

Proposal — Building Management System

Project: Kingsford Hotel Bacolod **Customer:** Megaworld Corporation **Location:** Manhattan Street, The Upper East, Bacolod City, Negros Occidental **Date:** 28 April 2026 **Validity:** 60 days from issue

Cover

We submit our proposal for the Complete Supply, Delivery, Installation, Testing and Commissioning of the Building Management System for the Kingsford Hotel Bacolod project. This document covers the technical scope, schedule, commercial terms, and the open clarifications that will refine the final order.

1. Executive summary

The Building Management System covers HVAC, casino MVAC, plumbing / sanitary hot water, steam-boiler instrumentation, and general ventilation across Basement 1 through Roof Deck. The system carries approximately 619 hardwired and integrated points across 13 BMS field panels, with central supervision at a head-end server room. Programming follows the Description-of-Operations specified in the Megaworld MC Standards (DRC-004-2024) and the project-specific BMS Points list issued by TUEC.

The construction window is 14 weeks from notice to proceed. The base price is PHP 19,122,501 inclusive of overhead, contingency, and 12% VAT. Per-guestroom HVAC controls are excluded from this base scope (the project-specific points list does not enumerate them) and offered as a priced option pending customer confirmation.

2. Project background

The Kingsford Hotel Bacolod is a hotel + casino-lobby development on Manhattan Street. The cover letter wording references “Rehabilitation”; however the supporting documents — TUEC Construction Bulletin No.8 (November 2025), “For Construction” stamps, the absence of an existing-system inventory, and design revisions for new kitchen layouts — indicate new construction. We have classified the project as Greenfield on this basis and raised the wording mismatch as a clarification (Q-015).

3. Understanding of scope

The BMS controls and monitors:

- **Chilled Water Plant** at the 2nd Level: 3 packaged water-cooled chillers, 3 primary chilled-water pumps, 3 condenser-water pumps, supply and return headers.
- **Basement-Podium BOH Air Handling:** 10 chilled-water-served AHUs and 1 pre-cooled AHU.
- **Casino MVAC** at the 2nd Level: 2 dedicated outdoor-air systems (DOAS) with heat-recovery wheels, 2 smoke sanitizers serving AHU-2M.1/2M.2.
- **Hotel & Roofdeck:** 2 pre-cooled AHUs, 2 roofdeck AHUs with chilled-water modulating valves, 3 cooling towers.
- **Plumbing / Sanitary Hot Water:** 6 calorifiers, 6 heat pumps, 6 recirculating pumps, hot-water headers across Lower Ground and Roof Deck.
- **Steam Boilers:** 2 boilers at Lower Ground laundry with O₂ / flue-gas / water-level instrumentation.
- **General Ventilation:** ~52 exhaust fans across Ground Floor, 2nd, 3rd Amenity + Guestroom, and Roof Deck.

4. Technical proposal

4.1 System architecture

A two-tier BACnet topology, isolated from the customer LAN:

- **Supervisory layer (BACnet/IP)** — Head-end server, operator and HMI workstations, edge-to-core via Cat6 + managed L2/L3 switching.
- **Field layer (BACnet MS/TP)** — Daisy-chain backbone visiting all 13 BMS field panels (320 m measured per panel layout).

Architecture diagram and switch inventory are in 05-working-docs/A5-network-architecture.md.

4.2 Cable strategy

Field cables follow the Megaworld MC Standards and Philippine BFP IRR. All cables are FRLS-jacketed; analog signals are shielded twisted-pair (4C × 1.5 mm²); BACnet/IP is Cat6; field-bus is shielded 22 AWG (Belden 8761/9841 or equivalent).

Cable lengths were measured from the EE Plan (EE-03/06/09/12 floor power layouts, EE-24 power riser Part 1 of 2, ECE-12/16 floor backgrounds) for the chiller plant, casino MVAC, roofdeck, boiler, and plumbing zones. Where stamped architectural floor plans were not available (BOH AHU mechanical-room interior, guestroom-corridor exhausts), cable lengths use reasoned typical ranges per context: plant-room same-room cables at ~12 m, inter-floor risers at ~3.5 m per floor, guestroom-corridor field cables at ~35 m, casino-floor field cables at ~28 m. Reasoned typical-range values are documented with basis in 05-working-docs/A3-route-lengths.yaml.

Total cable: ~1,107 m across 29 field cable groups, 1 MS/TP backbone (320 m), and 13 BMS panel power feeds.

