OFFICE OF THE SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

QUICK REACTION REPORT ON THE BAGHDAD POLICE COLLEGE BAGHDAD, IRAQ

SIGIR PA-06-078.1
SIGIR PA-06-079.1
SEPTEMBER 27, 2006

SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

September 27, 2006

MEMORANDUM FOR COMMANDING GENERAL, MULTI-NATIONAL FORCES-IRAQ
COMMANDING GENERAL, MULTI-NATIONAL SECURITY TRANSITION COMMAND-IRAQ
COMMANDING GENERAL, JOINT CONTRACTING COMMAND-IRAQ/AFGHANISTAN
COMMANDING GENERAL, GULF REGION DIVISION-PROJECT AND CONTRACTING OFFICE, U.S. ARMY CORPS OF ENGINEERS
DIRECTOR, IRAQ RECONSTRUCTION MANAGEMENT OFFICE

SUBJECT: Quick Reaction Report on Assessment of the Baghdad Police College, Baghdad, Iraq (Report Numbers SIGIR-PA-06-078.1 and PA-06-079.1)

We are providing this project assessment report for your information and use. Our original objectives were to assess the in-process construction work being performed for the Baghdad Police College, Baghdad, Iraq to determine its status and whether intended objectives will be achieved. 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 a professional engineer and two auditors.

During our site visits to the Baghdad Police College, we identified construction deficiencies of such magnitude as to require prompt attention and separate reporting. Specifically, the improperly fabricated wastewater plumbing within the student barracks could potentially result in a reduction in the structural slabs' load carrying capacity as well as environmental and health hazards to the students, instructors, and workers at the Baghdad Police College. The extent of potential hazards needs to be determined prior to any future work at the Baghdad Police College. In an effort to quickly report and correct the construction problems within the barracks, this report will only deal with the deficiencies identified in the barracks, the apparent cause, and potential recommendations. A separate assessment report will follow and it will thoroughly assess the original objectives for the entire Baghdad Police College project.

The comments received from the Commander, Gulf Region Division, U.S. Army Corps of Engineers in response to a draft of this report addressed the issues raised and the actions taken should correct the issues we identified. As a result, comments on this final 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) 604-0969 or brian.flynn@sigir.mil or Mr. Rob DeShurley, P.E., at (703) 343-9149 or george.deshurley@iraq.centcom.mil.

Stuart W. Bowen, Jr.
Inspector General

Special Inspector General for Iraq Reconstruction

SIGIR PA-06-078.1 **September 27, 2006**
SIGIR PA-06-079.1

Quick Reaction Report on the Baghdad Police College, Baghdad, 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 two auditors.

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

Conclusions. During our site visits to the Baghdad Police College, we identified construction deficiencies of such magnitude as to require prompt attention and separate reporting. Specifically, the improperly fabricated wastewater plumbing within the student barracks could potentially result in a reduction in the structural slabs' load carrying capacity as well as environmental and health hazards to the students, instructors, and workers at the Baghdad Police College. The extent of potential hazards needs to be determined prior to any future work at the Baghdad Police College.

In an effort to quickly identify and correct the construction problems within the barracks, this report will only deal with the deficiencies identified in the barracks, the apparent cause, and potential recommendations/solutions. Therefore, a separate assessment report will follow and it will thoroughly assess the original objectives for the entire Baghdad Police College project.

Recommendations. We recommend that the Commanding General, Gulf Region Division and Director of the Project and Contracting Office assess all project related work at the Baghdad Police College and take appropriate remedial action, if necessary, to provide assurance that project related work is structurally sound and that no

environmental or health hazards exist. To accomplish this we specifically recommend that the Commanding General, Gulf Region Division and Director of the Project and Contracting Office:

1. Perform an assessment of all wastewater plumbing installations in all newly constructed buildings, both single and multiple storied, sponsored under this contract. This assessment will be to determine if similar methods of inadequate plumbing techniques were utilized in other project locations as were discovered in the cadet barracks buildings.
2. Perform a critical technical study of the structural integrity and load carrying capacity, as well as the potential environmental and health hazards posed by the rust, mold, and presence of urine and fecal matter within the concrete floor slabs of the cadet buildings to the Baghdad Police College students and staff.

