

Iron Woods Roof Deck, Deck Tile and Pedestal System



THE SYSTEM

Roof Decks and other poorly ventilated deck applications present a unique set of challenges for a designer and or builder.

When constructing a roof deck the designer must take into account many factors. The need to create a level deck on a sloped surface, effective drainage, roof access for maintenance, typically poor underdeck ventilation, variable load requirements, the possible integration of green roof systems, wind uplift and installed system costs. Iron Woods® Self-Leveling Pedestals, Deck Tiles, and Conventional Deck Systems provide unique and cost effective solutions for the construction of both roof top and conventional decks.

Iron Woods Deck Tiles and Decking System was developed to provide a stable wood deck surface for any deck construction where there is a lack of good ventilation. Additionally the system has been engineered to withstand wind uplift forces on a four story building to 175mph as rated for central Dade County Florida. For reinforcing options above this requirement we recommend the designer contact the design engineer listed on the Master Plan Sheets.

Iron Woods Deck Tiles also provide a Simple, Elegant, Unique and High Value alternative to traditional decking to new deck construction. Simply double the joists (the lowest cost item in your deck construction) at 24" on center and lay the prefabricated deck tiles in a mosaic or linear pattern and fasten to joists with one screw or screw and plug per corner. That's one screw per square foot of decking which represents a significant installation labor and material cost compared with conventional decking applications.

WHAT ARE INSTALLERS SAYING? " The Iron Woods Adjustable Self Leveling Pedestal saves us 30 to 40% in instalation labor because of the UNIQUE COMBINED FEATURES that no other pedestal system has!

Curb To Curb Appeal

Iron Woods Roof Deck, Deck Tile and Pedestal Systems provide a unique solution for the conversion of city streets to pedestrian use only permanent or temporary Urban Boardwalks, Street Scapes and Street Decks.



This city block long Urban Boardwalk took a total of two weeks to complete. Modular design allows rapid installation and ease of removal for maintenance while preserving the free flow of rain water and drainage.

IRON WOODS®

HARDWOOD DECKING & SIDING



Stock Unfinished

Ipe: 24"x24", 24"x48", 24"x72"

Itauba: 24"x24"

FSC Itauba: 24"x24"

Special Order

Ipe: 24x96

Itauba: 24x48, 24x72

Cumaru: 24x24, 24x48, 24x72

Garapa: 24x24, 24x48, 24x72

Tigerwood: 24x24, 24x48, 24x72

Massaranduba: 24x24

FSC Ipe: 24x24

FSC Massaranduba: 24x24

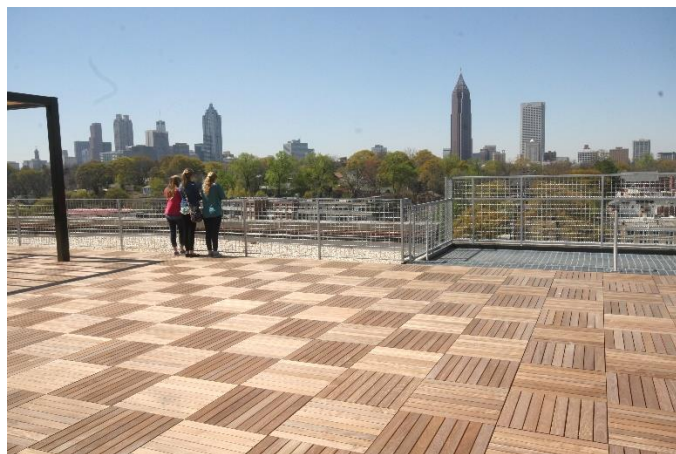
Stock Iron Woods Ipe Deck Tiles are offered with a smooth deck board surface only and have the following coefficient of friction ratings.

Static: Wet - .615FP

Dynamic: Wet - .43FP

Ribbed decking surfaces are not recommended...Why?

Ribbed surfaces reduce surface area contact with a shoe and are more difficult to clean supporting the collection of food and dirt which encourages fungi growth further reducing slip resistance.



Tiles in Mosaic Application



Tiles in Linear Application

*Iron Woods Deck Tiles incorporate pressure fit pin connection technology for ease of installation.

*Iron Woods Deck Tiles and Decking carry a Class 1 Durability Rating. (25+ years In Ground Contact)

*Iron Woods Deck Tiles and Decking carry an ASTM E84 Class A Fire Rating and Cal Fire Wildlife Urban Interface Approval.

* Iron Woods Deck Tiles and Decking are engineered for minimum 100 psf live load.

* Iron Woods open deck tile surface design promotes air pressure equalization reducing potential for wind uplift. (See Master Plan Sheet for wind uplift data)

IRON WOODS®

HARDWOOD DECKING & SIDING

IPE Deck Tiles

24" X 24" (Actual 23-7/8" x 23-7/8") - Stock



24" X 48" (Actual 23-7/8"x47-7/8") - Stock



24" X 72" (Actual 23-7/8" x 71-7/8") - Stock



24" X 96" (Actual 23-7/8" x 95-7/8") – Special Order



ITAUBA – FSC Certified

24" X 24" (Actual 23-7/8"x23-7/8") - Stock



Similar to Ipe in appearance and technical properties, Itauba Deck Tiles provide a solution for those designers looking for USGBC LEED credits.

Itauba Deck Tiles are ASTM E84-16 Fire Tested and have a Class A Fire Rating meeting International Building Code requirements for Fire Resistant Wood.

