

SHEILE PRIMARY SCHOOL
DAHUK, IRAQ

SIGIR PA-06-038
APRIL 5, 2006



SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

April 5, 2006

MEMORANDUM FOR COMMANDING GENERAL, MULTI-NATIONAL FORCES -
IRAQ
COMMANDING GENERAL, GULF REGION DIVISION,
U.S. ARMY CORPS OF ENGINEERS
DIRECTOR, IRAQ RECONSTRUCTION MANAGEMENT
OFFICE

SUBJECT: Report on Project Assessment of the Sheile Primary School in Dahuk, Iraq
(Report Number SIGIR-PA-06-038)

We are providing this project assessment report for your information and use. We assessed the in-process construction work being performed for the Sheile Primary School in Dahuk, Iraq, to determine its status. This assessment was made to provide you and other interested parties with real-time information on a relief and reconstruction project underway and in order to enable appropriate action to be taken, if warranted. The assessment team included an engineer and an auditor.

This report does not contain any negative findings. As a result, no recommendations for corrective action are made and management comments on this report are not required.

We appreciate the courtesies extended to our staff. This letter does not require a formal response. If you have any questions please contact Mr. Brian Flynn at (703) 343-9149 or brian.flynn@iraq.centcom.mil or Mr. Andrew Griffith, P.E., at (703) 343-9149 or andrew.griffith@iraq.centcom.mil.

A handwritten signature in black ink that reads "Stuart W. Bowen, Jr." followed by a period.

Stuart W. Bowen, Jr.
Inspector General

Special Inspector General for Iraq Reconstruction

SIGIR PA-06-038

April 5, 2006

Sheile Primary School in Dahuk, Iraq

Synopsis

Introduction. This project assessment was initiated as part of our continuing assessments of selected sector reconstruction activities for Facilities and Transportation. The overall objectives were to determine whether selected sector reconstruction contractors were complying with the terms of their contracts or task orders and to evaluate the effectiveness of the monitoring and controls exercised by administrative quality assurance and contract officers. We conducted this project assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer and an auditor.

Project Assessment Objectives. The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties in order to enable appropriate action, when warranted. Specifically, we determined whether:

1. Project results were consistent with original objectives;
2. Project components were adequately designed prior to construction or installation;
3. Construction or rehabilitation met the standards of the design;
4. The Contractor's Quality Control plan and the U.S. Government's Quality Assurance program were adequate; and
5. Project sustainability was addressed.

Conclusions. This assessment determined that:

1. The project is being constructed in a manner that is consistent with the contract objectives and in accordance with the standards and specifications of the contract. This occurred primarily because the U.S. Army Corps of Engineers Project Engineer and Quality Assurance Representative effectively managed the project. Consequently, the Sheile Primary School construction should result in an operational primary school once it is adequately furnished and staffed by the Iraqi Ministry of Education.
2. U.S. Army Corps of Engineers, Gulf Region-North, provided the project design and specification in the solicitations. The design was the same as that used by the United Nations for school construction throughout the country. The contractor was required to follow the design and specifications and obtain Gulf Region North approval for any deviations. We recommended a minor design change that would install a water shutoff valve at ground level for both the auxiliary and main school buildings. This would provide all water shutoff capabilities in the event of an emergency water break somewhere in the building. The Resident Engineer agreed to have the valves installed. Based on the review of the design plans and specifications, the design appeared appropriate for the construction of the facility.

3. Based on the review of U.S. Army Corps of Engineers on-site construction photos, the Quality Assurance Representative reports, and our site visit, the work completed to date appeared to be consistent with the contract plans and specifications.
4. Although the Sheile Primary School contractor did not provide a required quality control plan and only six quality control daily reports, the USACE Quality Assurance Representatives were on site during construction and provided sufficient oversight to insure adequate quality control was maintained. U.S. Army Corps of Engineers Quality Assurance Representatives completed daily Quality Assurance reports that included sufficient information and photographs to document the quality of the construction progress. The procedures in place ensured that potential construction deficiencies were detected, evaluated, and properly corrected in a timely manner.
5. The school will be commissioned and delivered to the Iraqi Ministry of Education after the Resident Engineer inspection and all punch list items are resolved. Sustainability issues are not significant because of limited maintenance requirements. There were no equipment requirements beyond basic lighting and ceiling fans included in the contract. These items have simple operation instructions, are widely used throughout the country and have minimal maintenance requirements. Equipment such as desks, tables, chairs, and a backup generator are the responsibility of the Ministry of Education and not part of the contract. Air conditioning and heating will not be installed.

