

This Product MasterSpec Section is licensed by ARCOM to Georgia-Pacific Gypsum LLC ("Licensee").

**This Product MasterSpec Section modifies the original MasterSpec text, and does not include the full content of the original MasterSpec Section.**

Revisions made to the original MasterSpec text are made solely by the Licensee and are not endorsed by, or representative of the opinions of, ARCOM or The American Institute of Architects (AIA). Neither AIA nor ARCOM are liable in any way for such revisions or for the use of this Product MasterSpec Section by any end user. A qualified design professional should review and edit the document to suit project requirements.

For more information, contact Georgia-Pacific Gypsum LCC, 133 Peachtree Road, 8th Floor, Atlanta, GA 30303; Phone: (800) 225-6119; Website: [www.gpgypsum.com](http://www.gpgypsum.com); Email: [techservices@gapac.com](mailto:techservices@gapac.com).

For information about MasterSpec contact ARCOM at (800) 424-5080 or visit [www.MasterSpec.com](http://www.MasterSpec.com).

## SECTION 093000 - TILING

### PART 1 - GENERAL

#### 0.1 SUMMARY

##### A. Section Includes:

1. Ceramic tile.
2. Stone thresholds.
3. Waterproof membrane.
4. Crack isolation membrane.
5. Tile backing panels.
6. Metal edge strips.

#### 0.2 ACTION SUBMITTALS

##### A. Product Data: For each type of product indicated.

##### B. LEED Submittals:

1. Product Data for Credit IEQ 4.1: For [**adhesives**] [**and**] [**sealants**], documentation including printed statement of VOC content.
2. Product Data for Credit IEQ 4.3: For [**adhesives**] [**and**] [**grouts**], documentation including printed statement of VOC content.
3. Product Data for Credit IEQ 4.3: For tile floors, documentation from an independent testing agency indicating compliance with the FloorScore Standard.
4. Laboratory Test Reports for Credit IEQ 4: For [**adhesives**] [**sealants**] [**and**] [**tile flooring systems**], documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice

for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

C. Samples:

1. Each type and composition of tile and for each color and finish required.
2. Assembled samples, with grouted joints, for each type and composition of tile and for each color and finish required.
3. Stone thresholds in **6-inch (150-mm)** lengths.

0.3 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering and identified with labels describing contents.

1. Tile and Trim Units: [ **Furnish quantity of full-size units equal to 3 percent of amount installed for each type, composition, color, pattern, and size indicated.**]
  - a. **<Insert, in separate subparagraphs, tile-type designation or description and quantity required for each category of tile for which extra material is required>.**

0.4 QUALITY ASSURANCE

A. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Build mockup of [ **each type of** ] floor tile installation.
2. Build mockup of [ **each type of** ] wall tile installation.
3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - PRODUCTS

0.1 TILE PRODUCTS

- A. ANSI Ceramic Tile Standard: Provide Standard grade tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
- B. FloorScore Compliance: Tile for floors shall comply with requirements of FloorScore Standard.
- C. Low-Emitting Materials: Tile flooring systems shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- D. Tile Type [CT-<#>]: Factory-mounted [ **unglazed** ] [ **glazed** ] ceramic mosaic tile.

1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] **<Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
  - a. American Olean; Division of Dal-Tile International Inc.
  - b. Crossville, Inc.
  - c. Daltile; Division of Dal-Tile International Inc.
  - d. Deutsche Steinzeug America, Inc.
  - e. Interceramic.
  - f. Lone Star Ceramics Company.
  - g. Grupo Porcelanite.
  - h. Portobello America, Inc.
  - i. Seneca Tiles, Inc.
  - j. **<Insert manufacturer's name>**.
3. Composition: [**Porcelain**] [**Impervious natural clay or porcelain**] [**Vitreous or impervious natural clay or porcelain**].
4. Module Size: [**1 by 1 inch (25.4 by 25.4 mm)**] [**1 by 2 inches (25.4 by 50.8 mm)**] [**2 by 2 inches (50.8 by 50.8 mm)**] **<Insert size>**.
5. Thickness: **1/4 inch (6.35 mm)**.
6. Face: [**Plain**] [**Pattern of design indicated,**] with cushion edges.
7. Surface: [**Smooth, without**] [**Slip-resistant, with**] abrasive admixture.
8. Finish: [**Bright, opaque**] [**Bright, clear**] [**Mat, opaque**] [**Mat, clear**] [**Semimat, opaque**] [**Semimat, clear**] [**Vellum, opaque**] [**Vellum, clear**] [**Crystalline**] **<Insert description>** glaze.
9. Tile Color and Pattern: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] **<Insert color and pattern>**.
10. Grout Color: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] **<Insert color>**.
11. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable [**and matching characteristics of adjoining flat tile**]. Provide shapes as follows, selected from manufacturer's standard shapes:
  - a. Base Cove: Cove, module size [**1 by 1 inch (25.4 by 25.4 mm)**] [**2 by 1 inch (50.8 by 25.4 mm)**] **<Insert size>**.
  - b. Base Cap: [**Bead (bullnose)**] [**Surface bullnose**], module size [**1 by 1 inch (25.4 by 25.4 mm)**] [**2 by 1 inch (50.8 by 25.4 mm)**] **<Insert size>**.
  - c. Wainscot Cap: [**Bead (bullnose)**] [**Surface bullnose**], module size [**1 by 1 inch (25.4 by 25.4 mm)**] [**2 by 1 inch (50.8 by 25.4 mm)**] **<Insert size>**.
  - d. External Corners: [**Bead (bullnose)**] [**Surface bullnose**], module size [**1 by 1 inch (25.4 by 25.4 mm)**] [**2 by 1 inch (50.8 by 25.4 mm)**] **<Insert size>**.
  - e. Internal Corners: Cove, module size [**1 by 1 inch (25.4 by 25.4 mm)**] [**2 by 1 inch (50.8 by 25.4 mm)**] **<Insert size>**.
  - f. Tapered Transition Tile: Shape designed to effect transition between thickness of tile floor and adjoining floor finishes of different thickness, tapered to provide reduction in thickness from **1/2 to 1/4 inch (12.7 to 6.35 mm)** across nominal **4-inch (100-mm)** dimension.

