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FINAL REPORT

IQC Basic Contract No.: AID - 294 - I - 00 - 12 - 00003

Task Order Contract No.: AID - 294 - TO - 12 - 00002

Project No. 1: Well #17 Pump Station and Conveyance System

Project No. 2: Jaba' Nuba Main Transmission Pipeline

<February 10, 2014>

This publication was produced for review by the United States Agency for International Development. It was prepared by IRD.

FINAL REPORT

IQC BASIC CONTRACT NO.: AID - 294 - I - 00 - 12 - 00003

TASK ORDER CONTRACT NO.: AID - 294 - TO - 12 – 00002

PROJECT NO. 1: WELL #17 PUMP STATION AND CONVEYANCE SYSTEM

PROJECT NO. 2: JABA' NUBA MAIN TRANSMISSION PIPELINE

SUBMITTED BY:

INTERNATIONAL RELIEF & DEVELOPMENT

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Glossary of Terms and List of Abbreviation:

BOQ: Bill of Quantities

PD: Program Director

DCL: District Coordination Liaison

IDF: Israeli Defense Forces

N.G.L: Natural Ground Level

NCN: Non-Compliance Notice

NTP: Notice to Proceed

NUC: Notice of Unsafe Conditions

PALTEL: Palestinian Telecommunication Group

PM: Project Manager

PPE: Personal Protective Equipment

PSV: Pressure Sustainable Valve

PVO: Potential Variation Order

PWA: Palestinian Water Authority

P.G.L: Proposed Ground Level

QA/QC: Quality Assurance/Quality Control

RE: Resident Engineer

RFI: Request for Information

RFTOP: Request for Task Order Proposal

VOR: Variation Order Request

SD: Shop Drawing

TO: Task Order

USAID: United States Agency for International Development

VO: Variation Order

WBWD: West Bank Water Department

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I. TASK ORDER DESCRIPTION AND DATA

TO 12-00002-WJN- Well #17 Pump Station and Conveyance System and Al Jaba' Nuba Main Transmission Pipeline Project:

TASK ORDER BACKGROUND

Infrastructure in the West Bank and Gaza suffers from years of neglect and lack of investment. The USAID Mission Infrastructure Needs Program II (INP II) focuses on large-scale infrastructural projects including rehabilitating road networks, building major water facilities, constructing water distributing systems, developing wastewater facilities, and constructing schools and other infrastructure. Through the program, USAID constructs and rehabilitates critical infrastructure that promotes economic growth and improves the quality of life for Palestinians in the West Bank.

OBJECTIVES

The objective of this Task Order was to:

1. Construct, install and equip a new pump station for Well #17, in addition to installing a conveyance system that connects Well #17 to existing Izzariyya 2 (IZZ2) pump station.

2. Install a new 300 mm and 250 mm diameter main transmission pipeline and internal networks of approximately 13.8 Km between Al Jaba' and Nuba towns. The pipeline connected to the Mekorot existing pipeline at Al Jaba junction passed by Surif, Khirbit Al Deir and Kharas towns and ended and connected to PWA DI pipe near Kharas Municipality, which supply water to Nuba town. The main objective of the project was to increase access to drinking water by replacing an old deteriorated pipeline that suffers from leakages and illegal tapping. The water loss at the existing pipeline was valued at 45%.

STATEMENT OF WORK (SOW)

The following is a summary description of the projects:

Water Project 1, Well #17 Pump Station and Conveyance System

This project consisted of constructing, installing and equipping a complete new pump station for Well #17. In addition, the project consisted of installing a conveyance system that connects Well #17 to the existing Izzariyya 2 (IZZ2) pump.

The SOW consisted of supply and installation of well and booster pumping units, electro control units, chlorination units, metering units, construction of reinforced concrete balancing tank, and supply and installation of other equipment and accessories that are needed to make the well station operational. In addition, the work included testing and commissioning of the systems and the pumping station as an integral unit. All as specified in the contract documents. The work is located entirely in Area B.

Well 17 is one of the four wells that USAID invested in drilling, testing and developing in the years 2010 through 2012. Upon completing drilling and casing installation at Well 17, the well was developed and tested in accordance with the strict requirements of the American Water and

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Wastewater Association (AWWA). The tests revealed that Well 17 was a promising well with a capacity of 100 cubic meters per hour and a static water level at 344m. Based on these tests' results, the well pump and its related electrical equipment were designed and tendered. The contract for equipping this well and hooking it up to PWA's transmission system was subsequently awarded to the construction contractor on September 14, 2012.

The Notice to proceed for this project was issued on September 27, 2013. After completing the mobilization works for Well 17 and prior to ordering the specified pump, a decision was taken to validate the static water level. In mid-December 2012, the well cap was opened and the static water level was measured. Surprisingly, the test revealed that the water level has dropped dramatically by 70 meters, rendering the designed pump and its related controls inappropriate. The reason behind this unforeseen dramatic drop requires further investigation of the aquifer especially that previous study indicated that the eastern aquifer is dropping at a rate of 60m every 12 years, and that was exactly what the original design has taken into consideration.

As such, the USAID suspended Well 17 project on December 19, 2013 and later terminated it for conveyance on January 9, 2013. On September 19, 2013, IRD submitted its termination settlement to USAID for a total amount of $ 1,461,077.03

Water Project 2, Al Jaba' Nuba Main Transmission Pipeline Project

This project consisted of installing different diameters main transmission pipeline of approximately 13.8 Km between Al Jaba' and Nuba towns. The pipeline connected to the Mekorot existing pipeline at Al Jaba junction passed by Surif, Khirbit Al Deir and Kharas towns and ended and connected to PWA DI pipe near Kharas Municipality, which supply water to Nuba town as detailed below:

- Installation a total of 2,699.35 LM of 12" Steel pipeline.
- Installation a total of 8,032.58 LM of 10" Steel pipeline.
- Installation a total of 34.80 LM of 6" Steel pipeline.
- Installation a total of 1,261.20 LM of 4" Steel pipeline.
- Installation a total of 1,194.32 LM of 3" Steel pipeline.
- Installation a total of 540.20 LM of 2" Steel pipeline.

The SOW consisted of trench excavation, supply and installation of steel pipelines, performing related civil and mechanical works, backfilling the excavated areas, reinstatement, pipe pressure testing, pipe disinfection, cleaning and all other work items needed to complete this project as described in the contract documents. Work also included rehabilitation a total of 1,275.70 LM of Surif-Al Jaba Road and 150.00 LM of Kharas Road in addition to road safety enhancement along the pipeline route for a total length of 9,084.27 LM.

The work is located in Area B&C. Therefore, IRD was entirely responsible for the proactive performance of all coordination needed with the District Civil Liaison Office (DCL), Civil Administration Departments, Ma'atz (Israeli National Roads Company), the Israeli Police and any other relevant authority or utility that had jurisdiction over any portion of the construction works. Coordination included all works needed to obtain approvals; coordinate the movement of personnel, equipment and materials to and from the project site; and any other coordination required by the relevant authorities to ensure no hindrance of the timely scheduled completion of the project. IRD coordinated its activities as needed prior to, during and after construction was completed.

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The physical works on this project started in January 27, 2013, and the project was completed and handed over to USAID on October 31, 2013.The total value of Project 2-JNT- Jaba' Nuba Main Transmission Pipeline Project is USD $3,897,117.03.

The following tables provide TO#12-00002-WJN projects summary information:

TO 12-00002-WJN-Well #17 Pump Station and Conveyance System and Al Jaba' Nuba Main Transmission Pipeline Project		
General Project Information		
1	Task Order Contract (TOC) Number	AID-294-TO-12-00002
2	TOC Projects	Water Project 1, Well #17 Pump Station and Conveyance System
		Water Project 2, Al Jaba' Nuba Main Transmission Pipeline Project
	TOC Award Date	September 13, 2012
	TOC NTP Date	September 27, 2012
	Date Site Handed Over to IRD	September 29, 2012
	Original Project 1 Completion Date	March 30, 2014
	Original Project 2 Completion Date	September 21, 2013
	Modified Project 1 Completion Date	N/A "notice of partial termination received on January 9, 2013"
	Modified Project 2 Completion Date	October 31, 2013
	Actual start of field works at Project 2	January 27, 2013
	Actual completion date of Project 2 and hand over to PWA:	October 31, 2013
	Date Project 1 handed over to PWA	February 7, 2013
	Actual proposed cost of Project 1	$1,947,879.04 (Pending CO approval of Settlement amount)
	Actual final cost of Project 2	$3,897,117.03
	Original TOC Value	$ 12,068,398.71
	Final Modified TOC Value	Pending CO Approval on Termination Settlement

II. TASK ORDER PAYMENTS

TO#12-00002 (WJN) project payments submission started on November 13, 2012, and the first payment was received on November 29, 2012. To date, IRD has submitted a total of 9 invoices: the 9 invoices corresponding funds in the total net amount of $4,352,125.43 were received by IRD. The remaining contract balance for Project 2 of $31,793.59 will be submitted upon this report is approved by COR. IRD has submitted a Settlement Proposal on September 2013 in order to be compensated for the termination of Project No. 1. The determined amount by USAID will be considered in the final payment.

Concerning the exchange rates, during the project duration we encountered fluctuation in the currency rates, however this fluctuation did not have any significant financial impact throughout the progress of the project.

For further information regarding the project payment, please see Annex A.2: Task Order Progress Payments Log.

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III. VARIATION ORDERS

This task order includes two projects. A total of nine variation orders were approved for this Task Order in which project no. 2 was extended and additional activities were introduced, the cost of additional activities were covered from the task order Day Work line item and saving in the project as a result of cancelation of some BOQs line items.

The summary below summarizes the changes in each subproject:

A. Project 1 : Well #17 Pump Station and Conveyance System:

This project was suspended on December 19, 2012 and terminated on January 9, 2013 in accordance with FAR 52.249-2, Termination for Convenience of the Government (Fixed-Price), accordingly, IRD submitted the Final Termination Settlement Proposal to USAID on September 20, 2013.

Furthermore, two Variation Orders out of the nine Variation Orders approved under this Task order are related to project 1 as follows:

1. Variation Order No. 1 included the following :

- Project New Definitive Quantities to reflect the actual quantities of the executed activities up to the date of suspension (Dec 19, 2012). The new definitive quantities resulted in a cost increase of$ 21,136.68

2. Variation Order No. 2 included the following:

- Manufacture, Supply and Deliver SCH 20 12” steel pipes:

Prior to issuing the partial termination notice on January 9, 2013, IRD has manufactured and delivered 831.22 meters of 300 mm steel pipes in accordance with ASTM A53. The pipes are Grade B, Type E, beveled, and with AWWA C215 extruded polyolefin coating and AWWA C205 cement mortar lining. The pipes were intended to be used for Well #17 conveyance system which has been terminated and since, the subject pipes exceed the quantity that is actually needed for Project 2, USAID decided to transfer the produced 12” pipes to another partner - Development Alternative Inc. for utilization in an ongoing USAID water project. The Contractor transported to Development Alternative Inc. storage yard in Tamun the 831.22 m of pipes on February 25 and 26, 2013 as per USAID’s instructions.

As a result of the above; the quantity of BOQ line Item 12.1.2 of 3,953 meters is reduced to zero and a new BOQ line item is introduced for the supply and deliver to the storage yard in Tamun 12” steel pipes including heats shrink sleeves. The cancelation of BOQ line Item 12.1.2 and introducing of 300 mm steel pipes at new rate that include the transportation resulted in a cost decrease of ($433,080.51).

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B. Project 2 : Al Jaba' Nuba Main Transmission Pipeline

1. Variation Order No. 2 included the following :

- Substitution of Concrete New Jersey Concrete Barriers with Steel Mini Guard for Traffic separation during Construction at selected sections of the Transmission line upon IRD request as the replaced proposed steel barriers serves the intended purpose of safely separating traffic and are lighter and faster to assemble and disassemble during construction which will greatly support progress of work that will lead to minimize disruption to local residents and business owners at narrow roads in the villages stretched along the pipe line alignment. CMC and USAID approved IRD request, however, IRD was required to use of concrete New Jersey barriers at certain sections of the project such for manhole openings, and other areas as determined by the CMC and/or the Project Safety officer where steel barriers do not serve the intended purpose. This Substitution had no financial or time implication on the project.

- Substitution of Pipe Zone Backfill material (Bedding Materials): IRD requested to substitute sand bedding material with alternate crushed stone bedding material. USAID approved IRD`s request for the following reasons:

  a) The proposed alternate material meets the technical requirements.
  b) The proposed alternate material is commonly available at the local market in nearby crushers while the sand material is not available in the West Bank and needs to be imported from Israel. Accepting the use of alternate material will result in reducing the risks of delays during transportation between Israel and the West Bank at cross points.

The Substitution of Pipe Zone Backfill material resulted in a cost decrease of $34,299.00

2. Variation Order No. 3 included the following

- Introduced new items to the Bill of quantities as follows:
  a) Supply, install, flush and test 300 meters of new threaded 2” steel pipeline including fittings, materials and all related work in a common trench with 300 mm and 250 mm main transmission pipeline in accordance with contract requirements and as directed by the Engineer.
  b) Supply, install and test 1200 meters of new welded 3’’ pipeline including fittings, materials and all related work in common trench with 300 mm and 250 mm main pipeline in accordance with contract requirements and as directed by the Engineer.
  c) Supply, install and test 1500 meters of new welded 4’’ pipeline including fittings, materials and all related work in common trench with 300 mm and 250 mm main pipelines in accordance with contract requirements and as directed by the Engineer.

- Add 10 calendar days to the project duration period. This time extension was provided to allow IRD to implement the additional works within the scope of work.

The introduction of the above-mentioned items resulted in a cost increase of $143,943.

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3. **Variation Order No. 4 included the following:**

- Introduced new items to the Bill of quantities as follows:

  a) Supply and cast ready mix plain concrete B200 along selected sections of the pipe trench, over culverts, and where deemed necessary by the Engineer due to unforeseeable subsurface conditions.
  b) Cancelation of BOQ line items number 5.1, 5.2, 5.3 and 5.4 as a result of introducing the mentioned above item (a).

The introduction of this new item and cancelation of four items from the BOQ resulted in a cost increase of $53,968.95.

4. **Variation Order No. 5 included the following:**

- Introduced new items to the Bill of quantities as follows:
  a) Supply and install PN40 Electromagnetic flow meter with EPDM lining, remote wall mounted transmitter (IP68) with GSM/GPRS communication module , high gain antenna, cables, DC power source, accepting an external long life back-up and all related requirements.

- Add 30 calendar days to the project duration period. This time extension was provided to allow IRD to perform Testing and Commissioning for the entire transmission main pipeline and transmission system. The 30 days testing and commissioning period also included 2 days of training for PWA' staff.

The introduction of the new item resulted in a cost increase of $94,456.67.

5. **Variation Order No. 6 included the following:**

- Introduced the following changes to the Bill of Quantities:
  a) Additional chambers to connect Surif communities which was not included within the originally scope of work.
  b) Changes to the existing chambers and connections to increase the efficiency and to improve the overall quality of the water service.
  c) Rehabilitation of Surif Al Jaba Road from St 1+400 to St 0+250 to prevent any possible thefts and to facilitate operation and maintenance of the pipeline by WBWD's/PWA's staff after completing this project.

The changes in the BOQ line items resulted in a cost increase of $85,226.49.

6. **Variation Order No. 7 included the following**:

- New definitive project quantities was carried out in order to measure the actual quantities executed and to capture any savings in the project budget.
- Additional asphalt works and safety enhancement activities at Surif-Kharas main road. This additional work improve the durability and lifetime of the existing road (which is a USG funded one) and contribute to a better and more sustainable project by providing additional protection to the newly installed water pipeline. In addition

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to this, safety enhancement is deemed necessary for the safety of the motorist and pedestrians at the Surif –Kharas road.

- Correction of typo error in BOQ Line Item #VO.6.1.4.a

The changes in the BOQ line items resulted in a cost increase of $176,202.66

7. **Variation Order No. 8 included the following :**

- Introduced the following changes to the Bill of quantities as follows:
  a) Supply and install precast concrete chamber in lieu of cast In-Situ concrete chambers.
  b) Supply, install, flush and test 300 meters of threaded 2" galvanized steel pipeline including trench excavation, bedding, backfill, fittings and all related works in accordance with contract requirements and as directed by the Engineer for Surif Community from Station 1+200 to Station1+500.
  c) Install, flush and test 40.20 meters of new threaded 2" galvanized steel pipeline including trench excavation, bedding, backfill, fittings and all related works in accordance with contract requirements and as directed by the Engineer at Al Jaba Road
  d) Supply, install and test 100.50 meters of new welded steel 4'' pipeline including trench excavation, bedding, backfill, fittings and all related work in accordance with contract requirements and as directed by the Engineer for Kherbit Al Deir Connection.
  e) Install and test 34.80 meters of new welded steel 6'' pipeline including trench excavation, bedding, backfill, road reinstatement, fittings and all related work in accordance with contract requirements and as directed by the Engineer for Surif Future Connection and Nuba -Hata Connection
  f) Construction of roundabout at Kharas Downtown
  g) Supply and furnish reinforced concrete (B250) for Surif – Al Jaba Road's Shoulders Protection
- New definitive project quantities was carried out in order to measure the actual quantities executed and to capture any savings in the project budget.

The changes in the BOQ line items resulted in a cost increase of $78,891.65

8. **Variation Order No. 9 included the following :**

- Project final definitive quantities.

The result of defining the project final quantities reflected a cost decrease of $39,600.00, which is moved to the Day Work budget Line item.

For further information regarding the variation orders please see Annex A.1: task order variation order log.

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IV. TASK ORDER LEVEL EMPLOYMENT DATA:

Employment generated in Person days for Project 1:

- Estimated Target Value, 10,418 person days;

- Total cumulative employment generated (as of February 07, 2013); 1,436 person days.

Employment generated in Person days for Project 2:

- Estimated Target Value, 6,820 person days;

- Total cumulative employment generated to-date 9,433 person days.

V. PROJECT 2, AL JABA' NUBA MAIN TRANSMISSION PIPELINE DESCRIPTION AND SPECIFIC DATA:

1. PROJECT SUMMARY TABLE

TO 12-00002-JNT-Al Jaba' Nuba Main Transmission Pipeline Project		
Project Summary Table		
1	Project Name	Al Jaba' Nuba Main Transmission Pipeline Project
	Project Location	Surif/Hebron city
	Summary description of Project's Scope of Work	This project consisted of the installing different diameters main transmission pipeline of 13.762 Km between Al Jaba' and Nuba towns. The pipeline connected to the Mekerot existing pipeline at Al Jaba' junction, passed by Surif, Khirbit Al Deir, and Kharas towns, and ended up at the existing manhole at Nuba town as the following: • Installation a total of 2,699.35 LM of 12" Steel pipeline. • Installation a total of 8,032.58 LM of 10" Steel pipeline. • Installation a total of 34.80 LM of 6" Steel pipeline. • Installation a total of 1,261.20 LM of 4" Steel pipeline. • Installation a total of 1,194.32 LM of 3" Steel pipeline. • Installation a total of 540.20 LM of 2" Steel pipeline. The SOW consisted of trench excavation work, supply and installation of steel pipelines, performing related civil and mechanical works, backfilling the excavated areas, reinstatement, pipe pressure testing, pipe disinfection, cleaning and all other work items needed to complete this project as described in the contract documents. Work also included rehabilitation a total of 1,275.70 LM of Surif-Al Jaba Road and 150.00 LM of Kharas Road in addition to road safety enhancement of 9,084.27 LM.
	USAID Project NTP Date	September 27,2012
	Project Construction Activities Start Date	January 27, 2013
	Project Original Completion Date	September 21, 2013

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TO 12-00002-JNT-Al Jaba' Nuba Main Transmission Pipeline Project		
Project Summary Table		
	Modified Project Completion Date	October 31, 2013
	Final Acceptance Certificate Date	October 31, 2013
	Original Project Duration	360 Calendar Days
	Final Modified Project Duration	400 Calendar Days
	Total Excusable Delays/Approved Extensions	40 days
	Accumulated Working Days	334 Calendar Days
	Accumulated non-working days (Holidays and weekends)	65 Calendar Days
	Accumulated other non-working days	1 Calendar Day (due to adverse weather conditions)
	Original Project Value	$3,338,326.60
	Final Modified Project Value	$3,897,117.03

2. TO 12-00002-JNT- JABA' NUBA MAIN TRANSMISSION PIPELINE PROJECT BACKGROUND

2.1. Project background

The exiting water pipeline from Mekerot connection point and Nuba is exposed, old, deteriorated and suffers from illegal tapping and leakages at several locations. The estimated water losses at the existing pipeline amounted to approximately 45%. The project was undertaken to replace this subject existing pipeline and provide a new underground water pipeline that is harder to tap in and of high quality to ensure long-term sustainability.

The SOW consisted trench excavation work, supply and installation of steel pipelines, performing related civil and mechanical works, backfilling the excavated areas, reinstatement, pipe pressure testing, pipe disinfection, cleaning and all other work items needed to complete this project as described in the contract documents. Work also included rehabilitation a total of 1,275.70 LM of Surif-Al Jaba Road and 150.00 LM of Kharas Road in addition to safety enhancement of 9,084.27 LM. During the 30-days testing and commissioning period, all operational issues were solved and a fully functional system was handed over to PWA on October 31, 2013.

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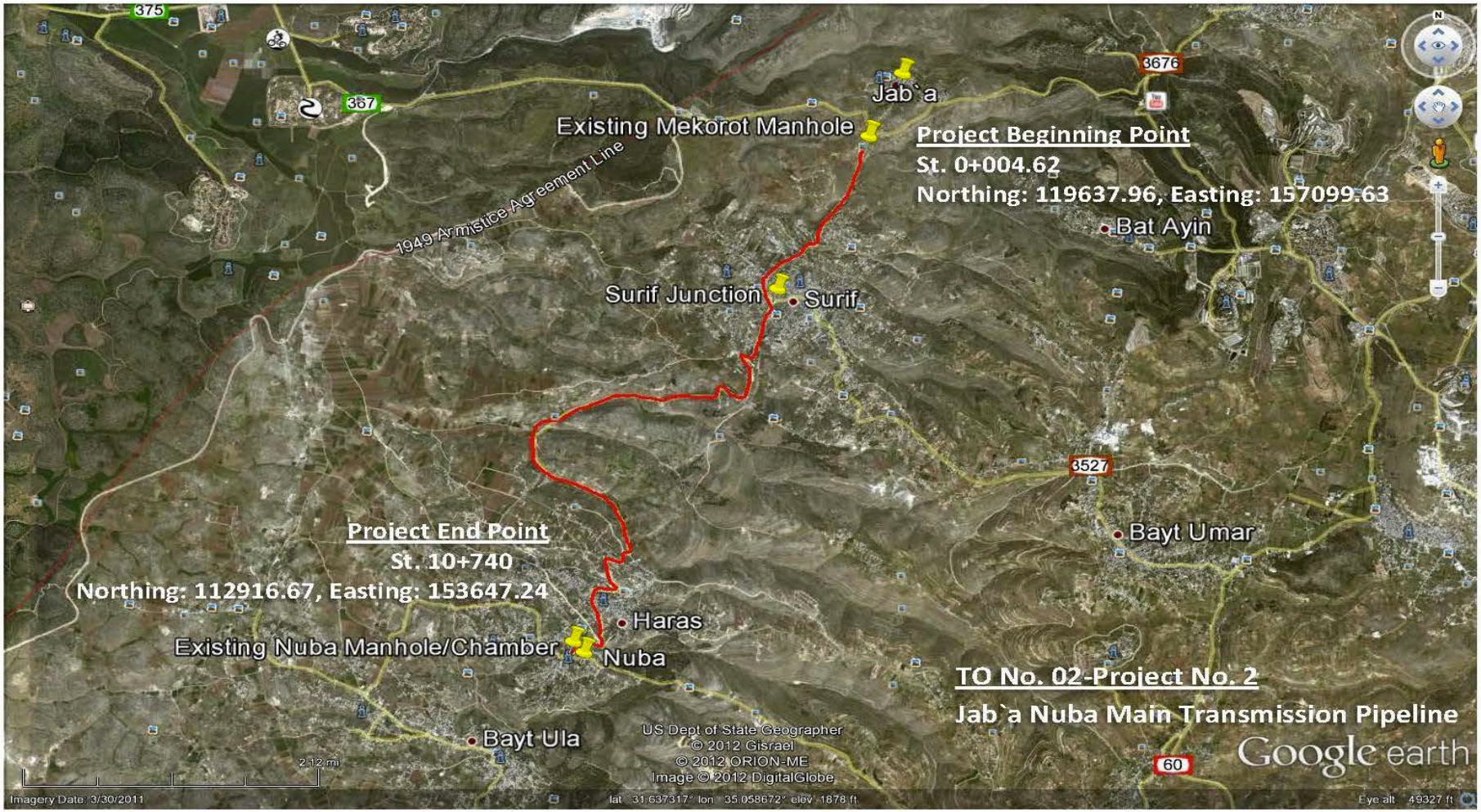
2.2. Project Site Location Map



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2.3. Project's construction elements

The following table presents basic project's construction elements:

Item No.	Project Name	Length (M)
1.	Al Jaba' Nuba Main Transmission Pipeline Project	
	• Installation of 12" Steel pipeline along with its associated chambers, electromagnetic flow meters and fittings.	2,699.35 LM
	• Installation of 10" Steel pipeline along with its associated chambers, electromagnetic flow meters and fittings.	8,032.58 LM
	• Installation of 6" Steel pipeline along with its associated fittings.	34.80 LM
	• Installation of 4" Steel pipeline along with its associated chambers and fittings.	1,261.20 LM
	• Installation a total of 3" Steel pipeline along with its associated chambers and fittings.	1,194.32 LM
	• Installation a total of 2" Steel pipeline along with its associated chambers and fittings.	540.20 LM
	TOTAL	13,762.45 LM
	Rehabilitation a total of 1,275.70 LM of Surif-Al Jaba Road and 150.00 LM of Kharas Road.	1,275.70 LM
	Road Safety Enhancement.	9,084.27 LM
	TOTAL	10,509.97 LM
	Testing and commissioning period:	30 Calendar Days.
	Training:	7 days

2.4. Project's Pipeline Typical Cross Sections

Please refer to Annex B17- for the typical cross sections implemented for the various project elements.

