

## Dar Al Riyadh Insight #97

### Reducing Waste in Construction

*Dar Al Riyadh Insights reflect the knowledge and experience of our Board, executives and staff in leading and providing PMC, design and construction management services. Dar Al Riyadh believes in the importance of broadly sharing knowledge with our clients and staff to improve project outcomes for the benefit of the Kingdom of Saudi Arabia.*

#### Introduction

This series of Insights focus on waste reduction in construction projects. Increasing emphasis on environmental, social, and governance (ESG) goals, including those incorporated in the United Nations Sustainable Development Goals (SDG), has elevated attention on waste reduction throughout all sectors and activities. Construction projects represent a growing area of focus with opportunities being identified in:

- Energy usage and source
- Materials selections, including reuse
- Waste elimination through design
- Construction management and work processes
- Owner-centric processes

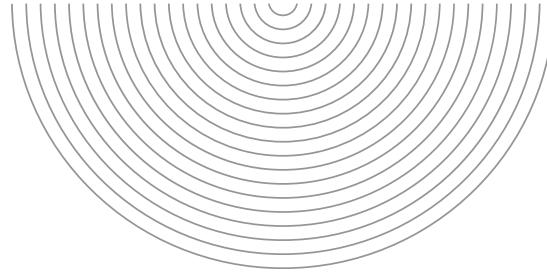
The decisions made or failed to be made, the timeliness of those decisions, and the completeness of decision frameworks have much to do with the industry's ability to reduce construction waste.

For example, in 2018, 600 million tons of construction and demolition waste were generated in the United States, more than twice the amount of generated municipal solid waste. The vast majority of this waste was from demolition waste. This suggests further opportunities for the 25 percent not currently targeted for reuse of these materials. These opportunities begin by eliminating potential waste streams, reducing the 25-30 percent of construction materials arriving at a site, which often end up in the waste stream.

#### Begin at the Beginning

Construction waste reduction begins at project conception, not inception. It is at this stage where the owner can make key decisions that will impact overall environmental, social, and governance (ESG) performance—with construction waste reduction being one element of this broader focus.

For the owner, reducing waste must begin with a strong and clear commitment to both the organization's and the project's life-cycle performance from an ESG perspective. This commitment should be embodied in the owner's strategic business objectives and translated to desired outcomes both during the design and construction phases as well as during the much longer operations phase.



During the project conception phase, the owner's project requirements must include clear ESG requirements to guide development of the engineer's basis of design. Alignment and comprehensive commitment to the desired strategic objectives and outcomes must be a whole of the owner's organizational commitment. Procurement and contracting strategies should incentivize achievement and out performance in waste reduction in both the construction and operating phases. This Executive Insight will not further consider operating phase waste reduction except to say that it really begins at this conception stage.