

## **The Model Bills of Quantities for Building Works 2022 Edition**

The 2022 Edition of the Model Bills of Quantities for Building Works features an integrated version of the model bills of quantities for both building works and building services. This edition is based on General Specification for Building 2022 Edition and the Hong Kong Standard Method of Measurement of Building Works – Fourth Edition Revised 2018 Incorporating Corrigenda 1 (HKSMM4) published by the Hong Kong Institute of Surveyors.

HKSMM4 will be adopted in the bills of quantities for works contracts to be tendered after 1 August 2023.

**Revision History**

<b>Revision No.</b>	<b>Issued Date</b>	<b>Revision Details</b>
<u>2012 Edition</u>		
1	5-12-2013	Revise the full description of the testing and commissioning item under the Plumbing and Water Supply Systems on page MODBQ.16/17.
2	22-1-2014	Revise the first paragraph of the explanatory notes for the “Model Bills of Quantities for Building Works 2012 Edition (Revised)”.
3	9-7-2014	a) Split bill nr. MODBQ.16 - Plumbing and Water Supply Systems into (i) MODBQ.16 - Plumbing Systems, and (ii) MODBQ.17 - Sanitary Fittings and Above Ground Drainage Systems. b) Renumber subsequent bills “MODBQ.17 to MODBQ.32” as “MODBQ.18 to MODBQ.33”. c) Delete items for pipes & fittings, high pressure valves and pipe protection under the heading of water installation in the bill for External Works on page MODBQ.21/16.
4	10-11-2014	Update BS EN reference for steel sheet piling on page MODBQ.2/1.
5	9-2-2015	a) Add a new section for Medical Gas Installation. b) Replace “'as-fitted' drawings” with “as-built drawings” so as to match with the term in the General Specification on page MODBQ.17/10.
6	14-12-2015	a) Revise “Grade 200 recycled rockfill” in sub-heading 1 and 2 to “recycled rock fill material (Grade 200)” in the bill for Excavation on page MODBQ.4/5. b) Add a new item for recycled rock fill materials in beds in the bill for External Works on page MODBQ.21/6.

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7	12-9-2016	<p>a) Add guidance notes to the testing and commissioning items under the Air-conditioning and Mechanical Ventilation Installation on page MODBQ.23/49(Items K), 23/50(Item A), 23/51(Item G) and Bills of Quantities Collection Page MODBQ.23/55 of Air Conditioning Installation.</p> <p>b) Add new item for Tenderers' pricing on Bills of Quantities Collection Page / Bill Summary Page MODBQ.23/56 of Air Conditioning Installation.</p>
8	24-11-2016	<p>a) Revise guidance notes to the testing and commissioning items under the Air-conditioning and Mechanical Ventilation Installation on page MODBQ.23/50 (Item A &amp; B).</p> <p>b) Revise description and guidance notes to testing and commissioning for IAQ Installation on page MODBQ.23/52 (Item A) and add new item MODBQ.23/52 (Item B).</p> <p>c) Revise notes no. 3 on Collection Page MODBQ.23/58 of Air Conditioning Installation.</p> <p>d) Update BS, BS EN &amp; IEC reference for materials in E&amp;M Section.</p> <p>e) Revise the description for materials as follows:</p> <ul style="list-style-type: none"><li>- "Plain Steel bars" to "plain steel reinforcing bars"</li><li>- "deformed high yield steel bars" to "ribbed steel reinforcing bars"</li><li>- "fine graded material" to "fine filling material"</li><li>- "recycled rock fill material" to "recycled rock filling material"</li><li>- "Independent Laboratory" to "Accredited Laboratory"</li></ul>