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3. TO 12-00002-JNT- JABA' NUBA MAIN TRANSMISSION PIPELINE PROJECT PERFORMANCE DETAILS

3.1 Submittals

During the preconstruction and construction phases, 23 submittals under TO-02-WJN and 195 submittals under TO-02-JNT Project were submitted to the CMC/BV.

As built drawings & O & M Manual submission:

As per the project specifications preparation of as built drawings and O & M manual started immediately after subject work completion with coordination with the Engineer in the parallel with achieved progress. After getting the Engineer`s comments, the submittals the full set of as built drawings and O&M manual had been prepared and submitted to the Engineer for his review & approval. After getting final approval an official submittal was delivered to the Engineer of which complies with USAID branding & marking regulations and standards. As built drawings submittal was approved in January 28, 2014 while O & M manual was approved in Nov. 20, 2013.

For more details, please see Annex B.5: Project Submittals Log.

The following table and chart summarize the approval status for submittals for this project:

Submittal Disposition	Total
A – No Exceptions Noted	30
B - Make Corrections Noted	135
C- Amend and Resubmit	44
D- Rejected- Resubmit	1
E- Review Not Required	8
Total submittals delivered	**218**
Total submittals reviewed	**218**

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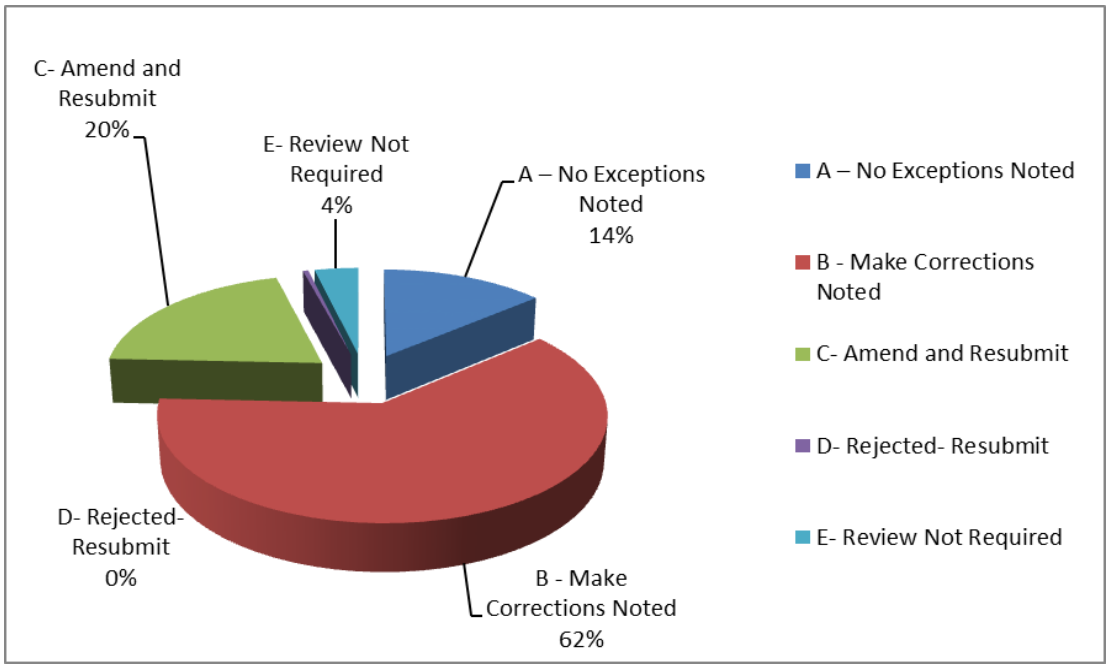

3.2 Work Progress

Actual construction works started on January 27, 2013 taking into account that all required safety requirements were put into place at site both before and during construction work.

The work was located in Area B&C. Therefore, IRD was entirely responsible for the proactive performance of all coordination needed with the District Civil Liaison Office (DCL), Civil Administration Departments, Ma'atz (Israeli National Roads Company), the Israeli Police and any other relevant authority or utility that had jurisdiction over any portion of the construction works. Coordination included all works needed to obtain approvals; coordinate the movement of personnel, equipment and materials to and from the project site; and any other coordination required by the relevant authorities to ensure no hindrance of the timely scheduled completion of the project. IRD coordinated its activities as needed prior to, during and after construction was completed.

Connection to the existing Mekerot water supply:

The coordination for the connection to the exiting Mekerot water supply pipeline started even before receiving NTP and immediately after receiving NTP. First meetings were informative with DCL and DCL's water officer when we introduced the subject and our timeline for the connection.

After that, we contacted Mekerot directly and provided them with the site plan and connection details. Mekerot visited the site to verify the existing pipelines and the connection point.

During the construction, we maintained regular contacts with Mekerot and DCL regarding the connection and before the physical work on the connection at site; we met again with Mekerot to finalize all details regarding the connection and their requirements.

Finally, after the connection Mekerot, visited the site on September 11, 2013 to verify the connection and to allow us to start supplying water from their pipeline as soon as we are ready for testing.

Removing the barriers was a major and critical task prior to start working on connection to Mekerot pipeline. Again, the coordination regarding this issue started since the beginning and it was agreed with DCL to inform them prior to start work on the JNT pipeline connection to the Mekerot pipeline.

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Following this agreement IRD informed the DCL prior to starting work on the connection and barriers were removed in the morning and were returned to their original position at the end of the day, this was conducted on a daily basis as agreed with DCL.

Generally, coordination with both DCL and Mekerot on the connection was positive and successful.

Sequence of the Work:

The SOW for Jaba` Nuba Main Transmission Pipeline consisted, but not limited to, trench excavation work, supply and installation of pipelines, performing related civil and mechanical works, backfilling the excavated areas, reinstatement, pipe pressure testing, pipe disinfection, testing, commissioning and training. Thus, construction work was executed in phases (segments) as follows:

JNT CONSTRUCTION PHASES:

Preparing Detours & Apply Traffic Control Plan: Continuous throughout the construction phase

SEG.NO.1 Trans. Main (St. 7+600 to St. 8+900)-DN 250 mm :27-Jan-13 to 21-Aug-13

SEG.NO.2 Trans. Main (St. 6+817 to St. 7+600)-DN 250 mm: 13-Feb-13 to 22-Jul-13

SEG.NO.3 Trans. Main (St. 2+200 to St. 2+688)-DN 300, 3"-328.5 &4"-159.5: 25-Feb-13 to 31-Aug-13

SEG.NO.4 Trans. Main (St. 1+000 to St. 2+200)-DN 300 mm, 3"-713.8 2" 300 m: 07-Mar-13 to 31-Aug-13

SEG.NO.5 Trans. Main (St. 0+004.62 to St. 1+000)-DN 300 mm, 2"-200 , 3"- 113.5: 19-Mar-13 to 05-Sep-13

SEG.NO.6 Trans. Main (St. 2+688 to St. 4+243)-DN 250 mm: 01-Apr-13 to 11-Sep-13

SEG.NO.7 Trans. Main (St. 6+817 to St. 5+024)-DN 250 mm: 22-Apr-13 to 31-Aug-13

SEG.NO.8 Trans. Main (St. 4+243 to St. 5+024)-DN 250 mm: 06-May-13 to 22-Jul-13

SEG.NO.9 Trans. Main (St. 8+900 to St. 10+060)-DN 250 mm, 2"-00 &4"894.8: 18-May-13 to 31-Aug-13

SEG.NO.10 Trans. Main (St. 10+060 to St. 10+740)-DN 250 mm, 4"-81.7: 27-May-13 to 18-Sep-13

Furnish Complete Flow Monitoring Hardware & Software: 01-Sep-13 to 24-Sep-13

Surif Al Jaba' Road Reinstatement (St.0+300 to St.1+500): 03-Jul-13 to 14-Aug-13

Asphalt Reinstatement and Safety Measures: 21-Jul-13 to 09-Sep-13

Training: Sep. 10, Sep. 16, Oct.02, Oct. 09, Oct. 27, Oct. 28, Oct. 30, 2013

Testing, Commissioning & Start Up: 19-Sep-13 to 31-Oct-13

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Demobilization, Close Out & Handing Over: 25-Sep-13 to 31-Oct-13

The construction schedule was met and the site work was executed in a timely manner and with high quality. IRD construction managers, together with our local subcontractor and CMC/BV resident engineers, implemented all activities according to the specifications and in accordance with the approved Quality Control Program.

The below map demonstrates the construction elements key map:

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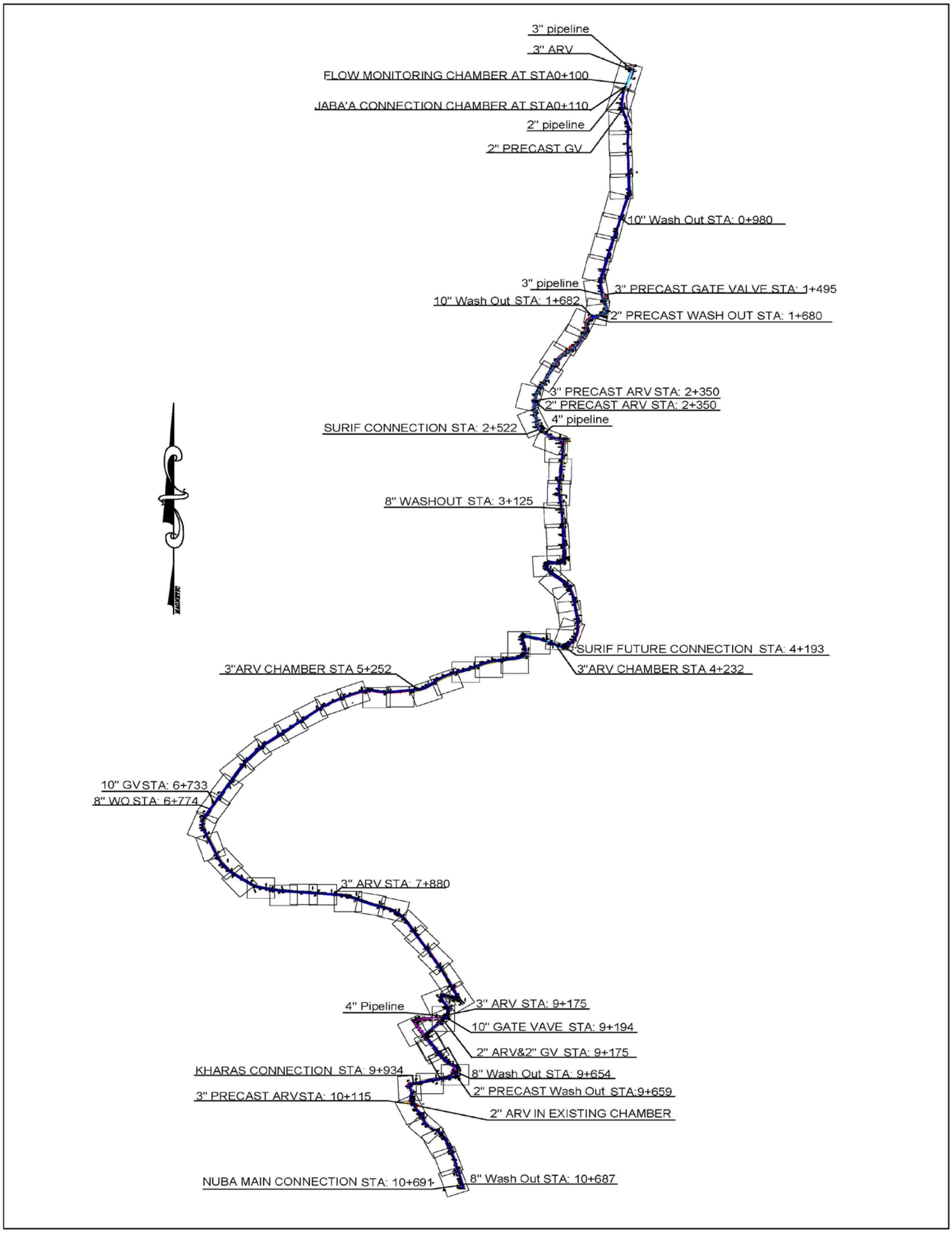
TO-02-Jaba` Nuba Main Transmission Pipeline construction phases key map



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After obtaining all the required approvals and permissions and completing the site surveying, each pipeline segment was executed as follows:

1- Excavation stage which included, rock breaking, trench excavation, surplus removal using excavators, JCBs, and trencher where applicable.

2- Bedding under the pipes.

3- Pipes installations with all fittings

4- Radiographic testing prior to backfilling for150 joints

5- Pipe Zone Backfill.

6- Constructing the Reinforced Concrete Manholes.

7- Pressure Testing.

8- Reinstatement (where needed).

9- Disinfection for all lines.

10- Handing over

Additional Works within the Scope of Works (Road Component)

The majority of Al Jaba' Nuba Main Transmission Pipeline was installed along Surif-Kharas main road which was constructed earlier by USAID in 2004-2005. The SOW under this task order required IRD to perform asphalt restoration works for the entire trench along the paved road to a certain width as defined in the requirements. However; to better protect the existing overall investment, the CMC discussed with USAID performing additional asphalt works in accordance and in line with the recommendations of the Roads Assessment Report prepared by Black and Veatch in 2012. The additional proposed asphalt works had significantly improved the durability and lifetime of the existing road (which is a USG funded one) and contributed to a better and more sustainable project by providing additional protection to the newly installed water pipeline.

Additionally, the CMC discussed with USAID providing additional basic safety features to enhance the overall safety of the road segment along which Jaba Nuba pipeline was installed. These additional safety features are necessary for the safety of the motorist and pedestrians. Accordingly VO-02-WJN-007 was issued for additional asphalt works and safety enhancement activities. The scope of work for the aforementioned activities included milling the exiting asphalt up to 4 cm (including removal and disposal of all milled asphalt, debris and unsuitable and surplus materials to approved locations), supplying and applying bituminous tack coat, supplying, spreading and compacting 4 cm thick bituminous wearing course, applying continuous road marking thermoplastic paint, supplying and installtion of edge line single cat eyes, supplying and

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installation of galvanized steel guard rail for Al Jaba` Road between stations 0+300 and 1+500 and for Kharas Road between stations 9+200 and 9+350.

TO-02-JNT-Al Jaba`a road before construction

TO-02-JNT-Al Jaba`a road after construction

TO-02-JNT-Kharas road before construction

TO-02-JNT-Kharas road after construction

Moreover, a new roundabout at Kharas village downtown at St. 10+160 had been constructed under the approved VO-02-WJN-008. The roundabout is necessary to allow performing the asphalt restoration activity on top of the installed pipeline in Kharas village downtown in a safe manner. Also the roundabout greatly improves the safety of road through regulating the flow of traffic in Kharas downtown.

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TO-02-JNT-Kharas roundabout
during construction (St. 10+160)

TO-02-JNT-Kharas roundabout
after construction (St. 10+160)

Photos showing the different phases of the work:

TO-02-JNT-Project Temporary Sign
(St. 10+160)

TO-02-JNT-Installing the 10”
welded steel pipes at station 6+990.

TO-02-JNT- Placing concrete for
ARV chamber base slab at station 7+870
Date: 17 Mar 2013

TO-02-JNT- Excavating the 10”
pipeline trench at station 3+500
Date: 09 Apr 2013

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The final inspection of the completed works was organized on October 31, 2013 in the presence of USAID, PWA/WBWD and CMC/BV representatives, and the Final Completion Certificate was issued on the same day. The handing over was made for the completion of reliable drinking water transmission pipeline for Jaba-Nuba project where approximately 13.8 km of different diameter pipes were supplied and installed as well as construction of 30 chambers associated with the pipelines.

TO-02-JNT- Walk through and Project Handing over

TO-12-00002-JNT Project was one of the most infrastructure USAID successful projects in terms of safety and quality and is considered the first project using the new SCADA/GPRS system for remote access of flow information.

On Saturday November 23, 2013, CMC attended Bermad's adjustments and upgrade on the JNT main pressure reducing valve at Al-Jaba`, which allowed the system to overcome a significant amount of pressure drop and thus utilize the optimum pressure provided by Mekerot.

Furthermore, CMC tested and commissioned the valve as well at all scenarios and verified that the new features on the valve are fully functional.

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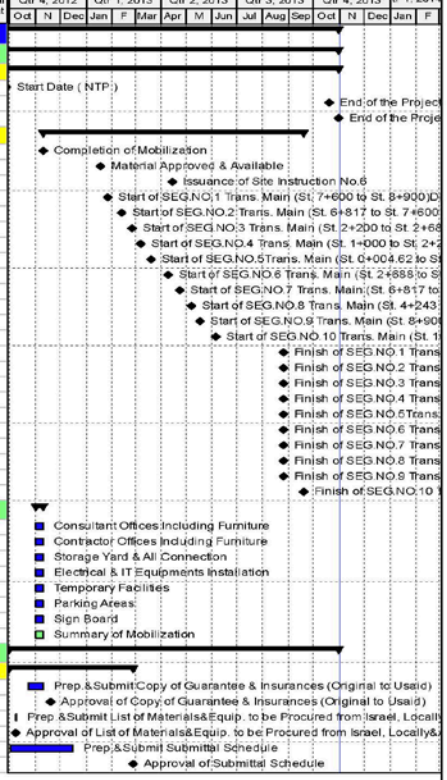
3.3 Project Final CPM Schedule

AID-294-TO-12-00002 - Al Jaba' Nuba Main Transmission Pipe

01-Nov-13

Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
AID-294-TO-12-00002 - Al Jaba' Nuba Main Transmission Pipe							
Milestones							
General Milestones							
MS-JNT-010	Start Date (NTP)	0	27-Sep-12		$0.00	$0.00	
MS-JNT-210	End of the Project (Completion Date)	0		19-Oct-13	$0.00	$0.00	
MS-JNT-220	End of the Project Including Additional Electro Water Meter - Testing & Commisioning 3	0		31-Oct-13	$0.00	$0.00	
Intermediate Milestones							
MS-JNT-011	Completion of Mobilization	0		11-Nov-12	$0.00	$0.00	
MS-JNT-020	Material Approved & Available	0		17-Jan-13	$0.00	$0.00	
MS-JNT-021	Issuance of Site Instruction No.6	0	14-Apr-13		$0.00	$0.00	
MS-JNT-030	Start of SEG.NO.1 Trans. Main (St. 7+600 to St. 8+900)DN 250MM	0	27-Jan-13		$0.00	$0.00	
MS-JNT-040	Start of SEG.NO.2 Trans. Main (St. 6+817 to St. 7+600)DN 250MM	0	13-Feb-13		$0.00	$0.00	
MS-JNT-050	Start of SEG.NO.3 Trans. Main (St. 2+200 to St. 2+688)DN 300,3"-350&4"-136	0	25-Feb-13		$0.00	$0.00	
MS-JNT-060	Start of SEG.NO.4 Trans. Main (St. 1+000 to St. 2+200)DN 300MM,3"-380&170	0	07-Mar-13		$0.00	$0.00	
MS-JNT-070	Start of SEG.NO.5Trans. Main (St. 0+004.62 to St. 1+000)DN 300MM,2"-276	0	20-Mar-13		$0.00	$0.00	
MS-JNT-080	Start of SEG.NO.6 Trans. Main (St. 2+688 to St. 4+243)DN 250MM	0	09-Apr-13		$0.00	$0.00	
MS-JNT-090	Start of SEG.NO.7 Trans. Main (St. 6+817 to St. 5+060)DN 250MM	0	23-Apr-13		$0.00	$0.00	
MS-JNT-100	Start of SEG.NO.8 Trans. Main (St. 4+243 to St. 5+060)DN 250MM	0	08-May-13		$0.00	$0.00	
MS-JNT-110	Start of SEG.NO.9 Trans. Main (St. 8+900 to St. 10+060)DN 250MM,2"-50&4"800	0	18-May-13		$0.00	$0.00	
MS-JNT-115	Start of SEG.NO.10 Trans. Main (St. 10+060 to St. 10+740)DN 250MM,4"-240&374	0	05-Jun-13		$0.00	$0.00	
MS-JNT-120	Finish of SEG.NO.1 Trans. Main (St. 7+600 to St. 8+900)DN 250MM	0		26-Aug-13	$0.00	$0.00	
MS-JNT-130	Finish of SEG.NO.2 Trans. Main (St. 6+817 to St. 7+600)DN 250MM	0		26-Aug-13	$0.00	$0.00	
MS-JNT-140	Finish of SEG.NO.3 Trans. Main (St. 2+200 to St. 2+688)DN 300,3"-350&4"-136	0		26-Aug-13	$0.00	$0.00	
MS-JNT-150	Finish of SEG.NO.4 Trans. Main (St. 1+000 to St. 2+200)DN 300MM,3"-380&170	0		26-Aug-13	$0.00	$0.00	
MS-JNT-160	Finish of SEG.NO.5Trans. Main (St. 0+004.62 to St. 1+000)DN 300MM,2"-276	0		26-Aug-13	$0.00	$0.00	
MS-JNT-170	Finish of SEG.NO.6 Trans. Main (St. 2+688 to St. 4+243)DN 250MM	0		26-Aug-13	$0.00	$0.00	
MS-JNT-180	Finish of SEG.NO.7 Trans. Main (St. 6+817 to St. 5+060)DN 250MM	0		26-Aug-13	$0.00	$0.00	
MS-JNT-190	Finish of SEG.NO.8 Trans. Main (St. 4+243 to St. 5+060)DN 250MM	0		26-Aug-13	$0.00	$0.00	
MS-JNT-200	Finish of SEG.NO.9 Trans. Main (St. 8+900 to St. 10+060)DN 250MM,2"-50&4"800	0		26-Aug-13	$0.00	$0.00	
MS-JNT-205	Finish of SEG.NO.10 Trans. Main (St. 10+060 to St. 10+740)DN 250MM,4"-240&374	0		18-Sep-13	$0.00	$0.00	
Mobilization							
MOBL000020	Consultant Offices Including Furniture	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000030	Contractor Offices Including Furniture	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000050	Storage Yard & All Connection	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000060	Electrical & IT Equipments Installation	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000070	Temporary Facilities	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000080	Parking Areas	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000090	Sign Board	3	01-Nov-12	11-Nov-12	$0.00	$0.00	
MOBL000100	Summary of Mobilization	3	01-Nov-12	11-Nov-12	$127,174.35	$127,174.35	
Submittals							
Pre Construction Submittals							
PCS-JNT100	Prep.&Submit Copy of Guarantee & Insurances (Original to Usaid)	10	24-Oct-12	11-Nov-12	$0.00	$0.00	
PCS-JNT105	Approval of Copy of Guarantee & Insurances (Original to Usaid)	0		19-Nov-12	$0.00	$0.00	
PCS-JNT106	Prep.&Submit List of Materials&Equip. to be Procured from Israel, Locally&Abroad	2	08-Oct-12	09-Oct-12	$0.00	$0.00	
PCS-JNT107	Approval of List of Materials&Equip. to be Procured from Israel, Locally&Abroad	0		09-Oct-12	$0.00	$0.00	
PCS-JNT110	Prep.&Submit Submittal Schedule	10	02-Oct-12	16-Dec-12	$0.00	$0.00	
PCS-JNT115	Approval of Submittal Schedule	0		26-Feb-13	$0.00	$0.00	



(New Bar) Summary
Actual Work
Remaining Work
Critical Remaining Work
Milestone

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv..	Naim Mani-Prog Direc...

