

# HARDIPLANK® LAP SIDING INSTALLATION INSTRUCTIONS



**James Hardie®**

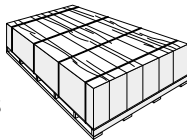
MARCH 2000

**SELECT CEDARMILL® • SMOOTH • COLONIAL SMOOTH™ • COLONIAL ROUGHSAWN™ • BEADED CEDARMILL • BEADED SMOOTH**

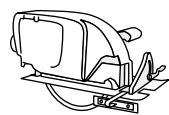
**IMPORTANT: FAILURE TO INSTALL AND FINISH HARDIPLANK® IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

## HANDLING & STORAGE:

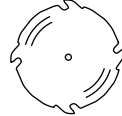
Store flat and keep dry prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge.



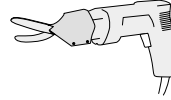
## CUTTING OPTIONS:



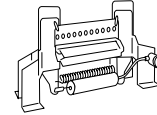
Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Pneumatic shear



Carbide score and snap knife



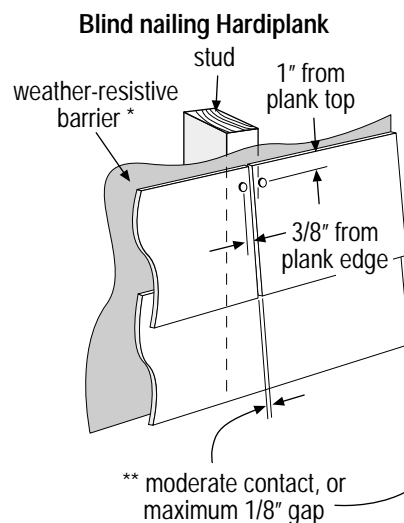
- ▲ JH recommends Makita® #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi® HARDIBLADE™ w/4 PCD Diamond Teeth. Call Hitachi® at 800-546-1666 for nearest dealer.
- ▲ SNAPPER SHEAR™ electric, pneumatic, or hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

## FRAMING REQUIREMENTS:

Hardiplank lap siding can be installed over braced wood or steel studs spaced a maximum of 24" o.c. or directly to minimum 7/16" thick OSB sheathing. Hardiplank lap siding can also be installed over foam insulation up to 1" thick.† Irregularities in framing, sheathing, and/or foam insulation can mirror through the finished application. A weather-resistant barrier is required\*. Install Hardiplank siding with joints butted in moderate contact. Optionally, install the lap siding with a maximum 1/8" gap and caulk the joint\*\* (see detail at right).

The first course of any wall should be installed over a 1/4" lath strip to ensure a consistent plank angle (see figure 1).



†For application over foam insulation, the length of the specified fastener shall be increased by the thickness of the foam insulation.

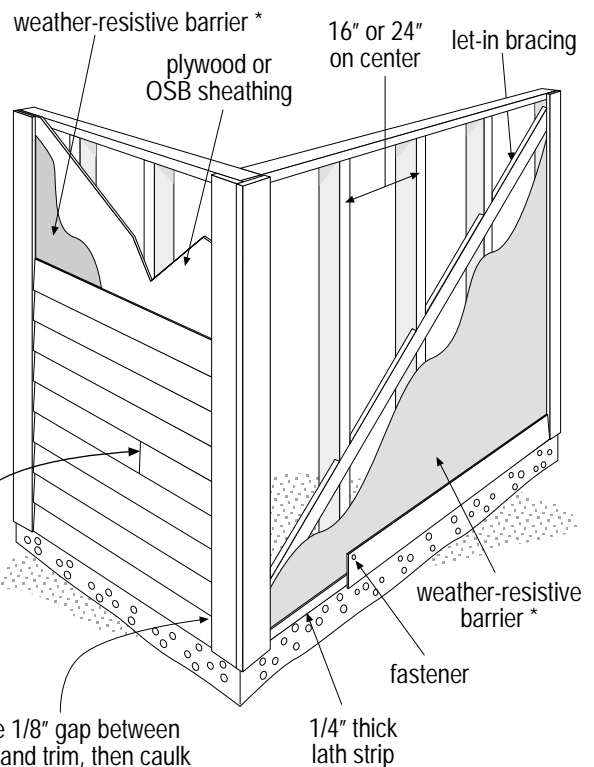
\* Use a weather-resistant barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and-Two Family Dwelling Code Section 703.2.1.

NOTE: Some Building Codes exempt the use of weather-resistant barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistant barriers". James Hardie recommends the use of "building paper type" weather-resistant barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

figure 1

### Double Wall Construction

### Single Wall Construction



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

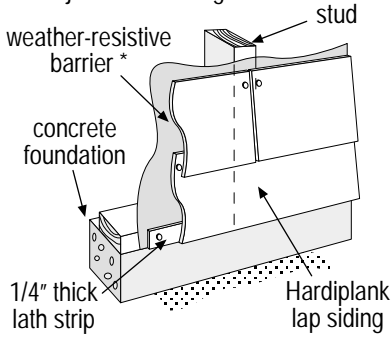
## WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling, (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

**FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.**

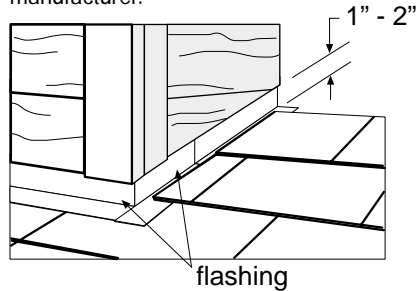
**GRADE CLEARANCE** figure 2

Install Hardipanel/Hardiplank in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.



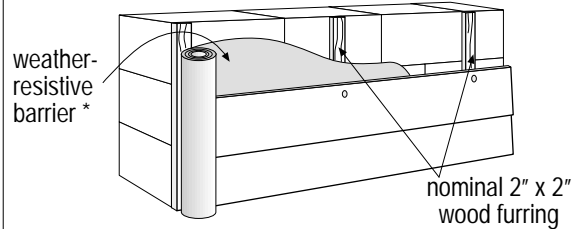
**ROOF CLEARANCE** figure 3

At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1" - 2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.



**CONCRETE CONSTRUCTION** figure 4

Hardiplank siding can be installed directly to masonry block. Hardiplank siding can also be installed to concrete construction, when the wall is furrowed out with wood framing or minimum No. 20 gauge steel framing anchored to the wall. Framing can be spaced up to 24" OC. Consult National Evaluation Service report NER-405 for recognized applications to masonry block and wood or metal framing. A weather-resistive barrier\* is recommended between the framing and the siding.



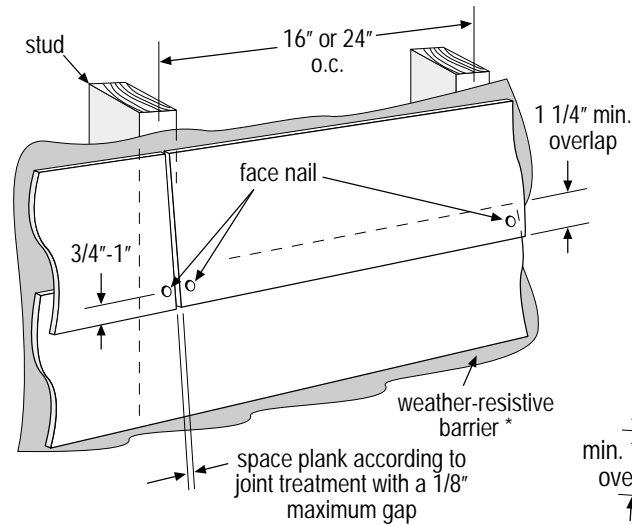
**FACE NAIL: (All Lap Products)** figure 5

**Corrosion Resistant Nails (galvanized or stainless steel)**

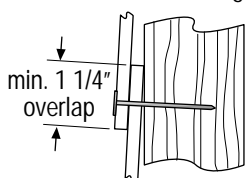
- 6d (0.118" shank x 0.267" HD x 2" long)
- Siding nail (0.089" shank x 0.221" HD x 2" long) \*\*
- Siding nail (0.091" shank x 0.221" HD x 1 1/2" long) ‡

**Corrosion Resistant Screws**

- Ribbed Bugle-head or equivalent (No. 8-18 x 0.323" HD x 1 5/8" long) Screws must penetrate 1/4" or 3 threads into metal framing.



Minimum overlap for Both Face and Blind Nailing



**BLIND NAIL:** figure 6

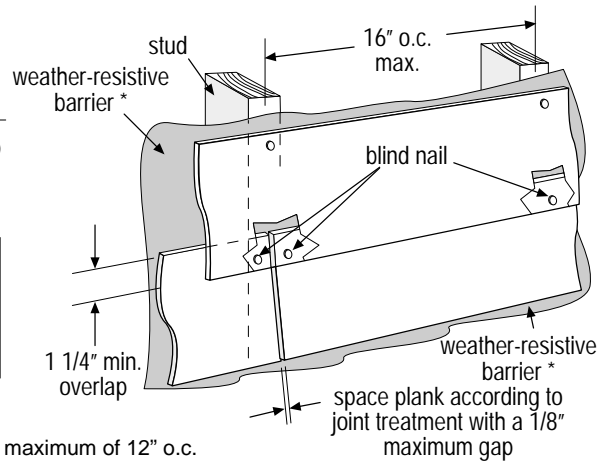
Hardiplank siding cannot be blind nailed 24" o.c. 12" wide Hardiplank siding cannot be blind nailed. When blind nailing 9 1/4" or 9 1/2" Hardiplank, use 11 ga. roofing nail x 1 1/4" long.

**Corrosion Resistant Nails (galvanized or stainless steel)**

- 6d (0.118" shank x 0.267" HD x 2" long)
- Siding nail (0.089" shank x 0.221" HD x 2" long) \*\*
- 11ga. roofing nail (0.121" shank x 0.371" HD x 1 1/4" L)

**Corrosion Resistant Screws**

- Ribbed Bugle-head or equivalent (No. 8-18 x 0.323" HD x 1 5/8" long) Screws must penetrate 1/4" or 3 threads into metal framing.



‡ For face nail application of 9 1/2" wide or less siding to OSB, fasteners are spaced a maximum of 12" o.c.

\*\* The use of a siding nail or roofing nail may not be applicable to all installations where greater windloads or higher exposure categories of wind resistance is required by the Local Building Code. Consult Report No. NER-405 for specific details.

**PNEUMATIC FASTENING:**

Hardiplank can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the shingle surface.

**RECOMMENDED:**

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



**FASTENING REQUIREMENTS:**

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)



figure A



figure B



figure C

Countersunk, Caulk & add nail



do not under drive nails

**NAIL TYPE:**

Fasteners must be corrosion resistant, galvanized or stainless steel. Electro-galvanized nails are acceptable for use with James Hardie Siding Products, but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. (James Hardie is not responsible for the corrosion resistance of fasteners.)

**COVERAGE CHART/ESTIMATING GUIDE**

1. Figures shown are in pieces - all 12' long 2. 5% cutting and fitting waste factor included 3. Computations based on minimum overlap of 1-1/4" 4. Actual usage subject to variables such as building design and installers

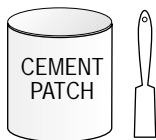
COVERAGE AREA LESS OPENINGS		HARDIPLANK® WIDTH								
		(exposure)	5-1/4" (4")	6-1/4" (5")	7-1/4" (6")	7-1/2" (6-1/4")	8" (6-3/4")	8-1/4" (7")	9-1/4" (8")	9-1/2" (8-1/4")
100 sf	1 SQ	26	21	18	17	16	15	13	13	10
200 sf	2 SQ	53	42	35	34	31	30	26	25	20
300 sf	3 SQ	79	63	53	50	47	45	39	38	29
400 sf	4 SQ	105	84	70	67	62	60	53	51	39
500 sf	5 SQ	131	105	88	84	78	75	66	64	49
600 sf	6 SQ	158	126	105	101	93	90	79	76	59
700 sf	7 SQ	184	147	123	118	109	108	92	89	68
800 sf	8 SQ	210	168	140	134	124	120	105	102	78
900 sf	9 SQ	236	189	158	151	140	135	118	115	88
1000 sf	10 SQ	263	210	175	168	156	150	131	127	98
1100 sf	11 SQ	289	231	193	185	171	165	144	140	107
1200 sf	12 SQ	315	252	210	202	187	180	158	153	117
1300 sf	13 SQ	341	273	228	218	202	195	171	165	127
1400 sf	14 SQ	368	294	245	235	218	210	184	178	137
1500 sf	15 SQ	394	315	263	252	233	225	197	191	147
1600 sf	16 SQ	420	336	280	269	249	240	210	204	156
1700 sf	17 SQ	446	357	298	286	264	255	223	216	166
1800 sf	18 SQ	473	378	315	302	280	270	236	229	176
1900 sf	19 SQ	499	399	333	319	296	285	249	242	186
2000 sf	20 SQ	525	420	350	336	311	300	263	255	195
2100 sf	21 SQ	551	441	368	353	327	315	276	267	205
2200 sf	22 SQ	578	462	385	370	342	330	289	280	215
2300 sf	23 SQ	604	483	403	386	358	345	302	293	225
2400 sf	24 SQ	630	504	420	403	373	360	315	305	234
2500 sf	25 SQ	656	525	438	420	389	375	328	318	244
2600 sf	26 SQ	683	546	455	437	404	390	341	331	254
2700 sf	27 SQ	709	567	473	454	420	405	354	344	264
2800 sf	28 SQ	735	588	490	470	436	420	368	356	273
2900 sf	29 SQ	761	609	508	487	451	435	381	369	283
3000 sf	30 SQ	788	630	525	504	467	450	394	382	293

NOTES AND CALCULATIONS: ((sq ft ÷ exposure) x 1.05 = number of boards)

**FINISHING HARDIPLANK:**

**Patching:**

Dents, chips and cracks can be filled with a cementitious patching compound.