- E. Tile Type [CT-<#>]: [**Unglazed**] [**Glazed**] square-edged quarry tile.
1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
  2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
    - a. American Olean; Division of Dal-Tile International Inc.
    - b. Atlas Minerals & Chemicals, Inc.
    - c. Daltile; Division of Dal-Tile International Inc.
    - d. Deutsche Steinzeug America, Inc.
    - e. Endicott Tile Ltd.; Endicott Clay Products Co.
    - f. Florida Brick & Clay Company Inc.
    - g. Florida Tile Industries, Inc.
    - h. Interceramic.
    - i. Metropolitan Ceramics.
    - j. Portobello America, Inc.
    - k. Quarry Tile Co.
    - l. Seneca Tiles, Inc.
    - m. Summitville Tiles, Inc.
    - n. United States Ceramic Tile Company.
    - o. <Insert manufacturer's name>.
  3. Face Size: [**3 by 3 inches (76 by 76 mm)**] [**4 by 4 inches (102 by 102 mm)**] [**6 by 3 inches (152 by 76 mm)**] [**6 by 6 inches (152 by 152 mm)**] [**8 by 3-7/8 inches (203 by 98 mm)**] [**8 by 8 inches (203 by 203 mm)**] <Insert dimensions>.
  4. Thickness: [**3/8 inch (9.5 mm)**] [**1/2 inch (12.7 mm)**] [**3/4 inch (19 mm)**].
  5. Wearing Surface: [**Nonabrasive, smooth**] [**Abrasive aggregate embedded in surface**] <Insert description>.
  6. Finish: [**Bright, opaque**] [**Bright, clear**] [**Mat, opaque**] [**Mat, clear**] [**Semimat, opaque**] [**Semimat, clear**] [**Vellum, opaque**] [**Vellum, clear**] [**Crystalline**] <Insert description> glaze.
  7. Tile Color and Pattern: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] <Insert color and pattern>.
  8. Grout Color: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] <Insert color>.
  9. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable [**and matching characteristics of adjoining flat tile**]. Provide shapes as follows, selected from manufacturer's standard shapes:
    - a. Base: Coved [**with surface bullnose top edge**], face size [**6 by 6 inches (152 by 152 mm)**] [**8 by 3-7/8 inches (203 by 98 mm)**] <Insert size>.
    - b. Wainscot Cap: Surface bullnose, face size [**6 by 6 inches (152 by 152 mm)**] [**8 by 3-7/8 inches (203 by 98 mm)**] <Insert size>.
- F. Tile Type [CT-<#>]: [**Unglazed**] [**Glazed**] paver tile.

1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] **<Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
  - a. American Marazzi Tile, Inc.
  - b. American Olean; Division of Dal-Tile International Inc.
  - c. Crossville, Inc.
  - d. Daltile; Division of Dal-Tile International Inc.
  - e. Deutsche Steinzeug America, Inc.
  - f. Florida Tile Industries, Inc.
  - g. Florim USA.
  - h. GranitiFiandre; c/o Trans Ceramica, Ltd.
  - i. Interceramic.
  - j. Laufen.
  - k. Lone Star Ceramics Company.
  - l. Grupo Porcelanite.
  - m. Portobello America, Inc.
  - n. Seneca Tiles, Inc.
  - o. United States Ceramic Tile Company.
  - p. **<Insert manufacturer's name>**.
3. Composition: [**Porcelain**] [**Impervious natural clay or porcelain**] [**Vitreous or impervious natural clay or porcelain**] [**Natural clay or porcelain**].
4. Face Size: [**3 by 3 inches (76 by 76 mm)**] [**4 by 4 inches (102 by 102 mm)**] [**6 by 6 inches (152 by 152 mm)**] [**7-3/4 by 3-7/8 inches (197 by 98 mm)**] [**7-7/8 by 7-7/8 inches (200 by 200 mm)**] [**11-13/16 by 11-13/16 inches (300 by 300 mm)**] [**165 by 333 mm**] [**200 by 250 mm**] [**250 by 250 mm**] [**165 by 333 mm**] [**333 by 333 mm**] [**400 by 400 mm**] **<Insert dimensions>**.
5. Thickness: [**1/4 inch (6.35 mm)**] [**3/8 inch (9.5 mm)**] [**1/2 inch (12.7 mm)**].
6. Face: [**Plain with square or cushion edges**] [**Plain with square edges**] [**Plain with cushion edges**] [**Pattern of design indicated, with square or cushion edges**] [**As indicated**].
7. Finish: [**Bright, opaque**] [**Bright, clear**] [**Mat, opaque**] [**Mat, clear**] [**Semimat, opaque**] [**Semimat, clear**] [**Vellum, opaque**] [**Vellum, clear**] [**Crystalline**] **<Insert description>** glaze.
8. Tile Color and Pattern: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] **<Insert color and pattern>**.
9. Grout Color: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] **<Insert color>**.
10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable[ **and matching characteristics of adjoining flat tile**]. Provide shapes as follows, selected from manufacturer's standard shapes:
  - a. Base Cove: Cove, module size [**same as adjoining flat tile**] **<Insert size>**.
  - b. Base Cap: [**Bead (bullnose)**] [**Surface bullnose**], module size [**same as adjoining flat tile**] **<Insert size>**.

- c. Wainscot Cap: [**Bead (bullnose)**] [**Surface bullnose**], module size [**same as adjoining flat tile**] <Insert size>.
- d. External Corners: [**Bead (bullnose)**] [**Surface bullnose**], module size [**same as adjoining flat tile**] <Insert size>.
- e. Internal Corners: Cove, module size [**same as adjoining flat tile**] <Insert size>.
- f. Tapered Transition Tile: Shape designed to effect transition between thickness of tile floor and adjoining floor finishes of different thickness, tapered to provide reduction in thickness from **1/2 to 1/4 inch (12.7 to 6.35 mm)** across nominal **4-inch (100-mm)** dimension.

G. Tile Type [CT-<#>]: [**Glazed wall tile**] [**Decorative thin wall tile**].

- 1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
- 2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
  - a. American Marazzi Tile, Inc.
  - b. American Olean; Division of Dal-Tile International Inc.
  - c. Daltile; Division of Dal-Tile International Inc.
  - d. Deutsche Steinzeug America, Inc.
  - e. Florida Tile Industries, Inc.
  - f. Florim USA.
  - g. Laufen.
  - h. Grupo Porcelanite.
  - i. Portobello America, Inc.
  - j. Seneca Tiles, Inc.
  - k. United States Ceramic Tile Company.
  - l. <Insert manufacturer's name>.
- 3. Module Size: [**4-1/4 by 4-1/4 inches (108 by 108 mm)**] [**6 by 4-1/4 inches (152 by 108 mm)**] [**6 by 6 inches (152 by 152 mm)**] [200 by 200 mm] [250 by 250 mm] [200 by 300 mm] <Insert size>.
- 4. Thickness: **5/16 inch (8 mm)**.
- 5. Face: [**Plain with modified square edges or cushion edges**] [**Plain with modified square edges**] [**Plain with cushion edges**] [**Pattern of design indicated, with manufacturer's standard edges**].
- 6. Finish: [**Bright, opaque**] [**Bright, clear**] [**Mat, opaque**] [**Mat, clear**] [**Semimat, opaque**] [**Semimat, clear**] [**Vellum, opaque**] [**Vellum, clear**] [**Crystalline**] <Insert description> glaze.
- 7. Tile Color and Pattern: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] <Insert color and pattern>.
- 8. Grout Color: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] <Insert color>.
- 9. Mounting: Factory, back mounted.
- 10. Mounting: Pregrouted sheets of tiles factory assembled and grouted with manufacturer's standard white silicone rubber.

11. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable[ **and matching characteristics of adjoining flat tile**]. Provide shapes as follows, selected from manufacturer's standard shapes:

- a. Base: [Coved] [Straight], module size [4-1/4 by 4-1/4 inches (108 by 108 mm)] [6 by 6 inches (152 by 152 mm)] [6 by 3-3/4 inches (152 by 95 mm)] <Insert size>.
- b. Wainscot Cap: [Bullnose cap] [Surface bullnose], module size [4-1/4 by 4-1/4 inches (108 by 108 mm)] [6 by 6 inches (152 by 152 mm)] [6 by 2 inches (152 by 51 mm)] <Insert size>.
- c. External Corners for Thin-Set Mortar Installations: [Bullnose shape] [Surface bullnose], same size as adjoining flat tile.
- d. Internal Corners: Field-buttet square corners.[ **For coved base and cap use angle pieces designed to fit with stretcher shapes.**]

H. Accessories: Provide vitreous china accessories of type and size indicated, suitable for installing by same method as adjoining wall tile.

1. One soap holder[ **with grab handle**] for each shower and tub indicated.
2. One paper holder at each water closet.
3. Color and Finish: [Match adjoining glazed wall tile] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] [White, bright glaze] <Insert color and finish>.

## 0.2 THRESHOLDS

A. General: Fabricate to sizes and profiles indicated or required to provide transition between adjacent floor finishes.

1. Bevel edges at 1:2 slope, with lower edge of bevel aligned with or up to 1/16 inch (1.5 mm) above adjacent floor surface. Finish bevel to match top surface of threshold. Limit height of threshold to 1/2 inch (12.7 mm) or less above adjacent floor surface.

B. Marble Thresholds: ASTM C 503, with a minimum abrasion resistance of [10] [12] per ASTM C 1353 or ASTM C 241 and with honed finish.

1. Description: Uniform, fine- to medium-grained white stone with gray veining.
2. Description: Match Architect's sample.
3. Description: Provide[ **one of**] the following:
  - a. <Insert, in separate subparagraphs, name of variety and producer, distributor, or importer>.

## 0.3 TILE BACKING PANELS

A. Cementitious Backer Units: ANSI A118.9 or ASTM C 1325.

1. Manufacturers: Subject to compliance with requirements, **[provide products by one of the following]** **[available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
2. Basis-of-Design Product: Subject to compliance with requirements, provide **[product indicated on Drawings]** **<Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
  - a. C-Cure; C-Cure Board 990.
  - b. Custom Building Products; Wonderboard.
  - c. FinPan, Inc.; Util-A-Crete Concrete Backer Board.
  - d. USG Corporation; DUROCK Cement Board.
  - e. **<Insert manufacturer's name; product name or designation>**.
3. Thickness: **[1/4 inch (6.4 mm)] [1/2 inch (12.7 mm)] [5/8 inch (15.9 mm)] [As indicated]**.

B. Fiber-Cement Underlayment: ASTM C 1288.

1. Products: Subject to compliance with requirements, **[provide the following]** **[provide one of the following]** **[available products that may be incorporated into the Work include, but are not limited to, the following]:**
  - a. CertainTeed Corp.; FiberCement **[Underlayment]** **[BackerBoard]**.
  - b. James Hardie; **[Hardiebacker]** **[Hardiebacker 500]**.
  - c. **<Insert manufacturer's name; product name or designation>**.
2. Thickness: **[1/4 inch (6.4 mm)] [1/2 inch (12.7 mm)] [As indicated]**.

C. Glass-Mat, Water-Resistant Backing Board with Water-Resistant Coating: ASTM C 1178/ C 1178M.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Georgia-Pacific Gypsum LLC; "DensShield Tile Backer" or a comparable product by another manufacturer.
2. Core: **[As indicated on Drawings]** **[1/4 inch (6.4 mm), regular type]** **[1/2 inch (12.7 mm), regular type]** **[5/8 inch (15.9 mm), Type X]**.
3. Long Edges: Square.

0.4 WATERPROOF MEMBRANE

- A. General: Manufacturer's standard product**[, selected from the following,]** that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated.
- B. Chlorinated-Polyethylene-Sheet: Nonplasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric; **0.030-inch (0.76-mm)** nominal thickness.
  1. Products: Subject to compliance with requirements, **[provide the following]** **[provide one of the following]** **[available products that may be incorporated into the Work include, but are not limited to, the following]:**



- a. Noble Company (The); Nobleseal TS.
  - b. <Insert manufacturer's name; product name or designation>.
- C. PVC Sheet: Two layers of PVC sheet heat-fused together and to facings of nonwoven polyester; 0.040-inch (1.01-mm) nominal thickness.
1. Products: Subject to compliance with requirements, [provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:
    - a. Comotite Corporation; Composeal Gold.
    - b. <Insert manufacturer's name; product name or designation>.
- D. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch (0.203-mm) nominal thickness.
1. Products: Subject to compliance with requirements, [provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:
    - a. Schluter Systems L.P.; KERDI.
    - b. <Insert manufacturer's name; product name or designation>.
- E. Fabric-Reinforced, Modified-Bituminous Sheet: Self-adhering, SBS-modified-bituminous sheet with woven reinforcement facing; 0.040-inch (1.01-mm) nominal thickness.
1. Products: Subject to compliance with requirements, [provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:
    - a. National Applied Construction Products, Inc.; Strataflex.
    - b. <Insert manufacturer's name; product name or designation>.
- F. Fabric-Reinforced, Fluid-Applied Membrane: System consisting of liquid-latex rubber or elastomeric polymer and continuous fabric reinforcement.
1. Products: Subject to compliance with requirements, [provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:
    - a. Boiardi Products, a QEP company; Elastiment 344 Reinforced Waterproofing and Anti-Fracture/Crack Suppression Membrane.
    - b. Bonsal American, an Oldcastle company; B 6000 Waterproof Membrane with Glass Fabric.
    - c. Bostik, Inc.; Hydroment Blacktop 90210.
    - d. Custom Building Products; 9240 Waterproofing and Anti-Fracture Membrane.
    - e. Laticrete International, Inc.; Laticrete 9235 Waterproof Membrane.
    - f. MAPEI Corporation; [Mapelastic L (PRP M19)] [Mapelastic HPG with MAPEI Fiberglass Mesh].
    - g. Mer-Kote Products, Inc.; Hydro-Guard 2000.
    - h. Summitville Tiles, Inc.; S-9000.

