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Internal Team Notes — 2026-04-kingsford-bms-AB6

Audience: the proposal team running the next pass on this project.

This document compiles actionable items pulled from the project’s working artifacts. Each section is *what to do next* — verify, refine, or reconsider — to improve the proposal before it goes to the customer or as part of an RFQ-response cycle.

Sources compiled:

- 07-assumptions.md — assumptions to verify or refine
 - 08-customer-clarifications.md — questions to send the customer
 - 99-decision-log.md — decisions worth revisiting
 - 03-doc-inventory.md — gap analysis on customer inputs
 - 05-working-docs/A3-cable-schedule.yaml — cable-length fallbacks to verify
 - 05-working-docs/D3-risk-register.md — project risks (if present)
 - 09-rfq-package/ — RFQ packages (cost-reduction via competitive bidding)
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1. Customer clarifications (RFI list)

15 open questions to send the customer. Each has a documented default assumption with cost / scope impact. Resolving these is the highest-leverage path to refining the proposal — every answered Q-NNN may flip an open assumption from Assumed to Confirmed and reduce contingency.

| ID | Question | Default assumed | What an answer changes |
|-------|--|--|------------------------|
| Q-001 | The cover letter uses the wording “ <i>Rehabilitation</i> ” but the EE and BMS Construc... | Stage classification drives demolition scope, after-hours pr | Greenfield (A-001) |

| ID | Question | Default assumed | What an answer changes |
|-------|---|---|---|
| Q-002 | Required warranty period and conditions? | Drives commercial loading. | 1 year hardware + workmanship warranty (A-002) |
| Q-003 | Post-handover maintenance contract — separate scope or included in this proposal... | Affects commercial loading + helpdesk scope. | Excluded from this proposal; offered as optional addendum (A-003) |
| Q-004 | Megaworld DRC-004-2024 Section 9 — please share the brand-approval list. Interna... | Brand substitutions during shop-drawing review can shift costs | Siemens / Dell (A-003) |
| Q-005 | Architectural floor plans — please share. | Required for accurate cable-route measurement (corridor length) | Cable lengths fall back to typical ranges per `A3-route-length` |
| Q-006 | Mechanical (HVAC) layouts — equipment locations, ductwork routing, FCU/VAV placement... | HVAC equipment locations confirm guestroom-zone counts, FCU/ | Equipment counts inferred from points-list zoning + typical |
| Q-007 | If existing BMS is being | Drives demolition + reuse decisions. | N/A unless Q-001 answers “rehab” (A-006) |

| ID | Question | Default assumed | What an answer changes |
|-------|---|--|---|
| | replaced (per Q-001 outcome): please share existing con... | | |
| Q-008 | Has an “EL” (Electrical) BMS points-list partition been issued or is one forthco... | Defines whether power-quality / energy-monitoring scope is i | Limited to power meters at major load centers per Megaworld |
| Q-009 | Plumbing BMS scope — Part C of the points list covers domestic hot-water only. S... | Defines BMS scope vs. ME-package monitoring. | BMS scope limited to domestic hot-water per Part C (A-008) |
| Q-010 | Building stack — please confirm: Basement / LG / GF / 2F amenity / 3F amenity / ... | Drives equipment-instance count for guestroom-zone aggregati | Stack inferred from EE plan + points-list zoning (A-009) |
| Q-011 | BMS Server + control room location — typically in Lower Ground or Ground | Drives head-end siting + uplink trunk lengths. | Lower Ground IT/BOH room assumed |

| ID | Question | Default assumed | What an answer changes |
|-------|---|--|--|
| | Floor B... | | |
| Q-012 | Casino / gaming-floor adjacency — Kingsford casino floors share the building. Ar... | Adds CO-sensor scope at gaming-floor return air. | Not in scope unless customer confirms |
| Q-013 | Number of typical guestroom FCUs per floor and per FCU-class — verify against M-... | Drives guestroom field-device count. | ~24 FCUs per typical guestroom floor (× 6 typical floors = 1 |
| Q-014 | Power Riser Diagram (sheet EE-24 per cover letter) and Load Schedules (EE-21/22/... | A5 (network architecture) + A7 (power provisions) need the r | Single-shaft riser + standard 1.5mm ² copper feeder per panel |
| Q-015 | DDC field-controller protocol confirmation — BMS-03 P&ID sheet shows NETWORK row... | Drives field-bus topology + cable spec. | BACnet MS/TP at field + BACnet/IP at head-end (per DRC-004) |

