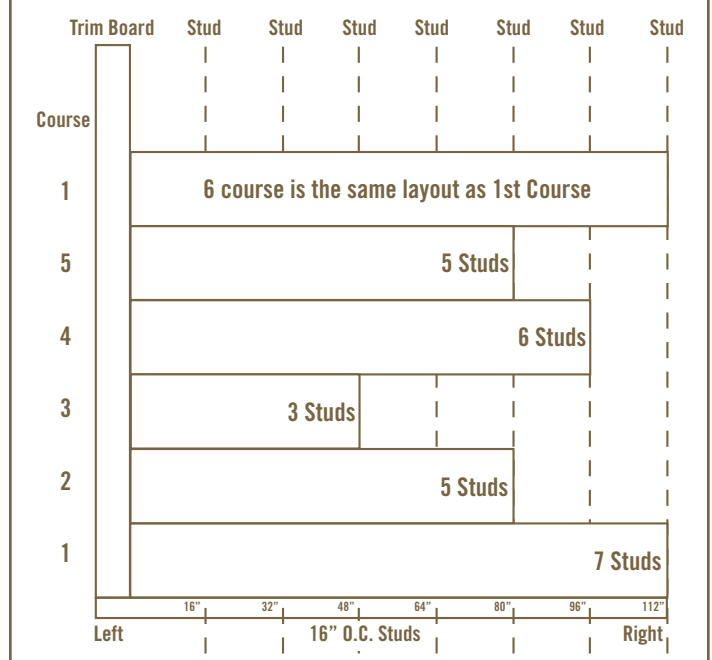
- All Sierra Premium™ Shake Plus and Smooth board vertical joints must land or "break" over studs or framing.
- If OSB or plywood sheathing is used, boards must be secured with a corrosion resistant, #8, ribbed, buglehead screw at each butt joint.
- When possible, use factory sealed or finished ends at butt joints. Position cut ends where boards meet trim attachments.
- If cut ends are used at butt joints they must be sealed with primer, sealer, or paint. NEVER leave exposed cut edges uncoated.
- Shake keyways from one course to the next should not line up vertically. Layout of the application may be necessary to avoid stacked keyways.

## Staggering the Shake Boards (Fig. 13.3)

- All boards are identical. They have a right-hand and a left-hand side. (see sketch).
- The right-hand side has its first shake 4-5/16 wide, second one in is 7", third one in is 8-5/8", 4th one in is 5", 5th one in is 5-1/8" wide (see sketch).
- All boards must be installed in the same orientation (no flipping boards).
- All cuts must be made from the left side of the board.

Course	Stairstep Stagger
1	Measure from cornerboard to 7th stud and cut shake board.
2	Measure from cornerboard to 5th stud and cut shake board.
3	Measure from cornerboard to 3rd stud and cut shake board.
4	Measure from cornerboard to 6th stud and cut shake board.
5	Measure from cornerboard to 5th stud and cut shake board.
6	Pattern repeats (same as course 1)

## Recommended Layout for Nichiha Sierra Premium™ Shake Plus



### Sketch of Sierra Premium™ Shake Plus Board

4-7/16"	7"	8-5/8"	5-3/8"	7-1/8"	5-1/8"	6-7/8"	6-7/16"	4-1/4"	5-5/8"	7-1/4"	5"	7-1/2"	5-1/8"	5"	8-5/8"	7"	4-5/16"
Left																	
Right																	

1. Board Orientation (5-1/8" and 5") shakes ALWAYS to the right side.

Fig. 13.3

# Sierra Premium™ Shake *PLUS* & Sierra Premium™ Smooth

## Joint Treatment

### Joint Installation (Fig. 14.1)

- The use of a joint flashing behind the butt joints is required.
- Suitable materials for joint flashing include anodized or PVC coated coil stock and code approved water restive barriers.
- The joint flashing should be at least 3" in width and long enough to extend above the board width a minimum of 1-1/2".
- Install Sierra Premium™ Shake Plus and Smooth boards over joint flashing with a minimum 1/8" gap between board ends. This gap may be filled with a quality exterior grade caulk. Ensure caulk meets ASTM 834 or ASTM C-920 requirements and is approved for use at butt joints.

### Siding to Trim Joints (Fig. 14.2-14.3)

- Where board ends and edges meet trim at inside and outside corners, door, window and other trim attachments, leave a minimum 1/8" gap and caulk with a quality caulk as described above.
- Trim attachments must be of sufficient thickness. The overlapped boards must not extend beyond the face of the trim. A continuous solid shim or "build out" behind the trim may be necessary.
- A flashed 1/4" clearance must exist over horizontal trim.

### Alternative Corner Treatments (Fig. 14.4-14.5)

- Sierra Premium™ Shake Plus and Smooth boards may also be installed with mitered corners. For best results, use a compound miter saw to accurately cut the 45 degree miter cut and slope angle.
- Sierra Premium™ Shake Plus and Smooth boards may also be installed in a laced or staggered corner application.
- Nichiha recommends installing a galvanized, coated aluminum, or vinyl PVC flashing over the building corner prior to beginning a mitered or laced corner application.
- Use a polyurethane adhesive where mitered or laced boards join.