**Caulking:**

A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



**Painting:**

James Hardie products must be painted. For best results install Hardiplank siding with our exclusive Prime Plus™ factory priming system and a 100% acrylic topcoat (s). \* If our Prime Plus™ factory priming is not being used, Hardie recommends the application of an alkali-resistant primer along with 100% acrylic topcoat (s). (For paint manufacturer's paint specifications, refer to JH Technical Bulletin No. S-100.) \*Note: Please refer to paint manufacturers' specifications for application rates.



APPROVALS: HARDIPLANK lap siding is recognized as an exterior wall cladding in National Evaluation Report No. NER405 (BOCA, ICBO, SBCC): City of Los Angeles, Research Report No. 24862; Dade County, Florida, Acceptance No. 99-0223.07, US Dept. of HUD Materials Release 1263a, California DSA PS-019 and City of New York MEA 223-93-M. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

Corporate Headquarters  
26300 La Alameda, Suite 250  
Mission Viejo, CA 92691  
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For Technical Assistance, MSDS,  
and Product Information  
Call 1-800-9HARDIE  
(1-800-942-7343)  
www.jameshardie.com



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JH91513SL 3/00

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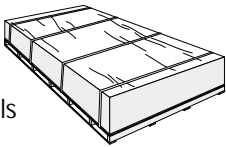
**James Hardie®**  
JH91513SL 3/00

### SMOOTH \* SELECT CEDARMILL<sup>®</sup> \* SIERRA 4" \* SIERRA 8" \* STUCCO

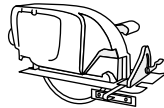
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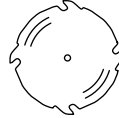
Store flat and keep dry prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry panels on edge.



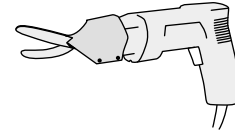
#### CUTTING OPTIONS:



Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Carbide score and snap knife



- ▲ JH recommends Makita<sup>®</sup> #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA
- ▲ Hitachi<sup>®</sup> HARDIBLADE<sup>™</sup> w/4 PCD Diamond Teeth. Call Hitachi<sup>®</sup> at 800-546-1666 for nearest dealer.
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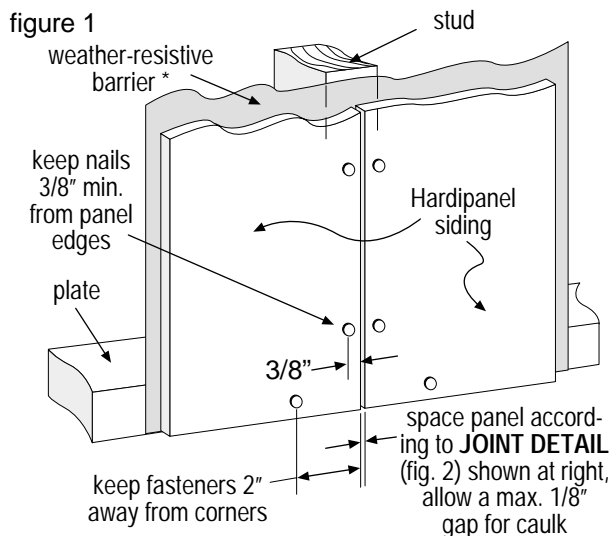
Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

#### FRAMING REQUIREMENTS:

Hardipanel vertical siding can be installed to studs spaced a maximum of 24" o.c. Irregularities in framing can mirror through the finished application. A weather-resistive barrier is required.

#### Applying Hardipanel Siding:

- Start Hardipanel vertical siding at middle of stud.
- Keep nails 2" away from corners.
- Start at edge and work across.
- Follow caulk and paint requirements.



\* Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and Two-Family Dwelling Code Section 703.2.1.

NOTE: Some Building Codes exempt the use of weather-resistive barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistive barriers". Therefore James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

#### JOINT DETAIL

- Keep fasteners 3/8" back from panel edges.
- Place fasteners 2" in from all corners; don't nail into corners.
- Joints may also be covered with lumber batten, PVC "H" or "T" type joint treatment.
- When caulking vertical panel joints, space panels accordingly to caulking manufacturers required bead size, but not to exceed 1/8" maximum.
- Horizontal Joints - use "Z-Bar" or similar type flashing for all horizontal joints.

figure 2

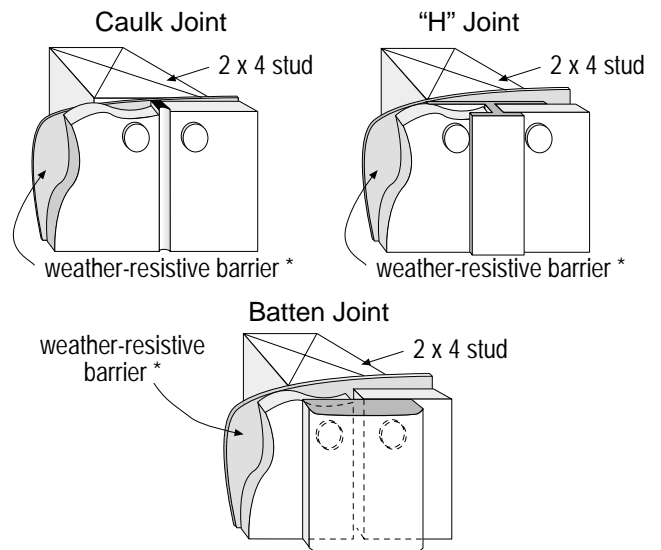
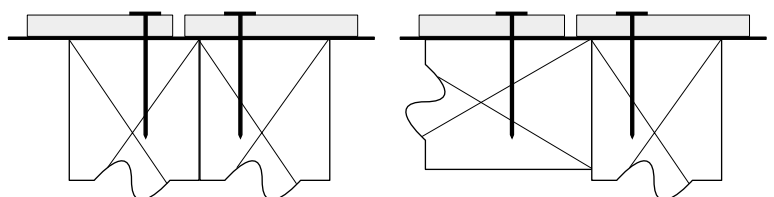


figure 3



Suggestion: Using a double stud at panel joints will allow for fastener placement to be out of panel grooves (Sierra 4" & 8") for improved appearance.

#### WARNING: AVOID BREATHING SILICA DUST

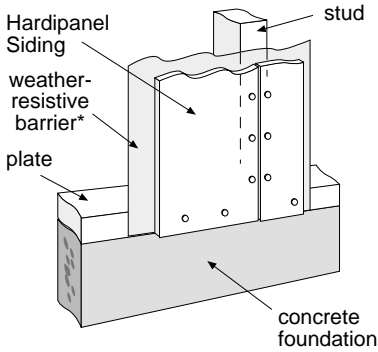
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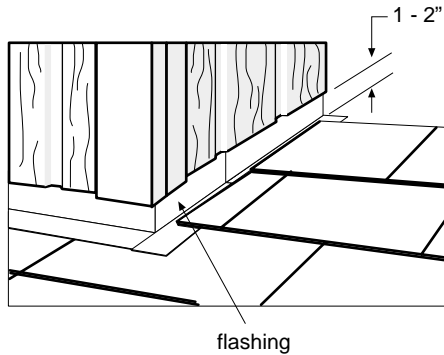
## GRADE CLEARANCE **figure 4**

Install Hardipanel/Hardiplank in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.



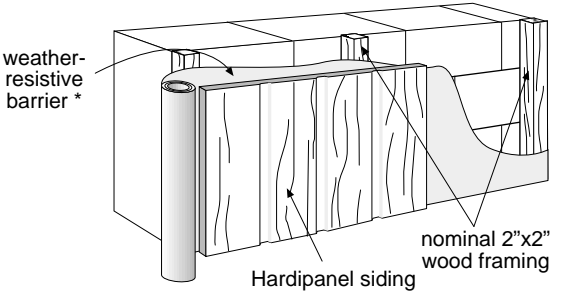
## ROOF CLEARANCE **figure 5**

At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1"-2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.



## CONCRETE CONSTRUCTION **figure 6**

Hardipanel siding can be installed directly to masonry block. Hardipanel siding can also be installed to concrete construction, when the wall is furred out with wood framing or minimum No. 20 gauge steel framing anchored to the wall. Framing can be spaced up to 24" OC. Consult National Evaluation Service report NER-405 for recognized applications to masonry block and wood or metal framing. A weather-resistant barrier\* is recommended between the framing and the siding.



## PNEUMATIC FASTENING:

Hardipanel vertical siding can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the panel surface.



## RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.

## NAIL TYPE:

Fasteners must be corrosion resistant, galvanized or stainless steel. Electro-galvanized nails are acceptable for use with James Hardie Siding Products, but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. (James Hardie is not responsible for the corrosion resistance of fasteners.)

## FASTENING REQUIREMENTS:

- Consult Tables 2 and 3 of James Hardie's National Evaluation Service report NER-405 for correct fastener type and placement to achieve specified design wind loads and shear values.
- NOTE: Published shear values and wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable Building Code jurisdiction.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)



figure A



figure B



figure C

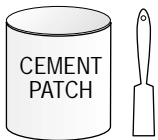
Countersunk,  
Caulk &  
add nail



do not under  
drive nails

## FINISHING HARDIPANEL:

**Patching:**  
Dents, chips and cracks can be filled with a cementitious patching compound.



## Caulking:

A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



## Painting:

James Hardie products must be painted. For best results use Hardipanel sidings with our exclusive Prime Plus™ factory approved 100% acrylic top-coat(s).\*\* If our Prime Plus™ factory priming is not being used, Hardie recommends the application of an alkali-resistant primer along with 100% acrylic topcoat (s). (For paint manufacturers' specifications, refer to JH Technical Bulletin No. S-100.)

\*\*Note: Please refer to paint manufacturers' specifications for application rates.



APPROVALS: HARDIPANEL® Vertical Siding is recognized as an exterior wall cladding in National Evaluation Report No. NER-405 (BOCA, ICBO, SBCC): City of Los Angeles, Research Report No. 24882; Metro-Dade County, Florida, Acceptance No. 99-0223.07, US Dept. of HUD Materials Release 1263a, California DSA PA-019 and City of New York MEA 223-93M. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

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(1-800-942-7343)  
www.jameshardie.com



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JH91509PSL 4/00

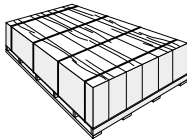


## RUSTIC CEDAR® WOODGRAIN

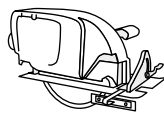
**IMPORTANT: FAILURE TO INSTALL AND FINISH HARDIHOME™ IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

### HANDLING & STORAGE:

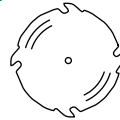
Store flat and keep dry prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge.



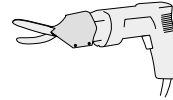
### CUTTING OPTIONS:



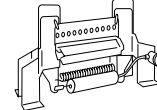
Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Pneumatic shear



Carbide score and snap knife



- ▲ JH recommends Makita® #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi® HARDIBLADE™ w/4 PCD Diamond Teeth. Call Hitachi® at 800-546-1666 for nearest dealer.
- ▲ SNAPPER SHEAR™ electric, pneumatic, or hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

### FRAMING REQUIREMENTS:

Hardihome lap siding, with the embossed EZ Line alignment aid, and available in 5 1/4", 6 1/4", 7 1/4", and 8 1/4" widths can be installed over braced wood or steel studs spaced a maximum of 24" o.c. or directly to minimum 7/16" thick OSB sheathing. Hardihome lap siding can also be installed over foam insulation up to 1" thick.† Irregularities in framing, sheathing, and/or foam insulation can mirror through the finished application. A weather-resistant barrier is required\*.

Install Hardihome lap siding with joints butted in moderate contact. Optionally, install the lap siding with a maximum 1/8" gap and caulk the joint\*\* (see detail at right).

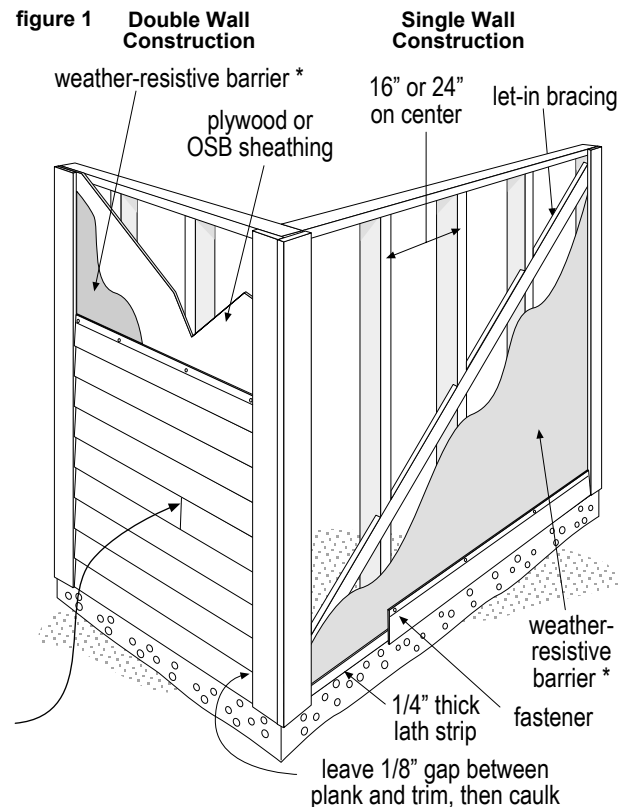
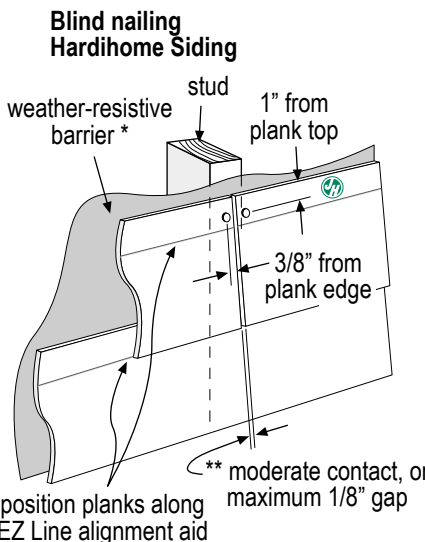
The first course of any wall should be installed over a 1/4" lath strip to ensure a consistent plank angle (see figure 1).

