



LIVING WITH HISTORY

Certificate of Appropriateness

Milwaukee Historic Preservation Commission/200 E. Wells Street/Milwaukee, WI 53202/phone 414-286-5712/fax 414-286-3004

Property	524 W. HISTORIC MITCHELL ST.	Mitchell Street HD
Description of work	Re-roof steeple domes with a copper to match the existing form and design that dates to the renovations of the 1960s. Clad columns in lantern portion of steeples in copper. Re-roof cupola at west end in the same manner and clad most of lantern structure, including columns, in copper. Re-gild crosses atop the three re-roofed structures. Repoint stonework on steeples and lantern as needed. Steeple domes will be removed to complete the work. Cupola work is expected to be completed in situ. Attached scopes of work are approved as submitted, excepting masonry conditions noted on this page. (Original 1870s domes were copper.)	
Date issued	10/18/2018	PTS ID 114646 COA: Re-roof steeples & rood tower

In accordance with the provisions of Section 320-21 (11) and (12) of the Milwaukee Code of Ordinances, the Milwaukee Historic Preservation Commission has issued a certificate of appropriateness for the work listed above. The work was found to be consistent with preservation guidelines. The following conditions apply to this certificate of appropriateness:

New mortar must match the original mortar in terms of color, texture, grain size, joint width, and joint finish/profile. The compressive strength of the repointing mortar shall be equal or less than the compressive strength of the original mortar and surrounding brick or stone. The replacement mortar shall contain approximately the same ingredient proportions of the original mortar. Mortar that is too hard is subject to premature failure and could damage the masonry. See the city's books *As Good As New* or *Good for Business*, Masonry Chapters, for more information. In most cases, this means a lime mortar with natural hydraulic cement rather than Portland cement. No joint of a width less than 3/8" may be cleaned of damaged/decomposed mortar with power disc grinders. No over-cutting of the joints is permitted. Remove decomposed mortar back into the wall 2.5 times the height of the joint before repointing. New brick must match as closely as possible the color texture, size, and finish of the original brick.

All caulk and sealant shall be marked/certified as non-staining for use on stone.

All work must be done in a craftsman-like manner, and must be completed within one year of the date this certificate was issued. Staff must approve any changes or additions to this certificate before work begins. Work that is not completed in accordance with this certificate may be subject to correction orders or citations. If you require technical assistance, please contact Historic Preservation staff as follows: Phone: (414) 286-5712 E-mail: hpc@milwaukee.gov.

Permits are required; you are responsible for obtaining them from the Milwaukee Development Center. If you have questions about permit requirements, please consult the Development Center's web site, www.milwaukee.gov/build, or call (414) 286-8210.



