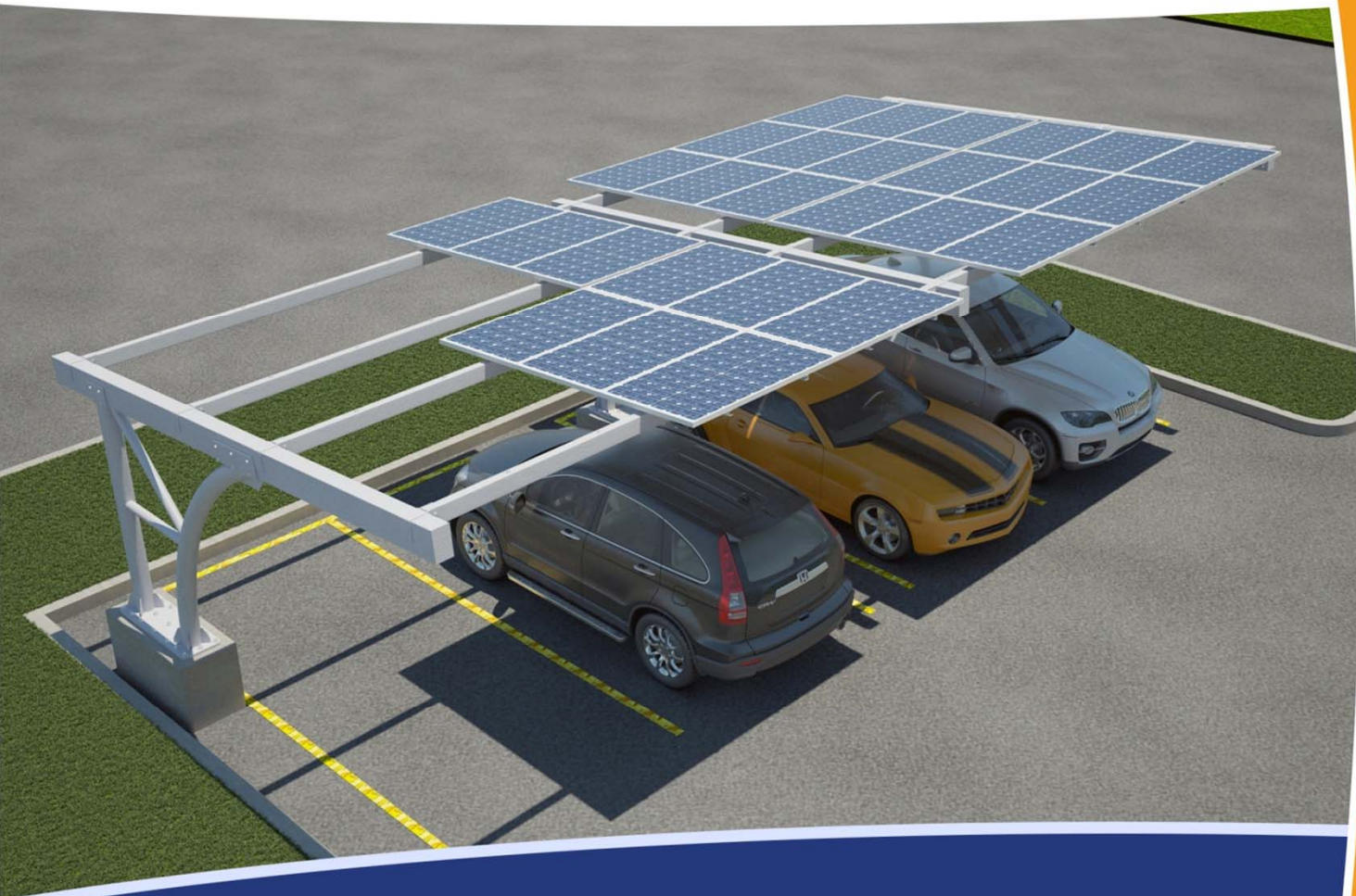


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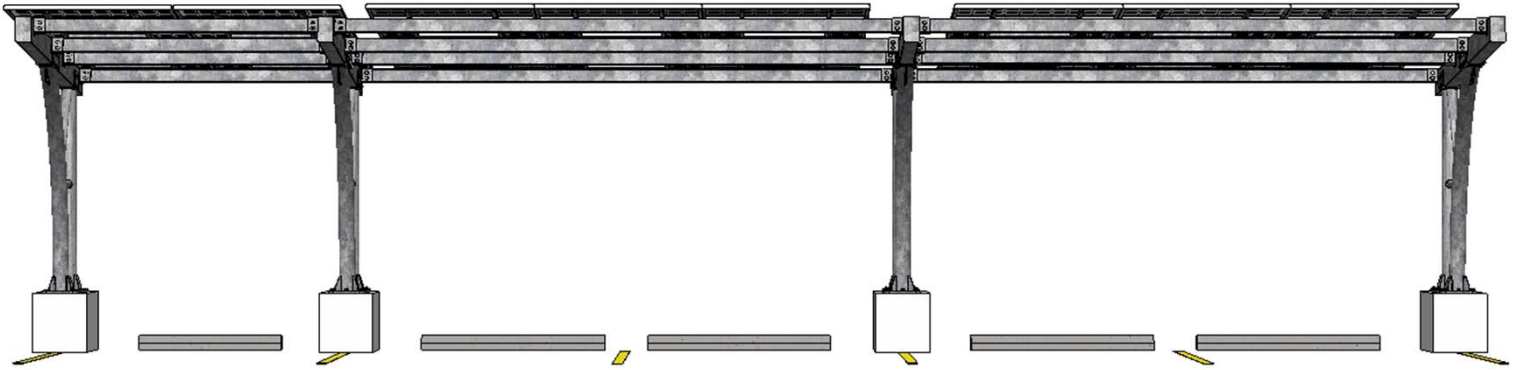
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SATURN SERIES CARPORT SYSTEM INSTALLATION MANUAL

