



**Warning:** Always use the most recent version of the installation manual before installing your carport. The installation manual is subject to change without notice. We are always publishing the latest version on our website under the following link: <https://www.blikir.com/resources>

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## Disclaimer

This Installation Manual describes the proper installation procedures and standards required for the functionality of the Blikir RCP-2. The RCP-2 Limited Warranty is available on the Blikir website here <https://www.blikir.com/resources>. Please read this Installation Manual carefully before you begin to install the RCP-2. Failure to follow this Installation Manual may result in property damage, personal injury or even death.

### PLEASE COMPLY WITH THE FOLLOWING SAFETY MEASURES:

- Ensure safe installation of all electrical aspects of the array. All electrical installation and procedures should be conducted by a licensed and bonded electrician or solar contractor. Routine maintenance of a module or panel shall not involve breaking or disturbing the bonding path of the system. All work must comply with national, state and local installation procedures, product and safety standards.
- Comply with all applicable local, state and federal building and fire codes, as in effect from time to time.
- Ensure all products are appropriate for the installation environment, and array under the site's loading conditions.
- Use only Blikir parts or parts recommended by Blikir.
- Review the Engineering Package and Certification Letters to confirm design specifications.
- Ensure the accuracy of all information provided.
- Validate foundation parameters prior to installation. A local geotechnical report may be required to assess ground conditions. Blikir recommends consulting with a local engineer familiar with local regulations and build site requirements, including soil conditions, terrain and load criteria. All parameters may impact foundation requirements.
- Ensure bare copper grounding wire does not contact aluminum and zinc-plated steel components, to prevent risk of galvanic corrosion.
- The Blikir carports and canopies are made of galvanized steel and spray painted with protective and marine coating. This process ensures your carport or canopy will have the longest possible life expectancy. Do not drill or cut the steel components, that will expose the steel and cause corrosion and void the warranty. Also, drilling or cutting the steel might compromise the structure strength.
- If loose components or loose fasteners are found during periodic inspection, re-tighten immediately. If corrosion is found, replace affected components immediately.
- Provide an appropriate method of direct-to-earth grounding according to the latest edition of the National Electrical Code, including NEC 250: Grounding and Bonding, and NEC 690: Solar Photovoltaic Systems.
- Disconnect AC power before servicing or removing modules, AC modules, inverters, microinverters, Rapid Shutdown Devices (RSD) and power optimizers.
- Review module, inverter, Rapid Shutdown Device (RSD), racking (and any other components that are not manufactured by Blikir) manufacturer's documentation for compatibility and compliance with warranty terms and conditions.
- Conform to STD UL 2703 (2015) Standard for Safety First Edition: Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels.



**NOTE:** Always check with the Authority Having Jurisdiction (AHJ) for additional requirements

## Introduction

### BRIEF DESCRIPTION

RCP-2 is a robust double carport / canopy that can accommodate up to 24 x 60/120 cell Panels, or 18 x 72/144 cell panels. It can be installed with a 2-person crew, and without the use of heavy tools or machinery. The installation should be carried by trained professionals or qualified individuals, who have been adequately instructed and trained about the tasks involved in the installation, including the usage of protective devices, protective measures, relevant provisions, accident prevention regulations and operating conditions and have proven their competence.

Please read carefully this installation manual and all other applicable documents before starting your installation. Please contact Blikir with any questions that you may have.

## Ratings and Conditions Of Use

The RCP-2 utilizes the IronRidge XR100, Slotted L-Foot, T-Bolts, Grounding Lug, Panel Bonding Jumpers and CAMO Hidden End Clamps. Download the relevant certification from IronRidge website for the most updated Specific Allowable Design Load Ratings at: <https://base.ironridge.com/pitched-roof-mounting/resources>

Download and read carefully the Structural Engineering Certificate for the Blikir RCP-2 Solar Carport which can be found here: <https://www.blikir.com/resources>

The RCP-2 is designed and certified to the structural requirements of the following standards, for the conditions specified:

- ASCE/SEI 7-10 Minimum Design Loads for Buildings and Other Structures (ASCE 7-10)
- 2015 International Building Code (IBC-2015)

#### General conditions:

- Risk Category I

#### Snow conditions (Ref. ASCE 7-10 Figure 7-1):

- Maximum Ground Snow Load ( $p_s$ ): 30 psf

#### Wind Speed (Ref. ASCE 7-10 Figure 26.5-1C):

Exposure	Maximum Basic Wind Speed
B	250 mph
C	170 mph
D	140 mph

#### Building Conditions (Ref. ASCE 7-10 Figure 27.4-4):

Enclosure	Open
Roof type	Monoslope free roof
Roof pitch	<7.5 degrees
Wind direction	Any
Wind flow	Either clear or obstructed

#### Seismic conditions:

Seismic Design Category	
A	Use as designed
B	Use as designed
C	Site Specific Analysis Required
D	
E	
F	N/A

#### Maximum Loads:

Lateral	4.3 kips
Vertical	41 psf
Maximum loads listed are unfactored and applied non-concurrently.	

### Maintenance

1. When signs of rust appear, or when the paint is peeled or removed, you must take steps to remove the rust and paint the affected areas.
2. Any time aluminum components are attached to the steel structure, a separation must be applied (for example with EPDM rubber).
3. You must check the bolts are secured once a year. Tighten according to torque specs.
4. If the columns of the structure are hit (e.g. by a car), you must replace the columns of the structure immediately.



**WARNING:** Your RCP-2 Carport/Canopy structure is made of hot galvanized steel and spray painted with marine grade protective coating. When you drill or cut the structure, you expose the raw steel which is subject to corrosion and might compromise the structure strength and integrity. Doing so will void your warranty and in some conditions might cause the structure to collapse.

### Required Tools

#### Tools

- Post Hole Digger or Powered Auger
- Socket Drive (7/16", 9/16", 1/4" and 1/2" Sockets)
- Torque Wrenches (0-240 in-lbs and 10-40 ft-lbs)
- Transit, String Line, or Laser Level
- Spirit level
- Rotary hammer with concrete drill 20mm
- Cordless screwdriver
- Rubber hammer
- Hammer
- 2 x Scaffolding ladders
- Chalk line
- Folding rule / tape measure 7m
- Metal Saw



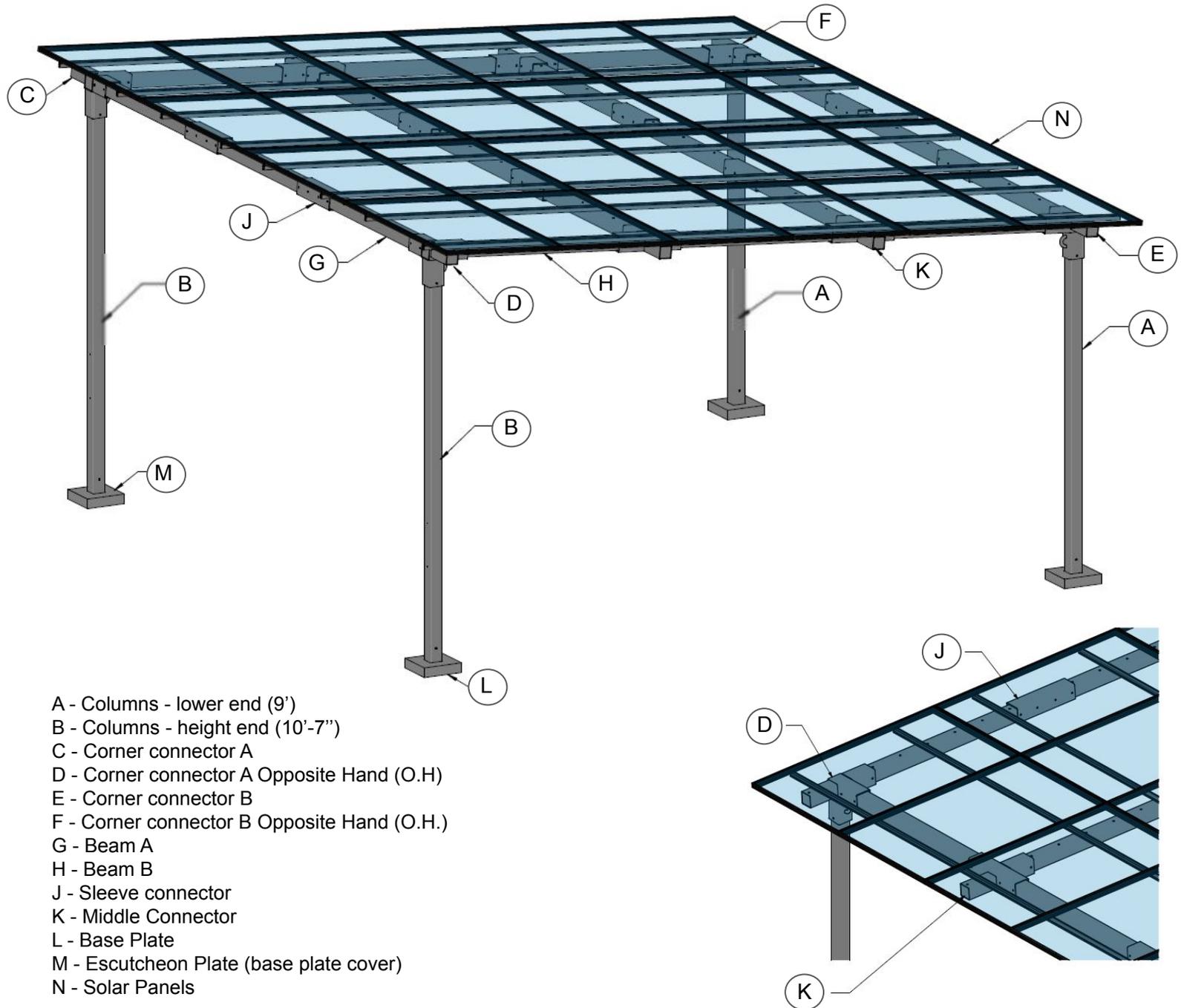
**NOTE:** CUSTOMER NEEDS TO SOURCE materials for footings based on structural engineer specifications or the Structural Engineering Package Notes if applies for your location (download at <https://www.blikir.com/resources>) - recommended:

- |   |                           |
|---|---------------------------|
| • Concrete                                  | • Qty 16 x Hilti HAS Rods |
| • Qty 48 x #4 Rebar 30"                     | • HIT-HY 200 Adhesive     |
| • Qty 16 x Wire Mesh, 10 Gage min., 6" grid | • Non-Shrink Grunt        |

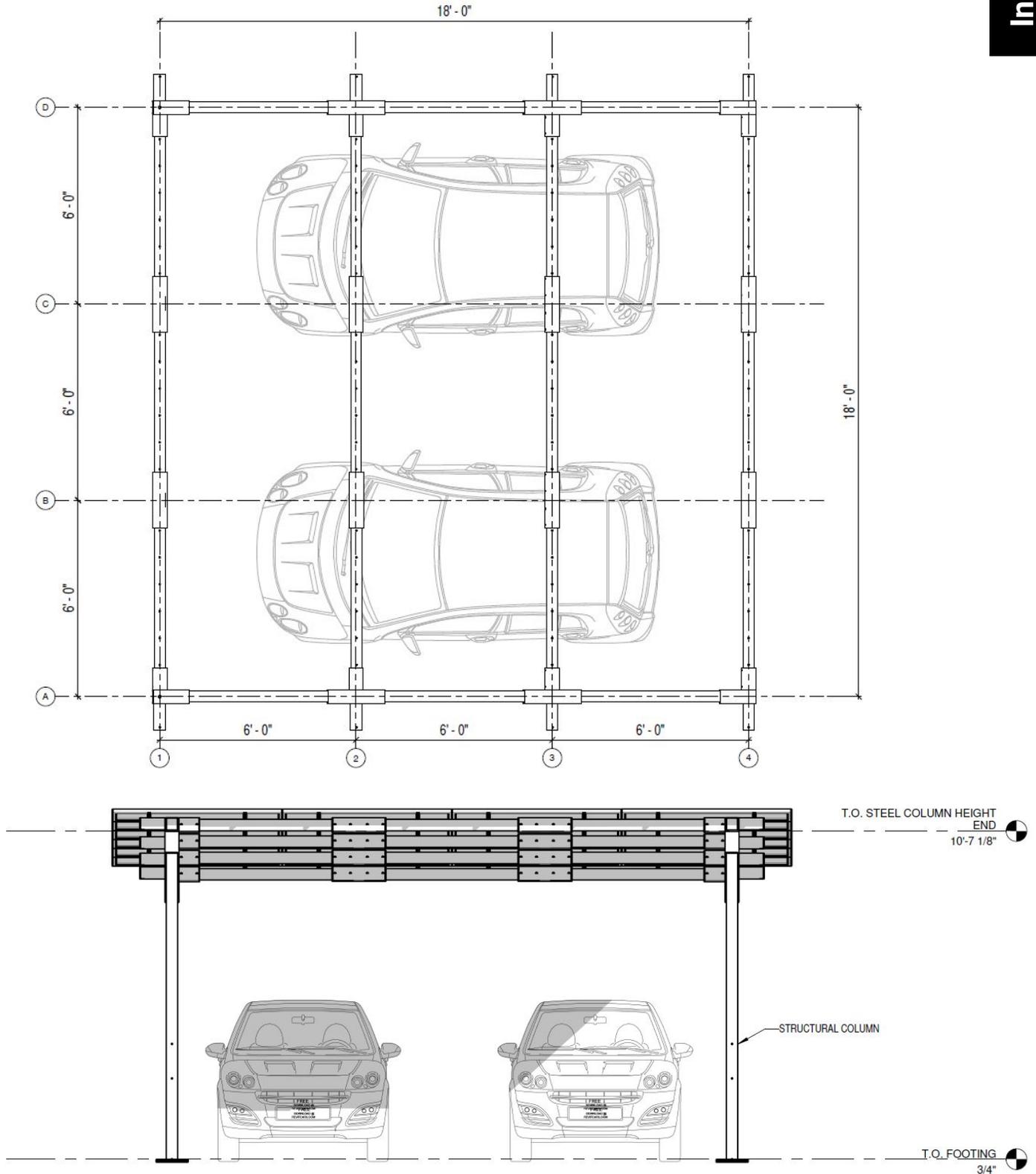
### Main Components

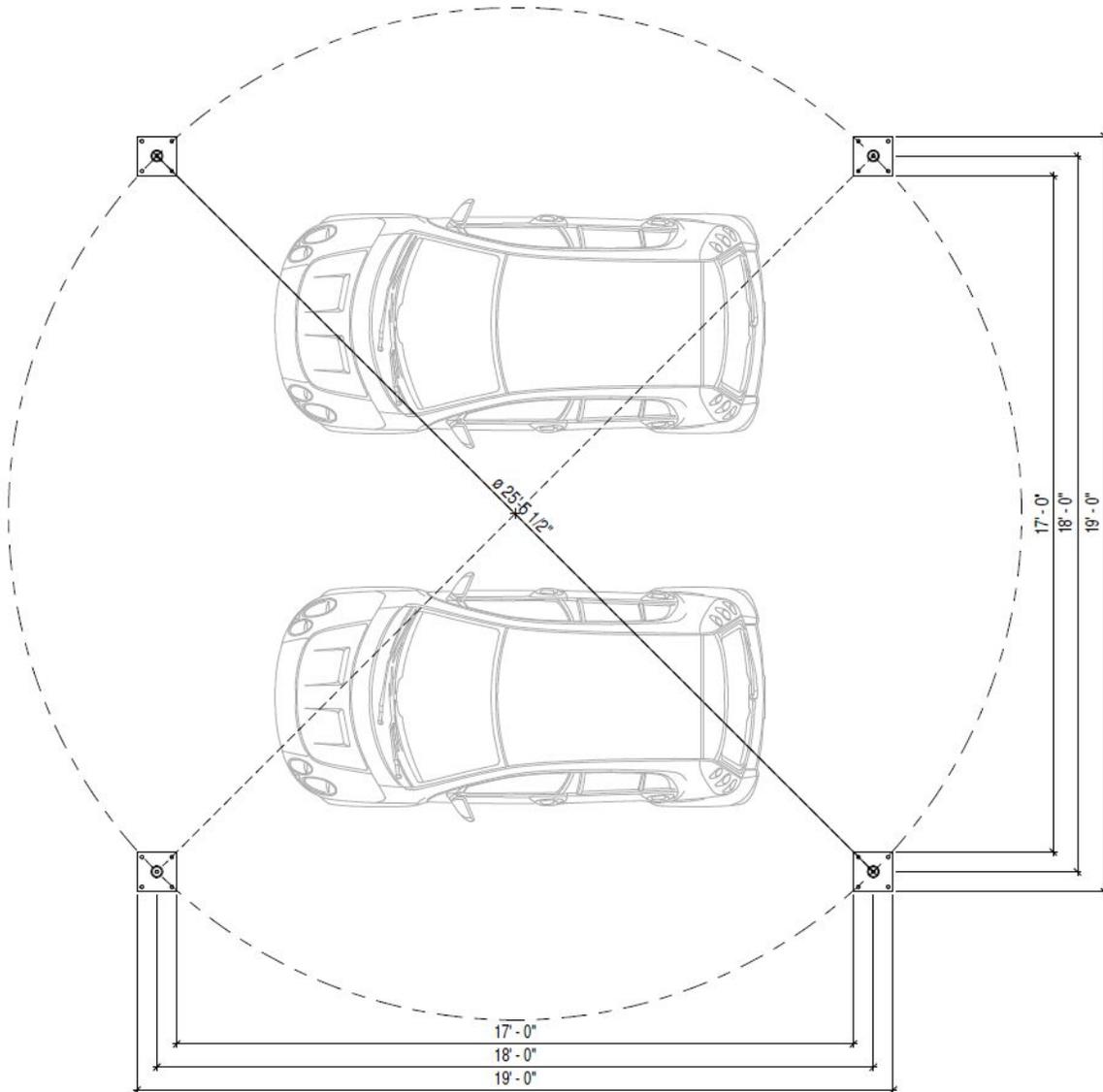
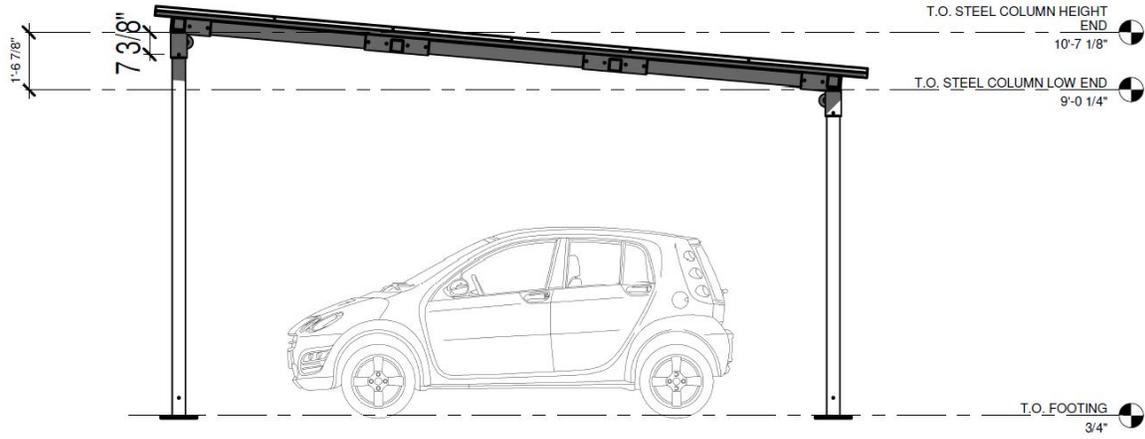
#### Overview

The following is a diagram that lists the main components of the RCP-2



### Standard Dimensions

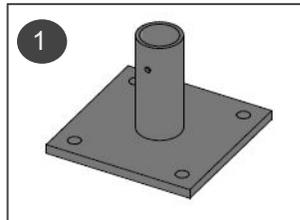




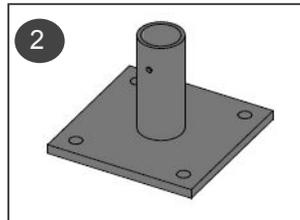
### Components List

Before beginning your installation, please make sure that you have all of the components listed below.

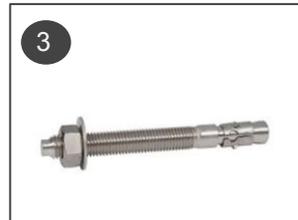
#### Blikir Structure Components:



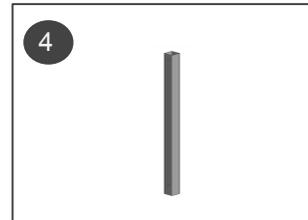
4 X Base Plate



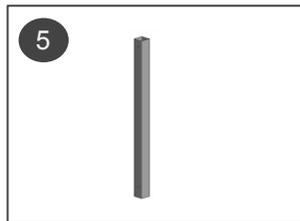
4 x High Wind Base Plate (optional)



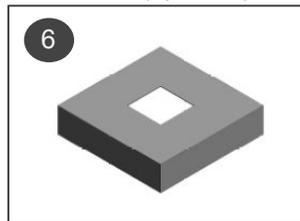
16 X concrete anchors



2 X 9' Front Column



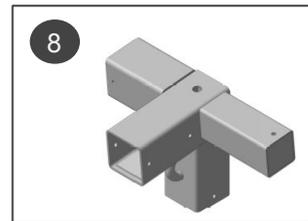
2 X 10'-7" back columns



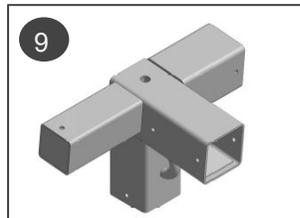
4 X Escutcheon Plates



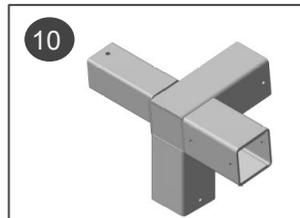
Bolts



