



REDWOOD

Real Strong Workbook



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Re-imagining Redwood

Redwood is grown and harvested in accordance with the highest environmental standards. Roughly 90% of all product-producing redwood forests are certified by the Forest Stewardship Council® (FSC®) or Sustainable Forestry Initiative® (SFI®). Many Northern California forestland owners, including Humboldt Redwood, are protecting old-growth trees, while nurturing the new growth of redwood. Redwood's natural beauty and performance characteristics make it ideal for a wide variety of exterior and interior building and design applications.

Timbers

Available in (nominal) 4" x 6" through 12" x 12" in lengths up to 24 feet. Special order timbers up to 18" x 24" x 24 feet. All grades available in rough green or surfaced four sides (S4S).

Decking

Available in (nominal) 2" x 4" and 2" x 6" in lengths from 6-24 feet, surfaced four sides (S4S). Preferred grades include Heart B, Deck Heart, and B Grade.

Exterior Siding

Available in nominal 1" x 4" through 1" x 12" in lengths from 6-24 feet. We have many profiles in stock and the ability to grind our own knives to match existing patterns.

Interior Finishes

Available in (nominal) 1" material. 1" x 4" through 1" x 12" in lengths from 6-10 feet

Durability

The natural tannins in redwood heartwood render it resistant to insects and decay. Extensive flame spread testing confirms redwood's superior performance under fire exposure (Class B fire rating).

Redwood Grades

Redwood grades fall into two major categories—heartwood and sapwood. Heartwood comes from the center of the tree and has the warm red color that gives redwood its name. Sapwood comes from the outer areas of the tree.

Stability and Strength

Redwood outperforms other woods because it shrinks and swells less and therefore is less likely to warp, cup, and check. Redwood features shear strength up to 5 times greater than plastic-composite lumber.

Minimal Maintenance

Redwood used in exterior applications will last 25-35 years with minimal maintenance, and more than 100 years for interior finishes. Weathered redwood can be easily restored to its original appearance, or reused in other applications.

Custom Orders

Humboldt Redwood Company's Scotia, California sawmill can accommodate custom orders for distribution throughout the Western U.S. and beyond.

Specification Resources

Standardized 3-part specifications are available at www.ARCAT.com.

Redwood Grades & Uses	Merchantable	Merchantable Heart	Construction Common	Construction Heart	B Grade	Heart B	Clear	Heart Clear
Architectural	—	—	—	—	■	■	■	■
Garden	■	■	■	■	—	—	—	—
Knots	■	■	■	■	■	■	—	—
Sapwood	■	—	■	—	■	—	■	—
Posts	—	—	—	■□	—	■	—	■
Beams	—	—	—	■□	—	■	—	■
Joists	—	—	—	■□	—	■	—	■
Decking	—	—	■□	■	■	■	■	■
Trellises	■□	■	■	■	■	■	■	■

■ Suitable grade for use □ Most economical grade for use

Notes: All grades are available in rough green or surfaced four sides (S4S). Redwood grades are established by the Redwood Inspection Service (RIS).

Storage & Handling of Redwood Timbers

Proper storage and handling of dimensional lumber and timbers at home improvement retailers, lumber yards, and job sites is important to maintain the appearance, quality, and saleability of the wood.

Important Considerations

- Managing changes in wood moisture content to minimize degradation through dimensional change (shrinkage or expansion)
- Mitigating physical distortion (warping and cupping)
- Minimizing material loss from splitting, checking, and decay
- Avoiding weather-related issues such as discoloration and staining

Redwood timbers are remarkably durable and dimensionally stable, but may be subject to some of the above problems if not handled or stored properly. Timbers are defined as lumber typically 6" x 6" and greater in thickness and width. Dimension lumber 3- and 4- inches thick when used in timber-frame structures, may often be referred to as timbers as well.