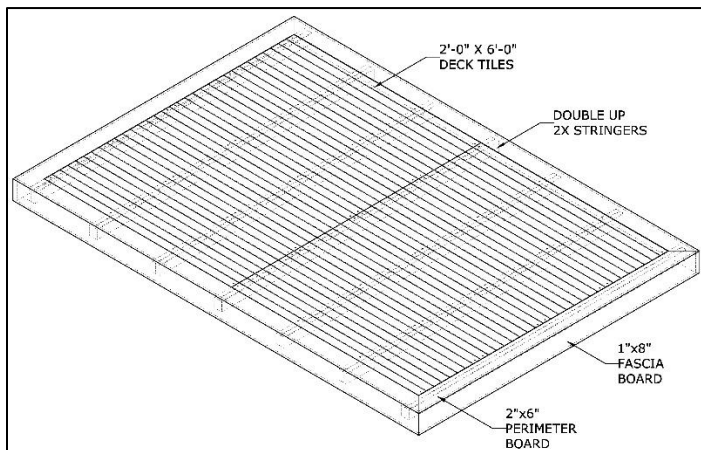
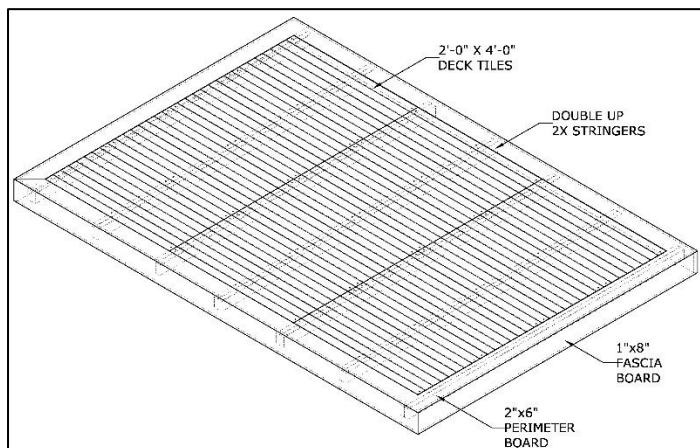
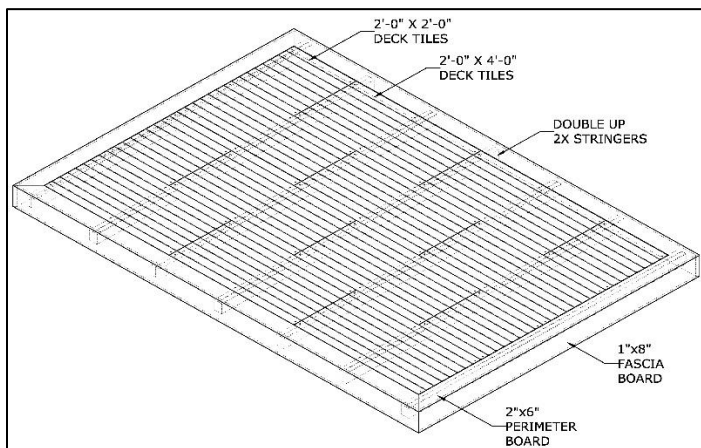
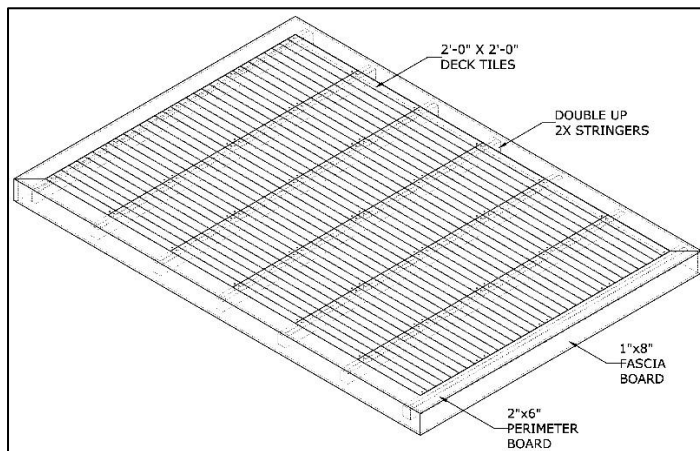
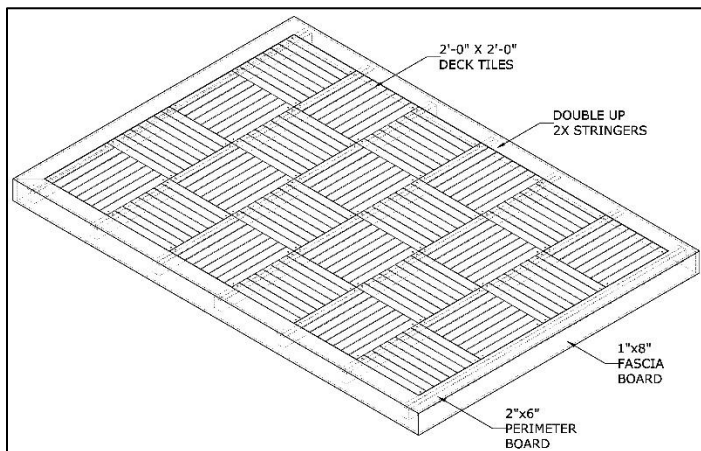
*Pedestals are placed on a 24"x24' grid for use with both Iron Woods Deck Tiles and conventional decking.