SATURN SERIES - SCALABLE SOLAR CARPORT STRUCTURE INSTALLATION REFERENCE

GENERAL INFORMATION

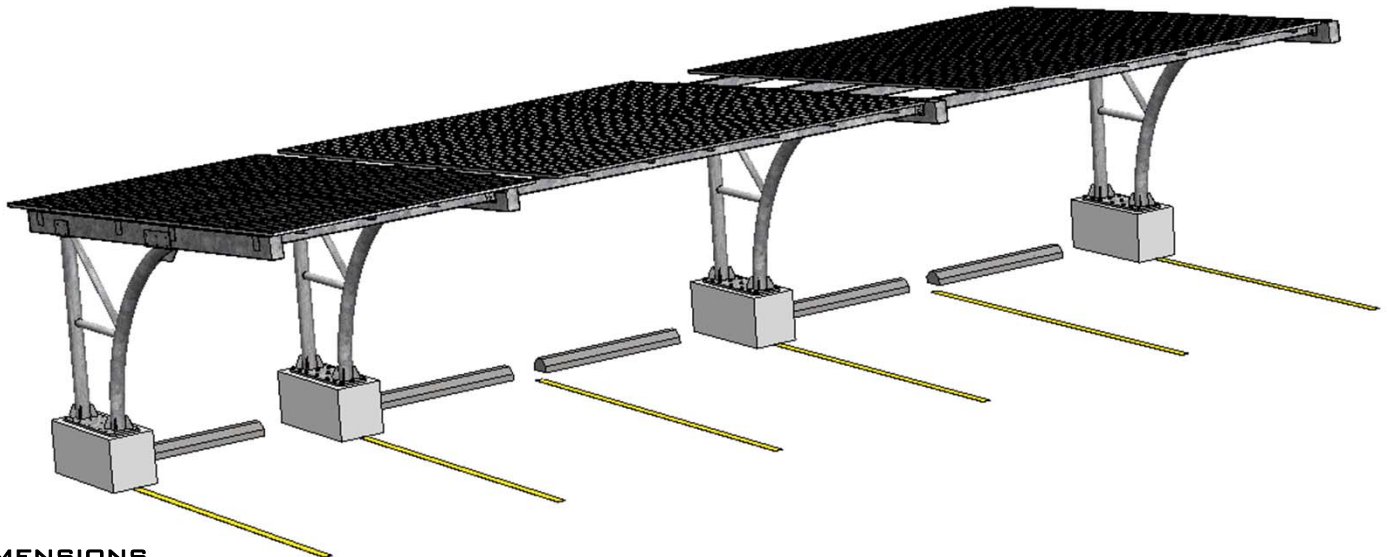


STRUCTURES: 2 CARS/UNIT – SINGLE CAR ALSO AVAILABLE

MODULE SIZES: 1650X992X50MM OR 1640X990X50MM

MODULE QUANTITY/UNIT: 18PCS (6 LINES X 3 ROWS) OR 21PCS (7 LINES X 3 ROWS)

STRUCTURE MATERIAL AND FINISHING TREATMENT: STEEL / HOT GALVANIZED

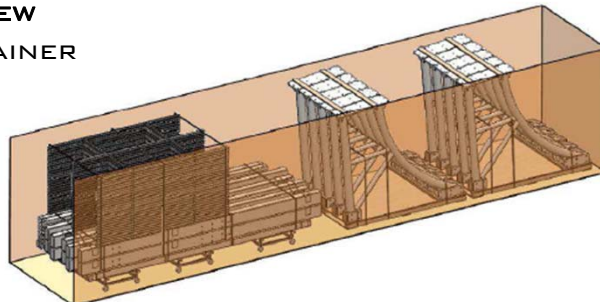


DIMENSIONS

- STRUCTURE WIDTH: ~ 5,000MM (16.4'), 2,500MM (8.2')/CAR
- SLOPE ANGLE: 5 DEGREE
- STRUCTURE HEIGHT (FRONT): 2,550MM + BASE 500MM ~ 3,050MM (10')
- STRUCTURE HEIGHT (BACK): 2,090MM + BASE 500MM ~ 2,590MM (8'-6")
- STRUCTURE IS SCALABLE AND CUSTOMIZABLE TO ANY PROJECT SIZE