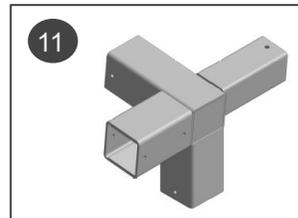
1X Corner Connector A



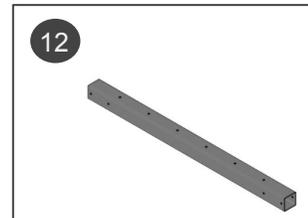
1 X Corner Connector A O.H.



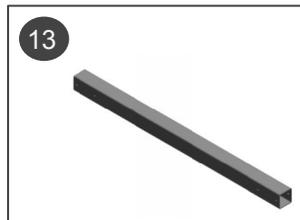
1 X Corner Connector B



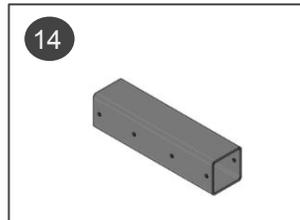
1 X Corner Connector B O.H.



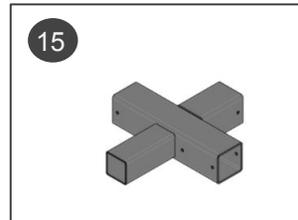
12 X Beams A (with holes)



6 X Beams B (no holes)



4X straight connector sleeves



4 X middle connector sleeves



32 X EPDM Gasket Separators



**NOTE: CUSTOMER NEEDS TO SOURCE** materials for footings based on structural engineer specification or the Structural Engineering Package Notes if applies for your location (download at <https://www.blikir.com/resources>) - recommended:

- Concrete
- Qty 48 x #4 Rebar 30"
- Qty 16 x Wire Mesh, 10 Gage min., 6" grid
- Qty 16 x Hilti HAS Rods
- HIT-HY 200 Adhesive
- Non-Shrink Grunt

### Ironridge racking components:



32 X L feet



16 X XR Rails



8 X Bonded splices



1 X Grounding Lugs



96 X CAMO Hidden Clamp



3 X Panel Bonding Jumper



8 X XR100 End Caps

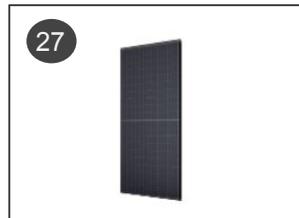


32 X IronRidge T-Bolt

### Other components:



Grounding Wire (Sold Separately)



24 X 60 cell Solar Panels (sold separately)



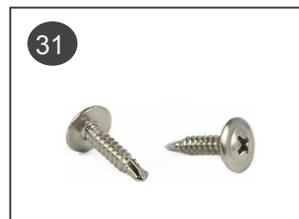
Sealing gasket (optional)