Management Comments and Recommendation. This report does not contain any negative findings. Although, management comments were not required, the Commander, U.S. Army Corps of Engineers – Gulf Region Division provided the following comments. “Gulf Region Division concurs with the draft report. We appreciate your review of the Sheile Primary School.”

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Introduction

Objective of the Project Assessment

The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties in order to enable appropriate action, when warranted. Specifically, we determined whether:

1. Project results were consistent with original objectives;
2. Project components were adequately designed prior to construction or installation;
3. Construction or rehabilitation met the standards of the design;
4. The Contractor's Quality Control (CQC) plan and the U.S. Government's Quality Assurance (QA) program were adequate; and
5. Sustainability was addressed.

Pre-Site Assessment Background

Contract, Task Order, and Costs

The Sheile Primary School project is being constructed under Contract W917BE-05-C-0009, dated 12 January 2005, a firm-fixed contract, for \$368,328. The contract is between the U.S. Army Corps of Engineers (USACE) Gulf Regional Division – North District (GRN) and Niwar Company, Dahuk. The contract required the construction of a 12-room primary school in the Dahuk Governorate with a performance period of 300 days. The Project and Contracting Office (PCO) identification number for this project is 18922.

There were three modifications to the initial contract:

- P0001 dated 07 February, 2005 specified the construction of the 12-class room Sheile School and increased the basic contract price by \$19,669 to \$387,998.
- P0002 dated 20 October, 2005 increased the cost by \$72,440 for “extraordinary and unexpected increases in the cost of labor and materials.” Total amount of this modification increased the total contract value to \$460,438.
- P0003 dated 11 November, 2005 extended the completion date of the contract from 11 November, 2005 to 31 December, 2005 to compensate for delays beyond the contractor's control. This modification did not increase the cost of the contract.

Project Objective

The objective of the original solicitation was to award multiple firm fixed-price contracts for the construction of two 12-classroom primary schools, one 9-classroom secondary school, and one 6-classroom kindergarten in the Dahuk Governorate. This particular project consists of construction of a 12-classroom primary school located in the center of Dahuk. It is new construction under a USACE contract using the

basic United Nations (UN) design for primary schools that was utilized by the UN during the “Oil for Food” program. It is expected to accommodate approximately 800 students from first to sixth grades. The teaching staff is expected to range from 35 to 38 teachers.

Description of the Facility (preconstruction)

Information contained in the contract and USACE project files noted that the school is a new construction project on vacant ground, located in the center of the city surrounded by mixed residential and commercial properties. The land was donated by the Governorate of Dahuk. The school site is relatively level, but the topography around the school is hilly. Water is available to the site from the city. Commercial power provided by the Iraq Ministry of Electricity is also available. A municipal sanitary sewer collection system is not available to the site. Therefore, wastewater from the school will be collected using septic tanks.

Scope of Work of the Contract

Information contained in the contract and USACE project files notes that the school is new construction on vacant ground located in the center of the city that was donated by the Governorate of Dahuk. The construction consists of:

- Clearing and grading the site
- Constructing the main school building, an auxiliary building, and a generator building
- Installing electrical circuitry and fixtures in the main and auxiliary buildings
- Installing water supply tanks and plumbing to the water closets and drinking fountains
- Constructing a play yard
- Constructing perimeter walls and gates around the school house grounds
- Installing a septic tank

