

ARCHITECTURAL SERVICES DEPARTMENT

**STANDARD METHOD OF
MEASUREMENT
FOR
BUILDING ELEMENTS**

**GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION**

**ARCHITECTURAL SERVICES DEPARTMENT
QUANTITY SURVEYING BRANCH**

**QUEENSWAY GOVERNMENT OFFICES
66 QUEENSWAY
HONG KONG**

2015 EDITION

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FOR
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INTRODUCTION

This booklet contains the rules of measurement for the standard set of building elements to be used on Architectural Services Department building projects.

THE PROJECT COST MODEL

The Project Cost Model on page (iv) shows how the total project cost is built up from those costs relating to the normal main contract (NET BUILDING COST [NBC]) which, when added to the mechanical & electrical services cost, become the GROSS BUILDING COST [GBC]. The GBC represents the cost of the structure above and below ground. However certain site development and external works costs need to be included and these are added to the GBC to compute the NET PROJECT COST [NPC]. The costs of government stores, furniture and equipment, consultant's fees and a contingency are added to calculate the GROSS PROJECT COST [GPC].

The Project Cost Model
01 - Preliminaries plus 02 - Substructure plus 03 - Superstructure
NET BUILDING COST
plus 04 - Mechanical & Electrical Services
GROSS BUILDING COST
plus 05 - External Works & Drainage plus 06 - Site Development
NET PROJECT COST
plus 07 - Stores, Furniture & Equipment plus 08 - Consultant's Fees plus 09 - Contingency
GROSS PROJECT COST

THE ELEMENT COST MODEL

Each project cost is broken down into nine element groups. These are shown in the previous Project Cost Model and again in the Project Element Cost Model on page (vi).

Within each element group there are various elements. Each element represents a function of the building or its environs. There are thirty six basic elements representing the major cost centres of the total project.

To allow finer control over the apportionment of cost, some elements are further divided into sub-elements. This permits cost significant parts of the element to be monitored in some details. For example the Structure element is divided into Frame, Roof, Upper Floors, Structural Walls, etc. A full list of sub-elements is given in Table 1.

RULES OF MEASUREMENT

Generally

To standardise the preparation of cost analyses, measurement rules are provided. Each element/sub-element is given a measurement unit for easy cost identification. Those elements given a measurement unit of ITEM assume that a lump sum value will be allocated, thereby making it unnecessary to lay down measurement rules. On the other hand all other measurement units, e.g. M^3 , M^2 , M etc., have been given measurement rules which reflect the complexity of the measurement item.

There is also a 'definition' describing the various works which fall into each element/sub-element. The definition is not intended to be restrictive but if used with the section indicating 'exclusions', then it is not too difficult to identify the appropriate element for a particular work item.

Definition of Construction Floor Area - CFA

CFA is the area to be used in describing the amount of building works completed. This is the sum of all areas at all floor levels, including basements, mezzanine floors, balconies and enclosed rooftop structures, measured to the outer face of the external walls including its external cladding, i.e. the main building line, and measured over all partitions, columns, internal or external structures and load-bearing walls, party walls, stair wells, lift wells, escalator openings, pipe and drain ducts, cable riser shafts and the like. Areas of bay windows are also included.

For exclusions, generally, decorative feature projections beyond the outer face of external walls such as fins, architrave, solar shading devices and the like shall be excluded from the calculation of CFA. Also excluded are uncovered trafficable roof areas such as external playgrounds, landscaped areas and the like.

The Project Element Cost Model

G R O S S P R O J E C T C O S T	N E T P R O J E C T C O S T	G R O S S B U I L D I N G C O S T	N E T	01 PRELIMINARIES PR Preliminaries
			B U I L D I N G	02 SUBSTRUCTURE FN Foundations
			C O S T	03 SUPERSTRUCTURE SC Structure (Reinforced Concrete) SO Structure (Other) EW External Walls (Non-structural) WD Windows and External Doors CW Curtain Walling IP Internal Partitions ID Internal Doors IF Internal Finishes EF External Finishes FF Fittings and Fixtures SW Sanitary Fittings and Above Ground Drainage Systems BB Builders Work in Connection with Services BP Builders Profit and Attendance on M & E Services
			C O S T	04 M & E SERVICES EE Electrics SB Low Voltage Cubicle Switchboard GE Diesel Generating Sets UP Uninterruptible Power Supply CB Broadcast Reception AC Air-conditioning TG GAS FS Fire Services SV Plumbing MS Horizontal & Vertical Movement BS Building Automation SP Other Specialist Services
	05 EXTERNAL WORKS & DRAINAGE XW External Works DR Drainage	06 SITE DEVELOPMENT SI Site Investigation SF Site Formation PI Piling CS Caissons		
	07 STORES, FURNITURE & EQUIPMENT GS Government Stores FE Furniture & Equipment	08 CONSULTANTS FEES CF Consultants Fees 09 CONTINGENCY CY Contingency		

Table 1

Standard List of Elements and Sub-Elements

Major Cost Code	Minor Cost Code	Element	Sub-Element	
NET BUILDING COST	01 PRELIMINARIES	PR PRELIMINARIES		
	02 SUBSTRUCTURE	FN Foundations	FNSE Structural Elements (Foundations) FNBW Basements FNGF Ground Floor Slabs FNSU Foundation Sundries	
	03 SUPERSTRUCTURE	SC Structure (RC)	SCFF Frame (RC)	SCFF Frame (RC)
			SCRf Roofs (RC)	SCRf Roofs (RC)
			SCUF Upper Floors (RC)	SCUF Upper Floors (RC)
			SCSW Structural Walls (RC)	SCSW Structural Walls (RC)
			SCSL Stairs & Landings (RC)	SCSL Stairs & Landings (RC)
			SCBR Balustrades & Handrails (RC)	SCBR Balustrades & Handrails (RC)
			SCSU Structure Sundries (RC)	SCSU Structure Sundries (RC)
			SO Structure (Other)	SOFF Frame (Other)
		SORF Roofs (Other)		SORF Roofs (Other)
		SOUF Upper Floors (Other)		SOUF Upper Floors (Other)
		SOSW Structural Walls (Other)		SOSW Structural Walls (Other)
		SOSL Stairs & Landings (Other)		SOSL Stairs & Landings (Other)
		SOBR Balustrades & Handrails (Other)		SOBR Balustrades & Handrails (Other)
		SOSU Structure Sundries (Other)	SOSU Structure Sundries (Other)	
		EW External Walls (non-structural)		
		WD Windows & External Doors		
		CW Curtain Walling		
		IP Internal Partitions		
		ID Internal Doors		
	IF Internal Finishes	IFWF Wall Finishes	IFWF Wall Finishes	
		IFFF Floor Finishes	IFFF Floor Finishes	
IFCF Ceiling Finishes		IFCF Ceiling Finishes		
IFSF Stair Finishes		IFSF Stair Finishes		
IFBF Balustrade & Handrail Finishes		IFBF Balustrade & Handrail Finishes		
IFSU Internal Finishes Sundries		IFSU Internal Finishes Sundries		
EF External Finishes	EFRF Roof Finishes	EFRF Roof Finishes		
	EFWF Wall Finishes (External)	EFWF Wall Finishes (External)		
	EFFF Floor Finishes (External)	EFFF Floor Finishes (External)		
	EFCF Ceiling Finishes (External)	EFCF Ceiling Finishes (External)		
	EFSF Stair Finishes (External)	EFSF Stair Finishes (External)		
	EFBF Balustrade & Handrail Finishes (External)	EFBF Balustrade & Handrail Finishes (External)		
EFSU External Finishes Sundries	EFSU External Finishes Sundries			
FF Fittings and Fixtures				
SW Sanitary Fittings and Above Ground Drainage Systems	SWRW Rainwater Installation	SWRW Rainwater Installation		
	SWSF Sanitary Fittings	SWSF Sanitary Fittings		
	SWSW Soil & Waste Installation	SWSW Soil & Waste Installation		
	SWRD Refuse Disposal	SWRD Refuse Disposal		
	SWSU Above Ground Drainage Systems Sundries	SWSU Above Ground Drainage Systems Sundries		
BB BWIC with Services				
BP Builders Profit & Attendance on M & E Services				

