

INSTALLATION AND OPERATION MANUAL

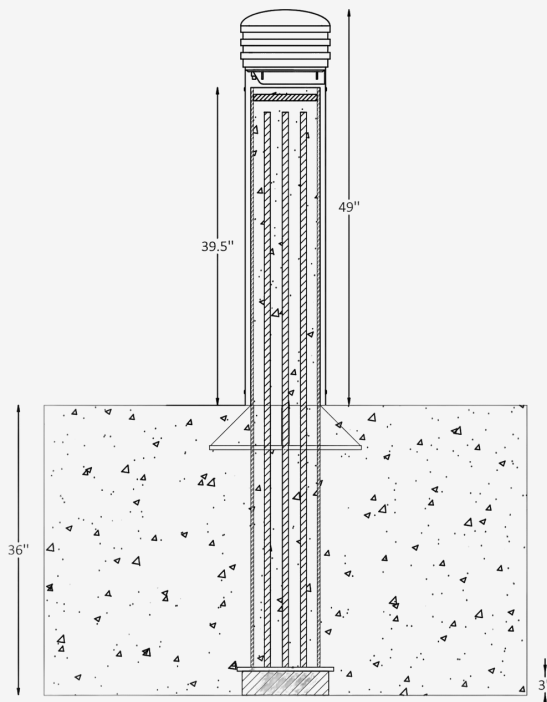
Security Bollard / M30 (ASTM F2656-07) / WRD-SB

IMPORTANT: Carefully read all instructions before installing the fixture. Ignoring these guidelines could result in death, severe injury, or significant property damage. Keep these instructions for future use.

⚠ WARNING! RISK OF FIRE, ELECTRIC SHOCK, OR SERIOUS INJURY

- Always turn off power at the circuit breaker before beginning installation, maintenance, or service on the fixture.
- Installation should be carried out by a certified electrician in accordance with the National Electrical Code (NEC) and applicable local regulations.
 - Confirm compatibility between the fixture's rated voltage and the electrical supply before connecting.
 - LED elements are delicate electronic parts. Do not tamper with sealed sections of the fixture or touch LEDs with bare hands or tools.
- Avoid installing the fixture on circuits shared with heavy-duty equipment such as HVAC systems or motors, as this may expose it to harmful power surges.
 - The included driver or transformer must not be bypassed or substituted. Use the fixture only in its original configuration.
- Fixtures must be connected in parallel, each with independent leads. Do not connect in series or daisy-chain multiple units.
- Factory-installed wiring must remain unmodified. Do not cut or alter pre-stripped coaxial or pendant cables.
- When making electrical connections, use only UL-certified waterproof connectors suitable for outdoor use.
- Ensure the mounting surface or foundation is stable, level, and structurally capable of supporting the fixture's weight.
- Select proper mounting hardware for the specific surface type. To preserve the powder-coated finish, avoid direct contact with concrete or rough materials that may cause abrasion or chipping.

INSTALLATION DIAGRAM



MINIMUM GROUND CONDITIONS REQUIRED (per ASTM F2656-07):

- Concrete must have a minimum unconfined compressive strength of 4,000 psi.
- No rebar is to be used in the foundation.
- Approximate concrete volume per bollard: 1.5 cubic yards.
- Minimum installation area for 1 bollard: 60" (L) × 30" (W) × 36" (D).

CERTIFICATION

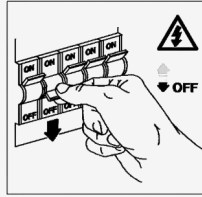


Step 1

Carefully unpack the fixture and inspect all components for damage before beginning installation.

Ensure that the contractor has routed electrical wiring to the installation location and that the power supply is switched off.