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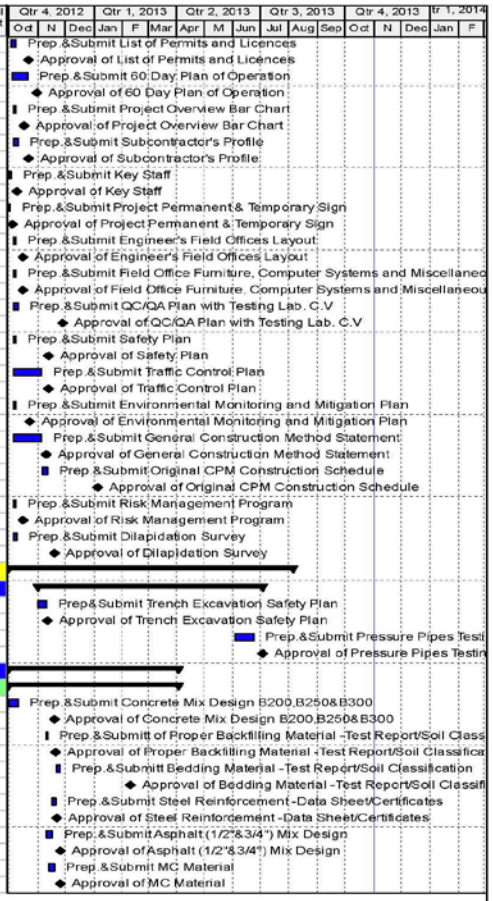
Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
PCS-JNT120	Prep.&Submit List of Permits and Licences	7	03-Oct-12	08-Oct-12	$0.00	$0.00	
PCS-JNT125	Approval of List of Permits and Licences	0		22-Oct-12	$0.00	$0.00	
PCS-JNT130	Prep.&Submit 60 Day Plan of Operation	7	04-Oct-12	21-Oct-12	$0.00	$0.00	
PCS-JNT135	Approval of 60 Day Plan of Operation	0		31-Oct-12	$0.00	$0.00	
PCS-JNT140	Prep.&Submit Project Overview Bar Chart	7	06-Oct-12	08-Oct-12	$0.00	$0.00	
PCS-JNT145	Approval of Project Overview Bar Chart	0		17-Oct-12	$0.00	$0.00	
PCS-JNT150	Prep.&Submit Subcontractor's Profile	7	06-Oct-12	11-Oct-12	$0.00	$0.00	
PCS-JNT155	Approval of Subcontractor's Profile	0		22-Oct-12	$0.00	$0.00	
PCS-JNT160	Prep.&Submit Key Staff	4	01-Oct-12	03-Oct-12	$0.00	$0.00	
PCS-JNT165	Approval of Key Staff	0		10-Oct-12	$0.00	$0.00	
PCS-JNT170	Prep.&Submit Project Permanent & Temporary Sign	2	01-Oct-12	02-Oct-12	$0.00	$0.00	
PCS-JNT175	Approval of Project Permanent & Temporary Sign	0		04-Oct-12	$0.00	$0.00	
PCS-JNT180	Prep.&Submit Engineer's Field Offices Layout	7	06-Oct-12	08-Oct-12	$0.00	$0.00	
PCS-JNT185	Approval of Engineer's Field Offices Layout	0		16-Oct-12	$0.00	$0.00	
PCS-JNT190	Prep.&Submit Field Office Furniture, Computer Systems and Miscellaneous	7	06-Oct-12	08-Oct-12	$0.00	$0.00	
PCS-JNT195	Approval of Field Office Furniture, Computer Systems and Miscellaneous	0		16-Oct-12	$0.00	$0.00	
PCS-JNT200	Prep.&Submit QC/QA Plan with Testing Lab. C.V	7	06-Oct-12	11-Oct-12	$0.00	$0.00	
PCS-JNT205	Approval of QC/QA Plan with Testing Lab. C.V	0		28-Nov-12	$0.00	$0.00	
PCS-JNT210	Prep.&Submit Safety Plan	7	06-Oct-12	08-Oct-12	$0.00	$0.00	
PCS-JNT215	Approval of Safety Plan	0		13-Nov-12	$0.00	$0.00	
PCS-JNT220	Prep.&Submit Traffic Control Plan	7	06-Oct-12	06-Nov-12	$0.00	$0.00	
PCS-JNT225	Approval of Traffic Control Plan	0		13-Nov-12	$0.00	$0.00	
PCS-JNT230	Prep.&Submit Environmental Monitoring and Mitigation Plan	7	06-Oct-12	09-Oct-12	$0.00	$0.00	
PCS-JNT235	Approval of Environmental Monitoring and Mitigation Plan	0		24-Oct-12	$0.00	$0.00	
PCS-JNT240	Prep.&Submit General Construction Method Statement	7	06-Oct-12	06-Nov-12	$0.00	$0.00	
PCS-JNT245	Approval of General Construction Method Statement	0		11-Nov-12	$0.00	$0.00	
PCS-JNT250	Prep.&Submit Original CPM Construction Schedule	5	06-Nov-12	11-Nov-12	$0.00	$0.00	
PCS-JNT255	Approval of Original CPM Construction Schedule	0		06-Jan-13	$0.00	$0.00	
PCS-JNT260	Prep.&Submit Risk Management Program	7	06-Oct-12	08-Oct-12	$0.00	$0.00	
PCS-JNT265	Approval of Risk Management Program	0		16-Oct-12	$0.00	$0.00	
PCS-JNT270	Prep.&Submit Dilapidation Survey	7	06-Oct-12	10-Oct-12	$0.00	$0.00	
PCS-JNT275	Approval of Dilapidation Survey	0		20-Nov-12	$0.00	$0.00	
Construction Submittals							
Genaral Requirments							
CS-JNT-Mds090	Prep&Submit Trench Excavation Safety Plan	7	01-Nov-12	11-Nov-12	$0.00	$0.00	
CS-JNT-Mds095	Approval of Trench Excavation Safety Plan	0		12-Nov-12	$0.00	$0.00	
CS-JNT-Mds100	Prep.&Submit Pressure Pipes Testing,Flushing & Disinfection	7	03-Jun-13	23-Jun-13	$0.00	$0.00	
CS-JNT-Mds110	Approval of Pressure Pipes Testing,Flushing & Disinfection	0		03-Jul-13	$0.00	$0.00	
Material Submittal & Approval							
Structural/Civil Material Submittal & Approval							
CS-JNT-M100	Prep.&Submit Concrete Mix Design B200,B250&B300	10	01-Oct-12	11-Oct-12	$0.00	$0.00	
CS-JNT-M101	Approval of Concrete Mix Design B200,B250&B300	0		19-Nov-12	$0.00	$0.00	
CS-JNT-M102	Prep.&Submitt of Proper Backfilling Material -Test Report/Soil Classification	10	10-Nov-12	12-Nov-12	$0.00	$0.00	
CS-JNT-M103	Approval of Proper Backfilling Material -Test Report/Soil Classification	0		21-Nov-12	$0.00	$0.00	
CS-JNT-M104	Prep.&Submitt Bedding Material -Test Report/Soil Classification	10	22-Nov-12	26-Nov-12	$0.00	$0.00	
CS-JNT-M105	Approval of Bedding Material -Test Report/Soil Classification	0		10-Feb-13	$0.00	$0.00	
CS-JNT-M106	Prep.&Submit Steel Reinforcement -Data Sheet/Certificates	10	17-Nov-12	21-Nov-12	$0.00	$0.00	
CS-JNT-M107	Approval of Steel Reinforcement -Data Sheet/Certificates	0		22-Nov-12	$0.00	$0.00	
CS-JNT-M108	Prep.&Submit Asphalt (1/2"&3/4") Mix Design	10	10-Nov-12	17-Nov-12	$0.00	$0.00	
CS-JNT-M109	Approval of Asphalt (1/2"&3/4") Mix Design	0		25-Nov-12	$0.00	$0.00	
CS-JNT-M110	Prep.&Submit MC Material	10	13-Nov-12	19-Nov-12	$0.00	$0.00	
CS-JNT-M111	Approval of MC Material	0		25-Nov-12	$0.00	$0.00	



(New Bar)
Summary
Actual Work
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Critical Remaining Work
Milestone

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv...	Naim Mani-Prog Direc...

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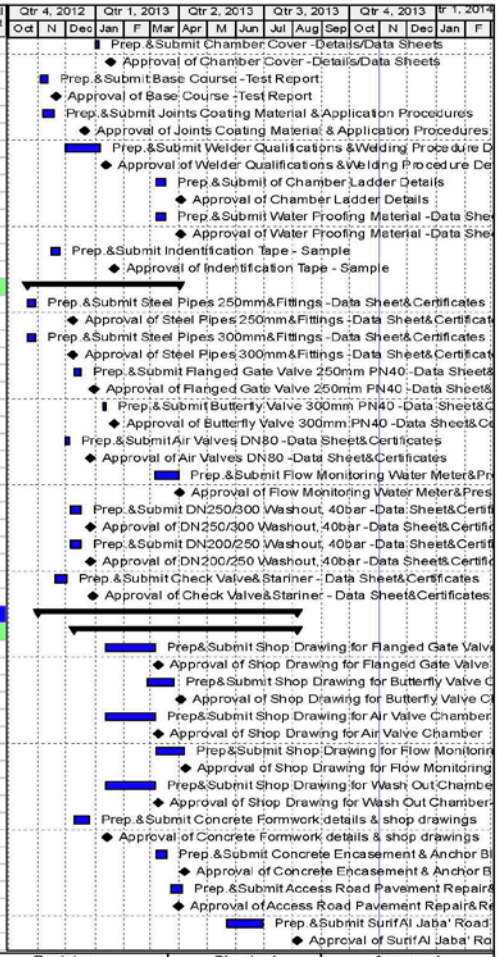
Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
CS-JNT-M112	Prep.&Submit Chamber Cover -Details/Data Sheets	10	01-Jan-13	06-Jan-13	$0.00	$0.00	
CS-JNT-M113	Approval of Chamber Cover -Details/Data Sheets	0		17-Jan-13	$0.00	$0.00	
CS-JNT-M114	Prep.&Submit Base Course -Test Report	10	04-Nov-12	12-Nov-12	$0.00	$0.00	
CS-JNT-M115	Approval of Base Course -Test Report	0		21-Nov-12	$0.00	$0.00	
CS-JNT-M116	Prep.&Submit Joints Coating Material & Application Procedures	10	06-Nov-12	17-Nov-12	$0.00	$0.00	
CS-JNT-M117	Approval of Joints Coating Material & Application Procedures	0		20-Dec-12	$0.00	$0.00	
CS-JNT-M118	Prep.&Submit Welder Qualifications &Welding Procedure Details	10	01-Dec-12	07-Jan-13	$0.00	$0.00	
CS-JNT-M119	Approval of Welder Qualifications &Welding Procedure Details	0		13-Jan-13	$0.00	$0.00	
CS-JNT-M120	Prep.&Submit of Chamber Ladder Details	9	07-Mar-13	17-Mar-13	$0.00	$0.00	
CS-JNT-M121	Approval of Chamber Ladder Details	0		03-Apr-13	$0.00	$0.00	
CS-JNT-M122	Prep.&Submit Water Proofing Material -Data Sheet	9	07-Mar-13	17-Mar-13	$0.00	$0.00	
CS-JNT-M123	Approval of Water Proofing Material -Data Sheet	0		03-Apr-13	$0.00	$0.00	
CS-JNT-M145	Prep.&Submit Indentification Tape - Sample	10	15-Nov-12	25-Nov-12	$0.00	$0.00	
CS-JNT-M155	Approval of Indentification Tape - Sample	0		22-Jan-13	$0.00	$0.00	
Mechanical Material Submittal & Approval							
CS-JNT-M124	Prep.&Submit Steel Pipes 250mm&Fittings -Data Sheet&Certificates	10	21-Oct-12	30-Oct-12	$0.00	$0.00	
CS-JNT-M125	Approval of Steel Pipes 250mm&Fittings -Data Sheet&Certificates	0		09-Dec-12	$0.00	$0.00	
CS-JNT-M126	Prep.&Submit Steel Pipes 300mm&Fittings -Data Sheet&Certificates	10	21-Oct-12	30-Oct-12	$0.00	$0.00	
CS-JNT-M127	Approval of Steel Pipes 300mm&Fittings -Data Sheet&Certificates	0		09-Dec-12	$0.00	$0.00	
CS-JNT-M128	Prep.&Submit Flanged Gate Valve 250mm PN40 -Data Sheet&Certificates	5	10-Dec-12	17-Dec-12	$0.00	$0.00	
CS-JNT-M129	Approval of Flanged Gate Valve 250mm PN40 -Data Sheet&Certificates	0		31-Dec-12	$0.00	$0.00	
CS-JNT-M130	Prep.&Submit Butterfly Valve 300mm PN40 -Data Sheet&Certificates	5	10-Jan-13	13-Jan-13	$0.00	$0.00	
CS-JNT-M131	Approval of Butterfly Valve 300mm PN40 -Data Sheet&Certificates	0		21-Jan-13	$0.00	$0.00	
CS-JNT-M132	Prep.&Submit Air Valves DN80 -Data Sheet&Certificates	5	01-Dec-12	04-Dec-12	$0.00	$0.00	
CS-JNT-M133	Approval of Air Valves DN80 -Data Sheet&Certificates	0		27-Dec-12	$0.00	$0.00	
CS-JNT-M134	Prep.&Submit Flow Monitoring Water Meter&Pressure Reducing Valve -Data Sheet&C	5	06-Mar-13	31-Mar-13	$0.00	$0.00	
CS-JNT-M135	Approval of Flow Monitoring Water Meter&Pressure Reducing Valve-Data Sheet&Certi	0		02-Apr-13	$0.00	$0.00	
CS-JNT-M136	Prep.&Submit DN250/300 Washout, 40bar -Data Sheet&Certificates	5	06-Dec-12	17-Dec-12	$0.00	$0.00	
CS-JNT-M137	Approval of DN250/300 Washout, 40bar -Data Sheet&Certificates	0		27-Dec-12	$0.00	$0.00	
CS-JNT-M138	Prep.&Submit DN200/250 Washout, 40bar -Data Sheet&Certificates	5	06-Dec-12	17-Dec-12	$0.00	$0.00	
CS-JNT-M139	Approval of DN200/250 Washout, 40bar -Data Sheet&Certificates	0		27-Dec-12	$0.00	$0.00	
CS-JNT-M149	Prep.&Submit Check Valve&Stariner - Data Sheet&Certificates	5	20-Nov-12	02-Dec-12	$0.00	$0.00	
CS-JNT-M159	Approval of Check Valve&Stariner - Data Sheet&Certificates	0		30-Dec-12	$0.00	$0.00	
Shop Drawings Submittal & Approval							
Structural / Civil Shop Drawings Submittal & Approval							
CS-JNT-SD100	Prep&Submit Shop Drawing for Flanged Gate Valve Chamber	10	13-Jan-13	06-Mar-13	$0.00	$0.00	
CS-JNT-SD101	Approval of Shop Drawing for Flanged Gate Valve Chamber	0		10-Mar-13	$0.00	$0.00	
CS-JNT-SD102	Prep&Submit Shop Drawing for Butterfly Valve Chamber	10	27-Feb-13	27-Mar-13	$0.00	$0.00	
CS-JNT-SD103	Approval of Shop Drawing for Butterfly Valve Chamber	0		03-Apr-13	$0.00	$0.00	
CS-JNT-SD104	Prep&Submit Shop Drawing for Air Valve Chamber	10	13-Jan-13	06-Mar-13	$0.00	$0.00	
CS-JNT-SD105	Approval of Shop Drawing for Air Valve Chamber	0		10-Mar-13	$0.00	$0.00	
CS-JNT-SD106	Prep&Submit Shop Drawing for Flow Monitoring&Connection Chamber	10	07-Mar-13	07-Apr-13	$0.00	$0.00	
CS-JNT-SD107	Approval of Shop Drawing for Flow Monitoring&Connection Chamber	0		08-Apr-13	$0.00	$0.00	
CS-JNT-SD108	Prep&Submit Shop Drawing for Wash Out Chamber-DN250/300,DN200/250	10	13-Jan-13	06-Mar-13	$0.00	$0.00	
CS-JNT-SD109	Approval of Shop Drawing for Wash Out Chamber-DN250/300,DN200/250	0		10-Mar-13	$0.00	$0.00	
CS-JNT-SD110	Prep.&Submit Concrete Formwork details & shop drawings	12	10-Dec-12	26-Dec-12	$0.00	$0.00	
CS-JNT-SD111	Approval of Concrete Formwork details & shop drawings	0		13-Jan-13	$0.00	$0.00	
CS-JNT-SD112	Prep.&Submit Concrete Encasement & Anchor Blocks Shopdrawing&Details	10	07-Mar-13	18-Mar-13	$0.00	$0.00	
CS-JNT-SD113	Approval of Concrete Encasement & Anchor Blocks Shopdrawing&Details	0		07-Apr-13	$0.00	$0.00	
CS-JNT-SD114	Prep.&Submit Access Road Pavement Repair&Reinstatement Shopdrawing&Details	10	24-Mar-13	03-Apr-13	$0.00	$0.00	
CS-JNT-SD115	Approval of Access Road Pavement Repair&Reinstatement Shopdrawing&Details	0		01-Apr-13	$0.00	$0.00	
CS-JNT-SD135	Prep.&Submit Surif Al Jaba' Road Reinstatement Shop Drawing	10	22-May-13	30-Jun-13	$0.00	$0.00	
CS-JNT-SD145	Approval of Surif Al Jaba' Road Reinstatement Shop Drawing	0		05-Aug-13	$0.00	$0.00	



(New Bar)
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv...	Naim Mani-Prog Direc...

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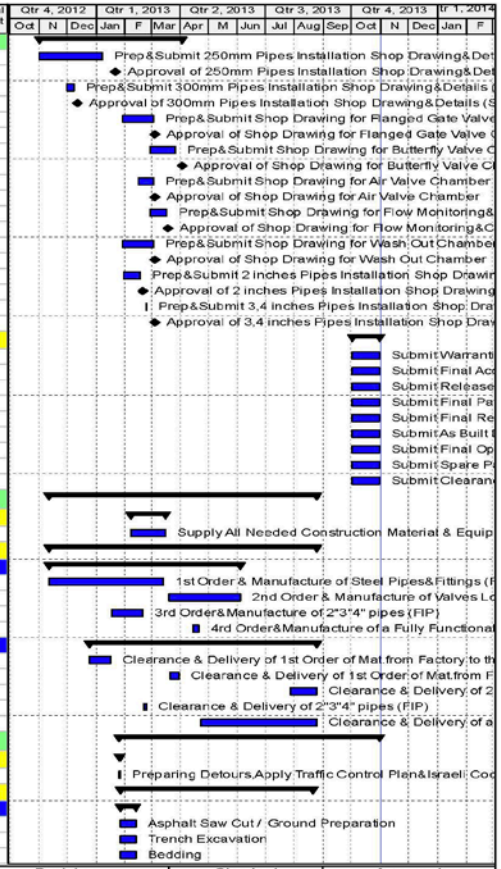
Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
Mechanical Shop Drawing Submittal & Approval							
CS-JNT-SD116	Prep&Submit 250mm Pipes Installation Shop Drawing&Details (Sections)	4	01-Nov-12	08-Jan-13	$0.00	$0.00	
CS-JNT-SD117	Approval of 250mm Pipes Installation Shop Drawing&Details (Sections)	0		22-Jan-13	$0.00	$0.00	
CS-JNT-SD118	Prep&Submit 300mm Pipes Installation Shop Drawing&Details (Sections)	4	01-Dec-12	08-Dec-12	$0.00	$0.00	
CS-JNT-SD119	Approval of 300mm Pipes Installation Shop Drawing&Details (Sections)	0		12-Dec-12	$0.00	$0.00	
CS-JNT-SD120	Prep&Submit Shop Drawing for Flanged Gate Valve Chamber	10	30-Jan-13	04-Mar-13	$0.00	$0.00	
CS-JNT-SD121	Approval of Shop Drawing for Flanged Gate Valve Chamber	0		05-Mar-13	$0.00	$0.00	
CS-JNT-SD122	Prep&Submit Shop Drawing for Butterfly Valve Chamber	10	28-Feb-13	27-Mar-13	$0.00	$0.00	
CS-JNT-SD123	Approval of Shop Drawing for Butterfly Valve Chamber	0		03-Apr-13	$0.00	$0.00	
CS-JNT-SD124	Prep&Submit Shop Drawing for Air Valve Chamber	10	15-Feb-13	04-Mar-13	$0.00	$0.00	
CS-JNT-SD125	Approval of Shop Drawing for Air Valve Chamber	0		05-Mar-13	$0.00	$0.00	
CS-JNT-SD126	Prep&Submit Shop Drawing for Flow Monitoring&Connection Chamber	10	28-Feb-13	18-Mar-13	$0.00	$0.00	
CS-JNT-SD127	Approval of Shop Drawing for Flow Monitoring&Connection Chamber	0		19-Mar-13	$0.00	$0.00	
CS-JNT-SD128	Prep&Submit Shop Drawing for Wash Out Chamber	10	30-Jan-13	04-Mar-13	$0.00	$0.00	
CS-JNT-SD129	Approval of Shop Drawing for Wash Out Chamber	0		05-Mar-13	$0.00	$0.00	
CS-JNT-SD139	Prep&Submit 2 inches Pipes Installation Shop Drawing&Details (Sections)	5	31-Jan-13	18-Feb-13	$0.00	$0.00	
CS-JNT-SD149	Approval of 2 inches Pipes Installation Shop Drawing&Details (Sections)	0		20-Feb-13	$0.00	$0.00	
CS-JNT-SD159	Prep&Submit 3,4 inches Pipes Installation Shop Drawing&Details (Sections)	5	24-Feb-13	24-Feb-13	$0.00	$0.00	
CS-JNT-SD169	Approval of 3,4 inches Pipes Installation Shop Drawing&Details (Sections)	0		05-Mar-13	$0.00	$0.00	
Post Construction Submittals							
PS-JNT100	Submit Warranties to USAID	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT110	Submit Final Acceptance Certificates	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT120	Submit Release of Liens, Waiver of Debts and Claim letter Against Government	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT130	Submit Final Payements	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT140	Submit Final Reports	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT150	Submit As Built Drawings	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT160	Submit Final Operation&Maintenance Manual (O&M)	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT170	Submit Spare Parts	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
PS-JNT180	Submit Clearance Certificates from Local Entities/Authorities Involved	11	02-Oct-13	31-Oct-13	$0.00	$0.00	
Procurement							
Construction Material & Equipments							
PRO000100	Supply All Needed Construction Material & Equipm	30	07-Feb-13	16-Mar-13	$0.00	$0.00	
Steel Pipes,Fettings&Valves							
Material Order & Manufacture							
PRO-JNT120	1st Order & Manufacture of Steel Pipes&Fittings (FIP)	87	12-Nov-12	13-Mar-13	$0.00	$0.00	
PRO-JNT130	2nd Order & Manufacture of Valves Long Lead Items	65	20-Mar-13	04-Jun-13	$0.00	$0.00	
PRO-JNT140	3rd Order&Manufacture of 2"3"4" pipes (FIP)	5	18-Jan-13	20-Feb-13	$0.00	$0.00	
PRO-JNT150	4rd Order&Manufacture of a Fully Functional Flow Monitoring Hardware and Software s	6	14-Apr-13	20-Apr-13	$0.00	$0.00	
Material Delivery							
PRO-JNT160	Clearance & Delivery of 1st Order of Mat.from Factory to the Site-1st	15	24-Dec-12	17-Jan-13	$577,480.46	$577,480.46	
PRO-JNT161	Clearance & Delivery of 1st Order of Mat.from Factory to the Site-2nd	7	21-Mar-13	30-Mar-13	$667,585.34	$667,585.34	
PRO-JNT170	Clearance & Delivery of 2nd Order of Mat.from Factory to the Site - VALVES	2	27-Jul-13	25-Aug-13	$0.00	$0.00	
PRO-JNT180	Clearance & Delivery of 2"3"4" pipes (FIP)	5	22-Feb-13	24-Feb-13	$0.00	$0.00	
PRO-JNT190	Clearance & Delivery of a Fully Functional Flow Monitoring Hardware and Software sol	66	23-Apr-13	25-Aug-13	$0.00	$0.00	
Execution Phase							
Preparing Detours & Apply Traffic Control Plan							
EXE-JNT-000010	Preparing Detours,Apply Traffic Control Plan&Israeli Coordination	5	26-Jan-13	27-Jan-13	$0.00	$0.00	
SEG.NO.1 Trans. Main (St. 7+600 to St. 8+900)DN 250MM							
Pipe Line Installation							
EXE-JNT-000170	Asphalt Saw Cut / Ground Preparation	7	27-Jan-13	12-Feb-13	$0.00	$0.00	
EXE-JNT-000180	Trench Excavation	14	27-Jan-13	12-Feb-13	$21,320.00	$21,320.00	
EXE-JNT-000190	Bedding	14	27-Jan-13	12-Feb-13	$21,944.00	$21,944.00	



(New Bar) Summary
Actual Work
Remaining Work
Critical Remaining Work
Milestone

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv...	Naim Mani-Prog Direc...

