

**YANGON CITY DEVELOPMENT COMMITTEE
ENGINEERING DEPARTMENT (BUILDING)**

Detailed checklist of structural design documents for final permit (4 Storey To 8 Storey)

Project:		Address
Owner:		
Date:		

Items	Particular	Value	√	×	Comments
II	Design Report				
	2.1 Design Criteria				
	2.1.1 Design Code and References, Specification				
	2.1.2 Structural System				
	2.1.3 Material Specifications				
	Minimum specified 28-day concrete cylinder strength, f'_c				
	Minimum specified yield strength of reinforcing bars, f_y				
	Minimum specified yield strength of structural steel, f_y				
	Minimum specified ultimate strength of structural steel, f_u				
	Minimum specified yield strength of pre-stressing steel, f_{py}				
	Welds: Electrode Classification F_{xx}				
	Bolts: Classification				
	Other material				
	2.1.4 Soil Investigation Report				
	2.1.5 Design Loads				
	2.1.5.1 Dead Load				
	Self-weight of the structure				
	Wall partitions (exterior and interior walls)				
	Movable partitions				
	Ceiling finishes				
	Electrical, mechanical utilities and services				
	Other miscellaneous weights				
	2.1.5.2 Live Load				
	General occupancy				
	Hallways/corridors				
	Exterior Balcony				
	Exit Facilities				
	Others				
	2.1.5.3 Seismic Load				
	Seismic zone factor				
	Soil profile type				
	Importance factor				
	Overstrength factor				
	2.1.5.4 Wind Load				
	Basic wind speed				
	Importance factor				
	Exposure category				

		2.1.5.5	Miscellaneous (Fluid, Earth, Surcharge, etc)				
		2.1.6	Load Combination				
	2.2	Structural Analysis					
		2.2.1	Static Analysis				
		2.2.2	Dynamic Analysis				
		2.2.3	Analysis Input Data				
		2.2.4	Analysis Output Results				
		2.2.5	Analysis Soft Copy				
	2.3	Superstructure Design					
		2.3.1	Superstructure Design				
		2.3.1.1	Beam Design				
		2.3.1.2	Column Design				
		2.3.1.3	Slab and Stair Design				
		2.3.1.4	Shear Wall Design				
		2.3.1.5	Car Ramp Design				
		2.3.1.6	Others (if necessary)				
		2.3.2	Superstructure Checking				
		2.3.2.1	Storey Unit Weight Check				
		2.3.2.2	Storey Drift Check				
		2.3.2.3	Soft Storey Check				
		2.3.2.4	P-Delta Check				
		2.3.2.5	Torsional Irregularity Check				
		2.3.2.6	Overturning Check				
		2.3.2.7	Diaphragm Discontinuity Check (if necessary)				
		2.3.2.8	Base Shear/ Weight Ratio				
		2.3.2.9	Check Dual System				
	2.4	Substructure Design					
		2.4.1	Substructure (Pile foundation)				
		2.4.1.1	Pile Capacity Calculation				
		2.4.1.2	Lateral Subgrade Reaction Calculation				
		2.4.1.3	Pile Base Spring and Skin Friction Calculation				
		2.4.1.4	Pile Cap Design				
		2.4.1.5	Cap Beam Design				
		2.4.1.6	Pile Settlement Calculation				
		2.4.1.7	Soil Profile Type Calculation				
		2.4.1.8	Liquefaction Analysis				
		2.4.2	Substructure (Shallow foundation)				
		2.4.2.1	Allowable bearing capacity of soil				
		2.4.2.2	Modulus of subgrade reaction of soil				
		2.4.2.3	Punching Shear Check				
		2.4.2.4	Settlement Calculation				
		2.4.3	Substructure (Basement)				
		2.4.3.1	Basement Retaining Wall Design				
		2.4.3.2	Basement Slab Design				
	2.5	Steel Structure					
		2.5.1	Bolted and Welded Connection Design				
		2.5.2	Deck Slab Design				

		2.5.3	Bracing Design				
		2.5.4	Base Plate Design				
		2.5.5	Others (if necessary)				
	2.6	Earth Retaining Structure					
		2.6.1	Overturning Check				
		2.6.2	Sliding Check				
		2.6.3	Bearing Capacity Check				
		2.6.4	Others (if necessary)				
III	DEEP EXCAVATION						
	3.1	Analysis and Design					
		3.1.1	Code of Practice and Design Reference, Specification				
		3.1.2	Earth Retaining Structural System				
		3.1.3	Material Properties				
		3.1.4	Analysis Input				
		3.1.5	Analysis Output Result				
		3.1.6	Structural Design Results				
		3.1.7	Toe Stability Check				
		3.1.8	Base Heave Check				
		3.1.9	Connection Design				
		3.1.10	Analysis Soft Copy				
IV	PILE LOAD TEST						
	4.1	Method of Statement					
		4.1.1	Code of Practice and Design Reference				
		4.1.2	Method of Statement of Pile Load Test				
		4.1.3	Material Properties				
		4.1.4	Pile Design Report by Foundation Designer (Geotechnical and Structural Design)				
		4.1.5	Geotechnical Report				
		4.1.6	Site Location & Building Layout Plan				
		4.1.7	Building Layout Plan with Bore Holes				
		4.1.8	Piling Plan with Test Pile Locations				
		4.1.9	Test Pile details				
		4.1.10	Anchor Pile Details (if necessary)				
		4.1.11	Sample Record Form				
		4.1.12	Load Conversion Table				
	4.2	Report					
		4.2.1	Code of Practice and Design Reference				
		4.2.2	Material Properties				
		4.2.3	Piling Plan with Test Pile Locations				
		4.2.4	Test Pile details				
		4.2.5	Anchor Pile Details (if necessary)				
		4.2.6	Test Results				
		4.2.7	Recommendation for Pile Capacity Results				
		4.2.8	Calibration Certificate				
		4.2.9	Record Form				

V	SPECIFIC STRUCTURAL ELEMENTS					
5.1		Slender Columns Design				
5.2		Columns supporting transfer beams				
5.3		Columns supporting long span beams				
5.4		Columns supporting cantilever beams				
5.5		Cantilever beams				
5.6		Long span beams (span > 30ft)				
5.7		Transfer beams				
5.8		Ground Tank Design				
5.9		Others (if necessary)				