

NAVAL STATION GUANTANAMO BAY CUBA: Assembling a Design-Build Team on Short Notice

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PRESENTATION OUTLINE

- 1) Project Description
- 2) Assembling the Design-Build Team
- 3) What's it like to visit GTMO?
- 4) Assessing Existing Infrastructure
- 5) Airfield Electrical Vault Surprise
- 6) Runway/Taxiway Lighting Replacement
- 7) PAPI's, REIL's Replacement, New Signs
- 8) Typical Construction Activities
- 9) What If?



1) GTMO Project Scope

Design-Build SOW Issued to MACC, Sept 11, 2010

Proposals Due: Sept 17, 2010 (Extended 3 days)

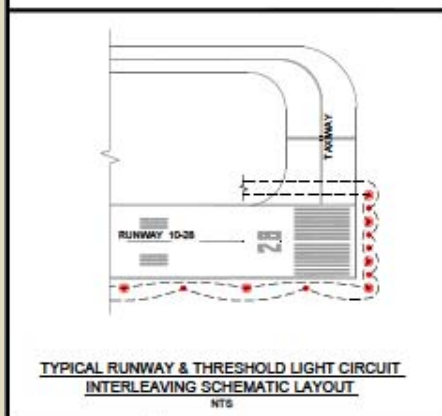
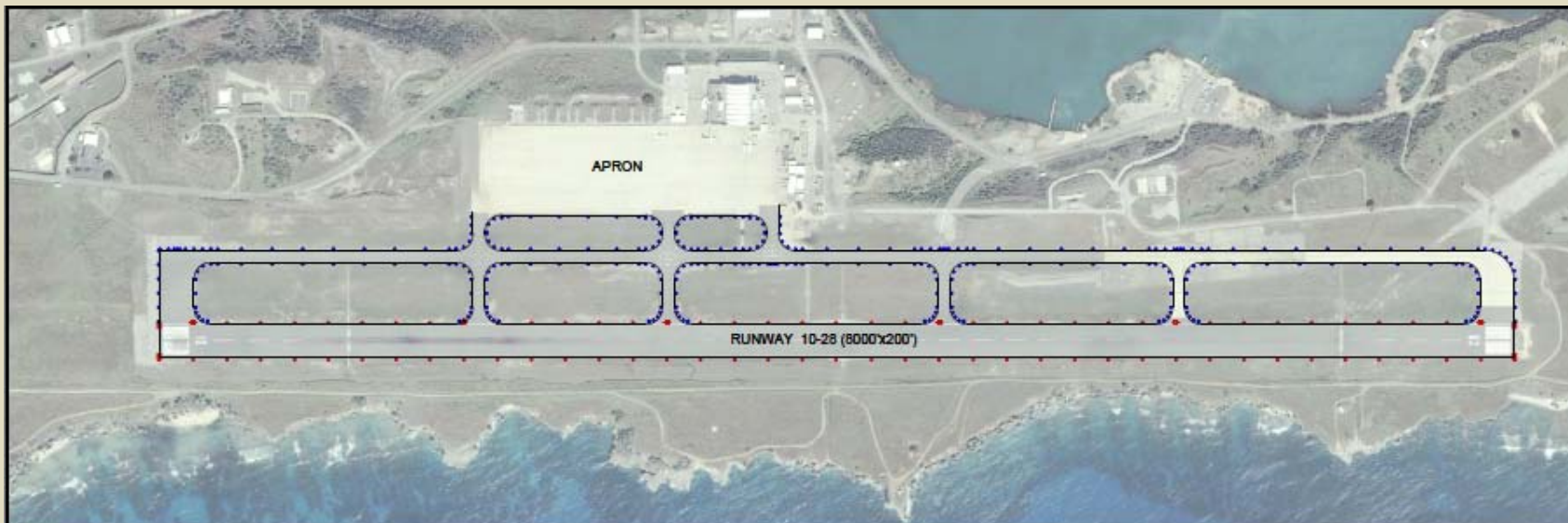
Scope (Read carefully):

- Replace airfield lighting, controls, NAVAIDs, approach lights, Generator, shoulder grading and paving

Information (Clues):

- Existing vault being upgraded to address safety issue.
- Edge lights, PAPIs, taxiway signs, new wiring and raceway system, generator, re-grade shoulders?
- No trench and patch. Bore new conduits
- Old plans, no survey, no pre-bid site visit.