*Use of cleaning or finishing products on Iron Woods Deck Tiles in roof applications is not recommended without consulting product manufacture guidelines due to potential risk to EPDM or other roof substrates.

IRON WOODS®

HARDWOOD DECKING & SIDING

Deck Tile Layout Design Options

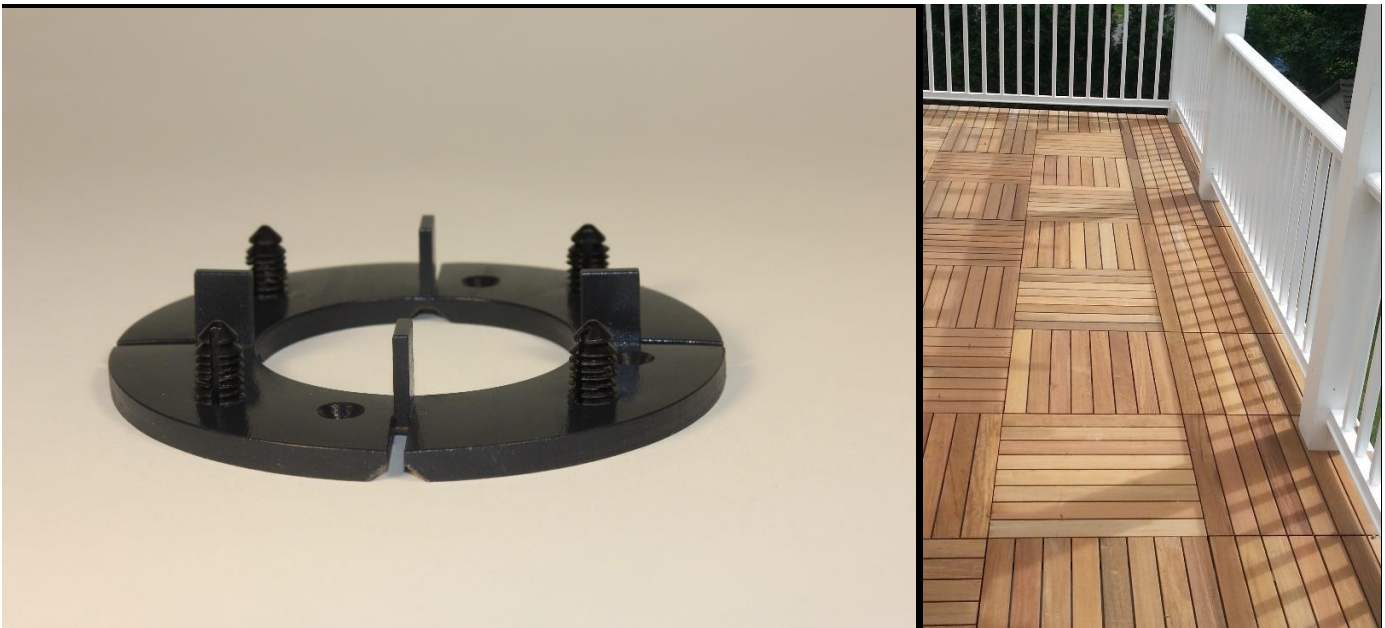


PEDESTAL OPTIONS

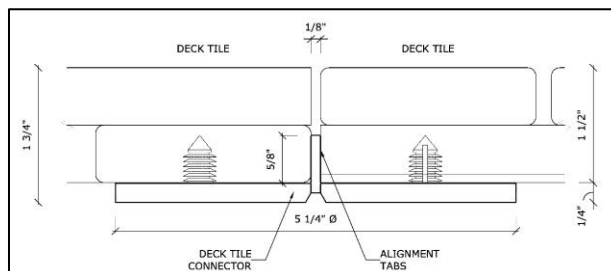
Iron Woods offers several pedestal options based on surface and elevation requirements.

Iron Woods pedestals can be utilized for projects that require roof to deck surface tile elevation heights from 1-3/4" up to 36" Iron Woods pedestals include features that add greatly to performance, ease of installation, and stability including pressure fit connection technology, post installation elevation adjustment and self-leveling technologies.

Iron Woods EPDM-80 Pedestal



The Iron Woods EPDM Rubber Pedestal is a flexible deck tile connection support that allows tiles to follow the natural contour of the roof and water to flow freely underneath the deck tiles. This 1/4" fixed height pedestal incorporates spacer tabs and pressure fit connection technology. The flexible EPDM rubber is resistant to environmental deterioration and is safe for direct contact with any roof surface. EPDM pedestals provide sound deadening qualities that similar plastic corner connectors lack. This pedestal is not stackable and must be considered for low elevation support requirements only. Pedestals are pre-cut and can easily be separated into halves or quarters to facilitate perimeter and corner placement.



Iron Woods Star Pedestal System with Eterno™ Technology



Star T

Star T W/ Star B Stackable Base and Joist Head Option

The Iron Woods Star Pedestal System Provides a unique solution when your project requires pedestals under 1-1/4" with some adjustability to allow for some irregularity in the base surface. The Star Pedestal System incorporates pressure fit connection technology but not self-leveling technology, the Star T Pedestals unique design and key slot provides post installation elevation micro adjustment from 3/8" to 9/16" generating a minimum elevation base surface to top of deck tile of 1-5/8". Combined with the 3/16" stackable Star B Base pedestals, any required pedestal height can be met from 3/8" to 1-1/4" where our self-leveling Iron Woods SE Self Leveling Screw Jack pedestals take over.