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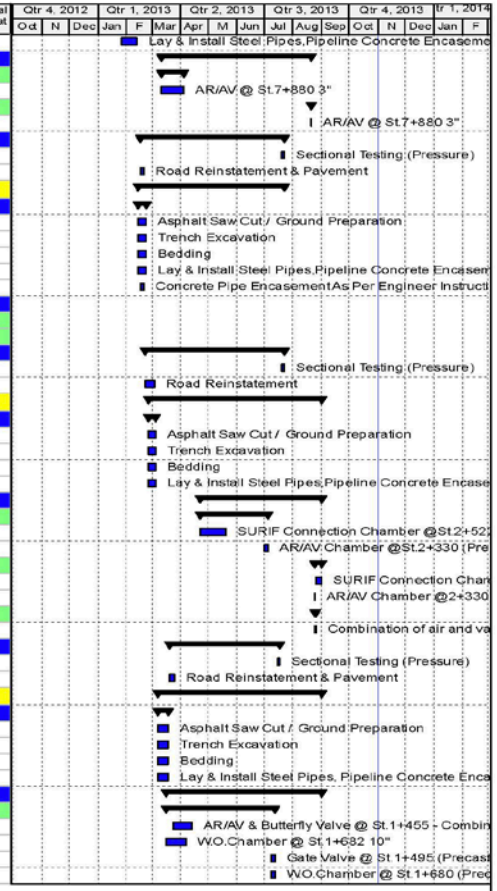
Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
EXE-JNT-000200	Lay & Install Steel Pipes,Pipeline Concrete Encasement & Backfilling	14	27-Jan-13	12-Feb-13	$28,296.07	$28,296.07	
Chamber Works							
Structural & Civil Works							
EXE-JNT-000210	AR/AV @ St.7+880 3"	10	11-Mar-13	04-Apr-13	$4,840.32	$4,840.32	
Mechanical & Finishing Works							
EXE-JNT-1110	AR/AV @ St.7+880 3"	5	21-Aug-13	21-Aug-13	$7,260.49	$7,260.49	
Testing & Road Reinstatement Works							
EXE-JNT-000280	Sectional Testing (Pressure)	7	20-Jul-13	22-Jul-13	$1,404.00	$1,404.00	
EXE-JNT-000290	Road Reinstatement & Pavement	3	16-Feb-13	20-Feb-13	$16,785.60	$16,785.60	
SEG.NO.2 Trans. Main (St. 6+817 to St. 7+600)DN 250MM							
Pipe Line Installation							
EXE-JNT-000050	Asphalt Saw Cut / Ground Preparation	5	13-Feb-13	23-Feb-13	$0.00	$0.00	
EXE-JNT-000060	Trench Excavation	8	13-Feb-13	23-Feb-13	$12,841.20	$12,841.20	
EXE-JNT-000070	Bedding	8	13-Feb-13	23-Feb-13	$13,217.04	$13,217.04	
EXE-JNT-000080	Lay & Install Steel Pipes,Pipeline Concrete Encasement & Backfilling	8	13-Feb-13	23-Feb-13	$15,613.02	$15,613.02	
EXE-JNT-000090	Concrete Pipe Encasement As Per Engineer Instruction	2	16-Feb-13	20-Feb-13	$1,115.05	$1,115.05	
Chamber Works							
Structural & Civil Works							
Mechanical & Finishing Works							
Testing & Road Reinstatement Works							
EXE-JNT-000150	Sectional Testing (Pressure)	5	20-Jul-13	22-Jul-13	$845.64	$845.64	
EXE-JNT-000160	Road Reinstatement	3	21-Feb-13	03-Mar-13	$10,110.10	$10,110.10	
SEG.NO.3 Trans. Main (St. 2+200 to St. 2+688)DN 300,3"-328.5 &4"-159.5							
Pipe Line Installation							
EXE-JNT-000610	Asphalt Saw Cut / Ground Preparation	5	25-Feb-13	05-Mar-13	$0.00	$0.00	
EXE-JNT-000620	Trench Excavation	8	25-Feb-13	05-Mar-13	$8,530.24	$8,530.24	
EXE-JNT-000630	Bedding	8	25-Feb-13	05-Mar-13	$8,378.96	$8,378.96	
EXE-JNT-000640	Lay & Install Steel Pipes,Pipeline Concrete Encasement & Backfilling	8	25-Feb-13	05-Mar-13	$50,901.00	$50,901.00	
Chamber Works							
Structural & Civil Works							
EXE-JNT-000655	SURIF Connection Chamber @St.2+522	10	22-Apr-13	20-May-13	$40,515.96	$40,515.96	
EXE-JNT-000665	AR/AV Chamber @St.2+330 (Precast) 2"	3	01-Jul-13	05-Jul-13	$1,368.38	$1,368.38	
Mechanical & Finishing Works							
EXE-JNT-1305	SURIF Connection Chamber @2+522	5	26-Aug-13	31-Aug-13	$40,515.96	$40,515.96	
EXE-JNT-1315	AR/AV Chamber @2+330 (Precast) 2"	3	25-Aug-13	25-Aug-13	$3,192.90	$3,192.90	
Civil & Mechanical Works							
EXE-JNT-001670	Combination of air and vacuum valve and air release valve @ St.2+330	5	25-Aug-13	26-Aug-13	$11,695.95	$11,695.95	
Testing & Road Reinstatement Works							
EXE-JNT-000690	Sectional Testing (Pressure)	7	15-Jul-13	17-Jul-13	$527.04	$527.04	
EXE-JNT-000700	Road Reinstatement & Pavement	7	20-Mar-13	25-Mar-13	$7,103.33	$7,103.33	
SEG.NO.4 Trans. Main (St. 1+000 to St. 2+200)DN 300MM,3"-713.8 2" 300 m							
Pipe Line Installation							
EXE-JNT-000520	Asphalt Saw Cut / Ground Preparation	16	07-Mar-13	19-Mar-13	$0.00	$0.00	
EXE-JNT-000530	Trench Excavation	16	07-Mar-13	19-Mar-13	$20,976.00	$20,976.00	
EXE-JNT-000540	Bedding	16	07-Mar-13	19-Mar-13	$20,604.00	$20,604.00	
EXE-JNT-000550	Lay & Install Steel Pipes, Pipeline Concrete Encasement & Backfilling	16	07-Mar-13	19-Mar-13	$63,286.30	$63,286.30	
Chamber Works							
Structural & Civil Works							
EXE-JNT-000570	AR/AV & Butterfly Valve @ St.1+455 - Combined Cast In Place	9	24-Mar-13	13-Apr-13	$8,074.05	$8,074.05	
EXE-JNT-000580	W.O.Chamber @ St.1+682 10"	10	16-Mar-13	07-Apr-13	$7,095.93	$7,095.93	
EXE-JNT-000930	Gate Valve @ St.1+495 (Precast) 3"	3	09-Jul-13	13-Jul-13	$1,957.30	$1,957.30	
EXE-JNT-000940	W.O.Chamber @ St.1+680 (Precast) 3"	3	09-Jul-13	13-Jul-13	$1,972.30	$1,972.30	



(New Bar)
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv...	Naim Mani-Prog Direc...

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Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
Mechanical & Finishing Works							
EXE-JNT-1280	AR/AV & Butterfly Valve @ St.1+455 - Combined	5	26-Aug-13	31-Aug-13	$18,839.44	$18,839.44	
EXE-JNT-1290	W.O.Chamber @ St.1+682 10"	5	26-Aug-13	31-Aug-13	$9,031.18	$9,031.18	
EXE-JNT-1420	Gate Valve @ St.1+495 (Precast)	3	24-Aug-13	24-Aug-13	$4,567.04	$4,567.04	
EXE-JNT-1500	W.O.Chamber @ St.1+680 (Precast)	3	24-Aug-13	24-Aug-13	$4,602.04	$4,602.04	
Testing & Road Reinstatement Works							
EXE-JNT-000590	Sectional Testing (Pressure)	7	15-Jul-13	17-Jul-13	$1,296.00	$1,296.00	
EXE-JNT-000600	Road Reinstatement	7	25-Mar-13	28-Mar-13	$8,762.71	$8,762.71	
SEG.NO.5Trans. Main (St. 0+004.62 to St. 1+000)DN 300MM,2"-200 , 3"- 113.5							
Pipe Line Installation							
EXE-JNT-000970	Asphalt Saw Cut / Ground Preparation	17	20-Mar-13	08-Apr-13	$0.00	$0.00	
EXE-JNT-000980	Trench Excavation	17	19-Mar-13	07-Apr-13	$17,678.40	$17,678.40	
EXE-JNT-000990	Bedding	17	20-Mar-13	08-Apr-13	$12,746.15	$12,746.15	
EXE-JNT-001000	Lay & Install Steel Pipes,Pipeline Concrete Encasement & Backfilling	17	20-Mar-13	08-Apr-13	$31,082.98	$31,082.98	
Chamber Works							
Structural & Civil Works							
EXE-JNT-001020	W.O. Chamber @ St.0+980 8"	10	06-Apr-13	23-Apr-13	$9,031.18	$9,031.18	
EXE-JNT-001040	Flow Monitoring Chamber @ St.0+100&Water Meter (ALJABA Main Connecton)@St.0	10	03-Apr-13	14-May-13	$51,071.94	$51,071.94	
EXE-JNT-001120	50DN Gate Valve @0+230 (Precast)	3	09-Jul-13	13-Jul-13	$832.72	$832.72	
Mechanical & Finishing Works							
EXE-JNT-1440	W.O. Chamber @ St.0+980 8"	5	26-Aug-13	31-Aug-13	$7,095.93	$7,095.93	
EXE-JNT-1460	Flow Monitoring Chamber @ St.0+100&Water Meter (ALJABA Main Connecton)@St.0	5	01-Sep-13	05-Sep-13	$108,527.87	$108,527.87	
EXE-JNT-1490	50DN Gate Valve @0+230 (Precast)	3	24-Aug-13	24-Aug-13	$1,943.02	$1,943.02	
Civil & Mechanical Works							
EXE-JNT-001660	Combination of air and vacuum valve and air release valve @ St.0+004	5	26-Jul-13	31-Jul-13	$9,040.05	$9,040.05	
Testing,Commissioning & Final Road Reinstatement Works							
EXE-JNT-001050	Pressure Testing	7	15-Jul-13	17-Jul-13	$1,080.00	$1,080.00	
SEG.NO.6 Trans. Main (St. 2+688 to St. 4+243)DN 250MM							
Pipe Line Installation							
EXE-JNT-000710	Asphalt Saw Cut / Ground Preparation	20	09-Apr-13	19-Apr-13	$0.00	$0.00	
EXE-JNT-000720	Trench Excavation	20	09-Apr-13	19-Apr-13	$25,502.00	$25,502.00	
EXE-JNT-000730	Bedding	20	09-Apr-13	19-Apr-13	$26,248.40	$26,248.40	
EXE-JNT-000740	Lay & Install Steel Pipes,Pipeline Concrete Encasement & Backfilling	20	09-Apr-13	19-Apr-13	$36,681.83	$36,681.83	
Chamber Works							
Structural & Civil Works							
EXE-JNT-000750	W.O. @ St.3+125 8"	10	25-Apr-13	16-May-13	$8,804.44	$8,804.44	
EXE-JNT-000760	40 Bar - Khrbiet Ad-deir Connection Chamber @ St.2+711	10	23-Apr-13	12-May-13	$16,254.03	$16,254.03	
EXE-JNT-000770	Surif Future Connection Chamber @St.4+219	10	15-May-13	29-May-13	$10,355.02	$10,355.02	
EXE-JNT-001030	ARV @ St.4+232 3"	4	19-May-13	29-May-13	$9,859.00	$9,859.00	
Mechanical & Finishing Works							
EXE-JNT-1350	W.O. @ St.3+125 8"	5	20-Aug-13	20-Aug-13	$4,143.27	$4,143.27	
EXE-JNT-1360	40 Bar - Khrbiet Ad-deir Connection Chamber @ St.2+711	5	26-Aug-13	31-Aug-13	$22,446.04	$22,446.04	
EXE-JNT-1370	Surif Future Connection Chamber @St.4+219	5	07-Sep-13	11-Sep-13	$22,004.42	$22,004.42	
EXE-JNT-1450	ARV @ St.4+232	5	21-Aug-13	21-Aug-13	$2,019.31	$2,019.31	
Testing & Road Reinstatement Works							
EXE-JNT-000780	Sectional Testing (Pressure)	7	15-Jul-13	17-Jul-13	$1,679.40	$1,679.40	
EXE-JNT-000790	Road Reinstatement & Pavement	3	01-Apr-13	06-Apr-13	$20,078.16	$20,078.16	
SEG.NO.7 Trans. Main (St. 6+817 to St. 5+024)DN 250MM							
Pipe Line Installation							
EXE-JNT-000800	Asphalt Saw Cut / Ground Preparation	12	23-Apr-13	07-May-13	$0.00	$0.00	
EXE-JNT-000810	Trench Excavation	12	23-Apr-13	07-May-13	$29,405.20	$29,405.20	
EXE-JNT-000820	Bedding	12	23-Apr-13	07-May-13	$30,265.84	$30,265.84	

(New Bar)
Summary
Actual Work
Remaining Work
Critical Remaining Work
Milestone

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv...	Naim Mani-Prog Direc...

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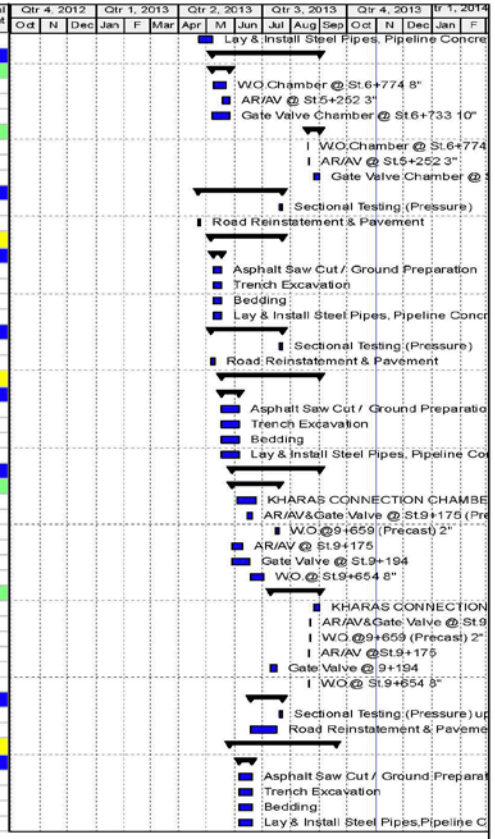
Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
EXE-JNT-000830	Lay & Install Steel Pipes, Pipeline Concrete Encasement & Backfilling	12	23-Apr-13	07-May-13	$36,132.92	$36,132.92	
Chamber Works							
Structural & Civil Works							
EXE-JNT-000110	W.O.Chamber @ St.6+774 8"	10	08-May-13	22-May-13	$8,804.44	$8,804.44	
EXE-JNT-000840	AR/AV @ St.5+252 3"	10	19-May-13	27-May-13	$4,751.32	$4,751.32	
EXE-JNT-000920	Gate Valve Chamber @ St.6+733 10"	10	08-May-13	26-May-13	$4,863.18	$4,863.18	
Mechanical & Finishing Works							
EXE-JNT-1075	W.O.Chamber @ St.6+774 8"	5	20-Aug-13	20-Aug-13	$4,143.27	$4,143.27	
EXE-JNT-1380	AR/AV @ St.5+252 3"	5	21-Aug-13	21-Aug-13	$7,126.99	$7,126.99	
EXE-JNT-1400	Gate Valve Chamber @ St.6+733 10"	5	26-Aug-13	31-Aug-13	$7,934.65	$7,934.65	
Testing & Road Reinstatement Works							
EXE-JNT-000850	Sectional Testing (Pressure)	5	20-Jul-13	22-Jul-13	$1,936.44	$1,936.44	
EXE-JNT-000860	Road Reinstatement & Pavement	3	22-Apr-13	25-Apr-13	$23,151.22	$23,151.22	
SEG.NO.8 Trans. Main (St. 4+243 to St. 5+024)DN 250MM							
Pipe Line Installation							
EXE-JNT-000870	Asphalt Saw Cut / Ground Preparation	12	08-May-13	18-May-13	$0.00	$0.00	
EXE-JNT-000880	Trench Excavation	12	08-May-13	18-May-13	$12,808.40	$12,808.40	
EXE-JNT-000890	Bedding	12	08-May-13	18-May-13	$13,183.28	$13,183.28	
EXE-JNT-000900	Lay & Install Steel Pipes, Pipeline Concrete Encasement & Backfilling	12	08-May-13	18-May-13	$15,733.27	$15,733.27	
Testing & Road Reinstatement Works							
EXE-JNT-000950	Sectional Testing (Pressure)	7	20-Jul-13	22-Jul-13	$843.48	$843.48	
EXE-JNT-000960	Road Reinstatement & Pavement	6	06-May-13	10-May-13	$10,084.27	$10,084.27	
SEG.NO.9 Trans. Main (St. 8+900 to St. 10+060)DN 250MM,2"-00 &4"894.8							
Pipe Line Installation							
EXE-JNT-000300	Asphalt Saw Cut / Ground Preparation	17	18-May-13	05-Jun-13	$0.00	$0.00	
EXE-JNT-000310	Trench Excavation	17	18-May-13	05-Jun-13	$19,024.00	$19,024.00	
EXE-JNT-000320	Bedding	17	18-May-13	05-Jun-13	$19,580.80	$19,580.80	
EXE-JNT-000330	Lay & Install Steel Pipes, Pipeline Concrete Encasement & Backfilling	17	18-May-13	05-Jun-13	$73,014.60	$73,014.60	
Chamber Works							
Structural & Civil Works							
EXE-JNT-000415	KHARAS CONNECTION CHAMBER @ 9+929	10	03-Jun-13	24-Jun-13	$19,301.86	$19,301.86	
EXE-JNT-000670	AR/AV&Gate Valve @ St.9+175 (Precast Concrete Manhole) Combined	3	15-Jun-13	20-Jun-13	$4,104.67	$4,104.67	
EXE-JNT-000680	W.O.@9+659 (Precast) 2"	3	15-Jul-13	19-Jul-13	$3,067.17	$3,067.17	
EXE-JNT-001070	AR/AV @ St.9+175	10	29-May-13	10-Jun-13	$4,840.32	$4,840.32	
EXE-JNT-001080	Gate Valve @ St.9+194	10	29-May-13	17-Jun-13	$4,863.18	$4,863.18	
EXE-JNT-001100	W.O.@ St.9+654 8"	10	18-Jun-13	02-Jul-13	$8,804.44	$8,804.44	
Mechanical & Finishing Works							
EXE-JNT-1185	KHARAS CONNECTION CHAMBER @ 9+929	5	26-Aug-13	31-Aug-13	$49,633.35	$49,633.35	
EXE-JNT-1320	AR/AV&Gate Valve @ St.9+175 (Precast Concrete Manhole) Combined	3	22-Aug-13	22-Aug-13	$4,104.67	$4,104.67	
EXE-JNT-1330	W.O.@9+659 (Precast) 2"	3	22-Aug-13	22-Aug-13	$3,067.17	$3,067.17	
EXE-JNT-1570	AR/AV @St.9+175	5	21-Aug-13	21-Aug-13	$7,260.49	$7,260.49	
EXE-JNT-1580	Gate Valve @ 9+194	5	09-Jul-13	16-Jul-13	$7,934.65	$7,934.65	
EXE-JNT-1590	W.O.@ St.9+654 8"	5	21-Aug-13	21-Aug-13	$4,143.27	$4,143.27	
Testing & Road Reinstatement Works							
EXE-JNT-000360	Sectional Testing (Pressure) up to St.10+740	5	20-Jul-13	22-Jul-13	$1,252.80	$1,252.80	
EXE-JNT-000370	Road Reinstatement & Pavement	5	18-Jun-13	16-Jul-13	$14,977.92	$14,977.92	
SEG.NO.10 Trans. Main (St. 10+060 to St. 10+740)DN 250MM,4"-81.7							
Pipe Line Installation							
EXE-JNT-000380	Asphalt Saw Cut / Ground Preparation	15	05-Jun-13	19-Jun-13	$0.00	$0.00	
EXE-JNT-000390	Trench Excavation	15	05-Jun-13	19-Jun-13	$10,833.51	$10,833.51	
EXE-JNT-000400	Bedding	15	05-Jun-13	19-Jun-13	$8,692.86	$8,692.86	
EXE-JNT-000410	Lay & Install Steel Pipes,Pipeline Concrete Encasement & Backfilling	15	05-Jun-13	19-Jun-13	$19,626.11	$19,626.11	



(New Bar)
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

JNT - As Built Schedule

Date	Revision	Checked	Approved
28-Jan-14	Sr.Planning Eng.M. AbuSha...	CM/Deputy Prog.-Iv...	Naim Mani-Prog Direc...

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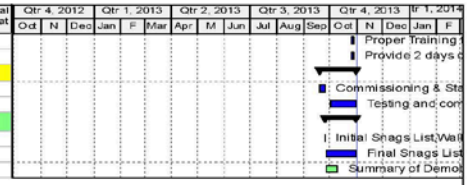
Activity ID	Activity Name	Original Duration	Actual Start	Actual Finish	Budgeted Total Cost	Actual Total Cost	Total Float
Training-JNT-00100	Proper Training for All System According to Section 01670	2	26-Oct-13	28-Oct-13	$0.00	$0.00	
Training-JNT-00110	Provide 2 days of training for the EM flowmeters system (Installation, Commissioning,	2	26-Oct-13	28-Oct-13	$2,137.85	$2,137.85	
Testing,Commissioning&Start Up							
Testing,Co-JNT-00100	Commissioning & Start Up Phase for All System	6	19-Sep-13	25-Sep-13	$0.00	$0.00	
Testing,Co-JNT-00110	Testing and commissioning for the entire transmission system for 30 Days	27	02-Oct-13	31-Oct-13	$2,137.85	$2,137.85	
Demobilization,Close Out&Handing Over							
DEM-010	Initial Snags List,Walkthrough	5	25-Sep-13	26-Sep-13	$0.00	$0.00	
DEM-020	Final Snags List & Handing Over	7	27-Sep-13	31-Oct-13	$0.00	$0.00	
DEM-030	Summary of Demobilization	12	26-Sep-13	09-Oct-13	$31,793.59	$31,793.59	



(New Bar)
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3.4 Cash Flow

The following Progress S-Curve represents the actual Project cumulative expenditures percentage.

USAID FROM THE AMERICAN PEOPLE

IRD International Relief & Development

INTERNATIONAL RELIEF AND DEVELOPMENT, IRD

USAID-INFRSTRUCTURE NEEDS PROGRAM (INP)

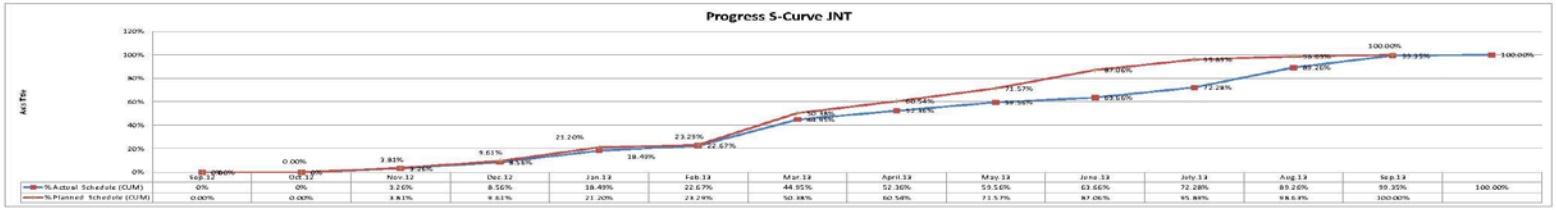
TO .No.2
USAID Order # 294-TO-12-00002

Al Jaba - Main Transmission Pipeline

		USD
Total Contract Value Less Day Work:		$3,338,326.60
Revised Contract Value Less Day Work:		$3,447,970.50
Revised Contract Value Less Day Work:	VO5	$3,596,396.22
Revised Contract Value Less Day Work:	VO6	$3,681,622.71
Revised Contract Value Less Day Work:	VO7	$3,857,835.37
Revised Contract Value Less Day Work:	VO8,9	$3,897,117.03
NTP (Notice to Proceed):		27-Sep-12
Duration of Contract:		350 Calender Days
Duration of Contract:		400 Calender Days
Completion Date:		21-Sep-13
Revised Completion Date:		31-Oct-13
Data Date:		31-Oct-13

PROGRESS S-CURVE & CASH FLOW SCHEDULE

	Sep.12	Oct.12	Nov.12	Dec.12	Jan.13	Feb.13	Mar.13	April.13	May.13	June.13	July.13	Aug.13	Sep.13	Oct.13	TOTAL
Planned Schedule Value (Baseline)	$0.00	$0.00	$127,174.35	$193,543.69	$387,087.38	$569,575.65	$904,586.10	$338,974.05	$356,448.93	$517,029.32	$294,714.59	$91,457.34	$45,723.20		$3,338,326.60
Planned Schedule Value (CUM)	$0.00	$0.00	$127,174.35	$320,718.04	$707,805.42	$777,381.07	$1,681,969.17	$2,020,943.22	$2,389,392.15	$2,905,421.47	$3,201,136.06	$3,292,603.40	$3,338,326.60		$3,338,326.60
Actual Schedule Value	$0.00	$0.00	$127,174.35	$206,243.03	$387,139.68	$162,824.75	$868,555.80	$288,491.47	$280,551.33	$150,066.92	$335,817.00	$661,709.20	$393,053.19	$25,471.43	$3,897,117.03
Actual Schedule Value (CUM)	$0.00	$0.00	$127,174.35	$333,417.37	$720,557.05	$883,381.80	$1,751,937.60	$2,040,429.07	$2,321,000.29	$2,483,067.22	$2,818,884.21	$3,478,593.41	$3,871,646.60	$3,897,117.03	$3,897,117.03
% Planned Schedule	0.00%	0.00%	3.81%	5.80%	11.60%	2.08%	27.10%	10.15%	11.04%	15.49%	8.83%	2.74%	1.37%		100.00%
% Planned Schedule (CUM)	0.00%	0.00%	3.81%	9.61%	21.20%	23.29%	50.38%	60.54%	71.57%	87.06%	95.89%	98.63%	100.00%		100.00%
% Actual Schedule	0%	0%	3.26%	5.29%	9.93%	4.18%	22.29%	7.40%	7.20%	4.11%	8.62%	16.98%	10.09%	0.65%	100.00%
% Actual Schedule (CUM)	0%	0%	3.26%	8.56%	18.49%	22.67%	44.95%	52.36%	59.56%	63.66%	72.28%	89.26%	99.35%	100.00%	100.00%



TO-02-JNT-S Curve- ASBUILT.xlsx

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3.5 Reported final Indicators:

Indicator NO. 1: Water Sector Task Order Indicator 1: Quantity of drinking water available as a result of USG assistance.

During the testing period, it was confirmed that the pipeline has an average capacity even higher than the designed-targeted value. The targeted capacity of the new pipeline was 4,440 m^3/day while during the testing it was confirmed that the new pipeline capacity is 4,569.90 m^3/day.

From the data collected by the WBWD (through the installed electromagnetic flow meters) for the period between November 1, 2013 and February 26, 2104 and period by the Engineer it is visibly that the designed-as built capacity (flow rates and pressure) of the new JNT pipeline is higher than the current need of the concerned consumers. Please refer to pressure and flow readings graphs attached to Annex B9.

