

INTELLIGENT POLE BASE

IPB INSTALLATION MANUAL



All images in this manual are for representative purposes only and not to be used in place of Engineering Drawings.
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Notes:

Important Information

This installation manual is for general reference only. Always refer to a set of engineer-approved & signed drawings for all installation details.

It is the sole responsibility of the installer to ensure the correct footing height, depth and diameter, rebar cage, concrete, fasteners, conduit, wire, etc. and all aspects of the installation meet all required building and electrical codes.

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IN-GROUND FOUNDATION

HOLE PREPARATION:

Always refer to structural details on Engineer-Signed & Sealed Drawings for details.

STEP 1. Determine exact location for IPB install.

STEP 2. Drill engineer-specified diameter hole to engineer-specified depth.

STEP 3. Set forms and Sonotube. Top of concrete footing should be at grade or slightly above in asphalt or concrete installations. When installing in planters and landscaped areas the footing should be a minimum of 2" above grade.

NOTE: Different regions may have different requirements or installation height requirements due to flood frequency, snow plow activity, etc. Always refer to Engineer Drawings for details on footing height above and below grade.

REBAR CAGE:

STEP 4. Use crane to insert CE-qualified rebar cage into hole

STEP 5. Secure anchor bolts to plywood bolt-spacing template within the proper bolt pattern diameter - SEE IMAGE BELOW

STEP 6. Rotate a plywood bolt spacing template so "DOOR" is positioned in the desired direction.

When properly positioned, secure the template to the Sonotube.

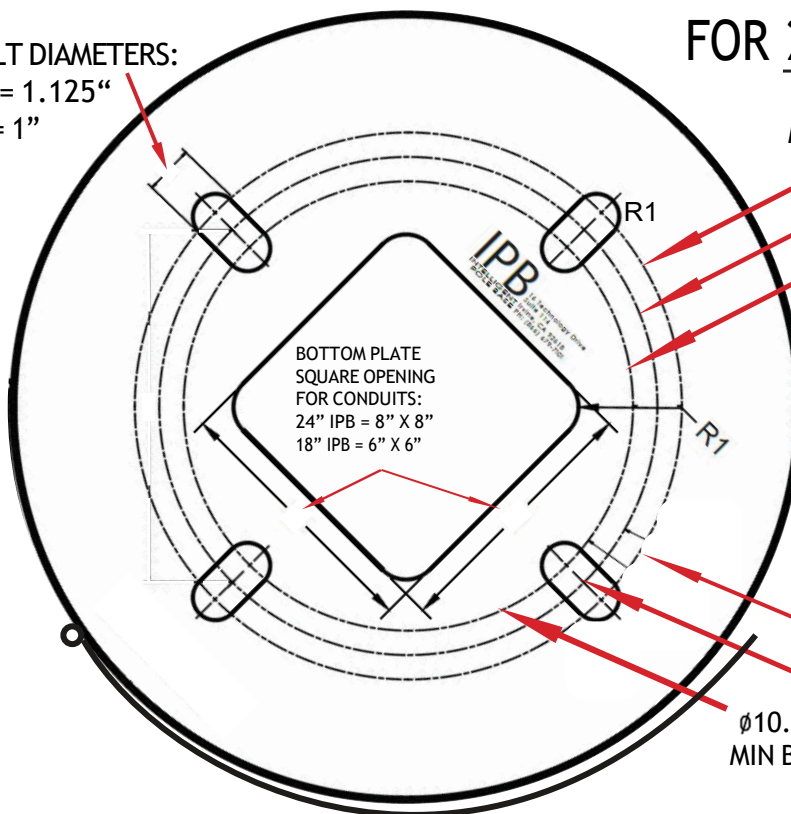


BASE PLATE BOLT PATTERN DIAMETERS

MAX BOLT DIAMETERS:

24" IPB = 1.125"

18" IPB = 1"



FOR 24" IPB's USE:

Ø15.75

MAX BOLT CIRCLE

Ø 15.00 CBC

Ø 14.25

MIN BOLT CIRCLE

FOR 18" IPB's USE:

12.25

MAX BOLT CIRCLE

11.25 CBC

Ø10.25

MIN BOLT CIRCLE

DOOR

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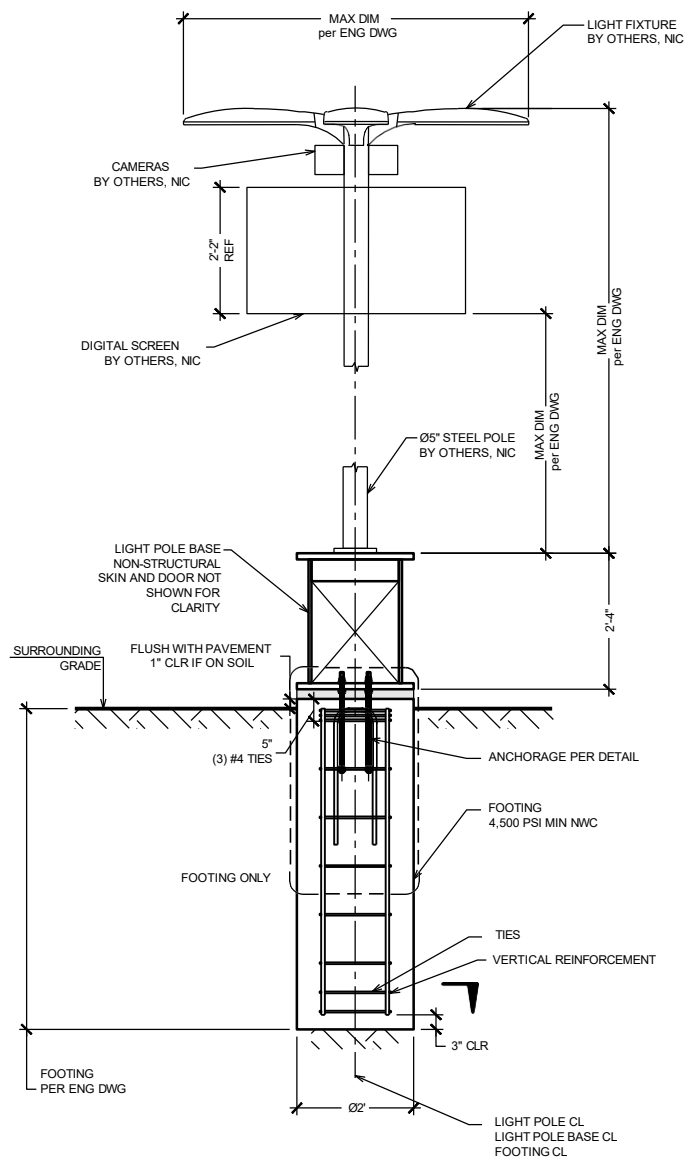
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IN-GROUND FOUNDATION

REBAR CAGE: (cont.)

STEP 7. Adjust anchor bolts to allow 6" of thread above the upper edge of the Sonotube/top surface of the concrete foundation for proper mounting of the Intelligent Pole Base (see **A** below).

STEP 8. Center the rebar cage inside the Sonotube by securing it to the plywood bolt pattern template with tie-wire, so that no part of the rebar cage touches the Sonotube.



A

LIGHT POLE BASE AND FOOTING

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IN-GROUND FOUNDATION

CONDUITS & WIRING:

STEP 9. Run all conduits & wiring to center of the footing, so they will pass thru the square opening in the base of the IPB.
Please refer to the IPB Bolt Pattern Template.

STEP10. GROUNDING - If required, refer to details on Engineering Drawings or Local Building Codes.