Star T Pedestals are also available with a Wood Joist Head option for conventional deck construction generating a minimum elevation base surface to top of conventional deck of 2-1/2" when combined with 2x4 wood joist and 5/4x4 Iron Woods decking.

Iron Woods Self Leveling Screw Jack Pedestal System with Eterno™ Technology

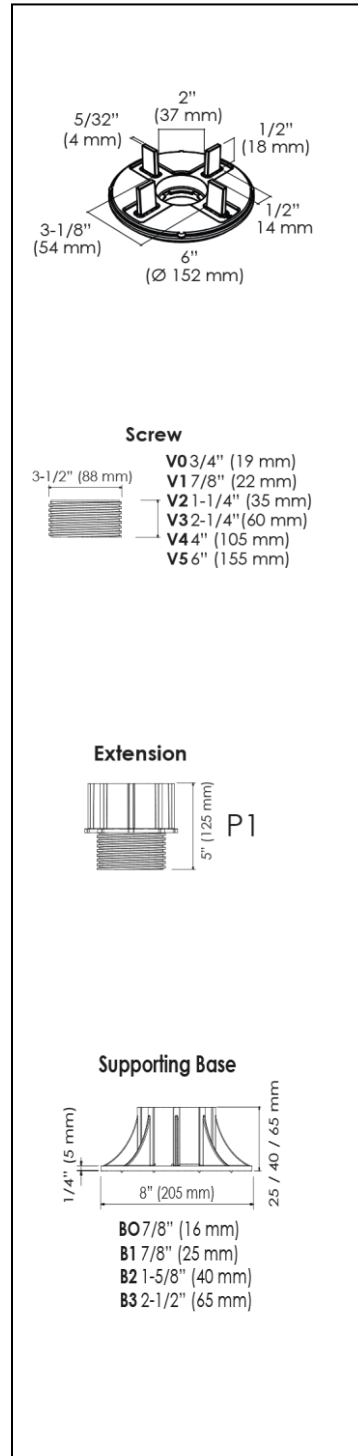
Iron Woods Self Leveling Pedestals with built in slope compensation offer a uniquely simple solution. The system, combines Supporting Base, Extension, Screw and Head options which generate pedestal heights from 1.25" to 21.75" and slopes from 5/32" to 1/2" (0% to 5%) per foot of slope. Pedestals are placed on a 24" square grid.

Iron Woods Pedestals have an individual loading capacity that exceeds 2200 lbs. and can be set on any waterproofing membrane or other surface. Made from 100% post-industrial recycled material, resistant to temperatures -22°F to +248° (-30°C to +120°C), resistant to acid and UV stable, Iron Woods Pedestals are ISO 9001/2008 and SA8000 certified and meet significant criteria used in green building initiatives according to LEED NC LEED Credit Compliance.

IRON WOODS®

HARDWOOD DECKING & SIDING

Iron Woods Self Leveling Pedestal Configuration Chart

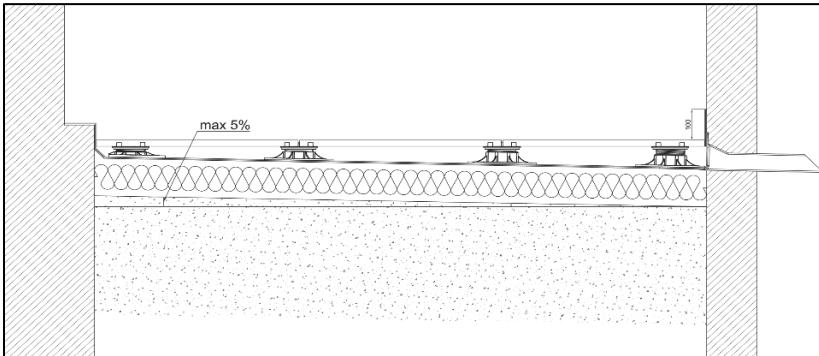


COMPONENTS TABLE - SE 6-SE 14

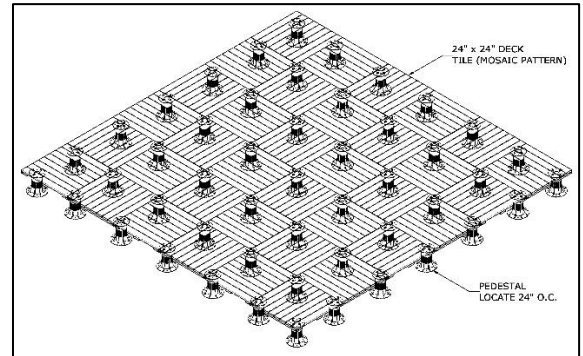
SE6 = SE3 + 1xP1	SE9 = SE3 + 2xP1	SE12 = SE3 + 3xP1
SE7 = SE4 + 1xP1	SE10 = SE4 + 2xP1	SE13 = SE4 + 3xP1
SE8 = SE5 + 1xP1	SE11 = SE5 + 2xP1	SE14 = SE5 + 3xP1

IRON WOODS®

HARDWOOD DECKING & SIDING



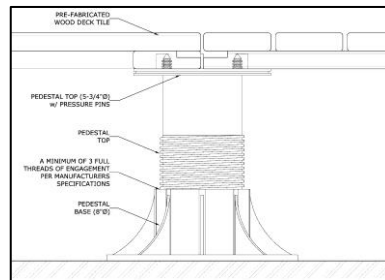
Integrated Self Leveling Slope Adjustment



24" x 24" Standard Pedestal Grid Layout

Iron Woods Self Leveling Screw Jack Pedestal Deck Tile Head

Anti-noise bi-component soft rubber pad and pressure fit pin connection technology are integrated into our unique self-leveling head design. When installed a mechanical connection between the tiles and the head seamlessly integrate all components of the system.