Major Cost Code	Minor Cost Code	Element	Sub-Element
GROSS BUILDING COST	04 MECHANICAL & ELECTRICAL SERVICES	EE Electrics	EEML Incoming Mains
			EEMD Main & Submain
			EELP Lighting & Power
			EECC Call Bell System
			EEOS Electrical Works Associated with Other Services
			EETT Trunking & Tray
			EEPR Lightning Protection
			EEEB Earthing & Bonding
			EEGS Items Supplied by Government
			EESU Electrical Sundries
		SB Low Voltage (LV) Cubicle Switchboards	SBSI LV Cubicle Switchboards Installation
			SBSU LV Cubicle Switchboards Sundries
		GE Diesel Generating Sets	GESI Diesel Generating Sets Installation
			GESU Diesel Generating Sets Sundries
		UP Uninterruptible Power Supply	UPSI Uninterruptible Power Supply System
			UPSU Uninterruptible Power Supply Sundries
		CB Broadcast Reception	CBSI Broadcast Reception Installation
			CBSU Broadcast Reception Sundries
		AC Air-conditioning	ACCH Chilled Water System
			ACCW Condenser Water System
			ACHW Heating Water System
			ACSC Steam & Condensate System
			ACFO Fuel Oil System
			ACWT Water Treatment
			ACAC Air Handling & Distribution System
			ACCD Condensate Drain System
			ACUA Unitary Air Conditioning System
			ACCR Cold Rooms
			ACMV Mechanical Ventilation System
			ACSV Staircase Ventilation System
			ACKE Kitchen Exhaust System
			ACSE Special Exhaust System
			ACEC Electrical & Control System (Air-conditioning)
			ACSU Air-conditioning Sundries
			TG Gas
		FS Fire Services	FSHH Fire Hydrant & Hosereel System
			FSSS Sprinkler System
			FSGE Gaseous Extinguishing System
			FSAV Audio/Visual Advisory System
			FSAD Automatic Fire Alarm & Detection System
			FSPA Portable Hand-operated Appliances
			FSES Electricity Supply
			FSCS Control System (Fire Services)
			FSSU Fire Service Sundries (Fire Services)
		SV Plumbing	SVRW Rainwater Recycling System
			SVCW Cold Water Installation
			SVHW Hot Water Installation
SVFW Flushing Water Installation			
SVFF Cold Water for Fire Services			
SVES Electricity Supply (Plumbing)			
SVCS Control System (Plumbing)			
SVSU Plumbing Sundries			

Major Cost Code	Minor Cost Code	Element	Sub-Element
NET PROJECT COST	05 EXTERNAL WORKS & DRAINAGE	MS Horizontal & Vertical Movement	MSLF Lifts MSCO Conveyors MSES Escalators
		BA Building Automation	
		SP Other Specialist Services	SPKE Kitchen Equipment SPOS Other Specialist Installations SPME Mechanical Plant & Equipment
		XW External Works	XWSP Site Preparation
			XWRS Retaining Structures
			XWSE Site Enclosures & Divisions
			XWRO Roads & Pavings
			XWHL Hard Landscaping
			XWSL Soft Landscaping
			XWFE Fittings & Equipment (External Works)
			XWES External Services
			XWUC Utility Connections
			XWAN Ancillary Structures
		DR Drainage	DRSW Soil & Surface Water
			DRMH Manholes
DRST Sewage Treatment			
DRCH Channels			
DRCP Catchpits			
DRDC Drainage Connections			
06 SITE DEVELOPMENT	SI Site Investigation		
	SF Site Formation		
	PI Piling	PISP Sheet Piling PIPP Driven or Bored Piling	
		CS Caissons	CSCP Caisson Piling CSCW Caisson Contiguous Walls
07 STORES, FURNITURE & EQUIPMENT	GS Government Stores		GSBY Building Stores GSBZ M & E Services Stores
	FE Furniture & Equipment	FECL Client Department (F&E) FEDA Domestic Appliances (F&E)	
08 CONSULTANT'S FEES	CF Consultant's Fees	CFGX Geotechnical Consultants	
		CFAR Architectural Consultants	
		CFST Structural Consultants	
		CFBS Building Services Consultants	
		CFQS Quantity Surveying Consultants	
		CFOO Other Specialist Consultants	
09 CONTINGENCY	CY Contingency		

GROUP ELEMENT : 01 - PRELIMINARIES

Element	:	PR – Preliminaries
Unit	:	M ²
Rules	:	Construction floor area - measured overall to the outer face of external wall.
Definition	:	<u>All</u> contractor's preliminary costs not otherwise included in the unit rates.
Exclusions	:	

GROUP ELEMENT : 02 - SUBSTRUCTURE

Element	:	FN - Foundations
Unit	:	M ²
Rules	:	Site area of building at ground floor level - measured overall to the outer face of external wall.
Definition	:	Work below and including ground floor slab.
Exclusions	:	Internal partitions, upper suspended basement slabs, finishes etc. in basements and finishes to the ground floor slab.

Sub-Element	:	FNSE - Structural Elements (Foundations)
Unit	:	M ²
Rules	:	Site area of building at ground floor level - measured overall to the outer face of external wall.
Definition	:	Pile caps, ground beams, tie beams, structural walls, columns etc. including excavation, blinding, concrete, reinforcement and formwork.
Exclusions	:	

Sub-Element	:	FNBW - Basements
Unit	:	M ³
Rules	:	Volume of basement measured to outside face of the external wall, the top side of the basement cover slab and the underside of the basement ground floor slab.
Definition	:	Basements, lift and escalator pits including bulk excavation, external walls, tanking and filling around external walls. Including diaphragm walls and barrettes.
Exclusions	:	Internal partitions, suspended slabs, finishes etc. are to be included in the appropriate superstructure element. Lowest basement slabs to be included with ground floor slabs (see FNGF).

Sub-Element	:	FNGF - Ground floor slabs
Unit	:	M ²
Rules	:	Area measured overall to the outer face of external wall.
Definition	:	Ground floor and lowest basement slabs, including reduce level excavation, hardcore filling, membranes, concrete, reinforcement and formwork. Includes thickening out for non-structural walls.
Exclusions	:	Ground beams (see FNSE). Service ducts (see FNSU). Upper basement floor slabs (see SCUF).