Shipment and Storage

Redwood timbers are almost always shipped green (unseasoned). To protect them during shipment from the mill to the distribution center and on to the retailer, they are typically covered with lumber wrap or tarp. At the retailer, Redwood timbers are typically unwrapped, un-banded, and placed in lumber racks, which may or may not be protected from the elements.

Redwood timbers should ideally be stored in a covered rack or inside a climate-controlled warehouse. If they are expected to be in inventory for a number of weeks or months, separate them with stickers arranged

vertically over the support blocks. This allows for air circulation and continues the natural seasoning process.

In addition, an end seal product, such as Anchorseal, can be used to prevent or minimize end checks and splits which may develop during the seasoning process. Checking, which can be particularly problematic in Redwood timbers with heart centers, can result in significant material loss.

Jobsite Delivery and Protection

In a retail setting, Redwood timbers should be handled with care. Forklift damage should be avoided. Retail and jobsite personnel should be aware that Redwood timbers are high-value, appearance products requiring special care. At the jobsite, care should be taken to not roll Redwood timbers off the back of delivery trucks "dumping" them on the ground. This may cause damage.

At the jobsite, Redwood timbers should be stored in a protected, undercover area if possible. If they cannot be protected undercover, they should be covered by a loosely fitting lumber wrap or tarp. Redwood timbers should be stored on a level surface and supported with blocking well off the ground to provide uniform and adequate support. They should not be placed directly on the ground, especially if there is the possibility of coming into direct contact with mud or water. If a paved surface is not available, the ground should be covered with polyethylene film.

Discoloration and Restoration

During extended and exposed storage, Redwood timbers may darken or blacken. Although often treated at the mill with an anti-stain product, this treatment may only last for a few months. If darkening occurs, redwood can be restored using an oxalic acid based wood brightener (see the Humboldt Redwood "Finishing Guide"). Redwood timbers may also be sanded, resurfaced, or resawn to restore a fresh, bright appearance. Redwood timbers contain water-soluble extractives (tannins) which can stain concrete and other masonry. In the event or possibility of rain, it is advised to cover masonry with a tarp or polyethylene film before laying down the Redwood timbers. If stains do occur on the masonry, they can be removed using a specialty cleaning product by PROSOCO.

Black iron stains may occur where metal objects come into contact with wet Redwood timbers. To avoid this, only corrosion-resistant fasteners such as hot-dipped galvanized or stainless steel should be used with Redwood timbers. Lower quality hardware and fasteners should not be used. Black iron stains can be removed with an oxalic acid based wood brightener (as previously mentioned), however staining will continue to occur unless the source of the iron is removed.

Finishing

Redwood timbers can be finished with a wide variety of products from clear water repellents to a variety of stains and paints. Since Redwood timbers are typically unseasoned, applying breathable natural finishes such as transparent and semitransparent stains, is advisable. These can be applied to a clean, dry surface within weeks.

If an opaque coating is desired, it may be necessary to wait several months for the Redwood timbers to thoroughly season. Moisture content should be 15% or lower before application. Use a stain-blocking acrylic primer formulated for redwood prior to applying the top coat.

Hidden below are ten types of timber that are perfect for your next building project.

How many can you spot?

R E D W O O D R
 R E D W O O D E
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 R E D W O O D W
 R E D W O O D O
 R E D W O O D O
 R E D W O O D D

Redwood timbers are strong, beautiful, and versatile, making them the obvious choice for any building project. *Find out more at getredwood.com.*

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Connect the dots to reveal which specifier forgot to use redwood.



How do you feel when you build with strong, beautiful, and versatile redwood timbers? Happy, of course. That's because redwood is the obvious choice. *Find out more at getredwood.com.*

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Finishing Guide

You've built a beautiful Humboldt Redwood deck, porch, or shade structure—how do you keep it looking great?

Humboldt Redwood

Humboldt Redwood is one of nature's most maintenance-free building materials. It possesses natural resistance to insects and decay. It also outperforms other wood species because it shrinks and swells less and is therefore less likely to warp, cup, and check. In addition, no other wood takes and holds finishes better than Humboldt Redwood.