Deck Tile / Pedestal Connection Detail



Iron Woods Self Leveling Screw Jack Pedestal Special Features

Our Adjustment Key allows for final micro adjustments after installation. Our Screw Block System indicates when units have safely reached their maximum height adjustment. Bases are pre-cut to facilitate perimeter and corner placement. The Iron Woods™ Self-Leveling pedestals incorporate shims to compensate for any minor variations in deck tile thickness.



Max Height Locking Mechanism



Pedestal Base Scoring

Slope Chart

1% grade = 1/8th inch per foot

2% grade = 1/4" inch per foot

3% grade = 3/8th inch per foot

4% grade = 1/2 inch per foot

5% grade = .625 inches per foot

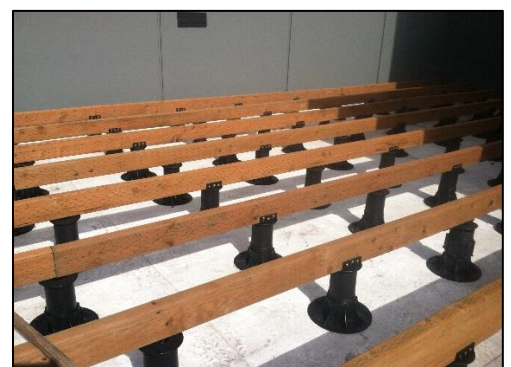
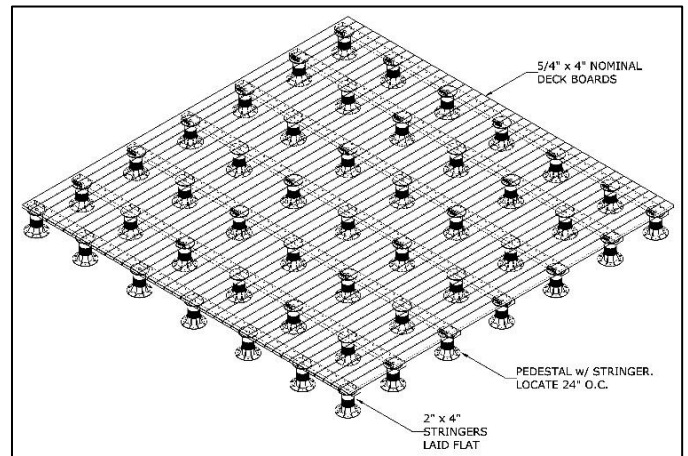
Use for slope above 5% is not recommended

IRON WOODS®

HARDWOOD DECKING & SIDING

Iron Woods Self Leveling Screw Jack Pedestal with Joist Head delivers the option of utilizing conventional Iron Woods Decking on pedestals.

Iron Woods Pedestal Systems support conventional deck construction as well as deck tiles. Our unique WJSE pedestal is designed to allow for the attachment of stringers. A simple application of 2x4 Pressure Treated or 5/4x4 Iron Woods Stringers (laid flat) with one of Iron Woods 5/4x4 decking options, provides not only a traditional deck appearance, it also generates a live load rating to 200 psf. As a 'Best Practice, TIron Woods recommends the use of 5/4x4 deck profiles where ventilation is limited or poor. In better ventilated applications 5/4x6 may be considered. Stringer depth and deck thickness can be increased should higher load ratings be required.



High Wind Cable System Elevation Details

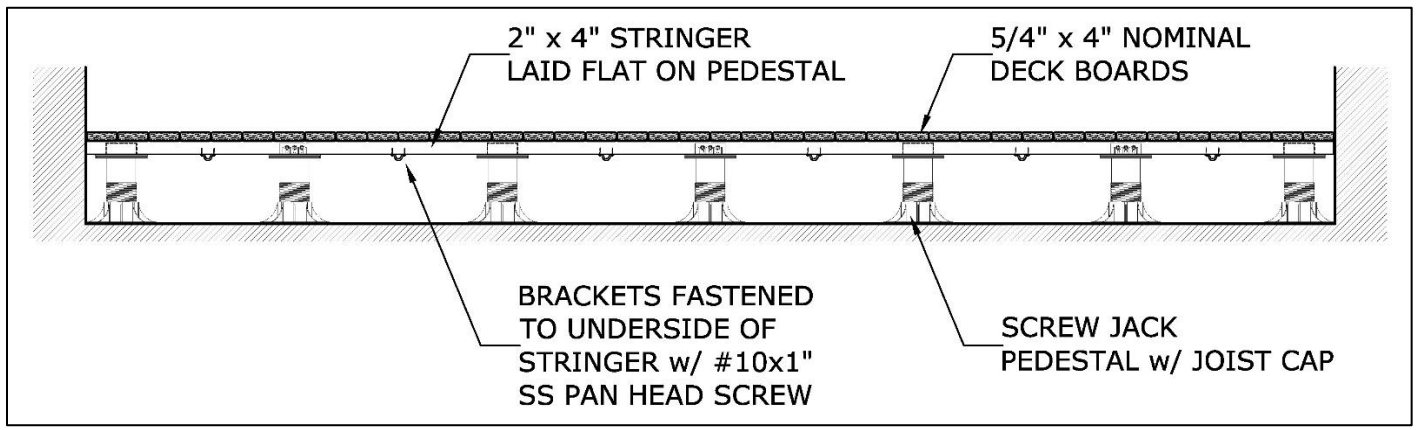
Iron Woods Pedestal Systems implement a cabling system for high wind and seismic applications.