Element : FN - Foundations cont'd

Sub-Element	:	FNSU - Foundation Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Service ducts including excavation, concrete, reinforcement and formwork. Underpinning and all temporary support.
Exclusions	:	

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	SC - Structure (Reinforced Concrete)
Unit	:	M ²
Rules	:	Construction floor area - measured overall to the outer face of external wall.
Definition	:	All structural elements of the building above ground floor slab, constructed in reinforced concrete.
Exclusions	:	Steel structures, brick structures and infill walls, timber and other types of structure.

Sub-Element	:	SCFF - Frame (Reinforced Concrete)
Unit	:	M ²
Rules	:	Construction floor area - measured overall to the outer face of external wall.
Definition	:	Columns and beams, fins and projections where part of columns and beams including reinforcement, formwork, fair faced formwork finishes. Portal frames. Includes pre-cast concrete units.
Exclusions	:	Concrete casing to steel framed buildings (see SOFF).

Sub-Element	:	SCRf - Roof (Reinforced Concrete)
Unit	:	M ²
Rules	:	Gross roof area - measured overall on plan to outer face of external wall, rainwater gutter, verge or eaves.
Definition	:	Roof slabs, rainwater gutters, verge or eaves upstand kerbs including reinforcement, formwork, fair faced formwork finishes. Includes pre-cast concrete units.
Exclusions	:	Parapet wall (see SCSW).

Sub-Element	:	SCUF - Upper Floors (Reinforced Concrete)
Unit	:	M ²
Rules	:	Area measured overall to the outer face of external wall.
Definition	:	Suspended floors, upper basement suspended floors, mezzanine floors, balcony floors including reinforcements, formwork, fair faced formwork finishes. Includes pre-cast concrete units.
Exclusions	:	Floor support beams (see SCFF).

Element : SC - Structure (Reinforced Concrete) cont'd

Sub-Element	:	SCSW - Structural Walls (Reinforced Concrete)
Unit	:	M ²
Rules	:	Measured the actual area of structural wall between columns.
Definition	:	Structural walls, lift shaft walls, balcony and parapet walls, fins and projections including reinforcement, formwork, fair faced formwork finishes. Includes pre- cast concrete units.
Exclusions	:	Columns, fins and projections where part of columns and beams, infill panel walls and other non-structural walls (see EW & IP).

Sub-Element	:	SCSL - Stairs & Landings (Reinforced Concrete)
Unit	:	M ²
Rules	:	Measured the gross plan area at each level including intermediate landings.
Definition	:	Stair slabs, treads, risers, intermediate landings, strings and aprons including reinforcement, formwork, fair faced formwork finishes. Includes pre-cast concrete units.
Exclusions	:	Landings at floor levels (see SCUF).

Sub-Element	:	SCBR - Balustrades & Handrails (Reinforced Concrete)
Unit	:	M
Rules	:	Measured the length on plan of the balustrade or handrail.
Definition	:	Includes balustrades and handrails to stairs and other locations.
Exclusions	:	

Sub-Element	:	SCSU - Structure Sundries (Reinforced Concrete)
Unit	:	ITEM
Rules	:	
Definition	:	Sundry items, including planter boxes and window boxes. Expansion joints. Includes pre-cast concrete sundries.
Exclusions	:	Penthouses, machine rooms, stair enclosures at roof level and water tanks.

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	SO - Structure (Other)
Unit	:	M ²
Rules	:	Construction floor area - measured overall to the outer face of external wall.
Definition	:	All structural elements of the building above ground floor slab, constructed in materials other than reinforced concrete.
Exclusions	:	Reinforced concrete structure (see SC).

Sub-Element	:	SOFF - Frame (Other)
Unit	:	M ²
Rules	:	Construction floor area - measured overall to the outer face of external wall.
Definition	:	For structural steel: columns, beams and trusses including concrete or other fire protection, reinforcement, formwork, fair faced formwork finishes. For timber: posts, beams and trusses. For brick/masonry: columns, piers and arches. Portal frames.
Exclusions	:	For timber: joists and rafters (see SOUF & SORF).

Sub-Element	:	SORF - Roof (Other)
Unit	:	M ²
Rules	:	Gross roof area - measured overall on plan to outer face of external wall, verge or eaves.
Definition	:	Roofs of steel, timber or other material (excluding reinforced concrete).
Exclusions	:	For timber or other roofs: timber board or other sheet or proprietary roof covering to be included in the relevant finishes section (see EFRF).

Sub-Element	:	SOUF - Upper Floors (Other)
Unit	:	M ²
Rules	:	Area measured overall to the outer face of external wall.
Definition	:	Suspended floors, mezzanine floors, balcony floors, of steel, timber or other materials (excluding reinforced concrete). Proprietary floors including concrete topping.
Exclusions	:	

Sub-Element	:	SOSW - Structural Walls (Other)
Unit	:	M ²
Rules	:	Measured the actual area of structural wall between columns.
Definition	:	Structural walls of steel, timber, brick, masonry or other materials (excluding reinforced concrete).
Exclusions	:	Finishes, unless part of a proprietary system. Non-structural walls.

Element : SO - Structure (Other) cont'd

Sub-Element	:	SOSL - Stairs and Landings (Other)
Unit	:	M ²
Rules	:	Measured the gross plan area at each level including intermediate landings.
Definition	:	Includes treads, risers, intermediate landings, strings and aprons.
Exclusions	:	Landings at floor level and finishes. Reinforced concrete stairs and landings (see SCSL).

Sub-Element	:	SOBR - Balustrades and Handrails (Other)
Unit	:	M
Rules	:	Measured the length on plan of the balustrade or handrail.
Definition	:	Includes balustrades and handrails to stairs and other locations.
Exclusions	:	Reinforced concrete balustrades and handrails (see SCBR).

Sub-Element	:	SOSU - Structure Sundries (Other)
Unit	:	ITEM
Rules	:	
Definition	:	Roof lights and lantern lights including framing and glass. Includes other structure sundries (excluding reinforced concrete).
Exclusions	:	

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	EW - External Walls (Non-structural)
Unit	:	M ²
Rules	:	Measured the actual area of external wall between columns.
Definition	:	Includes all non-structural external walls, cladding, infill panel walls, balcony and parapet walls (other than in reinforced concrete).
Exclusions	:	Windows and external doors. Curtain walling. Finishes (see WD, CW & EFWF).

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	WD - Windows and External Doors
Unit	:	M ²
Rules	:	Measured the gross area of windows and external doors.
Definition	:	Windows and external doors including all glass, ironmongery, louvres, fixings, trimmings, decoration and other associated works. Roller shutter doors and folding doors.
Exclusions	:	Curtain walling, venetian blinds, curtains, curtain tracks and pelmets (see CW & FF). Finishes to reveals.

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	CW - Curtain Walling
Unit	:	M ²
Rules	:	Measured the gross area of wall covering including all openings in the same system.
Definition	:	Curtain walling including all glass, panelling, louvres, trimmings, fixings, doors, ironmongery, decoration and other associated works.
Exclusions	:	

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	IP - Internal Partitions
Unit	:	M ²
Rules	:	Measured the gross area of internal partitions between columns over door openings and borrowed lights.
Definition	:	Non-structural internal walls and partitions including glazed screens, demountable partitions, proprietary toilet and shower cubicles including doors to same. Liftshaft walls other than reinforced concrete.
Exclusions	:	Internal doors with fanlights and/or sidelights including doors in demountable partitions. Folding or sliding doors forming partitions, roller shutters (see ID). Fire stops and sound barriers in ceiling spaces (see IFCF). Wall finishes (see IFWF).