NOTE: Do not use JH logos as a nailing guide.

† For application over foam insulation, the length of the specified fastener shall be increased by the thickness of the foam insulation.

\* Use a weather-resistant barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and-Two Family Dwelling Code Section 703.2.1.

NOTE: Some Building Codes exempt the use of weather-resistant barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistant barriers". James Hardie recommends the use of "building paper type" weather-resistant barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

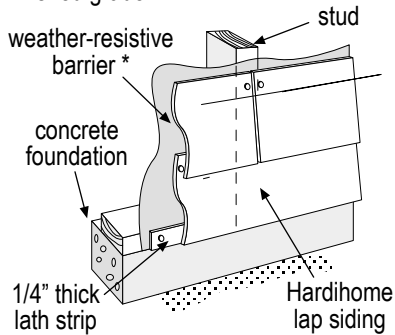
### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling. (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

**FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.**

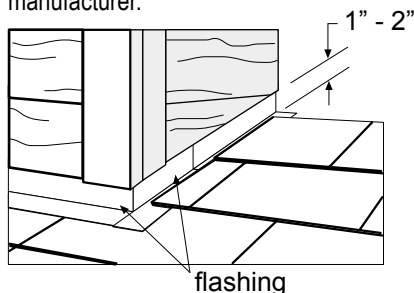
## GRADE CLEARANCE **figure 2**

Install Hardihome in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.



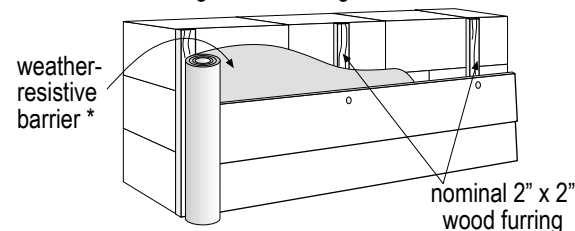
## ROOF CLEARANCE **figure 3**

At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1" - 2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.



## CONCRETE CONSTRUCTION **figure 4**

Hardihome siding can be installed directly to masonry block. Hardihome siding can also be installed to concrete construction, when the wall is furred out with wood framing or minimum No. 20 gauge steel framing anchored to the wall. Framing can be spaced up to 24" OC. Consult National Evaluation Service report NER-405 for recognized applications to masonry block and wood or metal framing. A weather-resistant barrier\* is recommended between the framing and the siding.



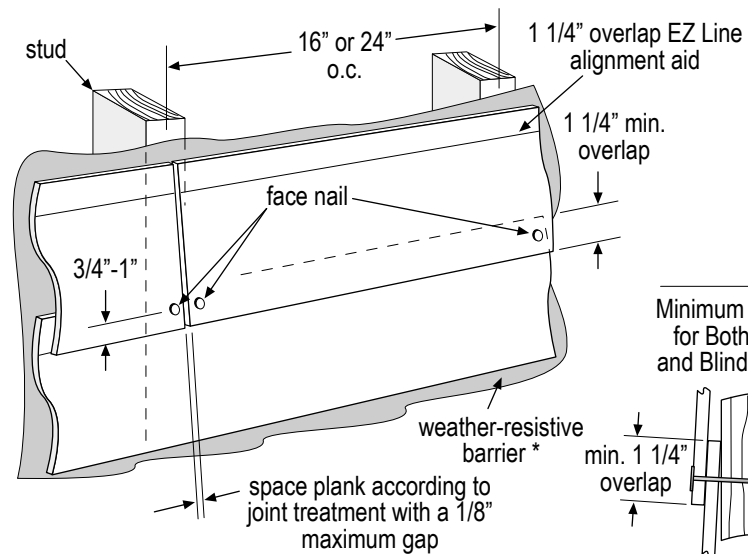
## FACE NAIL: (All Lap Products) **figure 5**

### Corrosion Resistant Nails (galvanized or stainless steel)

- 6d (0.118" shank x 0.267" HD x 2" long)
- Siding nail (0.089" shank x 0.221" HD x 2" long) \*\*
- Siding nail (0.091" shank x 0.221" HD x 1 1/2" long) ‡

### Corrosion Resistant Screws

- Ribbed Bugle-head or equivalent (No. 8-18 x 0.323" HD x 1 5/8" long). Screws must penetrate 1/4" or 3 threads into metal framing.



## BLIND NAIL: **figure 6**

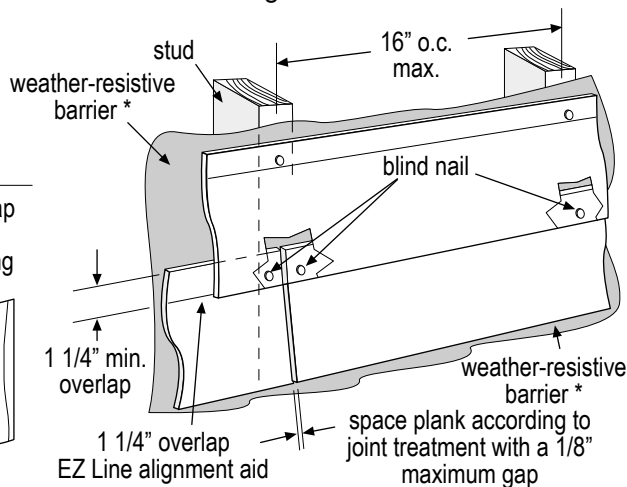
### Hardihome lap siding cannot be blind nailed 24" o.c.

### Corrosion Resistant Nails (galvanized or stainless steel)

- Siding nail (0.089" shank x 0.221" HD x 2" long) \*\*
- Siding nail (0.093" shank x 0.222" HD x 2" long)
- 11ga. roofing nail (0.121" shank x 0.371" HD x 1 1/4" long)

### Corrosion Resistant Screws

- Ribbed Wafer-head or equivalent (No. 8-18 x 0.375" HD x 1 1/4" long). Screws must penetrate 1/4" or 3 threads into metal framing.



‡ For face nail application of 8 1/4" wide or less siding to OSB, fasteners are spaced a maximum of 12" o.c.

\*\* The use of a siding nail or roofing nail may not be applicable to all installations where greater windloads or higher exposure categories of wind resistance is required by the Local Building Code. Consult Report No. NER-405 for specific details.

## PNEUMATIC FASTENING:

Hardihome can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the shingle surface.

## RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



DO NOT STAPLE

## FASTENING REQUIREMENTS:

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)



figure A



figure B



figure C



do not under drive nails

## NAIL TYPE:

Fasteners must be corrosion resistant, galvanized or stainless steel. Electro-galvanized nails are acceptable for use with James Hardie Siding Products, but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. (James Hardie is not responsible for the corrosion resistance of fasteners.)



## COVERAGE CHART/ESTIMATING GUIDE

1. Figures shown are in pieces - all 12' long 2. 5% cutting and fitting waste factor included 3. Computations based on minimum overlap of 1-1/4" 4. Actual usage subject to variables such as building design and installers

COVERAGE AREA LESS OPENINGS		PLANK WIDTH (exposure to weather)			
		5-1/4" (4")	6-1/4" (5")	7-1/4" (6")	8-1/4" (7")
100 sf	1 SQ	26	21	18	15
200 sf	2 SQ	53	42	35	30
300 sf	3 SQ	79	63	53	45
400 sf	4 SQ	105	84	70	60
500 sf	5 SQ	131	105	88	75
600 sf	6 SQ	158	126	105	90
700 sf	7 SQ	184	147	123	108
800 sf	8 SQ	210	168	140	120
900 sf	9 SQ	236	189	158	135
1000 sf	10 SQ	263	210	175	150
1100 sf	11 SQ	289	231	193	165
1200 sf	12 SQ	315	252	210	180
1300 sf	13 SQ	341	273	228	195
1400 sf	14 SQ	368	294	245	210
1500 sf	15 SQ	394	315	263	225
1600 sf	16 SQ	420	336	280	240
1700 sf	17 SQ	446	357	298	255
1800 sf	18 SQ	473	378	315	270
1900 sf	19 SQ	499	399	333	285
2000 sf	20 SQ	525	420	350	300
2100 sf	21 SQ	551	441	368	315
2200 sf	22 SQ	578	462	385	330
2300 sf	23 SQ	604	483	403	345
2400 sf	24 SQ	630	504	420	360
2500 sf	25 SQ	656	525	438	375
2600 sf	26 SQ	683	546	455	390
2700 sf	27 SQ	709	567	473	405
2800 sf	28 SQ	735	588	490	420
2900 sf	29 SQ	761	609	508	435
3000 sf	30 SQ	788	630	525	450

NOTES AND CALCULATIONS: ((sq ft ÷ exposure) x 1.05 = number of boards)

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### FINISHING HARDIHOME:

#### Patching:

Dents, chips and cracks can be filled with a cementitious patching compound.



#### Caulking:

A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



#### Painting:

James Hardie products must be painted. For best results install Hardiplank siding with our exclusive Prime Plus™ factory priming system and a 100% acrylic topcoat (s).\* If our Prime Plus™ factory priming is not being used, Hardie recommends the application of an alkali-resistant primer along with 100% acrylic topcoat (s).

(For paint manufacturer's paint specifications, refer to JH Technical Bulletin No. S-100.)

\*Note: Please refer to paint manufacturers' specifications for application rates.



APPROVALS: HARDIPLANK lap siding is recognized as an exterior wall cladding in National Evaluation Report No. NER405 (BOCA, ICBO, SBCC); City of Los Angeles, Research Report No. 24862; Dade County, Florida, Acceptance No. 99-0223.07, US Dept. of HUD Materials Release 1263a, California DSA PS-019 and City of New York MEA 223-93-M. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

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For Technical Assistance, MSDS,  
and Product Information  
Call 1-800-9HARDIE  
(1-800-942-7343)  
www.jameshardie.com



**James Hardie®**

JHH301 3/00

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JHH301 3/00

# HARDIE SHINGLESIDE<sup>®</sup>

## INSTALLATION INSTRUCTIONS FOR HERITAGE™ SHINGLES



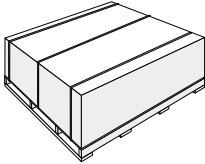
**James Hardie<sup>®</sup>**

MARCH 2000

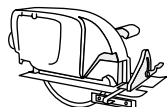
**IMPORTANT: FAILURE TO INSTALL AND FINISH HERITAGE™ SHINGLES FOR SIDEWALL APPLICATIONS IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

### HANDLING & STORAGE:

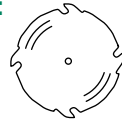
Store panels flat on a smooth level surface, under cover. If panels become saturated, allow to dry prior to installation. Protect edges and corners from breakage.



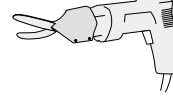
### CUTTING OPTIONS:



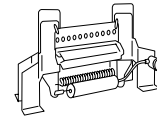
Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Pneumatic shear



Carbide score and snap knife



- ▲ JH recommends Makita<sup>®</sup> #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi<sup>®</sup> HARDIBLADE™ w/4 PCD Diamond Teeth. Call Hitachi<sup>®</sup> at 800-546-1666 for nearest dealer.
- ▲ SNAPPER SHEAR™ electric, pneumatic, or hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

### FRAMING REQUIREMENTS

Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and Two-Family Dwelling Code Section 703.2.1.

NOTE: Many Building Codes exempt the use of weather-resistive barriers over "water-repellent sheathing" or exterior panels classified as "weather-resistive barriers". Therefore James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

### GRADE CLEARANCE

Install Shingleside cladding in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.