City of Milwaukee Historic Preservation Staff

Copies to: Development Center, Ald. Jose Perez, Mitchell Street BID

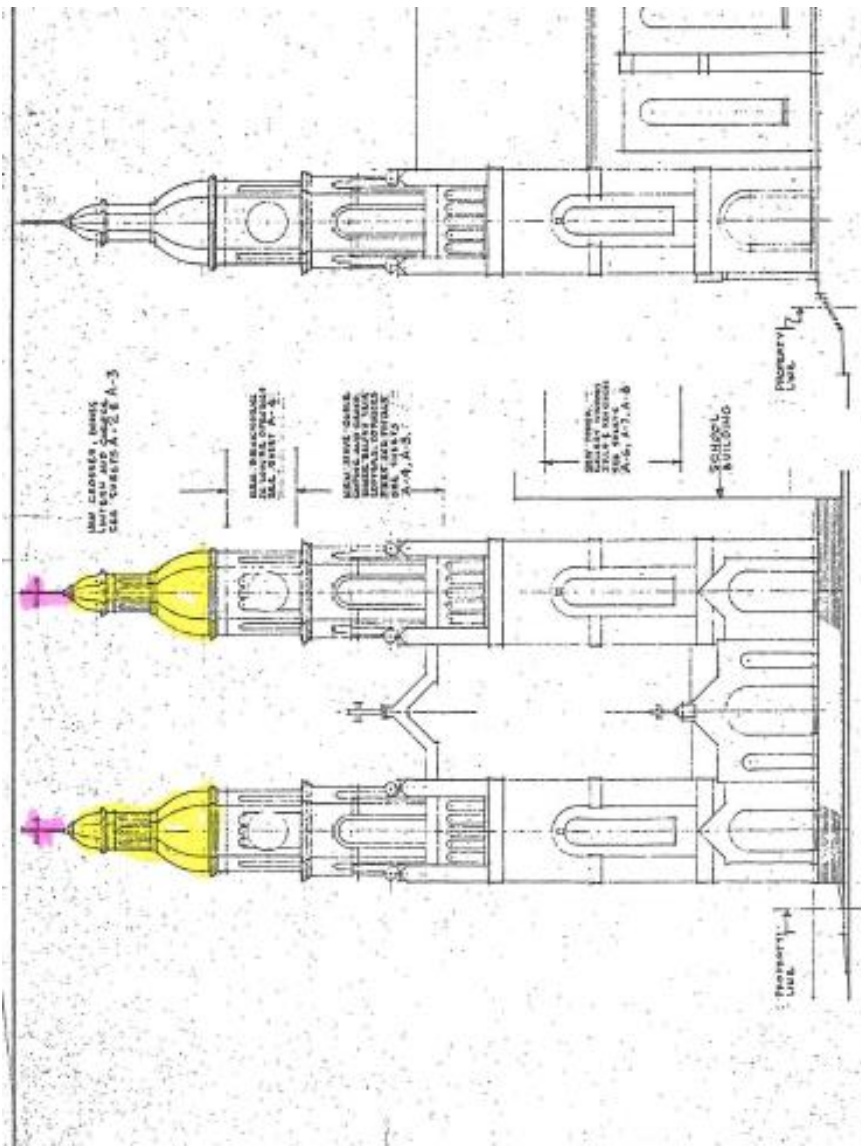


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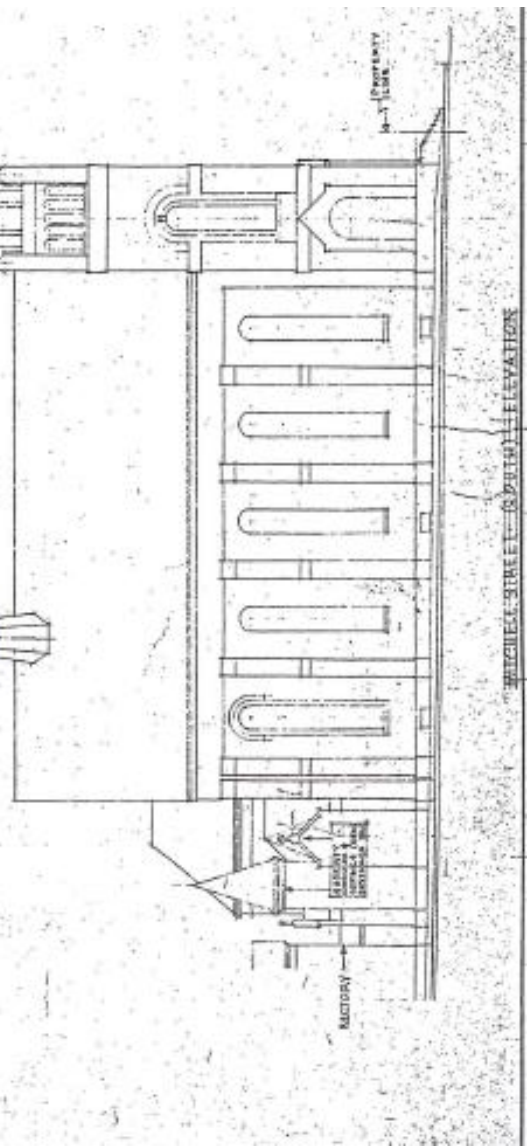
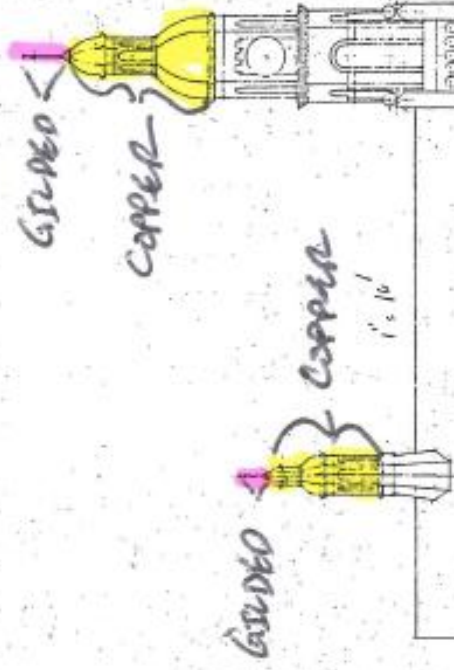
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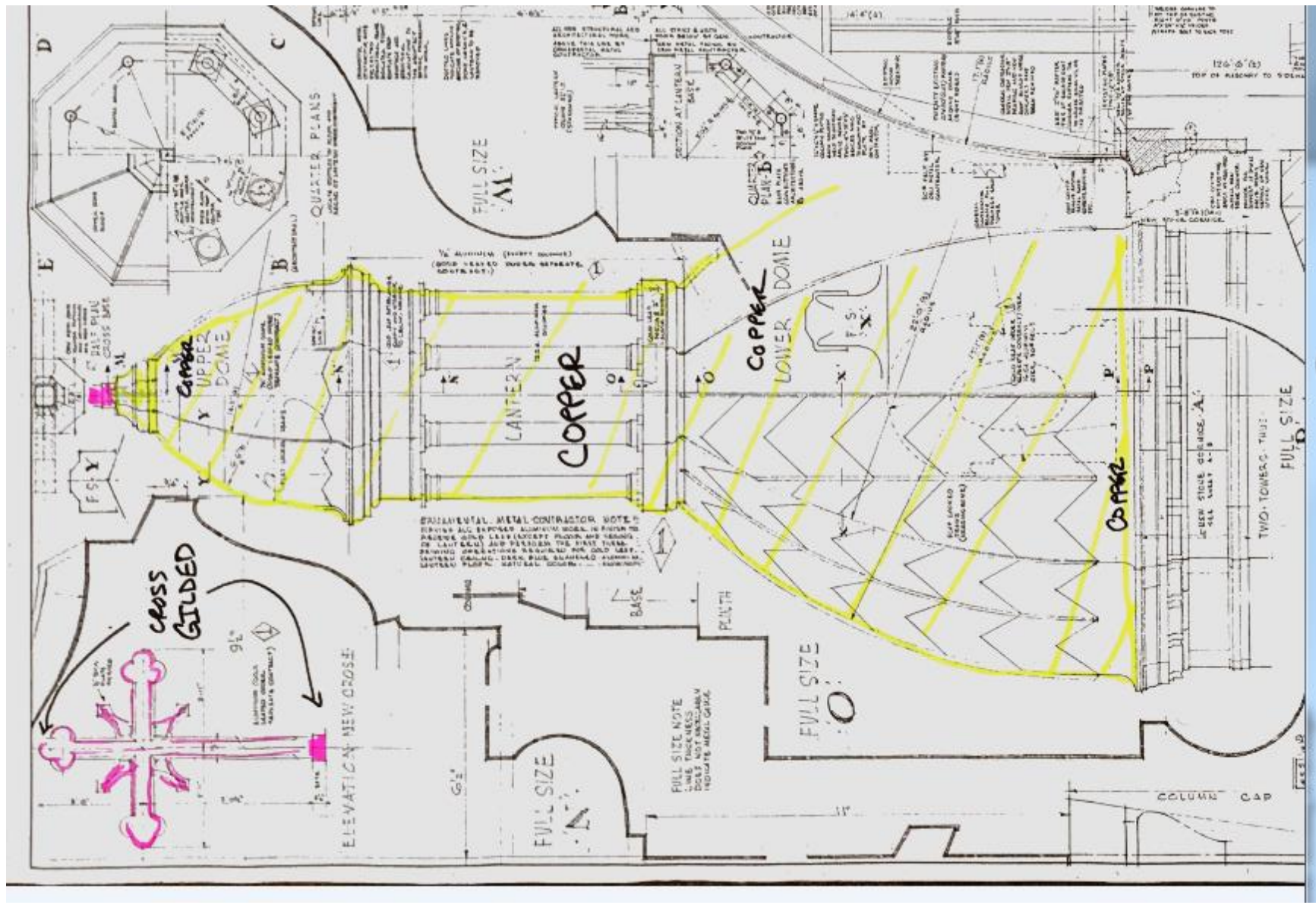
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WEST ELEVATION