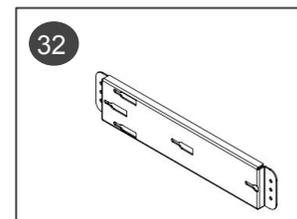
Decorative Mesh (optional)



EnelX EV Charger (optional)



Self Tapping Screws for EV Charger Backplate



EV Charger Backplate



6 x Decorative Mesh Carabiners



2 X Safety Column Solar LED Light (optional)

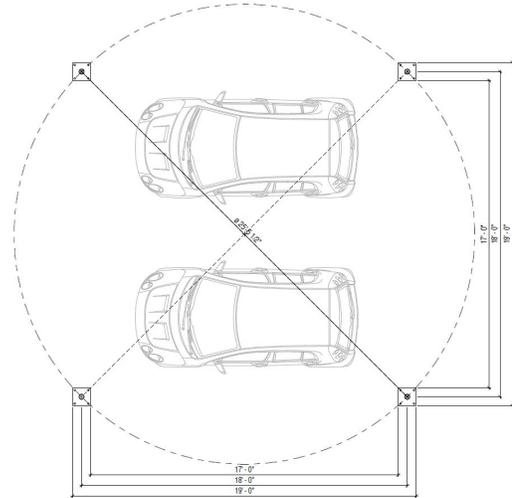


2 X 3M VHB tape for safety lights

### 1 - Build Base

#### 1.1 Mark Piers Locations

Mark piers locations according to the diagram. Verify that all angles are square. Find a larger copy on page 8.



#### 1.2 Dig Piers

Dig piers according to site conditions and system specifications in the Structural Engineering Package (download at <https://www.blikir.com/resources>) and based on your structural engineer instructions for foundations requirements.

Read section 1.5 of the installation manual before deciding on the depth of the piers. If you would like to follow option B, dig deeper piers and cover the base anchors with gravel (to allow water to drain) and top with concrete (instead of option A of using the base anchors decorative plates), add the additional desired depth to the piers that you dig.

**TILTED SURFACE:** If the surface is tilted, you should dig the piers at the highest point deeper to make sure all ballasts will eventually be leveled.



**WARNING:** Never install the carport tilted. The columns must be straight.

**TIP:** To measure how much deeper the highest point should be, connect 2 of the supplied solar rails with the splice, position one end on the highest point, use a level to make sure it is leveled and measure the space between the lower marked pier location to the rail. This is the additional depth you need to dig the highest point location in order to have them leveled.

**IMPORTANT:** The structure's foundations should be calculated taking into account site conditions, soil type, maximum wind and snow loads for the site location and the product mechanical loading specifications. In some cases, a geotechnical study is required. Please consult with your local AHJ and a structural engineer.



**WARNING:** In areas subject to freezing, pier depths may increase to resist freeze heave. Always consult a structural engineer to confirm.



**WARNING:** Before you dig any holes, contact all utilities in the area to locate any underground lines, pipes, and wiring.

### 1.3 Build Reinforcing Steel Grid and Fill Holes with Concrete

If you want to run the electric wires through the back columns, bend a conduit, run all the wires through the conduit and lay it in the desired location, making sure that the conduit ends not more than 5 inches above the concrete surface, so you can slide the bolt to connect the column to the base plate, which is located 6" above the surface.

**NOTE:** Not all carports and canopies are fabricated with wire path through the column. Make sure you know where the wire run before pouring the concrete. In most models, the two back columns will have wire path and EV charger assembly pilot holes.

**GENERAL:** Center all footings under columns above. Contractor shall locate all buried utilities prior to excavation. Refer to the Structural Engineering Package Notes (download at <https://www.blikir.com/resources>)

**FOUNDATIONS:** Footings are designed for an allowable soil bearing pressure of 1,5000 PSF.

**CONCRETE:** Concrete strength shall be as follows:

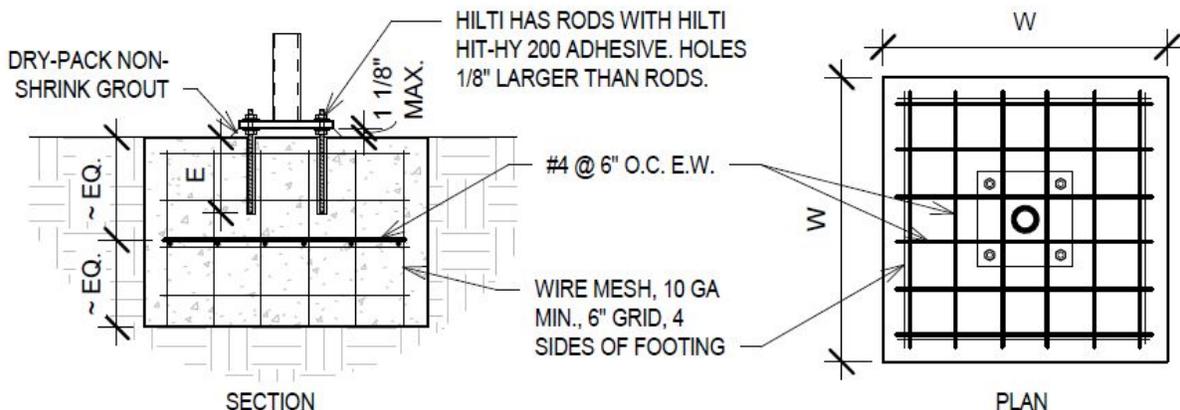
<u>F'c</u>	<u>W/C</u>	<u>MIN CEMENT</u>	<u>MAX AGGREGATE SIZE</u>	<u>SLUMP</u>
3000 PSI	0.58	470 LBS	1"	4" (+/-) 1"

Cement shall conform to ASTM C150, Type 1. Fly ash conforming to ASTM C618, Type F or Type C, may be used to replace up to 20% of the cement content. Aggregate shall conform to ASTM C33. Concrete shall be cured immediately after finishing operations.

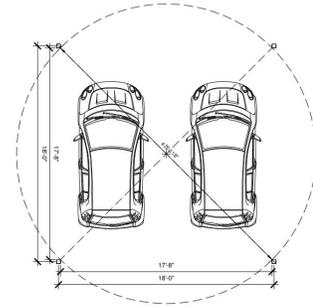
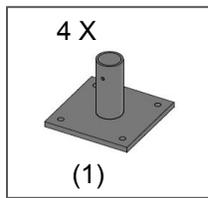
**REINFORCING STEEL:** Reinforcing steel shall conform to ASTM A615, Grade 60, and shall be securely tied in place with #16 annealed iron wire. Required clear concrete cover: 3" bottom and sides, 2" top.

**TILTED SURFACE:** If the surface is tilted, you should dig the piers at the highest point deeper to make sure all ballasts will eventually be leveled. In this case, you will need to fill the gap between the base anchors and the surface with gravel to allow water to drain out of the column and base plate, if penetrated. You can cover part with gravel and the remaining with more concrete after you complete the installation.

If you choose to follow option B that is described in section 1.5 and install the base anchors lower than the surface, pour the concrete up to the desired height under the surface.



### 1.4 Align the Base Plates



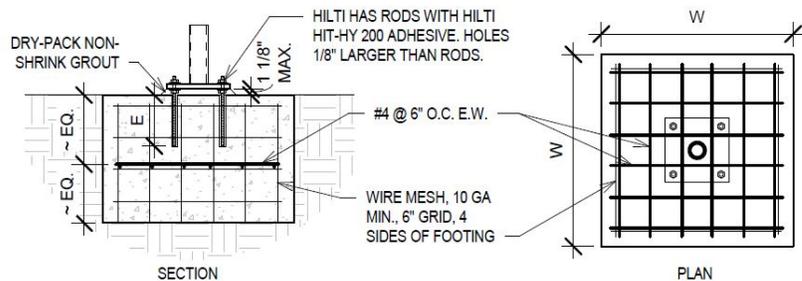
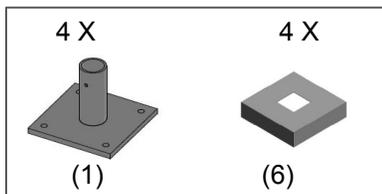
Wait for the concrete to solidify.

Your kit includes 4 base plates. At least one of the base plates has a hole in the center (punched) to enable running the conduit and wires into one of the columns. If you chose to run the electric wires and grounding through the column, slide the punched column base plate (1) over the conduit with the electric wires. This should be the first column base plate you install.

Align the base anchors (1) with the horizontally punched hole facing forward.