Finish Restoration

Mildew

Mildew may appear as dark or gray spots on the wood surface. To remove a mild case of mildew, scrub it with a mild cleanser or detergent. Next rinse with a household bleach to kill surviving spores. Lastly rinse with water.

For severe infestations, scrub with a stiff bristle brush using a solution of one cup trisodium phosphate (TSP), one cup liquid bleach and one gallon warm water. Rinse thoroughly. If necessary, follow with an application of 4 ounces oxalic acid crystals dissolved in one gallon warm water in a non-metallic container. Apply evenly with a soft brush. When wood dries, rinse with water.

Color Restoration

Discoloration may occur when extractives are dissolved in water and leach from the wood. To remove extractive stains and to restore a new appearance to weathered wood, scrub the wood with a bristle brush and a solution of one cup TSP, one cup bleach to a gallon of water. Next apply a solution of 4 ounce oxalic acid crystals dissolved in one gallon of warm water. When wood dries, rinse with water.

General Finishing Tips

- Apply finishes on windless days. Temperature should be between 50 and 70 degrees Fahrenheit.
- Surfaces should be clean and dry.
- Moisture is the most common cause of finish failures, so use proper vapor barriers, air vents and flashing in new construction.
- New structures built with unseasoned wood should air-dry one month before finishing.
- Use finishes recommended for wood exteriors.
- Follow manufacturer's application instructions.
- Back-priming is recommended for all exterior finishes, particularly paints.
- Do not use wire brushes or steel wool as metal particles may become embedded in the wood and can cause stains. Use stiff bristle brushes.
- Do not mix incompatible materials or apply them over one another. Finish failures may result.
- To avoid iron stains, use stainless steel or top quality, hot-dipped galvanized fasteners.
- Periodic rinsing with a garden hose will remove dirt and grime. Stubborn build up can be removed by scrubbing with a bristle brush and a solution of warm water and a mild detergent. Rinse afterward. To rejuvenate and restore redwood color, apply oxalic acid according to manufacturer's directions.

	Finish Description	Effect	Application	Maintenance
<p><u>Clear Water Repellent with Mildewcide</u></p> 	Clear finishes that modify weathering characteristics and let color and grain show through.	Minimize weather and mildew attack. Helps eliminate redwood's natural darkening. Areas exposed to direct sun and rain may eventually bleach to gray.	Apply with brush or roller. Two coats recommended for new wood. For best results, coat cut ends, backs, and edges before nailing in place.	Reapplication required after old finish has lost effectiveness. Reapply every 12–18 months depending on climate and old finish retention.
<p><u>Bleaching or Weathering Stains</u></p> 	Low maintenance, natural appearance with a gray-toned finish.	Provide for low maintenance and give a uniformly gray or naturally weathered look.	Apply with brush or roller. Use one or two coats according to manufacturer's directions. Bleaching is aided by sunlight and moisture.	Bleaching oils and stains provide nearly maintenance-free performance. Reapply finish only if wood begins to darken or bleaching is uneven. One refinish coat should be enough.
<p><u>Semitransparent Stains</u></p> 	Penetrating finishes available in a variety of semitransparent colors including redwood hues. Oil-based stains recommended.	Provide color in a finish that lets wood breathe naturally; allows the wood grain to show through but presents a uniform single color.	Apply with brush for best results, next best is a roller. Avoid drips and lap marks. Use one or two coats according to manufacturer's directions.	Refinishing may be necessary every 3–5 years. Color may wear away gradually with weathering. One refinish coat is usually enough.
<p><u>Solid Body Stains</u></p> 	Film forming finishes available in a wide variety of opaque colors. Oil-based stains are recommended.	Provide color in a finish that lets wood breathe naturally. Opaque stains will obscure the grain but highlight the texture and have an appearance more like paint.	For best results use a brush. The next best applicator is a roller. Avoid drips and lap marks. Use one or two coats according to manufacturer's directions.	Refinishing may be necessary every 3–5 years. Color may wear away gradually with weathering. One refinish coat is usually enough.
<p><u>Paints</u></p> 	Durable, attractive finishes for traditional exteriors. Quality paints are generally worth the extra cost.	Provide attractive colorful finishes which obscure grain and texture of the wood.	Apply with brush for best results, roller is next best applicator. One prime coat and two top coats are recommended for new wood. Back-priming is highly recommended.	Refinishing may be necessary every 7–10 years. Sand or scrub with stiff bristle brush. Paint and varnish removers may also be used. If sanding, countersink nail heads to protect coating.