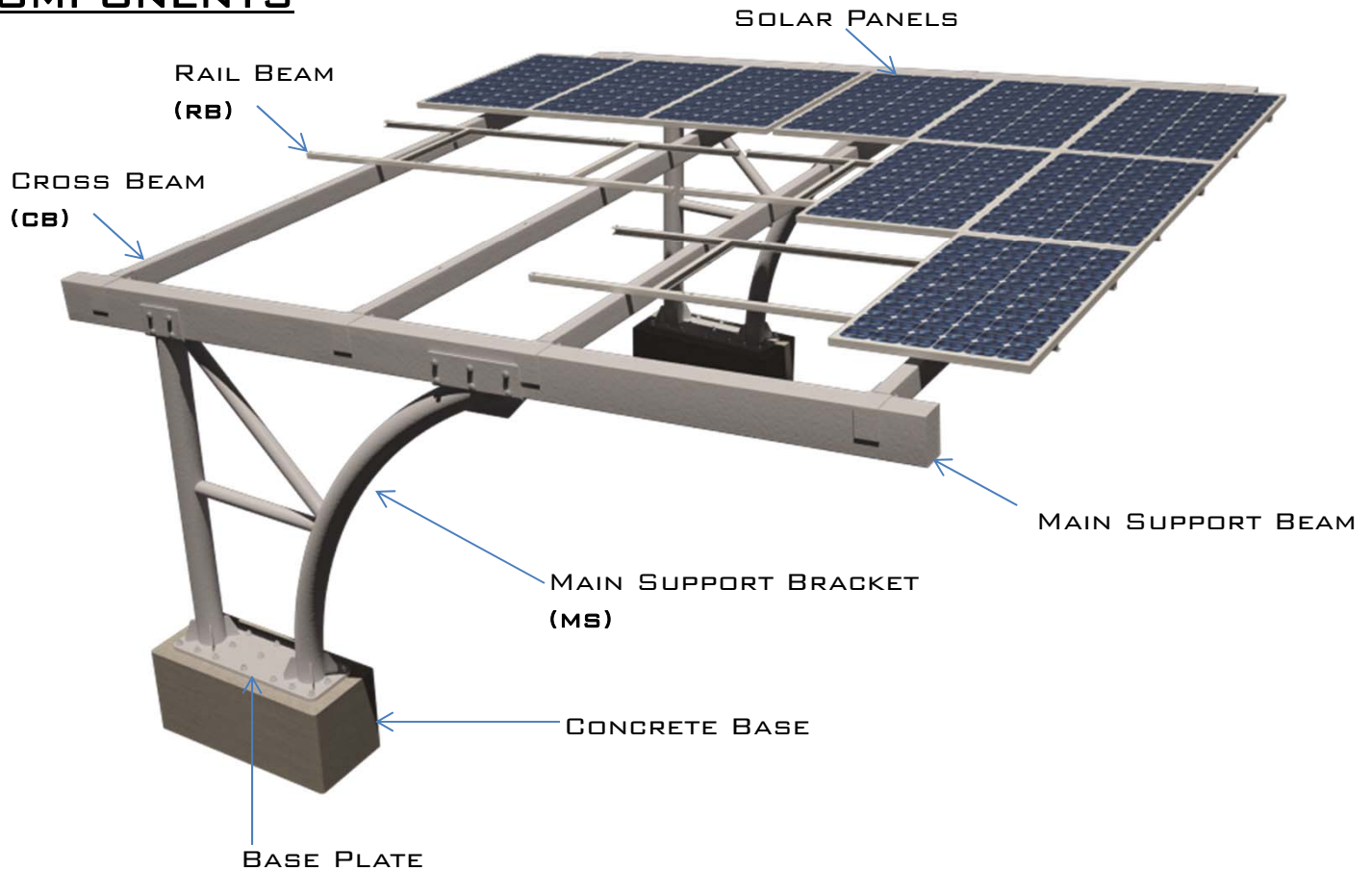
PACKAGE VIEW

40'H CONTAINER



SATURN SERIES - SCALABLE SOLAR CARPORT STRUCTURE INSTALLATION REFERENCE

COMPONENTS



HARDWARE



M20 x 220MM WITH NUT AND WASHERS - MAIN SUPPORT ASSEMBLY



M20 x 140MM WITH NUT AND WASHERS - RAIL BEAM ASSEMBLY



M10 x 160MM WITH NUT AND WASHERS - CROSS BEAM ASSEMBLY



CONCRETE ANCHORS FOR BASEPLATE ASSEMBLY - IF APPLICABLE



M8 x 20MM WITH NUT AND WASHERS - SOLAR PANEL INSTALLATION

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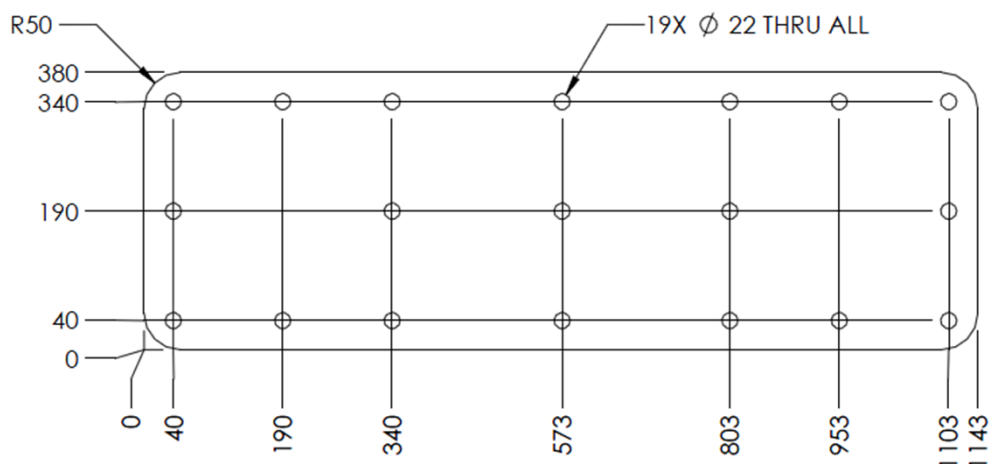
INSTALLATION STEPS

(FOR REFERENCE ONLY)

STEP 1

SET UP CONCRETE BASE

ACCORDING TO ENGINEERING DATA (FOOTING DESIGN FORCE & REACTION ID), BASE PLATE DIMENSION, AND SITE SOIL CONDITION TO MAKE THE CONCRETE BASE. THE BASE PLATE DIMENSION: 1,140MM(45") X 380MM(15") X 18.5MM (0.73") THE CONCRETE BASE (MIN) IS NEEDED TO BE 1,321MM(52") X 559MM(22") WITH FC' (FORCE) = 4,500 PSI MIN THE CONCRETE BASE HEIGHT IS NEEDED TO BE ≥ 500 MM FROM THE GROUND. THERE ARE 19 X $\phi 22.5$ MM HOLES PRE-FABRICATED ON BASE PLATE, M20 ANCHOR BOLTS EMBEDDED INTO CONCRETE BASE ARE NEEDED.



THERE ARE TWO WAYS TO MAKE THE CONCRETE BASE.

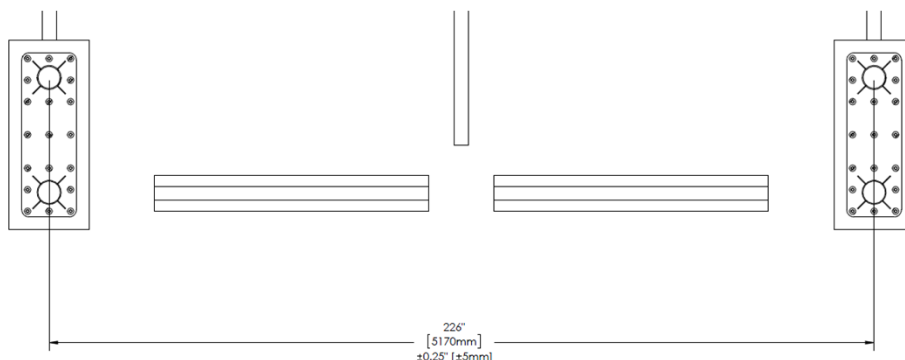
A. PRECAST BASE

B. POURING THE FOUNDATION, ANCHOR BOLTS EMBEDDED

MAKE YOUR CHOICE TO BUILD THE CONCRETE BASE.

NOTES: CENTER DISTANCE BETWEEN THE TWO CONCRETE BASES IS 5,170MM, AS SHOWN BELOW.

- ADJUST THE HORIZONTAL WIDTH 5,170MM DISTANCE.
- MUST ENSURE THAT ALL BOLTS EMBEDDED IN CONCRETE BASES ARE ON THE SAME HORIZONTAL STRAIGHT LINE.