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<u>2017 Edition</u>		
9	26-2-2018	<p>Revision on the promulgation of General Specification for Building 2017 Edition and General Specifications for BS Installations 2017 Edition.</p> <p>a) Piling and Caissons</p> <ul style="list-style-type: none"><li>- Revise the description of raking piles for steel sheet piling, precast concrete piles, cast in-situ concrete piles in driven casings and steel piles.</li><li>- Revise the description and unit of cement grouting to exposed dowel bars for precast concrete piles, cast in-situ concrete piles in driven casings and bored piles.</li><li>- Delete the whole sections of caissons and caisson infill panels.</li><li>- Add new sections for rock-socketed steel H-piles and minipiles.</li></ul> <p>b) Excavation</p> <ul style="list-style-type: none"><li>- Replace “independent surveyor” with “independent firm” for topographical survey.</li></ul> <p>c) Drainage</p> <ul style="list-style-type: none"><li>- Replace “General Specification for Plumbing and Drainage Installation” with “General Specification for Drainage Installation, Testing and Commissioning Procedure for Drainage Installation”.</li></ul> <p>d) Waterproofing</p> <ul style="list-style-type: none"><li>- Add “approved by the manufacturers/agents” for proprietary roofing systems laid by specialist contractors.</li></ul> <p>e) Plumbing Installation</p> <ul style="list-style-type: none"><li>- Update BS EN, ISO &amp; IEC reference for materials.</li><li>- Add “half hard temper” for copper pipes.</li><li>- Replace “General Specification for Plumbing and Drainage Installation” with “General Specification for Plumbing Installation”; subsequently update the</li></ul>

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		<p>clauses reference.</p> <ul style="list-style-type: none"> <li>- Add new item for “providing training to employer’s staff”.</li> <li>- Revise the description for plumbing sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> <p>f) Sanitary Fittings and Above Ground Drainage Systems</p> <ul style="list-style-type: none"> <li>- Replace “General Specification for Plumbing and Drainage Installation” with “General Specification for Plumbing Installation, General Specification for Drainage Installation”; subsequently update the clauses reference in each GS.</li> </ul> <p>g) External Works</p> <ul style="list-style-type: none"> <li>- Replace “Rock fill” with “Rock filling material”.</li> </ul> <p>h) Electrical Installation</p> <ul style="list-style-type: none"> <li>- Update BS, BS EN, ISO &amp; IEC reference for materials.</li> <li>- Replace “micrograph type” with “quick make-and-break type” for lighting switches.</li> <li>- Revise the description for EE sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> <li>- Update the GS clauses reference.</li> </ul> <p>i) Air Conditioning Installation</p> <ul style="list-style-type: none"> <li>- Update DW/144, BS, BS EN, ISO &amp; IEC reference for materials.</li> <li>- Add “complying statutory noise limit” to cooling towers, water pump sets, cooled chillers and VRV system.</li> <li>- Replace “duct size 401 – 600 (longer side)” to “duct size 400 – 600 (longer side)”.</li> <li>- Replace “flexible duct 0.51 – 1.00m” to “flexible duct 0.50 – 1.00m”.</li> <li>- Add new item for “alarm printer capable of handling continuous paper”.</li> <li>- Delete “complying Code of Practice for the Electricity (Wiring) Regulations (Cap.406E)” for</li> </ul>

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		<p>switches, switchfused and fuseswitches.</p> <ul style="list-style-type: none"> <li>- Revise the description for AC sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> <p>j) Fire Service Installation</p> <ul style="list-style-type: none"> <li>- Update BS, BS EN, ISO &amp; IEC reference for materials.</li> <li>- Replace “working life” with “expectancy life” for expansion joints.</li> <li>- Replace “corrosion resistant” with “brass/ stainless steel” for discharge nozzles.</li> <li>- Replace “cassette deck” with “recording and playback devices and decks”.</li> <li>- Replace “CD decks” with “CD/DVD decks”.</li> <li>- Delete item for cassette tapes.</li> <li>- Delete “complete with at least 20 intelligent addressable devices” for fault isolator modules.</li> <li>- Revise the description for FS sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> <li>- Update the GS clauses reference.</li> </ul> <p>k) Low Voltage Cubicle Switchboards Installation</p> <ul style="list-style-type: none"> <li>- Update BS, BS EN &amp; IEC reference for materials.</li> <li>- Revise the description for LVSB sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> <li>- Update the GS clauses reference.</li> </ul> <p>l) Diesel Generating Sets Installation</p> <ul style="list-style-type: none"> <li>- Delete acoustic treatment to “fuel tank room”.</li> <li>- Revise the description for generating sets sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> <li>- Update the GS clauses reference.</li> </ul> <p>m) Uninterruptible Power Supply System</p> <ul style="list-style-type: none"> <li>- Revise the description for conduit sleeves and cable sleeves.</li> </ul> <p>n) Broadcast Reception Installation</p> <ul style="list-style-type: none"> <li>- Update BS, BS EN &amp; IEC reference for materials.</li> <li>- Delete “triplex” in “data/FM/TV outlets”.</li> </ul>

