

Construction Management of the Jordan School Expansion Project (JSEP) and the Schools for a Knowledge Economy Project (SKEP)

Site Visit Report Form

FTR # QR 410

A. BASIC DATA

(Trigon staff shall complete this field trip report within 48 hours after returning from the field and ensure that it is sent properly distributed within 72 hours after leaving the construction site)

Program (JSEP or SKEP):	SKEP	PHASE: III	PACKAGE: I
School Name:	Um Al Dananir Basic Mixed School		
Supervisory Engineer (SE) Name:	Wahib Medanat Consultant Engineers		
Construction Contractor (CC) Name:	Derar Al Saraireh & Sons for Engineering & Contracting		
Date and Time of Field Trip:	June 15, 2021 9:30 AM		
Date of Report:	June 17, 2021		
Weather During Visit:	Sunny 24 °		
Prepared By:	Talid Hamdan CMTO/Trigon		
Submitted By:	Osama Obeid CMTO/Trigon		

Purpose of Visit

General Site Inspection (Quality)	First Hand-over Inspection
Corrective Action (CA) Review Report	Second Hand-over Inspection
Health, Safety & Environment (HSE)	OTHER (list below)
Site Meeting	
Substantial Completion Inspection	

Personnel on Trip

No.	Name	Title	Agency
1	Osama Obeid	Sr. Construction Manager	CMTO/Trigon
2	Diana Abu Saleh	Projects Control Engineer	CMTO/Trigon
3	Talid Hamdan	Intern Architect	CMTO/Trigon

Personnel at Site *(if a site meeting or a final inspection, use attachment to list other participants)*

No.	Name	Title	Agency
1	Mahmoud Maghnam	Resident Engineer	Medanat
2	Saddam Baqaeen	Site Engineer	Medanat
3	Abdullah Al-Zu'bi	Safety Manager	Medanat
4	Saba Amareen	Quantity Surveyor	Medanat
5	Areen Khreizat	Fresh Graduate	Medanat
6	Amro Al Saraireh	Owner of the company	DSS
7	Khaled Bazian	Package manager	DSS

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8	Omar Abu Hmour	Site Engineer	DSS
9	Anas Omran	Safety Engineer	DSS
10	Muayyad Al Jbour	Safety Officer	DSS

B. QUALITY, SCHEDULE AND H&S FINDINGS CHECKLIST

(For any "No" answer in this section, the Observer shall provide a narrative explanation in Section C. of this Report including corrective action requested) **NA-Not Applicable, DC-Didn't Check**

	<u>Construction Contractor</u>	<u>Supervisory Engineer</u>
A. <u>Site Documentation</u>		
1. Drawings and Specifications on site? (Y/N)	Y	Y
2. CC Safety Plan on site? (Y/N)	Y	Y
3. CC QC Plan on site? (Y/N)	Y	Y
4. Shop Drawings up to date? (Y/N)	Y	Y
5. Request for Information/Inspection up to date? (Y/N)	Y	Y
6. Sampling and Testing Tracking Log? (Y/N)	N	Y
7. Hard copy files neat and up to date? (Y/N)	Y	Y
8. Inspector's Daily Journal up to date? (Y/N)	Y	Y
9. Non-Conformance Report up to date? (Y/N)	Y	Y
B. <u>Schedule</u>		
10. SE has up to date CC Schedule on site? (Y/N)	Y	
11. CC has up to date CC Schedule on site? (Y/N)		Y
C. <u>Exit Observation</u>		
12. What time does CC start work each morning on average?		7:00 AM
13. What time does CC stop work each day on average?		4:00 PM
14. What is the average # of working hours each day?		8 Hours

C. DESCRIPTION OF FINDINGS

(State if fact or opinion. Use attachments, maps, sketches if necessary)

A. Site Documentation

- All of the documents were available and neatly stored.
- Engineer's offices were very organized and the offices' entry was tiled.