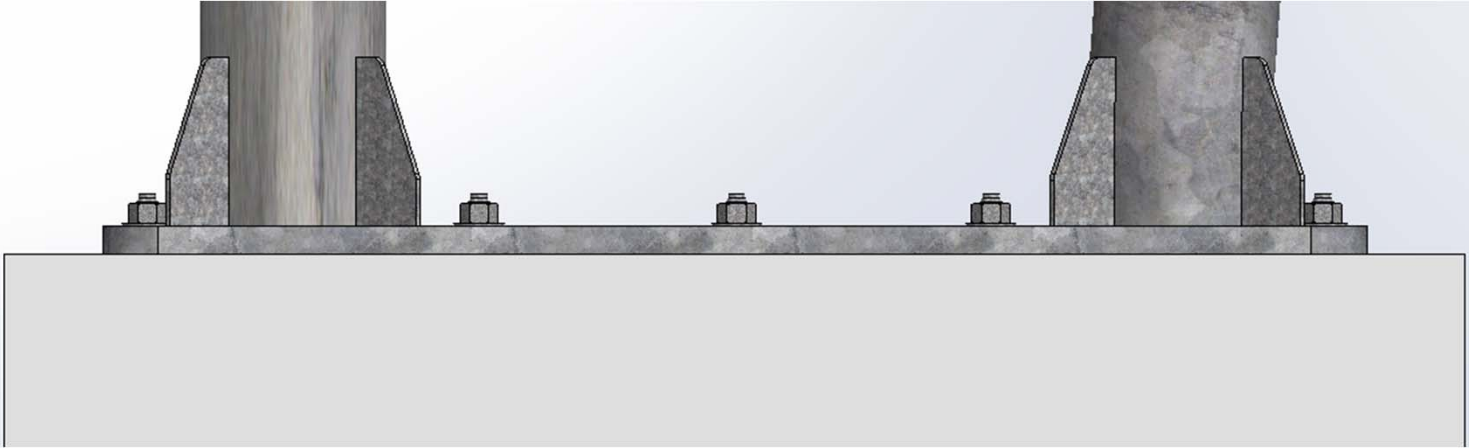


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STEP 2

INSTALL CARPORT MAIN SUPPORT (MS)

AFTER CONCRETE BASE THOROUGHLY SOLIDIFIED, TO FIX CARPORT MAIN SUPPORT (CMS) ONTO THE CONCRETE BASE.



MAKE SURE ALL BOLTS EMBEDDED IN CONCRETE BASES ARE ON THE SAME HORIZONTAL STRAIGHT LINE, WHICH WILL ENABLE CMS ON CONCRETE BASES ARE ON THE SAME HORIZONTAL STRAIGHT LINE.

STEP 3

INSTALL CARPORT MAIN SUPPORT BEAMS

CONNECT CARPORT MAIN SUPPORT BEAM (MSB) WITH CARPORT MAIN SUPPORT. USE BOLT (M20X220) TO CONNECT MSB AND MS, BUT NO NEED TO TIGHTEN UNTIL MSB IS ADJUSTED WELL, AND THEN TIGHTEN THE FIXING.

