An Overview of GMR Megawide Consortium’s Unsolicited Proposal

March 2018
Metro Manila requires a multi-airport system and NAIA shall continue to play an anchor role in this system.

Multi-Airport system is a successful concept across major cities of the world.

To meet the growing air-traffic demand, Manila would require a similar multi-airport system.

Clark Airport, being expanded to take up major part of the growth in the GCR

Indicative site (Bulacan) for new airport

NAIA, the main gateway to the Philippines

While Clark & a new airport (or more) can add large capacity for Manila, NAIA needs to be upgraded and maintained at least till alternatives become available.
Our proposal is fully aligned with the DOTr’s view regarding the infeasibility of the third runway at NAIA.

The third runway is not viable because of the following reasons:

**Land Constraints Around NAIA**
- There is shortage of land around NAIA to make way for an independent additional runway
- Only an independent runway can deliver a significant capacity increase, while a dependent runway shall only result in a marginal increase

**Complications with Manila Bay Option**
- With land constraints, we explored the option of building the third runway on the reclaimed land in Manila Bay
- Such runway would raise new challenges for passenger and aircraft flow management ultimately affecting passenger convenience and capacity
- Investment cost and environmental impacts associated with building the runway on reclaimed land would far outweigh any addition to the capacity

**Potential Conflicts withExiting Runway system**
- NAIA currently has a cross-runway configuration & consequently any new runway would have to be parallel to one of the existing two runways
- Approach, Departure and Missed Approach procedures for new runway in any orientation would conflict with these procedures on the existing system
- Hence, the new benefit of the new runway would be marginal at best, coupled with significant security risks

Having concluded that 3rd runway for NAIA is infeasible, we have focused on maximizing air traffic handling capabilities through the existing assets.
We believe with improvements to existing airside, aircrafts handling capacity of NAIA can be significantly improved.

Our proposal is backed by a simulation study by MITRE, world's foremost expert in studying cross-runway capacity maximization.

- Firstly, we developed a masterplan for infrastructural improvements on the current airfield system
- We provided MITRE with our masterplan to assess the proposed airfield infrastructural improvements and conduct a simulation study to estimate runway capacity
- The simulation was robust with considerations for aircraft fleet mix based, distribution of arrivals/departures as well as ATC rules & procedures based on up to date data
- The runway capacity analysis was conducted for various scenarios/operating configurations for existing runway system
- MITRE recommended the best scenario for operation to maximize capacity as well as improvements to the ATC procedures
- Based on MITRE’s detailed analysis, peak hour capacity of ~60 ATMs and daily ATMs of ~1000 is achievable on a sustainable basis

MITRE has confirmed that our proposed infrastructure, combined with the improved ATC infrastructure and procedures would allow NAIA to have upto 1000 ATMs/day
Our proposal involves comprehensive capacity enhancement within first 6 years to position NAIA for future growth.

Proposed masterplan involves simultaneous improvements on both airside as well as terminals with a total investment of ~146 Bn Php.

<table>
<thead>
<tr>
<th>Phase 1A</th>
<th>Phase 1B</th>
<th>Phase 1C</th>
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<td>(~52 Bn Php)</td>
<td>(~55 Bn Php)</td>
<td>(~38 Bn Php)</td>
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- **Years 0-2**
  - Three Additional Rapid Exit Taxiways (RETs) on Runway 06
  - Additional full length parallel taxiway for Runway 06
  - Additional entry/exit taxiways and holding end connecting taxiways
  - Terminal infrastructure improvements
  - T-3 expansion (Annex A)
  - New Cargo Terminal
  - Multi-Level Car Park and extension of Surface level car parks

- **Years 2-4**
  - Full length parallel taxiway for Runway 31
  - Extension of existing parallel taxiway for Runway 31
  - Expansion of Terminal-1
  - T-1 satellite pier and connectivity with T-2
  - Additional aprons and aircraft parking stands for T-1 and T-2
  - Underground tunnel (North of Runway 31)
  - New ATC Tower

- **Years 5-6**
  - T-3 expansion (Annex B)
  - Expansion of Terminal-2 with a satellite pier
  - Additional apron and parking stands at T-2 and T-3
  - Additional remote aircraft parking stands
  - Additional improvements on landside
Phase 1A, immediately upon takeover, would focus on measures to increase the airfield capacity to 60 ATM/hr.

Phase 1A of the Masterplan

- Cargo Terminal (Relocated)
- Expansion of T-3 and Apron (Annex A)
- Additional parallel taxiway
- Multiple aircraft holding Positions
- 3 Additional RETs

Phase-1 entails simultaneous capacity augmentation of both airside and terminals.
Phase 1B continues simultaneous airside & terminal capacity enhancement along with improved connectivity b/w terminals.