Actual Value for Project 2:
The actual beneficiaries based on the average flow taken during the testing and commissioning period is as follows:

The capacity of the added facility in cubic meters or the volume of water that will be pumped by the new substation.	4,569.9 m^3/day *from actual daily flow and average flow (actual capacity)
The average consumption rate of Palestinians (per capita) for Hebron and Bethlehem	(14,629,240+8,150,014)m3/365 day /(196,053+614,257) capita = 0.07702 m^3/day *Calculation based on the Palestinian Water Authority, the total quantity of water delivered to Hebron and Bethlehem Governorates is 14,629,240 m^3 and 8,150,014 m^3 for 2011 and no. of population of 196,053 and 614,257
No. of Beneficiaries	4,569.9/0.07702 = 59,335 persons

Water Sector Task Order Contract Indicator 2: Person Days of employment generated

Employment generated in Person days for TO 12-00002-JNT- Jaba' Nuba Main Transmission Pipeline Project:

- Estimated Target Value, 6,820 person days;

- Total cumulative employment generated to-date 9,433 person days.

TO 12-00002-JNT- Jaba' Nuba Main Transmission Pipeline Project created work opportunities in many different fields, providing an average of 30 labors (9,432 Man-days/ (23.8 avg. working days/month X 13.3 months) and their families ((180 people= (30 laborers× 6 people where average number of members in a Palestinian family=6 according to PCBS) with stable/permanent income from the project for more than 13 months.

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IRD mobilized the following required work force to the site to implement the construction tasks, monitor progress, quality control and assurance oversight, safety and environmental compliance and reporting requirements:

- Project Manager
- Quality Control Manager
- Safety and Environmental Compliance Officer
- Project Quantity & Land Surveyor
- Office Engineers
- Project foremen
- Operators
- An average of 22 skilled and unskilled workers during the project implementation.

TO-20-JNT-Placing concrete for the roof slab of Nuba Hata connection chamber at station 11+251.
Date: 13 June 2013

The following table provides a summary for both IRD and subcontractor man workdays and man working hours throughout the duration of the project (the bellow man-hours do not include the expat staff or shared staff among the multiple Task order):

Month / Year	*Man-days*	*Man-hours*
Sep-12	9	72
Oct-12	144	1,154
Nov-12	188	1,507
Dec-12	243	1,946
Jan-13	277	2,213
Feb-13	841	6,726
Mar-13	1,177	9,420
Apr-13	1,245	9,960
May-13	1,621	12,966
Jun-13	1,359	10,868
Jul-13	836	6,688
Aug-13	472	3,777
Sep-13	725	5,798
Oct-13	296	2,364
Total	**9,433**	**75,459**

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For further information, please see Annex B.14: Project Workforce Level of Effort (Person-Hours) Log.

Breakdown of the Manpower Generated:

		Site Staff Job Days				
Month	**Year**	**Management**	**Engineers**	**Skilled Labor**	**Unskilled Labor**	**Other**
September	**2012**	**4**	**2**	**0**	**0**	**3**
October	**2012**	**64.25**	**55**	**11**	**0**	**14**
November	**2012**	**109.375**	**46**	**8**	**0**	**25**
December	**2012**	**96.25**	**70**	**42.25**	**4.75**	**30**
January	**2013**	**79.75**	**102.125**	**60.5**	**28.25**	**6**
February	**2013**	**91.525**	**136.505**	**336.435**	**276.25**	**0**
March	**2013**	**118.625**	**162.875**	**572.875**	**323.1**	**0**
April	**2013**	**95.25**	**141.5**	**702.75**	**305.5**	**0**
May	**2013**	**97.5**	**153.75**	**1016.5**	**315**	**38**
June	**2013**	**97.5**	**151**	**816.25**	**248.75**	**45**
July	**2013**	**89.25**	**136.25**	**508.5**	**85**	**17.25**
August	**2013**	**70**	**77**	**274.625**	**23**	**27.5**
September	**2013**	**81.75**	**77.25**	**513**	**43**	**9.75**
October	**2013**	**77.25**	**44.25**	**172**	**0**	**2**
Total Man Days= 9,433 Man-Days						

- The total "man-days" is equal to the total hours for each category divided by 8 (regular working hours is 8 hours per day)

The project provided excellent job opportunities for the construction trade workers in the local area and the project contributed to the economic growth of the local market since most of the construction materials and equipment were produced and procured locally. Procurement of all needed construction material and equipment took place in the period between Feb. 07 and Mar.16, 2013. Regarding steel pipes, fittings and valves order and manufacture, the first order and manufacture of steel pipes and fittings (FIP) was between Nov. 12, 2012 and Mar. 13, 2013. Second order and manufacture of valves long lead items was between Mar.20 and Jun.04, 2013. Third order and manufacture of 2″, 3″ & 4″ pipes (FIP) was between Jan.18 and Feb.20, 2013. Fourth order and manufacture of a fully functional flow monitoring hardware and software was

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between 14 and 20 April 2013. Actually the main material such as Somsom and base course were procured and supplied during the project implementation from the neighborhood quarries at the beginning of excavation; steel pipes and related fittings were procured and supplied locally; concrete was also procured and supplied from the local concrete factories during the project implementation while specific valves and fittings (butterfly valves, flow control valves, electromagnetic water meters…etc.) were procured and supplied from Israel. Asphalt was also procured and supplied locally from the local asphalt plants during the implementation of the asphalt works.

3.6 Site Safety

It is the policy of IRD to provide a safe and healthy project and workplace for all employees, pedestrians and local residence. Throughout the duration of the project IRD was committed to eliminating injuries, occupational illness and damage to the environment on the job site and construction facilities relative to Safety and Fire Prevention requirements, through the implementation of the following:

- Safety Plan: Preparation of a Safety Plan for the prevention and control of accidents and health hazards on the job site. The basic structure of this safety plan complies with the requirements of the General Contract Safety Standards, USACE EM 385-1-1 Manual, OSHA Regulations, project and owner safety requirements and specifications, applicable provisions of the Construction and General Industry Standards, and local Palestinian laws, requirements, standards, and practices. IRD Subcontractors are committed to the adherence of these requirements and standards and to the safety of all personnel associated with the project.
- Organization Chart: IRD Safety officer directly reported to the IRD PD (See Annex A.1: Task Order Organizational Chart).
- Providing safety training and orientation for IRD and subcontractor's Safety Officers: IRD Safety Manager organized a safety training session for both IRD and subcontractor's safety officers prior to beginning the project, the session included a detailed discussion of the safety plan and manual and aimed towards accomplishing proper understanding and implementation of the safety plan and emphasized the objective "Safety Intention is Accident Prevention".
- Providing safety training and orientation Onsite: IRD Safety Officer was responsible for verifying that the subcontractor and all personnel associated with the project are provided with the required training orientation a week prior to entering into the work area, in order to accomplish proper understanding and implementation of the safety plan. Additionally, continuous safety planning and training were held on the job site. All employees were required to participate without any exceptions in order to document the safety training and the accidents during the implementation of the project IRD Safety officer and Project Manager prepared a weekly safety toolbox meeting and a monthly safety report.
- Daily Monitoring of Site Activities: Daily observation was conducted by the IRD Safety Officer and Field Supervision Management in conjunction with site

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supervision in order to enforce compliance with the established plan. Daily observations and inspections include the followings:

1. Personal Protective Equipment (PPEs)
2. Machinery & Mechanized equipment.
3. Housekeeping
4. Fall Protection
5. Excavation & Trenching
6. Hole Covers
7. Safe Scaffolding
8. Traffic signs & Protective Reflective Barricades
9. Dust Control

- Corrective Action: Whenever unsafe conditions and fire hazards are noted, work was stopped immediately to correct any unsafe condition encountered and corrective actions were taken so that work may proceed in a safe manner.
- Fire Fighting, First Aid & Sanitary Facilities: IRD provided the fire extinguishers and distributed them onsite in accordance with the civil defense regulations. Moreover, a medical treatment first aid kit was provided onsite. In addition sanitation facilities were provided for the workers and employees onsite.

IRD construction management staff, CMC staff and the local authorities coordinated closely throughout project implementation to achieve very good safety measures by following up all the issues on daily basis. Safety arrangements were made on the site on a daily basis during the implementation of all project activities and personal protective equipment, such as hard hats and reflective safety vests, were distributed and used by all IRD and the subcontractor employees on site, as well as any visitors to the construction area. Adequate quantities of the personal protective equipment were available at all times and sufficiently covered the project needs throughout the construction period. Road closures and detours were clearly marked with flagmen directing traffic as required. Active and on-going work areas utilized warning tape and mini steel guardrails to prevent accidents, and daily dust mitigation measures were implemented to minimize disruption and inconveniences to the local population. IRD actively engaged the surrounding community to keep them aware of planned activities and, in many instances, performed additional work to improve access to residential and commercial settings. The local community and its political leaders were very satisfied with IRD's "customer" focus and positive attitude to help solve any problem.

During the project implementation no Notice of Unsafe Conditions "NUCs" were issued while two Accident Investigation Reports "AIRs" were issued; AIR-00002-JNT-01-A & AIR-00002-JNT-02-A

The following is the summary of the two incidents:

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AIR-00002-JNT-01-A

- Location: Surif work site (St. 7+880)
- Time/Date: 12-Feb-2013, 2:00 PM
- Description: While a labor was unloading pipes delivered to the stockpile area, one of the pipes slid on to the labor's right hand and broke two of his fingers, the laborer was transferred to the emergency room and immediately treated for his injury
- No. of Workers Impaired: 1

AIR-00002-JNT-02-A

- Location: Surif work site (St. 1+800)
- Time/Date: 10-March-2013, 2:00 PM
- Description: While the welding inspector was checking the pipe angle inside the trench he slid in the trench and was diagnosed with a minor fracture in the bottom of his left foot. The Welding Inspector was transferred to the emergency room of Al-Ahli Hospital for immediate medical treatment.
- No. of Workers Impaired: 1

The accident statistics during the project implementation can be summarized as follows:

Particulars	Current Month
First Aid Cases	0
Lost Time Cases	Throughout the project's life two minor accident occurred.
Total Hours Lost	10 days x 8 hrs. = 80 hrs.

For more details please see Annex B.15: Project Notice of Unsafe Conditions (NUC) Log and Annex B.16: Project Incident Log.

The total man-hours worked onsite were 75,496 working hours with reporting two incidents of 80 hours lost.

The work site was kept clear of debris and access to exits free from obstructions.

The Safety Plan/Safety Manual was applied and all workers and staff did their utmost to comply with safety regulations; IRD's slogan is “no compromise on safety – safety is first”.

The following photos illustrate compliance with the safety regulations and measurements:

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Photo #1: TO-02-JNT- Storing pipes in the storage yard. January 15 2013	Photo #2: TO-02-JNT- Safety steel barriers and dust control. February 28 2013	Photo #3: TO-02-JNT- Safety shade during welding. March 07, 2013
Photo#4: TO-02-JNT-Safety steel bar caps for chambers. March 21, 2013	Photo #5: TO-02-JNT- safety temporary traffic signs. March 24, 2013	Photo#6: TO-02-JNT- Safety pedestrian cross over trench. April 25, 2013
Photo #7: TO-02-JNT- Safety cones, flashing light and traffic signs installed during construction. April 25, 2013	Photo #8: TO-02-JNT- traffic signs installed before construction April 25, 2013	Photo #9: TO-02-JNT-Safety warning and lighting signs for chamber protection during night. May 29, 2013

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 Photo #10: TO-02-JNT- Safety steel bar caps for chambers. June 01, 2013	 Photo #11: TO-02-JNT- Safety chamber fence installed over concrete barriers for chamber protection. June 09, 2013	 Photo #12: TO-02-JNT- Installation of the traffic signs and steel barriers to protect the chamber. July 03, 2013
 Photo #13: TO-02-JNT- Safety concrete barriers for roundabout protection. July 25, 2013	 Photo #14: TO-02-JNT- Safety cones installed before asphalting second layer works. August 29, 2013	 Photo #5: TO-02-JNT- Installation of flashing light and cones. September 03, 2013

3.7 Traffic Plan

The Traffic Management Plan had been proposed and put in conjunction with the Safety Plan, Method Statement and Construction Schedule of the Project.

The traffic plan for Jaba` Nuba Main Transmission Pipeline was put in sequence in order to facilitate the traffic movements, and was linked to site. Working segments, number of working crew and equipment that were used in the construction were based upon an approved time schedule and equipment list submittal. Warning signs, flagmen, reflective chevron & barriers were implemented according to OSHA standards and as detailed in the traffic plan drawings and details. Each sign was written in English and Arabic languages.

The Traffic Management Plan included control for the traffic flow, provided, and maintained access for all local residents throughout the construction period. Access to residents was made passable for all proposed roads, using the suitable traffic plan for each phase, in order to obtain a maximum efficiency of safety, output and meet the period set for this phase of the project.

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1. Traffic Control for Al Jaba` Nuba Main Transmission Pipeline construction phases:-

The traffic management plan for Al Jaba` Nuba Main Transmission Pipeline was basically alienated into one approach contingent on the construction work space needs; the plan was studied and proposed with one lane maintained opened to facilitate public traffic movement with the necessary and required installation of directional signs and the presence of flagmen at all times during construction work. Since the available width of the existing road was appropriate for one-way passable traffic, there was no disturbance to public traffic during the project construction phases and no detour was needed. On October 24, 2012 the Engineer informed IRD to submit the Traffic Control Plan inclusive of all the required approvals from PA entities. As per initial discussion with the District Civil Liaison Offices (DCL) Beit El, the DCL did not require IRD to obtain their approval on the traffic plan for this project, since the road is closed and only very short segment is located in area C (between Stations 0+000 to Station 0+800). Implementation of the approved traffic control plan and the traffic management started in mid-January 2013 in conjunction with the first delivery of the pipes.

The traffic control plan for Al Jaba` Nuba Main Transmission Pipeline was divided into the following phases:

Phase 1: between stations 6+817 and St. 8+917: one lane passable

Phase 2: between St. 1+500 to 2+550 one lane passable, a detour was added between St. 2+550 and St. 2+700,

Phase 3: Night shifts: IRD and B&V have agreed to work at night shift for the period between March 14 to March 20, 2013 starting at 7:00 pm and ending at 7:00 am of the next day between stations 0+900 and 1+500. IRD took all safety measures for working during the night shift in addition to providing sufficient lighting facilities on site. IRD provided two lighting projectors in addition to two vehicles at both ends of the construction zone for any emergency or local residence transportation. Prior to starting the night shift construction, public notification had been made through the mosques and by distribution of flyers in coordination with Surif municipality. Moreover two project vehicles were mobilized at both ends with two flashers on top of them in case of any emergency.

Phase 4: from St. 0+300 to St. 0+900: work started using a trencher on April 22, 2013 and accordingly BV and IRD discussed the necessity of modifying the traffic plan to match the usage of the trencher between St. 0+300 and St. 0+900 with all the needed directional signs and two flagmen at both ends of the construction closure zone to provide accessible safe road for the local residents.

Phase 5: stations 4+243 and 2+693: on April 03, 2013, work started on the section of the pipeline between stations 4+243 and 2+693 where the existing road is appropriate for one-way passable traffic and there is no disturbance to traffic or need for detour.

Phase 6: 6+817 and St. 4+243: the existing road is appropriate for one-way passable traffic and there is no disturbance to traffic or need for detour.

Phase 7: 8+917to 10+740 : the existing road is appropriate for one-way passable traffic and there is no disturbance to traffic or need for detour from 8+917 to 9+200; a detour was added inside

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Kharas from St. 9+200 to St. 9+350 and another detour was added between stations 9+350 to 10+740.

Moreover, BV and IRD coordinated with Surif Municipality to close the road from St.0+900 to St.1+500 from 7:00 am to 2:00 pm during applying the hot mix asphalt layer. Finally with all the complicated existing underground utilities inside Kharas village IRD succeeded to execute the work without disturbance to the local residence in addition without any safety violation.

2. **Permanent Traffic Signs:**

Permanent Traffic Signs were installed just before starting any construction activities and were kept up to the end of the construction works. The signs were installed as detailed in the traffic control plans and drawings, such as:

1- On all the main project intersection points such as Surif Junction (at St. 2+700).
2- At the project end point (in Nuba village)
3- At all simple access roads that lead to the construction area.
4- At entrance of Kharas village from Surif side.

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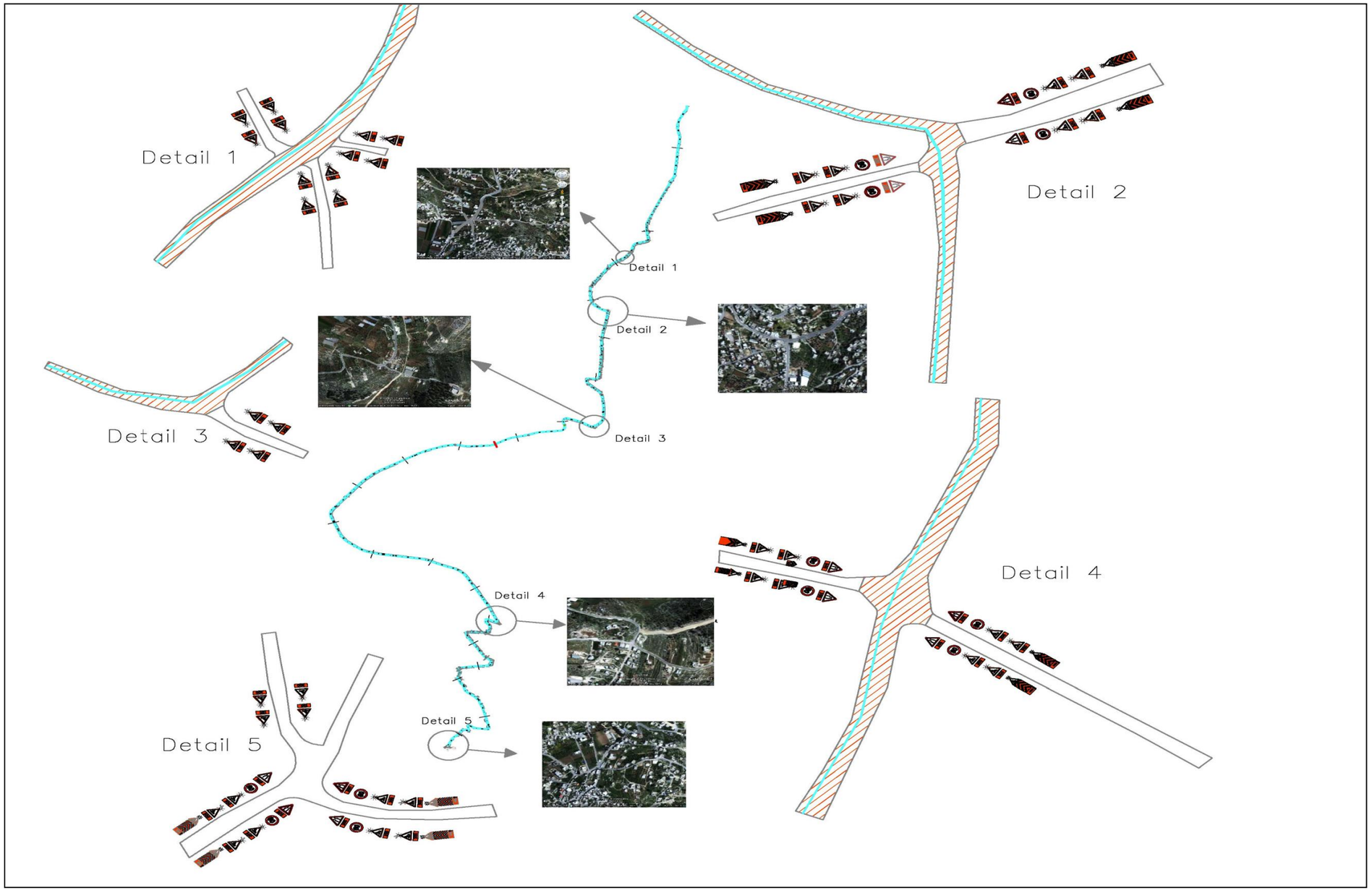
Schematic Map



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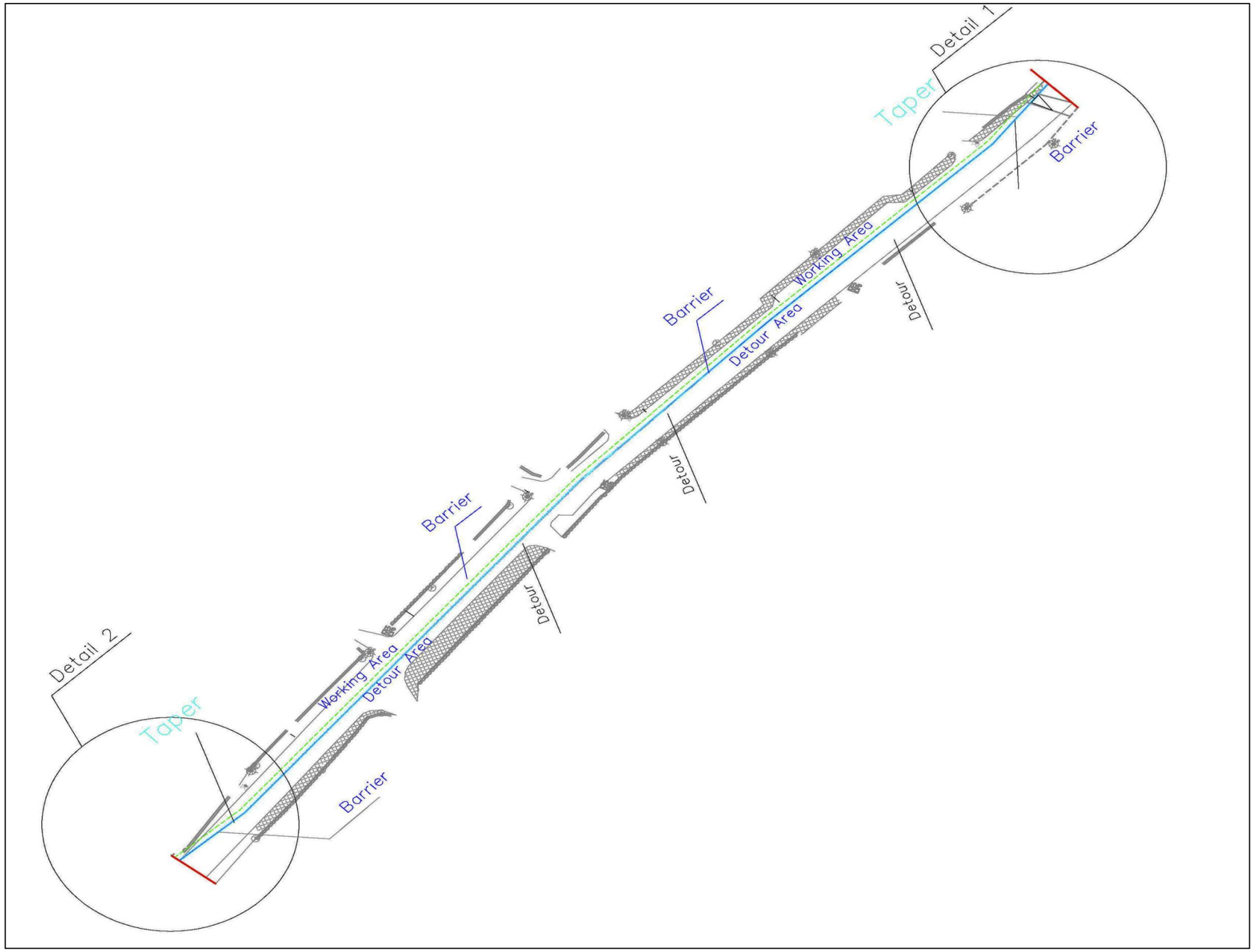
Typical Phase



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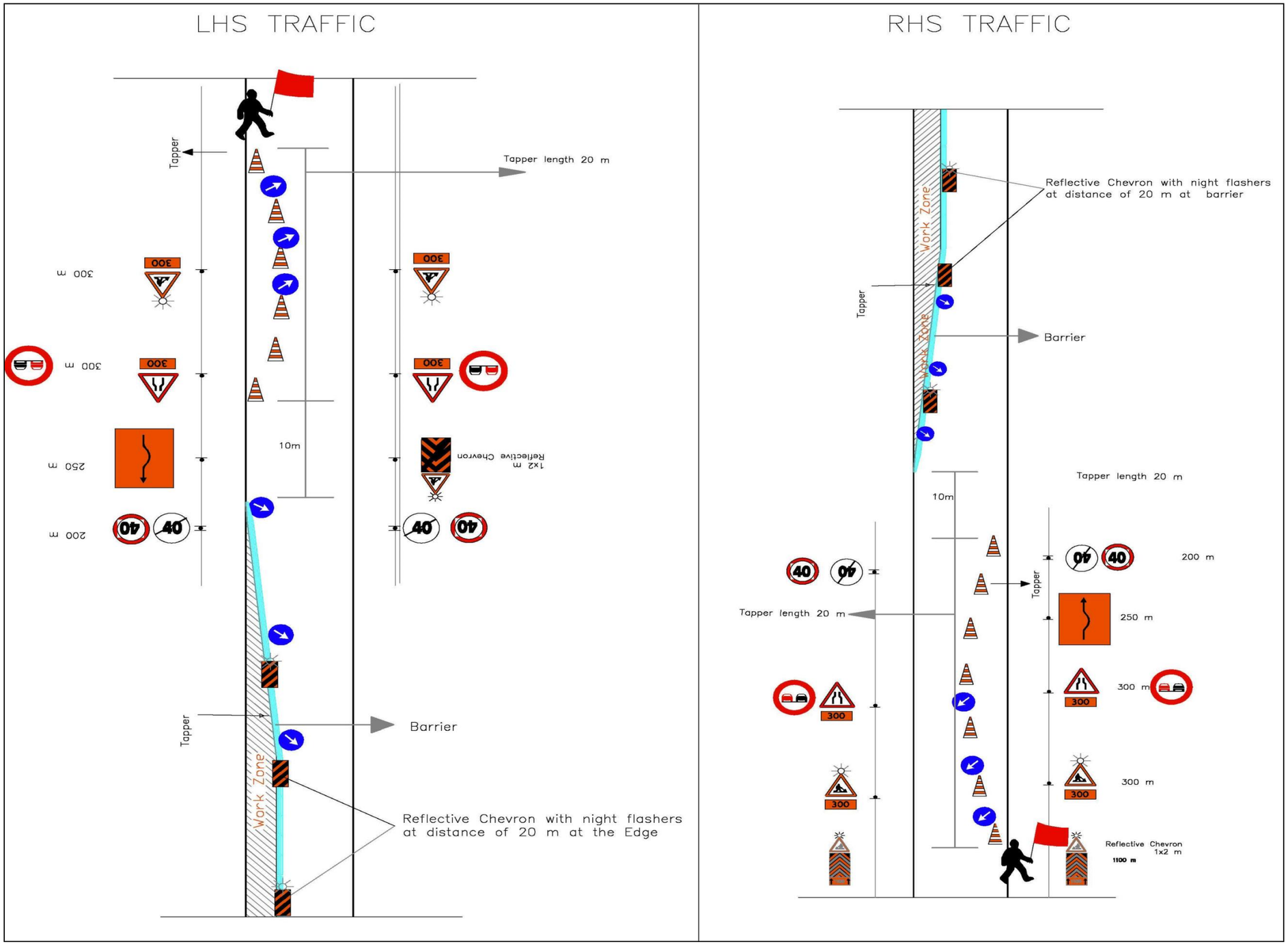
Traffic Control Section Details