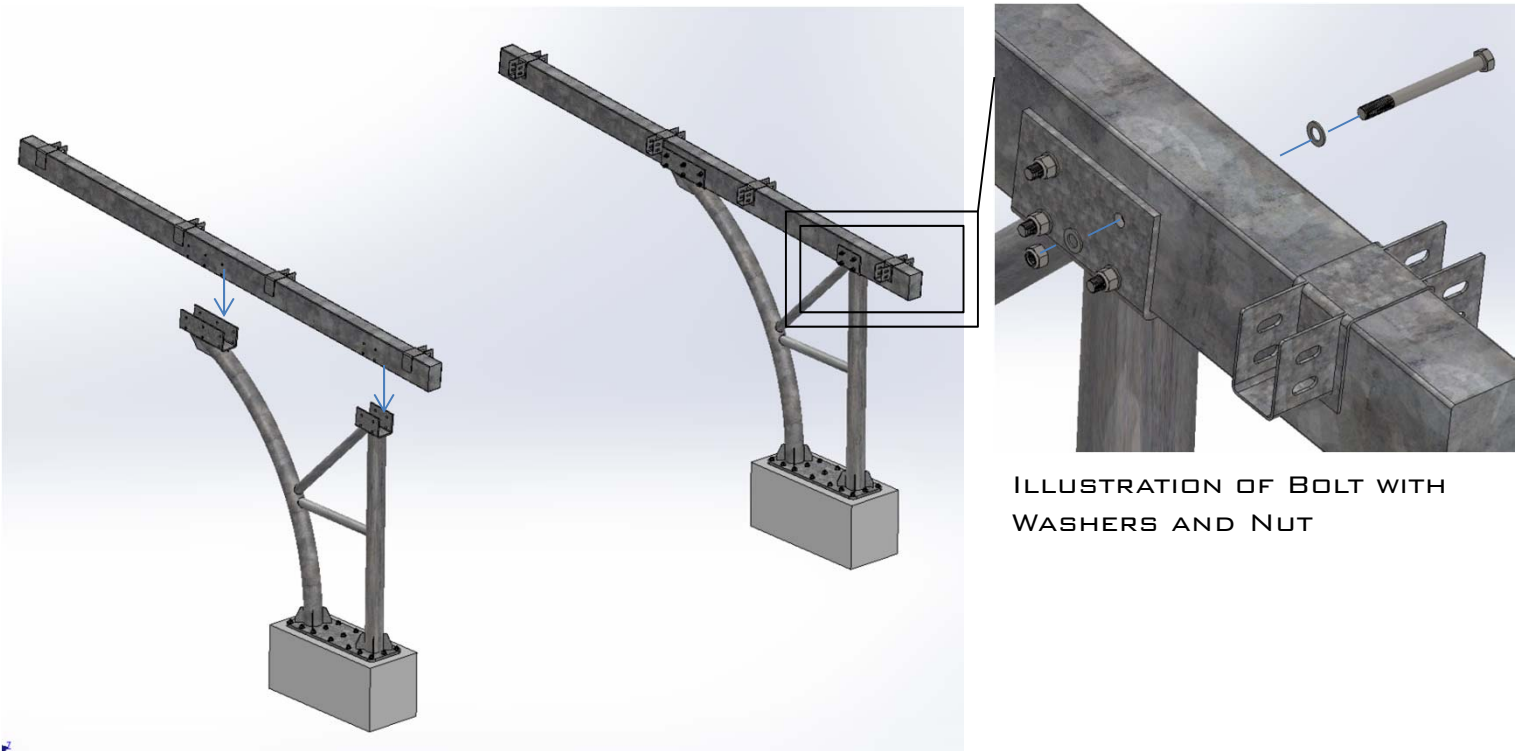


ILLUSTRATION OF BOLT WITH WASHERS AND NUT

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STEP 4

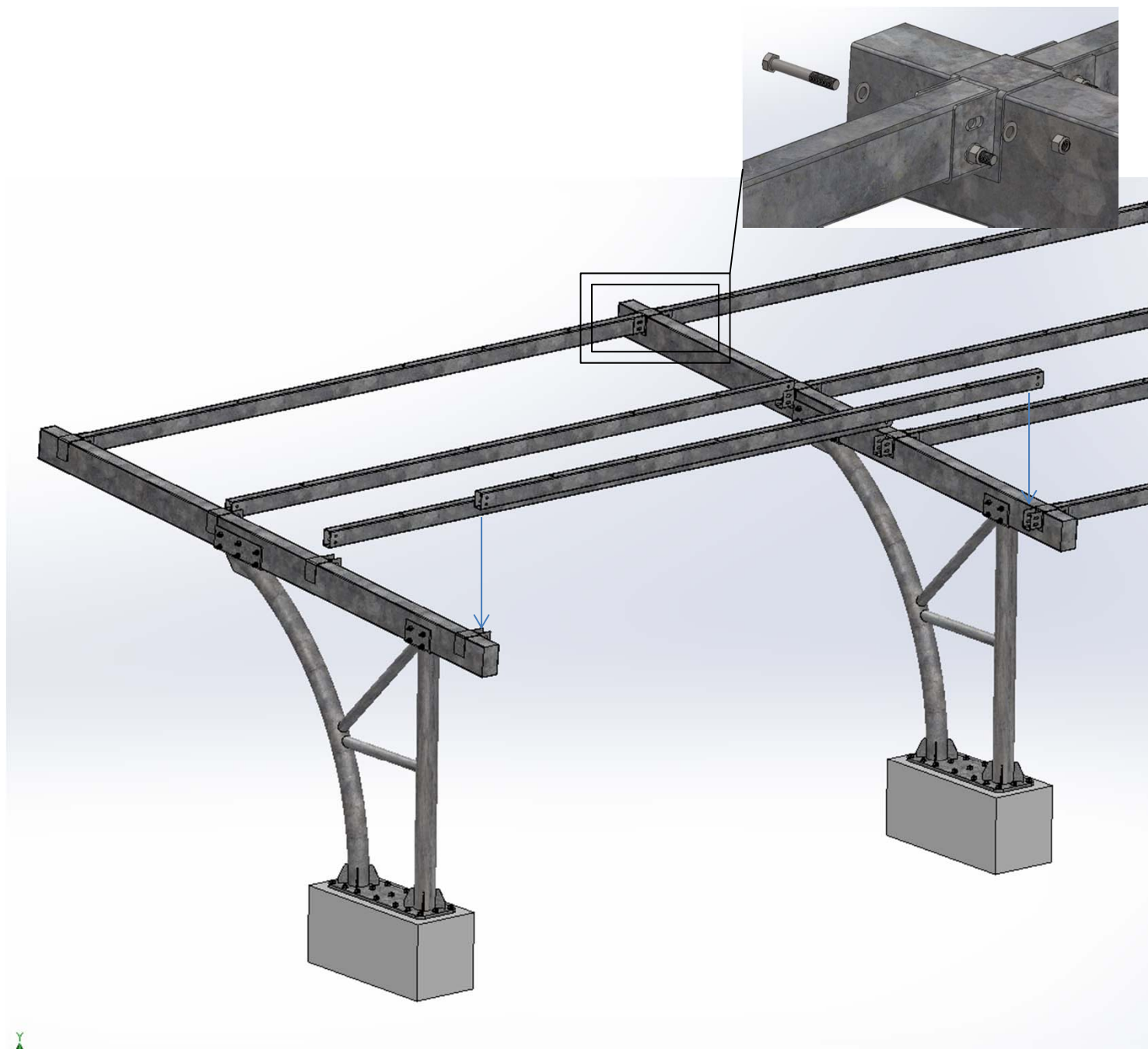
INSTALL CROSS BEAMS

CONNECT CROSSBEAM WITH CARPORT MAIN SUPPORT BEAM (MSB).

USE BOLT 3 (M20X140) TO FIX.

NOTES: WHEN PUTTING CROSSBEAMS, PLEASE PAY ATTENTION TO PLACE DIRECTION.

ADJUST THE CROSSBEAM TO ENSURE THAT EACH VERTICAL MOUNTING HOLES IN THE SAME STRAIGHT LINE. AFTER ADJUSTMENT, TIGHTEN ALL BOLTS.



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STEP 5

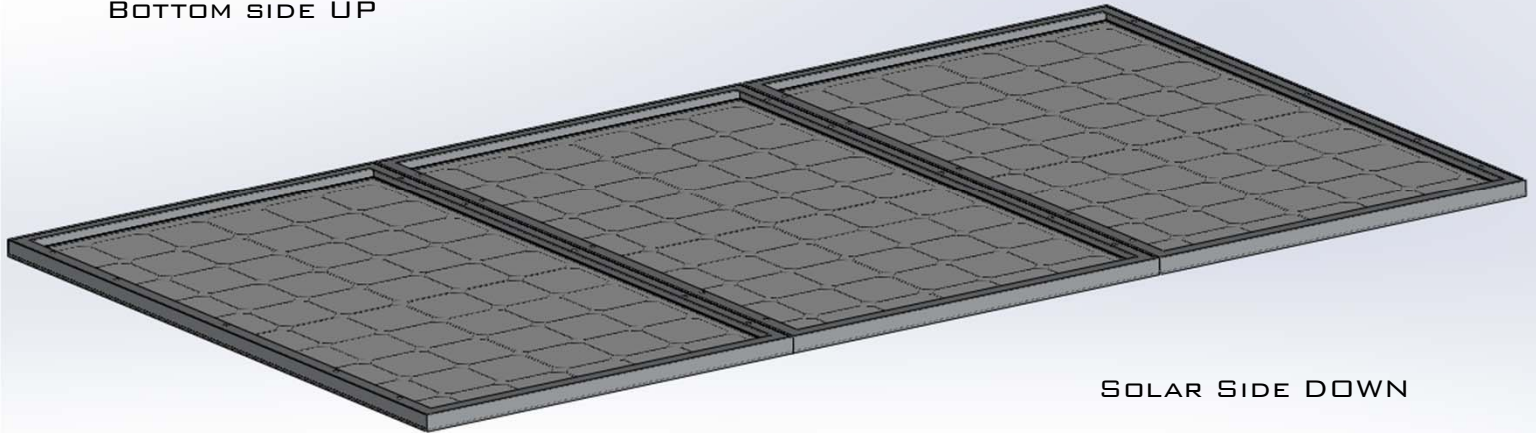
INSTALL RAIL BEAMS (FOR SOLAR MODULES)