Deck Tile Applications - Stainless Steel U rings are attached directly in center of the back of each deck tile.

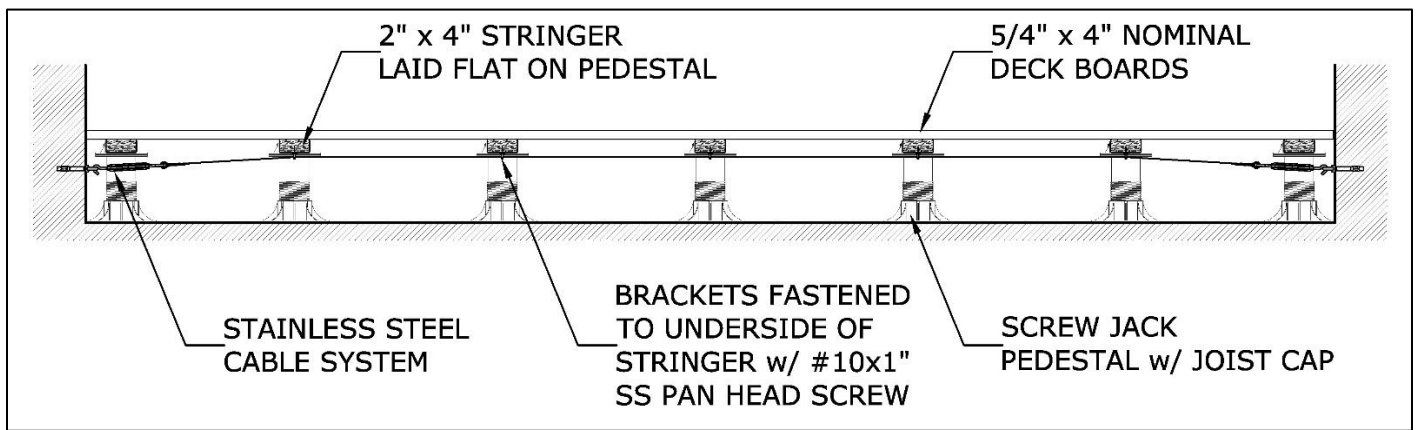
Conventional Decking – Stainless Steel U Rings are attached to the stringers at 24" intervals between pedestals.

Stainless Steel Cable is run through the U rings and connected to parapet anchors with turn buckles.

Conventional Decking Detail



U Brackets Installed Parallel To Stringers



Cable Runs Perpendicular To Stringers And Attaches To Parapet Anchors Using Turn Buckles or Cable Clamps

IRON WOODS®

HARDWOOD DECKING & SIDING

Iron Woods Maxi NM Pedestals with Fixed Head can be used with Iron Woods deck tiles for elevations from 21" to 36" without bracing.

Iron Woods Maxi Pedestals with fixed head combines Supporting Base, Extension, Screw, Tile Head with Pin and Slope Compensating Base which generate pedestal heights from 21 to 36" and slopes from 5/32" to 1/2" (0% to 5%) per foot of slope using a Slope Compensating Base. Pedestals are placed on a 24" square grid.

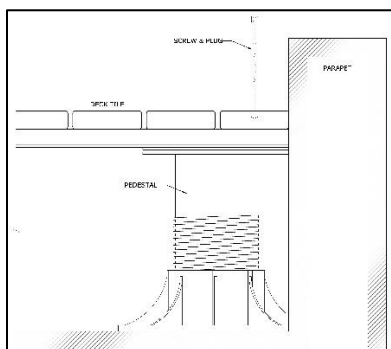


NM-5 HEIGHT: 5.90" - 10.63



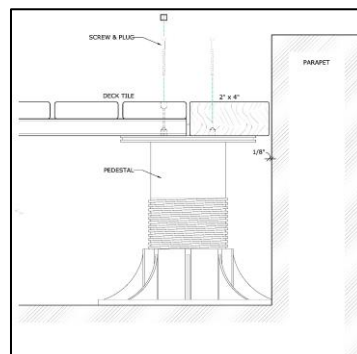
NM Extension HEIGHT: 5.7"

Perimeter Details



Remove Tabs and Pins. Screw and plug tile to pedestal.

Nominal 2x perimeter boards can be applied in place of cut deck tiles when use of cut deck tiles is not feasible.



Design

Structural Design and Engineering of the Iron Woods Deck Tile System in application is the responsibility of others. It is the responsibility of the designer/owner to verify compliance with all structural design requirements and local building codes.

Estimates

Estimating your project is simple. Just provide the square footage of the area to be covered, the lineal footage of the perimeter of the area to be covered, the highest elevation measurement from roof to top of deck surface within the area to be covered and the style of tile or decking desired along with a live load requirement and we can generate an estimate. Typical installed cost should run \$25-\$35 per square foot subject to pedestal requirements. This information based on information supplied by others and should not be relied on for anything other than budgeting purposes.