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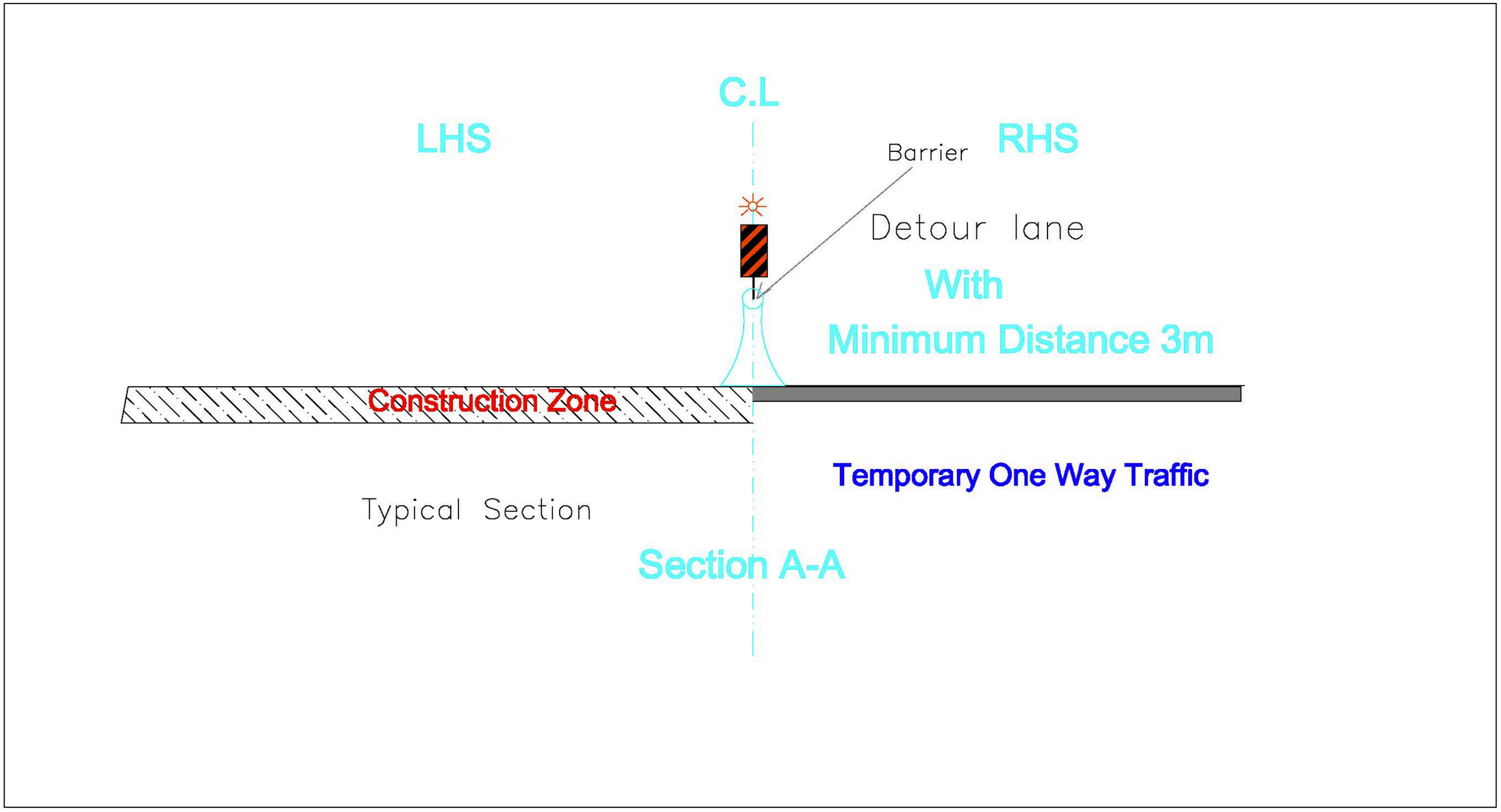
Typical Section Details



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3.8 Construction Risk Management

In the construction industry, risk management involves identifying risks, assessing them and then developing strategies to manage them. The level of risk in construction is due to the uniqueness of every project, the uncertainties introduced by the project stakeholders, regulatory protocols, and many other factors that are known unknown at the start of any project. For the Al Jaba` Nuba Main Transmission Pipeline Project, IRD engineers have undertaken a comprehensive risk management process using the methodology outlined below:

1. Risk Identification
   IRD's project engineers performed a dilapidation survey in conjunction with the selected local subcontractor immediately before the subcontractor commences their site work. Photographs and detailed journal records have been taken as part of the survey for recording the pre-construction condition of properties adjoining the project site and/or which may be influenced by the subcontractor's work.
2. Risk Impact Assessment
   For each risk identified, IRD assessed the risk event in terms of likelihood of occurrence and its impact on project objectives if the risk event occurs. Some construction site risks have to be accepted in order to have an opportunity to take advantage of their positive outcome.
3. Risk Response Planning
   For each risk in the Risk Response Plan, the Project Manager (PM) determined the options and actions to reduce the likelihood or consequences of impact to the project's objectives. The PM described the actions to be taken to mitigate the risk and then have a response/action taken when the risk event occurs (contingency plan). Finally, the PM assigned responsibilities for each agreed upon response.
4. Risk Response Tracking
   The PM documented the dates and the actions taken to mitigate the risk and the actions taken when the risk event occurred (contingency plan). In addition to documenting the subsequent actions taken and incorporating this information into the Risk Response Plan
5. Monitor Risk
   The PM established systematic reviews and scheduled them in the overall construction project schedule. These reviews were to ensure:
   - All of the requirements of the Risk Management Plan are being implemented
   - Assess currently defined risks
   - Evaluate effectiveness of actions taken
   - Status of actions to be taken
   - Validate previous risk assessment

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- Validate previous assumptions
- State new assumptions
- Identify new risks
- Risk Response Tracking
- Communications

6. Control Risk
   - Take corrective action when actual events occur
   - Assess the impact of the actions taken on the project
   - Identify new risks resulting from risk mitigation actions
   - Ensure the Project Plan (including the Risk Management Plan) was maintained
   - Ensure change control addressed risks associated with the proposed change
   - Revise Risk Response Plan
   - Communications

The risk identification and mitigation for TO-02-JNT project can be summarized as follows:

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
1	**Existing Pipe Culverts, Box Culverts, Simple Access Road Culverts and Road Crossing Culverts:** Existing Culverts: Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy equipment that may disturb and affect these existing culverts mainly due to the direct hit.	The contractor took all necessary precaution measures to protect the existing culverts in coordination with ministry of local government and related municipalities, and maintained tracking and monitoring its status. Furthermore all due care was taken to prevent any direct hit from the machines to the culverts.	St. 1+700	High	Constantly	TOM & PM
			St. 2+750			
			St. 3+700 RHS			
			St. 3+800 to St. 4+150 RHS			
			St. 3+880 RHS			
			St. 3+940 RHS			
			St. 4+450 RHS			
			St. 4+500 LHS			
			St. 4+600 LHS			
			St. 4+650 LHS			
			St. 4+780 LHS			
			St. 4+900			
			St. 5+260 LHS			
			St. 5+330			
			St. 5+540			
			St. 6+000			
			St. 6+050 RHS			

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
			St. 6+170 RHS			
			St. 6+300			
			St. 6+600 RHS			
			St. 6+750			
			St. 6+900 to St. 8+440 LHS			
			St. 7+020			
			St. 7+580 LHS			
			St. 7+660			
			St. 7+970			
			St. 8+240			
			St. 8+440			
			St. 8+800			
2	**Old concrete and stone Crossing Pipe Culvert:** Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy equipment that may disturb	The contractor took all necessary precaution measures to protect the existing culverts in coordination with ministry of local government and related municipalities, and maintained tracking and monitoring its	St. 0+950	High	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
	and affect this existing culvert mainly due to the direct hit. In this section mainly, heavy equipment usage was prohibited due to high risk.	status. Furthermore all due care was taken to prevent any direct hit from the machines to the culverts.				
3	**Three Pipes Road Crossing Culvert:** Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy equipment that may disturb and affect this existing culvert mainly due to the direct hit. In this section mainly, heavy equipment usage was prohibited due to high risk.	The contractor took all necessary precaution measures to protect the existing culverts in coordination with ministry of local government and related municipalities, and maintained tracking and monitoring its status. Furthermore all due care was taken to prevent any direct hit from the machines to the culverts.	St. 10+870 at Intersection	High	Constantly	TOM & PM
4	**Existing Stone Walls:-** Existing Stone Walls adjacent to road boundaries:	The contractor took all necessary precaution measures to protect the adjacent Stone Walls in coordination with local	St. 4+000 LHS St. 9+000 to St. 9+180 RHS	High	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
	Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy equipment that may disturb and affect these existing stonewalls mainly due to the direct hit.	government and related municipalities and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to these Walls.	St. 10+900 to St. 10+980 LHS			
5	**Existing Electricity Poles, Transformers, High Tension Electricity Poles: -** Existing electricity poles adjacent to the limit of construction: excavation for transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment may affect these poles mainly due to the vibration or direct hit to the poles.	The contractor took all necessary precaution measures to protect the adjacent electricity Poles, transformers and high-tension electrical poles, in coordination with electricity company, and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to these Poles.	St. 0+060 LHS St. 0+700 LHS St. 1+300 LHS St. 1+370 RHS St. 1+600 LHS St. 2+620 RHS St. 3+820 RHS St. 10+270 LHS	High	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
6	**Existing Manholes:-** Existing PALTEL, Sewage and Storm Water Manholes, Chambers and Gate Valves: Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy equipment may affect these walls mainly due to the direct hit to the manholes. Excavation after reaching level on top of those underground utilities was made manually in order to avoid any damage that may occur during excavation.	The contractor took all necessary precaution measures to protect the existing sewage, storm water and PALTEL manholes in coordination with local government and related municipalities, and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to these manholes.	St. 2+450 St. 3+000 RHS St. 3+000 RHS St.9+220 RHS St. 9+240 RHS St. 9+260 RHS St. 9+300 RHS St. 9+320 RHS St. 10+310 RHS St. 10+500 RHS St. 10+650 LHS St. 10+780	High	Constantly	TOM & PM
7	**Water Pipelines: -** Existing Water Lines adjacent to the construction: Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy	The contractor took all necessary precaution measures to protect the existing Water Pipelines in coordination with local government and related municipalities and maintained tracking and monitoring its	St. 4+000 LHS at road shoulder St. 4+040 to St. 5+070 RHS	Medium	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
	equipment may affect these pipelines mainly due to the vibration or direct hit to the water line.	status. All due care was taken to prevent any direct hit from the machines to these water lines.				
8	**House, agricultural house, staircase and transformer room:** Existing structures adjacent to the construction: Transmission Pipelines construction and asphalt reinstatement and other road related activities using heavy equipment may affect these structures mainly due to the vibration or direct hit to them.	The contractor took all necessary precaution measures to protect the adjacent objects (houses, staircases, agricultural area, rooms, etc.) in coordination with local government and related municipalities and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to these objects.	St. 0+060 LHS St. 1+600 LHS St. 0+700 to St. 0+850 LHS St. 1+220 RHS St. 1+270 RHS St. 10+270 LHS	High	Constantly	TOM & PM
9	**Underground Lighting and Electricity Cables:** Existing Underground Lighting and Electricity Cables: Transmission pipelines construction and asphalt reinstatement and	The contractor took all necessary precaution measures to protect the underground lighting and electricity cables, in coordination with electricity company, and maintained tracking and monitoring its status.	St. 1+650 to St. 1+800 St. 1+870 to St. 2+020	High	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
	other road related activities using heavy equipment may affect these cables mainly due to the vibration or direct hit cables. Excavation after reaching level on top of those underground cables will be made manually in order to avoid any damage that may occur during excavation.	All due care was taken to prevent any direct hit from the machines to these cables.				
10	**Existing Concrete Ditch:** Existing ditch adjacent to the limit of construction: excavation for transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment may affect the ditch mainly due to the vibration or direct hit.	The contractor took all necessary precaution measures to protect the existing concrete ditch in coordination with ministry of local government and related municipalities, and maintained tracking and monitoring its status. Furthermore all due care was taken to prevent any direct hit from the machines to the ditch.	St. 8+440 RHS	Low	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
11	**Existing Telephone Poles: -** Existing telephone poles adjacent to the limit of construction: excavation for transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment may affect these poles mainly due to the vibration or direct hit to the poles.	The contractor took all necessary precaution measures to protect the adjacent Telephone Poles, in coordination with PALTEL, and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to these Poles.	St. 0+900 to St. 0+950 LHS St. 3+200 LHS	High	Constantly	TOM & PM
12	**Existing Cave:** Existing cave at station 1+000 LHS: excavation for transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment may cause	The contractor took all necessary precaution measures to protect the existing cave, in coordination with local government and related municipalities and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to the cave.	St. 1+000 LHS	High	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
	dangerous soil collapse due to the cave existence and due to the vibration or direct hit near the cave area.					
13	**Existing Deep Excavation:** Existing deep excavation used as a dump landfill at station 7+800 LHS: excavation for transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment may cause dangerous falling down of the machines during construction into the steep excavation area and thus cause a high risk.	All due care was taken during excavation works for the transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment that may have caused dangerous falling down of the machines during construction into the steep excavation area and thus cause a high risk.	St. 7+800 LHS	High	Constantly	TOM & PM
14	**Existing trees adjacent to the limit of construction:** Existing trees adjacent to the limit of construction:	The contractor took all necessary precaution measures to protect the adjacent trees, in coordination with local	St. 0+900 to St. 0+950 LHS	Medium	Constantly	TOM & PM

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Risk Item No.	Identification of Risk Source	Risk Management Mitigation	Location	Degree of Risk	Response Tracking/ Monitor and Control	Responsibility
	excavation for transmission pipelines, pipelines laying and backfilling in addition to base course compaction, asphalt paving and other road related activities using heavy equipment may affect the trees mainly due to the vibration or direct hit.	government and related municipalities and maintained tracking and monitoring its status. All due care was taken to prevent any direct hit from the machines to the trees.	St. 0+950 RHS			

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3.9 Quality Control Program

The implemented water project complied with the contract requirements and specifications and throughout the construction period, the approved quality control plan / quality assurance manual was applied and every effort was made to assure compliance with the specifications and drawings. All construction activities were closely monitored to ensure that the plans and specifications of materials were properly identified and conformed to the contract specifications and drawings.

The QC program was managed by the QC Manager. QC Manager reported directly to the Program Director of IRD, Inc. The QC Manager coordinated and cooperated with the Site Project Managers, but had the required freedom to act independently.

The QC Manager was responsible for implementing the Quality Control Program, providing direction for the QC Staff, issuing nonconformance reports and stop work orders, preparing all submissions and reports that are required by the contract documents.

IRD used the various monitoring and reporting forms when conducting required tests. All suppliers were monitored and tested prior to acceptance.

In February 19, 2013, IRD received a "Non-Compliance Notice" No. AIR-02-JNT-C-E-001 regarding the quality of the base course material delivered to the site. IRD took immediate corrective action to resolve this issue; the following is a summary of the corrective action taken by IRD:

1. The rejected base course material truck was removed directly from the site.
2. The contract with the base course material supplier was terminated. A new contract with a different supplier was signed.
3. The frequency of testing of the delivered material by the lab representatives was increased to ensure that the delivered base course material complies with the specifications requirements.
4. All the delivery tickets from the stone crusher were collected and checked on a daily basis.
5. Trenches backfilled with base course were tested as per the specification requirement. All failed material was completely removed from the trench. Removal of failed/rejected base course material was from station 8+200 to station 7+800. Failed base course was replaced with new approved base course.
6. All delivered base course material for backfilling was mixed onsite to provide a homogenous mixture.
7. The delivered base course material is stockpiled at a certain storage area close to the site to be inspected before the delivery to backfill the trenches.
8. The contractor's QC team conducted a site visit to the crusher stones to check the quality of the produced /delivered materials. Several visits were scheduled to be conducted to the stones crushers to closely monitor and to check all materials before delivery to the sites.
9. A joint visit by IRD QC team and the Engineer was conducted to Building Center Laboratory to witness the testing of the collected base course samples from the site.

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In total, there were 210 lab tests for different types of installed materials, one test submittal was retracted, six test submittals were rejected but the rejected material was removed from JNT site. All remaining tests passed and complied with technical specifications and QA/QC requirements. Regarding failed tests the following summarize failed tests, the reason behind failure and IRD`s corrective measures taken:

1-Sieve analysis, CBR and proctor test report TEST-02-JNT-001 submitted in Dec.31, 2012 for Surif St. (0+900) was rejected; IRD has replaced failed material immediately after the notification from the Lab.

2- Aggregate testing report for crushed aggregates size/single size and aggregate testing report for natural sand /bedding material TEST-02-JNT-002 at St. (05+200) and (0+900) submitted in Jan.02, 2013 was rejected; IRD has replaced failed material immediately after the notification from the Lab.

3- Test report for the Base Course material between St. 8+200 and St. 7+800 conducted in February 13, 2013 has failed. IRD has replaced failed material immediately after the notification from the Lab.

4- A concrete compressive strength TEST-02-JNT-047 submitted in April 23, 2013 failed due to low compressive strength result that was conducted for the placed ready mix concrete (Specified Strength of Grade B-350) for the walls of air valve chamber at station 7+885. The tested concrete was delivered to the site during the problem with the Israeli Cement Company (NESHER). The average value of the achieved compressive strength was 260 kg/cm2 at 28 days. According to ACI-318, it is recommended to test the hardened concrete by means of non-destructive testing (Schmidt hammer or ultrasonic testing) to check the general concrete conditions, following the NDT and to verify the in-place concrete strength, the core test is recommended (ASTM C-142).

5- A concrete compressive strength TEST-02-JNT-066 submitted in May 12, 2013 failed due to low compressive strength result that was conducted for the placed ready mix concrete (Specified Strength of Grade B-350) for the walls of washout chamber at station 1+700. The tested concrete was delivered to the site during the problem with the Israeli Cement Company (NESHER). The average value of the achieved compressive strength was 229 kg/cm2 at 28 days. According to ACI-318, it is recommended to test the hardened concrete by means of non-destructive testing (Schmidt hammer or ultrasonic testing) to check the general concrete conditions, following the NDT and to verify the in-place concrete strength, the core test is recommended (ASTM C-142). On May 16, 2013 three core-testing samples were collected from the walls of the air release valve chamber at station 7+885 by authorized representatives from Building Center Lab. On May 21, 2013 three core-testing samples were collected form the walls of the washout chamber at station 1+700 by authorized representatives from Building Center Lab and all three core-tests passed.

6- Bedding Material (Single Size) TEST-02-JNT-109 submitted in June 04, 2013 due to non-compliance with the minimum project specification limit through sieve No. (1/2”) which is equal to 12.5 mm for single size (Foul Size) in the stockpiling area at the project site. The minimum requirement for single size foul size to pass sieve No.1/2” according to ASTM C136-10 is 25 whereas the obtained value was 2.3. On May 12, 2013 single size-foul size testing samples were collected from the stockpiling area at the project site by authorized representatives from Building Center Lab. The test report result was submitted to the engineer on June 04, 2013; the Engineer responded on June 05, 2013. The delivered material was visually inspected onsite and rejected. Following the visual inspection,

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testing samples were collected from the delivered truckload and then removed directly from the site and prior to obtaining the test result. A copy of the test result was sent to the stones crusher (material supplier) to verify the reason of rejecting the material removing it from the site.

Radiographic testing:

1- A radiographic examination/RT testing report No. 8132338/13 was conducted by MOREX 71 LTD for 10-Inch, 12-inch pipes and fabricated mitered bends for twenty joints at stations between St. (08+208) and St. (08+165) and at storage yard. The sample was taken in Feb.12, 2013; the test report was submitted to the CMC in Feb.27, 2013 under TEST-02-JNT-013 and was approved.

2- A radiographic examination/RT testing report No. 8132677/13 was conducted by MOREX 71 LTD for pipes and fabricated mitered bends at stations between St. (01+960) &St. (01+900) and storage yard at St. (05+200). The sample was taken in Mar.12, 2013; the test report was submitted to the CMC in Mar.17, 2013 under TEST-02-JNT-026 and was approved.

3- A radiographic examination/RT testing report No. 8133116/13 was conducted by MOREX 71 LTD for 10" welded steel mitered bends (20 pieces) with RT-Films. The sample was taken in April 30, 2013; the test report was submitted to the CMC in May.07, 2013 under TEST-02-JNT-065 and was approved.

Please refer to the three RT testing attached to Annex B9: Project Laboratory Tests.

Hydrostatic pressure testing

The hydrostatic pressure testing was conducted as per the approved subject submittal and bellow table summarizes the pipeline pressure testing details:

#	Tested section	Date test conducted	Pressure gauge stations	Pressure gauge readings	Pressure test duration
1	Pipes section L=4,225 m, from St. 0+005 to St. 4+230 (pipes 10 and 12-inchies dia)	July 17, 2013	Guage#1 St. 3+136 Gauge#2 St. 0+005	Gauge#1-42 bar Gauge#2-34 bar	2 hours
2	Pipes section L=6,540 m, from St. 4+200 to St. 10+740 (pipes 10-inchies dia)	July 22, 2013	Guage#1 St. 6+770 Gauge#2 St. 9+180	Gauge#1-50 bar Gauge#2-38 bar	2 hours

Please refer to the two hydrostatic pressure tests attached to Annex B9: Project Laboratory Tests.

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The following table and chart summarize the statistical status of the tests conducted for the various types of materials used for the project.

Type of Material Test	No. of Tests Passed	No. of Tests Failed	Total No. of Tests Conducted
Concrete test	63	2	65
Asphalt/loose sample test	26	0	26
Compaction test	25	0	25
Core test	6	0	6
Soil and soil aggregate test	46	2	48
Aggregate tests	30	2	32
Radio graphic examination	3 (The three Radio graphic examination testing reports are attached to Annex B9-Project Laboratory Tests	0	3
Reinforcement steel bars test	1	0	1
Precast tops for inspection chambers test	1	0	1
Microbiology test	2	0	2
Chlorine test	1	0	1
Total	204	6	210

Quality Control Testing Statistical Analysis

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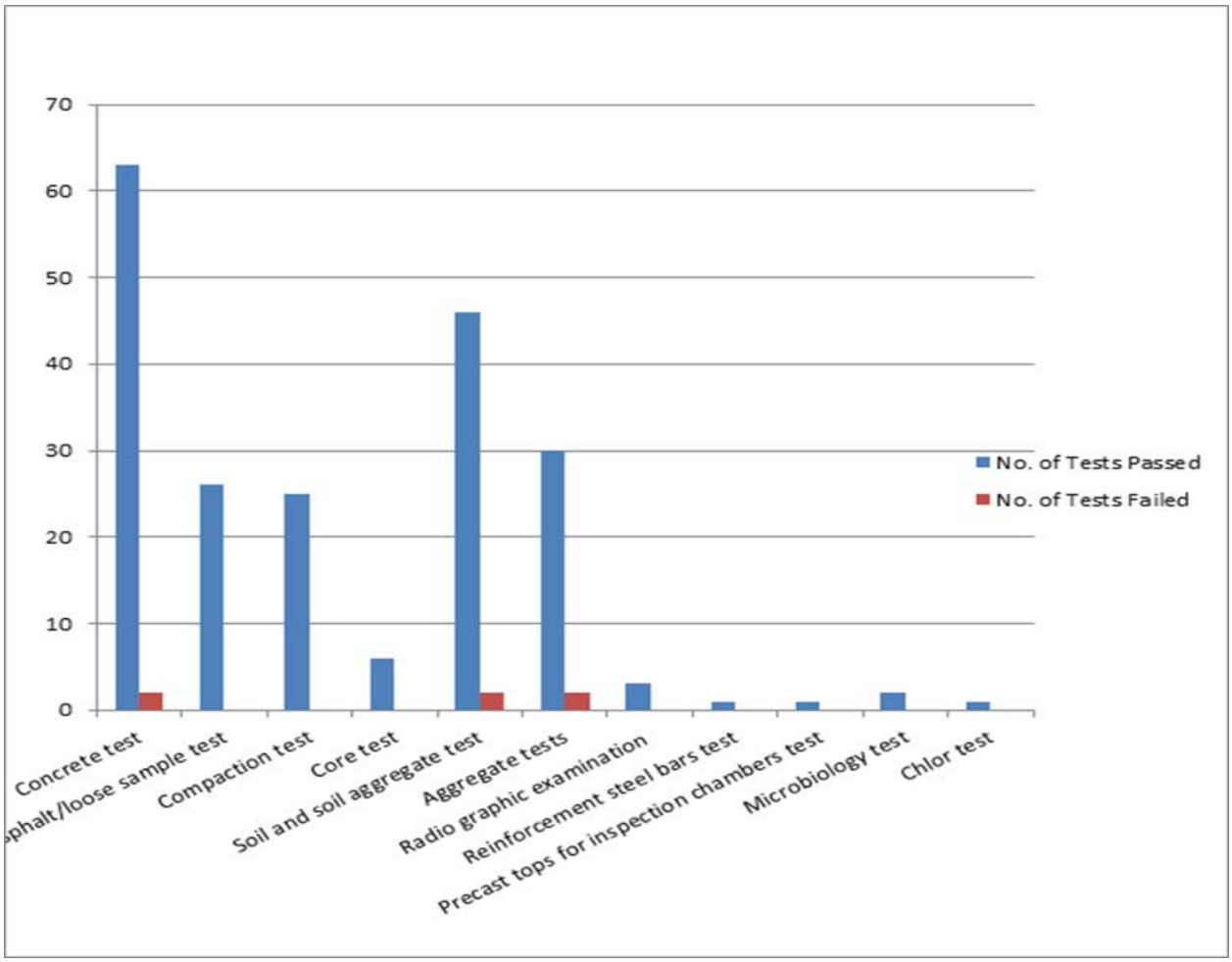

Please review Annex B.9: Project Laboratory Tests Log for further details.

