

# *Prosperity & Chariot Top* Installation Report

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## JENSEN CONSERVATION SERVICES, INC.

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*Prosperity* and the chariot top were transported to Minnesota and placed in storage April 20, 2015 to await suitable weather for installation. The sculpture components were re-installed on the *Quadriga* monument April 29, 2015.

Tuesday, April 28, 2015, sky facing surfaces of the original L2x2x1/4" mild steel stiffeners inside the chariot were lightly cleaned with 3-M abrasive pads to remove white residues of unidentified mineral accretions. Black painted steel stiffeners were lightly top-coated with Rust-O-Leum Rust Reformer, applied by spray. A newly manufactured stainless steel plate was set inside the chariot top. Copper sides of the chariot top were secured around the 316 grade stainless steel plate (1/8" thick); the cleaned and gilded historic copper plate was set over the stainless steel. Assembled layers were secured with pipe clamps while holes in the newly manufactured stainless plate were aligned with existing bolt holes through the copper plate, copper sides, and the stiffeners. Two additional holes were created on the back edge of the copper top through the leading edge of the vertical copper panel, to stabilize the corner joints, and were secured with 1/4" stainless steel bolts.

Five newly manufactured internal "statue hold down straps" or stainless steel "brackets" were secured to the chariot using stainless steel anchor bolts measuring 5/16" diameter to replace the failed 1/4" diameter bronze bolts. A total of 10 anchors were installed. Proper right and left sides of the copper top of the chariot were secured using 1/4" diameter pan head stainless steel bolts to replace former rivets. Bolts were installed through existing holes. Bolt heads were disguised with polyester fill material (Bondo body putty) and 23 karat gold leaf.

Lateral bars were re-attached to the hips of the statue and the outermost horses. New brass bolts were used to replace existing (5/16") in the lower attachment on the proper left horse. The lower opening in the anchor plate on the horse located to the far, proper left of the *Quadriga* was tapped to sharpen damaged threads before securing the bolt.

The modifications to the back of the MINNESOTA banner which includes 8 brass bolts and 2 straps were re-used. These modifications were created and installed during the 1995 restoration to dampen the rotation of the banner around the pole.

The pole supporting the MINNESOTA banner was secured to the copper and stainless steel plates of the chariot top with a newly fabricated stainless steel support. The support includes a cylindrical collar welded to a square base. Surfaces are primed and gilded. The support is secured to the copper and stainless steel plates with two stainless steel bolts of 1/4" diameter. Weep holes were included in the support and both copper and stainless steel plates. Two set screws, installed through tapped holes in the cylinder wall secures the upright, slanted pole at

the desired placement. The leading edge of the gap between the cylinder wall and pole was filled with silicone caulk and covered in 23 carat gold leaf.

To summarize conservation treatment, as proposed, all copper metal of *Prosperity*, including the staff and MINNESOTA banner and the copper plate from the chariot top have been cleaned to bare metal by dry abrasive methods using very fine grade glass beads. The bare metal was coated by spray with Sherwin-Williams DTM Wash Primer. A second primer coating, yellow tinted Southern Polyurethane Epoxy Primer was also applied by spray.

Surfaces were gilded with 23 Karat gold leaf applied to sizing. After the sizing had cured for approximately 30 days, the bright metal surfaces were toned first by selective application of brown acrylic paints introduced by spray into folds of drapery to deepen the low lights in shadow. All gold surfaces were then toned by brush application of Johnson's Paste Wax.



*Prosperity* is illustrated with rigging and braces, ready for the lift to the *Quadriga*. Bubble wrap protects gold surfaces during the lift.