Management Comments. The Gulf Region Division concurred with the conclusions and recommendations contained in the report and provided five comments. One dealt with the student capacity of the facility and another dealt with the structures built by a particular subcontractor and whether the structures had been occupied. Both of these comments were addressed in the report. The third comment requested that we identify the subcontractor responsible for the poor workmanship; however, we declined to do so for security reasons. As standard procedure, we do not identify Iraqi contractors in our reports.

In response to our two recommendations, the Gulf Region Division stated that a critical technical study of the structural integrity and load carrying capacity of the concrete slabs, an evaluation of the potential environmental and health hazards and a complete assessment of all wastewater plumbing installations in all newly constructed buildings would be completed by 31 October 2006.

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

Scope Limitation

We performed on-site assessments of the Baghdad Police College[1] on 22 August 2006 and 4 September 2006. During the site visits, we identified construction deficiencies of such magnitude as to require prompt attention and separate reporting. Specifically, the improperly fabricated wastewater plumbing in the student barracks could potentially result in a reduction in the structural slabs' load carrying capacity in the buildings involved as well as environmental and health hazards to the students, instructors, and workers at the Baghdad Police College. The extent of potential hazards needs to be determined and addressed prior to any future work at the Baghdad Police College. In an effort to quickly identify and correct the construction problems within the barracks, this report will only deal with the deficiencies identified in the barracks, the apparent causes, and potential recommendations/solutions.

These deficiencies are so significant that we were precluded from accomplishing our stated objectives. Therefore, a separate assessment report will follow, which will thoroughly assess the original objectives for the entire Baghdad Police College project.

Pre-Site Assessment Background

Contract, Task Order, and Costs

The Baghdad Police Academy project was completed under Contract W914NS-04-D-0009, dated 26 March 2004, as a cost plus award fee for the base period. The contract was between the Coalition Provisional Authority and Parsons Delaware, Inc., Pasadena, California (Parsons). The guaranteed minimum of all task orders (TO) under Contract W914NS-04-D-0009, including option periods, is $500,000 and the maximum total of all TOs under the contract is $900,000,000. There were two TOs associated with this particular contract – TO 0006 and TO 0029.

[1] The Baghdad Police College is also referred to in various documents related to it as the Baghdad Police Academy, Baghdad Public Safety Training Academy, and Baghdad Police Training Academy. For consistency within this report, unless used in a verbatim quotation, we refer to it as the Baghdad Police College.

Project Objective

The overall objective of TO 0006 was to design, renovate, and construct the Baghdad Police College, to include classrooms, dormitories, dining, administrative offices, and firing ranges. The existing facility had the capacity to house and train approximately 1,200 – 1,500 cadets; while the ultimate goal of the project, according to the TO Statement of Work, was to provide housing and train facilities for approximately 4,000 cadets and 500 instructors. While there was limited discussion of increasing the capacity of the facility to 10,000 students, there were no formal proposals to implement this increase.

Description of the Facility (pre-construction)

The description of the facility (pre-construction) was based on information obtained from the contract, the U.S. Army Corps of Engineers (USACE) project file, and Baghdad Police College personnel. The project site is located at the existing Baghdad Police College, in Baghdad, Iraq. The Baghdad Police College previously was a three year officer training facility. However, with an emphasis of providing a large number of cadets thorough Basic Police Training, this facility was determined to be insufficient. The existing facility consisted of a number of buildings, constructed approximately between 1935 to1940. The existing buildings were in various stages of decay (Site Photos 1 and 2).

Site Photos 1 and 2. Existing buildings at the Baghdad Police College

Scope of Work of the Contract

The Scope of Work (SOW) for TO 0006 required the contractor to:

- Construct multi-story dormitories/barracks to house up to 2,800 cadets to bring the total student capacity of the facility to 4,000 – 4,300 cadets. A common room for relaxation and studying shall be wired for TV and internet service. Women may be expected to attend training, although in smaller numbers than the men, and require separate sleeping and bathroom facilities.