CHURCH





Work Scope: Re-surface three (3) steeples

- ✓ Full height scaffolding at all areas to be provided by others. Electric hoists will be required (by scaffold provider) at the (2) east steeples.
- ✓ Set up project to OSHA approved standards for roofing work.
- ✓ Furnish a crane to remove two (2) steeples from the pillars up. The West steeple will be remain in place. It appears the current construction would facilitate this method of removal. This would allow all field measuring and copper installation of these components to occur in a controlled shop environment.
- ✓ Furnish a crane & man basket to remove the two (2) crosses on the East steeples.
- ✓ Remove and dispose the existing metal surface and dispose of debris.
- ✓ All existing decking and framing will be visually inspected for integrity. Any irregularities will be reported for evaluation.
- ✓ Install new ice and water over all existing and new wood blocking beneath copper components.
- ✓ Install new roof hatches at all locations.
- ✓ All new copper components to consist of 20oz copper.
- ✓ New copper components (to match existing) include but are not limited to:
 - Herringbone flat seam panels & batten caps
 - Numerous curved fascia profiles
 - Column wraps, caps & bases
 - Ceiling/soffit panels
 - Decorative lantern (West steeple only)
 - Decorative crosses
 - Flat seam panel roof at hatch locations

- ✓ All seams at fascia miters and on flat roof area to be fully soldered for protection from water infiltration.