- i. <Insert manufacturer's name; product name or designation>.
- G. Fluid-Applied Membrane: Liquid-latex rubber or elastomeric polymer.
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:**
    - a. Boiardi Products, a QEP company; Elastiment 644 Membrane Waterproofing System.
    - b. Bonsal American, an Oldcastle company; B 6000 Waterproof Membrane.
    - c. Bostik, Inc.; **[Durabond D-222 Duraguard Membrane] [Hydroment Gold]**.
    - d. C-Cure; Pro-Red Waterproofing Membrane 63.
    - e. Custom Building Products; Redgard Waterproofing and Crack Prevention Membrane.
    - f. Jamo Inc.; Waterproof.
    - g. Laticrete International, Inc.; **[Latapoxy 24hr HydroProofing] [Laticrete Watertight Floor N' Wall Waterproofing]**.
    - h. MAPEI Corporation; Mapelastic HPG.
    - i. Southern Grouts & Mortars, Inc.; Southcrete 1100 Crack Suppression and Waterproofing.
    - j. TEC, a subsidiary of H. B. Fuller Company; HydraFlex - Waterproofing Crack Isolation Membrane.
    - k. <Insert manufacturer's name; product name or designation>.
- H. Latex-Portland Cement: Flexible mortar consisting of cement-based mix and latex additive.
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:**
    - a. Boiardi Products, a QEP company; Elastiment 323 Cement Based Waterproofing, Anti-Fracture/Crack Suppression Membrane.
    - b. C-Cure; UltraCure 971.
    - c. MAPEI Corporation; Mapelastic (PRP 315).
    - d. Southern Grouts & Mortars, Inc.; Southcrete 1100.
    - e. TEC, a subsidiary of H. B. Fuller Company; Triple Flex Waterproofing, Crack Isolation Membrane & Mortar.
    - f. <Insert manufacturer's name; product name or designation>.
- I. Urethane Waterproofing and Tile-Setting Adhesive: One-part, liquid-applied urethane[.][, **with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).**][, **that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."**]
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:**

- a. Bostik, Inc.; [Durabond D-200] [Hydroment Ultra-Set] [Hydroment Ultra-Set Advanced].
- b. <Insert manufacturer's name; product name or designation>.

## 0.5 CRACK ISOLATION MEMBRANE

- A. General: Manufacturer's standard product[, **selected from the following,**] that complies with ANSI A118.12 for [**standard**] [**high**] performance and is recommended by the manufacturer for the application indicated.
- B. Chlorinated-Polyethylene Sheet: Nonplasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric; 0.030-inch (0.76-mm) nominal thickness.
  1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**] [**available products that may be incorporated into the Work include, but are not limited to, the following**]:
    - a. Noble Company (The); Nobleseal CIS.
    - b. <Insert manufacturer's name; product name or designation>.
- C. PVC Sheet: Two layers of PVC sheet heat-fused together and to facings of nonwoven polyester; 0.040-inch (1.01-mm) nominal thickness.
  1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**] [**available products that may be incorporated into the Work include, but are not limited to, the following**]:
    - a. Compotite Corporation; Composeal Gold.
    - b. <Insert manufacturer's name; product name or designation>.
- D. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch (0.203-mm) nominal thickness.
  1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**] [**available products that may be incorporated into the Work include, but are not limited to, the following**]:
    - a. Schluter Systems L.P.; KERDI.
    - b. <Insert manufacturer's name; product name or designation>.
- E. Corrugated Polyethylene: Corrugated polyethylene with dovetail-shaped corrugations and with anchoring webbing on the underside; 3/16-inch (4-mm) nominal thickness.
  1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**] [**available products that may be incorporated into the Work include, but are not limited to, the following**]:
    - a. Schluter Systems L.P.; DITRA.
    - b. <Insert manufacturer's name; product name or designation>.

- F. Fabric-Reinforced, Modified-Bituminous Sheet: Self-adhering, modified-bituminous sheet with fabric reinforcement facing; **0.040-inch (1.01-mm)** nominal thickness.
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]**:
    - a. MAPEI Corporation; Mapelastic SM.
    - b. National Applied Construction Products, Inc.; Strataflex.
    - c. **<Insert manufacturer's name; product name or designation>**.
- G. Fabric-Reinforced, Fluid-Applied Membrane: System consisting of liquid-latex rubber or elastomeric polymer and fabric reinforcement.
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]**:
    - a. Boiardi Products, a QEP company; Elastiment 344 Reinforced Waterproofing and Anti-Fracture/Crack Suppression Membrane.
    - b. Bonsal American, an Oldcastle company; B 6000 Waterproof Membrane with Glass Fabric.
    - c. Bostik, Inc.; Hydroment Blacktop 90210.
    - d. Custom Building Products; 9240 Waterproofing and Anti-Fracture Membrane.
    - e. Laticrete International, Inc.; Laticrete **[Blue 92 Anti-Fracture Membrane] [9235 Waterproof Membrane]**.
    - f. MAPEI Corporation; **[Mapelastic L (PRP M19)] [Mapelastic HPG with MAPEI Fiberglass Mesh]**.
    - g. Mer-Kote Products, Inc.; Hydro-Guard 2000.
    - h. Summitville Tiles, Inc.; S-9000.
    - i. **<Insert manufacturer's name; product name or designation>**.
- H. Fluid-Applied Membrane: Liquid-latex rubber or elastomeric polymer.
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]**:
    - a. Bostik, Inc.; **[Durabond D-222 Duraguard Membrane] [Hydroment Gold]**.
    - b. C-Cure; **[CureLastic 949] [Pro-Red Waterproofing Membrane 963]**.
    - c. Custom Building Products; **[Redgard Waterproofing and Crack Prevention Membrane] [FractureFree Crack Prevention Membrane] [Semco Crack Prevention Membrane]**.
    - d. Jamo Inc.; Waterproof.
    - e. Mer-Kote Products, Inc.; Fracture-Guard 5000.
    - f. Southern Grouts & Mortars, Inc.; Southcrete 1100 Crack Suppression and Waterproofing.
    - g. TEC, a subsidiary of H. B. Fuller Company; HydraFlex - Waterproofing Crack Isolation Membrane.
    - h. **<Insert manufacturer's name; product name or designation>**.