BEFORE FIXING 6 RAIL BEAMS WITH 4 CROSSBEAMS, MAKE "PRE-MOUNTED SOLAR MODULE UNITS" (SOLAR MODULES TO MOUNT WITH RAIL BEAMS) FIRST.

AS SHOWN BELOW:

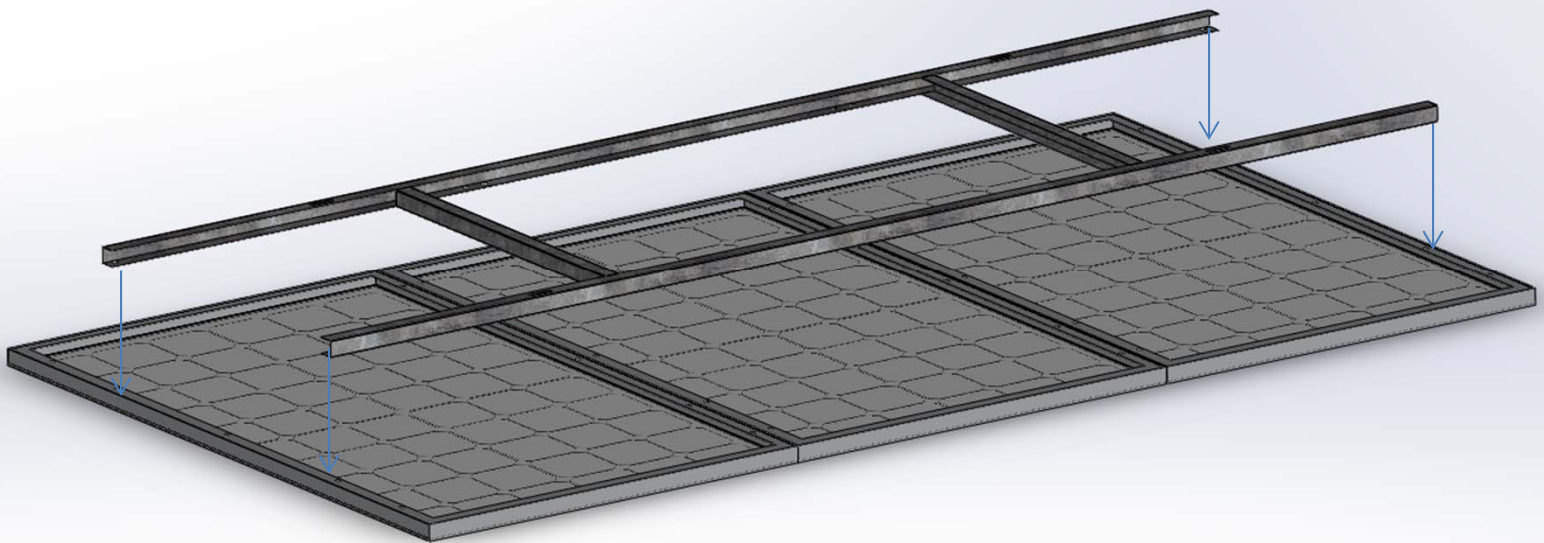
A) TURN SOLAR MODULES ONTO THE REVERSE SIDE, THREE FOR ONE GROUP

BOTTOM SIDE UP



SOLAR SIDE DOWN

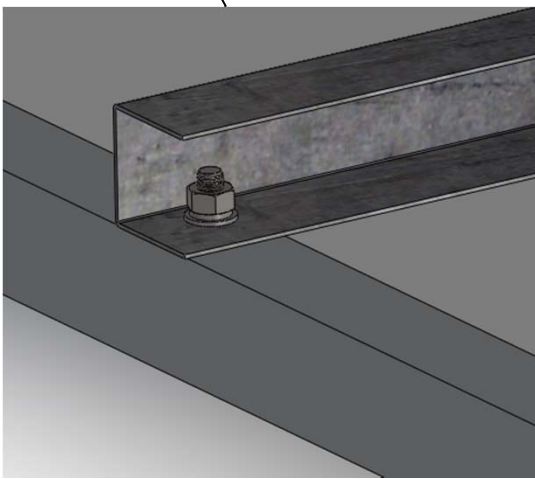
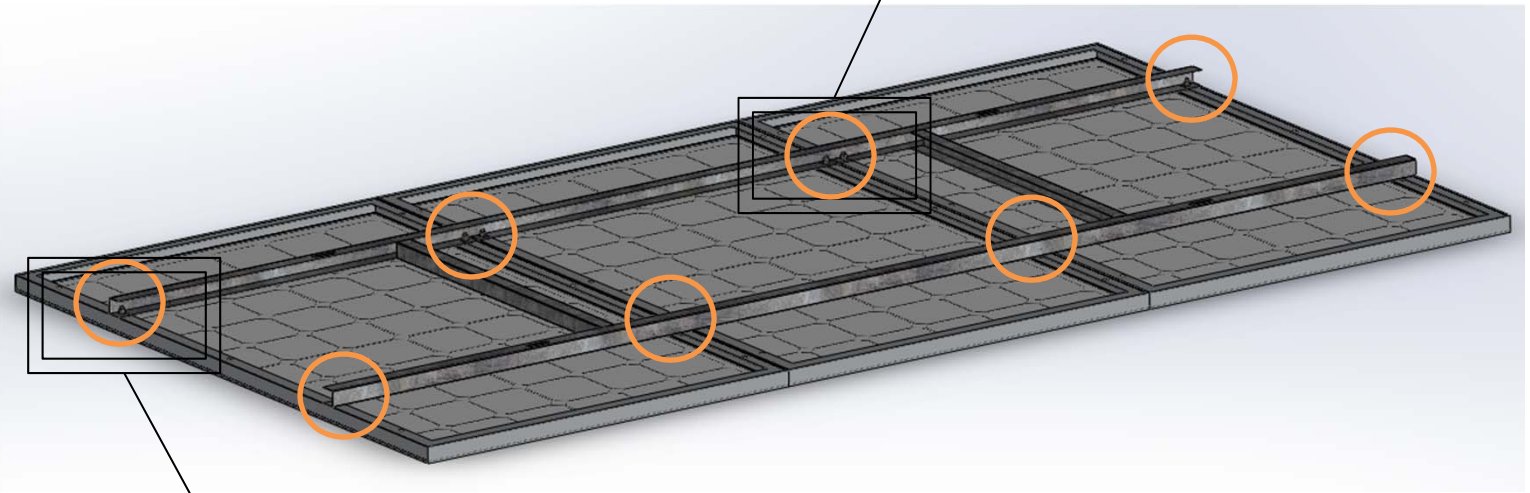
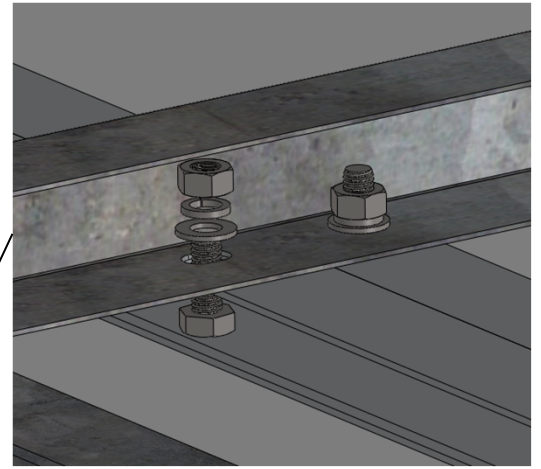
