

●What SANTEC M&E Q.S. CORPORATION can do (Design Phase)

Phase	Design							
Event	Basic designing		Completion of basic designing		Detailed designing		Completion of detailed designing	
Design information [Input]	Table of areas, layout drawings, ground plans, sectional drawings, facility overview, equipment tables, and major system diagrams		Client's proposal for improvement to the original design (design VE)		Detailed design drawing (including specifications and documents of itemization of work)		Client's proposal for improvement to the original design (design VE)	
Methods to apply	Addition of the quantity of major equipment (Material A) Addition of major systems (Material A) Addition of functional unit and unit price per functional quantity (major cost factors for each work) (⇒very detailed for estimation techniques (the approximate quantity method))				Approximate calculation method on the left (for designer (client placing an order)) <hr/> Calculation of work costs based on a BQ surveying			
Our company's action [Output]	Detailed calculation of approximate work costs (for each function)		Calculation of approximate work costs for VE plan (for each function)		Detailed calculation of approximate work costs, and preparation of estimate for public works (detailed quantity surveying documents)		Preparation of work estimate based on VE plan	
		Quantity Material take-off drawing Estimate with costs excluded Estimate with costs included		Quantity Material take-off drawing Estimate with costs excluded Estimate with costs included		Quantity Material take-off drawing Estimate with costs excluded Estimate with costs included		Quantity Material take-off drawing Estimate with costs excluded Estimate with costs included

Incorporate

	Consideration for building content	Optimization of building value within the target budget (improvement of cost effectiveness), and review of the design content	Determination of building content (final cost confirmation), monitoring of estimated and actual results, modification to approximate calculation, and incorporation into order placement strategy	Determination of building content/value optimization within target budget, monitoring of estimated and actual results, and modification to approximate calculation as of completion of basic designing (VE study)
Usefulness of our company's deliverables	Cost planning aspect	<ul style="list-style-type: none"> ● Update of a cost management table ● Update of a cost allocation plan (calculation of basic design costs) ● Feedback into building overview 		<ul style="list-style-type: none"> ● Update of a cost management table ● Update of a cost allocation plan (calculation of detailed design costs) ● Feedback into building overview
	Cost control aspect	<ul style="list-style-type: none"> ● Monitoring of estimated and actual results using a cost management table ● Analysis of differences through monitoring of estimated and actual results 		<ul style="list-style-type: none"> ● Monitoring of estimated and actual results using a cost management table ● Analysis of differences through monitoring of estimated and actual results
	Order placement strategy aspect		Competitive bidding: Projection of the bidding price range and setting of a predetermined price	
			Sole-source procurement: Projection of a proper price based on the contractor concerned and the market conditions	
Usefulness for fair and neutral judgment				