Current Project Design and Specifications

The TO SOW included requirements for the submission of all designs, design changes, drawings, specifications, and manufacturer's submittals, training manuals and training procedures, quality control procedures, and safety, security, and environmental protection procedures.

The SOW required the contractor to conform to the following standards, codes, and regulations, where applicable. The publications to be considered shall be those of the most recent editions. Specifically, the SOW stated that "unless noted otherwise, all material used shall be in compliance with any of the following Standards: (a) Underwriters Laboratories Inc (UL) listed material, (b) German (DIN) Standards or (c) British Standards (BS). Equipment enclosure types shall be in compliance with the National Electrical Manufacturer's Association (NEMA) or the International Electro-Technical Committee (IEC) standards. Material and equipment installed under this contract shall be for the appropriate application and locally available. The Contractor may propose equipment, material, and works that meet the intent of the publications listed here, provided documented justification requests for such alternates are submitted and approved by the SPMO."

The standards, codes, and regulations are the following:

- International Building Code (IBC)
- International Existing Building Code (IEBC)
- International Electro-Technical Committee (IEC)
- International Fire Code (IFC)
- International Plumbing Code (IPC)
- American Society for Testing and Materials (ASTM)
- American Concrete Instituted (ACI)
- International Mechanical Code (IMC)

Site Assessment

On 22 August 2006, we performed an on-site assessment of the Baghdad Police College project. Prior to our site visit, we obtained a list of construction deficiencies at the facility from the current Director of the Baghdad Police College. Upon our arrival at the facility, the Director showed us the recruit and officer barracks buildings. There are a total of eight buildings, which are used to house a total of 3,200 – 3,500 occupants.

Recruit and Officer Barracks

The TO 0006 required the construction of multi-story dormitories/barracks to house up to 2,800 cadets. The design called for 2 sets of 4 cadet barracks, with instructor barracks located nearby (Figure 1). The design and construction of each cadet barrack is identical. Each barrack is three stories tall (Site Photo 3), with both the 2nd and 3rd floors containing 14 individual rooms, a lobby, and a centrally located bathroom consisting of wash basins, urinals, toilets, and showers. The 1st floor has six individual dormitory rooms, separate shower and bathroom areas, offices, mechanical rooms, and a centrally located common room for relaxation and studying which shall be wired for TV and internet service. The 1st floor commons area is located directly beneath the 2nd and 3rd story bathroom facilities (Figure 2). Water and other waste materials from the showers, wash basins, and toilets drain and leak from the top floor to the second floor to the ground floor.

In addition, the TO specifically stated that the "plumbing system shall be installed and/or repaired complete with necessary fixtures, fittings, traps, valves, drains and accessories to be fully operational and free of leaks."