Quotations

Quotations require some additional information. Minimally we require the submittal of a completed Iron Woods Take Off Form along with a drawing or sketch of the project layout. the square footage of the area to be covered, the lineal footage of the area to be covered, the style of tile or decking desired, the live load required, starting point from which tiles or decking will be laid, perimeter points and heights at 24 inch on center pedestal locations moving outward from the starting point, drainage points, slope lines, high point locations on a 24" grid, Any areas that are to excluded (not covered). Ideally we would like a drawing with a 24" on center grid pattern with pedestal locations with perimeter heights, drain or low point locations and slope lines. It is recommended to place additional pedestals under pavers where heavy objects will be placed, such as planters and hot tubs. *The information required should be provided in either a PDF, DWG File or Hand Drawing.*

Disclaimer: Take offs are based on drawings and take off form supplied by others, Quantity and sizes quoted are subject to change if any jobsite conditions or specifications change at time of installation. Extra supports required for any heavy items placed on pavers and are not included in quotes – ie: planters, hot tubs, etc. Take off and Layout Drawings are for estimating only and are not a construction document. The software is for estimating only. We strongly suggest that customers do their own layout on site using a laser to set elevations at pedestal locations which take sight conditions like variations of roof slope or roof seams and other irregularities into consideration before placing their order. It is the responsibility of the designer to determine suitability of the system based upon roof design and construction. If all information is not provided a takeoff cannot be calculated or may result in an inaccurate calculation.

All measurements should be indicated in inches (not feet). Fractions are not allowed.

PLEASE NOTE: IF ALL INFORMATION IS NOT PROVIDED A TAKE OFF WILL NOT BE COMPLETED.

TAKE OFF FORM - Please email to info@ironwoods.com

The following information is required to accurately quote the Elevations Roof Deck System using pedestal calculation software. All measurements should be indicated in inches (not feet and inches). Fractions are not allowed. Layout drawings will be provided upon order placement if required. Pedestals are considered a Special Order Product and Returns or exchanges will not be accepted.

1) Select Deck Type

- A) **Iron woods Tiles** (1.5" Net Thickness) on Pedestals
- 1) 1-7/8" minimum (roof to top of deck) starting elevation required. Confirmed Compliance Yes/No _____
 - 2) Deck Tile Type (Select One): Ipe 2'x2' / 2'x4' / 2'x6' or Itauba 2'x2' _____
 - 3) Decking Live Load Requirement (Building Code) _____ psf.
 - 4) Indicate type and height of perimeter parapet walls: _____.
- B) **Conventional 5/4 x4 Iron Woods Ipe Deck** (1" Net Thickness plus stringer) on Pedestals Yes/No _____
- 1) 2-3/8" minimum (roof to top of deck) starting elevation required: Confirmed Compliance Yes/No _____
 - 2) Stringer Option (Select One):
2x4 PT Pine or Ipe (1.5" Net Thickness) Minimum roof to top of deck requirement 2-3/8" _____
5/4x4 Ipe (1" Net Thickness) Minimum roof to top of deck requirement 2-7/8" _____
 - 3) Decking Live Load Requirement (Building Code) _____ psf.
 - 4) Indicate type and height of perimeter parapet walls: _____.

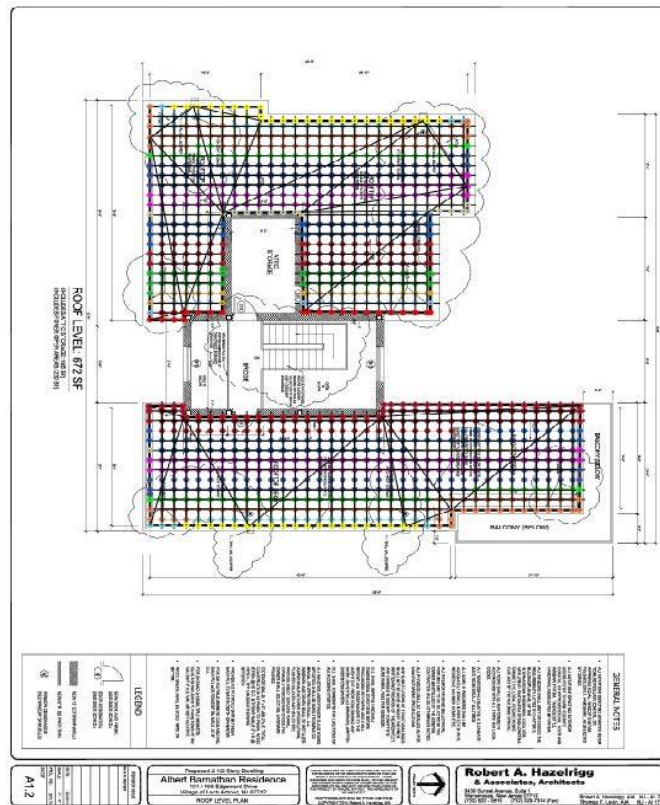
2) Supply Drawing or Sketch containing the following information in pdf format.

- A) Perimeter of the area to be covered with measurements for all sides (Highlighted) _____ LF.
- B) Elevation heights roof to top of pedestals at points along the perimeter area to be covered and at drain or other low or high points across roof surface.
- C) Location and elevation heights roof to top of pedestals at drainage points: Labeled on Drawing.
Deck Tiles... Subtract 1.5" from roof to top of deck measurement.
Decking and SYP Stringers... Subtract 2-1/2" from roof to top of deck measurement.
Decking and Ipe Stringers... Subtract 2" from roof to top of deck measurement.
- D) Areas not to be covered/excluded (Not Paved): XXXX these areas.
- E) Areas that will require additional pedestal support like hot tubs or planters: OOOO these areas.
- F) Smallest starting pedestal height in Inches _____
- G) Starting point where pavers will be laid as a full tile: Labeled on Drawing.
- H) Slope lines indicating flow of water or from High to Low elevation points of the areas to be covered.
- I) Slope of area being paved: (ex. ¼" per foot): _____/FT.
- J) Paver Layout Dimension and Pattern desired.