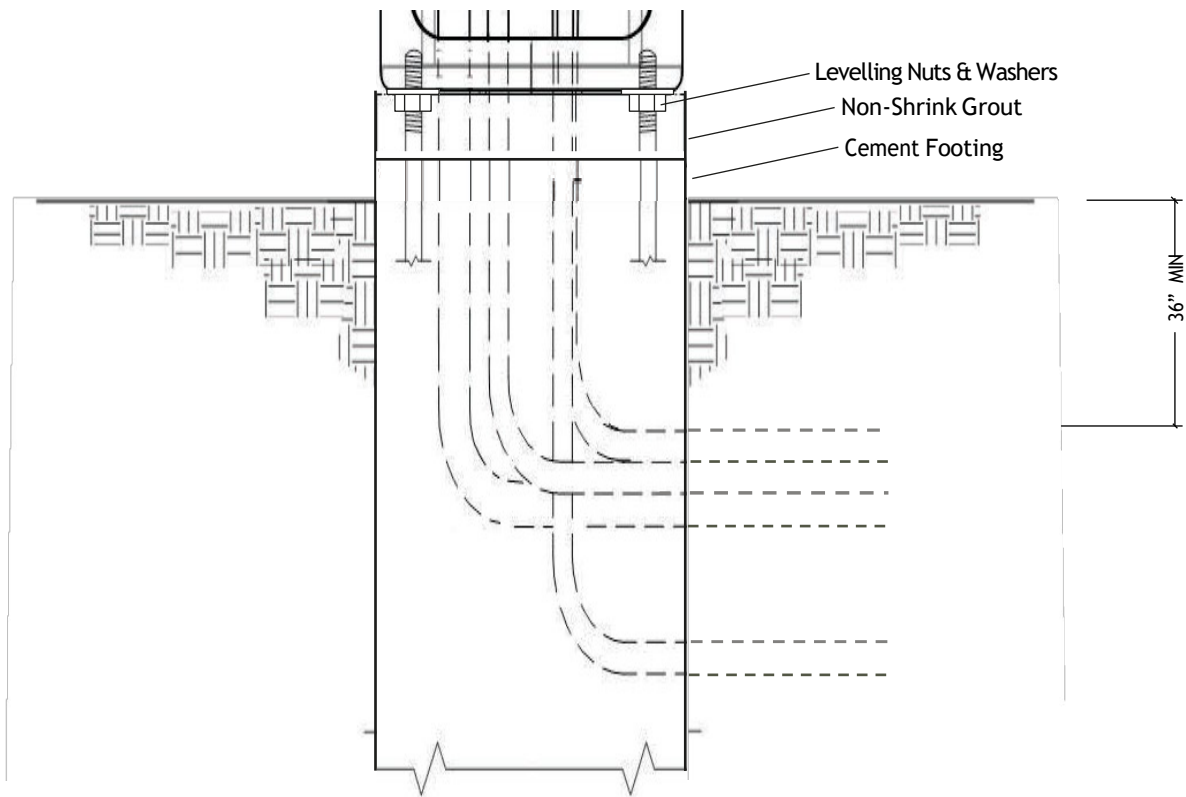
STEP11. Typical Conduit Installation:

- a. Enter thru rebar cage openings a minimum of 36" below grade.
- b. Make 90° sweep-bends up, thru the center of the rebar cage.
- c. Exit thru the center of the bolt-spacing device.
- d. Extend conduit upward a minimum of 12" above the top of the Sonotube

CONCRETE:

STEP 13. Concrete is poured into Sonotube-rebar assembly and vibrated or rodded as-needed.

STEP 14. After sufficient curing time, the forms are stripped and the Sonotube is peeled.



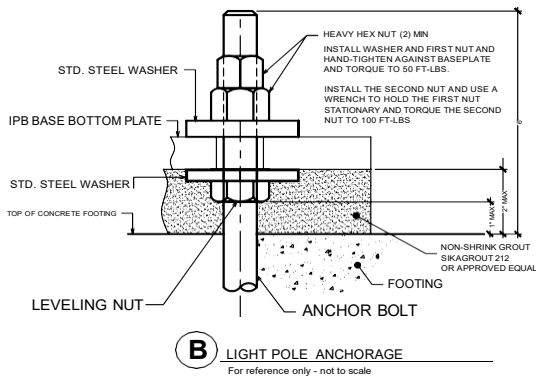
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GASKETS & SECURING THE LIGHT POLE TO THE IPB

SECURING IPB TO FOUNDATION:

- STEP 15. Once proper curing of the concrete has been confirmed, remove the bolt-spacing template.
- STEP 16. Add a leveling nut to each anchor bolt and adjust so the bottom of each nut is no more than 1" above the top surface of the concrete, then add a washer on top of each of the 4 leveling nuts.
- STEP 17. With the door of the IPB rotated to face the correct direction, carefully lower the IPB into place, aligning the bolt openings in the bottom of the IPB onto the 4 anchor bolts.
- STEP 18. With the IPB resting on top of the 4 anchor bolt washers, adjust the leveling nuts until the top plate of the IPB is level. Once the IPB is confirmed to be level, install a washer and nut to each anchor bolt, hand tighten all 4 nuts, then torque each to 50 ft-lbs. Install the second nut onto the first nut, and use a wrench to hold the first nut stationary and torque the second nut to 100 ft-lbs.