2. Verification action items (against drawings, on site, with vendors)

Cable lengths — fallback rows to verify

Cables tagged `legacy_fallback`, `typical_range:*`, or `fallback_a001` use agent-reasoned typical-range estimates rather than direct drawing measurements. These are the audit-XLSX rows the team should prioritize when the next set of drawings lands or when site walkthroughs become possible.

| Method tag | Count | Sample row ID |
|---|-------|---------------|
| <code>typical_range:boh_2f</code> | 61 | C0016 |
| <code>typical_range:plant_room_rd_plant</code> | 34 | C0053 |
| <code>typical_range:plant_room_chiller_2f</code> | 29 | C0041 |
| <code>typical_range:boh_b1</code> | 20 | C0086 |
| <code>typical_range:boh_gf</code> | 18 | C0001 |
| <code>typical_range:casino_2m_localized</code> | 18 | C0010 |
| <code>typical_range:plant_room_lg_boiler_hwl</code> | 13 | C0106 |
| <code>typical_range:amenity_3f</code> | 12 | C0080 |
| <code>typical_range:panel_power_feed_local</code> | 8 | P0213 |
| <code>unknown</code> | 5 | T0206 |
| <code>typical_range</code> | 2 | T0211 |

Open `13-A3-cable-schedule-AUDIT.xlsx` to filter and prioritize.

Other verification items

- **Equipment counts** — verify against mechanical floor plans where the agent inferred quantities (see open assumptions where Status: Open and category contains ‘count’).
- **Panel locations** — confirm against architectural drawings and walk the building if accessible.

- **Drawing scale calibrations** — if any A-NNN entries record drawing-scale calibration assumptions (e.g., grid-bay calibration), spot-check against a second known dimension before the proposal goes out.
- **Vendor specifications** — for every Equipment Supplier C/O cable / interface, confirm that the supplier’s panel architecture matches the assumed BMS-side interface (HLI vs. hardwired DI/DO).

3. Cost-reduction opportunities

RFQ packages — competitive bidding

The agent prepared 12 RFQ packages categorized by supplier type. Issuing all of them and comparing 3+ quotes per package is the standard cost-reduction lever. Especially impactful for high-value categories:

- bms-controllers-and-panels — typically 5–15% savings vs. catalog pricing on competitive bid
- field-sensors-hvac — typically 5–15% savings vs. catalog pricing on competitive bid
- head-end-servers-workstations — typically 5–15% savings vs. catalog pricing on competitive bid
- network-active — typically 5–15% savings vs. catalog pricing on competitive bid
- power-meters — typically 5–15% savings vs. catalog pricing on competitive bid
- valves-actuators — typically 5–15% savings vs. catalog pricing on competitive bid

Full list in 09-rfq-package/. Send these as soon as the proposal’s commercial side is firm — supplier turnaround is typically 2–4 weeks.

Other cost levers

- **Cable specifications** — confirm with the customer whether the assumed jacket rating (e.g., FRLS) is mandated or whether a less-specified cable is acceptable in non-occupied spaces. Material cost difference can be 10–20% on cabling.
- **Spare-conductor strategy** — current strategy provides 15–25% spares per I/O class. If the customer is willing to accept lower spare margins (commit to the I/O list as-final), cable size drops and material cost reduces 5–10%.