Current Project Design and Specifications

The school is a two-story reinforced concrete structure with concrete block walls, a gypsum plaster finished interior and terrazzo tile floors. The school will also have an assembly room on the second floor along with the classrooms. The first floor will consist of classrooms, administration offices, and restrooms for teachers and employees. A second auxiliary building adjacent to the school will have toilets for students and two utility rooms, one to be used as a concession store. The school will have an atrium with a concrete yard area in the center. The outside will include a playground for soccer/football, a basketball court, and a garden. Interior equipment will be limited to fans and lighting. A generator room will be constructed, but the generator is not part of the contract. Plumbing will be installed with rooftop water tanks for the adjacent auxiliary building and the main school structure. Water will be furnished by the City of Dahuk to the rooftop tanks. Electrical panels will provide distributed power throughout both buildings. Two septic tank systems will be installed, one for the main school building and the other for the auxiliary building. The design does not include installation of equipment and furniture. Chairs, desks, bookracks, and similar equipment are not part of the contract and will have to be furnished from other sources. This school, like all other schools in Iraq, does not have heating or air conditioning.

We were informed by the Dahuk Resident Engineer that the design was based on a detailed universal design previously utilized by the UN “Oil for Food” program and site adapted for the Sheile location. The design plans included 96 sheets comprised of architectural, structural, mechanical, and electrical drawings that were included in the contract solicitation. We reviewed the drawings and they appear sufficient in detail to provide for the construction of the project without additional drawings.

Detailed construction specifications were also included in the contract Bill of Quantities (BOQ) and incorporated into the contract. The BOQ also required work to be accomplished according to Iraqi General Technical Specifications. Based on our review, the contract specifications appeared to be clear, concise, and consistent with the design drawings.

Site Assessment

We determined the project’s status prior to the site visit through discussions with the USACE Resident Engineer and Quality Assurance Representative (QAR), as well as a review of the contract. The Project and Contracting Office (PCO) database listed the project as 80% completed on 14 January 2006. The Resident Engineer stated the work was approximately 78%. Rain has delayed the completion of project work, and a contract modification is being prepared to extend the completion date to 28 February 2006.

On 24 January 2006, we visited the Sheile Primary School to perform an assessment. The contractor’s employees were working on the interior plastering and painting and the exterior landscaping. During the site assessment, the Sheile Primary School contractor, the Dahuk Resident Engineer, the Dahuk Quality Assurance Manager, and the Project Quality Assurance manager were on site.

Work Completed

Significant areas of work completed included the septic tank installation, which had the brown water line connected but the gray water line connection not yet completed. The major construction of the main school and the auxiliary buildings was completed, including installation of the toilets, sinks, ceiling fans, lighting, plumbing and electrical circuits. The roofs were completed and the roof drainage appeared adequate, as no standing water from the recent rains was observed. The perimeter wall was erected but not finished. Plumbing to the rooftop tanks was installed but not tested at the time of our assessment. Fixtures, including toilets, sinks, lighting, and ceiling fans were installed but not tested because the electricity and water had not been turned on. The play yard was excavated but required significant filling and surfacing before it would be complete.

Clearing and Grading the Site

The school is being built on a vacant lot that was donated by the Dahuk Governorate. The land was previously used as a small agriculture site and required grading, removing unsuitable soil, excavation, and trenching around the school boundary. Based on the GRN site reports, groundwater in the area was high and required a filter layer to divert the flow of the ground water under the school building. Soil testing was completed to determine the type of soil at a depth of three meters and remove unsuitable material. Site Photo 1, taken from the USACE February 19, 2005, Quality Assurance Report, shows the early site preparation work.



Site Photo 1. Initial site preparation work – Photo provided by USACE

At the time of our assessment, site preparation for the buildings was completed. The garden areas in front of the school and the play yard were still being used as a staging area for construction materials and had not been completed. Site Photo 2 shows the condition of the garden area (with the play yard in the background) at the time of the assessment.



Site Photo 2. Garden area at the time of the assessment on January 24, 2006.

Constructing the Main School Building and Auxiliary Buildings

Construction of the main school building and the auxiliary buildings was completed and included installation of the plumbing, electrical circuitry, and fixtures. Tiling inside both buildings was completed along with painting, both inside and outside. Window frames were installed throughout and glass was partially installed. Touchup painting was underway on both buildings. Site Photo 3 shows the completed work on the front exterior of the building at the time of the assessment.



