CZU LIGHTNING COMPLEX FIRES



Concrete Slabs and Foundations Damaged by Fire

Foundations and slabs are required to be included as part of the fire debris removed from a site unless specifically approved based on the following information. In general, the structural integrity of concrete and masonry (CMU) are adversely affected by fire, especially when the structure is completely consumed by the fire. The properties of the material may be irreversibly altered rendering it unsatisfactory for reuse in supporting a rebuilt structure.

For the foundation and slab to be reused the County requires the following:

- Foundation and slab must be tested to evaluate the compressive strength of the concrete in accordance with ASTM C39 or ASTM C140.
- These tests require taking core samples from foundations and doing a compressive test in a certified lab.
- Provide a letter from a licensed architect, civil or structural engineer certifying the foundation is acceptable for rebuild. The letter shall explain the basis for the decisions and shall include results from the core test.
- Owners are required to obtain approval from Building Division and the County Environmental Health Division for reuse of the foundation.

REQUIRED FOUNDATION REPORT CONTENTS

- **Title Page** Report title, property owner's name, property address, APN; author's name, title, professional engineering registration seal, signature, and date.
- **Project Description** Purpose and scope. Intent to re-use entire or partial foundation. Type of foundation system.
- **Photographs, Findings and Test Results** Include visual inspection, non-destructive testing and results, destructive testing and results, laboratory testing and results and photographic documentation. State major findings of investigation. Date(s) of site visit(s), testing, location of laboratory testing, etc.
- **Sketches/Drawings** A sketch of the foundation layout identifying locations of the damaged and discolored areas noted during visual observation. Identify locations of testing (e.g., Schmidt hammer test, pull test, coring, etc.)
- Evaluation of Findings and Test Results Engineering assessment of results.
- **Conclusions** Clearly state if the structural integrity is compromised or not. Clearly state if durability is affected and if so, how.
- **Recommendations** Provide clear recommendations for any remedial work necessary to address the defects identified in the report, and reference specific corresponding remediation details provided in the engineered plans. Include a summary of structural observations and special inspection requirements.
- Tables
- Reference Documents