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		<ul style="list-style-type: none"> <li>- Add new item for “providing training to employer’s staff”.</li> <li>- Revise the description for broadcast sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> <li>o) Compressed Air System               <ul style="list-style-type: none"> <li>- Update ISO reference for materials.</li> <li>- Update the GS clauses reference.</li> <li>- Revise the description for pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> </li> <li>p) Steam Boiler System               <ul style="list-style-type: none"> <li>- Update BS, BS EN &amp; ISO reference for materials.</li> <li>- Update the GS clauses reference.</li> <li>- Revise the description for pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> </li> <li>q) Liquefied Petroleum Gas Installation               <ul style="list-style-type: none"> <li>- Update BS EN &amp; ASTM reference for materials.</li> <li>- Update the GS clauses reference.</li> <li>- Revise the description for pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> </li> <li>r) Fuel Supply System               <ul style="list-style-type: none"> <li>- Update ISO &amp; IEC reference for materials.</li> <li>- Update the GS clauses reference.</li> <li>- Revise the description for pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> </li> <li>s) Swimming Pool Water Treatment Installation               <ul style="list-style-type: none"> <li>- Update BS, BS EN &amp; IEC reference for materials.</li> <li>- Add new item for LED light fittings.</li> <li>- Revise the description for the main drain grating.</li> <li>- Revise the description for swimming pool sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> </li> <li>t) Medical Gas Installation               <ul style="list-style-type: none"> <li>- Update BS EN, ISO &amp; IEC reference for materials.</li> <li>- Update the GS clauses reference.</li> <li>- Revise the description for medical gas sundries, pipe sleeves, conduit sleeves and cable sleeves.</li> </ul> </li> </ul>

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10	13-3-2018	Revise the description for control and monitoring circuits, amplifier output circuits, fire resistant cables and alarm, detection and control circuits for Fire Service Installation.
11	26-4-2018	Update BS, BS EN reference of fire resistant cables for Electrical Installation.
12	20-3-2019	Revision on the promulgation of HKSMM4 Revised 2018 Incorporating Corrigenda 1.  a) Piling and Caissons - Add pre-boring pile holes item for Steel sheet piling. - Revise the description of pre-boring pile holes for precast concrete pile, steel piles and rock-socketed steel H-piles. - Add new item for drilling equipment for bored piles and steel piles. - Add pre-drilling, post construction proof drilling, koden tests for bored piles. - Revise the description of pile holes, concrete coring test and non-destructive integrity test of piles for bored piles. - Add pre-drilling, post construction proof drilling, koden tests for bored piles. - Revise the description of pre-drilling and post construction proof drilling for rock-socketed steel H-piles. - Revise the description of permanent linings and “H” section piles, grout filling and cutting off heads of piles for rock-socketed H-piles. - Revise the description of pre-drilling, boring and post construction proof drilling for minipiles. - Add new sections for pressure grouting.  b) Excavation - Revise the description of over site excavation. - Delete the items of filling in making up levels for

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		<p>excavating pits for pile caps and obtained from specified off site area.</p> <ul style="list-style-type: none"> <li>- Add new item for excavation and lateral support works.</li> </ul> <p>c) Underpinning</p> <ul style="list-style-type: none"> <li>- Revise the description of sawn formwork</li> <li>- Replace the description of sawn formwork from “100-200 wide” to “not exceeding 300 wide”.</li> </ul> <p>d) Concrete works</p> <ul style="list-style-type: none"> <li>- Add new items for transfer beams and transfer plates.</li> <li>- Revise the description of sides and soffit of beams from “exceeding 750 deep” to “exceeding 1.00m deep”.</li> <li>- Revise the description of vertical formwork in “100-200 wide” / “200-300 wide” / “300-400 wide” to “not exceeding 300 wide”.</li> <li>- Revise the description and unit of edges and soffits of copings, cills, strings, cornices, eaves, overhangs and the like.</li> <li>- Revise the description and unit of sawn boxings.</li> <li>- Revise the description of precast concrete.</li> <li>- Delete the item for cement grouting under steel stanchion bases or grillages.</li> </ul> <p>e) Brickwork and blockwork</p> <ul style="list-style-type: none"> <li>- Revise the description of hollow concrete blocks and solid concrete blocks.</li> </ul> <p>f) Drainage</p> <ul style="list-style-type: none"> <li>- Revise the description of excavating trenches for drain pipes not exceeding 200 internal diameter.</li> <li>- Replace “haunchings” with “haunches”</li> </ul> <p>g) Wood works</p> <ul style="list-style-type: none"> <li>- Revise the description and unit of doors and frames.</li> <li>- Delete the item for door frames.</li> <li>- Revise the description of duct access doors and</li> </ul>

