

3.2.3. Roofs and Roof Features

Maintenance

Roof Maintenance

Although all roofs have a finite lifespan, their longevity can be extended with proper maintenance. Recommended maintenance includes keeping vegetation away from roofs and keeping historic down-spouts and gutters clean and free of leaves, twigs, or branches so that they do not cause moisture. Also, if repairs must be deferred, providing temporary protection from leaks until repairs can be made is recommended.

- (a) Retain the historic roof shape, including pitches, profiles, and eave heights (SOI Standards 2, 5).

| High Priority | Medium Priority | Low Priority |
|------------------------------|---|--------------|
| Required for the entire roof | Required forward from the ridgeline for the front 15 feet | Recommended |

- (b) Preserve and maintain historic roof materials and features unless they are deteriorated beyond repair (SOI Standards 2, 5, 6).

| High Priority | Medium Priority | Low Priority |
|------------------------------|---|--------------|
| Required for the entire roof | Required forward from the ridgeline for the front 15 feet | Recommended |

- (c) Maintain and repair historic roof materials and features according to accepted preservation techniques (as defined in *Appendix G* and SOI Standards 6, 7).

| High Priority | Medium Priority | Low Priority |
|------------------------------|---|--------------|
| Required for the entire roof | Required forward from the ridgeline for the front 15 feet | Recommended |

- (d) Generally, preserve and maintain historic down-spouts and gutters, unless they are not functioning and are promoting deterioration of surrounding historic materials (SOI Standard 6).

| High Priority | Medium Priority | Low Priority |
|---------------|-----------------|--------------|
| Recommended | Recommended | Recommended |

Integrated Gutters

Some buildings in Fredericksburg feature gutters integrated into eaves or cornice, making them difficult to inspect or access for cleaning and repairs. These gutters often clog or rust, causing leaks

and water infiltration and deterioration of the surrounding historic materials. Replacement of faulty integrated gutters is appropriate in all instances, provided that the replacement generally maintains the profile and finish of the eaves or cornice. Damage to surrounding historic fabric should be minimized during removal of the integrated gutters and installation of new gutters. (See fig. 3-5.)

Alterations

- (e) Do not add new roof features or ornamentation where not historically present – such as dormers, cresting, or ornamental cornices; if adding a lightning rod, select the simplest design possible to avoid creating the false impression that it was present historically (SOI Standards 3, 9).

| High Priority | Medium Priority | Low Priority |
|--------------------------------|------------------------------------|--------------|
| Required area visible from ROW | Required for area visible from ROW | Recommended |

- (f) If deteriorated beyond repair, replacement roofing materials should resemble the dimensions, profile, appearance, and configuration of the historic material (SOI Standard 6).

| High Priority | Medium Priority | Low Priority |
|------------------------------------|-----------------|--------------|
| Required for area visible from ROW | Recommended | Recommended |

- (g) Original and period-appropriate wood shingles should be maintained; if deteriorated beyond repair, wood shingles should be replaced with matching wood shingles; variation in wood species is acceptable if the profile, dimension, and finish match (SOI Standard 6).

| High Priority | Medium Priority | Low Priority |
|---------------|-----------------|--------------|
| Required | Required | Recommended |

- (h) Composite shingles with compatible dimensions and profile may be an acceptable replacement for wood shingles in some instances (SOI Standard 6).

| High Priority | Medium Priority | Low Priority |
|---------------|-----------------|--------------|
| Inappropriate | Appropriate | Appropriate |

- (i) Original or historic-age metal roofs should be maintained; if deteriorated beyond repair, match the original dimensions, turned or crimped joints, and ridge capping (SOI Standard 6).

| | | |
|---------------------------|-----------------------------|-----------------------------|
| High Priority Required | Medium Priority Required | Low Priority Recommended |
|---------------------------|-----------------------------|-----------------------------|

- (j) Original or historic-age clay roof tiles should be maintained; if deteriorated beyond repair, the smallest section possible should be patched with matching clay tiles (SOI Standards 2, 5, 6).

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|---|--|-----------------------------|
| High Priority Required for the entire roof | Medium Priority Required forward from the ridgeline for the front 15 feet | Low Priority Recommended |
|---|--|-----------------------------|

- (k) Original or historic-age slate roofs should be maintained; if deteriorated beyond repair, the smallest section possible should be patched with matching slate (SOI Standards 2, 5, 6).

