

# 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.



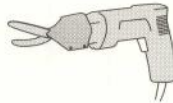
### CUTTING OPTIONS:



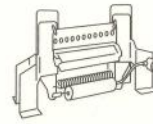
Circular saw with dust collector



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.

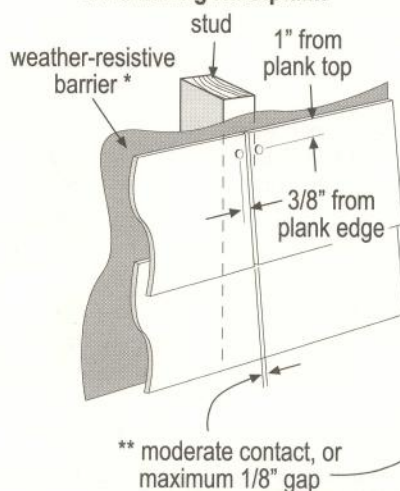
Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold.

### 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-resistive 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).

#### Blind nailing Hardiplank



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

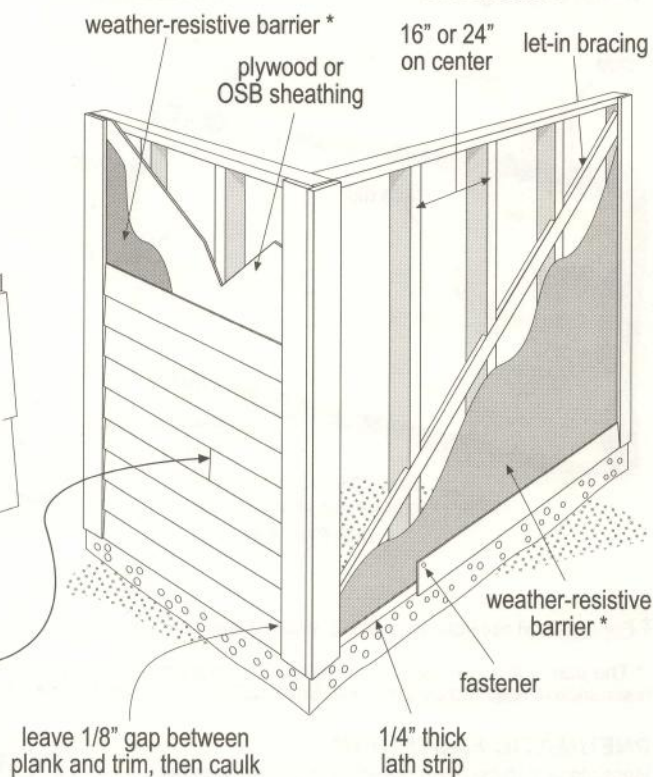
\* Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and-Two Family Dwelling Code Section 703.2.1.

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.

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

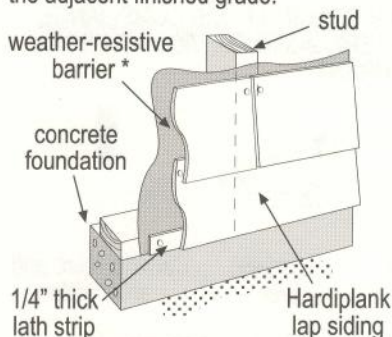
Product contains Silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When drilling, cutting, or abrading product during installation or handling. (1) Work outdoors where feasible, otherwise 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.**



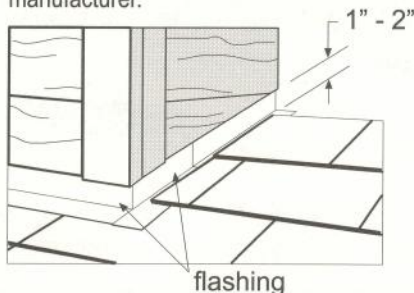
## GRADE CLEARANCE figure 2

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



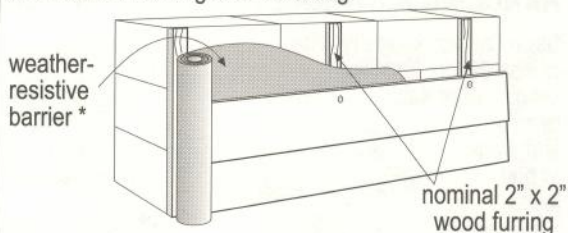
## ROOF CLEARANCE figure 3

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 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.



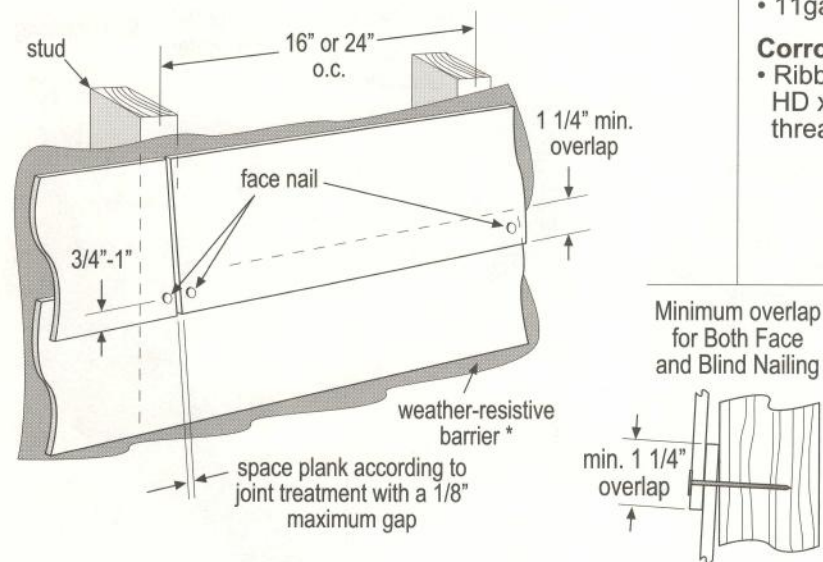
## FACE NAIL: (All Lap Products) figure 5

### 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

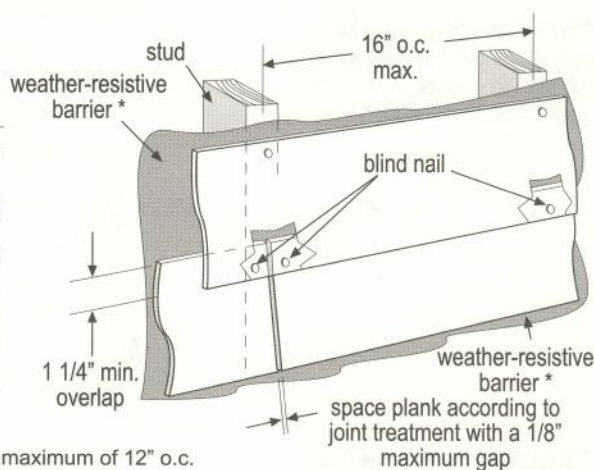
Hardiplank siding cannot be blind nailed 24" o.c. 12" wide Hardiplank siding cannot be blind nailed. When blind nailing 9 1/4" or 9 1/2" Hardiplank, use 11 ga. roofing nail x 1 1/4" long.

### 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



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")	12" (10-3/4")
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.

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