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		<p>frames and trap door s and frames.</p> <ul style="list-style-type: none"> <li>- Revise the description of proprietary fire rated doors.</li> <li>- Revise the description of depth of suspension for suspended ceiling from “0.50-2.00m” to “not exceeding 1.50m”.</li> <li>- Delete the extra over item for handrails and balustrades.</li> </ul> <p>h) Ironmongery</p> <ul style="list-style-type: none"> <li>- Delete the items for expanding anchor bolts, anchor bolts, handrail brackets and timber connectors.</li> </ul> <p>i) Steel and metal works</p> <ul style="list-style-type: none"> <li>- Revise the description of surface preparation to surface treatment</li> <li>- Revise the description of fire protection to structural steel.</li> <li>- Revise the description of framed wall mounted handrails.</li> <li>- Delete the items for wall brackets.</li> <li>- Revise the description of framed balustrades and framed tubular handrails.</li> <li>- Add new sections for tactile indicators.</li> <li>- Revise the suspended ceilings suspension depth from “not exceeding 150” to “not exceeding 1.50m” and revise the description of upstands and bulkheads.</li> <li>- Delete the item for angle trims.</li> <li>- Revise the description of windows and curtain walling system.</li> </ul> <p>j) Plastering and paving</p> <ul style="list-style-type: none"> <li>- Add new items for fire rated enclosure, angle fillets and ceramic tactile tiles.</li> </ul> <p>k) Glazing</p> <ul style="list-style-type: none"> <li>- Replace “parapets” with “railings”.</li> </ul> <p>l) Painting</p>

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		<ul style="list-style-type: none"> <li>- Revise the description and unit of painting to pipes and conduits.</li> <li>- Add new sections for green planting systems and statues, sculptures and stone features.</li> <li>m) External works               <ul style="list-style-type: none"> <li>- Revised the description and unit of excavating over site.</li> <li>- Add new items for excavating into banks.</li> <li>- Delete the item for filling in making up levels.</li> <li>- Revise the description of vertical formwork in “100-200 wide” / “200-300 wide” to “not exceeding 300 wide”.</li> <li>- Revise the description of excavating trenches for service pipes/ cables or ducts.</li> </ul> </li> <li>n) Prime cost, provisional and contingency sums               <ul style="list-style-type: none"> <li>- New section for model bills of quantities.</li> </ul> </li> </ul>
13	15-7-2019	Revision on Corrigendum No. GS 2017-01 of the General Specification for Building 2017 Edition. <ul style="list-style-type: none"> <li>a) Piling and Caissons               <ul style="list-style-type: none"> <li>- Update BS EN reference for sheet piles.</li> </ul> </li> <li>b) Plastering and Paving               <ul style="list-style-type: none"> <li>- Revise “Glazed ceramic wall tiles” to “Internal glazed ceramic wall tiles”.</li> </ul> </li> </ul>
14	3-7-2020	Revision on Corrigendum No. GS 2017-02 of the General Specification for Building 2017 Edition and Corrigenda to the General Specifications for BS Installations 2017 Edition. <ul style="list-style-type: none"> <li>a) Piling and Caissons               <ul style="list-style-type: none"> <li>- Revise the unit of allowing for the credit value of sheet piling.</li> <li>- Add point load test to determine the uniaxial compressive strength (UCS) of rock core samples.</li> <li>- Replace the description of grout filling from “25MPa/ 30MPa minimum cube strength” to “30MPa minimum cube strength”.</li> </ul> </li> </ul>