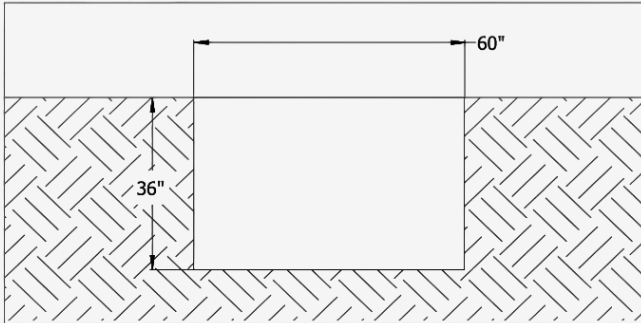
Always check for hazards such as water pipes, gas lines, and underground wiring before digging. Note: You may need a permit to dig to certain depths or in certain locations.



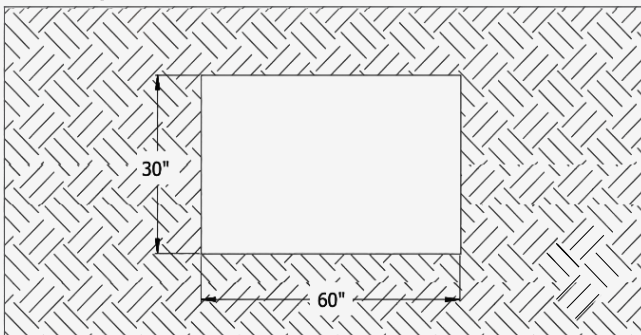
Step 3

Plan the layout and dig a rectangular hole with a width of 30", length of 60", and depth of 36".

STEP 3 (Side View)

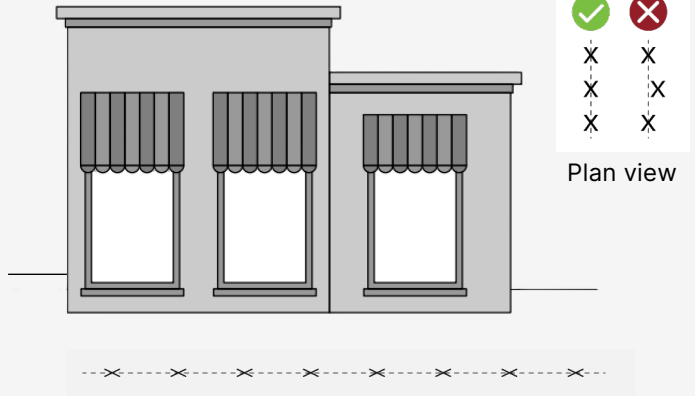


STEP 3 (Top View)



Step 2

Study the site plans and mark the intended location of each bollard on the plan.



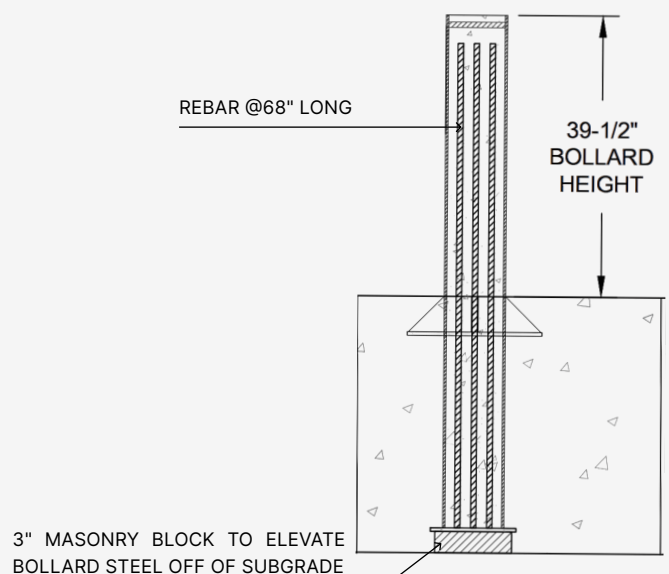
Step 4

Set a brace (3" masonry blocks or chairs) to elevate the bollard steel off the subgrade.

This will ensure the bollard is raised so that the top of the bollard gusset is flush with the finished surface grade. The final bollard height above grade should be 39.5".

Lower the bollard into the site and onto the brace. Note: Crash-rated bollards are heavy—to prevent accidents and injuries, ensure the proper resources are available to set into place.