To unlock the secret to all
your wood-based building needs,
unscramble the word below!

R E D W O O D O

— — — — — — —

Redwood timbers are strong, beautiful, and versatile, making them the obvious choice for any building project. *Find out more at getredwood.com.*

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Structural Design Values

(All values in PSI)
(MOE in millions of PSI)

Grade	Bending (Fb)	Tension (Ft)	Shear (Fv)	Compression Perpendicular	Compression Parallel	Modulus of Elasticity (MOE)
Redwood Dimension Lumber (2"-4" thick by 2" and wider)						
Select Structural	1100	625	160	425	1100	1.1
No. 1	775	450	160	425	900	1.1
No. 2	725	425	160	425	700	1.0
No. 3	425	250	160	425	400	0.9
Construction	825	475	160	425	925	0.9
Standard	450	275	160	425	725	0.9
Utility	225	125	160	425	475	0.8
Stud	575	350	160	425	450	0.9
Redwood Timbers (5" x 5" and larger)						
Select Structural	1100	750	145	420	900	1.0
No. 1	950	650	145	420	800	1.0
No. 2	750	400	145	420	650	0.9

Grade	Bending (Fb)	Tension (Ft)	Shear (Fv)	Compression Perpendicular	Compression Parallel	Modulus of Elasticity (MOE)
Western Cedars Dimension Lumber						
Select Structural	1000	600	155	425	1000	1.1
No. 1	725	425	155	425	825	1.0
No. 2	700	425	155	425	650	1.0
No. 3	400	250	155	425	375	0.9
Construction	800	475	155	425	850	0.9
Standard	450	275	155	425	650	0.8
Utility	225	125	155	425	425	0.8
Stud	550	325	155	425	400	0.9
Western Cedars Timbers						
Select Structural	1100	725	140	425	925	1.0
No. 1	875	600	140	425	800	1.0
No. 2	550	350	140	425	550	0.8

Grade	Bending (Fb)	Tension (Ft)	Shear (Fv)	Compression Perpendicular	Compression Parallel	Modulus of Elasticity (MOE)
Douglas Fir Timbers						
Select Structural	1600	950	170	625	1100	1.6
No. 1	1350	675	170	625	925	1.6
No. 2	875	425	170	625	600	1.3

Match the specifier with the correct timber for their next project!



1. Architect



2. General Contractor



3. Engineer



A. Redwood



B. Redwood



C. Redwood

Span Chart

Floor beam span chart for single span simple beams,
loads in pounds per lineal foot (PLF).