RUNWAY IN PAVEMENT LIGHTS - 6
 RUNWAY LIGHTS - 72
 RUNWAY THRESHOLDS - 16
 TAXIWAY LIGHTS - 312

600 0 600 1200
 SCALE: 1"=600' FEET



AIRFIELD LIGHTING PLAN SCHEMATIC DIAGRAM

DRAWN BY: MPM CHECKED BY: MMS SCALE: 1"=600' DATE: SEPTEMBER 20 10

EXHIBIT
2



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1) GTMO Project Scope

-CAN WE PULL TOGETHER A DESIGN AND DB TEAM IN 3 DAYS?

- No previous GTMO experience
- No team experience
- No time
- No Guts, No Glory
- YES!



2) Assembling the Design-Build Team

- A. Design-Build Process for airfield projects
- B. Selection Process of Team Members
- C. Islands Mechanical - Prime Contractor
- D. Delta Airport Consultants - Design Engineer
- E. Austin Electric - Airfield Electrical Subcontractor



3) What's it like to visit GTMO?

A. Where is GTMO?

B. How does one get there?

C. How big is the Base?

D. What's this about a ferry ride?

E. Where does one stay?

F. What is one likely to see at GTMO?





Border of Naval Station Guantanamo Bay



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Naval Station Guantanamo Bay Airfield



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Ferry Landing



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Contractor lodging facility at GTMO (*entrance shown upper right*)



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Runyon, you
can't handle
the truth !



Things one might see at GTMO



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4) Assessing Existing Infrastructure

- A. Locate and map existing underground utilities
- B. Evaluate impact of water table on infrastructure
- C. Determine connection point between vault and existing duct bank system





Locating existing underground electrical circuits



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Documenting the depth of water in electrical handle hole



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There was no water in the electrical hand holes



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No water table issues found due to porous coral rock that makes up the site



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Existing power cables were clearly labelled



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Below grade electrical room in ATCT includes a CCR and only one sump pump



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5) Airfield Electrical Vault Surprise

- A. Previously awarded contract to upgrade vault
- B. Previously awarded contract to replace generator
- C. CCR's will not fit through the vault door
- D. Creating a win-win situation for all stakeholders





Previously awarded electrical vault upgrade project, now under construction



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2400 Volt based equipment is being replaced with 208 Volt CCR's



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CCR's are due to ship soon but will not fit through the door or the windows!



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Previously awarded generator replacement project, not yet started



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Refurbished generator room – now new airfield electrical vault



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New 120/208 Volt, 150 kVA 3 phase diesel generator with integrated fuel tank



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6) Runway/Taxiway Lighting Replacement

A. Runway Edge Lights

B. Taxiway Edge Lights with large housekeeping pad

C. Threshold Lights with integrated housekeeping pad





Runway Edge Lights (*previous fixture lower right*)



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Taxiway Edge Lights (*detail lower right*)



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In-Pavement Taxiway Light (*previous fixture upper right*)



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Runway Threshold Lights (*previous fixtures upper right*)



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7) PAPI's, REIL's, and Sign Replacement

A. Single Lens Four Box PAPI

B. LED REIL's

C. Master Airfield Signage Plan Developed





New PAPI System (previous PAPI LHA top left)



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New LED REIL System



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New Airfield Guidance Signs



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New Runway Distance Remaining Sign *(previous RDR sign upper left)*



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8) Typical Construction Activities

- A. In-Pavement taxiway light
- B. Electrical vault junction box
- C. Electrical feed to airfield sign
- D. Temporary runway threshold lights
- E. RDR sign foundation and house keeping pad





In-Pavement Taxiway Light Construction (*upper right before, lower right after*)



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Electrical vault junction box connection to existing duct bank manhole



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Construction of electrical feed to new runway hold sign



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Temporary Runway Threshold Lights



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Runway Distance Remaining sign foundation and house keeping pad



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9) What Ifs?

- A. Prime was not a MACC (Accountability)
- B. No experience airfield electrical contractor
- C. No experienced airfield engineer
- D. Without trust and teamwork of team. All had risk and reputation at stake
- E. It could have gone completely different
- F. Press to improve the process. DB can work, but needs to be better.



Results



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Thank You



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