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|---|--|-----------------------------|
| High Priority Required for the entire roof | Medium Priority Required forward from the ridgeline for the front 15 feet | Low Priority Recommended |
|---|--|-----------------------------|

- (l) If roof materials were altered after the end of the period of significance, and if electing to replace the roof, go back to period-appropriate roof materials (SOI Standard 3).

| | | |
|------------------------------|--------------------------------|-----------------------------|
| High Priority Recommended | Medium Priority Recommended | Low Priority Recommended |
|------------------------------|--------------------------------|-----------------------------|

Selecting Period-Appropriate Roofing Materials

Selecting period-appropriate roofing materials begins with identifying both your building's construction date and its architectural style (refer to *Section 2* above). Some styles are associated with very specific roofing materials, as detailed in *Section 2*, while others used a variety of roofing materials. In these cases, refer to the discussion of roofing materials by period of construction in NPS *Preservation Brief 4: Roofing for Historic Buildings* (available online at <https://www.nps.gov/tps/how-to-preserve/briefs/4-roofing.htm>). As detailed in *Preservation Brief 4*, wood shingles (especially using local cedar) were common in the mid-nineteenth century, with metal roofs becoming more widely available around the 1880s, followed by asphalt shingles around the 1890s. Photos of Fredericksburg from the 1890s document cedar shingles on most modest domestic resources (fig. 3-7). Metal roofs were adopted for larger public buildings earlier than residential buildings, and by 1911, the courthouse received a metal roof (fig. 3-8). By the 1930s, the Historic American Buildings Survey (HABS) documented a combination of metal and shingle roofs on all building types throughout Fredericksburg (fig. 3-4). Complicating matters, roofs commonly were replaced throughout a building's period of significance. The maximum lifespan of a cedar shingle roof is about 40 years, while the maximum lifespan of a metal roof is about 70 years. For buildings with a long period of significance, any roofing material present during

the period of significance may be appropriate. Refer to Section 1 for guidance on determining your building's period of significance.

- (m) Replacing an existing non-historic roof with a standing-seam metal roof also may be acceptable for some roofs, regardless of original roof material, if the original roofing material is not a character-defining feature for the building's style per *Section 2*. Where appropriate, the new metal roof should use detailing appropriate to the time of construction. (SOI Standards 2, 5, 6).

| | | |
|------------------------------|--------------------------------|-----------------------------|
| High Priority Appropriate | Medium Priority Appropriate | Low Priority Appropriate |
|------------------------------|--------------------------------|-----------------------------|

- (n) When replacing failing integrated gutters, using half-round external gutters may help preserve the historic profile of the cornice (SOI Standard 6).

| | | |
|------------------------------|--------------------------------|-----------------------------|
| High Priority Appropriate | Medium Priority Appropriate | Low Priority Appropriate |
|------------------------------|--------------------------------|-----------------------------|

Restoration

- (o) If research documents that historic roof features are missing, such as cupolas or pinnacles, consider replicating and restoring them (SOI Standards 3, 6).

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|------------------------------|--------------------------------|-----------------------------|
| High Priority Recommended | Medium Priority Recommended | Low Priority Recommended |
|------------------------------|--------------------------------|-----------------------------|

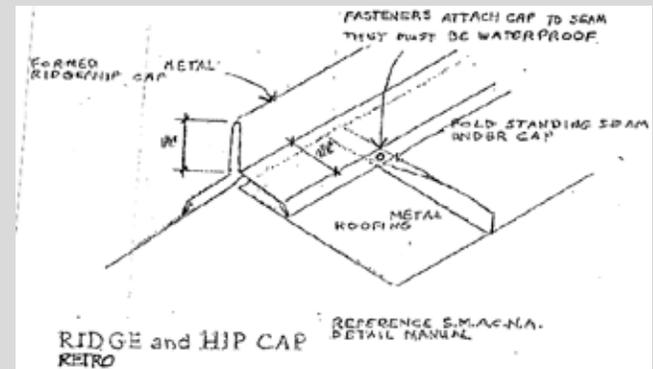
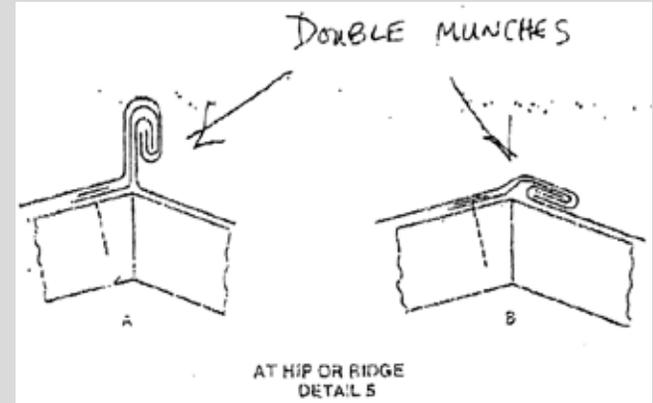


Figure 3-5. Example of a house with an **inappropriate** non-historic dormer altering the original roof form and compromising the integrity of the house. Source: CMEC 2019 Historic Resources Survey.

Figure 3-6. Examples of appropriate details for metal roofs. Sources: City of Fredericksburg Historic Preservation Office, SMANCA Architectural Sheet Metal Manual.