B. Health, Safety & Environment (HSE)

- Site gate is well secured.
- Proper scaffolding. However, the lower part should be rebuilt in accordance with safety standards.
- Poor housekeeping at site, a NCR has been sent regarding the matter. construction materials are exposed to external factors and leftover materials should be properly disposed of.
- Health and safety signs were used at site.

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- Hygiene, visitors' log station and disinfection stations were available at site.

C. General Quality Observations

- The quality of the casted concrete is as per specification. Only a small spot of segregation has been noticed. It is recommended to treat that spot.
- The cartonal sheets are fixed using small pieces of wood. It is recommended to properly fixate the sheets.

D. Schedule

- Reinforcement, protection board installation, de-shuttering, concrete casting and backfilling works, erecting formwork, cutting and bending steel bars.
- The project is divided into two zones (A&B) with an expansion joint connecting the two zones.
- % of work completed: According to Medanat, 26.38 % of the work is completed.
- The average number of workers working daily on site in the past week is 34.

E. Status of Utility connections / other outstanding issue

1. Water Supply: Not connected yet
2. Wastewater: Not connected yet
3. Electricity: Not connected yet
4. Other Issue: Neighbor wall encroachment towards the school boundary plot. Existing street encroachment towards the school land and this will affect the construction of the eastern boundary wall, guard room, R/F concrete water tank, transformer's room and parking lot). According to Municipality organizational site plan, there is an existing street. There is contradiction between the municipality site plan and project site plan must be resolved, the MoE and the MPWH will agree on the best solutions for the issues and send them to USAID for their approval.

ATTACHMENTS – as marked below

1. QUALITY CHECKLIST
2. MEETINGS / INSPECTION MINUTES
3. HEALTH, SAFETY & ENVIRONMENT ATTACHMENT

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E. PHOTOS



FIGURE #01:

Project ID Sign on site.

Photo credit: Talid Hamdan,
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FIGURE #02& 03:

The project consists of five floors building, with a total approximate area of 5420 sq.m, in addition to site works. The project will contain a KG on the ground floor, a playground, an exercise area and a basketball court.

Photos credit: Talid Hamdan, CMT0/Trigon

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FIGURE #04:

Reinforcement works for the boundary wall are ongoing. The concrete used for the boundary wall is as per specification. Backfilling (single size) works are ongoing.

*Photo credit: Talid Hamdan,
CMTO/Trigon*

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FIGURE #05& 06:

The cartonal sheets are fixed using small pieces of wood. It is recommended to properly fixate the Cartonal sheets.

The Trigon team with the SE's team and the CC's team inspecting the work.

Photos credit: Talid Hamdan, CMTO/Trigon

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FIGURE #07& 08:

The erected formwork is done as per specification. It is perpendicular to the slab and inflexibly built without undue deflection.

Photos credit: Talid Hamdan, CMTO/Trigon

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FIGURE #09:

De-shuttering works are ongoing.

Photo credit: Talid Hamdan, CMTO/Trigon

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FIGURE #10:

It is recommended to use polystyrene while working with conduits to avoid chipping in concrete that would damage the work.

Photo credit: Talid Hamdan, CMTO/Trigon

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FIGURE #11 & 12:

Reinforcement works for
GF slab in zone A.

Backfilling works are
ongoing.

*Photos credit: Talid Hamdan,
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FIGURE #13:

Neighboring wall issue is still ongoing, the MoE and the MPWH will agree on the best solution for the issue and send it to USAID for their approval.

Photo credit: Talid Hamdan, CMTO/Trigon

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FIGURE #14:

The lower part of Scaffolding must be rebuilt in accordance with safety standards.

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FIGURE #15:

Concrete quality is done as per specification.

Photo credit: Talid Hamdan, CMTO/Trigon

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FIGURE #16:

Only a small spot of segregation was noticed during the site tour. It is recommended to treat the segregation before further works.

Photo credit: Talid Hamdan, CMTO/Trigon

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FIGURE #17& 18:

Poor housekeeping at site, a NCR has been sent regarding the matter. construction materials are exposed to external factors and leftover materials should be properly disposed of.