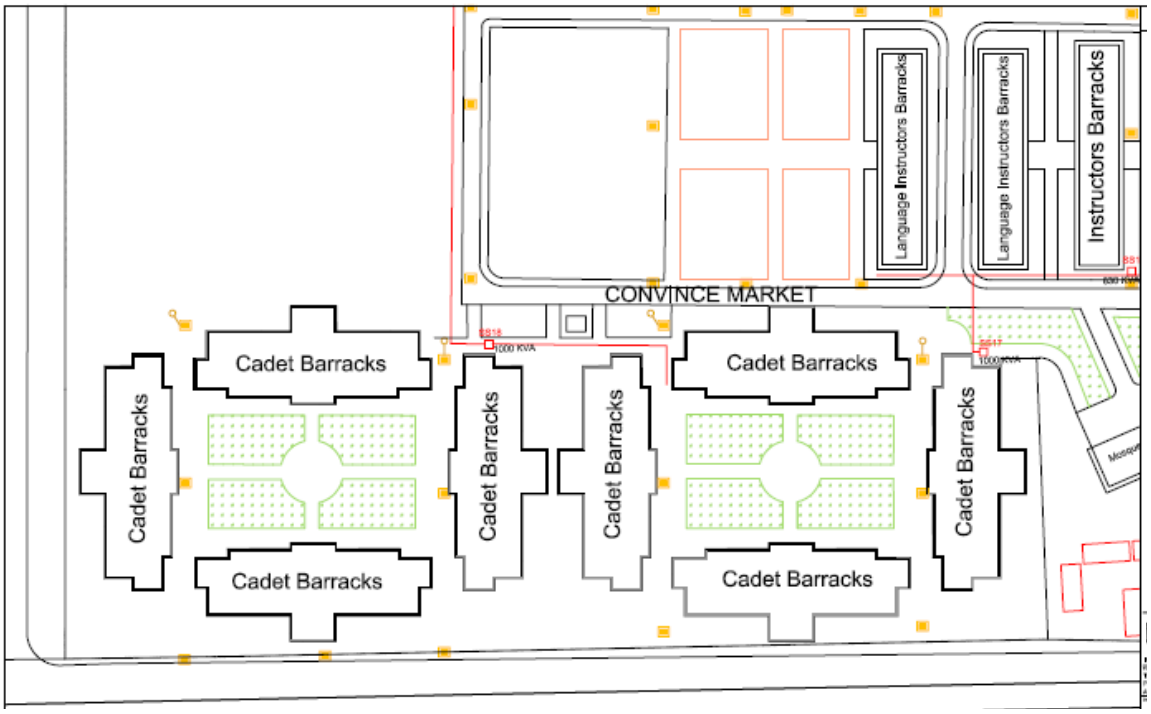


Figure 1. Site plan for the eight cadet barracks

Site Photo 3. Outside view of cadet barracks building

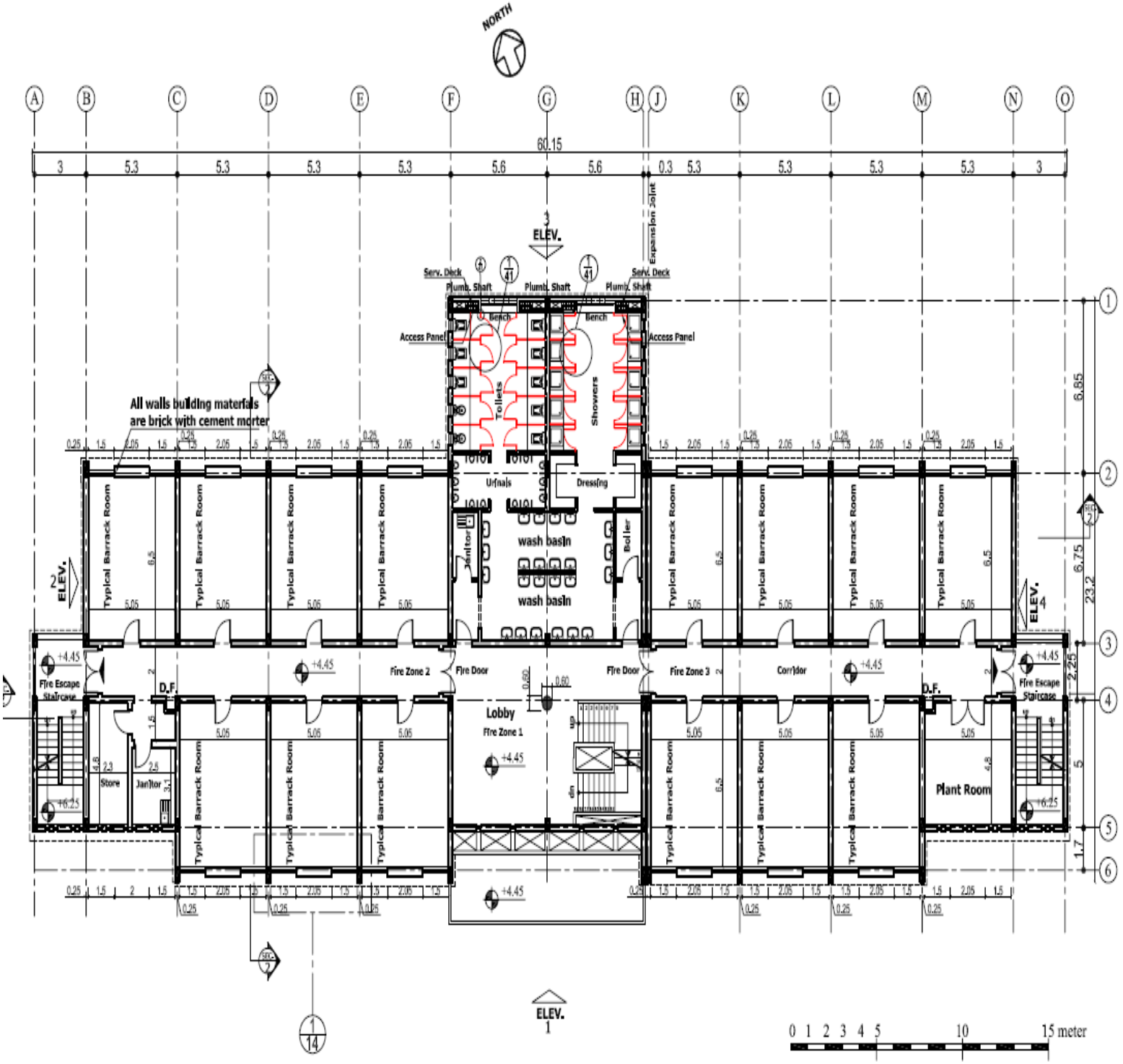


Figure 2. 2nd and 3rd story floor plan of cadet barracks building

Facility Damage

The cadet barracks were turned over to the Baghdad Police College in May 2006.

During our site visit, we immediately identified water damage and staining on the ceiling and walls of the ground floor (Site Photos 4 and 5). We toured the second floor bathroom and saw evidence of similar water damage and staining on the ceiling (Site Photo 6).

