



MASONRY RESTORATION - Terra Cotta Restoration

PROJECT – SACRAMENTO CITY HALL

Description - Major restoration and preservation of Historic City Hall as part major new modern addition to replace tear down of 1950's addition

- Restoration Architect – Architectural Resources Group
- General Contractor – Hansel Phelps
- Duration Mid 2002 through mid 2004
- Giampolini Contract Amount, \$1,200,000
- Location: Downtown Sacramento California

Project Scope

- Repointing at brick, terra cotta and granite mortar joints
- Install brick, granite and terra cotta infills with new custom matched materials to fill tunnel openings created for 1950's addition
- Repair and replace terra cotta and brick
- Disassemble and rebuild terra cotta parapets with salvaged and new terra cotta blocks. Masonry was installed over new stainless steel framework
- Extensive terra cotta bisque spall and glaze spall repair
- Installation of lead joint caps at water table and parapet joints
- Retool and patch granite at building base
- Our work included sheet metal repairs at dome and cornice

Unusual Challenges

- Bringing in team members that could produce 10,000 matching custom brick and hundreds of pieces of unique shaped terra cotta with a matching glaze.
- Recreating historic detail where missing. Historic details were researched from archive drawings. New brick, terra cotta and granite elements were created to match missing elements lost during 1950's demolition for connecting tunnels.
- Extensive terra cotta patching required careful timing to assure moisture wasn't an issue. Timing work to fit between rainy and dry seasons was a necessity.
- Scaffold was netted as is typical for our projects to contain construction debris. This served a dual purpose to shade the work during the seasonally high heat common to the area in summer months.

Typical conditions prior to start of work

General deferred maintenance. Terra cotta glaze and bisque spalls, open mortar joints, cracked brick and terra cotta, accumulation of dirt and soiling at facade

Quality Control Program

Working together with ARG, the Restoration Architects, Giampolini supervisors combed the façade, closely inspecting every square inch. All authorized repairs were marked on the wall with blue tape and recorded on 'as built' drawings. This process created an efficient means to visually communicate the work plan to crews. Upon completion of the work supervisors again combed the façade with ARG to QC final results.

Terra Cotta

The terra cotta was completely disassembled, marked and cataloged to identify original locations. They would be reset in their original location. New blocks were ordered where originals were fractured beyond repair.

Finished Openings

New bricks, terra cotta and stone were created to match missing elements lost during 1950's demolition for connecting tunnels. Lead joint caps were installed at parapet and water table joints



2002



2004