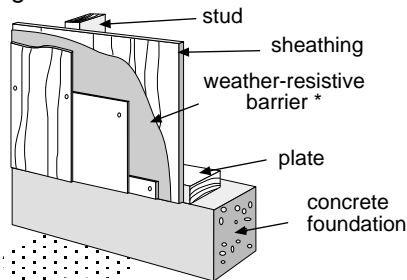
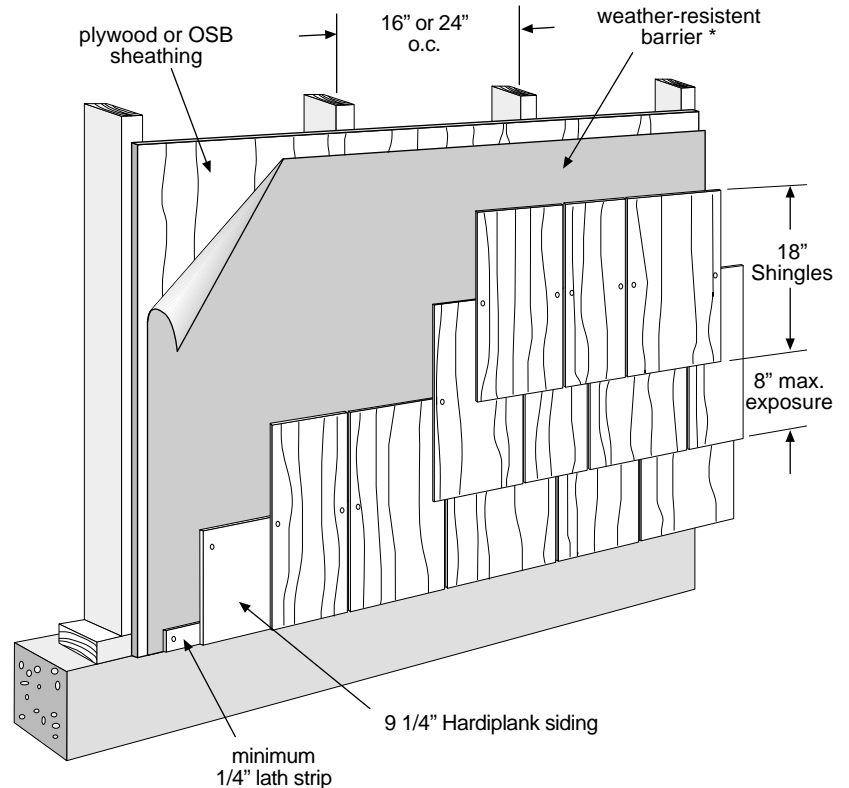


Figure 1 - Double Wall Construction



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

APPROVALS: HARDIE SHINGLESIDE is recognized as an exterior wall cladding in National Evaluation Report No. NER-405 (BOCA, ICBO, SBCC): City of Los Angeles, Research Report No. 24792; Metro-Dade County, Florida, Acceptance No. 99-0223.07, US Dept. of HUD Materials Release 1263a, California DSA PA-019 and City of New York MEA 223-93M. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

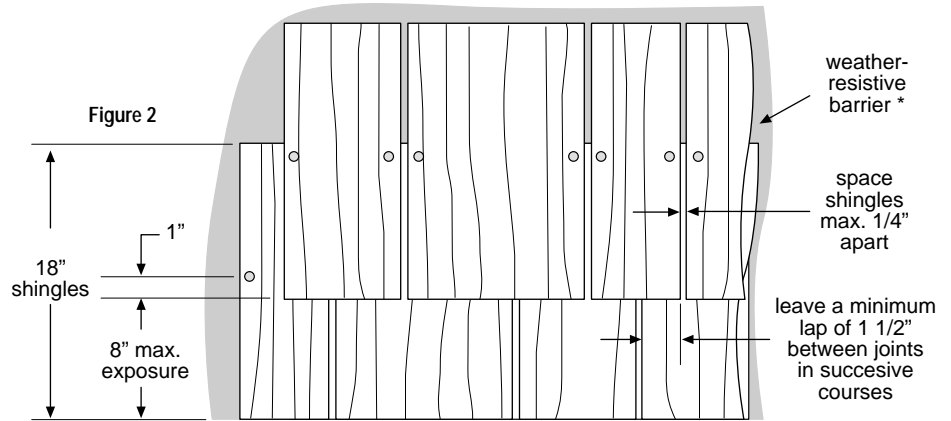
### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling. (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.

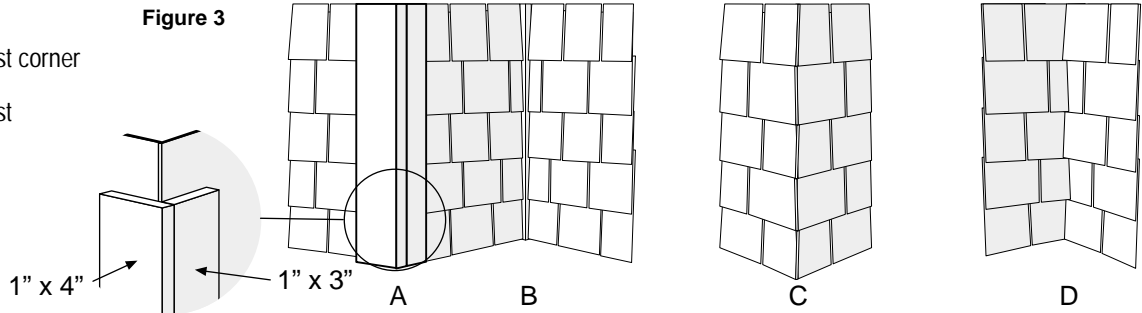
## SHINGLE SPACING

Fasteners are a minimum 0.091" shank x 0.221" HD x 1 1/2" long corrosion-resistant siding nail.



## CORNER DETAILS

- Shingles butted against corner boards.
- Shingles butted against square wood strip on inside corner, flashing behind.
- Laced outside corner.
- Laced inside corner.



## ROOF CLEARANCE

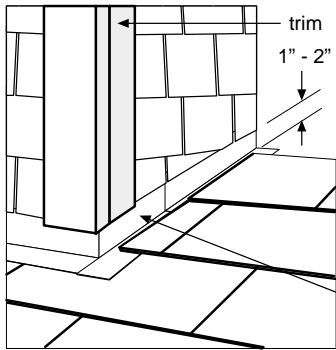


Figure 4

At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1"- 2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.

## WINDOWS, DOORS, AND VENTS

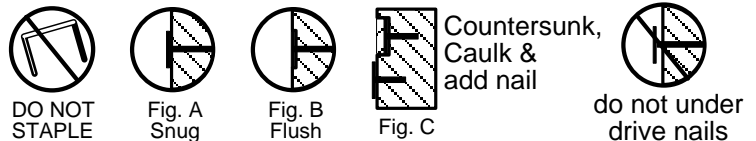
Installation of building wall components such as windows, doors, vents, water pipes and other exterior wall penetrations shall be in accordance with the component manufacturer's written installation instructions and the Code. It is the responsibility of the component installer to insure that penetration areas are properly prepared and that all required sheathing membranes, flashing, caulking, and sealants are installed in accordance with the Code and the published installation details provided by the component manufacturer.

## PNEUMATIC FASTENING:

Shingles can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the shingle surface.

## RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



## FASTENING REQUIREMENTS:

- Consult Tables 2 and 3 of James Hardie's National Evaluation Service report NER-405 for correct fastener type and placement to achieve specified design wind loads and shear values.
- NOTE: Published shear values and wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable Building Code jurisdiction.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)

## FINISHING SHINGLES:

**Patching:**  
Dents, chips and cracks can be filled with a cementitious patching compound.



**Painting:**  
James Hardie products must be painted. Hardie recommends the application of an alkali-resistant primer along with a minimum one topcoat of 100% acrylic paint. \*



\* NOTE: Please refer to paint manufacturers' specifications (JH Technical Bulletin No. S-100) for application rates and the number of required topcoats.

## BUNDLING & COVERAGE

Shingles for sidewall applications are available in 6", 8", and 12" widths.

Bundles needed for one square (100 sq. ft.) of product coverage:

Shingle Width	Number of Bundles	Pieces per Bundle
6"	6	12
8"	3	18
12"	6	12

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(1-800-942-7343)  
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**James Hardie®**  
JH91519SL 3/00

# HARDIE SHINGLESIDE<sup>®</sup>

## INSTALLATION INSTRUCTIONS FOR HERITAGE<sup>®</sup> HALF-ROUND PANELS



**James Hardie<sup>®</sup>**

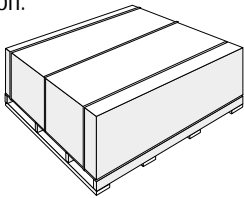
MARCH 2000

**IMPORTANT: FAILURE TO INSTALL AND FINISH HERITAGE<sup>™</sup> HALF-ROUND PANELS FOR SIDEWALL APPLICATIONS IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

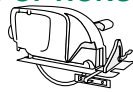
### HANDLING & STORAGE:

Store panels flat on a smooth level surface, under cover. If panels become saturated, allow to dry prior to installation.

Protect edges and corners from breakage.



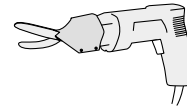
### CUTTING OPTIONS:



Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Carbide score and snap knife



- ▲ JH recommends Makita<sup>®</sup> #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi<sup>®</sup> HARDIBLADE<sup>™</sup> w/4 PCD Diamond Teeth. Call Hitachi<sup>®</sup> at 800-546-1666 for nearest dealer.
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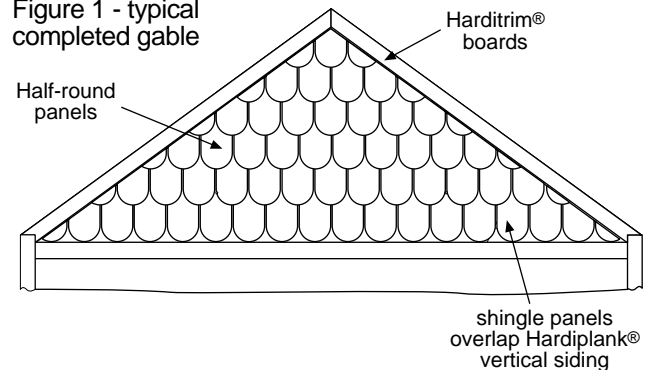
Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

### FRAMING REQUIREMENTS

Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and Two-Family Dwelling Code Section 703.2.1.

NOTE: Many Building Codes exempt the use of weather-resistive barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistive barriers". Therefore James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

Figure 1 - typical completed gable



### HERITAGE PANEL GABLE INSTALLATION

(The following instructions are intended for the installation of Heritage Half-round panels into a typical gable. Please use this as an example only.)

Fasteners are a minimum 0.083" shank x 0.187" HD x 1 1/2" long corrosion-resistant siding nail. Install Heritage panels with joints butted in moderate contact. Due to the overlapping of the joints, caulk is not required except where panels abut trim boards.

NOTE: When estimating for materials, allow for a much higher scrap rate than for a straight wall. Scrap rates can exceed 30% in a gable application.

Half-round panels MUST be applied to a fully nailable substrate or studs spaced at a maximum of 24" o.c. Add studs or proper sheathing to meet your local building codes as required.

1) Begin a gable installation by first marking the center of the gable. Center either a keyway or a half-round along this line to ensure a symmetric finished appearance. (see Figure 2)

Figure 2

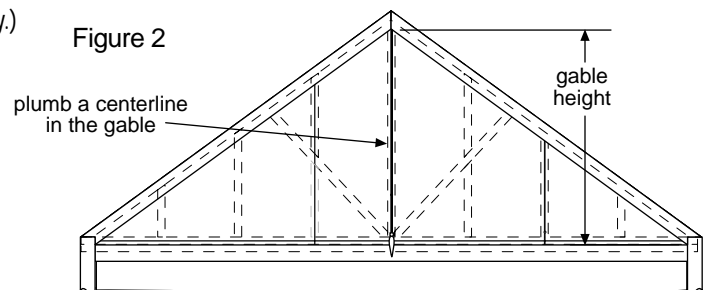
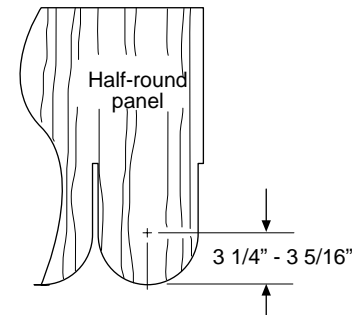


Figure 3



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling. (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

**FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.**



**GABLE INSTALLATION cont.**

- 2) Secure a 1/4" lath strip or other approved starter strip, and a minimum 9 1/4" wide Hardiplank siding starter course.
- 3) For the best fit, it may be easiest to begin the application of panels by placing the first piece relative to the centerline of the gable. The panel may be positioned anywhere along its length such that the keyway or shingle face is centered. If securing to 24" o.c. studs, the placement of the panel must allow nailing at the ends (see Figures 4 & 5).

(NOTE: secure 13 3/4" o.c. only when application is to minimum 7/16" thick APA rated OSB sheathing. Allow 3/8" from edges)

- 4) Position nails using the top of the keyways as a guide. With properly centered courses, nail no closer than 3/8" above the keyway - this will make each nail penetrate both the current and previous course. This provides proper nailing overlap, coverage of the substrate, and lessens the chance of exposing nail heads.
- 5) When nailing subsequent courses, allowing a 1" minimum clearance from the top edge of the previous course will ensure the nail penetrating the previous shingle course (see Figure 6).

