



Dar Al Riyadh Insight #70

Construction Environmental Sustainability

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 is focused on environmental sustainability during the construction phase of a facility's lifecycle. Sustainability requires a comprehensive consideration of economic, environmental and social factors through a facility's entire lifecycle. Sustainability begins at the project selection and planning stage and continues through eventual decommissioning, disposal and site restoration or reuse. The scope of these Insights is focused on a deeper dive into just one portion of this lifecycle but decisions made must reflect the broader considerations across the entirety of the lifecycle.

Environmental sustainability

Environmental sustainability during construction begins at the construction planning stage and the selection of significant means and methods to be employed. Initial considerations revolve around how we can best utilize the site while minimizing environmental disturbance and other attendant impacts. Staging of construction becomes a significant consideration as does the logistical movement of labor and materials to, from and around the site. Environmental considerations during construction will vary greatly between urban and industrial settings and proximity to sensitive environmental areas and nearby populations.

Environmental sustainability will require post-construction restoration in addition to environmental controls during construction. This planning must begin as part of initial construction planning and special attention is required for dust and noise control as well as water and effluent runoff, treatment, and control.

Increasing attention is required for greenhouse gas minimization and considerations related to embedded carbon are growing in importance. The latter influences the materials of construction.

In the balance of this series we will look at various aspects of construction, highlighting some of the environmental sustainability considerations that may be reflected in design specifications or adopted as best practices by constructors.