Photos credit: Talid Hamdan, CMTO/Trigon

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F. Training

Titled: How can Site Engineers use Construction Schedule on Site?

Presented by: Trigon/CMTO Team: Eng. Osama Obeid and Eng. Diana Abu Saleh

Brief Summary:

The presentation included three parts:

Part 1: Explained how the construction schedule is produced by a Planning Engineer; this part explained how implementing a schedule at site is a contractual requirement, its importance and the benefits gained from it. Defining the schedule and how to produce a schedule using the critical path method.

Part 2: Explained how to manage site activities using a practical schedule by the site team; this part included how to derive a practical schedule from the Master schedule, home office support (engineering and procurement department), how to update the practical schedule by site engineers, how to assess the work progress by site team, regular meetings between Supervision and Contractor site teams, elements that impact the construction schedule and the need for a corrective action plan.

Part 3: included some scheduling tips, a discussion and questions.

Attendees

No.	Name	Title	Agency
1	Osama Obeid	Sr. Construction Manager	CMTO/Trigon
2	Diana Abu Saleh	Projects Control Engineer	CMTO/Trigon
3	Talid Hamdan	Architect	CMTO/Trigon
4	Suhair Amareen	Project Director	Medanat
5	Natheer Amareen	Project Manager	Medanat
6	Hassan Shaqbua	Quality Control Manager	Medanat
7	Mahmoud Maghnam	Resident Engineer	Medanat
8	Saddam Baqaeen	Site Engineer	Medanat
9	Qais Malak	Site Engineer	Medanat
10	Taher Rabie	Site Engineer	Medanat
11	Abdullah Al-Zu'bi	Safety Manager	Medanat
12	Saba Amareen	Quantity Surveyor	Medanat
13	Areen Khreisat	Fresh Graduate	Medanat
14	Khaled Jahaleen	Fresh Graduate	Medanat

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15	Maram Abuawwad	Fresh Graduate	Medanat
16	Amro Al Saraireh	Owner of the company	DSS
17	Khaled Bazian	Package manager	DSS
18	Omar Abu Hmour	Site Engineer	DSS
19	Anas Shdarfat	Site Engineer	DSS
20	Rami Al Haj	Site Engineer	DSS
21	Yousef Abu Znaimh	Planning Engineer	DSS
22	Anas Omran	Safety Engineer	DSS
23	Muayyad Al Jbour	Safety Officer	DSS
24	Dema Dababseh	Fresh Graduate	DSS
25	Abdallah Al Dabbas	Fresh Graduate	DSS



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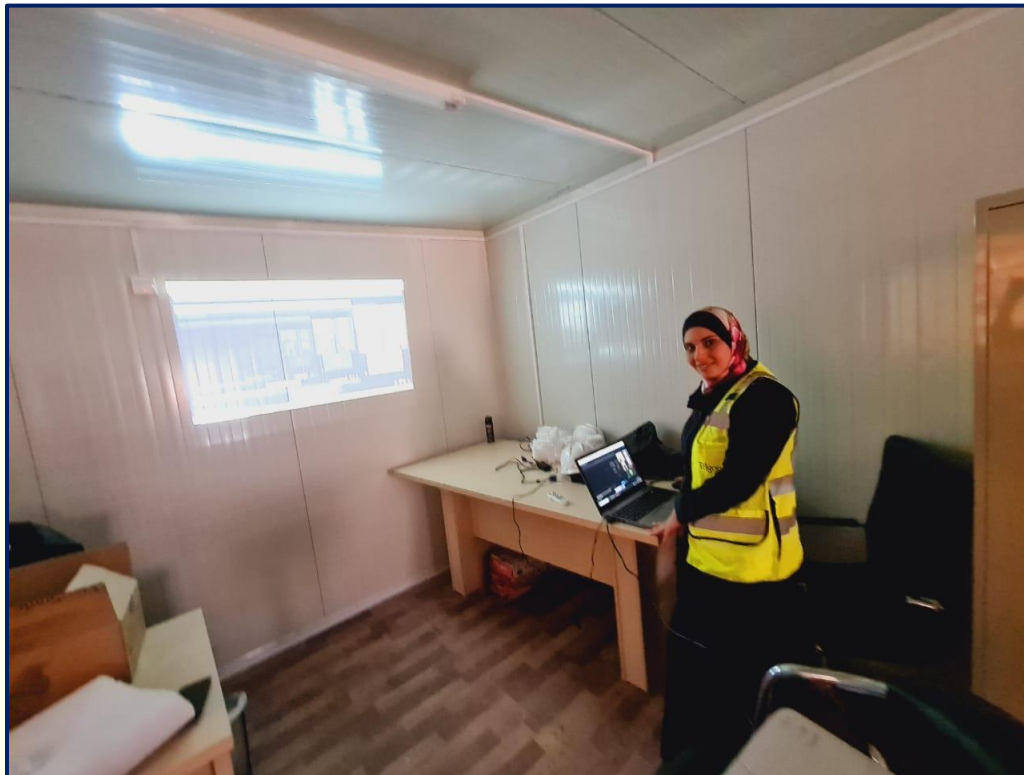