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	ID - Internal Doors
Unit	:	Nr.
Rules	:	Measured the total number of doors.
Definition	:	All internal doors including frames, architraves, finishes, glazing, fanlights, sidelights, panels over doors (door sets) and ironmongery. Folding and sliding doors, fire doors, strongroom doors, roller shutter doors, wall hatches and duct doors.
Exclusions	:	Doors to proprietary toilet and shower cubicles, partitions etc. (see IP). Doors to fittings and fixtures (see FF).

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	IF - Internal Finishes
Unit	:	M ²
Rules	:	Measured the actual area of internal finish.
Definition	:	Includes all necessary preparatory work (e.g. spatterdash), expansion joints, plasterbeads, stops and the like, and decoration.
Exclusions	:	

Sub-Element	:	IFWF - Wall Finishes
Unit	:	M ²
Rules	:	Measured the actual area of wall finish.
Definition	:	Includes plaster, tiles, linings, insulation and grounds behind linings and other decorations; skirtings, dado rails and the like. Finishes to stairwell walls.
Exclusions	:	Finishes to demountable partitions (see IP). Cornices (see IFCF). Integral skirtings (see IFFF). Finishes to balustrades and handrails (see IFBF).

Sub-Element	:	IFFF - Floor Finishes
Unit	:	M ²
Rules	:	Measured the actual area of floor finish.
Definition	:	Includes screeds, surface finishes, integral skirtings (i.e. same material as floor finish), matwells, threshold and junction strips. False floors laid over structural floors (e.g. computer flooring).
Exclusions	:	Stair finishes to treads, risers and intermediate landings.

Sub-Element	:	IFCF - Ceiling Finishes
Unit	:	M ²
Rules	:	Measured the actual area of ceiling finish.
Definition	:	Includes suspended ceilings, framings and supports, ceiling and beam linings, insulation and grounds behind linings, cornices, ceilings access panels, fire stops and sound barriers in ceiling spaces together with framing.
Exclusions	:	Soffits of stairs and intermediate landings (see IFSF).

Element : IF - Internal Finishes cont'd

Sub-Element	:	IFSF - Stair Finishes
Unit	:	M ²
Rules	:	Measured the gross plan area at each level including intermediate landings.
Definition	:	Finishes to treads and risers including nosings, landings, strings and aprons, and soffits of stairs and landings.
Exclusions	:	Finishes to landings at floor levels (see IFFF) and to stairwell walls (see IFWF).

Sub-Element	:	IFBF - Balustrade & Handrail Finishes
Unit	:	M ²
Rules	:	Measured the actual area of balustrade and handrail finish.
Definition	:	Finishes to balustrading and handrails including both sides and top of balustrading.
Exclusions	:	

Sub-Element	:	IFSU - Internal Finishes Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes finishes to art works and the like.
Exclusions	:	

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	EF - External Finishes
Unit	:	M ²
Rules	:	Measured the actual area of external finish.
Definition	:	Includes all necessary preparatory work (e.g. spatterdash), expansion joints, plasterbeads, stops and the like, and decoration.
Exclusions	:	

Sub-Element	:	EFRF - Roof Finishes
Unit	:	M ²
Rules	:	Measured the actual area of roof finish.
Definition	:	Complete weather-proof covering to all types of roofs, balconies and decks including coverings, sheetings, flashings, skirtings, gutters, screeds and insulation.
Exclusions	:	Tile or other types of finish placed on top of the water-proofing when roof, balcony or deck is used for foot traffic and the like (see EFFF).

Sub-Element	:	EFWF - Wall Finishes (External)
Unit	:	M ²
Rules	:	Measured the actual area of wall finish.
Definition	:	Includes finishes to all fins and other features including both sides and top of balcony and parapet walls. Skirtings, dado rails and the like.
Exclusions	:	

Sub-Element	:	EFFF - Floor Finishes (External)
Unit	:	M ²
Rules	:	Measured the actual area of floor finish.
Definition	:	Finishes to roofs, balconies and decks where exposed to foot traffic and the like.
Exclusions	:	Weather-proofing to roofs, balconies and decks (see EFRF).

Sub-Element	:	EFCF - Ceiling Finishes (External)
Unit	:	M ²
Rules	:	Measured the actual area of ceiling finish.
Definition	:	Finishes to external soffits, balcony soffits and the like.
Exclusions	:	Finishes to soffits of projecting fins, planters etc. on external walls (see EFWF).

Element : EF - External Finishes cont'd

Sub-Element	:	EFSF - Stair Finishes (External)
Unit	:	M ²
Rules	:	Measured the gross plan area at each level including intermediate landings.
Definition	:	Finishes to treads and risers including nosings, landings, strings, aprons and soffits of stairs and landings.
Exclusions	:	Finishes to landings at floor levels (see EFFF) and to stairwell walls (see EFWF).

Sub-Element	:	EFBF - Balustrade & Handrail Finishes (External)
Unit	:	M ²
Rules	:	Measured the actual area of balustrade and handrail finish.
Definition	:	Finishes to balustrading and handrails including both sides and top of balustrading.
Exclusions	:	

Sub-Element	:	EFSU - External Finishes Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes finishes to art works and the like.
Exclusions	:	

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	FF - Fittings and Fixtures
Unit	:	M ²
Rules	:	Construction floor area - measured overall to the outer face of external wall.
Definition	:	Includes wardrobes, cupboards, shelving, shelving units, sinks, vanity and bench units, lockers, fixed desks, cloakroom fittings, benches and seating, counters, bars, chalkboards, projection screens, notice boards, curtain track and pelmets, mirrors, towel rails, hose reel cabinets, storage racks and the like. Cat ladders, cat walks and the like. All finishes.
Exclusions	:	Sanitary fittings (see SWSF). Electrical fittings (see EEEL). Services to fittings and fixtures (see SW, EE, AC, TG, FS & SP).

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	SW – Sanitary Fittings and Above Ground Drainage Systems
Unit	:	M ²
Rules	:	Construction floor area – measured overall to the outer face of external wall.
Definition	:	Sanitary fittings and waste plumbing, including rainwater and refuse disposal.
Exclusions	:	Underground drainage (see DR)

Sub-Element	:	SWRW - Rainwater Installation
Unit	:	M
Rules	:	Measured the gross length of all rainwater pipes and gutters.
Definition	:	Eaves gutters and down pipes.
Exclusions	:	Integral roof gutters (see SCRF & EFRF) and rainwater recycling system (see SVRW).

Sub-Element	:	SWSF - Sanitary Fittings
Unit	:	Nr.
Rules	:	The total number of sanitary fittings.
Definition	:	Sanitary fittings including sinks, basins, WCs, urinals, complete with taps, traps, cisterns etc.
Exclusions	:	Special kitchen equipment (see SPKE).

