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Introduction

Congratulations on your decision to design your project using FRAC! This Technical Manual can be utilized as a single source reference for designing and engineering using FRAC. You will find in the pages that follow, a comprehensive manual that addresses all the necessary design information including architectural and engineering details, attachment specifications as well as all of the necessary product information pertaining to its material properties.

Navajo FlexCrete Building Systems Inc. is the premier producer of Fiber Reinforced Aerated Concrete (FRAC). Our team has over a decade of experience in all facets of FRAC including; manufacturing and production, installation, training, design and engineering. We are dedicated to satisfying your high building standards for energy efficient, sound absorbent, fire and insect repellent structures. Our FRAC product line offers additional design benefits to you and your clients as detailed in the following chapters.

Aerated Concrete has successfully been used throughout the world for more than 85 years. Auto-claved Aerated Concrete was invented in Sweden by architect Johan Ericksson and was patented in 1924. AC has been available in most European countries for more than 50 years as well as Asia and Middle East for the past 40 years, and to a lesser extent, in Australia and South America for over 20 years.

FRAC is a lightweight, high strength building material used in a variety of applications for commercial, industrial and residential construction. FRAC is produced from traditional materials such as sand, cement, fiber, gypsum, aluminum and water and is transformed through the curing process into a completely inert Green building material. FRAC exhibits a wide range of excellent attributes.

FRAC has found acceptance among professionals as a superior building material in both load and non-load bearing applications such as sound and fire walls, wall cladding, shaft walls and fencing. The following pages detail the manufacturing of FRAC, the benefits including its physical properties, construction details and architectural specifications.

FRAC has taken concrete to the next level by reducing the density of conventional concrete to increase thermal efficiency while maintaining the structural integrity, sound, fire, and mold resistant characteristics needed for most projects. FRAC wall systems are the most balanced systems currently on the market, combining structural, thermal, fire, sound, and durability all in one wall component.

This manual was designed with the purpose of assisting our clients and associates in fully understanding FRAC's properties including design and construction details. We invite you to review its contents and graciously accept your questions and feedback.

Thank you for your consideration in using FRAC for your next project. We look forward to working with you!