FIGURE #19,20,21 & 22:

Group photo.

The presenters.

*Photos credit: Areen Khreisat,
Medanat*

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Trigon Quality Field Trip Report Attachment #I

Notes:

Date: 6/15/2021

School Name: Um Al Dananir Basic Mixed School

Location: Balqa

Program / Phase / Package SKEP III Pck 1

Prepared by: Talid Hamdan CMTO/Trigon

#	Task / Activity	Observations (Y/N)	Findings	Recommendations / Corrective Actions
A. Excavation				
B. Backfilling				
		Y	Backfilling works are ongoing	
C. SubStructural, Concrete, Foundations				
1	Steel Bar			
2	Footings			
3	Ground beams			
4	Tie beams			
5	Column neck			
6	Column			
7	Cartonal sheets	Y	The cartonal sheets are fixed using small pieces of wood	It is recommended to properly fixate the sheets
8	waterproofing(Insulation)			
9	Slab on grade			
D. SuperStructural, Concrete, Masonry works				
1	Columns	Y	Only a small spot of segregation has been noticed	It is recommended to treat that spot
2	Beams			
3	Slabs	Y	Erecting formwork as per specification	
4	Roof			
5	Hollow Concrete Block (internal)			
6	Hollow Concrete Block (external)			
7	C-Channel			
8	Clading Natural Stones			
9	Electrical conuits/ sleeves			
10	Mechanical pipes/sleeves			
E. Civil Works				
1	Access /Gates	Y	The gate is well secured	
2	Steel Doors			
3	Wooden Doors			
4	Door's accessories			
5	Aluminum Windows			
6	Window screen			
7	Steel protection			
8	Granite sill for window			
9	Plastering (Internal)			
10	Plastering (External)			
11	Wall Paint			
12	Ceiling Paint			
13	Wall tiles			
14	Floor tiles (Internal)			

#	Task / Activity	Observations (Y/N)	Findings	Recommendations / Corrective Actions
17	Facades, Roof parapet			
18	Lab Furniture			
19	Ceiling and roof system			
20	Acoustic Ceiling			
21	Facades, Roof parapet			
22	PVC			
23	Carpenting			
24	Expansion joint			
25	Roof insulation (waterproofing membrane)			
26	Flashing 10 cm			
27	Cold Fluid applied for boundary walls and septic tank			
F. Electrical Works				
1	Wiring - conduits			
2	Electrical sockets			
3	Lighting fixtures			
4	Electrical Distribution Board			
5	Fire Alarm System			
6	Public Address			
7	Air Conditioning Units			
8	CCTV			
9	Manhole			
10	Electrical Earthing			
11	Wall Fan			
12	Elevator			
13	Electrical Room			
G. Mechanical Works				
1	Rest Rooms, Toilets, WC			
2	Wash basin			
3	Wall tiles			
4	Floor tiles			
5	Water Mixer			
6	Water Cooler			
7	Water Tank			
8	Boiler			
9	Heat Radiator			
10	Pump			
11	HVAC System			
12	AC unit/ Split Units(Wall mounted)			
13	Pump			
14	Drainage			
15	Submersible pump sets.			
16	Manholes, Clean-outs			
17	Fire Extinguisher			
18	Fire hose cabinet			
19	Ventilation, AC Duct			
20	Emergency shower			
21	Septic Tank			
H. External Works				
1	Boundary walls			
2	C-Channel Finishings			