Use the footings locations template to locate the other base plates accurately. You should measure exactly 18' between the center of adjacent footings or 17' between the internal edge of the base plate, and 25'-5 1/2" between the center of the base plate along the diagonal (see sketch on page 8 of this installation manual).

### 1.5 Install footings



Mark the anchors locations and remove the column base plates (1).

Using a concrete drill bit to drill a hole that is 1/8" larger than the rods specified for your location, drill the anchor holes. Install the four concrete anchors (not supplied by us) into the concrete. Follow the specific encore type according to the manufacturer instructions.

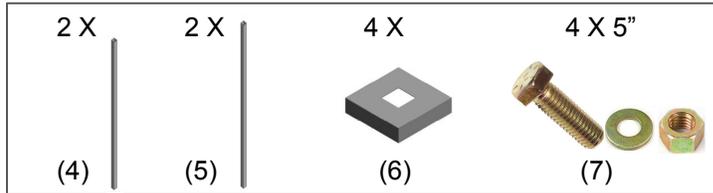
Slide the column base plate (1) over the concrete anchors (3) and secure them. If you are using leveling nuts, use the leveling nuts to level the column base plate. Correct any shiftings if needed and repeat for the other three column base plates (1). Fill the gap between the base plate (1) and the footing with Dry-pack non-shrink grout (not supplied by us).

**OPTION A:** Put the escutcheon plate (6) over the footing, to hide the concrete anchors and base plate (1). It is recommended to slide the escutcheon plate (6) onto the column (4) and (5) before you install the column on the base plate (1).

**OPTION B:** An alternative installation method can be to dig the piers (section 1.2 of the installation manual) 3" to 5" deeper than required, place the base anchors lower than the surface, and after you complete the installation cover the base anchors with gravel and more concrete to hide the footing in concrete. The grave is required in order to allow water to drain.

### 2 - Build Structure

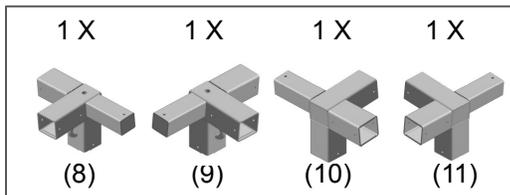
#### 2.1 Connect columns



Decide where you want the carport to face. The front columns should be the 9' front columns (4), and the back columns should be the 10'-7" back columns (5). NOTE: The electric wires can run only through the 10'-7" back columns and the back corner connector type A (8) and (9).

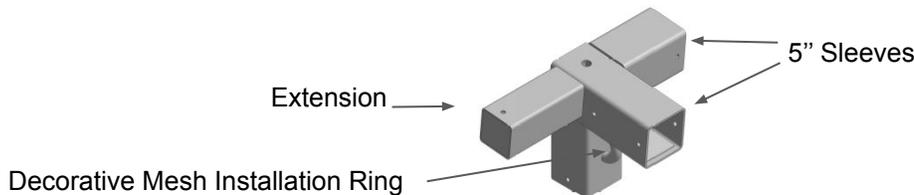
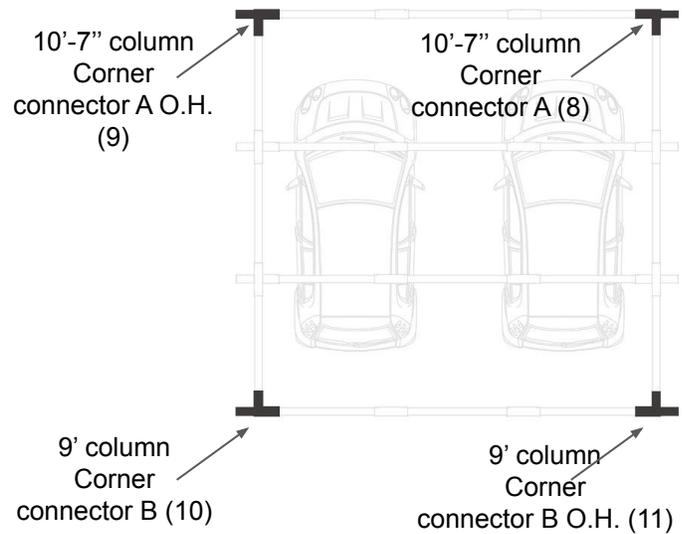
Before installing the columns, slide the Escutcheon Plate (6) on the column. Slide the 9' front columns (3) and 10'-7" back columns(4) onto the anchored footing and secure them with the supplied 5" bolts washers and nuts (7).

#### 2.2 Connect corners



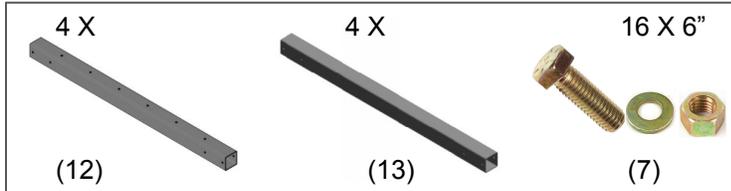
There are four types of corner connectors: Corner connectors A (8) and A O.H. (9) connect to the high 10'-7" columns, and corner connectors B (10) and B O.H. (11) connect to the low 9' columns.

Note that corner connector A (8) and A O.H. (9) differ from each other by the position of the extension relative to the sleeves, and similarly corner connector B (10) and B O.H. (11) are also a mirror image of each other.



Slide the corner connector onto the columns and secure with the supplied 6" bolts, washers (2 per bolt) and nuts (7). Make sure you are using the correct corner connector (the 5"x5" sleeves should face the structure frame, and the extension should face outwards)

### 2.3 Connect beams to corner connectors

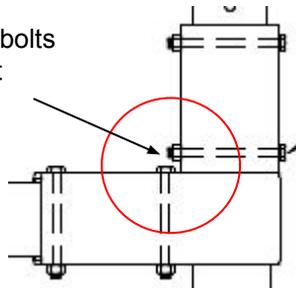


In this step beams A (12) that have holes drilled in them, and beams B (13) that don't have holes drilled in them will be installed. Beams A (12) will be installed to the E-W direction, namely, between corner connectors of the same height. Beams B (13) will be installed to the N-S direction, namely, between corner connectors of different height.

Slide beams A (with holes) (12) onto the corner connector A towards corner connector A O.H and vice versa, and onto the corner connector B towards corner connector B O.H and vice versa. Slide beams B (without holes) (13) onto the corner connector A towards corner connector B O.H and vice versa, and onto the corner connector B towards corner connector A O.H and vice versa.

Secure with the 6" bolts, washers (2 for each bolt) and nuts (7) by sliding a washer onto the bolt screw, inserting the bolt screw into the hole that goes through the beam and corner connector, slide another washer onto the bolt and secure with a nut.

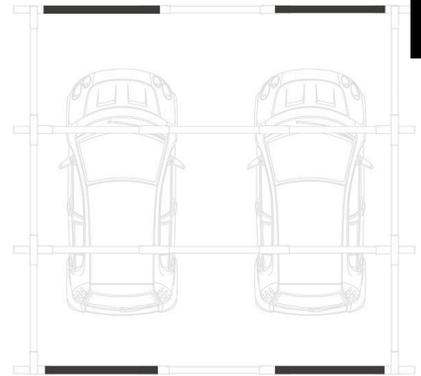
Note the order of the nuts and bolts to allow tightening both without hitting the two nuts



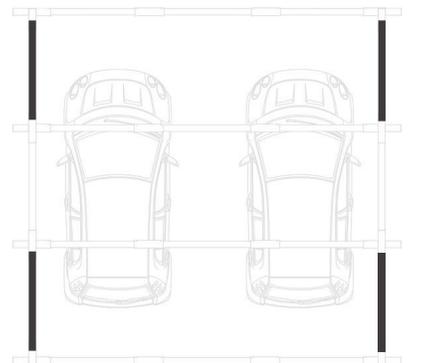
**SIDE VIEW:**

**TOP VIEW:**

Beams A installed E-W:

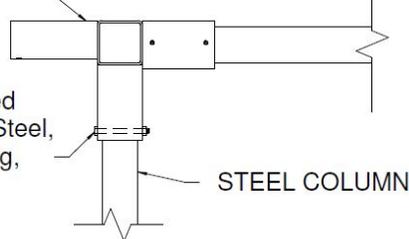


Beams B installed N-S:



CORNER CONNECTOR

Zinc Yellow-Chromate Plated Hex Head Screw, Grade 8 Steel, 1/2"-13 Thread Size, 6" Long, Fully Threaded 92620A731

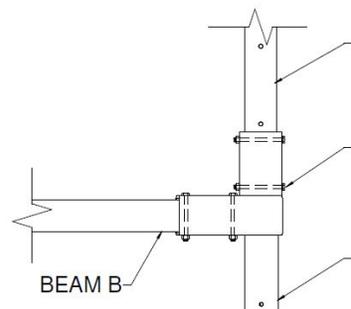


STEEL COLUMN

COLUMN TO CORNER CONNECTOR

BEAM A

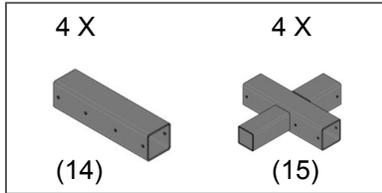
Zinc Yellow-Chromate Plated Hex Head Screw, Grade 8 Steel, 1/2"-13 Thread Size, 6" Long, Fully Threaded 92620A731



BEAM B

CORNER CONNECTOR

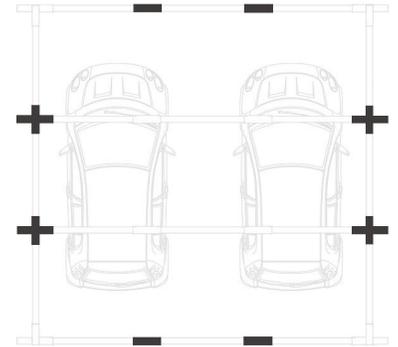
### 2.4 Slide connector sleeves on Beams



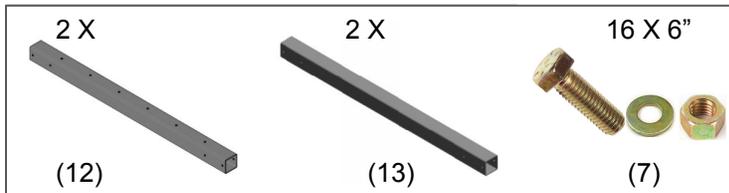
Slide the straight connector sleeves (14) on the beams that point to a same height column (pointing from a 9' column to a 9' column, and from a 10'-7" column to a 10'-7" column).

Slide the middle connector sleeves (15) on the beams that point towards a different height column (from a 9' column to a 10'-7" column and vice versa).

Position the sleeve so it is completely on the beam, to leave space for the middle beam to slide between the two beams that are already connected.

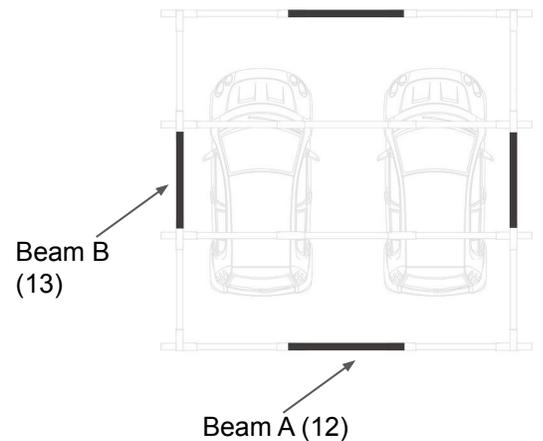


### 2.5 Connect middle beams

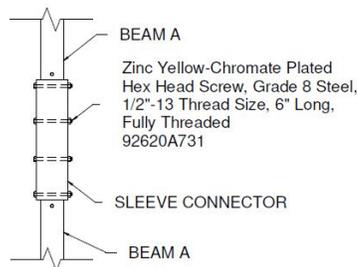


As in step 2.3, this step includes beam A (12) that connect to the E-W direction, and beam B (13) parts that connect to the N-S direction - see diagram.

Position middle beam between the installed beams. Slide the connector sleeves back to cover both beam pieces and then secure with the 6" bolts, washers (2 per bolt) and nuts (7).

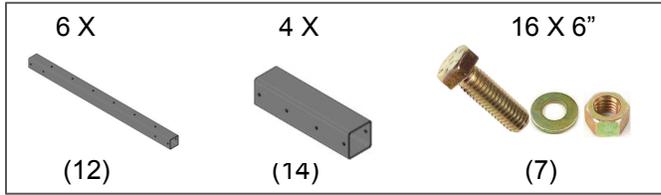


#### TOP VIEW:



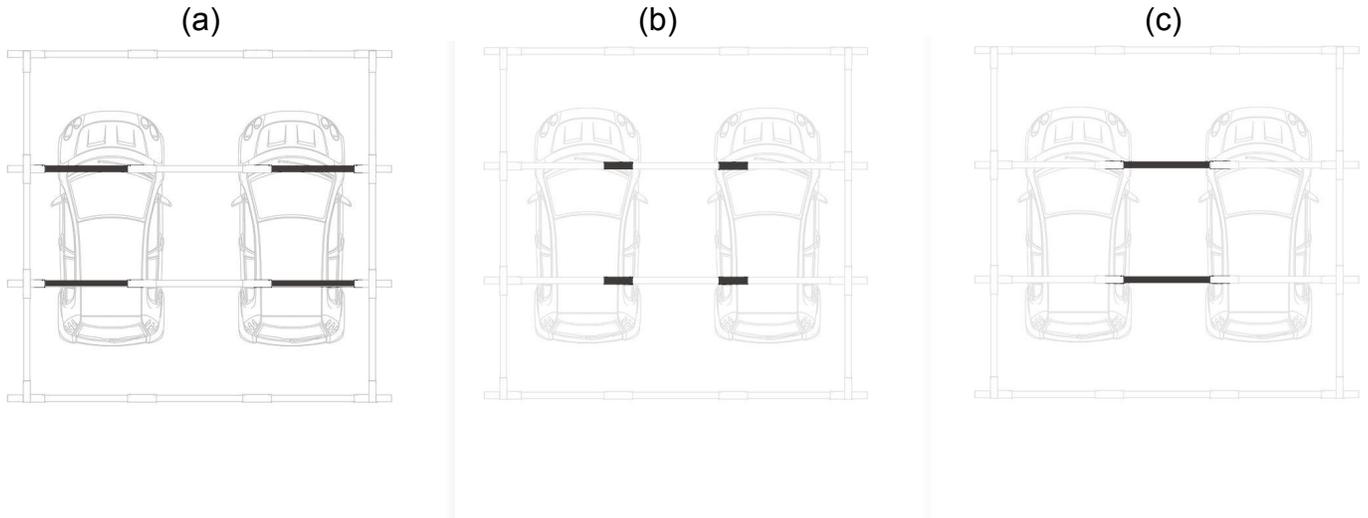
BEAM TO BEAM

### 2.6 Connect beams at the center



Repeat steps 2.3, 2.4, and 2.5 to connect the beams at the center of the structure

- Connect beams (12) to middle connector sleeves (15) with 6" bolts, washers (2 per bolt) and nuts (7)
- Slide straight connector sleeves (14) on the beams (12)
- Connect middle beams (12) with 6" bolts, washers (2 per bolt) and nuts (7)



### 3 - Connect Rails



To continue the assembly, please use the IronRidge Installation Guide located in the following link: <https://base.ironridge.com/pitched-roof-mounting/resources>

The following information is a general description of the assembly process, but **should not be used without reading the IronRidge installation manual**, since the installation manuals are changing frequently.

Installing the IronRidge components without using their installation manual might void the IronRidge Product Limited Warranty.

#### 3.1 Connect L-Feet



**Important:** Use the racking manufacturer installation manual when installing your system.



Depending on the type of solar panels you are using, select the most appropriate location for the L-Feet on the middle beams A (12).

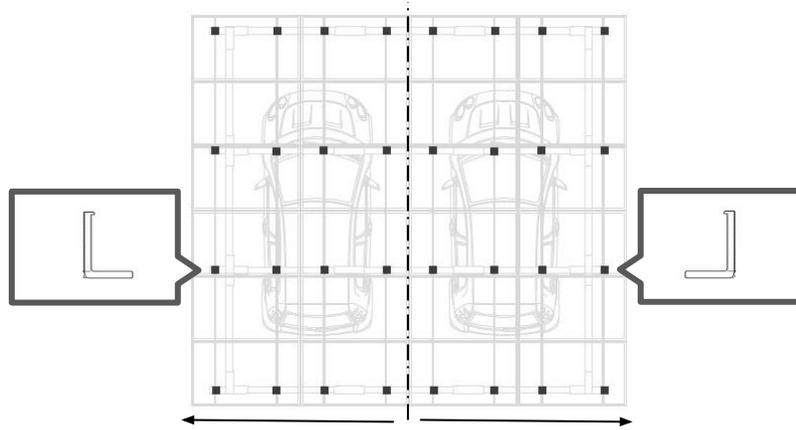
Place L-Feet EPDM Gasket separators (16) over the selected pre-drilled holes on the middle beams A (12).