Site Photo 4. Water damage to wall

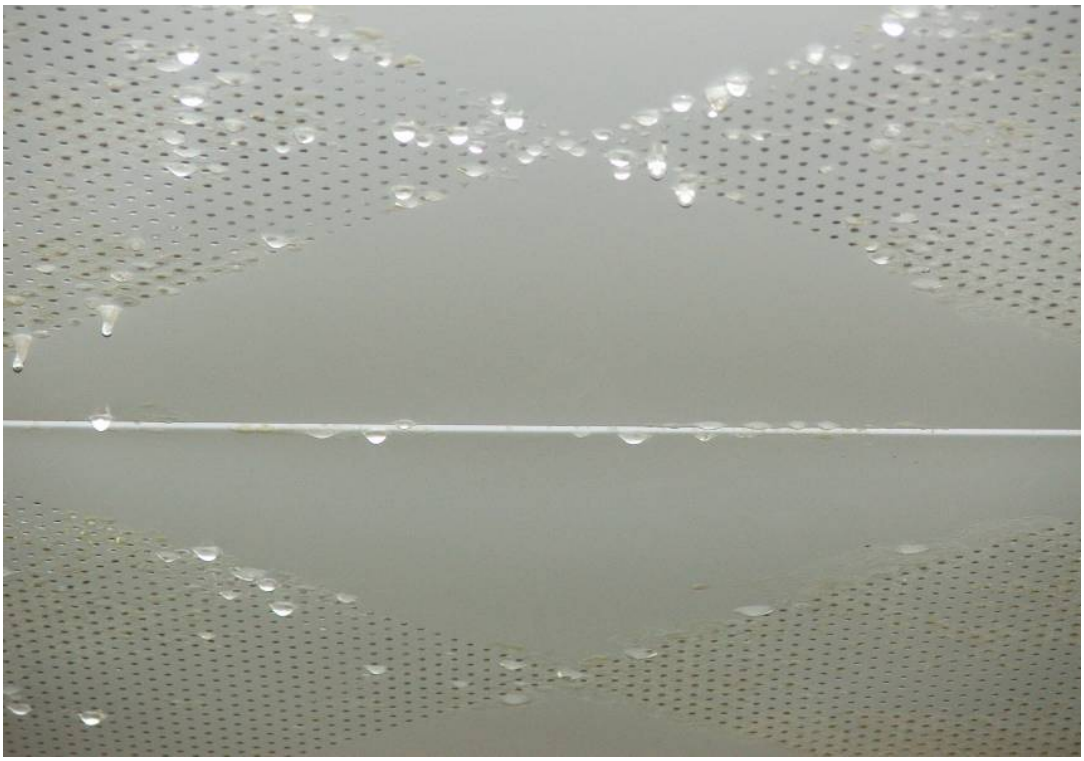
Site Photo 5. Water damage to ceiling

Site Photo 6. Water damage to second floor bathroom ceiling

We visited another cadet building and, while on the ground floor, we witnessed firsthand the leaking of water and the residue of dissolved minerals and materials that had been transported by the water from the second floor (Site Photos 7-11). The water has been dripping at such a rapid rate that the Baghdad Police College Director refers to this room as the "Rain Forest."

Site Photo 7. Water leaking from ceiling

Site Photo 8. Water leaking from ceiling



Site Photo 9. Close-up view of leaking ceiling

Site Photo 10. Water damage from leaking ceiling

Site Photo 11. Additional view of water damage and residue from dissolved minerals and materials in the water from leaking ceiling

Inferior Pipe Used

From our site assessment and discussions with Baghdad Police College personnel, it appears the causes of the water damage are the following:

- Floor drains are not adequately sealed to the floor surface and/or properly affixed to adjacent fittings with the proper adhesive or sealant, which causes water to drain outside rather than inside the drain collectors (Site Photo 12 and 13)
- Drains were assembled without the specified molded plastic fittings, which resulted in water and waste materials flowing from the collection trees through the improperly fabricated joints directly into the concrete floors. The contractor used pipes with holes that were hand cut with secondary pipes inserted (Site Photo 14) rather than the appropriate type of pipe (Site Photo 15).

Site Photo 12. View of wastewater leaking from pipe

Site Photo 13. View of another pipe leaking wastewater

Site Photo 14. Typical contractor built wastewater pipe connection method

Site Photo 15. Contract specified wastewater pipe connection method

Results of Poor Construction Practices

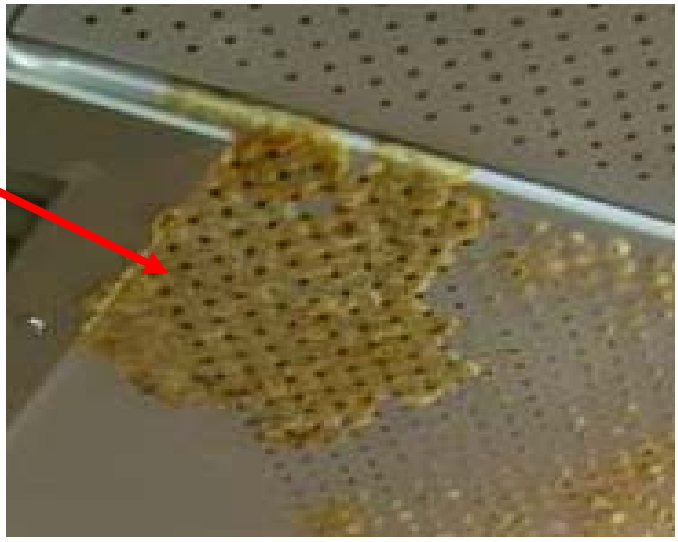
As a result of the inferior plumbing techniques, methods, and bonding materials used by the contractor to join the wastewater pipes, water and other waste materials from showers, wash basins, and toilets are continually draining through the reinforced concrete floors, from the top floor to the second floor to the ground floor, permeating and filling light fixtures, showers, and toilet areas, with liquids, including diluted urine and fecal matter. For example, we witnessed a light fixture so full of diluted urine and feces that it would not operate (Site Photos 16 and 17). As we continued

our assessment throughout the second floor bathroom, we identified evidence of large quantities of diluted urine dripping from the top floor down through the ceiling. The urine was so pervasive that it had permanently stained the ceiling tiles (Site Photos 18 and 19). During our visit, a substance dripped from the ceiling onto an assessment team member's shirt (see Site Photos 20 and 21).

