

CITY OF GRANBURY
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Historic Preservation
DESIGN GUIDELINES

10. ARCHITECTURAL METALS: CAST IRON, STEEL, PRESSED TIN, COPPER, ALUMINUM, AND ZINC

Evaluate the overall condition of architectural metals to determine whether more protection and maintenance may be required and if repairs are warranted.

Most architectural features on Granbury’s historic buildings were made of pressed tin. Most hardware on Granbury’s historic buildings (before 1930) were made of brass, bronze, and/or copper.

Identify and Retain architectural metal features, such as columns, pilasters, soffits, cornices, capitals, window frames, awnings, or stairways that are important to defining the historic character of a building, its finishes and colors.

Protect and Maintain architectural metals from corrosion by providing proper drainage, preventing water from standing on horizontal surfaces, or accumulating in curved, decorative features.

Clean architectural metals, when necessary, to remove corrosion prior to repainting or applying other appropriate protective coatings. Do not remove historic patinas found on some metals such as copper or bronze. This will diminish the metal’s historic character and may damage it.

Prohibited:

- *Removing or radically changing architectural metal features, so that, as a result, their character is diminished.*
- *Removing a major portion of the historic architectural metal from a facade, instead of repairing or replacing only the portion(s) of deteriorated metal.*
- *Radically changing a metal’s type of finish, patina, historic color, or accent theme.*
- *Failing to identify, evaluate and treat the causes of corrosion, like moisture from leaking roofs or flashing.*
- *Placing incompatible metals together without first providing a reliable separation material, thus causing a galvanic or corrosive reaction, and damaging the adjacent metals.*
- *Exposing metals intended to be protected from the elements.*
- *Applying paint or other opaque coatings to metals meant to be exposed, unless required by the particular metal’s original finish. Examples of metals sometimes meant to be exposed are stainless steel, copper, or bronze.*

Cleaning

Identify the particular metal prior to any type of cleaning procedure, then test to ensure that the gentlest method possible for cleaning is selected or to determine that cleaning is inappropriate for that particular metal.

Clean soft metals such as lead, tin, copper, terneplate, or zinc with appropriate chemical methods to ensure their longevity and performance.

Use the gentlest cleaning methods for cast iron, wrought iron, and steel (hard metals) to remove paint buildup and corrosion, such as appropriate chemical treatments. If hand-scraping and wire brushing these hard metals, take care not to abrade their surface more than necessary to remove the defective surface areas. If scraping or wire brushing is ineffective, low pressure blasting with dry grit may be used so long as no abrading damage occurs.

Apply appropriate and compatible paint or other coating system after cleaning to protect the metal or alloy's surface from damage (except for metals meant to be exposed, like some stainless steel, copper, or bronze).

Repaint architectural metals with historically appropriate colors approved by the Historic Preservation Commission.

Apply an appropriate protective transparent coating such as lacquer to an architectural metal feature subject to heavy use in a protected location, for example, a bronze door.

Prohibited:

- *Using cleaning methods that alter or damage the historic color, texture, or finish of the metal.*
- *Removing the patina of historic metal. The patina is a protective coating for metals, for example, on chemically oxidized bronze or copper.*
- *Failing to employ gentler cleaning methods in lieu of abrasion or high-pressure grit blasting on wrought iron or steel.*
- *Cleaning soft metals such as lead, copper, terneplate, tin, or zinc by abrasive or inappropriate chemical methods.*
- *Failing to seal or reapply protective coating systems to architectural metals after they have been appropriately cleaned.*
- *Using unapproved colors when repainting architectural metals.*
- *Failing to assess pedestrian usage or new use access patterns that result in damage to architectural features.*
- *Using inappropriate maintenance, for example, salting sidewalks adjacent to architectural metal features.*
- *Failing to undertake adequate measures to ensure the preservation of architectural metal features.*

Repair architectural metal features by patching, splicing, or otherwise reinforcing the metal following recognized preservation methods and techniques. Repairs may also include limited replacement in kind, or with an approved substitute material, of extensively damaged or missing parts. Use surviving prototypes of the feature as guides (such as cornices, balusters, column capitals, or plinths).

Replacing in kind an entire architectural metal feature that is too deteriorated for repairing may be acceptable if the overall form and detailing is still evident or there is historic evidence and documentation available for the feature's reconstruction. Examples may include cast iron columns, porch steps or balusters. If using the same kind of material is not technically or economically feasible, the Historic Preservation Commission will work with the owner to find funding or a compatible substitute material.

Prohibited:

- *Replacing an entire architectural metal feature such as a column or balustrade when repair or limited replacement of deteriorated or missing parts is appropriate.*
- *Using a substitute material for the replacement part that is incompatible with the surviving features or using materials that are physically or chemically incompatible with the surviving features or surrounding substrate materials.*
- *Removing an architectural feature that is irreparable and not replacing it or replacing it with a new architectural metal feature that does not convey the same historical appearance.*

When Designing Missing Historic Features in architectural metals, an accurate restoration should be based on historical, pictorial, or physical documentation. The design must be submitted in accurately scaled drawings to the Historic Preservation Commission and approved.

Prohibited:

- *Creating a false historic appearance because the replaced architectural metal feature(s) is based on insufficient historical, pictorial, or physical documentation.*
- *Introducing a new architectural metal feature that is incompatible in size, scale, material, or color with the historic character of the building and the original design's intent.*