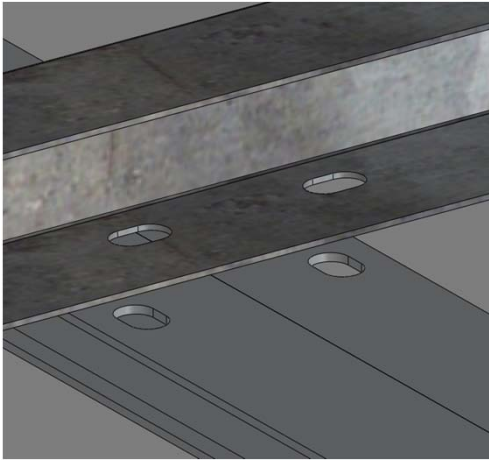
B) PLACE THE RAIL BEAM, ALIGN THE MOUNTING HOLES (RAIL BEAM HOLES AND SOLAR MODULE MOUNT HOLES)



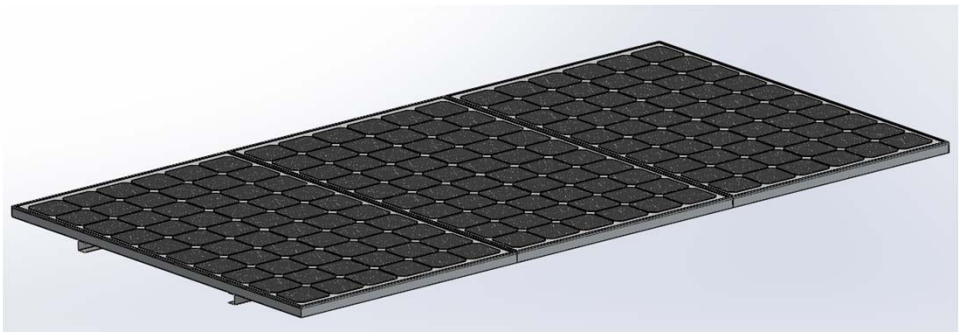
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STEP 5 - CONTINUED

C) USE BOLT (M8X20) WITH LOCK WASHER, WASHERS AND NUTS, QTY OF 4 SETS TO MOUNT 1 SOLAR MODULE



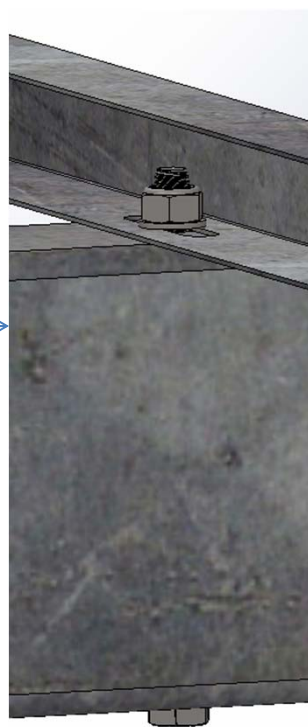
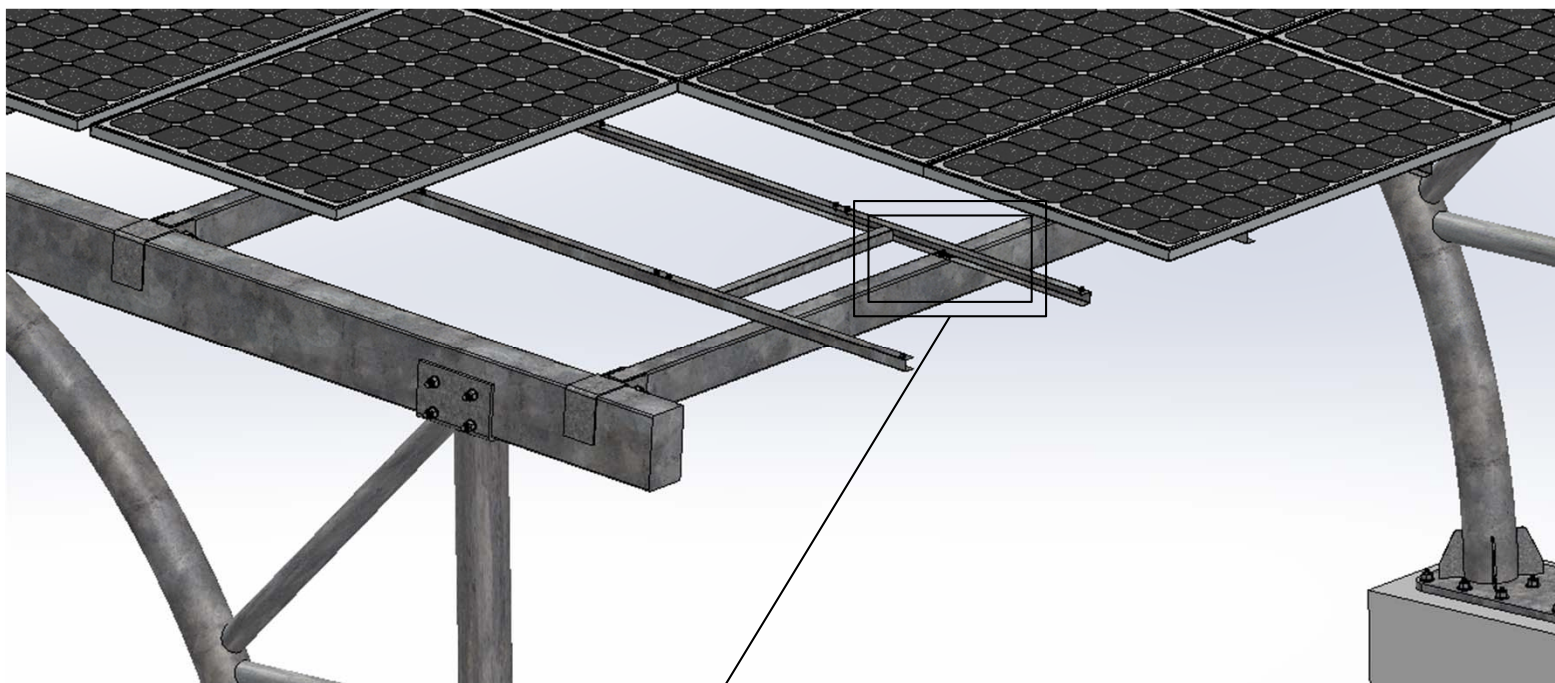
ASSEMBLED VIEW