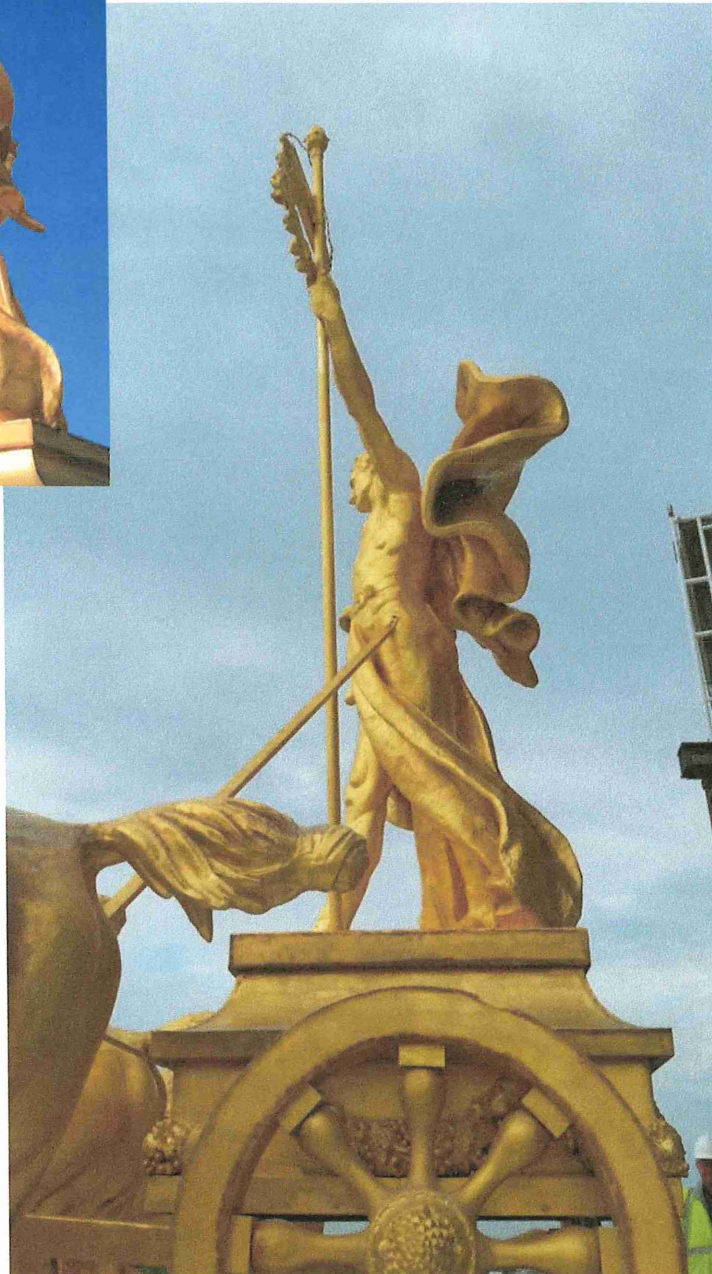
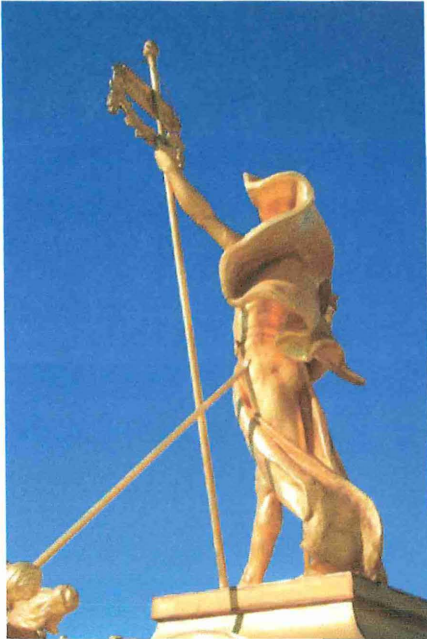


*Prosperity* is illustrated during the lift by Rocket Crane of New Hope, MN.