Figure 4

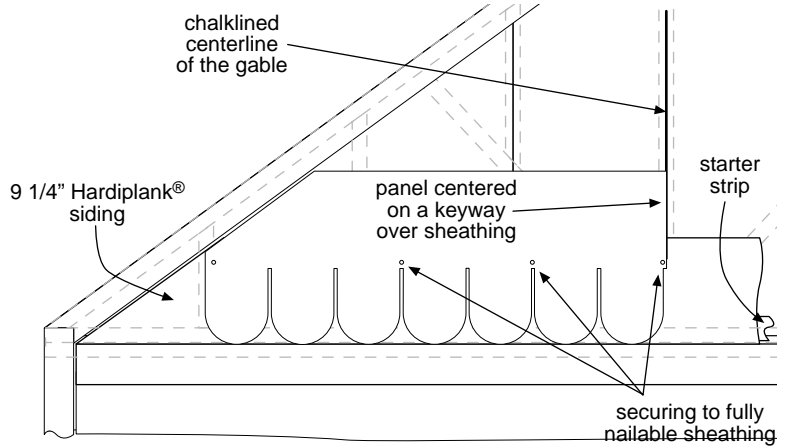


Figure 5

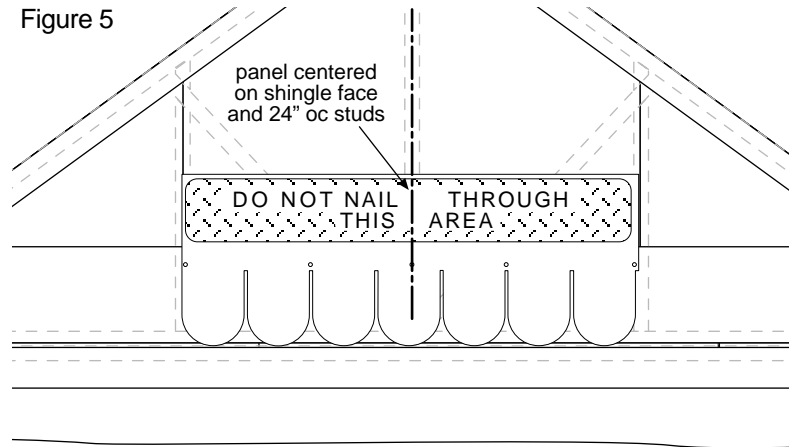
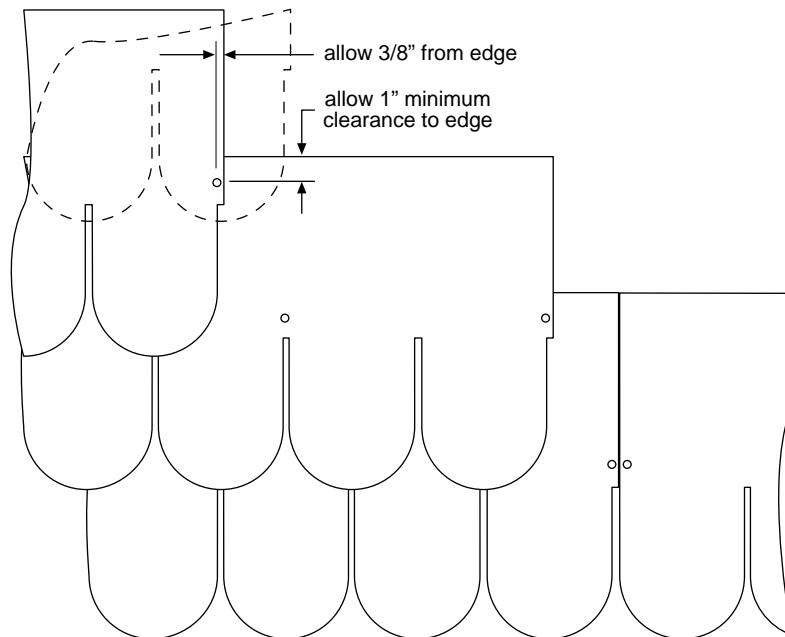


Figure 6



## GABLE INSTALLATION cont.

Always allow a 1/8" gap between the panel and the surrounding trim for caulk.

- When trimming panels to the rake angle of the gable, it is helpful to make an angle template using scrap material. Place a piece of panel touching a corner to the rake. Then position a second piece along the rake itself. Transfer the angle across the first as shown in Figure 7. Check the angle regularly to see that it has not changed, and make new templates as needed.

When the rake angle cuts through a keyway of a complete panel, or significantly weakens the end of the panel, use face nails to secure the end pieces as shown in Figure 8.

- With the first course completed, use the rake angle template to trim the starting panel of the second course. To hide the seams of applied panels, locate the seams midway across the previous course. Placing the seams in mid panel also supplies the greatest protection against water infiltration from one course to the next.

Continue the application remembering to align courses as indicated. At the top of the gable, face nailing will be required for the final piece (see Figure 9).

## HERITAGE PANEL SPACING FOR A SQUARE WALL APPLICATION

Fasteners are a minimum 0.083" shank x 0.187" HD x 1 1/2" long corrosion-resistant siding nail. Install Heritage panels with joints butted in moderate contact. Due to the over-lapping of the joints, caulk is not required.

- Secure a 1/4" lath strip or other approved starter strip, and a minimum 9 1/4" wide Hardiplank siding starter course.
- Trim the first panel to hit furthest stud. Position trimmed panel 1/8" from the trim board and secure above the keyways skipping every other one. Do not nail between keyways as exposed nail heads may result.
- Work across the wall allowing 1/8" gap from trim for caulk.
- Start the second course, and every following even number course (i.e. fourth, sixth) by removing a length determined by the stud spacing from the straight edge end (the left side). This will allow the second course to align properly with the previous course. (Figure 10)

Continue the application by alternating every other course in this manner. When a course is broken by a window or doorway, continue the application as if the wall was complete. Trimming for the opening and using the resulting piece may throw off the spacing above the break.

Figure 7

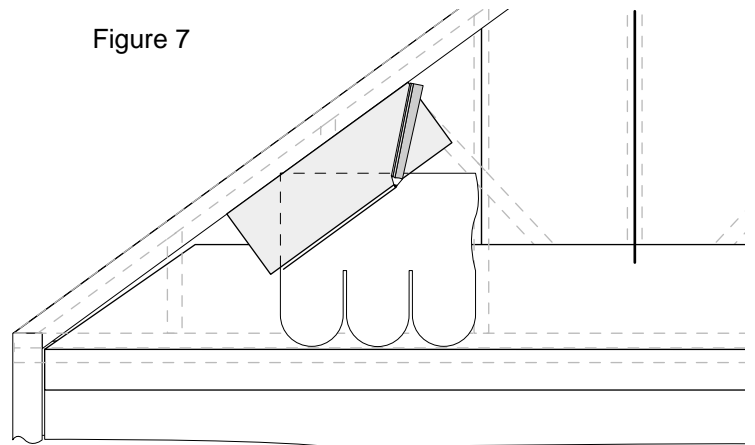


Figure 8

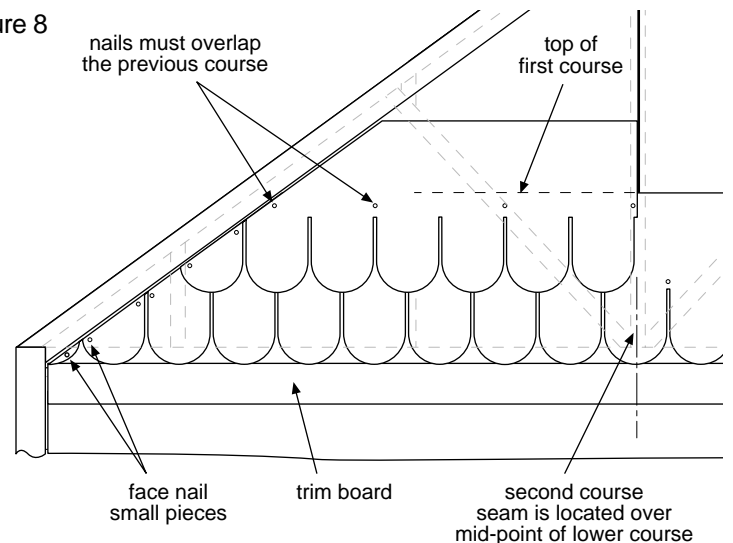


Figure 9

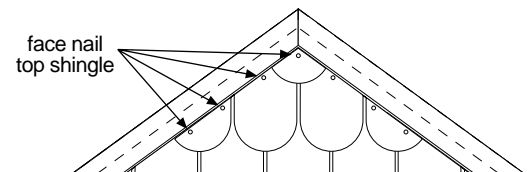
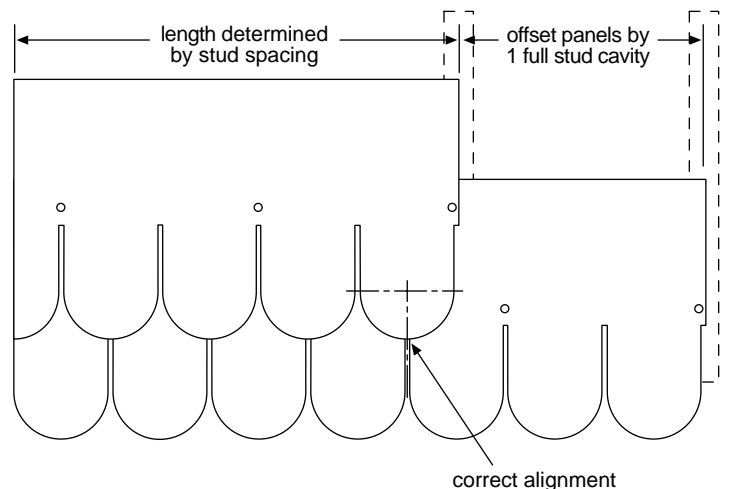


Figure 10

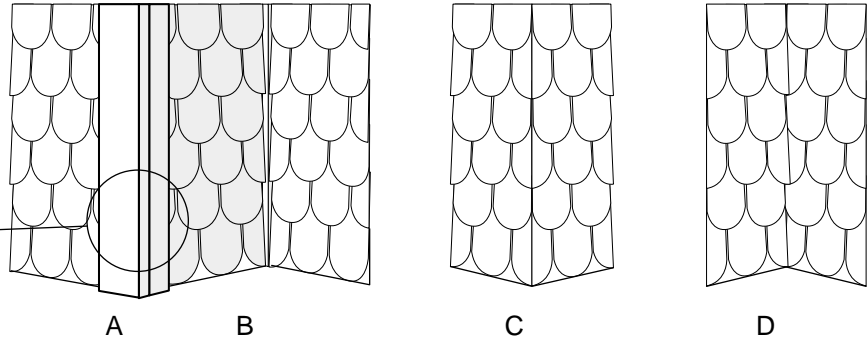


## CORNER DETAILS

Figure 3

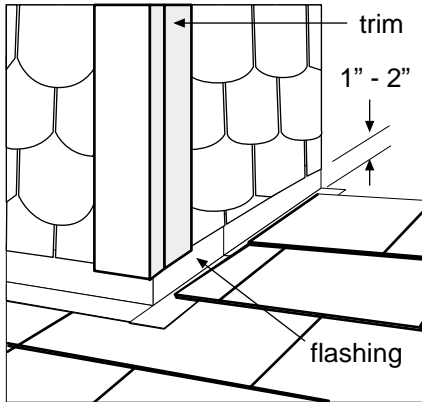
- A. Panels butted against corner boards.
- B. Panels butted against square wood strip on inside corner, flashing behind.
- C. Laced outside corner.
- D. Laced inside corner.

minimum 1" thick trim boards



## ROOF CLEARANCE

Figure 4



At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1"-2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.

## WINDOWS, DOORS, AND VENTS

Installation of building wall components such as windows, doors, vents, water pipes and other exterior wall penetrations shall be in accordance with the component manufacturer's written installation instructions and the Code. It is the responsibility of the component installer to insure that penetration areas are properly prepared and that all required sheathing membranes, flashing, caulking, and sealants are installed in accordance with the Code and the published installation details provided by the component manufacturer.

### PNEUMATIC FASTENING:

Heritage Half-round panels can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the panel surface.

### RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



DO NOT STAPLE



figure A Snug



figure B Flush



figure C

Countersunk, Caulk & add nail



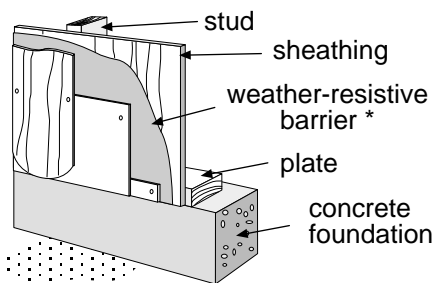
do not under drive nails

### FASTENING REQUIREMENTS:

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)

## GRADE CLEARANCE

Install Heritage Half-round panels in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.



## HERITAGE HALF-ROUND PANEL COVERAGE

Panels for sidewall applications are available in 48" lengths. Allow 7" for the half-round cut pattern. Pieces needed for one square (100 sq. ft.) of product coverage:

Exposure	Pieces per one square of coverage
7"	43

### FINISHING HERITAGE PANELS:

#### Patching:

Dents, chips and cracks can be filled with a cementitious patching compound.



#### Painting:

James Hardie products must be painted. Hardie recommends the application of an alkali-resistant primer along with a minimum of one topcoat of 100% acrylic paint. \*



\* NOTE: Please refer to paint manufacturers' specifications (JH Technical Bulletin No. S-100) for application rates and the number of required topcoats.

#### Caulking:

A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



# HARDIE SHINGLESIDE<sup>®</sup>

## INSTALLATION INSTRUCTIONS

### FOR HERITAGE<sup>®</sup> PLANKS



**James Hardie<sup>®</sup>**

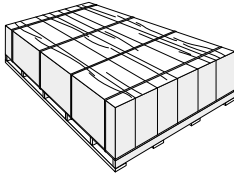
MARCH 2000

**IMPORTANT: FAILURE TO INSTALL AND FINISH HERITAGE<sup>™</sup> PLANKS FOR SIDEWALL APPLICATIONS IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

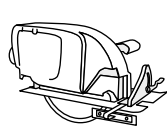
#### HANDLING & STORAGE:

Store planks flat on a smooth level surface, under cover. If panels become saturated, allow to dry prior to installation.

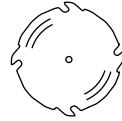
Protect edges and corners from breakage.