The photographs below show examples of lab tests taken on site.

Photo #01- TO-02-JNT- Collecting testing samples from the delivered single size aggregates by representative from Building Center Lab. February 04,2013	Photo #02- TO-02-JNT- Collecting testing samples for the placed concrete (Station 8+440). February 05,2013	Photo #03- TO-02-JNT- Labeling the collected concrete compressive strength testing samples. March 17,2013

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Photo #4- TO-02-JNT- Witnessing the concrete compressive strength tests at Building Center Lab. April 22, 2013	Photo#5-TO-02-JNT-Collecting testing samples for base course compaction test at station 3+075. May 08, 2013	Photo #6- TO-02-JNT- Testing the temperature for delivered asphalt using thermometer June 12, 2013
Photo #7- TO-02-JNT- Piping trench compacted base layer samples for field density testing. July 01, 2013	Photo #8- TO-02-JNT- Collecting testing samples from the delivered base course for Al-Jaba`a road August 22, 2013	Photo #9- TO-02-JNT- Cubical concrete samples of the casted concrete protection of Al Jaba Road from station 0+300 to 0+900. September 07, 2013
Photo #7- TO-02-JNT- Piping trench compacted base layer samples for field density testing Sep 30, 2010	Photo #08- TO-02-JNT- Asphalt Core Test Samples By Building Center Representatives. Oct 10, 2010	Photo #09- TO-02-JNT Asphalt Core Test Sample After Extracting. Oct 12, 2010

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3.10 Site Facilities

In accordance with the contract requirements, IRD furnished and equipped the office for CMC/B&V use throughout the contract period of performance, and was responsible for all utility costs imposed on the CMC/ B&V office. IRD selected to rent an existing structure of 150 m^2 for the use of the CMC as a secondary field office and supplied the office with needed furniture, telecommunications and equipment. The selected facility was suitable for long-term use, and was verified to conform to applicable plumbing, electrical and structural codes in effect. The Secondary office if located in Surif village at the following coordinates:

N:116762.62, E:155744.60

The following table provides a summary of the layout of the engineer secondary field office:

No.	Item	Specification Requirement	Actual for Proposed Office
1.	Total Office Area	N.A.	Approximately 150 m^2
2.	Conference Room	N.A.	1
3.	Reception and File Area	N.A.	1
4.	Offices	2 offices	2 offices
5.	Kitchenette	1	1
6.	Bathroom	1	2
7.	Small Storage Room	1	1

IRD offices: IRD also rented a suitable office to accommodate IRD's project staff. The following map shows the CMC/ B&V and IRD office locations.

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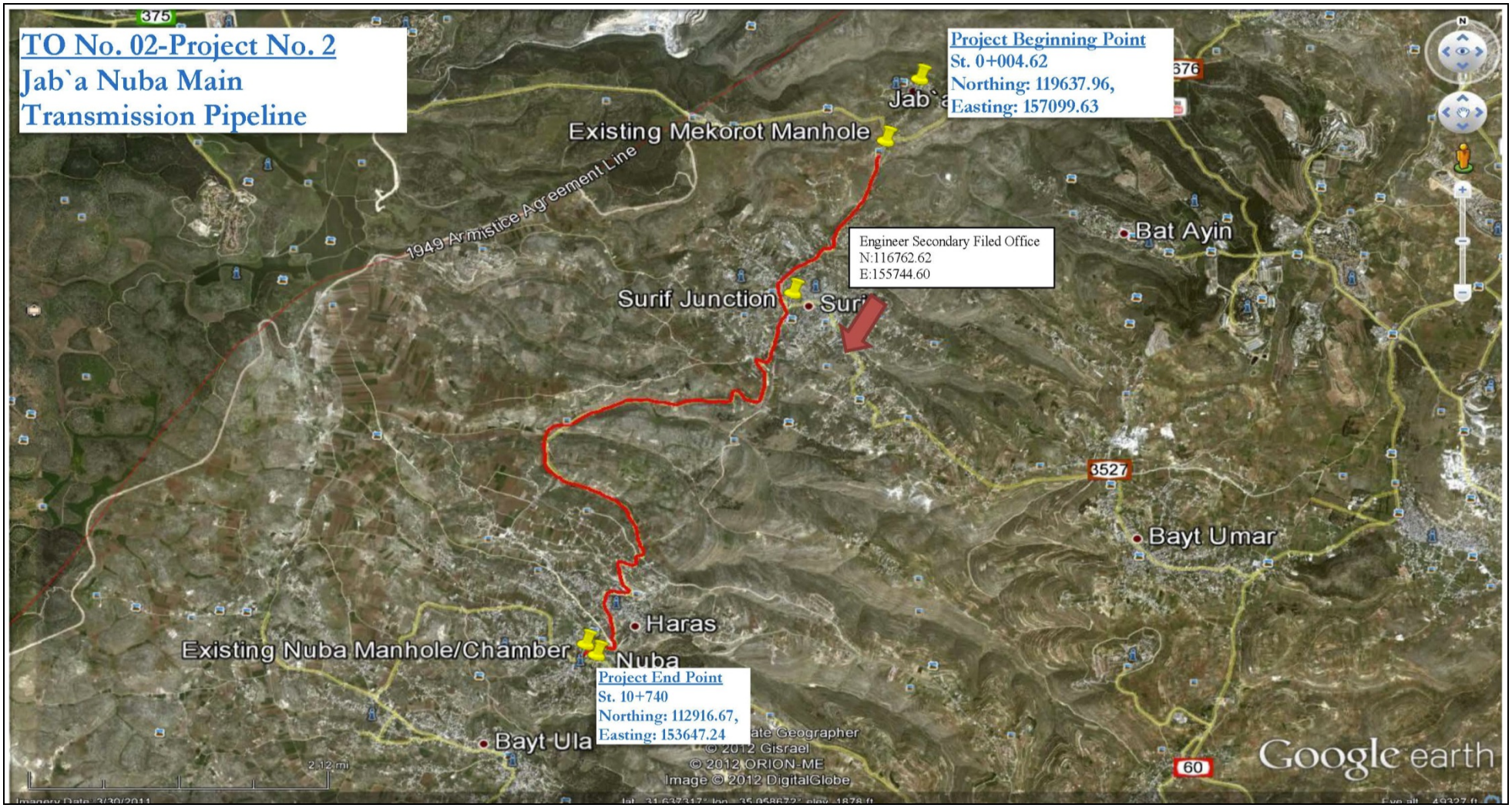
Engineer Field Office Location for JNT Project



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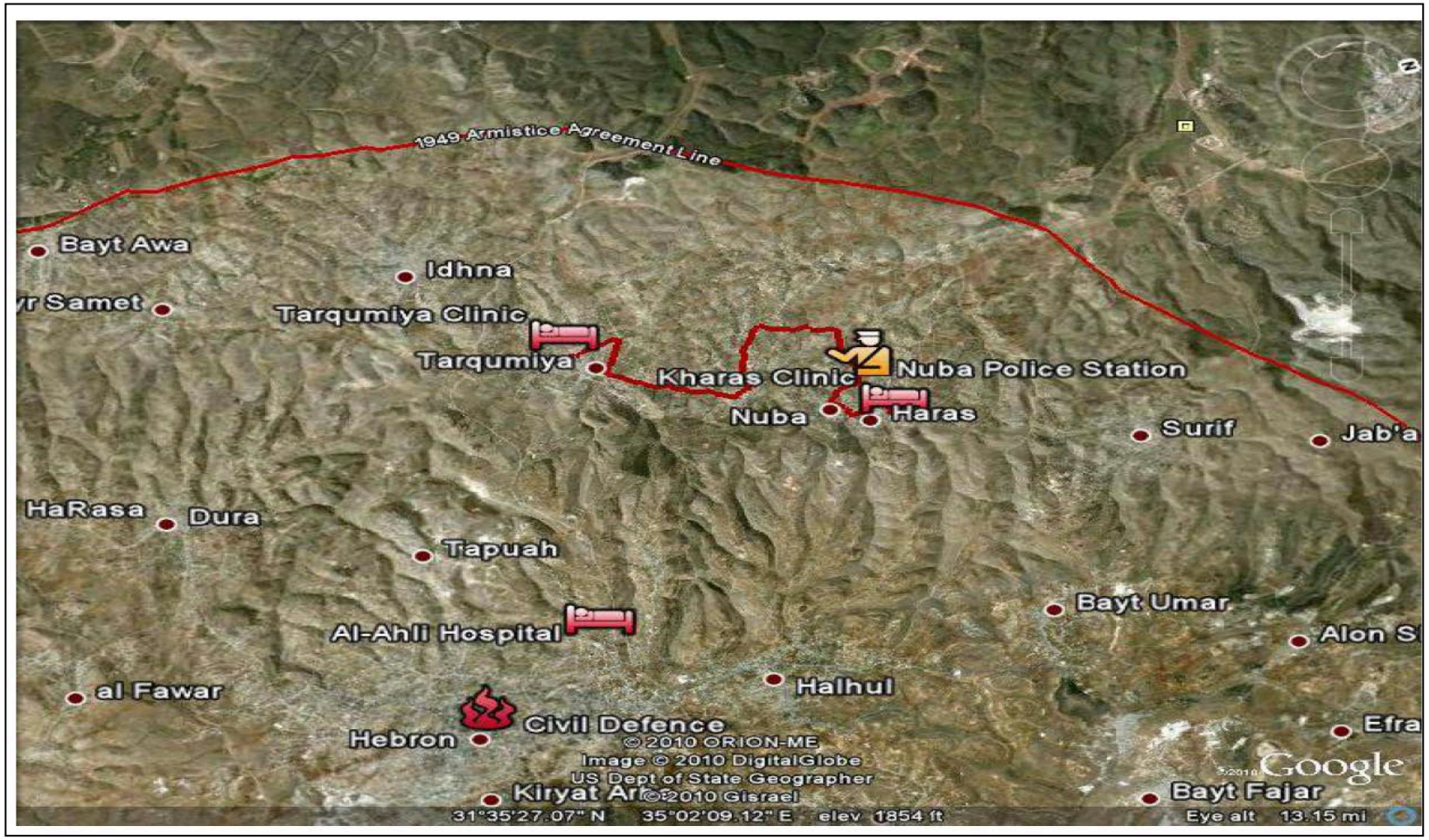
Emergency contact locations for JNT Project



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3.11 Communication and Correspondence

Throughout the project duration, IRD maintained excellent comunications with USAID, CMC/B&V and local community to maximize project benefits.

In the early phases of the project's implementation IRD's public relations specialist promoted the project and established good realtions with the local communities. This was achieved through the delivered flyers and regular contact with the inhabitansts. The flyers were prepared in coorporation with CMC/B&V and approved by USAID.

The following flyer was distributed for TO-02-JNT

USAID
من الشعب الأمريكي

سلطة المياه الفلسطينية
Palestinian Water Authority

النشاط في تسارع

بتمويل من الوكالة الأمريكية للتنمية الدولية (USAID) وبالتعاون مع سلطة المياه الفلسطينية، تتم هذه الأيام أعمال إنمائية تهدف إلى تزويد قرى الجبعة وصوريف وخربة الدير ونوبا وخاراس بمياه الشرب.
تشمل أعمال الإنشاء تركيب خط ناقل بطول 11.4 كم من قرية الجبعة إلى قرية نوبا، بالإضافة إلى إنشاء مناهل أرضية لمختلف أنواع المحابس المطلوبة ومن ثم إعادة المناطق التي استكمل العمل فيها إلى وضعها الطبيعي.

سيعمل هذا المشروع على توفير مياه الشرب بشكل دائم لما يزيد عن 57,000 مواطن فلسطيني في المناطق المذكورة لدى الإنتهاء من تنفيذه في شهر أيلول 2013.

يتم تنفيذ المشروع من خلال مؤسسة الإغاثة والتنمية الدولية (IRD) وبإشراف من شركة بلاك أند فيتش.

نأسف لأي ازعاج قد تتعرضون له أثناء تنفيذ المشروع، فنحن نعمل لخدمتكم.

إذا كانت لديكم أية استفسارات يرجى الإتصال بسلطة المياه الفلسطينية .

مع الإحترام،،

الوكالة الأمريكية للتنمية الدولية (USAID)
برنامج البنية التحتية

TO-02-JNT-Permanent project sign installed at station 4+200 after completion of the project

After the completion of the project, two permanent project signs were installed in a visibile location to promote the porject, and inform the public that the project is funded by the American People. The permenant signs were installed in September 24, 2013 at St.4+200 LHS & St. 10+700.

The following is the final approved permanent sign text for TO-02-JNT:

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Additionally, complete and full communications were made available between all contract parties as per IRD's organizational chart. Daily communication on the site between IRD staff and CMC/B&V RE were conducted through the daily joint construction reports, site instructions and other site communication documents.

3.12 Coordination

IRD had coordinated closely with all concerned parties and held regular meetings with CMC/B&V engineers and staff from the local Village Councils. IRD exerted all efforts in order to ease the construction burden to the surounding people and worked dilegently to open access roads and "smooth" areas for community use. IRD also mainatined very close coordination with the PWA and DCL offices during the project implementation.

DCL Coordination

Throughout the duration of the project IRD maintained regular relations and communications with the District Civilian Liaisons (DCL) and the Palestinian Water Authority.

The following table summarizes the meetings held with the DCL during the project implementation:

Date	Attendees	Subject/Description
20-September-2012	1. Jafar Salhab, IRD Security Coordinator 2. Ivica Nisandzic, IRD CM/DPD 3. Hebron DCL Commander	Meeting with Hebron DCL to introduce the Project
17-October-2012	1. Jafar Salhab, IRD Security Coordinator 2. Ivica Nisandzic, IRD CM/DPD 3. Ibraheem Ansari, BV Security Coordinator 4. Bet El Water Commander 5. Bet El Projects Commander	Meeting at Bet El with Water Commander and Projects Commander to discuss the project
21-October-2012		Sending traffic plan to Bet El
23-October-2012	1. Jafar Salhab, IRD Security Coordinator 2. Ribhi Mustafa, IRD Safety Manager	Meeting with Bet El Transportation Advisor to negotiate the traffic plan
14-Nov-12	1. Jafar Salhab, IRD Security Coordinator 2. Ramallah DCL Commander	Meeting at Ramallah DCL to provide general update regarding progress of IRD projects

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Date	Attendees	Subject/Description
21-Nov-12	1. Jafar Salhab, IRD Security Coordinator 2. Ibraheem Ansari, BV Security Coordinator 3. Mekerot representative	Meeting with Mekerot representative at Jaba' Intersection to discuss the route of the pipeline and connections
21-Nov-12	1. Jafar Salhab, IRD Security Coordinator 2. Ibraheem Ansari, BV Security Coordinator 3. Bethlehem Commander	Meeting at Ramallah DCL to provide general update regarding progress of IRD's project and summarize the result of the meeting Mekerot
25-Nov-12	1. Jafar Salhab, IRD Security Coordinator 2. Ibraheem Ansari, BV Security Coordinator 3. Bet El Water Commander	Meeting at Bet El with Water Commander to discuss the pipeline connection with Mekerot
25-Nov-12	1. Jafar Salhab, IRD Security Coordinator 2. Jerusalem DCL Commander	Meeting at Jerusalem DCL to provide general update regarding progress of IRD projects
26-Nov-12	1. Jafar Salhab, IRD Security Coordinator	Sending the pipeline drawings to Mekerot office in Ramleh
29-Nov-12	1. Jafar Salhab, IRD Security Coordinator	Receiving letter from Mekerot providing details on how to commence work on the pipeline
2-Dec-12	1. Jafar Salhab, IRD Security Coordinator 2. Mekerot representative	Coordination with Mekerot to establish site visit date
3-Dec-12	3. Jafar Salhab, IRD Security Coordinator 4. Bet El Water Commander	Sending donation number request
4-Dec-12	1. Jafar Salhab, IRD Security Coordinator 2. Mekerot representative	Follow up with Mekerot regarding the site visit

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Date	Attendees	Subject/Description
4-Dec-12	3. Jafar Salhab, IRD Security Coordinator 4. Bet El Water Commander	Follow up with Bet El Water Commander regarding the donation number request
10-Dec-12	1. Jafar Salhab, IRD Security Coordinator 2. Mekerot representative	Meeting with Mekerot representative at the project site to determine the location of the pipeline connection
13-Dec-12	1. Jafar Salhab, IRD Security Coordinator 2. Mekerot representative	Follow up with Mekerot representative regarding determining the location of the pipeline connection
28-Jan-13	1. Jafar Salhab, IRD Security Coordinator	Site visit to JNT project with Hebron DCL order to discuss removing of the exiting soil barriers at St. 0+000
27-Jan-13	1. Ivica Nisandzic, IRD DCOP/CM 2. Ibrahim Ansari, BV Sec. Coordinator	JNT project update and discussing removing temporary barriers at St.0+ And St.0+246.
Thorough the period of March, 2013	1. Ivica Nisandzic, IRD DCOP/CM 2. Ibrahim Ansari, BV Sec. Coordinator	Regular coordination and communication (e-mails and over the phone) in order to get approval to remove temporary barriers at St.0+060
April 24, 2013	1. Jafar Salhab, IRD Security Coordinator 2. Ivica Nisandzic, IRD CM/DPD 3. Bethlehem DCL	Coordination for moving fittings to Israel.
April 28, 2013	1. Jafar Salhab, IRD Security Coordinator 2. Ivica Nisandzic, IRD CM/DPD 3. Bethlehem DCL	Coordination for moving fittings to Israel.
May 07, 2013	Mekerot representative, IRD	Locating the pipes at the site.
May 09, 2013	Mekerot	Follow up coordination with regards to the radiographic examination of the welds.

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Date	Attendees	Subject/Description
May 30, 2013	Mekerot	Meeting with Mecorot, discussing the requirement to connect JNT pipe to their pipe
June 2,2013	Mekerot	Follow up Mecorot response and comments for JNT shop drawings
June 5, 2013	Mekerot	Follow up Mecorot response and comments for JNT shop drawings
June 9,2013	Mekerot	Follow up Mecorot response and comments for JNT shop drawings
July 1, 2013	Hebron DCL	Site visit with Hebron DCL to JNT project, briefing them about the progress at the project
July 4, 2013	Hebron DCL	Coordination with Hebron DCL to open the barrier at Jaba' intersection
July 9, 2013	Site visit	Site visit to Jab'a intersection and coordination with Mekerot representative
August 22, 2013	Hebron DCL	Meeting with Hebron DCL and briefing them about the progress of the project.
Sep 8 & 9, 2013	Mekerot representative	Coordination with Mekerot representative regarding the project pipeline connection with Mekerot pipeline
September 11, 2013	Mekerot representative	Mekerot representative conducted a site visit to JNT project to check the pipe connection
September 21, 2013	Hebron DCL	Coordination with Hebron DCL regarding Israeli soldiers who came to Jaba' Junction and stopped the workers

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Date	Attendees	Subject/Description
October 10, 2013	Hebron DCL	Coordination with Hebron DCL for a site visit, regarding the situation at Jaba' intersection and the new asphalt and widening of the road
October 20, 2013	Hebron DCL site visit	Hebron DCL site visit to Jaba' intersection, explaining to them that the road status

3.13 Site Visits

During the construction period, there were many different visitors, including:

- **USAID**: Numerous USAID visits had been conducted during construction; this included management, engineering, contracts and administrative staff.
- **Local Authorities**: During construction, IRD coordinated regularly with Kharas, Jaba`, and Nuba village councils
- **PWA**: Numerous visits had been conducted during construction in order to follow up the progress and help coordinate the efforts of all involved parties.
- **CMC/B&V Ramallah Office**: Regular visits from the CMC/B&V Ramallah office had been conducted to follow up and check progress and coordination efforts.

Site Visit Photos:

Photo #1: TO-02-JNT- Discussing the connection of the existing Mekorot water line at Al-Jab'a in the presence of Mekorot representatives, Ovad Badri and Shalom Arkabi.

November 21 ,2013

Photo #2: TO-02-JNT- Hebron Municipality engineer, technician and in presence of Surif municipality. The technician was checking the locations of the existing underground high voltage cables

December 20,2013

Photo #3: TO-02-JNT- PWA representatives checking the work progress.

February 05,2013

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Photo#4: TO-02-JNT- Site visit by USAID and B&V representatives.

February 07, 2013

Photo #5: TO-02-JNT- Jawwal engineers checking the signal strength at the connection chambers locations.

March 24, 2013

Photo#6: TO-02-JNT- Visiting the project site by USAID representative to check the work progress at St. (02+500).

March 28, 2013

Photo #7: TO-02-JNT- Joint site visit with Paltel team at Kharas village to mark the underground cables and conduits.

April 22, 2013

Photo #8: TO-02-JNT- Excavating pits to locate the existing Mekerot lines at St. (00+000) in the presence of Mekerot representatives.

May 03, 2013

Photo #9: TO-02-JNT- PWA QC team visit to the project site at St. (04+650).

May 13, 2013

Photo #10: TO-02-JNT- Joint visit with Arc Eyes team to discuss the alternate UT testing method.

May 20, 2013

Photo #11: TO-02-JNT- Joint visit with PWA and Nuba municipality representatives to confirm the location of Nuba-Hata chamber.

May 20, 2013

Photo #12: TO-02-JNT- Joint site visit with Kharas municipality members.

June 03, 2013

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Photo #13: TO-02-JNT- USAID COR site visit. August 20, 2013	Photo #14: TO-02-JNT- COR Bi-weekly Progress meeting at B&V site office. September 03, 2013	Photo #15: TO-02-JNT- Onsite training by Bermad for WBWD staff. October 30, 2013

For more details, please see Annex B.4: Project Site Visit Log and Site Visit Photos.

3.14 Operation, Maintenance, testing, commissioning and Training

- Siemens training in JNT office on Oct. 02, 2013 had been conducted for Electromagnetic flow meters, the meeting aimed to also discuss the plan of one month of commissioning and testing for WBWD and BV staff; unfortunately Nobody from PWA/WBWD attend the training.

- Presentation and training for Electromagnetic flow meters by Siemens for WBWD staff in WBWD offices in Ramallah: On Oct. 09 and Oct.27, 2013 IRD conducted a training presentation by Siemens for WBWD engineers in Ramallah Office.

- Onsite training for Electromagnetic flow meters by Siemens for WBWD staff: On Oct.28, 2013 the training took place on site, WBWD attendees are Eng. Raed Yacoub, Eng. Riyad Abu Ayyash and Eng. Hussni Sharabati along with JNT site engineers from BV, IRD and Brothers Company. The training had been conducted for the implementation of the software and the configuration of the electromagnetic flow meters installed at JNT chambers.

- Onsite Bermad training for WBWD staff was held on Oct.30, 2013.