4.3 Equipment

Head-end server, operator and HMI workstations, engineering laptop, UPS, server rack, network switches and structured cabling, 13 BMS field panels with DDC controllers and I/O modules, HVAC field sensors (temperature, humidity, pressure, flow, BTU, CO₂, CO, VOC), modulating valve and damper actuators, plumbing-system sensors (calorifier T, header T, heat-pump HLI, recirc-pump status), boiler instrumentation, and 12 multifunction power meters at the main and major mechanical / casino feeders.

Brand selection follows the Megaworld customer brand standard (DRC-004-2024). Where the standard reference is not yet firmed, we propose Siemens for BMS controllers / supervisor / power meters and Dell for head-end PCs (Q-008).

4.4 Programming and graphics

Approximately 1,142 programming objects: I/O point objects, ~85 control loops, alarms, schedules, reports, and trend logs. Trend strategy reflects casino IAQ audit retention and chiller-plant ECPI tracking (AI/AO 100%, DI 50%, DO 100%, HLI 80%).

29 graphics pages across site overview, network overview, equipment detail, energy dashboard, alarm summary, and trend browser.

4.5 Standards and compliance

- Philippine Electrical Code (PEC-1)
- BFP Implementing Rules and Regulations (cable jacket FRLS)
- Megaworld MC Standards DRC-004-2024 (BMS section)

- ASHRAE control-sequence references where applicable (Description of Operations from MC Standards ME)

5. Schedule

14 weeks from notice to proceed:

- Weeks 1–4: Engineering, submittals, FAT preparation
- Weeks 5–8: Containment + cable pull
- Weeks 8–10: Panel installation + field-device installation + head-end installation
- Weeks 9–13: Programming, graphics, trends, reports
- Weeks 11–13: Pre-commissioning, functional, integrated testing
- Week 14: Owner SAT + training + handover

Detailed Gantt and milestone list in 05-working-docs/D1-schedule.md.

6. Stated assumptions (top items)

1. Project is greenfield (new construction) — pending Q-015 clarification of cover-letter wording.
2. Per-guestroom HVAC controls are not in BMS base scope — pending Q-001.
3. Mechanical (HVAC) layouts not provided; equipment placement assumed per BMS Points list zones — pending Q-002.
4. Cable lengths measured for the trunk + plant-room + casino + roofdeck subsets; typical-range fallback applied to BOH AHU interior and guestroom-corridor cabling — pending Q-002 / Q-004.
5. 14-week comfortable schedule — pending Q-003.
6. Brand: Siemens BMS / Dell head-end (internal preferred, Megaworld customer-kb is STUB) — pending Q-008.
7. PMS integration not in BMS base scope; offered as optional add-on — pending Q-009.
8. Casino vault, count-room, smoking-zone strategy at default bms-hospitality-casino minimums — pending Q-010.
9. Standard daytime construction hours; no after-hours premium — pending Q-013.

The full assumption ledger is in 07-assumptions.md (25 entries).

7. Inclusions / exclusions / clarifications

See 05-working-docs/C3-inclusions-exclusions.md. Highlights:

In: Supply, delivery, installation, testing, commissioning, programming of the systems listed in the project-specific BMS Points list; head-end + workstations + UPS; 13 BMS field panels; field devices (sensors, actuators, relays); cabling within BMS scope; vertical conduit + BMS panel-room internal trunking; one round of operator training; 12-month warranty.

Out (and offered as Optional): Per-guestroom HVAC controls (7.2); hotel PMS integration (7.1); extended O&M beyond warranty (7.3); after-hours / weekend work (7.4); civil works; FDAS supply; mechanical / electrical equipment supply (other contractors); vault / count-room / smoking-zone HVAC special hardware (7.10); kitchen Ansul interlock (7.11); per-floor guestroom-feeder metering (7.12).

8. Open clarifications

15 items in 08-customer-clarifications.md (Q-001 through Q-015), prioritized High / Medium / Low. Item-level status will be tracked in the customer's review with the proposal.

9. Commercial proposal

Section	Amount (PHP)
Material supply	(per 06-boq.md summary)
Installation labor	(per BOQ)
Programming + graphics	(per BOQ)
Testing & commissioning	(per BOQ)
Training & handover	(per BOQ)
Subtotal	13,274,500
Overhead and margin (18%)	included
Contingency (9%)	included
VAT (12%)	included
Grand total	19,122,501

Detail per line item: 06-boq.md.

Payment milestones (proposed)

Milestone	%
Notice to proceed (advance)	15%
Engineering submittals approved	15%

Milestone	%
Material on site	30%
Installation complete	20%
T&C complete (substantial completion)	10%
Warranty completion (12 months later)	10%

Per A-012; pending Q-012 customer confirmation.

10. Acceptance

Authorized signatory: _____ Date: _____

For Megaworld Corporation: _____ Date: _____