INSERT VERTICAL REBAR INTO BOLLARD TUBE



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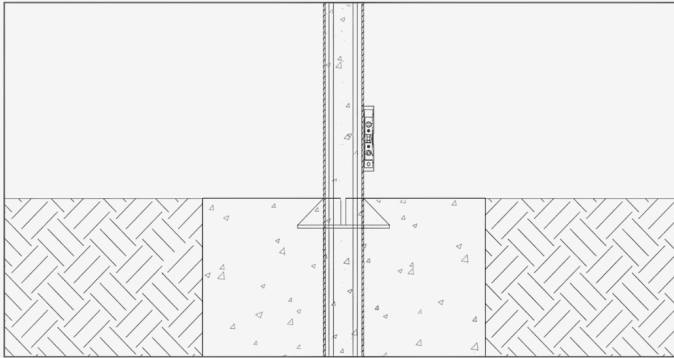


Step 5

Pour concrete. Use concrete with a minimum compressive strength of 4000 PSI. Ensure the concrete mix maintains the proper water-to-mix ratio — the consistency should resemble moldable clay.

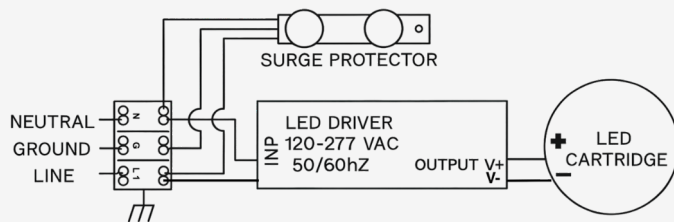
Fill the bollard tube and foundation completely with concrete, continuing until the concrete is level with the finished surface grade.

During placement, vibrate the concrete to eliminate air pockets and ensure full consolidation around the bollard and reinforcement.



Step 7

Wait until the concrete has fully set.



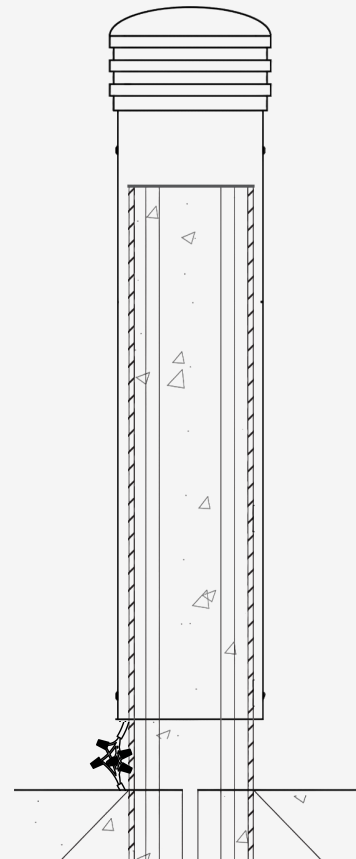
Connect the wires as follows: black to line (L), white to neutral (N), and green or bare copper to ground (GND), using the wire nuts included in the hardware kit. Make sure excess wires are secured away from any metal surfaces to prevent contact.

Step 6

Set the Bollard

Hold a level against the side of the bollard and ensure that it is plumb. Note: Once the concrete has cured, there will be no way to make any adjustments.

Patch the surface around the bollard to make it smooth with the existing surface.



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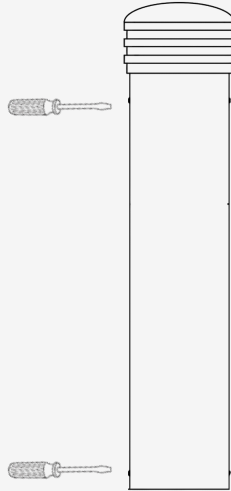


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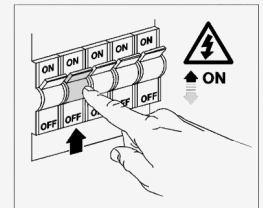
Step 8

Place the cover onto the installed base and fasten it securely using the provided screws.



Step 9

Once installation is complete, turn the power ON at the main fuse box. The fixture should now operate properly.



