

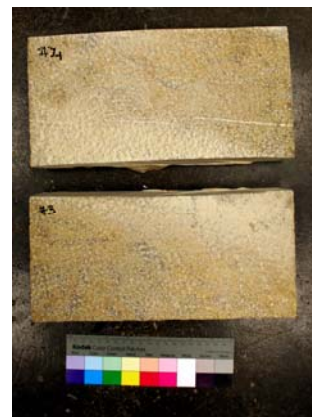
Materials Conservation and Laboratory Testing

Stone

- Absorption and bulk specific gravity of dimension stone (ASTM C97).
- Compressive strength of dimension stone (ASTM C170).
- Water vapor transmission (ASTM E96).
- Petrographic analysis of stone (ASTM WK 2609).
- Stone identification.
- Salts identification and quantification.
- Cleaning and graffiti removal.

Slate

- Flexural testing of slate (ASTM C120).
- Absorption of roofing slate (ASTM C121).
- Weather resistance of slate (ASTM C217).



Brick

- Compression for brick (ASTM C67).
- Absorption for brick (ASTM C67).
- Saturation coefficient (ASTM C67).
- Petrographic analysis of brick (ASTM WK 2609).
- Salts identification and quantification.
- Cleaning and paint removal.



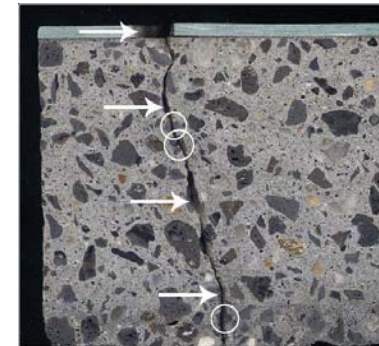
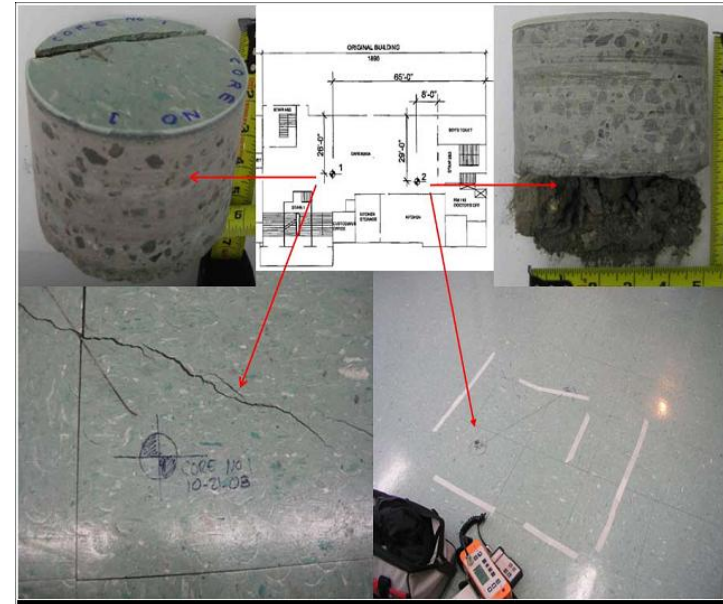
Mortar

- Compositional analysis of mortar (ASTM C1324).
- Petrographic analysis of mortar (ASTM C1324, Section 8).
- Gravimetric analysis and wet-chemical techniques.
- Mortar replication and/or sand selection.



Concrete

- Compressive strength of cylindrical concrete specimens (ASTM C39).
- Petrographic analysis of hardened concrete (ASTM C856, ASTM C457).
- Water soluble chlorides in mortar and concrete (ASTM C1218).
- Acid-soluble chlorides in mortar and concrete (ASTM C1152).
- Potential reactivity of concrete aggregates (ASTM C289).
- Depth of carbonation of weathered concrete.



Stucco

- Compositional analysis of stucco (ASTM C1324).
- Petrographic analysis of stucco (ASTM C1324, Section 8).
- Gravimetric analysis and wet-chemical techniques.
- Stucco replication and/or sand selection.

Plaster

- Compositional analysis of mortar, stucco, and plaster (ASTM C1324).
- Plaster compositional analysis and characterization.



Coatings and Consolidation Testing (before and after treatment)

- Water vapor transmission rate (ASTM E96).
- Modulus of rupture of stone cores (ASTM C99).
- Absorption and compression of stone (ASTM C67).

Painted Finishes

- Microscopic examination and recording and matching of all finish layers in each sample to the Munsell Color notation system and a commercial color system.
- Adhesion
- Paint removal methods.



Metal Testing

- Determination of original surface finish / patination of metals using EDS/FTIR.
- Chemical spot testing and microscopic techniques to diagnose deterioration.