Total Load (plf)	125			250			375		
Live Load (plf)	100			200			300		
Dead Load (plf)	25			50			75		
Species	Redwood No. 2	Douglas-fir No. 1	Douglas-fir No. 2	Redwood No. 2	Douglas-fir No. 1	Douglas-fir No. 2	Redwood No. 2	Douglas-fir No. 1	Douglas-fir No. 2
3 x 6	8' 0"	9' 4"	8' 10"	5' 8"	6' 7"	6' 3"	4' 7"	5' 5"	5' 1"
3 x 8	10' 1"	11' 10"	11' 3"	7' 2"	8' 4"	7' 11"	5' 10"	6' 10"	6' 6"
3 x 10	12' 4"	14' 6"	13' 9"	8' 8"	10' 3"	9' 8"	7' 1"	8' 4"	7' 11"
3 x 12	14' 3"	16' 9"	15' 11"	10' 1"	11' 10"	11' 3"	8' 3"	9' 8"	9' 2"
4 x 6	8' 11"	10' 8"	10' 5"	6' 8"	7' 9"	7' 5"	5' 5"	6' 4"	6' 0"
4 x 8	11' 10"	14' 1"	13' 9"	8' 9"	10' 3"	9' 9"	7' 2"	8' 6"	7' 11"
4 x 10	15' 1"	17' 10"	16' 11"	10' 19"	12' 7"	11' 11"	8' 9"	10' 3"	9' 9"
4 x 12	17' 9"	20' 9"	19' 8"	12' 6"	14' 8"	13' 11"	10' 3"	12' 0"	11' 4"
6 x 6	10' 6"	12' 2"	10' 6"	7' 5"	9' 5"	7' 5"	6' 0"	7' 8"	6' 0"
6 x 8	14' 4"	16' 7"	14' 4"	10' 1"	12' 10"	10' 1"	8' 3"	10' 5"	8' 3"
6 x 10	18' 2"	21' 0"	19' 7"	12' 10"	16' 8"	13' 10"	10' 5"	14' 1"	11' 4"
6 x 12	22' 0"	25' 5"	23' 9"	15' 6"	20' 2"	16' 9"	12' 8"	17' 0"	13' 8"
8 x 8	16' 1"	18' 5"	16' 9"	11' 10"	14' 7"	11' 10"	9' 8"	12' 2"	9' 8"
8 x 10	20' 5"	23' 3"	21' 2"	15' 0"	18' 6"	15' 0"	12' 3"	15' 6"	12' 3"
8 x 12	24' 9"	28' 2"	26' 4"	18' 2"	22' 5"	19' 7"	14' 10"	19' 7"	16' 0"

Notes:

1. Moisture content of 19% or less in service.
2. Deflection limits of 360/live load.
3. Floor live load (DOL = 1.0).
4. Compression edge braced laterally.

The obvious choice is redwood timbers. They're strong, beautiful, and versatile, making them perfect for any building project. **Find out more at getredwood.com.**

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Humboldt Redwood Specifications

Redwood Lumber and Timbers

1.1 Section Includes

- A) Redwood products including the following:

1. Timbers.
2. Decking.
3. Siding.
4. Lumber.
5. Pergolas and Arbors.

1.2 Related Sections

- A) Section 06100—Rough Carpentry.

1.3 References

- A) Redwood Inspection Service (RIS) *Standard Specifications for Grades of California Redwood Lumber* 2000 Edition.
- B) Supplement No. 1 Redwood Inspection Service (RIS) *Standard Specifications for Grades of California Redwood Lumber* 2000 Edition.
- C) PS 20—*American Softwood Lumber Standard*—US Department of Commerce, National Institute of Standards and Technology.
- D) ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials.
- E) California Building Code Chapter 7A: Materials and Construction Methods for Exterior Wildfire Exposure.
- F) Forest Stewardship Council (FSC) Certification (Humboldt Redwood Scotia Sawmill Certificate Code SCS—COC—001924)

1.4 Submittals

- A) Submit under provisions of Section 01 30 00—Administrative Requirements.
- B) Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions

- and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

- C) LEED v4 Submittals: Provide documentation of how the requirements shall be met for the following credits:

1. Building product disclosure and optimization—sourcing of raw materials

- a. Option 2. Leadership extraction practices (1 point). Wood products. Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent. Products meeting wood products criteria are valued at 100% of their cost for the purposes of credit achievement calculation.

- D) SITES v2 Submittals: Provide documentation of how the requirements shall be met for the following credits:

1. Credit 5.7: Support responsible extraction of raw materials

- a. Option 3. Support raw material suppliers and/or manufacturers that meet or exceed standards for raw material extraction (5 points). New wood products: be certified by the Forest Stewardship Council (FSC) (or local equivalent for products outside the United States).