MAINTENANCE NOTES

Clean fixture surfaces using a soft cloth and mild detergent.

What to Avoid

- Do not use abrasive cleaners or scouring pads.
- These can scratch the powder coat, exposing aluminum to oxidation.
- Avoid strong solvents like acetone, paint thinner, or alcohol-based cleaners.
- They can break down the powder coating's integrity.
- Don't use high-pressure washers too close to the surface.
- Excessive pressure may damage seals and finishes.
- Never clean under direct sunlight or while hot.
- This may cause streaking or spotting.

CERTIFICATION



LIMITED WARRANTY

A We Lighting warrants that its outdoor bollards and column luminaires are free from defects in materials and workmanship under normal use and conditions for a period of [5 years] from the original date of purchase. This warranty is valid only when the product is installed and operated in accordance with the instructions provided in this manual, the National Electrical Code (NEC), and all applicable local building and electrical regulations.

This warranty does not apply to:

- Damage resulting from improper installation, failure to follow installation instructions, or insufficient maintenance.
- Use with incompatible or unstable power supplies, including unauthorized modifications of the fixture or its components.
- Mechanical damage, corrosion, or deterioration caused by installation in conditions that exceed the product's rated specifications (e.g., extreme temperature, humidity, wind load).
- Electrical failure due to power surges, lightning strikes, voltage irregularities, or operation on circuits shared with inductive loads (e.g., HVAC units, pumps, motors).
- Mounting on unstable or unapproved foundations, including surfaces not rated to bear the weight or vibration load of the fixture.
- Installation in submerged or continuously wet environments, unless explicitly rated for such conditions (e.g., IP68 or higher).
- Exposure to aggressive substances such as road salt, industrial chemicals, oil, or airborne pollutants that may degrade the materials or finish.

Warranty Claims:

To initiate a warranty claim, please contact A We Lighting's Customer Service team. You will be required to provide:

- Proof of purchase (invoice or receipt)
- A detailed description of the problem
- Photographic evidence of the issue, including installation site and close-up views of the defect

A We Lighting reserves the right to inspect the product (either on-site or via return shipping) to determine whether it qualifies for coverage under this warranty.