Site Photo 3: Front of the building at the time of the assessment

Water tanks, plumbing, electrical circuitry, and associated fixtures were installed but not yet operational because the electricity had not been connected. Ten water tanks were installed on the top of the auxiliary building and connected to the main water supply from the city (Site Photo 4). Six eastern style toilets were installed in both the girl's and boy's restrooms and four faucet handwash areas were installed outside each restroom. Three additional water tanks, also connected to the city water supply, were installed on the roof of the main building to provide service to the faculty restrooms. The men's and women's restrooms are furnished with two water closets each. Ceiling fans and lights were installed in each room. Site Photo 5 shows the handwash areas outside the boy's bathroom in the auxiliary building.



Photo 4. Water tanks installed on roof of the auxiliary building



Site Photo 5. Handwash stations outside boy's bathroom

The interior classrooms and the assembly room were complete. Terrazzo tile flooring was installed and walls were gypsum plastered and painted. Electrical outlets, light fixtures, and ceiling fans were installed in each classroom and workroom as shown in Site Photo 6.



Site Photo 6. Ceiling fan installation

The exteriors of the main school and auxiliary buildings were finished and painted. Workers were doing touchup work on the paint and rain gutters at the time of the site assessment. Perimeter sidewalks and the main entryway were constructed of concrete and were complete. Landscaping had not started. Examples of the building exterior are shown in Site Photos 7 and 8.



Site Photo 7. Exterior showing painted cement finish



Site Photo 8. Exterior showing painted cement finish and windows

Work in Progress

Generator Building

Construction of the generator building was underway at the time of our assessment. The foundation, concrete floor, and cinderblock walls were completed and the concrete roof construction was in progress. Site Photo 9 shows the generator building at the time of the assessment.



Site Photo 9. Generator building

Play Yard and Garden

The play yard and garden were still being excavated at the time of our assessment. The area was being used as a material staging area. Site Photos 10 and 11 show the garden and play yard status respectively.



Site Photo 10. Garden area location



Site Photo 11. Play yard area site location

Perimeter Walls and Gates

The contract required a 2 meter high concrete block, cement finished perimeter wall and entry gate to enclose the school site. Construction of the perimeter wall was complete except for one section of approximately 6 meters that was used as an entry way to the play yard for delivering materials. The wall was partly covered with cement finish and unpainted. The single gate to the facility was not yet installed. Site Photos 12 and 13 show examples of the perimeter wall construction.



Site Photo 12. Unfinished perimeter wall



Site Photo 13. Perimeter wall with unpainted cement finish

Septic Tank

The contract required construction of two septic tank systems, one for the main school building and the other for the latrines in the auxiliary building. The septic tank systems were substantially complete with buried sanitary sewer lines already connected. The main school building septic system is located near the front entrance of the building beneath the garden as shown in Site Photo 14. The other separate septic tank system has also been constructed and is adjacent to the auxiliary building.



Site Photo 14. Septic tank location and manholes in front of school

Work Pending

Remaining work includes completing perimeter walls and the generator building, as well as making final connections for the water distribution system and septic systems. Other additional work consists of construction of the play yard which includes a concrete paved area for a basketball court, and final grading and landscaping.

Project Quality Management

The USACE Engineering Regulation (ER) 1110-1-12 and PCO Standard Operating Procedure CN-100 specify requirements for a Government QA program. The Sheile Primary School contract did not specify a requirement for a Contractor Quality Control (CQC) plan or CQC daily reports. However, the requirements were communicated to the contractor at the preconstruction meeting on 28 December 2004. The Dahuk Resident Engineer could not provide a copy of the contractor's QC plan and could not verify if one was submitted. However, because the USACE QARs were on site during construction, sufficient oversight was provided to insure adequate quality control was maintained during the work. The USACE QARs monitored field activities and completed daily QA reports, which were provided to the USACE Resident Engineer. The QAR reports were sufficiently complete, accurate, and timely. They included project specific photographs that reinforced the narrative information provided in reports. We were informed that QA deficiency logs were not maintained. However, comments made in the daily QAR site reports were monitored to insure the contractor took appropriate action to resolve problems. The procedures in place ensured that potential construction deficiencies were detected, evaluated, and properly corrected in a timely manner.