The **above** photographs compare details of metal roofs. The example of the reddish roof at the far left uses crimped joints, required for houses built before ca. 1915. The gray roof in the middle example uses a ridge cap, which is not appropriate for this pre-1915 house, but might be appropriate for a post-1915 house.



The **top** detail shows a type of folding known as “double munch” appropriate for joints on pre-1915 buildings; the **bottom** detail shows use of a ridge cap, which is acceptable on post-1915 buildings.



Figure 3-7. Example of a historic integrated gutters and **appropriate** replacement gutter at 408 E. College Street. This example illustrates how water flows from the roof into the original integrated gutter, but the molded profile is preserved at the edge of the integrated gutter. Source: CMEC 2019 Historic Resources Survey.



Figure 3-8. This example shows a detail of an **appropriate** half-round gutter at 108 W. College Street. When replacing a failing integrated gutter, consider application of a similar curved gutter, or a gutter that mimics the profile of the original gutter as closely as possible. Source: City of Fredericksburg.



Figure 3-9. Example of a wood-shingle roof in San Antonio, with **appropriate** patching of only the area deteriorated beyond repair. Source: Winter & Company.



Figure 3-10. Bird's-eye view photo of Fredericksburg from 1896 showing wood shingles present on most roofs. Source: Robert Penniger, *Fest-Ausgabe zum 50-Jährigen Jubiläum der Gründung der Stadt Friedrichsburg* [book], n.p., 1896, from the Portal to Texas History crediting the University of Texas at Arlington Library, <https://texashistory.unt.edu/ark:/67531/metapth29396>

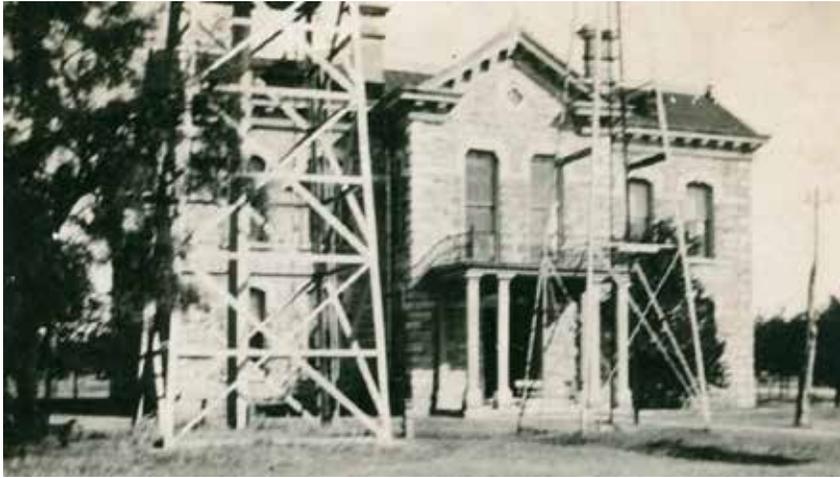


Figure 3-11. Photo of the Fredericksburg courthouse (now the Pioneer Memorial Library) in 1911, showing a metal roof. This substantial public building was constructed in 1882 and designed by prominent architect Alfred Giles. Source: [Photograph of a Courthouse in Fredericksburg, TX], n.p., 1911, from the Portal to Texas History, crediting the Gillespie County Historical Society, <https://texashistory.unt.edu/ark:/67531/metaph245986>.



Figure 3-12. Photo of the Heinrich Kammlah House, 309 W. Main Street, showing wood shingles on the older portion of the house (seen on the left), juxtaposed to standing-seam metal roofing on a historic-age addition. Source: Library of Congress, HABS, ca. 1930, <https://www.loc.gov/item/tx0336/>. Find additional HABS photos showing a combination of metal and wood shingle roofs at <https://www.loc.gov/pictures/search/?q=fredericksburg>.

Figure 3-13. Examples of **appropriate** versus **inappropriate** use of metal roofs. Sources: CMEC 2019 Historic Resources Survey, City of Fredericksburg.



The example **above** at 303 W. College Street shows the **appropriate** use of a metal roof with folded joints. Given the house's National Folk style, a metal roof was likely original. Because the house was constructed ca. 1910, use of folded or crimped joints is required.



The example **above** at 302 W. Austin Street shows an **appropriate** application of metal roof. Even if the original roof was not documented to be metal, roof material typically is not a character-defining feature for a Craftsman house like this. Crimping is appropriate—though not required—even though this house was constructed ca. 1920.



The **above** example of a new metal roof at 402 N. Milam Street is **appropriate in this case** because the house has no style, so the original roof materials were not character-defining. The ridge cap is appropriate given the ca. 1940 date.



The example **above** at 313 W. College Street shows the **inappropriate** use of a ridge cap rather than folded or crimped joints given the house's construction date of ca. 1910.