Process

Orders

Upon order placement we will issue a material takeoff. If required an installation layout drawing that includes pedestal locations and component combinations can be supplied. The layout drawing is not an architectural drawing. The software is for estimating only. We strongly suggest that customers do their own layout on site using a laser to set elevations at pedestal locations which take sight conditions like variations of roof slope or roof seams and other irregularities into consideration before placing their order.



Support Name	Color	Qty
SE 11		49
SE 12		55
SE 10		120
SE 9		64
SE 8		145
SE 7		131
SE 6		49
SE 5		116
SE 4		184
SE 3		42
SE 2		22
SE 1		18
SE 0		24

IRON WOODS DECK TILES...NOT JUST FOR USE ON PEDESTALS

Application of Iron Woods Deck Tiles in Conventional Deck Construction



Iron Woods Deck Tiles provide a unique and attractive cost savings opportunity in conventional deck construction by providing the labor savings associated with installing a panelized deck system.

Tiles install on double stringers 24" on center using one screw, or screw and plug, per square foot verses the eight to ten screws required for conventional deck board application. This represents a significant labor savings over conventional deck on stringer construction.

For new deck construction simply double your stringers 24" on center, the same as we recommend for conventional Iron Woods decking to stringer construction and you can utilize 24" x 24", 24" x 48", 24" x 72" deck tiles. Double perimeter stringers allow for the picture framing of the deck tiles using of a 2x2 board trim board.

IRON WOODS®

HARDWOOD DECKING & SIDING

Environmental Compliance Option 1: "Due Care" Certification



All Iron Woods Deck Tiles and Decking meets 'Green By Nature™' 'Build with Conscience' comprehensive set of Controlled Wood, Chain of Custody, Life Cycle Impact and 'Due Care' Standards, Policies and Procedures that support environmental sustainability and compliance initiatives as follows....



All Iron Woods products have been verified of legal origin and verified of legal compliance as being, legally harvested, transported, exported, imported and documented in compliance with all country of origin, international and domestic laws, rules, regulations and treaties pertaining to the fair and legal trade of forest products including but not limited to the ITTA (International Tropical Timber Trade Agreement), CITES (Convention On The International Trade of Endangered Species) U.S. Department of Agriculture Lacey Act, U.S. Department of Justice Foreign Corrupt Practices Act, U.S. Forced Labor Laws and U.S. Buy American Act.

All Iron Woods products are derived from forests which are naturally occurring, renewable and sustainable and are not harvested from forests or forest plantations where traditional, civil or intellectual property rights have been violated, forests having high conservation values which are threatened, forests that have been genetically modified or forests which have been converted to non-forest use. Iron Woods are sourced with a preference to those forestry operations implementing LIL (Low Impact Logging) techniques and sustainable forest management practices.

All Iron Woods products are 100% organic and grown without the use of chemical fertilization and are regenerated naturally or by seeding and replanting. All Iron Woods are either kiln dried or fumigated and are free from invasive insect or plant species. The natural service life of Iron Woods exceed their natural growth cycle, trap and store carbon and are able to be reclaimed, reused or recycled. Iron Woods do not require for service any petroleum based or inorganic chemical treatments adhesives or coatings. Iron Woods do not require for service any specialized handling storage or disposal procedures and generate zero post-industrial or post-consumer non-biodegradable waste. Iron Woods are also safe for human and animal contact, meet Low VOC emission standards and meet International Building Code, International Residential Code and Cal Fire Wildlife Urban Interface Code requirements for naturally durable and naturally fire resistant wood.

IRON WOODS®

HARDWOOD DECKING & SIDING

Environmental Compliance Option 2: LEED



Iron Woods™ Pedestals are manufactured using 100% Recycled Post Industrial Plastic and the pedestals and or collective system may contribute to the following significant criteria used in green building initiatives according to LEED NC LEED Credit.



LEED CREDIT	POINTS	TITLE	FEATURES
SS C6.1 & 6.2	1 & 1	Stormwater Design - Quality & Quantity Control	Previous Flooring System
WE C1.1	2	Water Efficient Landscaping	Supports Water Capturing Systems
EA P2 EA C1	Prerequisite Form 1 to 19	Energy Performance	Possible Contribution for Ventilated Roofing System
MR C4	Form 1 to 2	Recycled Content	Post-consumer Content
MR C5	1	Regional Materials (When Applicable)	Production site defined
EQ P3 & C9 (LEED for Schools)	Prerequisite Form 1 to 2	Acoustical Performance	Design & Components Contribute Towards ANSI & STC Standards

While Iron Woods believes that certain products have characteristics that may allow users to earn points in a LEED certification, only the U.S. Green Building Council may award points and grant certification. Accordingly, Iron Woods does not make any assurances, guarantees, representations, or warranties, express or implied, and specifically disclaims all warranties or representations, that products will earn LEED points, or any project that utilizes such products, will receive LEED® certification.

Additional Product Information, Environmental Program Information, Section Details, Master Specification Language, Best Practices and Terms and Conditions can be found at www.ironwoods.com.