Project Sustainability

The school will be commissioned and delivered to the Iraqi Ministry of Education (MoE) after GRN conducts a final inspection and all punch list items are resolved. Sustainability issues are not significant because of limited maintenance requirements. There were no equipment requirements included in the contract beyond basic lighting and ceiling fans. These items have simple operating instructions, are widely used throughout the country, and have minimal maintenance requirements. Equipment such as desks, tables, chairs, and a backup generator are the responsibility of the MoE and not part of the contract. Air conditioning and heating will not be installed in the building.

Conclusions

Based upon the results of our site visit, we reached the following conclusions for assessment objectives 1, 2, 3, 4, and 5. Appendix A provides details pertaining to Scope and Methodology.

1. Determine whether project results were consistent with original objectives.

The project is being constructed in a manner that is consistent with the contract objectives and in accordance with the standards and specifications of the contract. This occurred primarily because the USACE project engineer and QAR effectively managed the project. Consequently, the Sheile Primary School construction should result in an operational primary school provided that it is adequately furnished and staffed by the MoE.

2. Determine whether project components were adequately designed prior to construction or installation.

GRN provided the project design and specification in the solicitations. The design was the same as that used by the United Nations for school construction throughout the country. The contractor was required to follow the design and specifications and obtain GRN approval for any deviations. We recommended a minor design change that would install a water shutoff valve at ground level for both the auxiliary and main school buildings. This would provide all water shutoff capabilities in the event of an emergency water break somewhere in the building. The Resident Engineer agreed to have the valves installed. Based on the review of the design plans and specifications, the design appeared appropriate for the construction of the facility.

3. Determine whether construction or rehabilitation met the standards of the design.

Based on the review of USACE on-site construction photos, the QAR reports and our site visit, the work completed to date appeared to be consistent with the contract plans and specifications. Accordingly, the completed construction should result in an operating primary school provided it is adequately furnished by the MoE.

4. Determine whether the Contractor's Quality Control plan and the Government Quality Assurance Program were adequate.

USACE Engineering Regulation (ER) 1110-1-12 and PCO Standard Operating Procedure CN-100 specify requirements for a Government QA program. The Sheile Primary School contract did not specify a requirement for a Contractor Quality Control (CQC) plan or CQC daily reports however the requirements were communicated to the contractor at the preconstruction meeting on 28 December 2004. The Dahuk Resident Engineer could not provide a copy of the contractor's QC plan and could not verify if one was submitted.

However, because the USACE QARs were on site during construction, sufficient oversight was provided to insure adequate quality control was maintained during the construction. USACE QARs monitored field activities and completed daily QA reports, which were provided to USACE Resident Engineer. The QAR reports were sufficiently complete, accurate, and timely; they included project specific photographs that reinforced the narrative information provided in reports. We were informed that no QA deficiency logs were maintained. However comments made in the daily QAR site reports were monitored to insure the contractor took appropriate action to resolve problems. The procedures in place ensured that potential construction deficiencies were detected, evaluated, and properly corrected in a timely manner.

5. Determine if project sustainability and operational effectiveness were addressed.

The school will be commissioned and delivered to the Iraqi Ministry of Education (MoE) after GRN conducts a final inspection and all punch list items are resolved. Sustainability issues are not significant because of limited maintenance requirements. There were no equipment requirements beyond basic lighting and ceiling fans included in the contract. These items have simple operation instructions, are widely used throughout the country and have minimal maintenance requirements. Equipment such as desks, tables, chairs, and a backup generator are the responsibility of the MoE and not part of the contract. Air conditioning and heating will not be installed in the building.