- **Phase 1B of the Masterplan**
  - Underpass/Tunnel
  - Extension of Parallel Taxiway for Runway 13/31
  - Expansion of T-1 and Apron
  - Expansion of T-1 through linear piers to increase the number of aircraft stands
  - T-1 and T-2 Connectivity

Masterplan layout has been designed such that additional land requirement is minimum.
Phase 1C would add significant terminal capacity to meet the demand of a passenger flow of ~72 MPPA.

Terminal area of ~700,000 Sqm & ~171 aircraft stands will be achieved at the end of Phase 1C.
We have also developed architectural concepts for the 3 terminals. (1/2)
We have also developed architectural concepts for the 3 terminals. (2/2)
With a short concession of 18 years, our proposal aims to maximize the value for the government.

### Proposal accrues multiple benefits to the Government.

| Flexibility to Govt With shorter Concession (18 Years) | • The proposed Concession Duration of 18 years offers the required flexibility to the Govt to finalize the multi-airport strategy for GCR  
| • The proposal does not tie the hands of the Govt. for long while simultaneously resolving the problems at NAIA for the immediate to medium term |
| Full Scale Turnaround within short span | • The Development plan addresses the immediate congestion issues at NAIA and proposes a large scale turnaround within a short span  
| • With >75% of the investment in the first four years, the masterplan promises to improve passenger convenience to world class levels within 4 years |
| Preservation of Assets & Enhancement of Value | • Proposal offers a technically proficient solution to maximize the capacity at NAIA, revamp the existing infrastructure and enhances value at NAIA  
| • The proposal offers revenue share coupled with guaranteed payments for Govt, thereby creating value for the Govt |
| Free Asset Transfer to Govt | • All assets will be handed over to Govt free of cost at the end of the Concession period  
| • Additionally, the proposal does not entail any equity, guarantee or subsidy from the Govt |
Our proposal is comprehensive and complete; in line with the requirements of the BOT Law IRR.

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<tr>
<th>Submission Requirement</th>
<th>Compliance</th>
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<tr>
<td><strong>Cover Letter:</strong> (With basic information about the project, implementation period and general description of the new concept or technology)</td>
<td>✓</td>
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<td><strong>Feasibility Study</strong> (Comprehensive with all requirements including detailed study on traffic projections, financial assessments &amp; socio-economic impact analysis)</td>
<td>✓</td>
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<td><strong>Detailed description of proposed masterplan</strong> (Part of feasibility study)</td>
<td>✓</td>
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<tr>
<td><strong>Technical Drawings &amp; Renderings of Proposed Masterplan</strong> (Part of feasibility study)</td>
<td>✓</td>
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<td><strong>Proposed architectural concept for NAIA</strong></td>
<td>✓</td>
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<td><strong>Draft Contract</strong> (Concession Agreement and Annexes)</td>
<td>✓</td>
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<td><strong>Profile of Proponents</strong></td>
<td>✓</td>
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Our proposal does not envisage subsidy, equity, guarantee or other prohibited items under the BOT Law.
In summary, not only is our proposal tailored to NAIA’s needs but also would suit long-term multi-airport plans for Manila.

### High Level Comparison of our proposal with that of NAIA Consortium

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<tr>
<th>Particulars</th>
<th>Manila Airport Consortium</th>
<th>NAIA Consortium</th>
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<tr>
<td>Planned Terminal Capacity</td>
<td>72 Million</td>
<td>65 Million</td>
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<tr>
<td>Planned Airside Capacity</td>
<td>60 Movements (Peak Hour)</td>
<td>52 Movements (Peak Hour)</td>
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<tr>
<td>Broad Infrastructure Improvements</td>
<td>• Immediate operational improvements to terminal</td>
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<td></td>
<td>• Terminal expansion to cater to 72 Mn</td>
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<tr>
<td></td>
<td>• Significant Airside improvements to increase peak hour capacity to 60 movements</td>
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<td>• Additional support with ATC/ANS equipment and procedures</td>
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<td>• Improvement of facilities in the terminal</td>
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<tr>
<td></td>
<td>• Terminal expansion to cater to 65 Mn</td>
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<tr>
<td></td>
<td>• Airside improvements –minimal improvements</td>
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<tr>
<td>Third Runway</td>
<td>Not applicable as the option is infeasible</td>
<td>Proposed</td>
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<td>Concession Length</td>
<td>18 Years</td>
<td>35 years</td>
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Overall, our proposal provides a technically robust solution for NAIA and attempts to maximize value for the Government in minimum time.
Thank You.