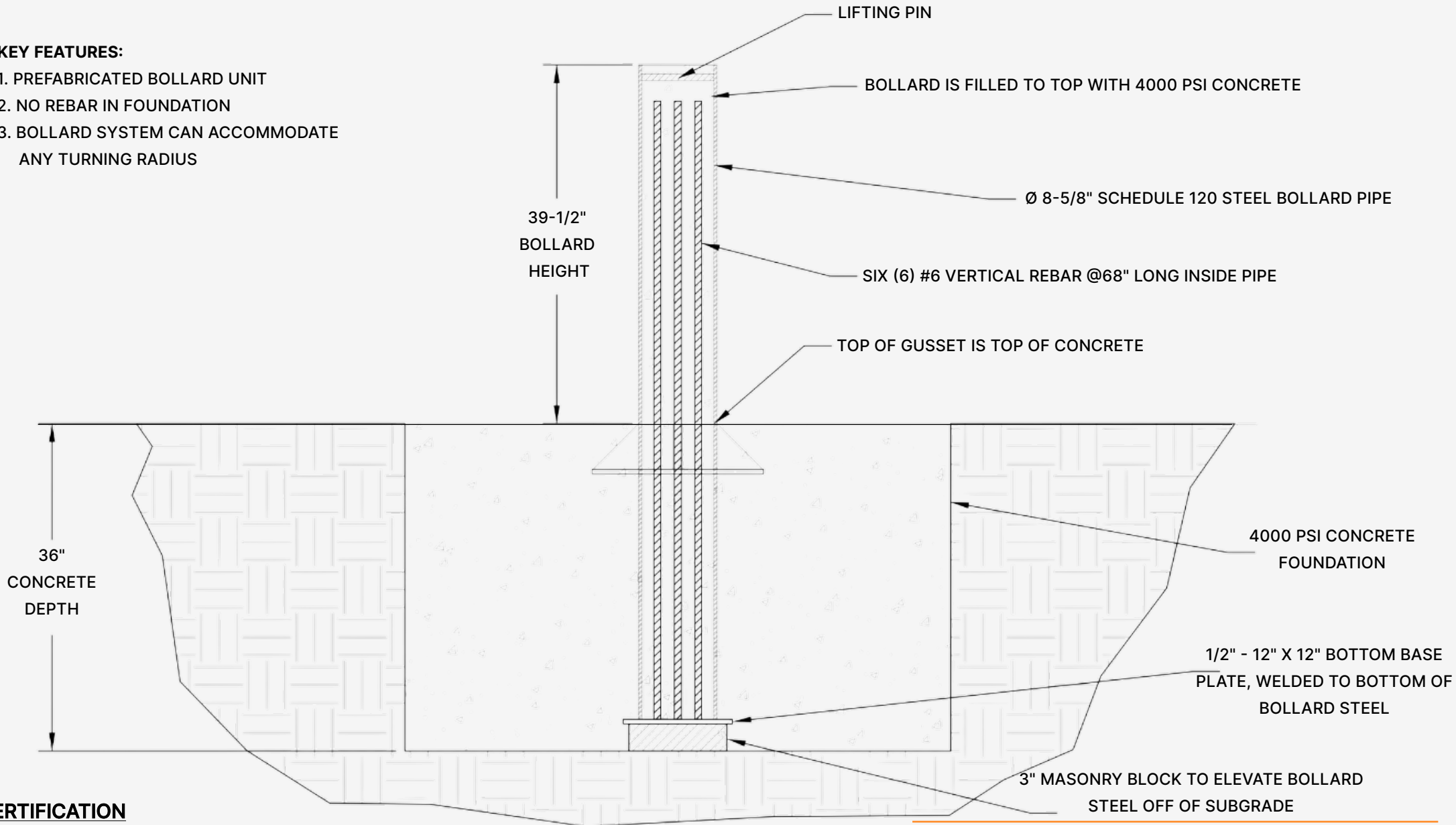
CERTIFICATION



TYPICAL SINGLE BOLLARD INSTALLATION

KEY FEATURES:

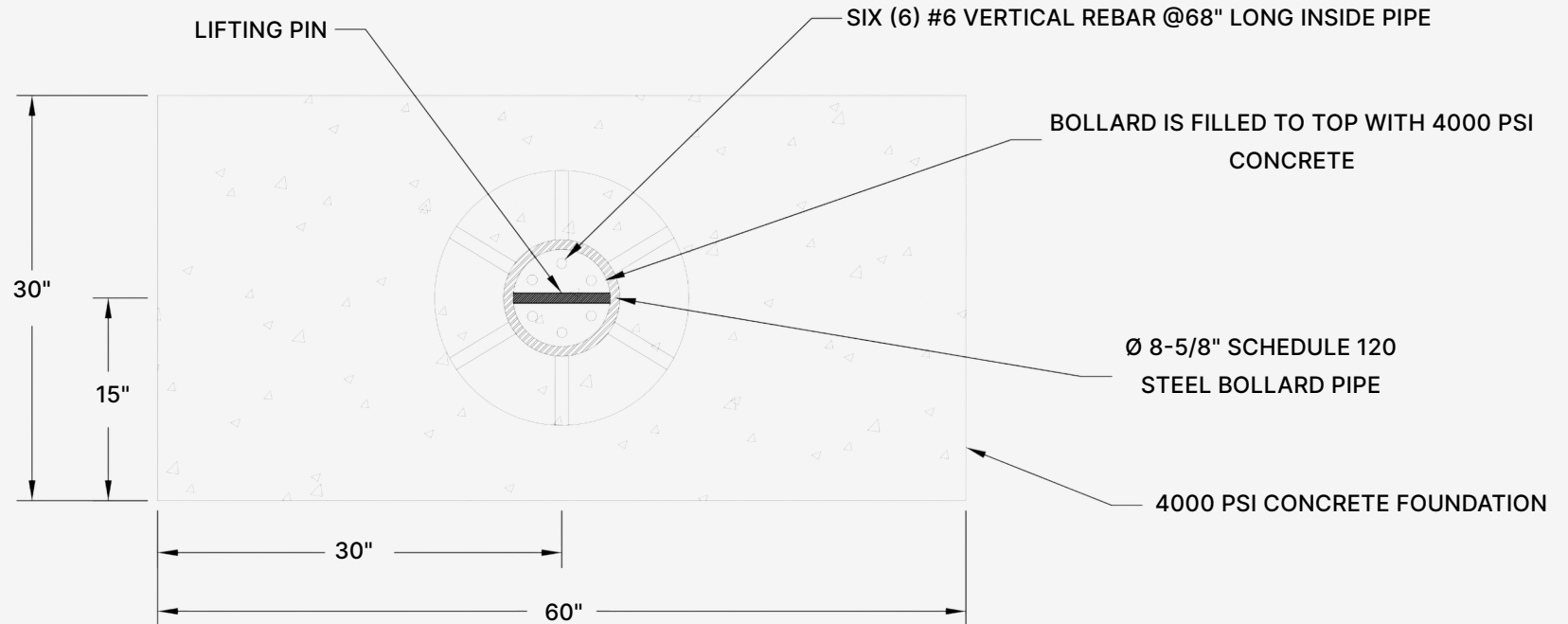
1. PREFABRICATED BOLLARD UNIT
2. NO REBAR IN FOUNDATION
3. BOLLARD SYSTEM CAN ACCOMMODATE ANY TURNING RADIUS