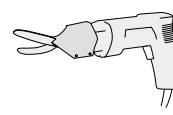
#### CUTTING OPTIONS:



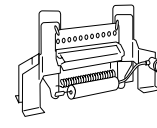
Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Pneumatic shear



Carbide score and snap knife



- ▲ JH recommends Makita<sup>®</sup> #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi<sup>®</sup> HARDIBLADE<sup>™</sup> w/4 PCD Diamond Teeth. Call Hitachi<sup>®</sup> at 800-546-1666 for nearest dealer.
- ▲ SNAPPER SHEAR<sup>™</sup> electric, pneumatic, or hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

#### FRAMING REQUIREMENTS:

Heritage plank lap siding can be installed over braced wood or steel studs spaced a maximum of 24" o.c. or directly to minimum 7/16" thick OSB sheathing. Heritage plank lap siding can also be installed over foam insulation up to 1" thick. † Irregularities in framing, sheathing, and/or foam insulation can mirror through the finished application. A weather-resistive barrier is required \*. Install plank siding with joints butted in moderate contact. Optionally, install the lap siding with a maximum 1/8" gap and caulk the joint \*\* (see detail at right).

Start installation by trimming off the scallops (see Grade Clearance on page 2). Install the first course over a 1/4" thick lath strip to ensure a consistent plank angle (see Figure 1).

†For application over foam insulation, the length of the specified fastener shall be increased by the thickness of the foam insulation.

\* Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and-Two Family Dwelling Code Section 703.2.1.

NOTE: Some Building Codes exempt the use of weather-resistive barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistive barriers". James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

#### Blind nailing Heritage plank

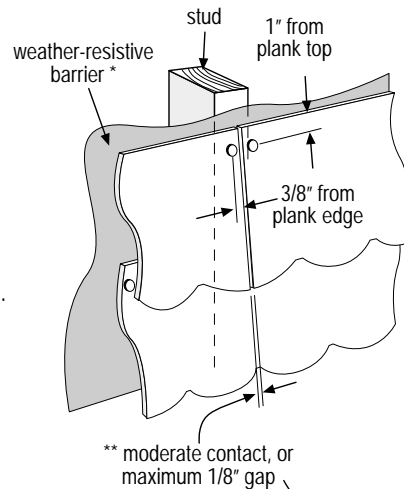


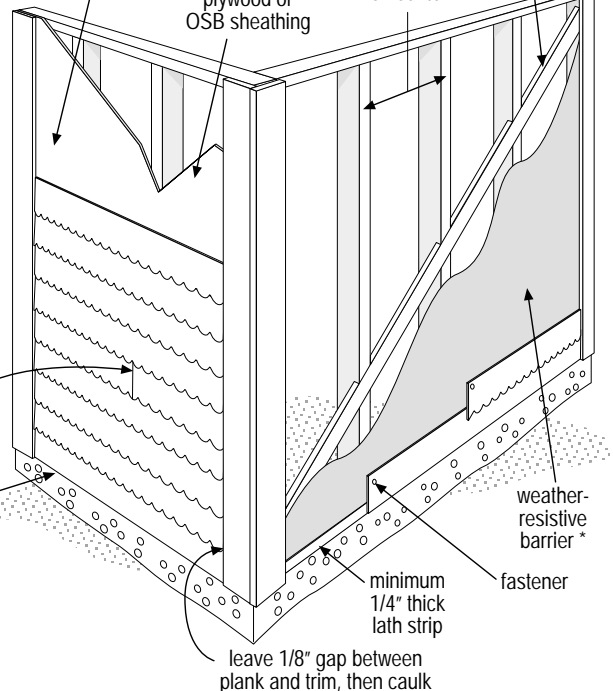
Figure 1

#### Double Wall Construction

weather-resistive barrier \*  
plywood or OSB sheathing

#### Single Wall Construction

16" or 24" let-in bracing on center



see GRADE CLEARANCE on page 2



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

APPROVALS: HARDIE SHINGLESIDE is recognized as an exterior wall cladding in National Evaluation Report No. NER405 (BOCA, ICBO, SBCC): City of Los Angeles, Research Report No. 24862; Dade County, Florida, Acceptance No. 99-0223.07, US Dept. of HUD Materials Release 1263a, California DSA PS-019 and City of New York MEA 223-93-M. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

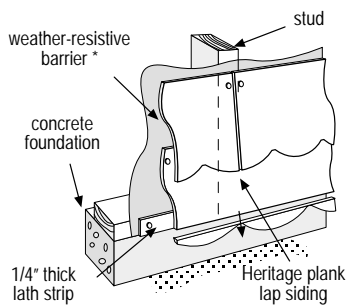
#### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling. (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.

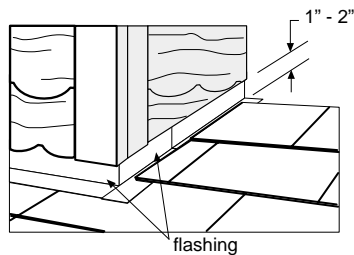
## GRADE CLEARANCE **Figure 2**

Install Heritage plank lap siding in compliance with local Building Code requirements for clearance between the bottom edge of plank/framing and the adjacent finished grade.



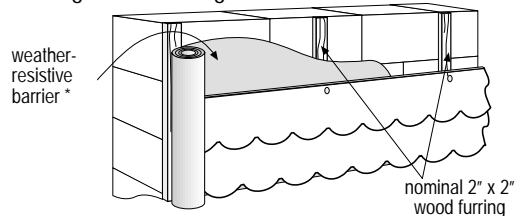
## ROOF CLEARANCE **Figure 3**

At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1" - 2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.



## CONCRETE CONSTRUCTION **Figure 4**

Heritage plank siding can be installed directly to masonry block. Heritage plank siding can also be installed to concrete construction, when the wall is furred out with wood framing or minimum No. 20 gauge steel framing anchored to the wall. Framing can be spaced up to 24" o.c. Consult National Evaluation Service report NER-405 for recognized applications to masonry block, wood or metal framing. A weather-resistive barrier \* is recommended between the framing and the siding.



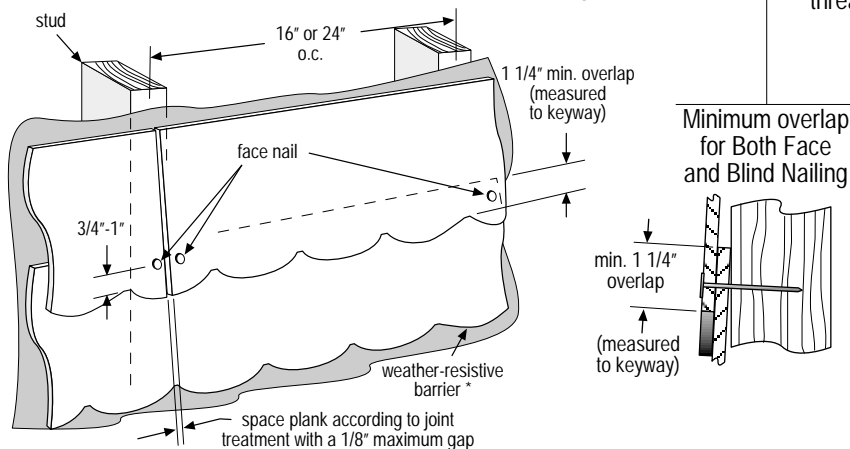
## FACE NAIL: (All Lap Products) **Figure 5**

### Corrosion Resistant Nails (galvanized or stainless steel)

- 6d (0.118" shank x 0.267" HD x 2" long)
- Siding nail (0.089" shank x 0.221" HD x 2" long) \*\*
- Siding nail (0.091" shank x 0.221" HD x 1 1/2" long) ‡

### Corrosion Resistant Screws

- Ribbed Bugle-head or equivalent (No. 8-18 x 0.323" HD x 1 5/8" long)
- Screws must penetrate 1/4" or 3 threads into metal framing.



## BLIND NAIL: **Figure 6**

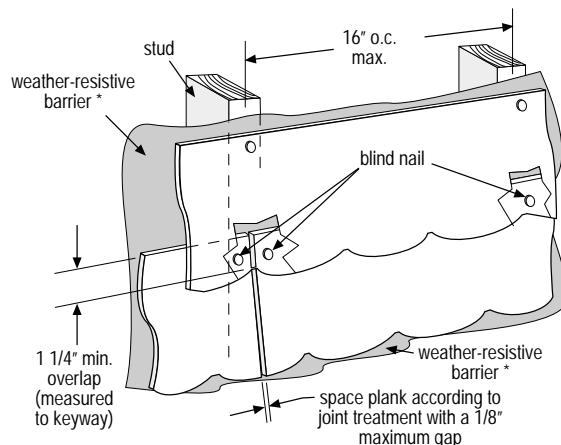
Heritage plank siding cannot be blind nailed 24" o.c.

### Corrosion Resistant Nails (galvanized or stainless steel)

- 11ga. roofing nail (0.121" shank x 0.375" HD x 1 1/4" L)

### Corrosion Resistant Screws

- Ribbed Bugle-head or equivalent (No. 8-18 x 0.375" HD x 1 5/8" long) Screws must penetrate 1/4" or 3 threads into metal framing.



‡ For face nail application of Heritage plank siding to OSB, fasteners are spaced a maximum of 12" o.c.

\*\* The use of a siding nail or roofing nail may not be applicable to all installations where greater windloads or higher exposure categories of wind resistance is required by the Local Building Code. Consult applicable Code Compliance Reports for specific details.

## PNEUMATIC FASTENING:

Heritage planks can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the shingle surface.

### RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



## FASTENING REQUIREMENTS:

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail.

## NAIL TYPE:

Fasteners must be corrosion resistant, galvanized or stainless steel. Electro-galvanized nails are acceptable for use with James Hardie Siding Products, but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. (James Hardie is not responsible for the corrosion resistance of fasteners.)

## FINISHING HERITAGE PLANKS:

### Patching:

Dents, chips and cracks can be filled with a cementitious patching compound.

### Caulking:

A high quality, paintable caulk is recommended. For best results use caulks that

comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)

### Painting:

James Hardie products must be painted. For best results install Hardiplank siding

with our exclusive Prime Plus™ factory priming system and a 100% acrylic topcoat (s). \* If our Prime Plus™ factory priming is not being used, Hardie recommends the application of an alkali-resistant primer along with 100% acrylic topcoat (s). (For paint manufacturer's paint specifications, refer to JH Technical Bulletin No. S-100.) \*Note: Please refer to paint manufacturers' specifications for application rates.





# HARDIE SHINGLESIDE<sup>®</sup>

## INSTALLATION INSTRUCTIONS FOR HERITAGE<sup>®</sup> STAGGERED EDGE PANELS



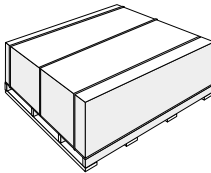
**James Hardie<sup>®</sup>**

MARCH 2000

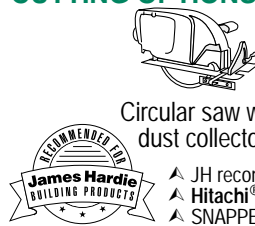
**IMPORTANT: FAILURE TO INSTALL AND FINISH HERITAGE<sup>™</sup> STAGGERED EDGE PANELS FOR SIDEWALL APPLICATIONS IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

### HANDLING & STORAGE:

Store panels flat on a smooth level surface, under cover. If panels become saturated, allow to dry prior to installation. Protect edges and corners from breakage.



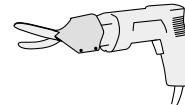
### CUTTING OPTIONS:



Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Carbide score and snap knife



- ▲ JH recommends Makita<sup>®</sup> #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi<sup>®</sup> HARDIBLADE<sup>™</sup> w/4 PCD Diamond Teeth. Call Hitachi<sup>®</sup> at 800-546-1666 for nearest dealer.
- ▲ SNAPPER SHEAR<sup>™</sup> electric or pneumatic hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

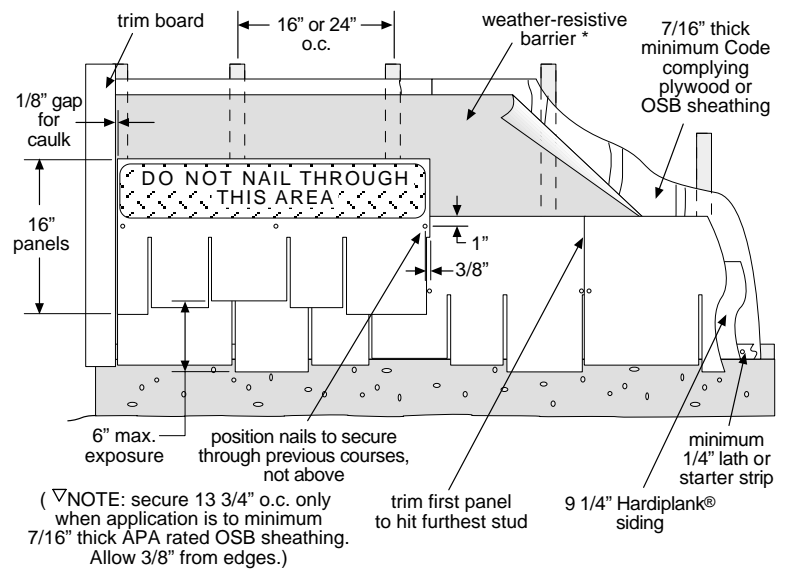
### FRAMING REQUIREMENTS

Install Heritage Staggered Edge Panels on exterior walls braced in accordance with the applicable Building Code: Section 2305.7 of the BOCA National Building Code/1996; Section 2308.2 of the 1997 Standard Building Code; Section 2320.11.3 and 2320.11.4 of the 1997 Uniform Building Code; Section R-602.10 of the 1998 International One and Two Family Dwelling Code.

\* Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and Two-Family Dwelling Code Section 703.2.1.

NOTE: Many Building Codes exempt the use of weather-resistive barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistive barriers". Therefore James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

Figure 1 - Double Wall Construction



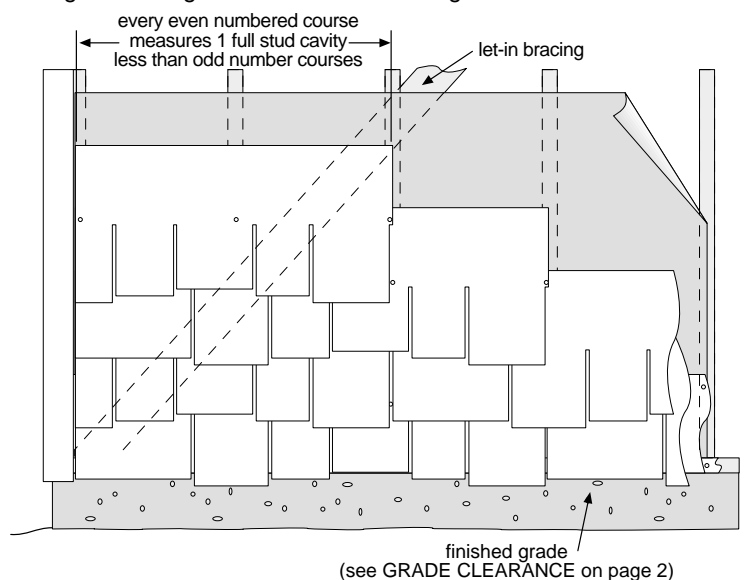
### HERITAGE PANEL SPACING

Fasteners are a minimum 0.083" shank x 0.187" HD x 1 1/2" long corrosion-resistant siding nail. Install Heritage panels with joints butted in moderate contact. Due to the overlapping of the joints, caulk is not required except where panels abut trim boards.

- 1) Secure a 1/4" lath strip or other approved starter strip, and a minimum 9 1/4" wide Hardiplank siding starter course.
- 2) Trim the first panel to hit furthest stud. Allow trimmed panel 1/8" from the trim board for caulk and secure above the keyways on 16" or 24" centers ▽.
- 3) Work across the wall allowing 1/8" gap from trim. (see Figure 1)
- 4) Start the second course, and every following even number course (i.e. fourth, sixth) by removing the equivalent of one full stud cavity from the straight edge end (the left side). Save this piece for the other end of the wall. Secure the beginning panel leaving 1/8" clearance from the trim board for caulking. Position nails to penetrate through the previous course. (see Figure 2)

When a course is broken by a window or doorway, continue the application as if the wall was complete. Trimming for the opening and using the resulting piece may throw off the spacing above the break.

Figure 2 - Single Wall with Let-in Bracing



### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling. (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

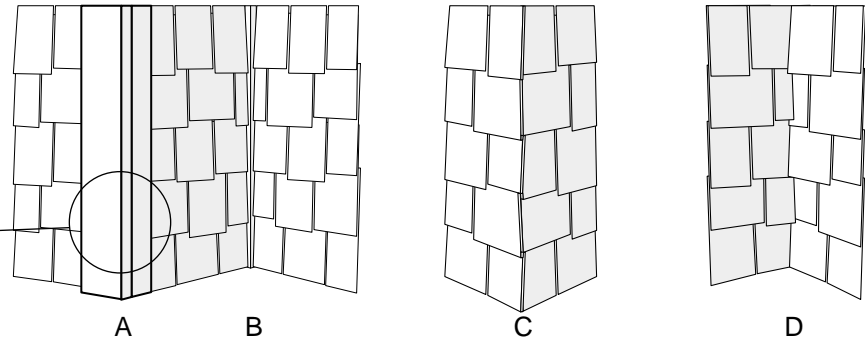
**FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.**

## CORNER DETAILS

Figure 3

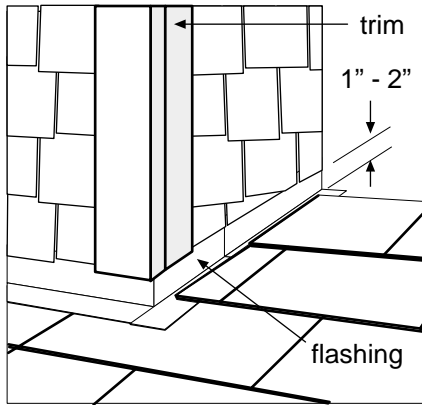
- A. Panels butted against corner boards.
- B. Panels butted against square wood strip on inside corner, flashing behind.
- C. Laced outside corner.
- D. Laced inside corner.

minimum 1" thick trim boards



## ROOF CLEARANCE

Figure 4



At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1" - 2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.

## WINDOWS, DOORS, AND VENTS

Installation of building wall components such as windows, doors, vents, water pipes and other exterior wall penetrations shall be in accordance with the component manufacturer's written installation instructions and the Code. It is the responsibility of the component installer to ensure that penetration areas are properly prepared and that all required sheathing membranes, flashing, caulking, and sealants are installed in accordance with the Code and the published installation details provided by the component manufacturer.

### PNEUMATIC FASTENING:

Heritage Staggered Edge Panels can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the panel surface.

### RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



DO NOT STAPLE



Figure A Snug



Figure B Flush



Countersunk, Caulk & add nail  
figure C



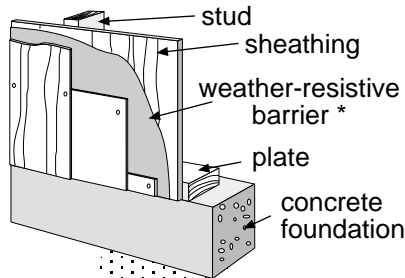
do not under drive nails

### FASTENER REQUIREMENTS:

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)

## GRADE CLEARANCE

Install Heritage Staggered Edge Panels in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.



## FINISHING HERITAGE PANELS:

### Patching:

Dents, chips and cracks can be filled with a cementitious patching compound.



### Caulking:

A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



### Painting:

James Hardie products must be painted. Hardie recommends the application of an alkali-resistant primer along with a minimum of one topcoat of 100% acrylic paint. \*

\* NOTE: Please refer to paint manufacturers' specifications (JH Technical Bulletin No. S-100) for application rates and the number of required topcoats.



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

## HERITAGE STAGGERED EDGE PANEL COVERAGE

Panels for sidewall applications are available in 48" lengths. Allow 6" for the staggered cut pattern.

Pieces needed for one square (100 sq. ft.) of product coverage:

Exposure	Pieces per one square of coverage
6"	50



# HARDIE SHINGLESIDE<sup>®</sup>

## INSTALLATION INSTRUCTIONS FOR HERITAGE<sup>®</sup> STRAIGHT EDGE PANELS



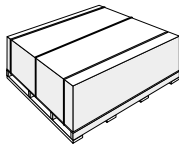
**James Hardie<sup>®</sup>**

MARCH 2000

**IMPORTANT: FAILURE TO INSTALL AND FINISH HERITAGE<sup>™</sup> STRAIGHT EDGE PANELS FOR SIDEWALL APPLICATIONS IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

### HANDLING & STORAGE:

Store panels flat on a smooth level surface, under cover. If panels become saturated, allow to dry prior to installation. Protect edges and corners from breakage.



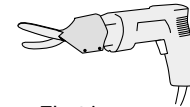
### CUTTING OPTIONS:



Circular saw with dust collector



Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Carbide score and snap knife



- ▲ JH recommends Makita<sup>®</sup> #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA.
- ▲ Hitachi<sup>®</sup> HARDIBLADE<sup>™</sup> w/4 PCD Diamond Teeth. Call Hitachi<sup>®</sup> at 800-546-1666 for nearest dealer.
- ▲ SNAPPER SHEAR<sup>™</sup> electric or pneumatic hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

### FRAMING REQUIREMENTS

Install Heritage Straight Edge Panels on exterior walls braced in accordance with the applicable Building Code: Section 2305.7 of the BOCA National Building Code/1996; Section 2308.2 of the 1997 Standard Building Code; Section 2320.11.3 and 2320.11.4 of the 1997 Uniform Building Code; Section R-602.10 of the 1998 International One and Two Family Dwelling Code.

\* Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and Two-Family Dwelling Code Section 703.2.1.

NOTE: Many Building Codes exempt the use of weather-resistive barriers over "water-repellent sheathing" or exterior panels classified as "weather-resistive barriers". Therefore James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products. James Hardie will assume no responsibility for water infiltration within the wall.

### HERITAGE PANEL SPACING

Fasteners are a minimum 0.083" shank x 0.187"HD x 1 1/2" long corrosion-resistant siding nail. Install Heritage panels with joints butted in moderate contact. Due to the overlapping of the joints, caulk is not required except where panels abut trim boards.

- 1) Secure a 1/4" lath strip or other approved starter strip, and a minimum 9 1/4" wide plank starter course.
- 2) Trim the first panel to hit furthest stud. Allow trimmed panel 1/8" from the trim board for caulk and secure above the keyways on 16" or 24" centers.
- 3) Work across the wall allowing 1/8" gap from trim. (see Figure 1)
- 4) Start the second course, and every following even number course (i.e. fourth, sixth) by removing equivalent of one full stud cavity from the straight edge end (the left side). Save this piece for the other end of the wall. Secure the beginning panel leaving 1/8" clearance from the trim board for caulking. Position nails to penetrate through the previous course. (see Figure 2)

When a course is broken by a window or doorway, continue the application as if the wall was complete. Trimming for the opening and using the resulting piece may throw off the spacing above the break.

Figure 1 - Double Wall Construction

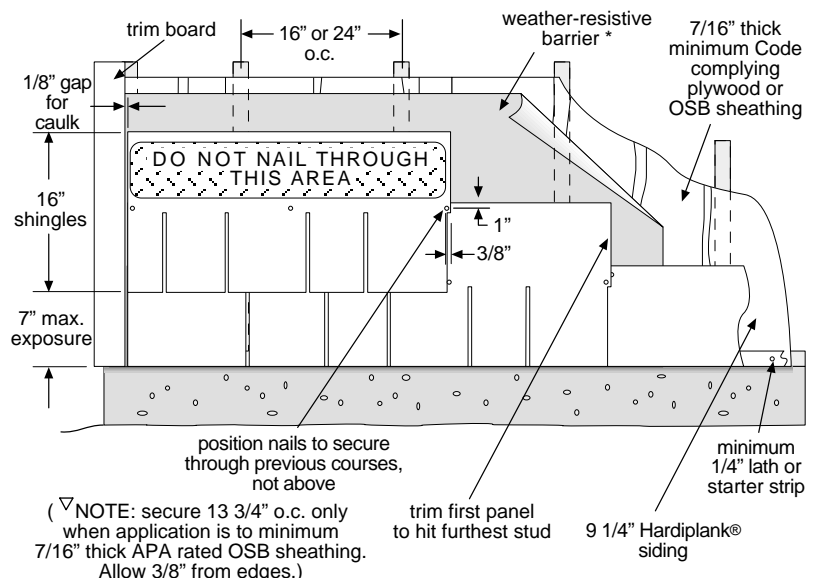
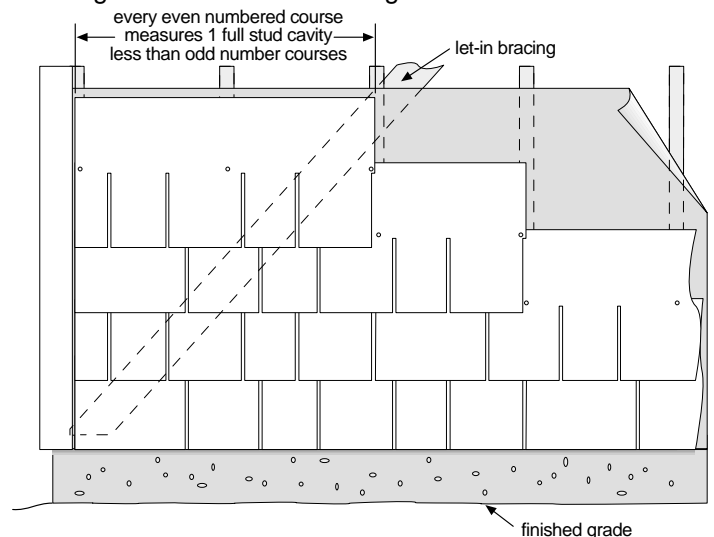


Figure 2 - Single Wall with Let-in Bracing



### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling, (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

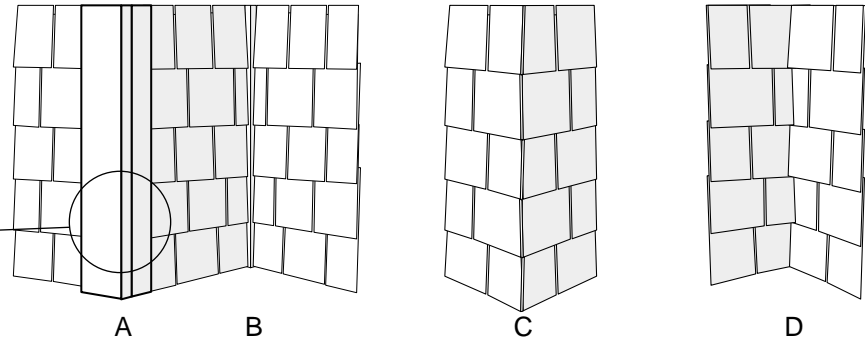
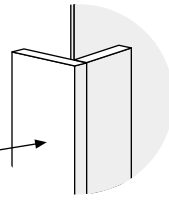
**FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.**

## CORNER DETAILS

Figure 3

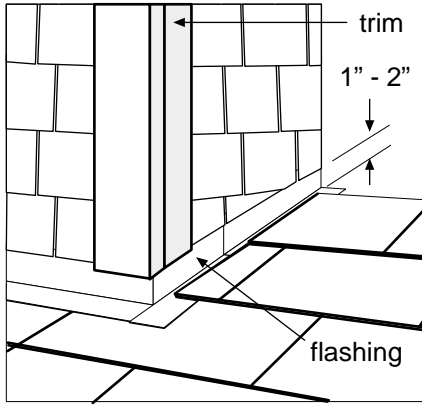
- A. Panels butted against corner boards.
- B. Panels butted against square wood strip on inside corner, flashing behind.
- C. Laced outside corner.
- D. Laced inside corner.

minimum 1" thick trim boards



## ROOF CLEARANCE

Figure 4



At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be provided per the roofing manufacturer's instructions. Provide a 1" - 2" clearance between the roofing and bottom edge of siding or as recommended by the roofing manufacturer.