- I. Latex-Portland Cement: Flexible mortar consisting of cement-based mix and latex additive.
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:**
    - a. C-Cure; UltraCure 971.
    - b. MAPEI Corporation; Mapelastic (PRP 315).
    - c. TEC, a subsidiary of H. B. Fuller Company; Triple Flex Waterproofing, Crack Isolation Membrane & Mortar.
    - d. **<Insert manufacturer's name; product name or designation>.**
- J. Urethane Crack Isolation Membrane and Tile-Setting Adhesive: One-part, liquid-applied urethane[.], **[with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).], [that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."]**
1. Products: Subject to compliance with requirements, **[provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:**
    - a. Bostik, Inc.; **[Durabond D-200] [Hydroment Ultra-Set] [Hydroment Ultra-Set Advanced].**
    - b. **<Insert manufacturer's name; product name or designation>.**

## 0.6 SETTING MATERIALS

- A. Portland Cement Mortar (Thickset) Installation Materials: ANSI A108.02.
- B. Dry-Set Portland Cement Mortar (Thin Set): ANSI A118.1.
1. Manufacturers: Subject to compliance with requirements, **[provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
  2. Basis-of-Design Product: Subject to compliance with requirements, provide **[product indicated on Drawings] <Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
    - a. Boiardi Products; a QEP company.
    - b. Bonsal American; an Oldcastle company.
    - c. Bostik, Inc.
    - d. C-Cure.
    - e. Custom Building Products.
    - f. Jamo Inc.
    - g. Laticrete International, Inc.
    - h. MAPEI Corporation.
    - i. Southern Grouts & Mortars, Inc.
    - j. Summitville Tiles, Inc.

- k. TEC; a subsidiary of H. B. Fuller Company.
  - l. <Insert manufacturer's name>.
3. For wall applications, provide nonsagging mortar.
- C. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.
1. Manufacturers: Subject to compliance with requirements, **[provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
  2. Basis-of-Design Product: Subject to compliance with requirements, provide **[product indicated on Drawings] <Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
    - a. Boiardi Products; a QEP company.
    - b. Bonsal American; an Oldcastle company.
    - c. Bostik, Inc.
    - d. C-Cure.
    - e. Custom Building Products.
    - f. Jamo Inc.
    - g. Laticrete International, Inc.
    - h. MAPEI Corporation.
    - i. Mer-Kote Products, Inc.
    - j. Southern Grouts & Mortars, Inc.
    - k. Summitville Tiles, Inc.
    - l. TEC; a subsidiary of H. B. Fuller Company.
    - m. <Insert manufacturer's name>.
  3. Prepackaged, dry-mortar mix to which only water must be added.
  4. Prepackaged, dry-mortar mix combined with liquid-latex additive.
  5. For wall applications, provide nonsagging mortar.
- D. EGP (Exterior Glue Plywood) Latex-Portland Cement Mortar (Thin Set): ANSI A118.11.
1. Manufacturers: Subject to compliance with requirements, **[provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
  2. Basis-of-Design Product: Subject to compliance with requirements, provide **[product indicated on Drawings] <Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
    - a. Bonsal American; an Oldcastle company.
    - b. Bostik, Inc.
    - c. C-Cure.
    - d. Custom Building Products.
    - e. Jamo Inc.
    - f. Laticrete International, Inc.
    - g. MAPEI Corporation.
    - h. Southern Grouts & Mortars, Inc.
    - i. Summitville Tiles, Inc.
    - j. TEC; a subsidiary of H. B. Fuller Company.

- k. <Insert manufacturer's name>.
3. Prepackaged, dry-mortar mix to which only water must be added.
  4. Prepackaged, dry-mortar mix combined with liquid-latex additive.
- E. Water-Cleanable, Tile-Setting Epoxy: ANSI A118.3[.][, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).][, that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."]
1. Manufacturers: Subject to compliance with requirements, [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:
  2. Basis-of-Design Product: Subject to compliance with requirements, provide [product indicated on Drawings] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
    - a. Atlas Minerals & Chemicals, Inc.
    - b. Bonsal American; an Oldcastle company.
    - c. Bostik, Inc.
    - d. C-Cure.
    - e. Custom Building Products.
    - f. Jamo Inc.
    - g. Laticrete International, Inc.
    - h. MAPEI Corporation.
    - i. Mer-Kote Products, Inc.
    - j. Southern Grouts & Mortars, Inc.
    - k. Summitville Tiles, Inc.
    - l. TEC; a subsidiary of H. B. Fuller Company.
    - m. <Insert manufacturer's name>.
- F. Organic Adhesive: ANSI A136.1, Type I[.][, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).][, that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."]
1. Manufacturers: Subject to compliance with requirements, [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:
  2. Basis-of-Design Product: Subject to compliance with requirements, provide [product indicated on Drawings] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
    - a. Bonsal American; an Oldcastle company.
    - b. Bostik, Inc.
    - c. C-Cure.
    - d. Custom Building Products.
    - e. DAP Inc.
    - f. Jamo Inc.

- g. Laticrete International, Inc.
- h. MAPEI Corporation.
- i. Southern Grouts & Mortars, Inc.
- j. Summitville Tiles, Inc.
- k. TEC; a subsidiary of H. B. Fuller Company.
- l. <Insert manufacturer's name>.

## 0.7 GROUT MATERIALS

A. Sand-Portland Cement Grout: ANSI A108.10.

B. Standard Cement Grout: ANSI A118.6.

1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
  - a. Boiardi Products; a QEP company.
  - b. Bonsal American; an Oldcastle company.
  - c. Bostik, Inc.
  - d. C-Cure.
  - e. Custom Building Products.
  - f. Jamo Inc.
  - g. Laticrete International, Inc.
  - h. MAPEI Corporation.
  - i. Southern Grouts & Mortars, Inc.
  - j. Summitville Tiles, Inc.
  - k. TEC; a subsidiary of H. B. Fuller Company.
  - l. <Insert manufacturer's name>.

C. Polymer-Modified Tile Grout: ANSI A118.7.

1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
  - a. Boiardi Products; a QEP company.
  - b. Bonsal American; an Oldcastle company.
  - c. Bostik, Inc.
  - d. C-Cure.
  - e. Custom Building Products.
  - f. Jamo Inc.
  - g. Laticrete International, Inc.
  - h. MAPEI Corporation.



- i. Southern Grouts & Mortars, Inc.
  - j. Summitville Tiles, Inc.
  - k. TEC; a subsidiary of H. B. Fuller Company.
  - l. <Insert manufacturer's name>.
- 3. Polymer Type: Dry, redispersible form, prepackaged with other dry ingredients.
  - 4. Polymer Type: Liquid-latex form for addition to prepackaged dry-grout mix.
- D. Water-Cleanable Epoxy Grout: ANSI A118.3[, **with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D**].
- 1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
  - 2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
    - a. Atlas Minerals & Chemicals, Inc.
    - b. Boiardi Products; a QEP company.
    - c. Bonsal American; an Oldcastle company.
    - d. Bostik, Inc.
    - e. C-Cure.
    - f. Custom Building Products.
    - g. Jamo Inc.
    - h. Laticrete International, Inc.
    - i. MAPEI Corporation.
    - j. Mer-Kote Products, Inc.
    - k. Southern Grouts & Mortars, Inc.
    - l. Summitville Tiles, Inc.
    - m. TEC; a subsidiary of H. B. Fuller Company.
    - n. <Insert manufacturer's name>.
- E. Grout for PregROUTED Tile Sheets: Same product used in factory to pregrout tile sheets.