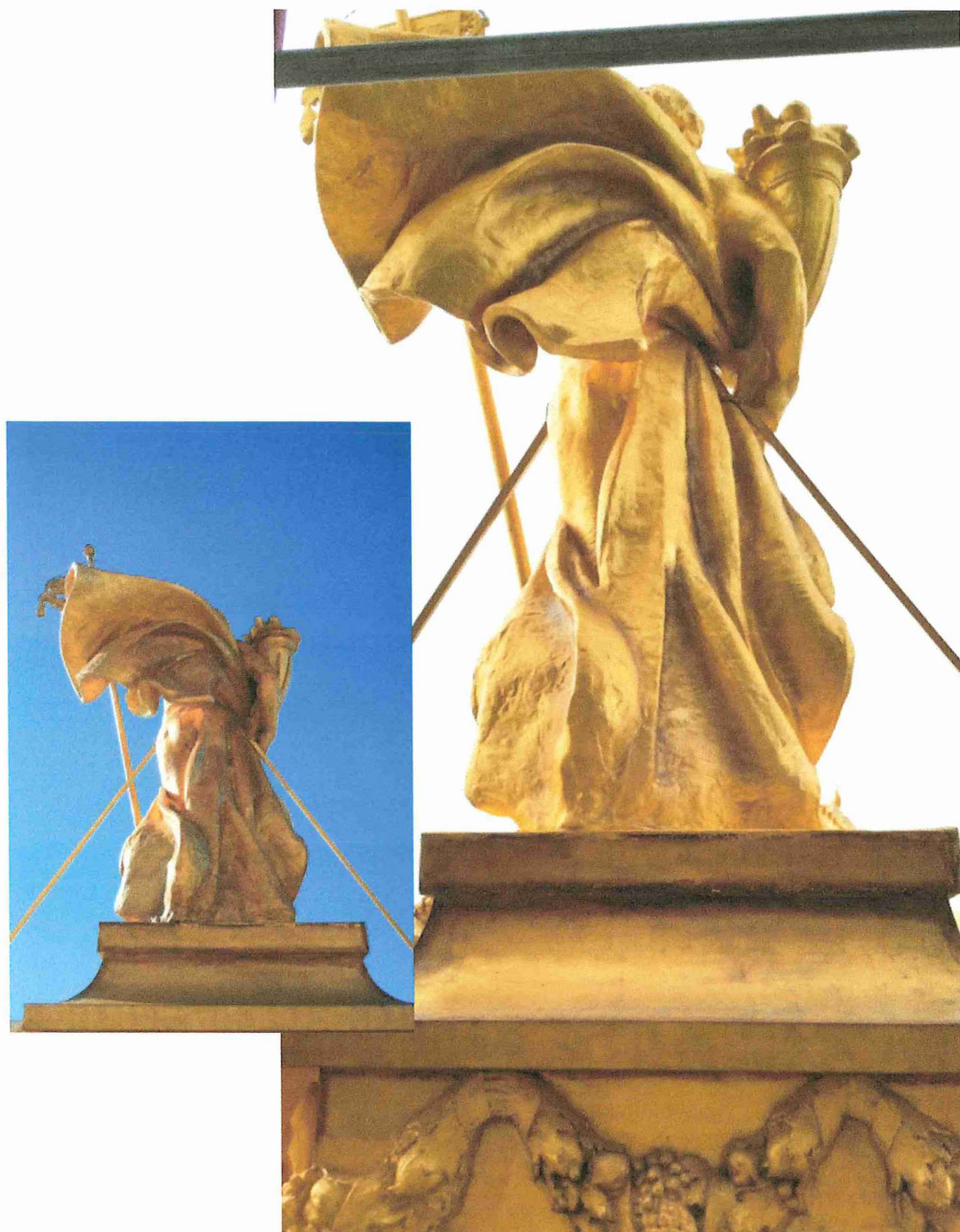


*Prosperity* is illustrated after installation, front view. Smaller insert is before treatment.