Site Photo 16. Bathroom lights on second floor

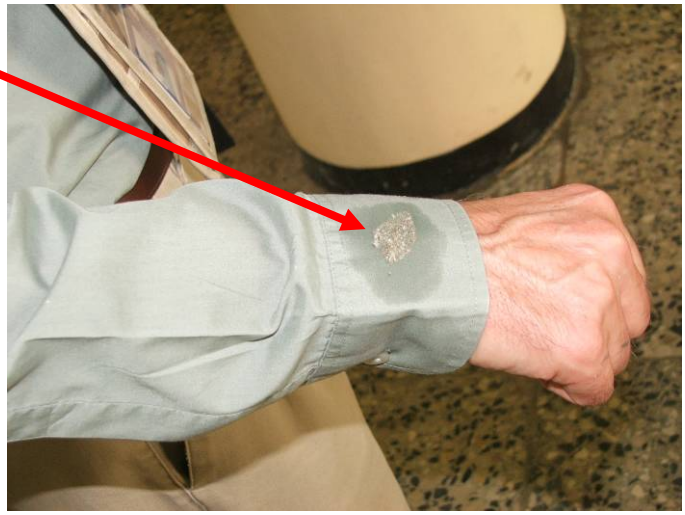
Site Photo 17. Close-up view of far left bathroom light not operating because it is full of diluted urine and fecal matter

Site Photo 18. Urine stain on the second floor ceiling



Site Photo 19. Enlarged picture of urine stain

Site Photo 20. Ceiling Dripping



Site Photo 21. Substance on engineer's shirt

Corrective Actions Taken by the Contractor

As soon as the buildings started to leak from the top floor to the ground floor, the Director of the Baghdad Police College contacted the contractor. Parsons directed the subcontractor who performed the original work to correct the problem. The subcontractor is currently changing out the pipes that contributed to the leaks. For example, Site Photo 22 shows new pipe installed to correct the leakage problem identified in Site Photos 12 and 13, respectively. The subcontractor also plans to use the pipes with molded plastic fittings, such as the one identified in Site Photo 15, which should eliminate water and waste materials from flowing directly onto the concrete floors in the future.

Site Photo 22. New pipe installed to correct the leak

Effects of Poor Construction Practices

Even though the subcontractor is taking steps to correct the problem, the Baghdad Police College staff and students still have to deal with the damage caused by the poor subcontractor workmanship. In addition to water and waste materials soaking and filling light fixtures, showers, and toilets on the ground and second floors, the amount of material was so pervasive that it has soaked through the reinforced concrete floors causing deterioration of the reinforcing steel, and leaching of the chemical salts that are necessary for the proper strengthening of the concrete. The visible salt deposits, known as efflorescence, are readily apparent on the underside of the slabs (Site Photos 23-26). The subcontractor is making the corrections needed to fix the original problem; however, the subcontractor did not make any assessment of the damage already done including the structural integrity of the reinforced concrete slabs for each floor of the building. The Director of the Baghdad Police College is also concerned that the rust, mold, and presence of urine and fecal matter caught within the concrete floors presents a serious threat to the health of all Baghdad Police College students and staff. Further, if an environmental and/or health hazard is present at the Baghdad Police College, the number of basic recruits graduating through the facility will be impacted.

Site Photo 23.

Underside of 2nd floor Concrete slab cracks with soaked through with urine, fecal matter and efflorescence.

Site Photo 24.

Site Photo 25.

Underside of 3rd story Concrete floor slab cracks soaked through with extensive urine, fecal matter and efflorescence.

Site Photo 26.