CERTIFICATION



TYPICAL SINGLE BOLLARD INSTALLATION



CERTIFICATION

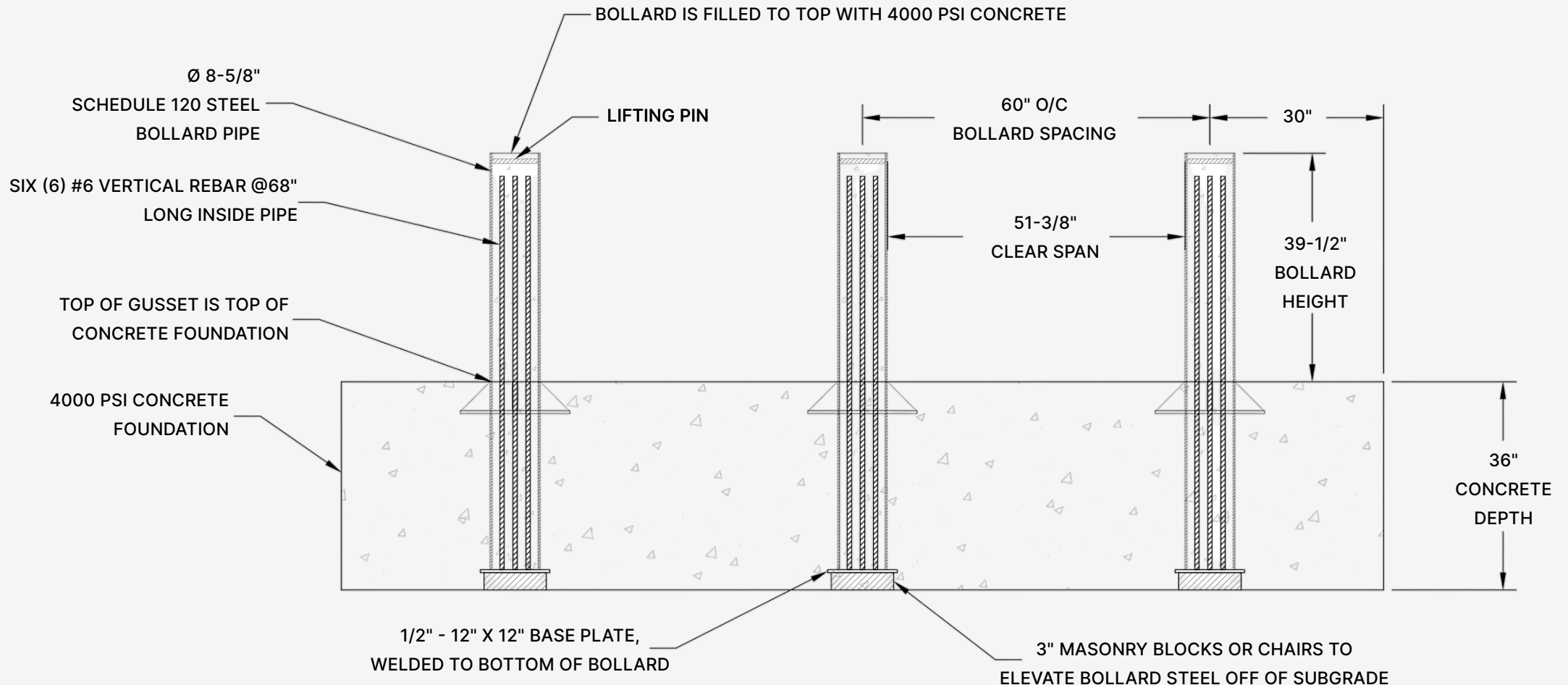


TYPICAL BOLLARD ARRAY INSTALLATION

KEY FEATURES:

1. PREFABRICATED BOLLARD UNIT
2. NO REBAR IN FOUNDATION
3. BOLLARD SYSTEM CAN ACCOMMODATE ANY TURNING RADIUS

NOTE: MODIFIED SPACING FOR SITE
SPECIFIC CONDITIONS AVAILABLE.

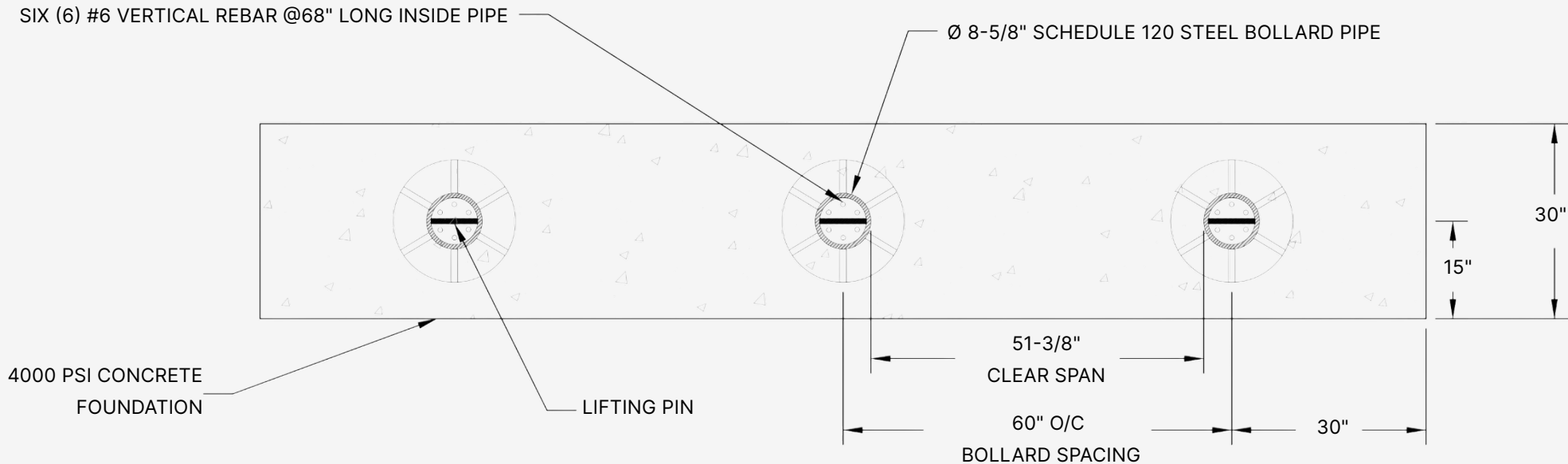


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TYPICAL BOLLARD ARRAY INSTALLATION

NOTE: MODIFIED SPACING FOR SITE
SPECIFIC CONDITIONS AVAILABLE.



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Vehicle Attack Direction

CERTIFICATION