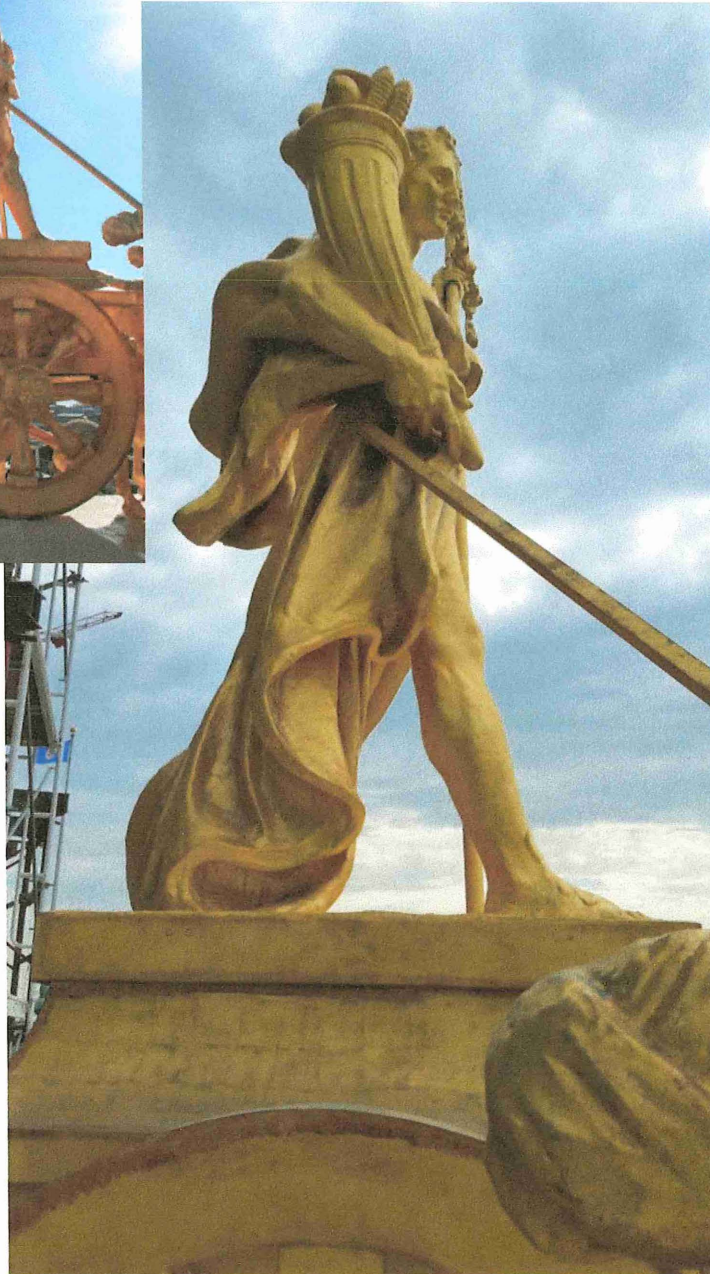
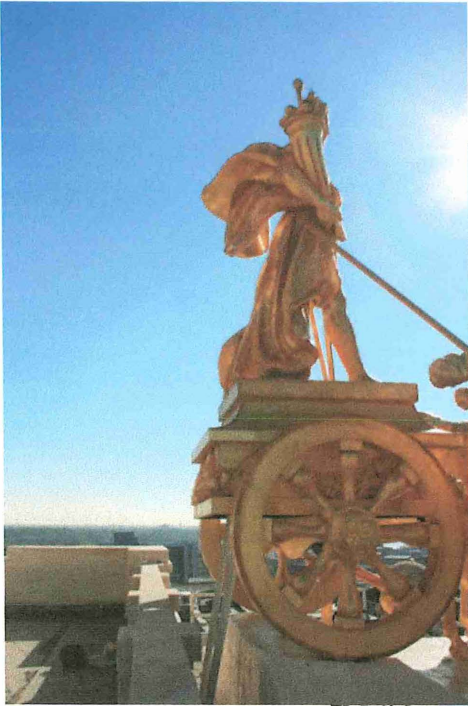


*Prosperity* is illustrated after installation, proper left side. Smaller inset image is before treatment.