Sub-Element	:	SWSW - Soil and Waste Installation
Unit	:	Nr.
Rules	:	The total number of individual soil sanitary fittings.
Definition	:	Includes all types of pipes, fittings and fixings; support systems.
Exclusions	:	

Sub-Element	:	SWRD - Refuse Disposal
Unit	:	Nr.
Rules	:	Measured the total number of refuse disposal hoppers.
Definition	:	Refuse chutes, fittings and fixtures.
Exclusions	:	

Element : SW- Sanitary Fittings and Above Ground Drainage Systems cont'd

Sub-Element	:	SWSU – Above Ground Drainage Systems Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with the above ground drainage systems including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, preparation of builder’s work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, provision of cable and pipe sleeves, and fire stopping.
Exclusions	:	

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	BB - Builder's Work in Connection with Services
Unit	:	Item
Rules	:	
Definition	:	All items required to be carried out by the builder as a direct result of a services or specialist services installation. All holes, pipe sleeves, etc. and the like. Painting on pipes.
Exclusions	:	Service ducts below ground floor slab (see FNSU). External services trenches (see XWES). Water tanks (see SCSU).

GROUP ELEMENT : 03 - SUPERSTRUCTURE

Element	:	BP - Builder's Profit & Attendance on Mechanical & Electrical Services
Unit	:	ITEM
Rules	:	
Definition	:	Sum required by builder for profit and attendance on nominated subcontractors and separate contracts.
Exclusions	:	

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	EE - Electrics
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the supply of electrical power. Additionally those works involved with the provision of call bell system and lightning protection system.
Exclusions	:	Utility connections (see XWUC). Builder's work (see BB & BP).

Sub-Element	:	EEML - Incoming Mains
Unit	:	kVA
Rules	:	Total maximum designed capacity of the incoming mains.
Definition	:	Includes for all works in connection with incoming electricity supply.
Exclusions	:	Utility connections (see XWUC). Builder's work (see BB & BP).

Sub-Element	:	EEMD - Main & Submain
Unit	:	Nr.
Rules	:	Measured the total number of local distribution boards.
Definition	:	Includes for all works for the distribution of electricity from the main low voltage switchboard to submain and final circuit distribution boards or equipment including busbar trunkings, cables, cabling facilities, switchgears and distribution boards.
Exclusions	:	Builder's work (see BB & BP).

Element : EE - Electrics cont'd

Sub-Element	:	EELP - Lighting and Power
Unit	:	Item
Rules	:	
Definition	:	Includes for all works for the installation of lighting points, power points, luminaries, accessories and electrical appliances including trunkings, cables and cabling facilities.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	EECC – Call Bell System
Unit	:	Nr.
Rules	:	Measured the total number of outlet points.
Definition	:	Includes for all works associated with the installation of call bell system
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	EEOS - Electrical Works associated with Other Services
Unit	:	Nr.
Rules	:	Measured the total number of outlet points.
Definition	:	Includes for all works associated with the installation of cabling facilities for other trades such as telephone and PABX system, public address system, CCTV system including the installation of trunkings, ducts, trays, cable ladders, conduits and outlet boxes.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	EETT - Trunking and Tray
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the installation of cabling facilities associated with more than one system including the installation of trunkings, ducts, trays, cable ladders, conduits and outlet boxes.
Exclusions	:	Builder's work (see BB & BP).

Element : EE - Electrics cont'd

Sub-Element	:	EEPR - Lightning Protection
Unit	:	M ²
Rules	:	Roof area - measured overall to the outer face of external wall.
Definition	:	Includes for all works associated with the installation of lightning protection system including air termination, down conductors and earth electrodes.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	EEEEB - Earthing and Bonding
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the installation of earthing and bonding system including equipotential bonding and earth electrodes.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	EEGS - Items Supplied by Government
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the fixing only of the items supplied by government.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	EESU - Electrical Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with the electrical installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, preparation of working drawings, builder's work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than that require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer's staff, provision of manuals, fabricated composite support structure, supply conduit and cable sleeves for fixing by other trades, and fire stopping.
Exclusions	:	Builder's work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	SB – Low Voltage (LV) Cubicle Switchboards
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all work and sundry items in connection with the low voltage cubicle switchboards.
Exclusions	:	Utility connection (see XWUC). Builder’s work (see BB & BP).

Sub-Element	:	SBSI – LV Cubicle Switchboards Installation
Unit	:	Ampere
Rules	:	Total maximum current carrying capacity of the switchboards.
Definition	:	Includes for all work in connection with the low voltage cubicle switchboards.
Exclusions	:	Utility connection (see XWUC). Builder’s work (see BB & BP).

Sub-Element	:	SBSU – LV Cubicle Switchboards Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with the low voltage cubicle switchboards installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, earthing and bonding, preparation of working drawings, builders’ work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer’s staff, provision of manuals, supply conduit and cable sleeves for fixing by other trades, and fire stopping.
Exclusions	:	Builder’s work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	GE – Diesel Generating Sets
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all work associated with the diesel generator sets installation and sundry items.
Exclusions	:	Builder’s work (see BB & BP).

Sub-Element	:	GESI – Diesel Generating Sets Installation
Unit	:	KVA
Rules	:	Total maximum designed capacity of the diesel generator sets.
Definition	:	Includes for all work associated with the diesel generator sets installation.
Exclusions	:	Builder’s work (see BB & BP).

Sub-Element	:	GESU – Diesel Generating Sets Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with diesel generator sets installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, earthing and bonding, preparation of working drawings, builders’ work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer’s staff, provision of manuals, supply conduit and cable sleeves for fixing by other trades, and fire stopping.
Exclusions	:	Builder’s work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	UP – Uninterruptible Power Supply
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all work and sundry items associated with the installation of uninterruptible power supply system.
Exclusions	:	Builder’s work (see BB & BP).

Sub-Element	:	UPSI – Uninterruptible Power Supply System
Unit	:	KVA
Rules	:	Total maximum designed capacity of the uninterruptible power supply equipment.
Definition	:	Includes for all work associated with the installation of uninterruptible power supply system.
Exclusions	:	Builder’s work (see BB & BP).

Sub-Element	:	UPSU – Uninterruptible Power Supply Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with uninterruptible power supply system installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, earthing and bonding, preparation of working drawings, builders’ work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer’s staff, provision of manuals, supply conduit and cable sleeves for fixing by other trades, and fire stopping.
Exclusions	:	Builder’s work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	CB – Broadcast Reception
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all work and sundry items associated with the installation of broadcast reception system.
Exclusions	:	Builder’s work (see BB & BP).

Sub-Element	:	CBSI – Broadcast Reception Installation
Unit	:	Nr.
Rules	:	Measured the total number of service points.
Definition	:	Includes for all work associated with the installation of broadcast reception system.
Exclusions	:	Builder’s work (see BB & BP).