## 0.8 ELASTOMERIC SEALANTS

- A. Retain first subparagraph below if required for LEED-NC, or LEED-CI, or LEED-CS Credit IEQ 4.1.
- 1. Sealants shall have a VOC content of [**250**] <Insert value> g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  - 2. Sealants shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- B. One-Part, Mildew-Resistant Silicone Sealant: ASTM C 920; Type S; Grade NS; Class 25; Uses NT, G, A, and, as applicable to nonporous joint substrates indicated, O; formulated with fungicide, intended for sealing interior ceramic tile joints and other nonporous substrates that are subject to in-service exposures of high humidity and extreme temperatures.

1. Products: Subject to compliance with requirements, **[provide the following]** **[provide one of the following]** **[available products that may be incorporated into the Work include, but are not limited to, the following]**:

- a. DAP Inc.; **[Titanium Enriched Kitchen and Bath Sealant]** **[100 percent Silicone Kitchen and Bath Sealant]**.
- b. Dow Corning Corporation; Dow Corning 786.
- c. GE Silicones, a division of GE Specialty Materials; Sanitary 1700.
- d. Laticrete International, Inc.; Latasil Tile & Stone Sealant.
- e. Pecora Corporation; Pecora 898 Sanitary Silicone Sealant.
- f. Tremco Incorporated; Tremsil 600 White.
- g. **<Insert manufacturer's name; product name or designation>**.

- C. Multipart, Pourable Urethane Sealant for Use T: ASTM C 920; Type M; Grade P; Class 25; Uses T, M, A, and, as applicable to joint substrates indicated, O.

1. Products: Subject to compliance with requirements, **[provide the following]** **[provide one of the following]** **[available products that may be incorporated into the Work include, but are not limited to, the following]**:

- a. Bostik, Inc.; Chem-Calk 550.
- b. Degussa Building Systems; Sonneborn Sonolastic SL 2.
- c. Pecora Corporation; **[Dynatrol II-SG]** **[NR-200 Urexpam]**.
- d. Sika Corporation; Sikaflex-2c SL.
- e. Tremco Incorporated.; **[THC-900]** **[THC-901]** **[Vulkem 245]**.
- f. **<Insert manufacturer's name; product name or designation>**.

## 0.9 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. Metal Edge Strips: Angle or L-shape, **[half-hard brass]** **[white zinc alloy]** **[nickel silver]** **[stainless steel, ASTM A 666, 300 Series]** exposed-edge material.
- C. Grout Sealer: Manufacturer's standard **[silicone]** product for sealing grout joints and that does not change color or appearance of grout.

1. Products: Subject to compliance with requirements, **[provide the following]** **[provide one of the following]** **[available products that may be incorporated into the Work include, but are not limited to, the following]**:

- a. Bonsal American, an Oldcastle company; Grout Sealer.
- b. Bostik, Inc.; CeramaSeal **[Grout & Tile Sealer]** **[Magic Seal]** **[Silox 8]** **[Siloxane 220]**.
- c. C-Cure; Penetrating Sealer 978.
- d. Custom Building Products; **[Surfaceguard]** **[Grout and Tile]** **[Grout]** Sealer.
- e. Jamo Inc.; **[Matte Finish]** **[Penetrating]** Sealer.

- f. MAPEI Corporation; KER [003, **Silicone Spray Sealer for Cementitious Tile Grout**] [004, **Keraseal Penetrating Sealer for Unglazed Grout and Tile**].
- g. Southern Grouts & Mortars, Inc.; Silicone Grout Sealer.
- h. Summitville Tiles, Inc.; SL-15, Invisible Seal Penetrating Grout and Tile Sealer.
- i. TEC, a subsidiary of H. B. Fuller Company; [TA-256 **Penetrating Silicone**] [TA-257 **Silicone**] Grout Sealer.

## PART 3 - EXECUTION

### 0.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
  - 1. Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.

### 0.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with [adhesives] [or] [thin-set mortar] with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.
- B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped **1/4 inch per foot (1:50)** toward drains.
- C. Blending: For tile exhibiting color variations, use factory blended tile or blend tiles at Project site before installing.
- D. Field-Applied Temporary Protective Coating: If indicated under tile type or needed to prevent grout from staining or adhering to exposed tile surfaces, precoat them with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces.

### 0.3 INSTALLATION

- A. Comply with TCA's "Handbook for Ceramic Tile Installation" for TCA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 Series "Specifications for Installation of Ceramic Tile" that are referenced in TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
  - 1. For the following installations, follow procedures in the ANSI A108 Series of tile installation standards for providing 95 percent mortar coverage:

- a. Exterior tile floors.
  - b. Tile floors in wet areas.
  - c. Tile swimming pool decks.
  - d. Tile floors in laundries.
  - e. Tile floors composed of tiles **8 by 8 inches (200 by 200 mm)** or larger.
  - f. Tile floors composed of rib-backed tiles.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.
- E. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
- F. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
1. Ceramic Mosaic Tile: **1/16 inch (1.6 mm)**.
  2. Quarry Tile: [**1/4 inch (6.35 mm)**] [**3/8 inch (9.5 mm)**].
  3. Paver Tile: [**1/4 inch (6.35 mm)**] [**3/8 inch (9.5 mm)**].
  4. Glazed Wall Tile: **1/16 inch (1.6 mm)**.
  5. Decorative Thin Wall Tile: **1/16 inch (1.6 mm)**.
- G. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.
- H. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
  2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."
- I. Stone Thresholds: Install stone thresholds in same type of setting bed as adjacent floor unless otherwise indicated.
1. At locations where mortar bed (thickset) would otherwise be exposed above adjacent floor finishes, set thresholds in latex-portland cement mortar (thin set).
- J. Metal Edge Strips: Install [**at locations indicated**] [**where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with top of tile**] [**where exposed edge of**

**tile flooring meets carpet, wood, or other flooring that finishes flush with or below top of tile and no threshold is indicated].**

- K. Grout Sealer: Apply grout sealer to[ **cementitious**] grout joints[ **in tile floors**] according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.
- L. Install [**cementitious backer units**] [**and**] [**fiber-cement underlayment**] and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated.[ **Use latex-portland cement mortar for bonding material unless otherwise directed in manufacturer's written instructions.**]
- M. Install [**glass-mat, water-resistant backing board with water-resistant coating**] [**and**] [**glass-mat, water-resistant gypsum panel**] and treat joints according to current Tile Council of North America (TCNA) "Handbook for Ceramic Tile Installation" and manufacturer's written instructions for type of application indicated. [ **Use latex-portland cement mortar for bonding material unless otherwise directed in manufacturer's written instructions.**] [ **Use Type I mastic for bonding material unless otherwise directed in manufacturer's written instructions.**]
- N. Install waterproofing to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
- O. Install crack isolation membrane to comply with ANSI A108.17 and manufacturer's written instructions to produce membrane of uniform thickness and bonded securely to substrate.