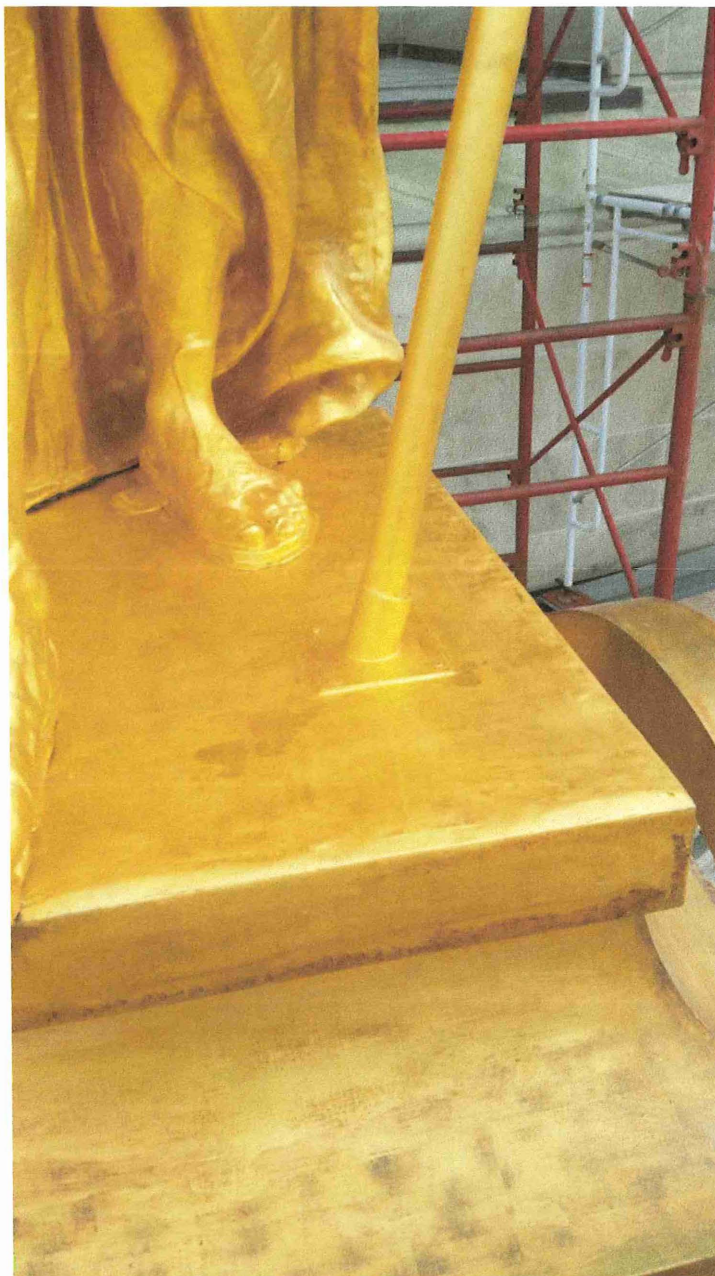


*Prosperity* is illustrated after installation, proper right side. Smaller insert is before treatment.