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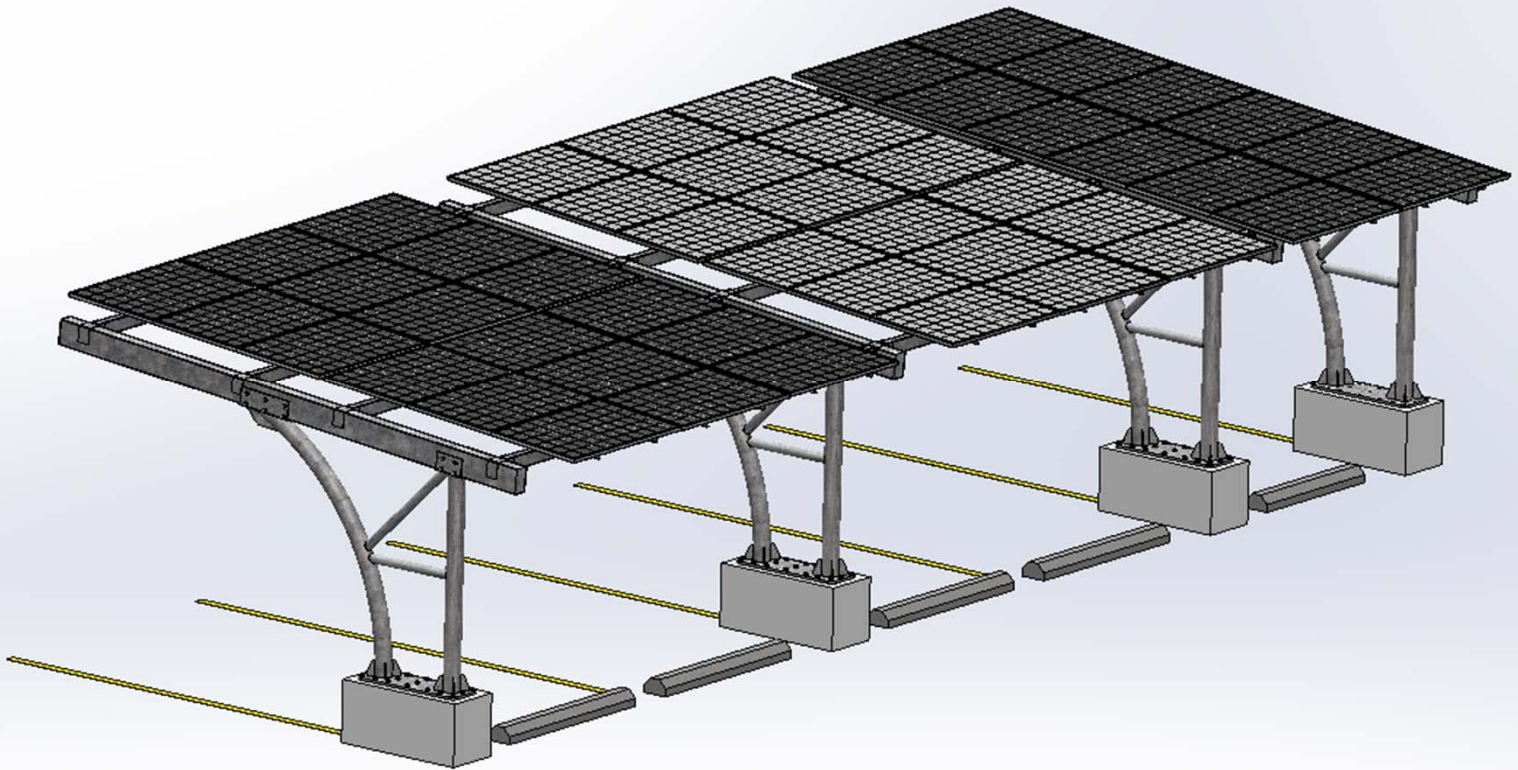
STEP 6

CONNECT 6 RAIL BEAMS (PRE-MOUNTED SOLAR MODULE UNITS) WITH 4 CROSSBEAMS
USE BOLT (M10X180) TO MOUNT



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INSTALLATION IS NOW COMPLETE



SOLUTIONS FOR:

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Industrial
Government

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Flat Mount
Fixed Tilt-Up Mount
Adjustable Tilt-Up Mount
Calculator

Ground Mount
Carport Mount
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