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To: ██████████, USAID-OIEE

From: ██████████, P.E.

Date: 26 October 2010

Re: WO-A-0047 Maimana Airport - 3rd Party QA Report

USAID requested Tetra Tech Water Resource Lead ██████████, PE to travel to the Maimana Regional Airport to conduct a third-party quality assurance site visit. The trip was completed on 20 October 2010. The purpose of the trip was to review and report on the current construction operations and progress made by the Gulf Home Base International Construction Company (GHI) prior to the runway having to be paved.

██████████ travelled to Maimana Airport and met with several project representatives. He performed the site visit and observed the current status of the airport runway construction. The key people in attendance included ██████████, the President of Gulf Home Base International Const. Co. (Pvt) Ltd. (GHI) out of Kabul, the construction company contractor for the Maimana Airport Rehabilitation Construction Project and ██████████ the Ministry of Transport Civil Aviation/Asian Development Bank Procurement Implementation Unit (MOTCA/ADB PIU) Assistant Director/Manager. (Refer to Attachment A for a complete list of the key visitors and meeting attendees.)

On 10 August 2010, Tetra Tech staff, ██████████, and ██████████ visited the Maimana Regional Airport construction site, to observe the status of building and runway construction at that time, as directed by ██████████ (USAID) and ██████████ (FAA). The results of that site visit were presented in the Tetra Tech Maimana Airport Field Observation Report memorandum (for 10 August 2010 day of visit) which was sent to USAID on 7 October 2010.

Since early September 2010, GHI has routinely been providing Tetra Tech copies of the pertinent project QC documents and QC test records, including copies of several monthly reports dating back to 6 January 2010, for Tetra Tech review. The project QC activities at the Maimana Regional Airport have been performed in accordance with the REHABILITATION OF REGIONAL AIRPORTS PHASE 1 GENERAL SPECIFICATIONS document prepared by the Islamic Republic of Afghanistan Ministry of Transport Afghan Reconstruction and Development Services Procurement Unit, Asian Development Bank.

Site Quality Control (QC) materials testing and construction inspection services are continually being performed by GHI Site Engineers and the GHI QC Engineers. Quality Assurance (QA) monitoring efforts are being performed by FKH GEO EXPERT SERVICES (FKH) personnel (with its home office in Kabul). Tetra Tech notes that GHI

has had consistently high compaction density test results throughout its QA/QC testing program being performed by GHI QC personnel and the FKH QA monitoring personnel. During the 20 October 2010 visit to the airport construction site, GHI and the QC engineering staff were performing the airport construction work in accordance with the ADB project specifications.

During the site visit and in the presence of [REDACTED] GHI performed a sand-cone (SC) density test on the aggregate base course top layer, which passed at 102.7% against the reported design maximum dry density (MDD) of 98%. Several other SC tests made that day resulted in passed density test results, except for one. In the failed test, the local area was re-worked and a second SC test was performed with passing results. All test holes reportedly were to be backfilled with cement grout. Additionally, GHI is continuing to work towards designing an adequate airfield drainage improvements control plan for the rehabilitated airport facility.

Based on the Tetra Tech field observations and review of information provided up to the time of and including the 20 October 2010 site visit, Tetra Tech recommends that USAID-OIEE authorize GHI to proceed with the asphalt paving operation for the runway. This recommendation is also based on the following information:

- a) GHI meets the minimum equipment requirements for asphalt paving as approved by FKH in accordance with its Work Schedule for Paving of Maimana Airport dated 14/10/10 (Attachment B).
- b) the FKH e-mail message to MOTCA regarding the “Asphalt Implementation at Maimana Airport dated 17 October 2010.
- c) the MOTCA e-mail message to USAID regarding the “Rehabilitation of Regional Airport Phase-1” in reference to ADB Loan # 2105 – AFG.

Tetra Tech also notes that GHI is currently using NESPAK Materials Testing Laboratories in Pakistan for performing final asphalt materials testing. A new Farid Kohi Construction Company (FKCC) Asphalt Plant (Appendix C) and SUMITOMO MODEL HA60C sensor asphalt paver will be used by GHI in the runway paving operations, effective for laying wet mix asphalt.

GHI reportedly is presently planning to take 40 working days for completing the asphalt paving work. Also of note is that both [REDACTED] and [REDACTED] are concerned about the forthcoming winter period and completing the airfield paving operation before the winter-period weather sets in. If that timeline is not met, certain protection measures must be provided to protect the aggregate base course and sub base during the winter period until the following spring season when the actual pavement construction can be started.