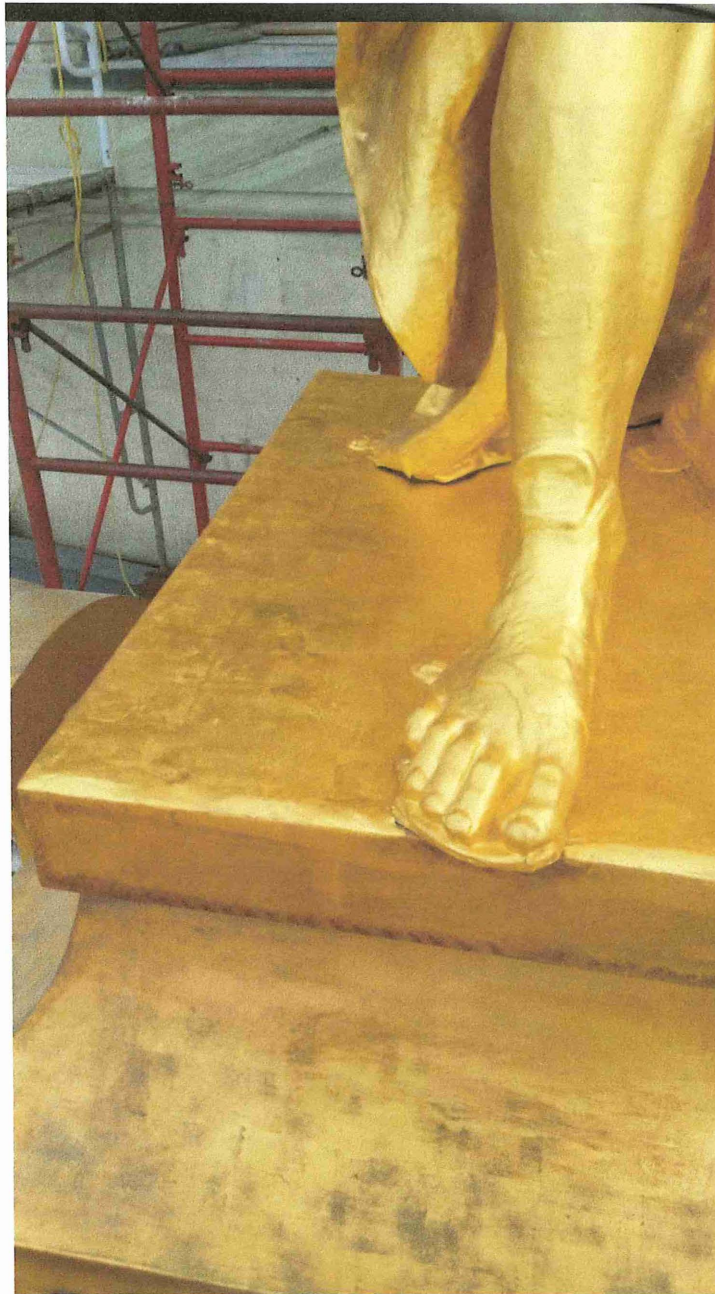


*Prosperity* is illustrated after installation, proper right side. Smaller insert is before treatment.



The top of the chariot, proper left side, is illustrated after installation of *Prosperity* is complete. Two stainless steel bolts were used to secure the newly fabricated copper support at the base of the pole. The leading edge of the gap between the cylinder and the pole was closed with silicone caulk. The perimeter of the square footprint of the support was closed with polyester spot putty and all surfaces were gilded. Beneath the pole, weep holes drilled through all three layers of metal will accommodate drainage of condensate. Set screws through the support cylinder secure the pole in a fixed position.



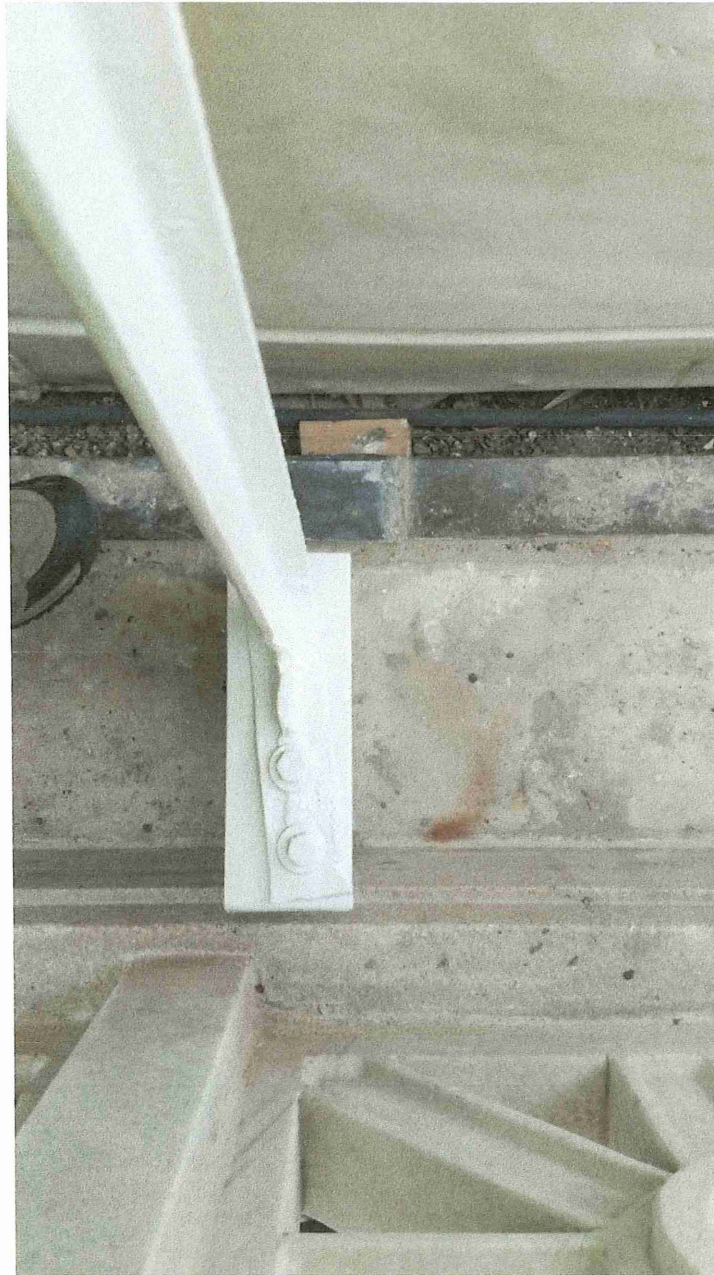


The chariot top is illustrated after installation, proper right side. Bolt heads have been covered with polyester body putty and gold leaf.