Sub-Element	:	CBSU – Broadcast Reception Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with broadcast reception installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, earthing and bonding, preparation of working drawings, builders’ work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer’s staff, provision of manuals, supply conduit and cable sleeves for fixing by other trades, and fire stopping.
Exclusions	:	Builder’s work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	AC - Air-conditioning
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the provision of mechanical ventilation and air-conditioning including all pipework, insulation, ducting, fan motors, chillers and other plant and equipment, including boilers and unitary air conditioners.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACCH - Chilled Water System
Unit	:	kW
Rules	:	Measured the total cooling capacity of chillers.
Definition	:	Includes for all works associated with the chilled water system including chillers, water pumps, all pipework, fittings, insulation and valves.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACCW - Condenser Water System
Unit	:	kW
Rules	:	Measured the total heat rejection capacity of condensers.
Definition	:	Includes for all works associated with the condenser water system including condensers, water pumps, all pipework, fittings and valves.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACHW - Heating Water System
Unit	:	kW
Rules	:	Measured the total heating capacity of heating water system.
Definition	:	Includes for all works associated with the heating water system including hot water boilers, flue, calorifiers, water pumps, all pipework, fittings, valves and insulation.
Exclusions	:	Builder's work (see BB & BP).

Element : AC - Air-conditioning cont'd

Sub-Element	:	ACSC - Steam and Condensate System
Unit	:	kW
Rules	:	Measured the total heating capacity of the steam supply system.
Definition	:	Includes for all works associated with the steam and condensate system including steam boilers, flue, calorifiers, water pumps, all pipework, fittings, insulation, valves and steam traps.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACFO - Fuel Oil System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the provision of fuel oil supply to heating water system and steam supply system including fuel storage tank, fuel pumps, all pipework, fittings and valves.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACWT - Water Treatment
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works and services associated with water treatment of air conditioning system including metering pumps, chemical storage, electrochemical chlorinator, pipework, fittings and valves.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACAC - Air Handling and Distribution System
Unit	:	kW
Rules	:	Measured the total cooling capacity of air handling equipment.
Definition	:	Includes for all works associated with air handling and distribution installation including air handling units, fan coil units, variable air volume boxes, ventilation fans, air grilles and registers, air ducts, insulation, filters and dampers.
Exclusions	:	Builder's work (see BB & BP).

Element : AC - Air-conditioning cont'd

Sub-Element	:	ACCD - Condensate Drain System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with condensate drain system including pipeworks, fittings, valves and insulation.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACUA - Unitary Air-conditioning System
Unit	:	kW
Rules	:	Measured the total cooling capacity of unitary air conditioning system.
Definition	:	Includes for all works associated with unitary air conditioning system including condensing units, direct expansion units, pipework, fittings, valves and insulation.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACCR - Cold Rooms
Unit	:	M ³
Rules	:	Measured the total internal volume of cold rooms.
Definition	:	Includes for all works associated with cold room installation including cold room, refrigeration plant, pipework, fittings, valves and insulation.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACMV - Mechanical Ventilation System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with mechanical ventilation installation including ventilation fans, ductwork, air grilles and registers, filters, dampers and insulation.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACSV - Staircase Ventilation System
Unit	:	M ²
Rules	:	Measured the actual floor area of the staircase.
Definition	:	Includes for all works associated with staircase pressurisation installation including ventilation fans, ductwork, air grilles and registers, filters and dampers.
Exclusions	:	Builder's work (see BB & BP).

Element : AC - Air-conditioning cont'd

Sub-Element	:	ACKE - Kitchen Exhaust System
Unit	:	M ²
Rules	:	Measured the actual floor area of kitchen.
Definition	:	Includes for all works associated with kitchen ventilation and kitchen exhaust purification installation including water scrubbers, exhaust hoods, hydro-vent units, roof extractors, ventilation fans, ductwork, air grilles and registers, filters and dampers.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACSE - Special Exhaust System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with ventilating installation specifically designed for removal of toxic fumes or irritating gases including vehicular exhausts, bio-incinerator exhausts, ventilation fans, ductwork, air grilles and registers, filters and dampers.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACEC - Electrical and Control System (Air-conditioning)
Unit	:	Percentage
Rules	:	Measured the percentage value of electrical and control system cost to total air conditioning installation cost.
Definition	:	Includes for all works associated with the provision of electrical supply and control of the total air conditioning installation including control cubicle and panels, power and control cables, cabling facilities, sensing devices, central control and monitoring equipment.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	ACSU - Air-conditioning Sundries
Unit	:	Item
Rules	:	
Definition	:	Includes for all miscellaneous work associated with the air conditioning installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, preparation of working drawings, builder's work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than that require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer's staff, provision of manuals, fabricated composite support structure, supply conduit, cable and pipe sleeves for fixing by other trades and fire stopping.
Exclusions	:	Builder's work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	TG - Gas
Unit	:	Nr.
Rules	:	Measured the total number of individual service points.
Definition	:	Includes for all works associated with the provision of piped or bottle gas including distribution pipework, meters and equipment.
Exclusions	:	Utility connection (see XWUC). Builder's work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	FS - Fire Services
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with fire fighting, detection, alarming and advisory installation.
Exclusions	:	Utility connections (see XWUC). Main riser to roof/transfer tanks (see SVFF). Fire stops in ceilings (see IFCF). Builder's work (see BB & BP).

Sub-Element	:	FSHH - Fire Hydrant & Hosereel System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with fire hydrant and hosereel installation including pipework, fittings, valves, water pumps, hydrant outlets, fire services inlets and hosereels.
Exclusions	:	Builder's work (see BB & BP)

Sub-Element	:	FSSS - Sprinkler System
Unit	:	Nr.
Rules	:	Measured the total number of sprinkler heads.
Definition	:	Includes for all works associated with water sprinkler installation including pipework, fittings, valves, sprinkler heads, water pumps, sprinkler water inlets.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	FSGE - Gaseous Extinguishing System
Unit	:	Nr.
Rules	:	Measured the total number of gas nozzles
Definition	:	Includes for all works associated with gas extinguishing installation including gas cylinders, cylinder racks and fixings, pipework, fittings, valves and nozzles.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	FSAV - Audio/Visual Advisory System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with audio/visual advisory system including microphones, amplifiers, loudspeakers, cassette decks, CD decks, visual directional signs and audio/visual control equipment.
Exclusions	:	Builder's work (see BB & BP).

Element : FS - Fire Services cont'd

Sub-Element	:	FSAD - Automatic Fire Alarm & Detection System
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with automatic fire alarm and detection installation including detectors and alarm signalling devices.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	FSPA - Portable Hand-operated Appliances
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all hand held fire fighting equipment.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	FSES - Electricity Supply (Fire Services)
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the provision of electricity supply to the fire services installation including power cables, cabling facilities and starters.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	FSCS - Control System (Fire Services)
Unit	:	Nr.
Rules	:	Measured the total number of equipment control points.
Definition	:	Includes for all works associated with control system of the fire service installation including control cables, cabling facilities and control panels.
Exclusions	:	Builder's work (see BB & BP).

Element : FS - Fire Services cont'd

Sub-Element	:	FSSU - Fire Services Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with the fire service installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, preparation of working drawings, builder's work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, maintenance service other than that require under the defects liability as stipulated in the General Conditions of Contract, tuition of Employer's staff, provision of manuals, fabricated composite support structure, cable and pipe sleeves for fixing by other trades and fire stopping.
Exclusions	:	Builder's work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	SV – Plumbing
Unit	:	M ²
Rules	:	Construction floor area – measured overall to the outer face of external wall.
Definition	:	Water supply services for fresh water, hot water, flushing water, fire fighting, associated electricity supply and control system.
Exclusions	:	Sanitary fittings (see SWSF), soil and waste installation (see SWSW), water connections (see XWUC), concrete tanks (see SCSU) and Builder’s work (see BB & BP).