## WINDOWS, DOORS, AND VENTS

Installation of building wall components such as windows, doors, vents, water pipes and other exterior wall penetrations shall be in accordance with the component manufacturer's written installation instructions and the Code. It is the responsibility of the component installer to ensure that penetration areas are properly prepared and that all required sheathing membranes, flashing, caulking, and sealants are installed in accordance with the Code and the published installation details provided by the component manufacturer.

## PNEUMATIC FASTENING:

Heritage Straight Edge Panels can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the panel surface.

## RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.



DO NOT STAPLE



Figure A Snug



Figure B Flush



Figure C

Countersunk, Caulk & add nail



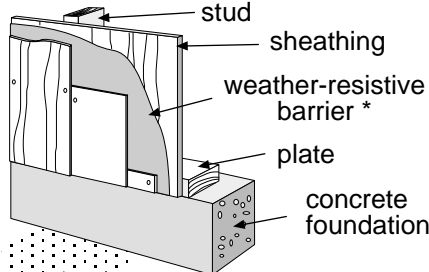
do not under drive nails

## FASTENER REQUIREMENTS:

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)

## GRADE CLEARANCE

Install Heritage Straight Edge Panels in compliance with local Building Code requirements for clearance between the bottom edge of panel/framing and the adjacent finished grade.



## FINISHING HERITAGE PANELS:

### Patching:

Dents, chips and cracks can be filled with a cementitious patching compound.



### Caulking:

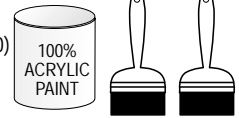
A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



### Painting:

James Hardie products must be painted. Hardie recommends the application of an alkali-resistant primer along with a minimum of one topcoat of 100% acrylic paint. \*

\* NOTE: Please refer to paint manufacturers' specifications (JH Technical Bulletin No. S-100) for application rates and the number of required topcoats.



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

## HERITAGE STRAIGHT EDGE PANEL COVERAGE

Panels for sidewall applications are available in 48" lengths. Allow 7" for the straight cut pattern.

Pieces needed for one square (100 sq. ft.) of product coverage:

Exposure	Pieces per one square of coverage
7"	43

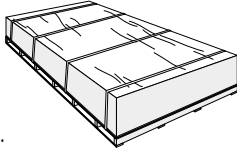




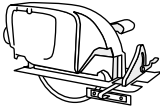
**IMPORTANT: FAILURE TO INSTALL AND FINISH HARDISOFFIT® PANELS IN ACCORDANCE WITH APPLICABLE BUILDING CODE COMPLIANCE REPORTS AND JAMES HARDIE'S WRITTEN APPLICATION INSTRUCTIONS, MAY AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES REQUIREMENTS, AND VOID THE PRODUCT ONLY WARRANTY.**

### HANDLING & STORAGE:

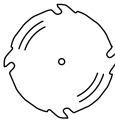
Store Hardisoffit panels flat on a smooth level surface, under cover. If panels have become saturated, allow to dry prior to installation. Protect edges and corners from breakage.



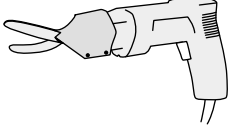
### CUTTING OPTIONS:




Circular saw with dust collector




Circular saw blade with carbide-tipped teeth



Electric or pneumatic hand shear



Carbide score and snap knife



▲ JH recommends Makita® #5044KB 4" or #5057KB 7-1/4" saw with dust collection. Call 800-4MAKITA  
 ▲ Hitachi® HARDIBLADE™ w/4 PCD Diamond Teeth. Call Hitachi® at 800-546-1666 for nearest dealer.  
 ▲ SNAPPER SHEAR™ electric or pneumatic hand shear. Call 800-297-7487 for tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

### BASIC COMPOSITION AND SIZE

Portland cement, ground sand, cellulose fiber, select additives and water. Hardisoffit panels contain no asbestos fibers, glass fibers, or formaldehyde. Hardisoffit panels are dimensionally stable and will not crack, rot, or delaminate. Hardisoffit fiber-cement panels resist damage caused by extended exposure to moisture, humidity and salt air. Hardisoffit panels have been evaluated in accordance with ASTM Method E 136, and may be installed where noncombustible construction is required.

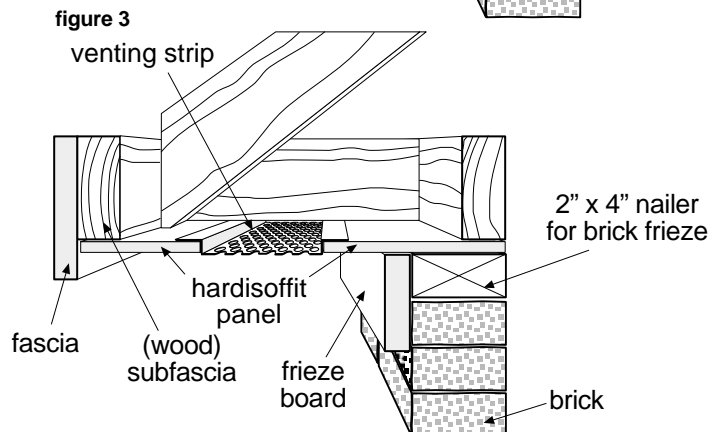
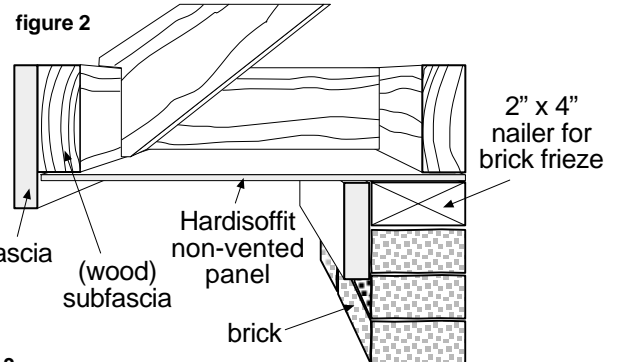
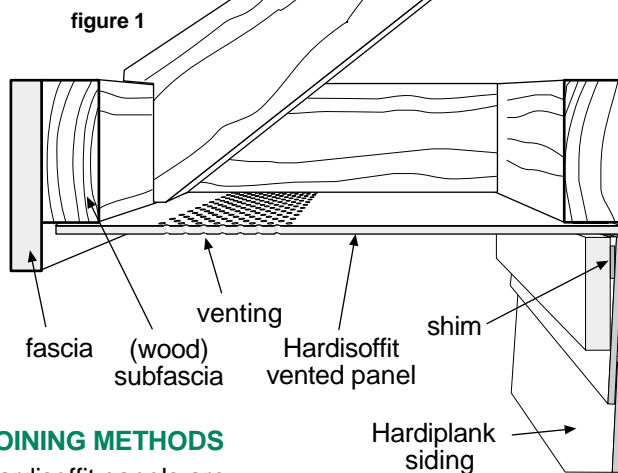
**Textures:** Smooth & Select Cedarmill    **Sizes:** Non-vented: 12" x 144", 16" x 144", 24" x 144", 48" x 96"  
**Thickness:** 1/4"    Vented: 12" x 144", 16" x 144", 24" x 144"

### FRAMING REQUIREMENTS:

Hardisoffit panels may be installed over either metal or wood framing members complying with the local Building Code, including the use of weather-resistive barriers where required.

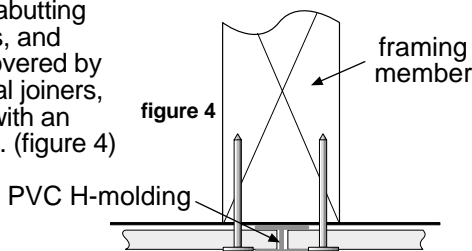
Apply soffit panels to nominal 2 x 4 framing members spaced a maximum of 24 inches on center, with the long dimension perpendicular to the framing. Fasteners are installed 3/8" from the edge of the board and 2" in from the corners.

### SOFFIT USES



### JOINING METHODS

Hardisoffit panels are fastened at abutting board edges, and optionally covered by PVC or metal joiners, battens, or with an acrylic caulk. (figure 4)



### WARNING: AVOID BREATHING SILICA DUST

Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling: (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH/MSHA approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

**FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.**



## ATTENTION: BUILDER/ARCHITECT

GENERAL INFORMATION: IMPORTANT: These instructions are to be used for the application of Hardisoffit panels on conventional, site built wood and metal frame buildings. For other applications, such as those for factory-built construction (including manufactured housing, modular or panelized buildings) please contact James Hardie Building Products 1-(800)-9HARDIE (942-7343).

## WORKING WITH VENTED HARDISOFFIT PANELS:

Hardisoffit panels must be fastened to a solid, nailable substrate (e.g. a wooden 2 x 4 subfascia), not into another Hardie product. Position the vented section of the Hardisoffit panel towards the outside of the eave for optimal airflow.

## VENT PERFORMANCE:

Continuous ventilation systems provide the most efficient mode of air intake possible. Hardie's vented soffit products provide 5.0 square inches of net free ventilation per linear foot of soffit.

## JOINING REQUIREMENTS

Hardisoffit panels are fastened at abutting board edges and optionally covered by PVC or metal joiners, battens, or with a compatible caulk (see Finishing Hardisoffit).

## FASTENER SIZE AND SPACING

- Installation to conventional wood frame construction in most locations: minimum 4d common nails spaced 8" o.c. at panel edges and intermediate framing members spaced up to 24" on center.
- Installation to conventional 20ga metal frame construction in most locations: minimum No. 8-18 x 0.323" HD x 1" long Hi-Lo® S® or S-12™ ribbed bugle screws spaced 6" o.c. at panel edges and intermediate framing members spaced up to 24" on center.
- Minimum Basic Wind Speed differs by locality. Where specified levels of wind resistance are required, refer to Building Code Compliance Reports (Approvals).

## FASTENING:

Hardisoffit panels can be hand nailed or fastened with a pneumatic tool. Set your air pressure so that the fastener is driven snug with the panel surface. The use of a flush mount attachment is recommended on pneumatic tools to help control the depth that the nail is driven. This will be especially useful when more than one tool is driven off the same compressor.



DO NOT STAPLE

## FASTENER REQUIREMENTS:

- Position fasteners a minimum of 2" from soffit corners and 3/8" from edges.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against soffit (no air space). (Fig. A & B)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig. C)



Fig. A



Fig. B



Fig. C

Countersunk,  
Caulk &  
add nail



do not under  
drive nails

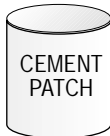
## FASTENERS:

Nails and screws must be corrosion-resistant. Nails complying with ASTM F-1667, must be corrosion-resistant, galvanized, or stainless steel. Electro-galvanized nails may be used, but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. Screw fasteners for the installation of Hardisoffit shall be corrosion-resistant.

## FINISHING HARDISOFFIT:

### Patching:

Dents and chips can be filled with a cementitious patching compound.



### Caulking:

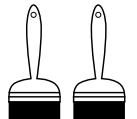
A high quality, paintable caulk is recommended. For best results use caulks that comply with either ASTM C 834 or ASTM C 920. Caulking should be applied in accordance with caulking manufacturers written instructions. (Leave 1/8" gap at trim for caulk. Caulking at butt joints is optional.)



### Painting:

James Hardie soffit products must be painted. For best results use Hardisoffit panels with our exclusive Prime Plus™ factory priming system and 100% acrylic topcoat (s). \* If our Prime Plus™ factory priming is not being used, Hardie recommends the application of an alkali-resistant primer along with 100% acrylic topcoat (s). (For paint manufacturer's paint specifications, refer to JH Technical Bulletin No. S-100.)

\*Note: Please refer to paint manufacturers' specifications for application rates.



APPROVALS: Hardisoffit panels are recognized for use in National Evaluation Service (NES), Inc., Report No. NER-405 (BOCA, ICBO, SBCCI); City of Los Angeles, Research Report No. 24862; United States Department of Housing and Urban Development, Materials Release No. 1263a; City of New York MEA No. 223-93-M; and Metro-Dade County, Florida N.O.A. No. 99-0223.07. These documents must also be consulted for additional information concerning the suitability of these products for specific applications.



James Hardie's seal of approval indicates products recommended for use by James Hardie Building Products

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(1-800-942-7343)  
[www.jameshardie.com](http://www.jameshardie.com)



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JH91524SL 3/00