The L-foot (17) is made of a horizontal and a vertical face.

Place the L-foot so the vertical face is on the **right side** of the L-foot for L-feet that are to the **right of the center** of the structure.

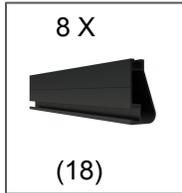
Place the L-foot so the vertical face is on the **left side** of the L-foot for L-feet that are to the **left of the center** of the structure.

Secure the L-Feet with the supplied 5 1/2" bolts, washers (2 per bolt) and nuts (7).



Vertical side of L feet faces this way

### 3.2 Cut Rails to Match Panel Size



Calculate the exact length of a solar panels column using the width of the panels that you will be using, and adding 1/2" for the T Sealing Gasket. Use the formula:

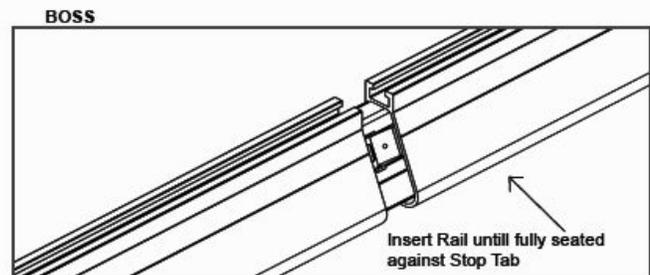
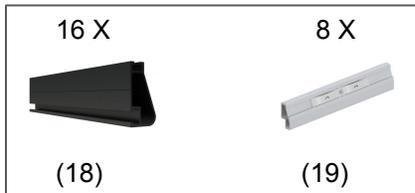
$$\text{Column length} = (\text{panel width} + \frac{1}{2}'' ) * 6$$

2 X 11' rails are provided for each length, but the actual length that you will need will be shorter than that. For each pair of rails - cut one of the rails to fit the length that was calculated.

### 3.3 Splice Rails



**Important:** Use IronRidge's installation manual when installing your system.



For the four columns of panels (assuming you are installing 24 x 60 cell panels) you will need to connect eight pairs of rails: a full size one to one of the rails that you cut in step 3.2.

Use BOSS (Bonded Structural Splice) to connect the two rails (18). Insert the BOSS bonded splice (19) into first Rail up until the Stop Tab. Slide second Rail fully into place. Make sure the cut is located in the middle so it is less visible.

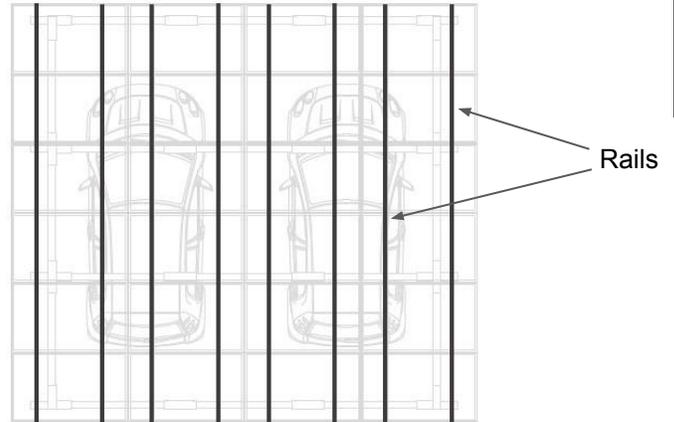
**NOTE:** CAMO and Bonding Hardware must be installed 1" away from the point where two Rails join together. You can cut the rails in step 3.2 in a way that will avoid that, in case your panels dimensions are such that it happens.

### 3.4 Connect Rails to L-Feet



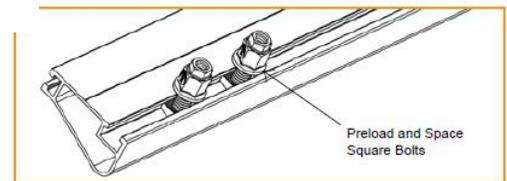
**Important:** Use IronRidge's installation manual when installing your system.

Assemble the rails to the L-Feet making sure that the overhanging rails are balanced.



#### Prepare hardware:

Slide T-bolts into side-facing rail slot. Space out bolts to match attachment spacing. Tape ends of rail, to keep bolts from sliding out while moving.



#### Attach Rails:

Drop rail with hardware into L-Feet. Level rail at desired height, then torque to 250 in-lbs.



### 3.6 Connect Grounding Lug to One Rail



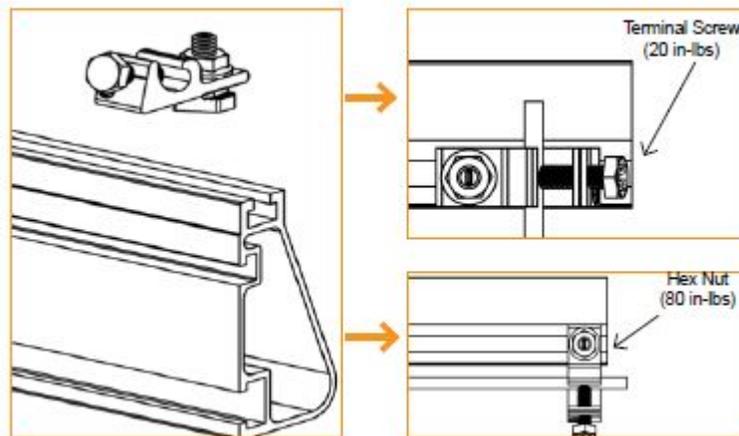
**Important:** Use IronRidge's installation manual when installing your system.



**NOTE:** Grounding Lugs are intended to for use with one solid or stranded copper wire, conductor size 10 AWG to 4 AWG.

Connect a grounding lug (20) to one of the rails: Insert T-bolt in Top Rail slot and torque Hex Nut to 80 in-lbs. Install a minimum 10 AWG solid copper or stranded grounding wire. Torque terminal screw to 20 in-lbs.

**NOTE:** Rail Grounding Lugs can be installed anywhere along the Rail and in either orientation shown.



### 3.7 Optional: install MLPE

If you are using MLPE (microinverters, RSD or optimizers), you can install them at this step

### 4 - Install Solar Panels

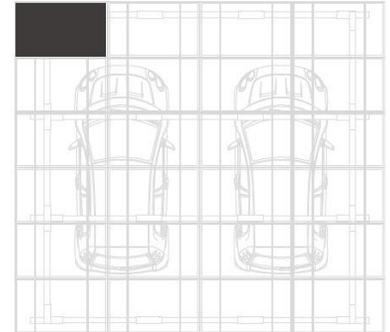
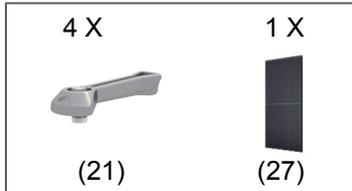
#### 4.1 Connect First Panel with CAMO



**Important:** Use IronRidge's installation manual when installing your system.



**WARNING:** Check panel frame compatibility with CAMO (detailed in IronRidge's installation manual) before using CAMO with your solar panels. Using CAMO with incompatible panels may result in panel damage.



Slide 12 CAMO (21) (bottom clamps) on each rail (2 per panel per rail), leaving space for the panels to rest on the rails. You can secure them in place with a tape.

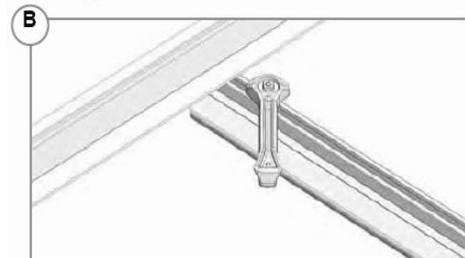
##### A. SLIDE INTO RAIL

Slide CAMO into rail channel far enough to clear the module frame. CAMO requires 6" of clearance from end of rail or the lip of the frame.