- E) FSC Submittals: Provide documentation indicating manufacturer is FSC Chain-of-Custody certified.

1.5 Delivery, Storage, and

Handling

- A) Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- B) Handle materials to avoid damage.
- C) Store on a level surface with blocking to keep boards off the ground and provide uniform and adequate support.
- D) Redwood timbers contain water soluble extractives (tannins) which can stain concrete or other masonry. If stored over concrete, cover the concrete with a tarp to prevent staining in the event of rain.

1.6 Project Conditions

- A) Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.7 Sequencing

- A) Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

2.1 Manufacturers

- A) Acceptable manufacturer: Humboldt Redwood, which is located at: 3700 Old Redwood Hwy, Suite 200; Santa Rosa, CA 95403; Tel: 707-764-4472; Fax: 707-764-4444; Email: jhewitt@mendoco.com; Web: www.getredwood.com

2.2 Timbers

- A) Material: Redwood.
- B) Posts and Timbers:
1. Grade: No. 2 Structural.
 2. Grade: Heart B.
 3. Grade: Construction Heart.
 4. Rough green.
 5. Surfaced four sides.
 6. Posts: 4 x 4.
 7. Posts: 6 x 6.
 8. Posts: 8 x 8.
 9. Posts: 10 x 10.
 10. Posts: 12 x 12.
 11. Beams: 4 x 6.
 12. Beams: 4 x 8.
 13. Beams: 4 x 10.
 14. Beams: 4 x 12.
 15. Beams: 6 x 8.
 16. Beams: 6 x 10.
 17. Beams: 6 x 12.
 18. Length: 8 feet minimum.
 19. Length: 24 feet maximum.

2.3 Decking

- A) Material: Redwood.
1. Flame Spread (ASTM E 84): Class B.
 2. California Building Code Chapter 7A: Materials and Construction Methods for Exterior Wildfire Exposure.
- B) Wood Decking.
1. Grade: Heart B.
 2. Grade: Deck Heart/Construction Heart.
 3. Grade: B Grade.
 4. Grade: Deck Common/Construction Common.
 5. Grade: Heart Clear.
 6. Grade: Clear.
 - a. Size: 2 x 4.
 - b. Size 2 x 6.
 - c. Length: 6 feet minimum.
 - d. Length: 20 feet maximum.

7. Support Spacing, Decking Perpendicular to Supports: 24 inches (2x6).
8. Support Spacing, Decking Perpendicular to Supports: 16 inches (2x4).
9. Support Spacing, Decking Diagonal to Supports: 16 inches (2x6).
10. Support Spacing, Decking Diagonal to Supports: 12 inches (2x4).

2.4 Siding

- A) Material: Redwood.

- B) Grade:

1. Heart Clear.
2. Heart B.
3. Clear.
4. B Grade.

- C) Texture:

1. Surfaced.
2. Saw-textured.

- D) Thickness:

1. 1 inch, nominal.

- E) Width:

1. 4 inch, nominal.
2. 6 inch, nominal.
3. 8 inch, nominal.
4. 10 inch, nominal.
5. 12 inch, nominal.

- F) Length:

1. Length: 6 feet, minimum.
2. Length: 20 feet, maximum.

- G) Siding Patterns:

1. Bevel.
2. Board and Batten.
3. Rabbeted Bevel.
4. Shiplap.
5. Tongue and Groove.

2.5 Lumber

- A) Material: Redwood.

- B) Grade:

1. Construction Heart.
2. Heart B.
3. Heart Clear.
4. Construction Common.
5. B Grade.
6. Clear.

- C) Surface:

1. Rough.
2. Surfaced Four Sides.
3. Surfaced One Side, Two Edges.

- D) Sizes:

1. 1 x 2.
2. 1 x 4.
3. 1 x 6.
4. 1 x 8.
5. 1 x 10.
6. 1 x 12.
7. 2 x 2.
8. 2 x 4.
9. 2 x 6.
10. 2 x 8.
11. 2 x 10.
12. 2 x 12.