Sub-Element	:	SVRW - Rainwater Recycling System
Unit	:	Item
Rules	:	
Definition	:	Includes all types of pipes, fittings and fixings and supporting systems for rainwater recycling system and the like.
Exclusions	:	Eaves gutters and down pipes, and rainwater installation (see SWRW).

Sub-Element	:	SVCW – Cold Water Installation
Unit	:	Nr.
Rules	:	The total number of individual outlets.
Definition	:	Includes all types of pipes, fittings and fixings and support systems for cold water installation including incoming water mains; and water supply for feeding/makeup to air-conditioning installation, fountain installation, swimming pool installation, irrigation system, potable water and cleansing water.
Exclusions	:	

Sub-Element	:	SVHW - Hot Water Installation
Unit	:	Nr.
Rules	:	The total number of individual outlets.
Definition	:	Includes all types of pipes, fittings and fixings and support systems for hot water installation.
Exclusions	:	

Sub-Element	:	SVFW - Flushing Water Installation
Unit	:	Nr.
Rules	:	The total number of individual outlets.
Definition	:	Includes all types of pipes, fittings and fixings and support systems for flushing water installation including incoming water mains.
Exclusions	:	

Element : SV - Plumbing cont'd

Sub-Element	:	SVFF – Water Supply for Fire Services
Unit	:	ITEM
Rules	:	Water mains to the roof/transfer tanks.
Definition	:	Includes all types of pipes, fittings and fixing, support systems for water supply for fire services installation including incoming water mains.
Exclusions	:	Sprinkler system. Feeds to hose reels etc. (see FS). Hose reel cabinets (see FF). Alarm system (see FS).

Sub-Element	:	SVES – Electricity Supply (Plumbing)
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the provision of electricity supply to the plumbing installation including pump sets, power cables, cabling facilities and starters.
Exclusions	:	Builder's works (see BB & BP)

Sub-Element	:	SVCS – Control System (Plumbing)
Unit	:	Nr.
Rules	:	Measured the total number of equipment control points.
Definition	:	Includes for all works associated with control system of the plumbing installation including control cables, cabling facilities and control panels.
Exclusions	:	Builder's works (see BB & BP)

Sub-Element	:	SVSU - Plumbing Sundries
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all miscellaneous work associated with the plumbing installation including marking the position of holes, mortices, chases and the like in the structure, testing and commissioning, preparation of working drawings, builder's work drawings, as-built drawings and design drawings, provision of mock-ups and/or prototypes, provision of manuals, cable and pipe sleeves for fixing by other trades, and fire stopping.
Exclusions	:	

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	MS - Horizontal and Vertical Movement
Unit	:	ITEM
Rules	:	
Definition	:	Includes lifts, escalators, conveyors and any other form of horizontal or vertical transportation system for people or goods.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	MSLF - Lifts
Unit	:	Nr.
Rules	:	Measured the total number of lifts.
Definition	:	Includes for all works associated with the installation of goods or passenger lifts and hoists.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	MSCO - Conveyors
Unit	:	Nr.
Rules	:	Measured the total number of conveyors.
Definition	:	Includes for all works associated with for the installation of a conveyor system.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	MSES - Escalators
Unit	:	Nr.
Rules	:	Measured the total number of escalators.
Definition	:	Includes for all works associated with the provision of escalators.
Exclusions	:	Builder's work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	BA - Building Automation
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works necessary for the installation of a building automation system including wiring, conduit, trunking, outlets, equipment etc.
Exclusions	:	Builder's work (see BB & BP).

GROUP ELEMENT : 04 - MECHANICAL & ELECTRICAL SERVICES

Element	:	SP - Other Specialist Services
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all other specialist services installations not already mentioned above for example, kitchen equipment, specialist medical gases, steam/hot water boilers and other mechanical plant and equipment and the like.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	SPKE - Kitchen Equipment
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with the installation of kitchen equipment.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	SPOS - Other Specialist Installations
Unit	:	ITEM
Rules	:	
Definition	:	Includes for all works associated with specialist medical gases, steam/hot water boiler installations and the like.
Exclusions	:	Builder's work (see BB & BP).

Sub-Element	:	SPME - Mechanical Plant and Equipment
Unit	:	ITEM
Rules	:	
Definition	:	Includes such items as gondolas, turnstiles, weighbridges, turntables and the like.
Exclusions	:	Builder's work (see BB & BP).

GROUP ELEMENT : 05 - EXTERNAL WORKS AND DRAINAGE

Element	:	XW - External Works
Unit	:	M ²
Rules	:	Measured the gross area of the site excluding the plan area of the building.
Definition	:	Site works beyond the line of the external face of the building structure.
Exclusions	:	Bulk excavation for site formation (see SF).

Sub-Element	:	XWSP - Site Preparation
Unit	:	M ²
Rules	:	Measured the gross area of the site excluding the plan area of the building.
Definition	:	Includes site clearance and demolition.
Exclusions	:	Bulk excavation for site formation (see SF).

Sub-Element	:	XWRS - Retaining Structures
Unit	:	M ²
Rules	:	Measured the gross vertical area of the retaining wall.
Definition	:	Retaining walls, crib walls and the like.
Exclusions	:	

Sub-Element	:	XWSE - Site Enclosures and Divisions
Unit	:	M ²
Rules	:	Measured the gross vertical area of the enclosure.
Definition	:	All types of fencing and screen walls constructed in any material.
Exclusions	:	

Sub-Element	:	XWRO - Roads and Pavings
Unit	:	M ²
Rules	:	Measured the gross area on plan over all openings.
Definition	:	Any form of road, path, track, highway, parking area including excavation, filling, sub-base, paving material, surface finish, kerbs and road channels. Includes road markings and signs. Highways Office run-in charges.
Exclusions	:	Drainage (see DR) - other than road channels.

Element : XW - External Works cont'd

Sub-Element	:	XWHL - Hard Landscaping
Unit	:	M ²
Rules	:	Measured the gross area of hard landscaping.
Definition	:	Flower boxes, planters, integral seating, ornamental ponds etc. and the like.
Exclusions	:	

Sub-Element	:	XWSL - Soft Landscaping
Unit	:	M ²
Rules	:	Measured the gross area of soft landscaping.
Definition	:	Includes all grassed and planted areas, trees, shrubs, plants and the like.
Exclusions	:	

Sub-Element	:	XWFE - Fittings and Equipment (External Works)
Unit	:	Nr.
Rules	:	Measured the total number of individual items.
Definition	:	Playground equipment, individual benches, seats and the like.
Exclusions	:	

Sub-Element	:	XWES - External Services
Unit	:	M
Rules	:	Measured the gross length of all services pipes and/or cables.
Definition	:	Includes trenches, pipe/duct sleeves for incoming water mains, gas, electricity, telephone etc., backfilling, protection, reinstatement as necessary.
Exclusions	:	

Sub-Element	:	XWUC - Utility Connections
Unit	:	ITEM
Rules	:	
Definition	:	Includes all connection charges for any incoming service.
Exclusions	:	Drainage connections (see DRDC).