#	Task / Activity	Observations (Y/N)	Findings	Recommendations / Corrective Actions
3	Fence			
4	Epoxy paint			
5	Landscaping			
6	External Paint			
7	Football/ Basketball Playground			
8	Sand playground for KG			
9	Plants area			
10	Car Park/Asphalt			

Disclaimer: Trigon field trip reports include information and findings based upon those parts of the construction sites we visit. Our visits and our contract scope of work do not include Trigon to carry out first tier Quality Control/Assurance, i.e., reviewing submittals, drawings and specifications, reviewing contract compliance, or in any way carrying out close supervision of the works. Therefore our field-trip reports include cursory quality, health & safety and schedule information and its entry on our reports is intended to provide the reader only with a sense of our general observations of that part of the job site we have visited

CMTO Quality/Workmanship FTR Attachment #2

Construction Quality is carrying out work according to the Drawings and Specifications - Yes/No. This is the duty of the Contractor and the Supervisory Engineer. Quality Assurance (QA) is a check to ensure that the Contractor and Supervisory Engineer is working according to the Drawings and Specifications and observing and reporting generally on basic ongoing and/or completed construction workmanship and work quality. This report is a QA report and as such is an observational view of Contractor and Supervisory Engineer overall Quality Control management.

Date / Time of Field Trip: June 15, 2021

School Name: Um Al Dananir Basic Mixed

School

Location: Balqa

Program/Phase/Package: SKEP/III/1

Name of Contractor : Derar Al Sarairoh & Sons for
Engineering & Contracting

Name of Sup. Engineer: Wahib Medanat Consultant
Engineers

Prepared by: Talid Hamdan CMTO/Trigon

I. GRADE KEY (Quality Observations)

3 Very Good

2 Acceptable

1 Poor

2. General Observations : (Yes = 2 / No = 1)

#	General QC Management Observations (33% of Grade)	STATUS	GRADE
1	QC Plan Approved By Supervising Engineer	Yes	2
2	QC Plan on-Site and Used by Construction Contractor	Yes	2
3	Approved Schedule On Site	Yes	2
4	Approved Shop Drawings On Site	Yes	2
5	Approved Material Submittals On Site	Yes	2
6	Material Acceptance/Rejection Forms Used On Site	Yes	2
7	Material Acceptance/Rejection Tracking Log in Monthly Report	Yes	2
8	Hard Copy Drawings/Specifications On Site	Yes	2
9	Hard Copy Drawings Marked Up Daily to Be As-Built	Yes	2
10	Supervisory Engineer Has and Uses Specification Testing Plan	Yes	2
Sub-Total		100%	20

#	Activity Quality/Workmanship Observations (67% of Grade)	STATUS	GRADE
1	Excavation and Backfilling Works	Very Good	3
2	Reinforced Concrete (forming, steel, placing, final result, curing)	Acceptable	2
3	External Wall Façade		-
4	Floor Tiles Installation		-
5	Internal Plastering		-
6	External Plastering		-
7	Doors		-
8	Windows		-
9	Internal Painting		-
10	External Painting		-
11	Mechanical and Plumbing (HVAC, Water Supply, Wastewater)		-
12	Electrical Works		-
13	Elevator		-
14	Internal Wall Tiling		-
15	Roof Waterproof Membrane		-
16	Site Works		-
17	Protection of Completed Works		-
18	Post Construction Cleaning		-
Sub-Total		83%	5
Quality Indicator Grade %		89%	

NOTES

1	
2	
3	