#### 0.4 EXTERIOR TILE INSTALLATION SCHEDULE

##### A. Exterior Floor Installations:

- 1. Tile Installation F101: Cement mortar bed (thickset) [**bonded to concrete**] [**over waterproof membrane on concrete**] [**over waterproof membrane on concrete where indicated and bonded to concrete where membrane is not indicated**]; TCA F101.
  - a. Tile Type: <**Insert tile-type designation**>.
  - b. Thin-Set Mortar for Cured-Bed Method: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- 2. Tile Installation F102: Thin-set mortar [**on concrete**] [**over waterproof membrane on concrete**] [**over waterproof membrane on concrete where indicated and on concrete where membrane is not indicated**]; TCA F102.
  - a. Tile Type: <**Insert tile-type designation**>.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.

## B. Exterior Wall Installations, Masonry or Concrete:

1. Tile Installation W201: Cement mortar bed (thickset) on metal lath over waterproof membrane; TCA W201.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Bond Coat /Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
  - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] grout.
2. Tile Installation W202: Thin-set mortar; TCA W202.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
  - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] grout.

## 0.5 INTERIOR TILE INSTALLATION SCHEDULE

## A. Interior Floor Installations, Concrete Subfloor:

1. Tile Installation F111: Cement mortar bed (thickset) with cleavage membrane; TCA F111.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar for Cured-Bed Method: [Dry-set] [Latex-] portland cement mortar.
  - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] grout.
2. Tile Installation F112: Cement mortar bed (thickset) bonded to concrete; TCA F112.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar for Cured-Bed Method: [Dry-set] [Latex-] portland cement mortar.
  - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] grout.
3. Tile Installation F113: Thin-set mortar; TCA F113.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
  - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.

4. Tile Installation F114: Cement mortar bed (thickset) with cleavage membrane; epoxy grout; TCA F114.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Grout: Water-cleanable epoxy grout.
5. Tile Installation F115: Thin-set mortar; epoxy grout; TCA F115.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: **[Dry-set] [Latex-]** portland cement mortar.
  - c. Grout: Water-cleanable epoxy grout.
6. Tile Installation F116: **[Organic adhesive] [Water-cleanable, tile-setting epoxy]**; TCA F116.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
7. Tile Installation F121: Cement mortar bed (thickset) on waterproof membrane; TCA F121.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar for Cured-Bed Method: **[Dry-set] [Latex-]** portland cement mortar.
  - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded]** grout.
8. Tile Installation F122: Thin-set mortar on waterproof membrane; TCA F122.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: Latex-portland cement mortar.
  - c. Grout: Polymer-modified **[sanded] [unsanded]** grout.
9. Tile Installation F125A: Thin-set mortar on crack isolation membrane; TCA F125A.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: Latex-portland cement mortar.
  - c. Grout: **[Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
10. Tile Installation F131: Water-cleanable, tile-setting epoxy; epoxy grout; TCA F131.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Grout: Water-cleanable epoxy grout.

11. Tile Installation F132: Water-cleanable, tile-setting epoxy on cured cement mortar bed **[bonded to concrete subfloor]** **[installed over cleavage membrane]**; epoxy grout; TCA F132.

- a. Tile Type: **<Insert tile-type designation>**.
- b. Grout: Water-cleanable epoxy grout.

B. Interior Floor Installations, Wood Subfloor:

1. Tile Installation F121: Cement mortar bed (thickset) on waterproof membrane; TCA F121.

- a. Tile Type: **<Insert tile-type designation>**.
- b. Thin-Set Mortar for Cured-Bed Method: **[Dry-set]** **[Latex-]** portland cement mortar.
- c. Grout: **[Sand-portland cement]** **[Standard sanded cement]** **[Standard unsanded cement]** **[Polymer-modified sanded]** **[Polymer-modified unsanded]** **[Water-cleanable epoxy]** grout.

2. Tile Installation F141: Cement mortar bed (thickset) with cleavage membrane; TCA F141.

- a. Tile Type: **<Insert tile-type designation>**.
- b. Thin-Set Mortar for Cured-Bed Method: **[Dry-set]** **[Latex-]** portland cement mortar.
- c. Grout: **[Sand-portland cement]** **[Standard sanded cement]** **[Standard unsanded cement]** **[Polymer-modified sanded]** **[Polymer-modified unsanded]** **[Water-cleanable epoxy]** grout.

3. Tile Installation F142: Organic adhesive; TCA F142.

- a. Tile Type: **<Insert tile-type designation>**.
- b. Grout: **[Sand-portland cement]** **[Standard sanded cement]** **[Standard unsanded cement]** **[Polymer-modified sanded]** **[Polymer-modified unsanded]** **[Water-cleanable epoxy]** grout.

4. Tile Installation F143: Water-cleanable, tile-setting epoxy; epoxy grout; TCA F143.

- a. Tile Type: **<Insert tile-type designation>**.
- b. Grout: Water-cleanable epoxy grout.

5. Tile Installation F144: Thin-set mortar on cementitious backer units/fiber cement underlayment; TCA F144.

- a. Tile Type: **<Insert tile-type designation>**.
- b. Thin-Set Mortar: **[Dry-set]** **[Latex-]** portland cement mortar.
- c. Grout: **[Sand-portland cement]** **[Standard sanded cement]** **[Standard unsanded cement]** **[Polymer-modified sanded]** **[Polymer-modified unsanded]** **[Water-cleanable epoxy]** grout.



6. Tile Installation F150/160: Thin-set mortar on exterior-glye plywood; TCA F150 or TCA F160.
  - a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: EGP latex-portland cement mortar.
  - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
  
- C. Interior Radiant Heat Floor Installations, Concrete Subfloor:
  1. Tile Installation RH110: Thin-set mortar on crack isolation membrane; hydronic piping installed in concrete; TCA RH110.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Thin-Set Mortar: Latex-portland cement mortar.
    - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
  
  2. Tile Installation RH115: Thin-set mortar; electric radiant system encapsulated in thin-set mortar; TCA RH115.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Thin-Set Mortar: Latex-portland cement mortar.
    - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
  
  3. Tile Installation RH116: Thin-set mortar on crack isolation membrane; electric radiant system encapsulated in cementitious self-leveling underlayment; TCA RH116.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Cementitious Self-Leveling Underlayment: Specified in Section 035416 "Hydraulic Cement Underlayment."
    - c. Thin-Set Mortar: Latex-portland cement mortar.
    - d. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
  
- D. Interior Radiant Heat Floor Installations, Wood Subfloor:
  1. Tile Installation RH130: Thin-set mortar on exterior-glye plywood; electric radiant system encapsulated in thin-set mortar; TCA RH130.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Thin-Set Mortar: EGP latex-portland cement mortar.
    - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.

