

# Guide to Decorative Concrete

Reported by Joint ACI-ASCC Committee 310

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AMERICAN SOCIETY OF  
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## Guide to Decorative Concrete

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**American Concrete Institute**  
3800 Country Club Drive  
Farmington Hills, MI 48331  
Phone: +1.248.848.3700  
Fax: +1.248.848.3701

[www.concrete.org](http://www.concrete.org)

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Reported by ACI Joint ACI-ASCC Committee 310

Larry Rowland, Chair

Clark Branum, Secretary

Jason Barnes  
Lance Boyer  
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David E. Stephenson  
Cori E. Sutton  
James Vermillion

Anne M. Werner  
Consulting members  
Harold P. Mats  
William R. Murray  
Joseph W. Nasvik

*This guide describes techniques for imparting aesthetic finishes to concrete flatwork, of which many can be combined for unique effects. The owner and architect/engineer will acquire detailed, practical guidance for achieving aesthetic effects using proven techniques. Recommendations are made for the production of cast-in-place decorative concrete flatwork, decorative stains, and overlays. In addition to attention to the specified materials, mixture designs, concrete placement, curing, protection, sealing, and other treatments, this guide also considers the effects of these treatments on the overall aesthetics of the project.*

Keywords: cementitious overlays; dry-shake hardeners and release agents; embossing; engraving; etching; inlays; polishing; stains; stamping; tooling.

## CONTENTS

### CHAPTER 1—INTRODUCTION AND SCOPE, p. 1

- 1.1—Introduction, p. 2
- 1.2—Scope, p. 2

### CHAPTER 2—DEFINITIONS, p. 3

### CHAPTER 3—GENERAL AND DESIGN CONSIDERATIONS, p. 4

- 3.1—General, p. 4
- 3.2—Process development, p. 4

- 3.3—Substrate preparation, p. 5
- 3.4—Jointing, p. 6
- 3.5—Joint filling and sealing, p. 6
- 3.6—Proper installation and quality control, p. 7
- 3.7—Curing, p. 8
- 3.8—Curing, p. 8
- 3.9—Sealers, p. 10
- 3.10—Safety, p. 10
- 3.11—Reinforcement, p. 10
- 3.12—Sustainability, p. 10

### CHAPTER 4—PLASTIC CONCRETE COLOR TECHNIQUES, p. 11

- 4.1—General, p. 11
- 4.2—Integral color, p. 11
- 4.3—Color shake-on hardeners, p. 13
- 4.4—Exposed aggregate, p. 14
- 4.5—Advantages, p. 15
- 4.6—Disadvantages, p. 15
- 4.7—Special procedures and tools, p. 16
- 4.8—Required products, p. 16
- 4.9—Safety, p. 16
- 4.10—Maintenance, p. 16

### CHAPTER 5—PLASTIC CONCRETE TEXTURING AND PATTERNING TECHNIQUES, p. 16

- 5.1—Texturing: embossing, imprinting, stenciling, and stamping, p. 16
- 5.2—Stamping, p. 17
- 5.3—Texture and pattern rollers, p. 19
- 5.4—Stencils (paper templates), p. 20
- 5.5—Object impressing, p. 21
- 5.6—Texturing with standard tooling, p. 21

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## CHAPTER 6—POST-PLACEMENT COLORING TECHNIQUES, p. 22

- 6.1—General, p. 22
- 6.2—Reactive stains, p. 24
- 6.3—Nonreactive stains and concrete dyes, p. 29
- 6.4—Acid etching, p. 30

## CHAPTER 7—POST-PLACEMENT TEXTURING AND PATTERNING TECHNIQUES, p. 30

- 7.1—General, p. 30
- 7.2—Ground and polished concrete, p. 32
- 7.3—Sandblast stenciling (abrasive blast stenciling), p. 40
- 7.4—Engraved concrete, p. 41
- 7.5—Decorative saw-cutting (scoring), p. 42

## CHAPTER 8—DECORATIVE OVERLAYS AND REPAIR METHODS, p. 43

- 8.1—General, p. 43
- 8.2—Special procedures and tools, p. 44
- 8.3—Required products, p. 45
- 8.4—Application, p. 45
- 8.5—Touch-ups and post-repair aesthetic treatments, p. 46

## CHAPTER 9—MAINTENANCE, p. 46

- 9.1—General, p. 46
- 9.2—Protective treatments, p. 46
- 9.3—Stained concrete, p. 47
- 9.4—Hardened and densified concrete, p. 47
- 9.5—Maintenance plan and closeout documentation, p. 47

## CHAPTER 10—REFERENCES, p. 47

- Authored documents, p. 48

## CHAPTER 1—INTRODUCTION AND SCOPE

### 1.1—Introduction

Decorative concrete has been in existence since approximately 70 A.D., when concrete was used for defining affluent or important areas of living space in colonial cultures (ConcreteNetwork.com 2019). Early examples of this type of adornment are the streets and paving throughout the city of Pompeii near Naples, Italy. Early decorative concrete used colored aggregates and varying shapes or natural materials embedded in concrete paving.

Traditionally, concrete has been specified more for its functional characteristics than as an enhancement to the aesthetics. Landscape architects were leaders in using concrete flatwork to enhance the visual appeal of hardscapes. Using color and texture introduced concrete as a landscape feature in addition to its functionality. An example is flatwork textured and colored to replicate the look of slate, brick, or natural stone, as shown in Fig. 1.1a and 1.1b.

The use of decorative concrete has been well received and considered as an alternative to other building materials for durable, versatile, and economical finishes. Designers are creating greater aesthetic appeal in projects by using one or more combinations of special concrete placement techniques, including integral concrete colors, color hard-



Fig. 1.1a—Stamped, colored concrete with slate and brick patterns in landscape setting (courtesy of Decorative Concrete Resources).



Fig. 1.1b—Concrete slab enhances design aesthetic with mimic of stone slab (courtesy of L. M. Scofield Company).

eners, chemical stains, pigments and dyes, surface texturing, jointing, exposed aggregate, surface embossing, polishing, and the use of sealants and coatings. The combinations of techniques and mediums described in this guide are exclusive; they cannot be replicated by any other durable medium.

### 1.2—Scope

This guide describes several techniques for imparting aesthetic finishes to concrete, many of which can be combined for unique effects (Fig. 1.2a and 1.2b). The guide provides detailed practical guidance for achieving aesthetic effects