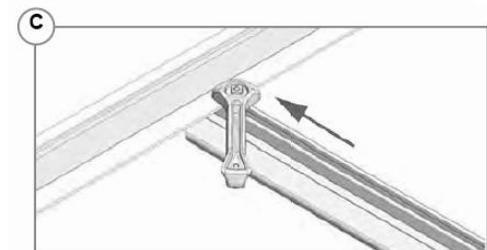
##### B. PLACE MODULE

Place module on rails (module cells not shown for clarity). When installing CAMO the module can overhang the rail no more than 1/4".



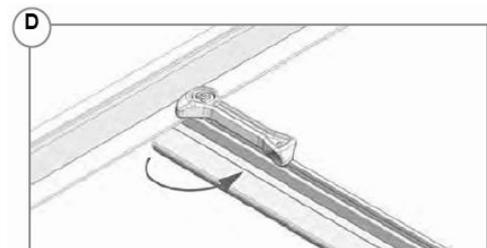
##### C. PULL TOWARDS END

Pull CAMO towards rail ends, at 45 degree angle, so the bonding bolt contacts the module flange edge.

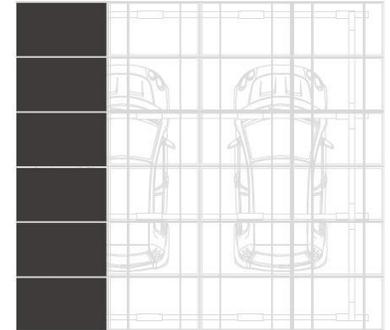
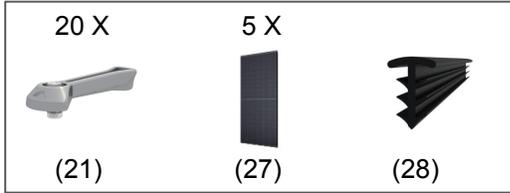


##### D. SECURE TO FRAME

Rotate handle with an upwards motion until CAMO snaps into rail channel. Ensure CAMO bonding pins are fully seated on top of module frame.



### 4.2 Connect First Column of Panels

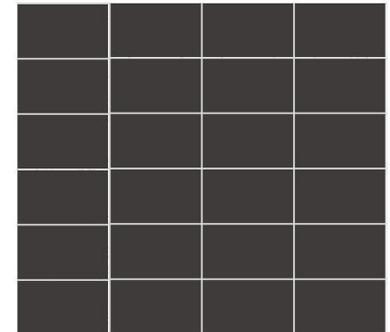
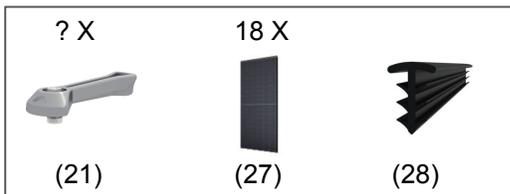


**NOTE:** the sketch and description in this step assume that you are using 60 cell solar panels (or 120 half cell panels). If you are using larger panels, the number of panels that will fit on the RCP-2 carport may be smaller.

Position a second panel (27), in the same column of the first installed panel, using the same method described in step 2.5. Before securing this second panel, place a stripe of EPDM sealing gasket (28) between the panels (cut to flash with the edges of the panels). Press the new panel against the EPDM gasket and secure with the CAMO under clamps (21). Trim 1/4" of the top of the EPDM sealing gasket (28) to allow the vertical EPDM sealing gasket (28) to rest on the panels flashed when installed on the next step.

Repeat to install additional panels up the column (six 60-cell panels per column).

### 4.3 Connect Remaining Solar Panels

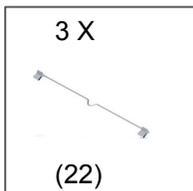


Move onto the next column and repeat these steps. This time, place EPDM sealing gasket (28) between the columns and press the panel of the second column to the gasket before securing the panel (27) with the CAMO under clamps (21). Make sure the lip of the EPDM sealing gasket (28) rests flashed on the panels frame and not raised to avoid water penetration.

### 4.4 Connect Bonding Jumpers



**Important:** Use Ironridge's installation manual when installing your system.



8" Bonding Jumper is an electrical bonding jumper that can be used on the Flush Mount System for row to row bonding; making the module frames the medium for the equipment ground path.

- Bonding jumper is pushed onto the bottom flange of the module.
- New jumpers should be used if re-installation of jumper is required.
- Supports bottom flange thicknesses from 1.2mm to 3.1mm.



### 4 - Optional Add Ons

#### 5.1 Optional: Decorative Mesh



You can install a decorative mesh (29) to hide the electrical wires and components. The corner connectors are coming with D rings to attach the decorative mesh (29). Your Decorative Mesh kit comes with 6 carabiners.

Connect one carabiner to one of the rings on the mesh and attach it to one of the rings on the front corner connectors B (10) or (11).

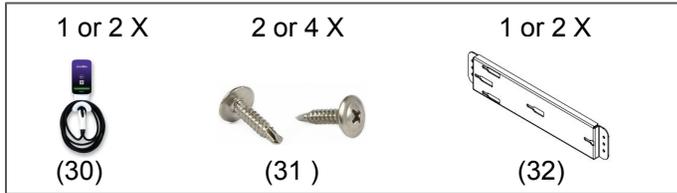
Make sure the mesh seam is facing up.

Connect another carabiner to the other side of the Decorative Mesh and try to attach it to the other front corner connector B (10) or (11). If it is too hard to stretch, take a rope and loop it twice through the D ring and then through the ring on the decorative mesh. Pulling the two ends of the rope should easily push them close enough to attach the carabiner.

If you are not able to do that, you may use one more carabiner (there are 2 spare carabiners for this case).

Repeat this with the remaining two corners.

### 5.2 Optional: EV Chargers



To continue the assembly, please use the Enel X Installation Guide located in the following link: <https://evcharging.enelx.com/resources/installation>

The following information is a general description of the assembly process, but **should not be used without reading the Enel X installation manual**, since the installation manuals are changing frequently.

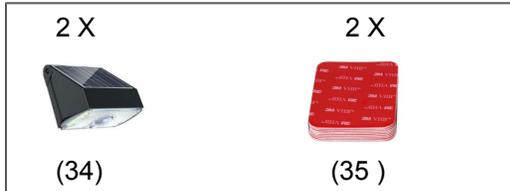
Installing the Enel X components without using their installation manual might void the Enel X Product Limited Warranty.

If you choose to install EV Chargers, assemble the back plate (32) to one or two back columns with two 1/8" stainless steel self tapping screws (not supplied) (31) and secure the EV Charger to the plate.

The back columns have a pre drilled hole for the electrical wires so you can run the wires through the back columns.

Use the Enel X installation manual to proceed.

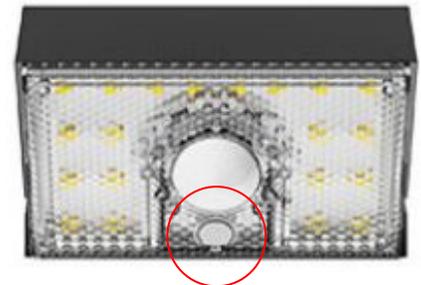
### 4.3 Optional: Columns Safety Solar LED lights



If you choose to install Column Safety Solar LED lights, remove the assembly plate that comes with the lights, by removing the two screws from the side of the light fixture.



Apply the two sided 3M tape (35) to the back of the fixture. Peel the tape cover and attach the light at the desired height. Before attaching to the column, make sure the fixture is leveled.



Repeat the assembly process with the other light fixture. Make sure to install them at the same height.

**NOTE:** the lights are not charged when you get them. Expose them to light for couple of hours in order to be able to operate them.

The lights are equipped with motion sensors and ambient light sensors. They will not operate during the day, so you can set them up in a dark/dimmed light environment before the installation.

#### Operation:

Press the button for 2-3 seconds to switch on/off

Click once (green light flickers once) for a mode in which the lights are off unless the motion sensor senses movement and it is dark outside.

Click twice (green light flickers twice) for a mode in which the lights are on in a low setting (20lm) while it is dark outside, unless the motion sensor senses movement, in which case it will increase the light to 1,000lm for a short period of time. **This is the recommended setting.**

Third click (green light flickers three times) will change the mode a low light setting (20lm) while it is dark outside.