- **Make/model consolidation** — RFQ packages currently call for spec-level equivalent items. If the customer accepts a single-vendor list (one controller brand, one valve brand), the team can negotiate volume discounts. Document any such consolidation in a new Q-NNN.
- **Owner-furnished items** — review C1 contractor/owner matrix; items currently assigned to BMS scope that the owner could supply directly (e.g., off-the-shelf workstations, network switches if customer has IT preferences) reduce BMS material markup.

4. Risks and decisions to revisit

Risk register highlights

Open risks from D3-risk-register.md worth re-evaluating before issue:

- **R-01** — Q-001 wording mismatch — customer confirms project IS rehabilitation requiring demolition + cutover
- **R-02** — Q-004 brand-approval list disqualifies Siemens / Dell — Megaworld DRC-004 names different tier-1 bra
- **R-03** — EE Plan re-extraction (Q-014) reveals different per-circuit IDs than placeholder, requiring panel-po
- **R-04** — Q-008 EL points-list addendum issued late, requiring metering-scope variation | Low (none currently)
- **R-05** — Q-009 plumbing scope expands to include sump / fire / transfer pumps | Low | Low-Medium (~PHP 0.3-0.
- **R-06** — Casino fit-out delays Air Ionizer Modbus integration spec, slipping integrated testing | Medium | Me
- **R-07** — Architectural / mechanical layouts (Q-005 / Q-006) drop later than expected, forcing late-cycle cabl
- **R-08** — Megaworld review cycles slow shop-drawing approval | Low (one cycle observed in Construction Bulleti
- **R-09** — Cooling-tower blowdown corrosion sensor calibration (chemistry-dependent) requires post-install adju
- **R-10** — Building stack assumption (A-009) wrong on guestroom-floor key count → BMS scope marginally affected

Recent decisions worth revisiting

Decisions made during proposal generation. Review whether each is still right given any new customer answers or drawings received since the decision was made.

- **D-001** — Project classification: Greenfield, not Rehabilitation
- **D-002** — Scope shape: Pattern 1 (Turnkey BMS)
- **D-003** — Customer KB: STUB (megaworld) — internal preferred brands apply
- **D-004** — Drawing extraction: 5 parallel subagents, image-batch capped per Patch B
- **D-005** — Equipment-aggregation strategy (PATCH A — committed BEFORE A1 authoring)
- **D-006** — AB-Run-6 finding: image-batch dimension limit on individual large pages
- **D-007** — Aggregation execution check (post-Phase 5a entry will close)

5. Open assumptions to refine

0 assumptions in 'Open' status (out of 0 total). Each one is something the proposal currently treats as a known quantity but isn't actually confirmed. The team should pair each open assumption with the corresponding Q-NNN and chase the customer's answer.

6. Process improvements queued

Items the methodology audit and A/B regression runs flagged for the next playbook pass. These don't block this proposal but will improve the next one:

- **Conduit ratio** — currently 30% of total cable length unless overridden. Project-tuned override available via `B4-site-factors.yaml` (see Op#11).
- **Commercial rates** — overhead 20% / contingency 7.5% / VAT 12% are defaults. Project-tuned override via `06-commercial-rates.yaml` based on risk-register score.
- **Cable specs** — currently project-blind. Consider authoring `A3-cable-spec-rules.yaml` per `_playbook/sub-routines/build-cable-schedule.md` for explicit jurisdiction / brand reasoning.
- **MS/TP trunk topology** — formula-based fallback; ideally derived from actual A4 panel locations.

7. Defensibility check — what's already strong

Reassurance for the team — items the agent already handled to a defensible standard:

- Every BOQ line traces to a working doc; every working doc cites sources
 - Drawing-availability triage committed in writing in 03-doc-inventory.md (per Op#10)
 - All assumptions are documented with rationale + impact-if-wrong
 - 13-file deliverables package ready for issue with no missing artifacts
 - Audit XLSX layer (per Principle F) makes verification work tractable
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Generated by `_playbook/tools/generate-internal-notes.py`. Re-run after any update to the project's working docs to refresh.