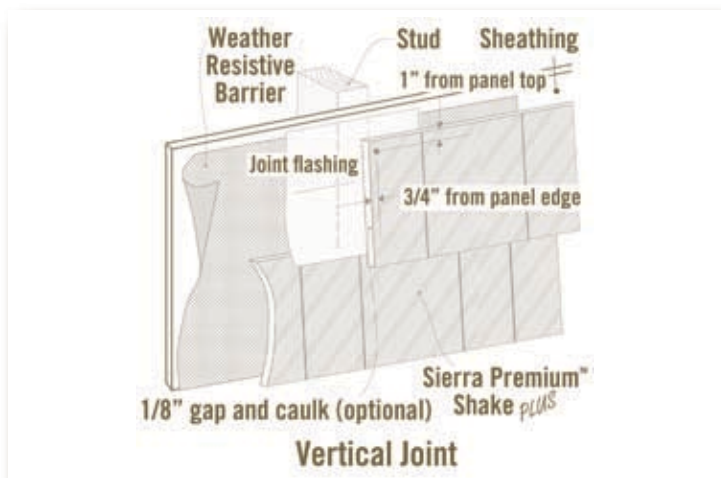


Fig. 14.1

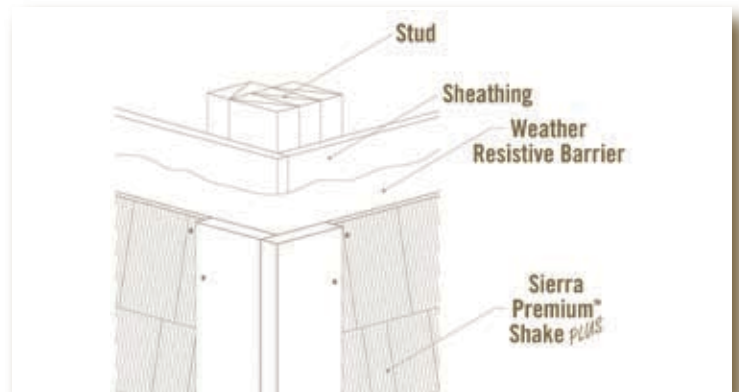


Fig. 14.2

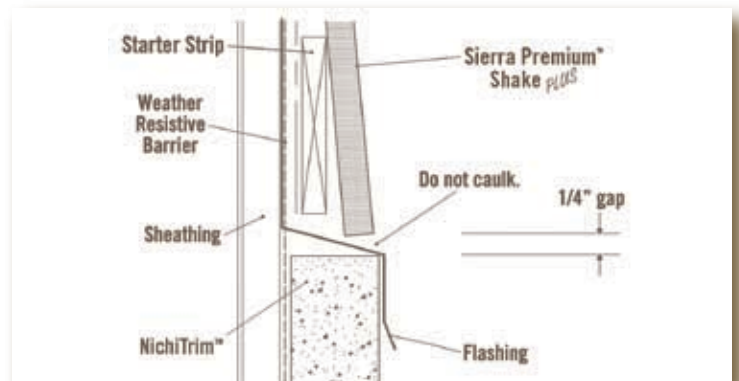


Fig. 14.3

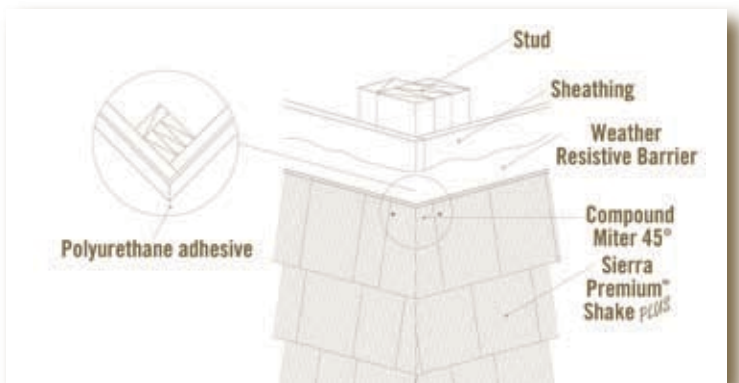


Fig. 14.4

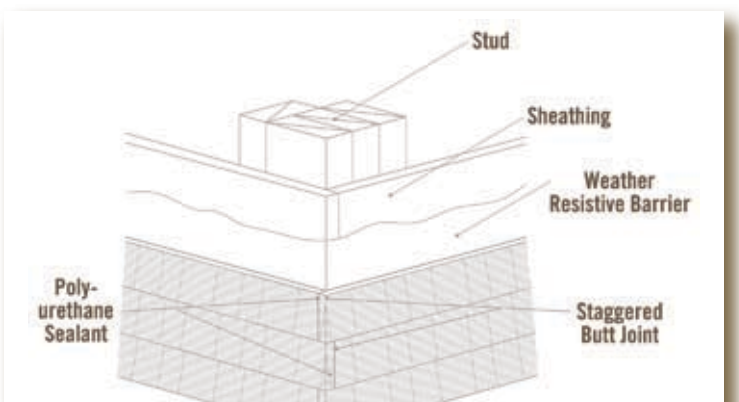


Fig. 14.5

## Finishing

Follow all general finishing instructions on page one of this guide.