Conclusions

Based upon our site visit, we identified construction deficiencies of such magnitude as to require prompt attention and separate reporting. Specifically, the improperly fabricated wastewater plumbing within the student barracks could potentially result in a reduction in the structural slabs' load carrying capacity as well as environmental and health hazards to

the students, instructors, and workers at the Baghdad Police College. The extent of potential hazards needs to be determined prior to any future work at the Baghdad Police College. Consequently, this report only dealt with the deficiencies identified in the barracks, the apparent causes, and potential recommendations/solutions. The conclusions for the original assessment objectives will be addressed in a separate assessment report.

In addition to the eight cadet barrack buildings with the known plumbing deficiencies, there were many other classroom and instructor barrack buildings constructed by other subcontractors under this project at the Baghdad Police College. However, to date, the occupancy of these buildings has been limited, so it is unknown if similar plumbing problems exist in those buildings.

Recommendations

We recommend that the Commanding General, Gulf Region Division and Director of the Project and Contracting Office assess all project related work at the Baghdad Police College and take appropriate remedial action, if necessary, to provide assurance that project related work is structurally sound and that no environmental or health hazards exist. To accomplish this we specifically recommend that the Commanding General, Gulf Region Division and Director of the Project and Contracting Office:

1. Perform an assessment of all wastewater plumbing installations in all newly constructed buildings, both single and multiple storied, sponsored under this contract. This assessment will be to determine if similar methods of inadequate plumbing techniques were utilized in other project locations as were discovered in the cadet barracks buildings.
2. Perform a critical technical study of the structural integrity and load carrying capacity, as well as the potential environmental and health hazards posed by the rust, mold, and presence of urine and fecal matter within the concrete floor slabs of the cadet buildings to the Baghdad Police College students and staff.

Management Comments

The Gulf Region Division concurred with the conclusions and recommendations contained in the report and provided five comments. One dealt with the student capacity of the facility and another dealt with the structures built by a particular subcontractor and whether the structures had been occupied. Both of these comments were addressed in the report. The third comment requested that we identify the subcontractor responsible for the poor workmanship; however, we declined to do so for security reasons. As standard procedure, we do not identify Iraqi contractors in our reports.

In response to our two recommendations, the Gulf Region Division stated that a critical technical study of the structural integrity and load carrying capacity of the concrete slabs, an evaluation of the potential environmental and health hazards and a complete assessment of all wastewater plumbing installations in all newly constructed buildings would be completed by 31 October 2006.

Appendix A. Scope and Methodology

We performed this project assessment from August through September 2006 in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. During the site visit to the Baghdad Police College, we identified significant construction deficiencies at the facility. The deficiencies identified in this report are so significant that we were precluded from accomplishing our stated objectives. The conclusions for the original assessment objectives 1, 2, 3, 4, and 5 will be addressed in a separate assessment report. The assessment team included a professional engineer and two auditors.

In performing this Project Assessment we:

- Reviewed contract documentation to include the following: Contract, Contract Modifications, Task Order 6, Task Order 6 Modifications, Task Order 29, Task Order 29 Modifications, Contract documentation, and Scope of Work;
- Reviewed the design package (drawings and specifications), Quality Control Plan, Contractor's Quality Control Reports, and U.S. Army Corps of Engineers Quality Assurance Reports;
- Interviewed the U.S. Army Corps of Engineers Area Engineer, the Multinational Security Transition Command J-7 (Engineering Directorate) staff, and Baghdad Police College personnel; and
- Conducted an on-site assessment and documented results at the Baghdad Police College Project in Baghdad, Iraq.

Appendix B. Acronyms

Parsons	Parsons Delaware, Inc.
SOW	Scope of Work
TO	Task Order
USACE	U.S. Army Corps of Engineers

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
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

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)
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, Joint Contracting Command – Iraq/Afghanistan
    Commanding General, Multi-National Corps – Iraq
    Commanding General, Multi-National Security Transition Command – Iraq
    Commander, Joint Area Support Group – Central

Other Defense Organizations

Director, Defense Contract Audit Agency

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, Health and Human Services
Inspector General, U.S. Agency for International Development
Mission Director – Iraq, U.S. Agency for International Development

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:

Robert DeShurley, Engineer

Angelina Johnston, Auditor

Kevin O'Connor, Auditor