

April 2023



Approach Viaduct Bridge Milestone on the Harbor Bridge Project (HBP)

Congratulations to the HBP crews who achieved a significant project (HBP) ing all North and South Approach Viaduct Bridge (AVB) substructures in April. The completion of the substructure marks considerable progress and the near overall completion (September 2023) of all construction associated with this crucial phase and ultimate motorist transition to and from the new Cable-Stayed Bridge (CSB). With the substructure in place, the HBP achieved a key engineering feat, setting the stage to continue erecting the remaining superstructure span components with the launching gantry crane (South AVB) and falsework towers (North AVB). Following is an overview of the substructure construction and material quantities. Linear Feet (LF) * Pounds (LB) * Cubic Yards (CY)

North AVB on North Beach

Unique challenge: New US 181 mainlanes had to be built, traffic rerouted, and demolition of the old Burleson Street overpass needed to occur before much of the substructure construction began. Foundation: 24" Square Prestressed Precast Concrete Piles ~ 858 each ~ 89,100 Total LF

	•	Rebar	Concrete
Poured Footings:	44	2,653,520 LB	11,880 CY
Column Lifts:	244	3,515,309 LB	8,351 CY
Pier Caps:	44	893,447 LB	4,396 CY
North Abutment:	1	237,421 LB	1,046 CY

South AVB from Whataburger Field to IH 37

Unique challenges: Crew members were required to obtain Union Pacific Railroad certifications and adhere to strict protocols due to the active rail line beneath Span 12. Merging ramps, sign column extensions, and two massive pier caps that straddled two columns* created complex configurations for South AVB substructure construction. The long south approach runs alongside the Salt Flat Channel, adding another layer of environmental compliance and dewatering activities as the channel underwent expansion.

Foundation: 24" Square Prestressed Precast Concrete Piles ~ 1,212 each ~ 108,900 Total LF

		Rebar	Concrete
Poured Footings	59	3,243,191 LB	14,519 CY
Column Lifts	314	4,296,489 LB	10,207 CY
Pier Caps*	57	1,091,991 LB	5,373 CY
South Abutment	1	290,181 LB	1,278 CY





