SECTION 08.83.00
MIRRORS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Glass mirrors.

1.02 RELATED REQUIREMENTS
A. Section 10.28.00 - Toilet Room Accessories: Metal mirror frames.

1.03 REFERENCE STANDARDS
E. GANA (GM) - GANA Glazing Manual; Glass Association of North America; 2009.
F. GANA (SM) - GANA Sealant Manual; Glass Association of North America; 2008.
G. GANA (TIPS) - Mirrors: Handle with Extreme Care (Tips for the Professional on the Care and Handling of Mirrors); Glass Association of North America; 2011.

1.04 SUBMITTALS
A. See Section 01.30.00 - Administrative Requirements, for submittal procedures.
B. Product Data on Mirror Types: Submit structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
C. Product Data on Glazing Compounds: Submit chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
D. Manufacturer's Certificate: Certify that mirrors, meets or exceeds specified requirements.
E. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01.60.00 - Product Requirements, for additional provisions.

1.05 TENNESSEE SUSTAINABLE DESIGN GUIDELINES COMPLIANCE DOCUMENTATION
B. Provide documentation of construction waste diverted from landfills:
   1. Compliance with Credit 1.02-D-2: Construction Waste Management.
C. Submit shop drawing documentation demonstrating SDG compliance for the following:
   1. Compliance with Credit 1.02-D-3-a: Sustainable Materials - Recycled content 10%
   2. Compliance with Credit 1.02-D-3-b: Sustainable Materials - Rapidly renewables
   3. Compliance with Credit 1.02-D-3-c: Sustainable Materials - Certified wood
   4. Compliance with Credit 1.02-D-3-d: Sustainable Materials - Material reuse
   5. Compliance with Credit 1.02-E-6-b: Material VOC Limits - Adhesive and Sealants
   6. Compliance with Credit 1.02-E-6-b: Material VOC Limits - Paints
   7. Compliance with Credit 1.02-E-6-b: Material VOC Limits - Coatings and Anti-corrosive paints
8. Compliance with Credit 1.02-E-6-c: Material VOC Limits - Flooring systems
9. Compliance with Credit 1.02-E-6-d: Material VOC Limits - Composite wood and agrifiber
D. Submit documentation of quantity and material cost with monthly Application for Payment to the Contractor.

1.06 QUALITY ASSURANCE
A. Perform Work in accordance with GANA (GM) and GANA (SM) for glazing installation methods.
B. Fabricate, store, transport, receive, install, and clean mirrors in accordance with recommendations of GANA (TIPS).

1.07 FIELD CONDITIONS
A. Do not install mirrors when ambient temperature is less than 50 degrees F.
B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.08 WARRANTY
A. Provide five year manufacturer warranty for reflective coating on mirrors and replacement of same.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Mirrors:
   4. _____.
   5. Substitutions: See Section 01.60.00 - Product Requirements.

2.02 MATERIALS
A. Mirror Design Criteria: Select materials and/or provide supports as required to limit mirror material deflection to 1/200, or to the flexure limit of glass, with full recovery of glazing materials, whichever is less.
B. Mirror Glass: ASTM C1036, Type 1 - Transparent Flat, Class 1 - Clear, Quality - Q1 (high-quality mirrors); silvering, protective coating, and quality requirements in compliance with ASTM C1503.
   1. Thickness: 1/4 inch.
   2. Size: As noted on drawings.

2.03 GLAZING COMPOUNDS
A. Silicone Sealant: ASTM C920, Type S, Grade NS, Class 25, Uses M and A; single component; chemical or solvent curing; non-bleeding, non-staining, cured Shore A hardness of 15 to 25; silver color.

2.04 ACCESSORIES
A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness.
B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness.
C. Glazing Tape: Preformed butyl compound; 10 to 15 Shore A durometer hardness; on release paper.
D. Glazing Clips: Manufacturer's standard type.
E. Mirror Attachment Accessories: Stainless steel clips.

CONSTRUCTION DOCUMENTS PACKAGE
ISSUED: 30-DEC-15
F. Mirror Adhesive: Chemically compatible with mirror coating and wall substrate.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that openings for mirrored glazing are correctly sized and within tolerance.
B. Verify that surfaces of mirror frames or recesses are clean, free of obstructions, and ready for installation of mirrors.

3.02 PREPARATION
A. Clean contact surfaces with solvent and wipe dry.
B. Seal porous mirror frames or recesses with substrate compatible primer or sealer. Prime surfaces scheduled to receive sealant.
C. Prepare installation in accordance with ASTM C1193 for solvent release sealants, and install sealant in accordance with manufacturer's instructions.

3.03 INSTALLATION
A. Install mirrors in accordance with GANA (TIPS) and manufacturers recommendations.
B. Set mirrors plumb and level, and free of optical distortion.
C. Set mirrors with edge clearance free of surrounding construction including countertops or backsplashes.
D. Frameless Mirrors: Set mirrors in proper place with adhesive, applied in accordance with adhesive manufacturer's instructions.

3.04 CLEANING
A. Remove wet glazing materials from finish surfaces.
B. Remove labels after work is complete.
C. Clean mirrors and adjacent surfaces.

3.05 PROTECTION
A. After installation, mark pane with an 'X' by using removable plastic tape or paste.

END OF SECTION