Element : XW - External Works cont'd

Sub-Element	:	XWAN - Ancillary Structures
Unit	:	Nr.
Rules	:	Measured the total number of individual structures.
Definition	:	Includes dangerous goods stores, guard houses, dog kennels, covering to carspaces, garages, elevated walkways and the like.
Exclusions	:	

GROUP ELEMENT : 05 - EXTERNAL WORKS AND DRAINAGE

Element	:	DR - Drainage
Unit	:	ITEM
Rules	:	
Definition	:	Generally covers all soil and surface water drainage, manholes, channels and catchpits; drainage connections.
Exclusions	:	Kerbs and channels to roads (see XWRO).

Sub-Element	:	DRSW - Soil and Surface Water
Unit	:	M
Rules	:	Measured the gross length of all pipe runs.
Definition	:	Includes trenches, backfilling, pipes, haunching and surrounds.
Exclusions	:	

Sub-Element	:	DRMH - Manholes
Unit	:	Nr.
Rules	:	Measured the total number of individual units.
Definition	:	Includes manholes, inspection chambers, soakaways and the like.
Exclusions	:	Septic tanks (see DRST).

Sub-Element	:	DRST - Sewage Treatment
Unit	:	ITEM
Rules	:	
Definition	:	Includes all forms of sewage treatment, e.g. septic tanks, filtration beds and the like.
Exclusions	:	

Sub-Element	:	DRCH - Channels
Unit	:	M
Rules	:	Measured the gross length of all channels.
Definition	:	Includes all surface water channels and the like, gratings and covers.
Exclusions	:	Kerbs and channels to roads (see XWRO).

Element : DR - Drainage cont'd

Sub-Element	:	DRCP - Catchpits
Unit	:	Nr.
Rules	:	Measured the total number of individual units.
Definition	:	Includes catchpits and the like in connection with surface water drainage, gratings and covers.
Exclusions	:	

Sub-Element	:	DRDC - Drainage Connections
Unit	:	ITEM
Rules	:	
Definition	:	Includes all connection charges between the last connecting manhole or catchpit etc. and the sewer or outfall.
Exclusions	:	

GROUP ELEMENT : 06 - SITE DEVELOPMENT

Element	:	SI – Site Investigation
Unit	:	ITEM
Rules	:	
Definition	:	Site and geotechnical investigation.
Exclusions	:	

GROUP ELEMENT : 06 - SITE DEVELOPMENT

Element	:	SF - Site Formation
Unit	:	M³
Rules	:	Measured as the absolute gross volume of excavation and/or fill.
Definition	:	Site formation and geotechnical works e.g. slope stabilisation.
Exclusions	:	

GROUP ELEMENT : 06 - SITE DEVELOPMENT

Element	:	PI - Piling
Unit	:	Item
Rules	:	
Definition	:	Includes all types of driven or bored piles and sheet piling.
Exclusions	:	

Sub-Element	:	PISP - Sheet Piling
Unit	:	M ²
Rules	:	Measured the actual area supported.
Definition	:	Includes all necessary works in connection with temporary and permanent sheet piling.
Exclusions	:	

Sub-Element	:	PIPP - Driven or Bored Piling
Unit	:	M
Rules	:	Measured the total length of driven or bored piles in place (stating the average size/diameter).
Definition	:	Includes all types of driven or bored piles.
Exclusions	:	

GROUP ELEMENT : 06 - SITE DEVELOPMENT

Element	:	CS - Caissons
Unit	:	ITEM
Rules	:	
Definition	:	Generally includes hand dug and large diameter driven caissons, contiguous walls, and associated rock anchors and the like.
Exclusions	:	

Sub-Element	:	CSCP - Caisson Piling
Unit	:	M
Rules	:	Measured the total length (stating the diameter and whether hand dug or bored).
Definition	:	Includes hand dug and large diameter driven caissons.
Exclusions	:	

Sub-Element	:	CSCW - Caisson Contiguous Walls
Unit	:	M ²
Rules	:	Measured the actual area supported (stating whether hand dug or bored).
Definition	:	Includes hand dug and/or large diameter driven caisson contiguous walls and associated rock anchors and the like.
Exclusions	:	

GROUP ELEMENT : 07 - STORES, FURNITURE & EQUIPMENT

Element	:	GS - Government Stores
Unit	:	ITEM
Rules	:	
Definition	:	Includes all items supplied by Government Supplies Department including indent items.
Exclusions	:	Fix only is taken with the appropriate element.

Sub-Element	:	GSBY - Building Stores
Unit	:	ITEM
Rules	:	
Definition	:	Ironmongery, sanitary fittings, manhole covers and the like supplied by Government Supplies Department.
Exclusions	:	Fix only is taken with the appropriate element.

Sub-Element	:	GSBZ - Mechanical & Electrical Services Stores
Unit	:	ITEM
Rules	:	
Definition	:	Items required by the Government Building Services Engineer supplied by Government Supplies Department.
Exclusions	:	Fix only is taken with the appropriate element. Domestic appliances (see FEDA).

GROUP ELEMENT : 07 - STORES, FURNITURE & EQUIPMENT

Element	:	FE - Furniture and Equipment
Unit	:	ITEM
Rules	:	
Definition	:	Includes those items required by the client (Government) department and domestic appliances.
Exclusions	:	

Sub-Element	:	FECL - Client Department (F&E)
Unit	:	ITEM
Rules	:	
Definition	:	Items required by the client (Government) department to be charged to Furniture & Equipment within the project vote.
Exclusions	:	

Sub-Element	:	FEDA - Domestic Appliances (F&E)
Unit	:	ITEM
Rules	:	
Definition	:	Domestic appliances required by the Government Building Services Engineer to be charged to Furniture & Equipment within the project vote.
Exclusions	:	

GROUP ELEMENT : 08 - CONSULTANT'S FEES

Element	:	CF - Consultant's Fees
Unit	:	ITEM
Rules	:	
Definition	:	All fees to be charged by the various consultants employed on the project.
Exclusions	:	

Sub-Element	:	CFGX - Geotechnical Consultants
Unit	:	ITEM
Rules	:	
Definition	:	All fees chargeable for the specialist services.
Exclusions	:	

Sub-Element	:	CFAR - Architectural Consultants
Unit	:	ITEM
Rules	:	
Definition	:	All fees chargeable for the specialist services.
Exclusions	:	

Sub-Element	:	CFST - Structural Consultants
Unit	:	ITEM
Rules	:	
Definition	:	All fees chargeable for the specialist services.
Exclusions	:	

Sub-Element	:	CFBS - Building Services Consultants
Unit	:	ITEM
Rules	:	
Definition	:	All fees chargeable for the specialist services.
Exclusions	:	

Element : CF - Consultant's Fees cont'd

Sub-Element	:	CFQS - Quantity Surveying Consultants
Unit	:	ITEM
Rules	:	
Definition	:	All fees chargeable for the specialist services.
Exclusions	:	

Sub-Element	:	CFOO - Other Specialist Consultants
Unit	:	ITEM
Rules	:	
Definition	:	All fees chargeable for the specialist services.
Exclusions	:	

GROUP ELEMENT : 09 - CONTINGENCY

Element	:	CY - Contingency
Unit	:	ITEM
Rules	:	
Definition	:	A sum to be set aside for any unforeseeable circumstances.
Exclusions	:	

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