- E) Lengths:

1. Length: 6 feet, minimum.
2. Length: 20 feet, maximum.

Stan the specifier is building homes in a termite-infested area!

Should Stan:

(A) Construct a decoy home out of termite-friendly spruce.



(B) Gain favor with the termite king by marrying his termite daughter.



(C) Use termite-resistant redwood timbers.



Did you figure it out? Redwood timbers are strong, beautiful, and termite-resistant, making them the obvious choice for any building project. *Find out more at getredwood.com.*

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2.6 Pergolas and Arbors

- A) Material: Redwood.
- B) Napa Redwood Pergola:
1. Posts: 6 x 6.
 2. Post Spacing: 8 feet.
 3. Overhang: 1 foot.
 4. Total Area: 10 x 10 feet.
 5. Lath: 2 x 2.
 6. Bottom Headers: 3 x 10, corbelled ends.
 7. Middle Headers: 3 x 8, corbelled ends.
 8. Top Headers: 3 x 6, corbelled ends.
 9. Hardware: Galvanized steel.

C) Durango Redwood Pergola:

1. Posts: 6 x 6.
2. Post Spacing: 8 feet.
3. Overhang: 1 foot.
4. Total Area: 10 x 10 feet.
5. Lath: 3 x 6.
6. Bottom Headers: 3 x 12, corbelled ends.
7. Top Headers: 3 x 12, corbelled ends.
8. Hardware: Galvanized steel.

D) Two-Post Redwood Arbor:

1. Posts: 6 x 8.
2. Post Spacing: 7 feet.
3. Total Area: 4 feet 6 inches by 9 feet.
4. Headers: 3 x 8, corbelled ends.
5. Rafters: 3 x 6, corbelled ends.
6. Hardware: Galvanized steel.

E) Custom Pergola:

1. Posts: ____.
2. Post Spacing: ____.
3. Overhang: ____.
4. Total Area: ____.
5. Lath: ____.
6. Bottom Headers: ____.
7. Middle Headers: ____.
8. Top Headers: ____.
9. Hardware: ____.

2.7 Fasteners

- A) Material: Stainless steel.
- B) Material: Hot-dipped galvanized steel.

3.1 Examinations

- A) Do not begin installation until substrates have been properly prepared.
- B) If substrate preparation is the responsibility of another installer, notify architect of unsatisfactory preparation before proceeding.

3.2 Preparations

- A) Clean surfaces thoroughly prior to installation
- B) Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 Installation

- A) Install in accordance with manufacturer's instructions.
- B) Finish products in accordance with manufacturer's instructions.
- C) Use only corrosion resistant fasteners. Acceptable are stainless steel or hot-dipped galvanized nails.
- D) Joints shall fall over framing lumber and shall be double nailed. Do not nail any less than 1/2 inch (13 mm) from any edge and fasten at a minimum of every 24 inches (610 mm) on center.
- E) Drive nails perpendicular to the framing lumber and the wood product; drive nails flush with the product's surface. Nails shall penetrate at least 1-1/4 inches (32 mm) into the structural framing.

3.4 Protection

- A) Protect installed products until completion of project.
- B) Touch-up, repair or replace damaged products before Substantial Completion.

Contact

For more information about Humboldt Redwood please visit www.getredwood.com



Charlie Jourdain

For additional information on grades, uses, storage, and handling of redwood timbers, please contact Charlie Jourdain
CJourdain@mendoco.com



Julie Wright

For all additional inquiries, please contact Julie Wright or Mike Cameron: **707.764.4472**



Mike Cameron

Notes





Redwood is a natural resource that is native to California, relying on the sun and fog on the North Coast as energy and water sources for its growth. Redwood has many natural attributes that make it a beautiful, strong, and durable building material. With the restoration of redwood forestlands and advances in sustainable forest practices over the past few decades, redwood is again the preferred option for sustainability-minded designers. It's time to re-imagine what you can do with redwood. Design responsibly.

REDWOOD

REAL. STRONG.