EXTERIOR RESTORATION

As requested, the exterior elevations of each Steeple, from upper dome roof coping down to main Church beltline, have been visually inspected by this contractor. Please see the attached photographs for representative conditions observed. It is our opinion the proper procedure for repair should be as outlined in the following specifications. NOTE: as discussed each Steeple would be scaffold by a separate contractor - a quote is also attached for your information.

TUCKPOINTING OF BRICK MASONRY

All exterior common brick masonry on each Steeple shall be inspected and tested for soundness. Mortar joints which are visibly loose or eroded from adjoining brick masonry shall be cut out with a power-driven abrasive wheel to a minimum depth of three-quarter inch (3/4") and as much more as conditions require. After cleaning and flushing with water or compressed air, joints which have been cut out and all voids in mortar shall be filled with special tuckpointing mortar and finished off with a tooled surface to match adjoining areas as closely as possible. Completed work shall be wet down to insure proper curing of the mortar. NOTE: hairline cracks in mortar shall not be deemed defective and are not included in the quote; however, many large areas, primarily at the top of each Steeple, require 100%.

TUCKPOINTING OF STONE MASONRY

All exterior limestone masonry on each Steeple shall be inspected and tested for soundness. Mortar joints which are visibly loose, eroded or separated from adjoining masonry units shall be cut out to a minimum depth of one inch (1") and as much more as conditions require. After cleaning and flushing with water, joints which have been cut out and all voids in mortar shall be filled with a non-shrinking mortar and finished off with a tooled surface to match existing work as closely as possible. Completed work shall be wet down to insure proper curing of the mortar. NOTE: all stone shall be done 100%.

REPLACEMENT OF SEVERELY DAMAGED AND SPALLED BRICK/STONE MASONRY

Severely damaged and spalled unit masonry, on each Steeple, shall be chopped out. After proper preparation of areas where units have been removed, new masonry units shall be relayed. New material shall match surrounding brick masonry as closely as possible. Supplemental non-corrosive anchors shall be provided as needed.

RELAYING OF LOOSE OR SEVERELY SHIFTED BRICK MASONRY

All loose or severely shifted brick masonry, on each Steeple, shall be removed. After proper preparation of areas where brick have been removed, brick shall be relayed. New non-corrosive anchors shall be provided.

PATCHING OF SPALLED LIMESTONE

Damaged or spalled stone on each Steeple, where present concrete has become severely spalled, shall have all loose and delaminating stone in these areas chopped back to a sound base. Steel re-bars which may have become exposed shall be wire brushed free of all loose rust and primed with rust retardant paint. Voids shall then be primed with a latex-bonding agent and filled with a fast-set, non-shrink patching compound specifically designed for dalmatic stone.

EXTERIOR CAULKING IN THE FOLLOWING AREAS

- 1) All movement and structural cracks in limestone
- 2) Defective vertical and horizontal joints in limestone sills
- 3) Defective vertical and horizontal joints in limestone copings
- 4) Defective vertical and horizontal joints in decorative stone
- 5) Defective vertical and horizontal joints where aluminum or wood framing abut masonry

The above mentioned areas, located on each Steeple, shall be sealed with Tremco Dymonic, a one part urethane sealant. Sealant shall be white or colored as required to match existing work.

Joint backing where necessary shall be close-cell, non-staining polyethylene in round or square shapes, such as ethafoam joint backing. Joint backing shall be compatible with sealants used.

PREPARATION OF JOINTS

Building joints shall be examined prior to application and any conditions detrimental to achieving a positive weather-tight seal shall be remedied.

All openings, joints or channels to be sealed shall be thoroughly clean, dry and free from dust, oil, grease or any other foreign matter.

Where joints are deeper than 1/2", polyethylene joint backing shall be used and packed into the joint at within 1/2" of the surface. A size shall be selected so as to allow for a minimum of 30% compression of the backing when inserted into the joint. Where joints are 3/4" wide, the backing shall be placed so the depth of the joint to receive the sealants does not exceed 1/4".

APPLICATION OF SEALANTS

Sealants shall be gun applied through a nozzle of such diameter so the full bead of sealant is gunned into the joint, filling the joint completely.

All beads shall be tooled immediately after application to insure firm, full contact with the inner faces of the joints. Excess material shall be struck off with a tooling stick or knife.

The finished bead shall be flush with the surfaces or as otherwise indicated. Caulking shall be outlined with masking tape so as to obtain a neat and uniform appearance. Movement and structural cracks which are caulked shall be dusted with a fine grade lake sand so as to attain the appearance as closely as possible of mortar.

Gilding of crosses

- Cover and protect surrounding areas as needed.
- Strip or clean surfaces as necessary.
- Patch as needed.
- Apply appropriate tinted primer.
- Apply size (adhesive).
- Gild with genuine 23 $\frac{3}{4}$ kt exterior double-weight Italian gold leaf.
- Burnish.