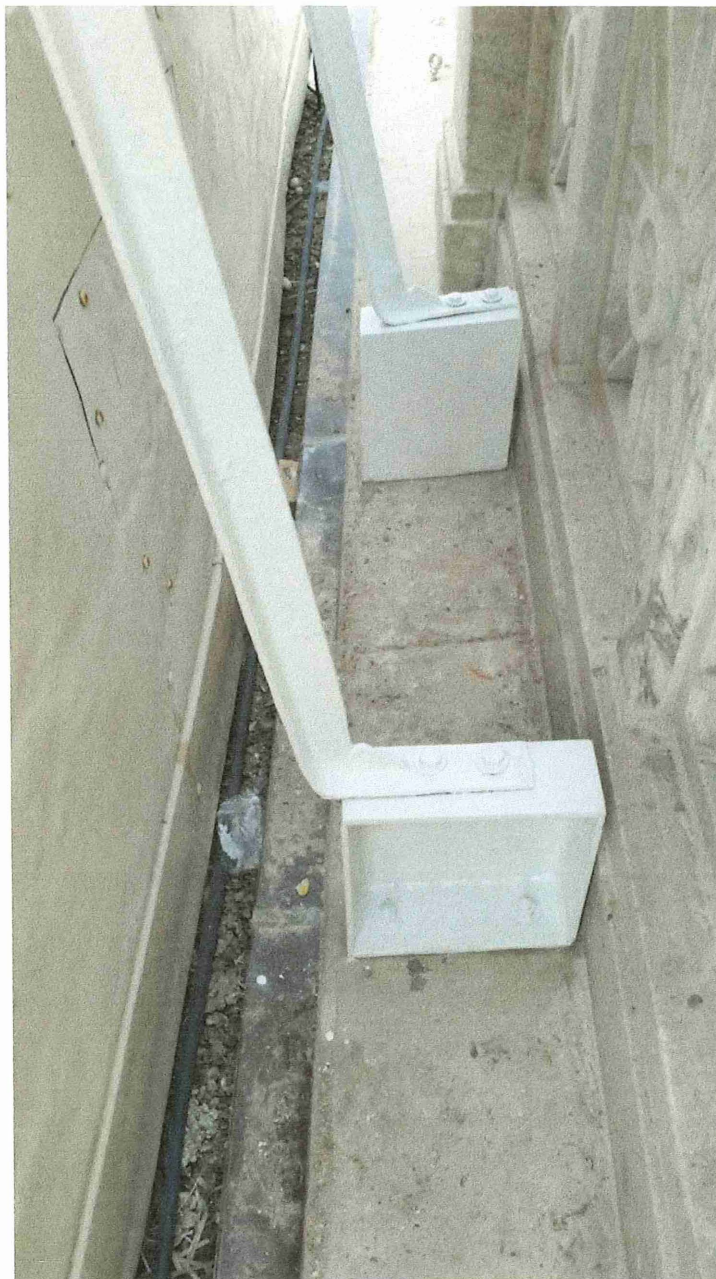


The underside of the chariot is illustrated with the stainless steel plate in place and stainless steel bolts visible.



Two tie down straps located at the rear of the chariot (extending from the chariot to steel boxes attached to the building masonry) were cleaned of flaking paint and loosely adhering products of corrosion. The corrosion thought originally to be cracked metal proved to be a loose flake of corrosion and it was brushed away. The metal is not cracked. Shallow depressions inside the bends of the tie down straps were filled with polyester body putty, shaped and smoothed to direct drainage of rainwater away from the depression.





The upper pair of bolts in both anchors were replaced with stainless steel, 1/2" diameter. The cleaned tie down straps and boxes beneath them were coated with Rust-O-Leum Rust Reformer and top coated with Imron 3.5 HG Polyurethane Enamel in white.