Recommendations and Management Comments

This report does not contain any negative findings. Although, management comments were not required, the Commander, U.S. Army Corps of Engineers – Gulf Region Division, provided the following comments. “Gulf Region Division concurs with the draft report. We appreciate your review of the Sheile Primary School.”

Appendix A. Scope and Methodology

We performed this project assessment from January through February 2006, in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer and an auditor.

In performing this Project Assessment we:

- Reviewed contract documentation to include the following: Solicitation, Contract, Contract Modifications and Scope of Work;
- Reviewed the design package (drawings and specifications), Contractor's daily Quality Control Reports, and Quality Assurance Reports;
- Interviewed the U.S. Army Corps of Engineers Area Engineer, Resident Engineer, and the Quality Assurance Representative; and
- Conducted an on-site assessment at the Sheile Primary School in Dahuk, Iraq, and documented the results.

Appendix B. Acronyms

CQC	Contractor Quality Control
ER	Engineering Regulation
GRN	Gulf Region Division – Northern District of the U.S. Army Corps of Engineers
MoE	Ministry of Education
PCO	Project and Contracting Office
QA	Quality Assurance
QAR	Quality Assurance Representative
USACE	United States Army Corps of Engineers
UN	United Nations

Appendix C. Report Distribution

Department of State

Secretary of State

Senior Advisor to the Secretary and Coordinator for Iraq

U.S. Ambassador to Iraq

Director, Iraq Reconstruction Management Office

Mission Director-Iraq, U.S. Agency for International Development

Inspector General, Department of State

Department of Defense

Secretary of Defense

Deputy Secretary of Defense

Director, Defense Reconstruction Support Office

Under Secretary of Defense (Comptroller)/Chief Financial Officer

Deputy Chief Financial Officer

Deputy Comptroller (Program/Budget)

Inspector General, Department of Defense

Director, Defense Contract Audit Agency

Director, Defense Finance and Accounting Service

Department of the Army

Assistant Secretary of the Army for Acquisition, Logistics, and Technology

Principal Deputy to the Assistant Secretary of the Army for Acquisition,
Logistics, and Technology

Deputy Assistant Secretary of the Army (Policy and Procurement)

Director, Project and Contracting Office

Commanding General, Joint Contracting Command-Iraq/Afghanistan

Assistant Secretary of the Army for Financial Management and Comptroller

Chief of Engineers and Commander, U.S. Army Corps of Engineers

Commanding General, Gulf Region Division

Auditor General of the Army

U.S. Central Command

Commanding General, Multi-National Force-Iraq

Commanding General, Multi-National Security Transition Command-Iraq

Commander, Joint Area Support Group-Central

Other Federal Government Organizations

Director, Office of Management and Budget

Comptroller General of the United States

Inspector General, Department of the Treasury

Inspector General, Department of Commerce

Inspector General, Department of Health and Human Services

Inspector General, U.S. Agency for International Development

President, Overseas Private Investment Corporation

President, U.S. Institute for Peace

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

U.S. Senate

Senate Committee on Appropriations

 Subcommittee on Defense

 Subcommittee on State, Foreign Operations and Related Programs

Senate Committee on Armed Services

Senate Committee on Foreign Relations

 Subcommittee on International Operations and Terrorism

 Subcommittee on Near Eastern and South Asian Affairs

Senate Committee on Homeland Security and Governmental Affairs

 Subcommittee on Federal Financial Management, Government Information and International Security

 Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia

U.S. House of Representatives

House Committee on Appropriations

 Subcommittee on Defense

 Subcommittee on Foreign Operations, Export Financing and Related Programs

 Subcommittee on Science, State, Justice and Commerce and Related Agencies

House Committee on Armed Services

House Committee on Government Reform

 Subcommittee on Management, Finance and Accountability

 Subcommittee on National Security, Emerging Threats and International Relations

House Committee on International Relations

 Subcommittee on Middle East and Central Asia

Appendix D. Project Assessment Team Members

The Office of the Assistant Inspector General for Inspections, Office of the Special Inspector General for Iraq Reconstruction, prepared this report. The principal staff members who contributed to the report were:

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