

		Formation/Unit		Primary Lithologies		Geologic Conditions	Unit Thickness	Occurrence in Site Area		
CENOZOIC	Quaternary	Holocene	Quaternary Marsh deposits		muck and peat; silt, sand and clay		aggradation of Delaware Bay estuary	variable thickness	present over most of the site area in low lying areas	
		Pleistocene	~~~~~ unconformity ~~~~~							
			Delaware Bay Group	DELAWARE	NEW JERSEY					
	Scotts Corners Formation			Cape May Formation	estuarine terrace deposits with coarse to fine sand and pebbles with concentrations of heavy minerals; peat; isolated fluvial deposits?		transgressive and regressive cycles	variable thickness	outcrops in eastern and western portions of the site area	
	~~~~~ unconformity ~~~~~									
	Lynch Heights Formation									
	~~~~~ unconformity ~~~~~						regression and erosion			
	Tertiary	Upper Tertiary (Miocene)	Kirkwood Formation		clay silt and sand deposited in two or three marine cycles		polycyclic transgression and regression phases	90 feet at southern portions of site area; pinches out northward	subcrop only	
			~~~~~ unconformity ~~~~~				regression and erosion			
		Lower Tertiary	Shark River Formation		glauconitic sand and mudstone		low sediment input	70 feet (Reference 2.5.1-17)	subcrop only	
			~~~~~ unconformity ~~~~~				regression and erosion			
			Manasquan Formation		lower glauconitic member; upper clayey sand to silt member		low sediment input and bioturbation	40 feet (Reference 2.5.1-17)	subcrop only	
			~~~~~ unconformity ~~~~~				regression and erosion			
	Vincentown Formation		quartz sand to quartz-rich calcareous sand with bryozoans and foraminifera		low sediment input and extreme bioturbation	90 feet (Reference 2.5.1-17)	outcrops in NW site area			
	Hornerstown Formation		highly glauconitic sand with distinctive green color			30 feet (Reference 2.5.1-17)				
	MESOZOIC	Cretaceous	Upper Cretaceous	Navesink		fossiliferous, clayey glauconitic sand		transgression to midshelf conditions	20 feet (Reference 2.5.1-17)	subcrop only
				Mount Laurel Formation		thinly bedded clays and sands with cross-bedding; thin pebbly sands		regressive pulse; low sediment input	100 feet (Reference 2.5.1-17)	subsurface only
				Wenonah Formation		clayey, silty, slightly glauconitic fine sand		transgression; low sediment input	20 feet (Reference 2.5.1-17)	
Marshalltown Formation				intensely burrowed, very silty fine sand with glauconite		regressive pulse	25 feet (Reference 2.5.1-17)			
Englishtown Formation				micaceous silt to very fine sand		transgression and establishment of widespread marine conditions; low sediment rates	120 feet (Reference 2.5.1-17)			
Woodbury Formation				micaceous, chloritic, silty clay		transition to marine conditions	50 feet, pinches out north of site location (Reference 2.5.1-17)			
Merchantville Formation				glauconitic sand to micaceous silty clay		regression and erosion				
~~~~~ unconformity ~~~~~										
Potomac Group (Formation)			white, gray and red interbedded silts, clays, and quartzose sand		aggrading alluvial plain; thermal subsidence	800 to 1650 feet (Reference 2.5.1-17)				
~~~~~ pre-Cretaceous unconformity ~~~~~					uplift and erosion					
Triassic	Upper Triassic	Basement Complex				Amalgamation of Pangea followed by rifting to form North America	undetermined			
		Triassic Basin?		Fanglomerates and lacustrine sediments; diabase volcanics						
PRECAMBRIAN? PALEOZOIC?	Proterozoic? Paleozoic?	NeoProterozoic to Silurian?	Carolina Superterrane?	Philadelphia Terrane?	meta mafic to felsic plutons and volcanics with sediments, and ultramafic components	aluminous to quartz-rich schist with interbedded amphibolites (Wissahickon Formation) with ultramafic components; Wilmington Complex felsic to mafic arc complex				