2. Tile Installation RH135: Thin-set mortar on cementitious backer units/fiber cement underlayment; electric radiant system encapsulated in thin-set mortar; TCA RH135.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Thin-Set Mortar: Latex-portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  3. Tile Installation RH140: Thin-set mortar on crack isolation membrane; electric radiant system encapsulated in cementitious self-leveling underlayment; TCA RH140.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Cementitious Self-Leveling Underlayment: Specified in Section 035416 "Hydraulic Cement Underlayment."
    - c. Thin-Set Mortar: Latex-portland cement mortar.
    - d. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
- E. Interior Wall Installations, Masonry or Concrete:
1. Tile Installation W202: Thin-set mortar; TCA W202.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  2. Tile Installation W211: Cement mortar bed (thickset) bonded to substrate; TCA W211.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Bond Coat/Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  3. Tile Installation W221: Cement mortar bed (thickset) on metal lath[ over waterproof membrane]; TCA W221.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Bond Coat/Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  4. Tile Installation W222: One-coat cement mortar bed (thickset) on metal lath[ over waterproof membrane]; TCA W222.
    - a. Tile Type: <Insert tile-type designation>.

- b. Bond Coat/Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
5. Tile Installation W223: Organic adhesive; TCA W223.
- a. Tile Type: <**Insert tile-type designation**>.
  - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- F. Interior Wall Installations, Wood Studs or Furring:
1. Tile Installation W221: Cement mortar bed (thickset)[ **over waterproof membrane**] on solid backing; TCA W221.
- a. Tile Type: <**Insert tile-type designation**>.
  - b. Bond Coat/Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
2. Tile Installation W222: One-coat cement mortar bed (thickset)[ **over waterproof membrane**] on solid backing; TCA W222.
- a. Tile Type: <**Insert tile-type designation**>.
  - b. Bond Coat/Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
3. Tile Installation W223: Organic adhesive on solid backing; TCA W223.
- a. Tile Type: <**Insert tile-type designation**>.
  - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
4. Tile Installation W231: Cement mortar bed (thickset); TCA W231.
- a. Bond Coat/Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
5. Tile Installation W243: Thin-set mortar on gypsum board; TCA W243.
- a. Tile Type: <**Insert tile-type designation**>.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.

- c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] grout.
  6. Tile Installation W244: Thin-set mortar on cementitious backer units or fiber cement underlayment[ **over cleavage membrane**]; TCA W244.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  7. Tile Installation W245: [Thin-set mortar] [Organic adhesive] on coated glass-mat, water-resistant gypsum backer board; TCA W245.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
- G. Interior Wall Installations, Metal Studs or Furring:
  1. Tile Installation W221: Cement mortar bed (thickset)[ **over waterproof membrane**] on solid backing; TCA W221.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Bond Coat/Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  2. Tile Installation W222: One-coat cement mortar bed (thickset)[ **over waterproof membrane**] on solid backing; TCA W222.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Bond Coat/Thin-Set Mortar: [Dry-set] [Latex-] portland cement mortar.
    - c. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy] grout.
  3. Tile Installation W223: Organic adhesive on solid backing; TCA W223.
    - a. Tile Type: <Insert tile-type designation>.
    - b. Grout: [Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] grout.
  4. Tile Installation W241: Cement mortar bed (thickset); TCA W241.

- a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
5. Tile Installation W242: Organic adhesive on gypsum board; TCA W242.
- a. Tile Type: **<Insert tile-type designation>**.
  - b. Grout: [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
6. Tile Installation W243: Thin-set mortar on gypsum board; TCA W243.
- a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
7. Tile Installation W244: Thin-set mortar on cementitious backer units or fiber cement underlayment[ **over cleavage membrane**]; TCA W244.
- a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
8. Tile Installation W245: [**Thin-set mortar**] [**Organic adhesive**] on coated glass-mat, water-resistant gypsum backer board; TCA W245.
- a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
- H. Bathtub Wall Installations, [**Wood**] [**Metal**] Studs or Furring:
1. Tile Installation B413: [**Thin-set mortar**] [**Organic adhesive**] on water-resistant gypsum board; TCA B413.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
    - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- I. Bathtub/Shower Wall Installations, [**Wood**] [**Metal**] Studs or Furring:
1. Tile Installation B411: Cement mortar bed (thickset); TCA B411.

- a. Tile Type: **<Insert tile-type designation>**.
  - b. Bond Coat Mortar for Wet-Set Method: **[Dry-set] [Latex-]** portland cement mortar.
  - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded]** grout.
2. Tile Installation B412: Thin-set mortar on cementitious backer units/fiber cement underlayment; TCA B412.
- a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: **[Dry-set] [Latex-]** portland cement mortar.
  - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
3. Tile Installation B419: **[Thin-set mortar] [Organic adhesive]** on coated glass-mat, water-resistant backer board; TCA B419.
- a. Tile Type: **<Insert tile-type designation>**.
  - b. Thin-Set Mortar: **[Dry-set] [Latex-]** portland cement mortar.
  - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded] [Water-cleanable epoxy]** grout.
- J. Shower Receptor and Wall Installations, Concrete or Masonry:
1. Tile Installation B414: Cement mortar bed (thickset); TCA B414.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Bond Coat/Thin-Set Mortar: **[Dry-set] [Latex-]** portland cement mortar.
    - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded]** grout.
  2. Tile Installation B421: Thin-set mortar on waterproof membrane; TCA B421.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Thin-Set Mortar: Latex-portland cement mortar.
    - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded]** grout.
  3. Tile Installation B422: Thin-set mortar on waterproof membrane with integrated bonding flange for bonded membranes; TCA B422.
    - a. Tile Type: **<Insert tile-type designation>**.
    - b. Thin-Set Mortar: **[Dry-set] [Latex-]** portland cement mortar.
    - c. Grout: **[Sand-portland cement] [Standard sanded cement] [Standard unsanded cement] [Polymer-modified sanded] [Polymer-modified unsanded]** grout.

K. Shower Receptor and Wall Installations, [**Wood**] [**Metal**] Studs or Furring:

1. Tile Installation B414: Cement mortar bed (thickset); TCA B414.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Bond Coat/Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
2. Tile Installation B415: Thin-set mortar on cementitious backer units/fiber cement underlayment; TCA B415.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
3. Tile Installation B420: Thin-set mortar on coated glass-mat, water-resistant backer board; TCA B420.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
4. Tile Installation B421: Thin-set mortar on waterproof membrane over cementitious backer units/fiber cement underlayment; TCA B421.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar: Latex-portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
5. Tile Installation B422: Thin-set mortar on waterproof membrane over cementitious backer units/fiber cement underlayment with integrated bonding flange for bonded membranes; TCA B422.
  - a. Tile Type: <Insert tile-type designation>.
  - b. Thin-Set Mortar: Latex-portland cement mortar.
  - c. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.

END OF SECTION 093000