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		<p>b) Stone work</p> <ul style="list-style-type: none"><li>- Add “Grade 316” to stainless steel for cover strips.</li></ul> <p>c) Wood works</p> <ul style="list-style-type: none"><li>- Update BS standard reference for fire rated door.</li></ul> <p>d) Sanitary fittings and above ground drainage systems</p> <ul style="list-style-type: none"><li>- Revise the sub-heading of soil, waste and ventilation pipes from “internally” to “in plant room”.</li><li>- Add items for flush device and filters of ancillaries.</li></ul> <p>e) Fire service installation</p> <ul style="list-style-type: none"><li>- Add “or other standards acceptable to FSD” to smoke detectors, heat detectors, manual call points, ionization smoke detectors, optical smoke detectors and alarm bells.</li></ul> <p>f) Electrical installation</p> <ul style="list-style-type: none"><li>- Updates BS standard reference for main and sub-main distribution, steel cable trunkings, steel underfloor trunkings, and steel skirting trunkings.</li></ul> <p>g) Plumbing installation</p> <ul style="list-style-type: none"><li>- Revise the wording from “rainwater recycling system” to “rainwater harvesting system”.</li><li>- Add BS standard reference for pipework</li><li>- Revise “cleaning” to “cleansing”.</li><li>- Revise “pile” to “pipe”.</li><li>- Revise the “Section A3.7 of GS” to “Section A3.8 of GS” for providing sample boards.</li></ul>

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		<p>h) Broadcast reception installation</p> <ul style="list-style-type: none"> <li>- Delete the wording “to suit PAL I system;” for preamplifiers, TV/ FM bandpass filters and amplifiers.</li> <li>- Revise the channel for preamplifiers, TV/ FM bandpass filters and amplifiers.</li> </ul> <p>i) Fuel supply system</p> <ul style="list-style-type: none"> <li>- Delete the item for air/water meters.</li> </ul> <p>j) Drainage</p> <ul style="list-style-type: none"> <li>- Delete the concrete grade for drainage system.</li> </ul> <p>k) Air conditioning installation</p> <ul style="list-style-type: none"> <li>- Delete the wording ‘kg/m<sup>3</sup> density’.</li> <li>- Update BS and ISO standard reference.</li> <li>- Delete the wording “continuous” in item for alarm printer capable of handling paper.</li> </ul>
15	30-8-2021	<p>a) Prime cost, provisional and contingency sums</p> <ul style="list-style-type: none"> <li>- Add a new item for coordination and provision of logistics and storage of off-site prefabricated building components, such as MiC and MiMEP.</li> <li>- Review the BQ items to suit the preliminaries item under Clause 1.42.</li> </ul>
16	15-12-2021	<p>a) Update the BSB circular reference and delete the obsoleted guidance note under the Air-conditioning and Mechanical Ventilation Installation on Bills of Quantities Collection Page / Bill Summary Page MODBQ.23/59 of Air Conditioning Installation.</p>
<u>2022 Edition</u>		
17	7-8-2023	<p>Revision on General Specification for Building 2022 Edition.</p> <p>a) Excavation</p> <ul style="list-style-type: none"> <li>- Delete “hardcore” to align with the GS requirement.</li> <li>- Replace “rock filling material” to “hardcore” for granular filling</li> </ul>

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		<p>b) Underpinning</p> <ul style="list-style-type: none"><li>- Delete “hardcore” to align with the GS requirement.</li></ul> <p>c) Drainage</p> <ul style="list-style-type: none"><li>- Delete “hardcore” to align with the GS requirement.</li></ul> <p>d) Waterproofing</p> <ul style="list-style-type: none"><li>- Add new items for cementitious waterproofing.</li></ul> <p>e) Wood Works</p> <ul style="list-style-type: none"><li>- Add new item for hanging cabinets.</li></ul> <p>f) Ironmongery</p> <ul style="list-style-type: none"><li>- Add new item for mosquito gauze.</li></ul> <p>g) Steel and Metal Works</p> <ul style="list-style-type: none"><li>- Updates GS reference for testing.</li><li>- Revise the wording from “structural silicone test” to “structural silicone assembly test”.</li><li>- Update BS reference for steel window and door</li></ul> <p>h) Plastering and Paving</p> <ul style="list-style-type: none"><li>- Add new item for self-levelling creeds.</li></ul> <p>i) Sanitary Fitting and Above Ground Drainage System</p> <ul style="list-style-type: none"><li>- Update BS reference for rainwater pipe and fitting.</li></ul> <p>j) Housekeeping change for clearing the site.</p>