- STEP 19. Add dry-pack to fill the gap between bottom of IPB and top of cement foundation.

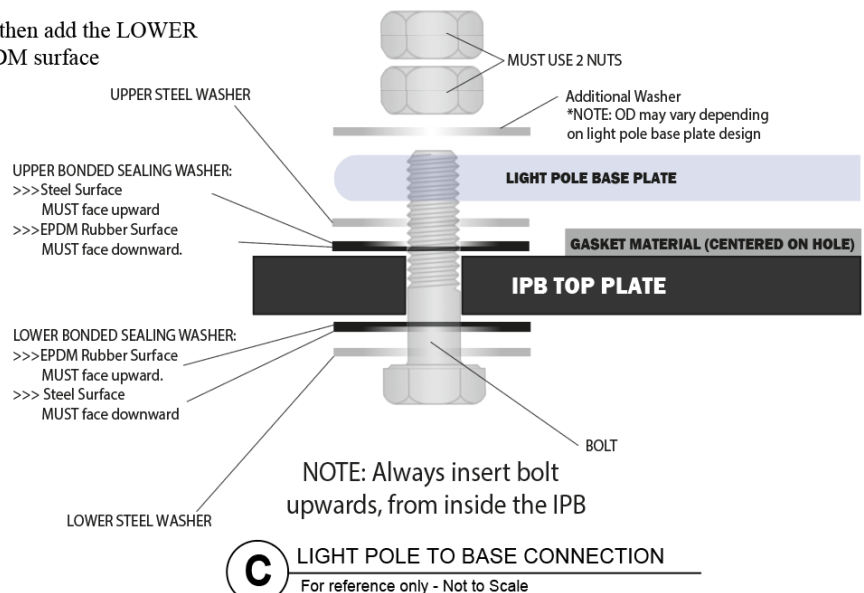
SECURING LIGHT POLE TO IPB: (PROVIDED BONDED SEALING WASHERS MUST BE USED)

- STEP 20. To prevent water intrusion, center the silicone foam gasket over the center-opening in the top of the IPB.
- STEP 21. Using a provided bolt, add the lower steel washer, then add the LOWER BONDED SEALING washer, making sure the EPDM surface is facing upwards as shown in image "C".

- STEP 22. Insert the bolt & washer assembly from Step 21 upwards, from inside IPB, through a bolt hole and, while holding the bolt in position, add the UPPER BONDED SEALING washer to the exposed threads, sliding it downward until the bolt is held securely in place and the EPDM surfaces of the UPPER and LOWER Bonded Sealing washers make contact with the UPPER and LOWER surfaces of the IPB TOP PLATE. Repeat with remaining 3 sets of bolts & washers.

- STEP 23. Add the upper steel washer to all 4 bolts.

- STEP 21. Re-check alignment of the center-hole gasket, then lower the light pole onto the 4 exposed mounting bolt & washer assemblies. Then, add additional washers to all 4 bolts and secure by adding 1 nut to each bolt. Hand-tighten all 4 nuts, then torque each nut to 100 ft-lbs. Then, add a second nut to each bolt and torque to 100 ft-lbs.



CRITICAL STEPS FOR WARRANTY COVERAGE

TO FULLY PREVENT WATER INTRUSION INTO THE IPB, THE LIGHTPOLE MUST BE ENTIRELY SEALED-CLOSED. THIS INCLUDES THE TOP-END OF THE POLE, ALL OPENINGS AND ALL FASTENER LOCATIONS. FAILURE TO DO THIS MAY RESULT IN WATER DAMAGE TO INTERNAL ELECTRONIC COMPONENTS AND WILL VOID THE WARRANTY. "When closing, significant force may be required to properly seat the door and seals. After closing and locking the door, the key must be removed, prior to exposure to any moisture, to ensure that the door has been fully closed and the seals properly seated."

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