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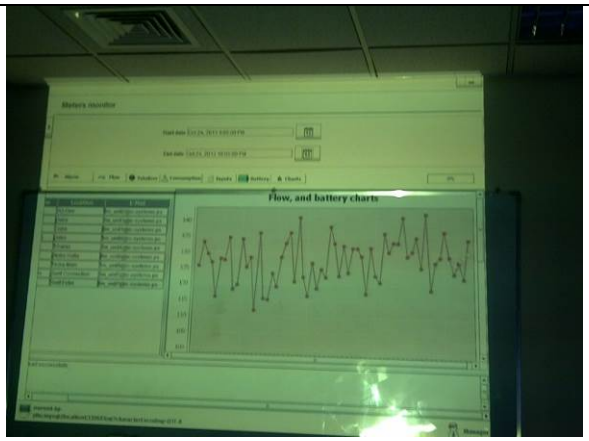
 Photo No.1--JNT: Siemens Training Presentation Photo Date: 27 Oct 2013	 Photo No.2--JNT: Siemens Training Presentation Photo Date: 27 Oct 2013
 Photo No.3--JNT: Siemens Training Presentation Photo Date: 27 Oct 2013	 Photo No.4--JNT: Siemens Training Presentation Photo Date: 27 Oct 2013

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Photo No.1--JNT: Siemens Training on site

Photo Date: 28 Oct 2013

Photo No.2--JNT Siemens Training on site

Photo Date: 28 Oct 2013

Photo No.3--JNT: Siemens Training on site

Photo Date: 28 Oct 2013

Photo No.4—JNT: Siemens Training on site

Photo Date: 28 Oct 2013

Photo No.5--JNT: Siemens Training on site

Photo Date: 28 Oct 2013

Photo No.6--JNT: Siemens Training on site

Photo Date: 28 Oct 2013

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- Testing and Commissioning: During the month of testing & commissioning at JNT and after connecting the existing networks of Al Jabaa, Deir Mousa, Khirbet Aldeir, Kharas and Nuba Hata to the newly installed transmission line (in the respective connection chambers), it became apparent that the estimated demand quantities of water for some of the networks must be increased due to the existence of several agricultural areas connected to the same existing networks (Al Jabaa, Kherbet Aldeir and Deir Mousa). The issue was resolved in coordination with BV and WBWD through adjusting the flow control valves orifice plates in order to increase the flow rate of water and to avoid water supply interruptions during the peak hours.
  As for Al Jabaa connection, another issue was encountered. The pressure at the Mekerot pipeline connection point was less than estimated which made the pressure drop across the main pressure control valve more than calculated and then what was pre-set on the main pressure control valve. To make sure there is required pressure after the main pressure control valve and to make sure that potable water will reach the farthest consumers, the main control valve has been upgraded with an additional accessories and options as per factory (Bermad) instruction.

  The delivered quantities of the water, for each community for the period between October 14th and November 9th, 2013 according to the Electro-Magnetic flow meters readings are presented in the table below:

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Date	MAIN connection chamber m³/day	Al Jabaa m³/day	Der Mosa m³/day	Surif Connection m³/day	Kherbet AlDer m³/day	Surif Future m³/day	Kharas m³/day	Nuba main m³/day	Nuba + Hata m³/day
14-Oct-13	4432	0.1	115	1132	274	2866	991	1892	1838
15-Oct-13	3742	0.1	139	735	197	2640	750	1898	1821
16-Oct-13	4205	0.2	125	1099	345	2572	770	1815	1755
17-Oct-13	4465	0.2	128	1153	293	2842	1007	1856	1801
18-Oct-13	4419	0.3	125	1002	234	2995	1019	1992	1935
19-Oct-13	4357	0.4	135	979	31	2882	1015	1887	1809
20-Oct-13	4269	1.3	71	836	385	2941	1005	1949	1239
21-Oct-13	4333	2.133	58	958	324	2957	991	1983	1919
22-Oct-13	4412	1.8	70	926	270	3097	995	2121	2066
23-Oct-13	4566	0.71	69	968	319	3153	1021	2159	2097
24-Oct-13	4456	0.13	110	988	360	2958	1003	1986	1919
25-Oct-13	4654	0.14	129	1088	394	3027	1091	2027	1973
26-Oct-13	4613	0.13	109	1153	333	2977	1007	1980	1923
27-Oct-13	4024	0.13	113	725	138	3002	971	2018	1976
28-Oct-13	4252	0.15	69	876	217	3076	862	2261	1997
29-Oct-13	4392	11.2	47	1154	227	2908	841	2060	2102
30-Oct-13	5366	247.8	102	1615	265	3106	890	2226	2252
31-Oct-13	5618	461.3	94	1691	280	3061	919	2157	2157
1-Nov-13	5698	354.3	83	1906	201	3139	980	2179	2181
2-Nov-13	5405	258.2	86	1599	170	3263	931	2358	2366
3-Nov-13	5111	523.7	154	1269	169	2951	986	1983	1998
4-Nov-13	5415	440.5	155	1442	218	3123	974	2165	2187
5-Nov-13	5724	454.4	135	1739	196	3145	929	2237	2256
6-Nov-13	5703	536.2	66	1816	177	3081	905	2173	2184
7-Nov-13	5274	887.6	64	2018	173	2107	1001	1114	1129
8-Nov-13	5428	907.4	38	1722	219	2505	930	1587	1606
9-Nov-13	4508	492	65	1369	219	2378	867	1519	1535

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3.15 Construction Challenges

IRD did not face any major obstructions during construction and the project was completed on time without any delays. The project activities have been initially inspected and accepted on September 26, 2013 and prior to starting the 30-days testing and commissioning period. TO-12-00002-JNT Project was one of the most infrastructure USAID successful projects in terms of safety and quality and is considered the first project using the new SCADA/GPRS system of flow meters.

3.16. Subcontractor Background Information

The selected subcontractor for Al Jaba` Nuba Transmission Line Project was Brothers Contracting Company, established in 1999, this company has extensive experience in general contracting and has implemented many infrastructure projects in the West Bank under the supervision of international donors and entities such as USAID,UNRWA, ANERA, CHF and UNDP. Since it was founded the company has successfully delivered several USAID funded infrastructure projects such as the Rehabilitation and construction of Ein Shebleh AL Hamrah roads in Jericho, and Beit Dajan, Deir AL Hatab, Salem internal Roads and milling of HWY 57 Project.

Brothers Contracting Company is registered in the Contractor`s Union in the following fields:

Grade (1-A): Building Construction

Grade (1-B): Roads

Grade (1): Water and Sewage

Grade (2) Electro Mechanical

DISCLAIMER:

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VI. TASK ORDER LESSONS LEARNED:

IRD firmly believes in improving operations by studying past efforts and planning for future improvements. IRD has implemented lessons learned and is continuously improving its training program in order to improve efficiency, and increase quality. IRD offers the following suggestions in the efforts of continuous improvement:

- Prior construction (during the mobilization phase) check/confirm the actual water level in the well(s) and evaluate the findings in order to do the necessary modifications in the design.
- Confirm the pipeline alignment and the total length of the pipeline prior procurement process.
- Increase the Quality Control of the material at source such as base course, concrete and asphalt, to makes sure that the delivered material comply with the specifications.
- Accelerate submittals preparation for long lead items (such as, flow control valves…etc.).
- Before the start of any project, the local authority should obtain residents' no-objection to reduce unnecessary disruption during the execution stage.
- Local municipalities should be involved in the details of the project to make sure they defuse any tension, which may arise with the local residents as a result of the construction activities.
- Continue to improve local subcontractors' quality control and site management;

DISCLAIMER:

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USAID WEST BANK/GAZA
INFRASTRUCTURE NEEDS PROGRAM-PHASE II

FINAL REPORT ANNEXES

Project No. 1: Well #17 Pump Station and Conveyance System
Project No. 2: Jaba' Nuba Main Transmission Pipeline

Prepared for

United States Agency for International Development

USAID Contract No. AID-294-TO-12-00002

and

Palestinian Water Authority (PWA)

December 2013

By

International Relief & Development

5. Attachments:

5.1 TO 12-00002-JNT- JABA' NUBA MAIN TRANSMISSION PIPELINE

Annex A: Task Order Level Annexes

Annex A.1: Task Order Variation Order Log
Annex A.2: Task Order Progress Payments Log

Annex B: Project 2 –Al Jaba' Nuba Main Transmission Pipeline-JNT

Annex B.1: Project Construction Site Hand Over & Final Acceptance Certificate
Annex B.2: Project Construction Photo Log
Annex B.3: Project Construction Photos
Annex B.4: Project Site Visit Log and Site Visit Photos
Annex B.5: Project Submittals Log
Annex B.6: Project Request for Information (RFI) Log
Annex B.7: Project Site Memo & Correspondence Log
Annex B.8: Project Daily Joint Construction Reports Log
Annex B.9: Project Laboratory Tests Log
Annex B.10: Project Inspection Log
Annex B.11: Project Non-Compliance Notice (NCN) Log
Annex B.12: Project Equipment Log
Annex B.13: Project Materials Log
Annex B.14: Project Workforce Level of Effort (Person-Hours) Log
Annex B.15: Project Notice of Unsafe Conditions (NUC) Log
Annex B.16: Project Incident Log
Annex B.17: Project Typical Cross Sections
Annex B.18: Project Organizational Chart

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Variation Order /VO Log

Task Order:02

Project 1: Well #17 Pump Station and Conveyance System

Project 2: Al Jaba' Nuba Main Transmission Pipeline Project

NTP: 27-Sep-12

VO	Date	Status	Subject	USAID Approval Date	Original Task Order Amount			Previous Task Order Amount			Revised Task Order Amount			Variation Order Change to Day Work	Original Contract Duration	Previous VO Time Extension	VO Time Extension	Original Completion Date	Revised Completion Date
					BOQ	Day Work	Total	BOQ	Day Work	Total	BOQ	Day Work	Total						
TO-02-WJN-VO-001	15-Jan-13	Signed	New Definitive Quantities for Project 1	16-Jan-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,617,634.05	$450,764.66	$12,068,398.71	$11,638,770.73	$429,627.98	$12,068,398.71	$21,136.68	550	0	0	30-Mar-14	30-Mar-14
															360	0	0	21-Sep-13	21-Sep-13
TO-02-WJN-VO-002	27-Feb-13	Signed	Changes in Requirements	1-Mar-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,638,770.73	$429,627.98	$12,068,398.71	$11,171,391.22	$897,007.49	$12,068,398.71	($467,379.51)	550	0	0	30-Mar-14	30-Mar-14
															360	0	0	21-Sep-13	21-Sep-13
TO-02-WJN-VO-003	7-Mar-13	Signed	Changes in Requirements	8-Mar-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,171,391.22	$897,007.49	$12,068,398.71	$11,315,334.22	$753,064.49	$12,068,398.71	$143,943.00	550	0	0	30-Mar-14	30-Mar-14
															360	0	10	21-Sep-13	1-Oct-13
TO-02-WJN-VO-004	9-Apr-13	Signed	Changes in Requirements	15-Apr-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,315,334.22	$753,064.49	$12,068,398.71	$11,369,303.17	$699,095.54	$12,068,398.71	$53,968.95	550	0	0	30-Mar-14	30-Mar-14
															360	10	0	21-Sep-13	1-Oct-13
TO-02-WJN-VO-005	17-Apr-13	Signed	Changes in Requirements	23-Apr-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,369,303.17	$699,095.54	$12,068,398.71	$11,463,759.84	$604,638.87	$12,068,398.71	$94,456.67	550	0	0	30-Mar-14	30-Mar-14
															360	10	30	21-Sep-13	31-Oct-13
TO-02-WJN-VO-006	22-May-13	Signed	Modified valve chambers & road rehabilitation from St. 0+250 to St. 1+400	24-May-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,463,759.84	$604,638.87	$12,068,398.71	$11,548,986.33	$519,412.38	$12,068,398.71	$85,226.49	550	0	0	30-Mar-14	30-Mar-14
															360	40	0	21-Sep-13	31-Oct-13
TO-02-WJN-VO-007	27-Jun-13	Signed	New Definitive Quantities, Additional Asphalt Works and Safety Enhacement Activities	28-Jun-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,548,986.33	$519,412.38	$12,068,398.71	$11,725,188.99	$343,209.72	$12,068,398.71	$176,202.66	550	0	0	30-Mar-14	30-Mar-14
															360	40	0	21-Sep-13	31-Oct-13
TO-02-WJN-VO-008	13-Oct-13	Signed	New items & Final definitive quantities	16-Oct-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,725,188.99	$343,209.72	$12,068,398.71	$11,804,080.64	$264,318.07	$12,068,398.71	$78,891.65	550	0	0	30-Mar-14	30-Mar-14
															360	40	0	21-Sep-13	31-Oct-13
TO-02-WJN-VO-009	30-Oct-13	Signed	Final definitive quantities	30-Oct-13	$11,617,634.05	$450,764.66	$12,068,398.71	$11,804,080.64	$264,318.07	$12,068,398.71	$11,764,480.64	$303,918.07	$12,068,398.71	($39,600.00)	550	0	0	30-Mar-14	30-Mar-14
															360	40	0	21-Sep-13	31-Oct-13

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Annex A.2: Task Order Progress Payments Log

Task Order No	Project Name	Period of Performance				Payment Submission to BV				USAID Payment		Remaining Balance
		From	To	Payment No	Date	Gross Amount	Sub Retention 10%	Net Amount	CMC Approval Date	Received Date	Paid Amount	
TO-AID - 294 - TO - 12 - 00002	Well #17 Pump Station and Conveyance System	September 27, 2012	October 26, 2012	1	November 13, 2012	315,402.19	(15,167.50)	300,234.69	November 15, 2012	November 29, 2012	300,234.69	0.00
	Al Jaba' Nuba Main Transmission Pipeline	September 27, 2012	October 26, 2012	1	November 13, 2012	127,174.35	(10,400.26)	116,774.09	November 15, 2012	November 29, 2012	116,774.09	0.00
	Well #17 Pump Station and Conveyance System	October 27, 2012	December 19, 2012	2	January 17, 2013	63,084.10	(5,105.34)	57,978.76	January 17, 2013	February 11, 2013	57,978.76	0.00
	Al Jaba' Nuba Main Transmission Pipeline	October 27, 2012	December 31, 2012	2	January 17, 2013	580,671.98	(17,361.15)	563,310.83	January 17, 2013	February 11, 2013	563,310.83	0.00
	Well #17 Pump Station and Conveyance System	December 20, 2012	March 10, 2013	3	March 14, 2013	108,315.72	20,272.84	128,588.56	March 18, 2013	April 8, 2013	128,588.56	0.00
	Al Jaba' Nuba Main Transmission Pipeline	January 1, 2013	March 10, 2013	3	March 14, 2013	287,614.87	(25,109.10)	262,505.77	March 18, 2013	April 8, 2013	262,505.77	0.00
	Well #17 Pump Station and Conveyance System	N.A	NA	4	N.A	0.00	0.00	0.00	N.A	N.A	0.00	0.00
	Al Jaba' Nuba Main Transmission Pipeline	March 11, 2013	April 9, 2013	4	April 17, 2013	814,500.43	(41,057.70)	773,442.73	April 18, 2013	May 6, 2013	773,442.73	0.00
	Al Jaba' Nuba Main Transmission Pipeline	April 10, 2013	June 1, 2013	5	June 12, 2013	377,861.22	(27,003.09)	350,858.13	June 28, 2013	June 28, 2013	350,858.13	0.00
	Al Jaba' Nuba Main Transmission Pipeline	June 2, 2013	August 20, 2013	6	August 25, 2013	315,289.96	(13,542.90)	301,747.06	August 26, 2013	September 16, 2013	301,747.06	0.00
	Well #17 Pump Station and Conveyance System	n.a	n.a	6	August 25, 2013	0.00	0.00	0.00	August 26, 2013	N.A	0.00	0.00
	Al Jaba' Nuba Main Transmission Pipeline	August 21, 2013	September 5, 2013	7	September 9, 2013	703,693.35	(67,460.97)	636,232.38	September 10, 2013	September 24, 2013	636,232.38	0.00
	Well #17 Pump Station and Conveyance System	n.a	n.a	7	N.A	0.00	0.00	0.00	N.A	N.A	0.00	0.00
	Al Jaba' Nuba Main Transmission Pipeline	September 6, 2013	October 21, 2013	8	October 23, 2013	646,010.84	(46,097.67)	599,913.17	October 25, 2013	November 18, 2013	599,913.17	0.00
	Well #17 Pump Station and Conveyance System	n.a	n.a	8	N.A	0.00	0.00	0.00	N.A	N.A	0.00	0.00
	Al Jaba' Nuba Main Transmission Pipeline	October 22, 2013	November 10, 2013	9	November 24, 2013	12,506.42	248,032.84	260,539.26			0.00	260,539.26
	Well #17 Pump Station and Conveyance System	n.a	n.a	9	N.A	0.00	0.00	0.00	N.A	N.A	0.00	0.00
Grand Total						**$4,352,125.43**	**$0.00**	**$4,352,125.43**			**$4,091,586.17**	**$260,539.26**

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E.28 CONSTRUCTION SITE HANDOVER CERTIFICATE

Task Order: Well #17 Pump Station and Al Jaba' Nuba Pipeline Project

USAID Contract No.: AID-294-I-00-12-00003

Date: February 07, 2013

Location: Zaatara/Bethlehem

Construction Site Handed Over	This receipt confirms the acceptance of Well #17 site by the Palestinian Authority, from Engineer (BVSPC), and the Contractor (IRD).

Major Component Items- Well #17 Site

Item No.	Description	App. Quantity
1	Well #17 Site	a- Well #17 site area restored to a safe condition. b- Temporary security fence with access gate installed in accordance with revised site layout. c- Drilling sign. d- Well head steel box. e- Set of Keys.

Acceptance Confirmed

PWA/WBWD	USAID	Contractor (IRD)	Engineer (BVSPC)
Name: Riyad Abu Ayyash Title: Project Manager Date: February 07, 2013 Signature: 7/2/2013	Name: Bruce Gelband Title: Contracting Officer Date: 2/23/13 Signature:	Name: Naim Mani Title: Chief Engineer Date: February 07, 2013 Signature:	Name: Adnan Safi Title: Construction Manager Date: February 07, 2013 Signature:
Name: Taher Safi Title: Project Manager Date: February 07, 2013 Signature: 2013.2.7	Name: Sonia Massis Title: COR Date: February 07, 2013 Signature:	Name: Rami Ktaish Title: Project Manager Date: February 07, 2013 Signature:	Name: Maher Awawdeh Title: Project Manager Date: February 07, 2013 Signature:

Attachments:
1- Photos
2- Revised Site As-Built Drawing

Well #17 Construction Site Handover to PWA/WBWD

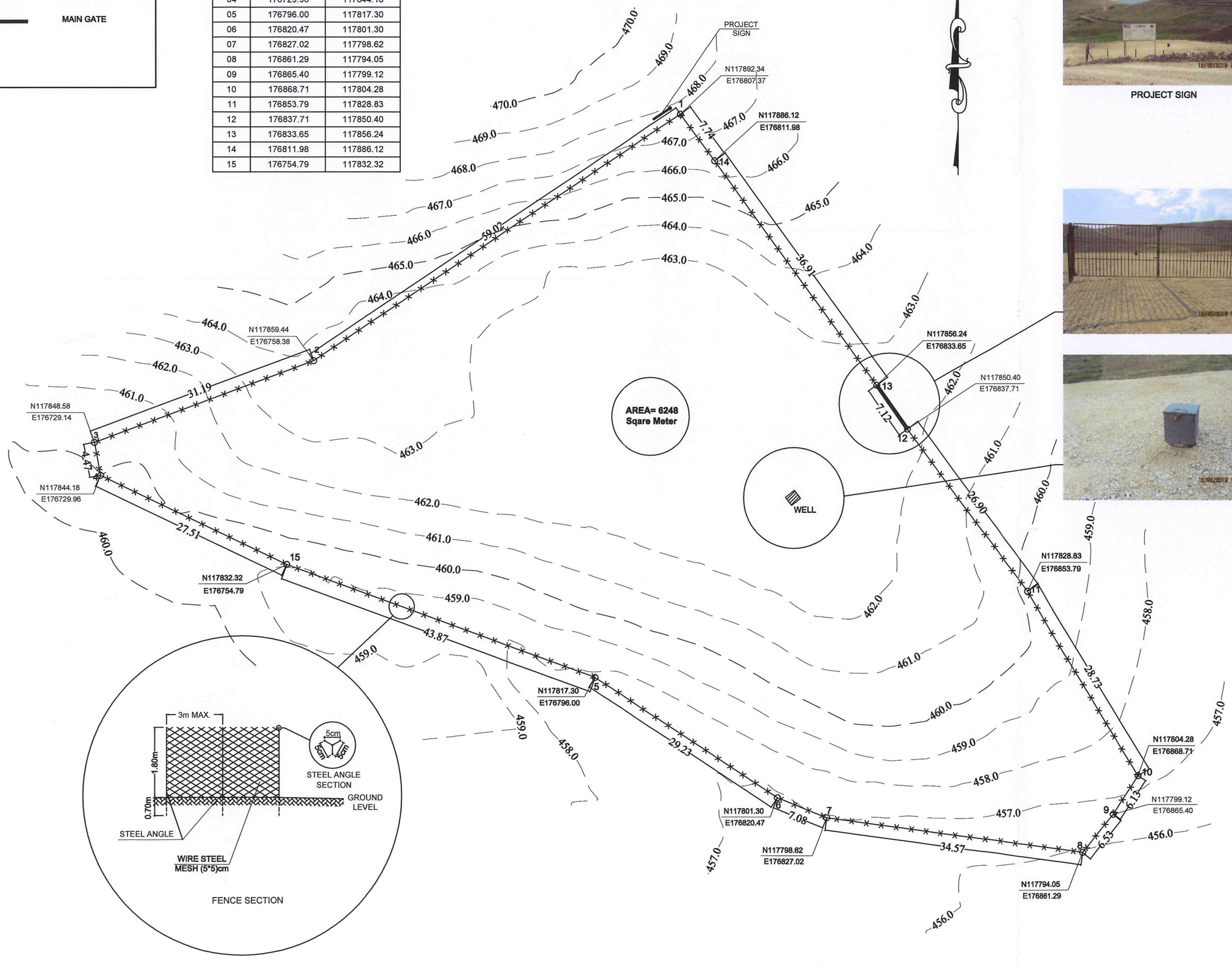
Annex B.1: Well 17 Construction Site Hand Over Certificate

LEGEND:

BOUNDARY FENCE

MAIN GATE

NO.	EASTING	NORTHIG
01	176807.37	117892.34
02	176758.38	117859.44
03	176729.14	117848.58
04	176729.96	117844.18
05	176796.00	117817.30
06	176820.47	117801.30
07	176827.02	117798.62
08	176861.29	117794.05
09	176865.40	117799.12
10	176868.71	117804.28
11	176853.79	117828.83
12	176837.71	117850.40
13	176833.65	117856.24
14	176811.98	117886.12
15	176754.79	117832.32



PROJECT SIGN

NO.	BY	CK	APP
R00	G.R.	R.N.	W.A.

REVISIONS AND RECORD OF ISSUE

DATE	
Feb.07,2013	As Built

XREF1:
XREF2:
XREF3:
XREF4:

SAVED:
PLOTTED:
USER: FREDB341
DWG VER: 1000

سلطة المياه الفلسطينية
PALESTINIAN WATER AUTHORITY

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USAID
من الشعب الأمريكي

PALESTINIAN PROGRAM FUNDED BY THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID) INFRASTRUCTURE NEEDS PROGRAM PHASE II

WELL#17 PUMP STATION AND AL JABA' NUBA PIPELINE

WELL #17 SITE PLAN

DESIGNED: M.GH.
DETAILED: M.GH.
CHECKED: A.S.
APPROVED: A.S.
DATE: 02/10/2013

0 2.5 5m

IF THIS BAR DOES NOT MEASURE 1CM THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.

P-01

SHEET 1 OF 1

FA1_42230

USAID
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FINAL ACCEPTANCE CERTIFICATE

Project	Al Jaba Nuba Pipeline Project (JNT)
Contract No.	AID-294-I-00-12-00003
Task Order No.	AID-294-TO-12-00002
Employer	United States Agency for International Development- USAID
Contractor	IRD
Engineer	Black and Veatch
Certificate Date	October 31, 2013

The designated area of the Contract covered by this Certificate includes:

1- **Project 2: Al Jaba Nuba Pipeline Project**
- Installation a total of 2,699.35 LM of 12" Steel pipeline.
- Installation a total of 8,032.58 LM of 10" Steel pipeline.
- Installation a total of 34.80 LM of 6" Steel pipeline.
- Installation a total of 1,261.20 LM of 4" Steel pipeline.
- Installation a total of 1,194.32 LM of 3" Steel pipeline.
- Installation a total of 540.20 LM of 2" Steel pipeline.
- Rehabilitation a total of 1,250.00 LM of Surif-Al Jaba Road and 150.00 LM of Kharas Road.
- Safety Enhancement of a total of 9,108.00 LM.

The designated area of the IQC is hereby accepted on behalf of USAID. The Engineer confirms that the Works have been completed in accordance with the terms of the IQC. The one-year warranty for the designated area of the IQC shall commence upon the date of this Certificate of Final Acceptance. The Contractor shall be responsible for remedying at the Contractor's expense any failure to conform or any defect in the Works, all in accordance with the terms of the IQC. This acceptance is final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud or the Government's rights under any warranty or guarantee. The remaining punch list item(s) shall be completed by the contractor no later than N/A (Punch Lists Complete).

Authorized Signatures:

Acceptance Confirmed

PWA/WBWD	USAID	Contractor (IRD)	Engineer (BVSPC)
Name: Raed Yacoub	Name: Chitahka Floore	Name: Naim Mani	Name: Adnan Safi
Title: Planning Mangr	Title: Contracting Officer	Title: General Manager	Title: Construction Manager
Date: 31/10/2013	Date: 12/2/13	Date: oct/31st, 2013	Date: Oct 31/2013
Signature:	Signature:	Signature:	Signature:
Name: Tahar Safi	Name: Sonia Massis	Name: Ribhi Mustafa	Name: Maher Awawdeh
Title: PWA - Eng	Title: COR	Title: Project Manager	Title: Project Manager
Date: 2013-10-31	Date: Oct 31, 2013	Date: 31/10/2013	Date:
Signature:	Signature:	Signature:	Signature:

Attachments:
1- Construction Site Handover.
2- Handover Punch List.

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CONSTRUCTION SITE HANDOVER CERTIFICATE

Task Order:	Well #17 and Al Jaba Nuba Main Pipeline Project
Project:	Project 2 – Al Jaba Nuba Pipeline Project
USAID Contract No.:	AID-294-I-00-12-00003
Task Order No.:	AID-294-TO-12-00002
Date:	October 31, 2013
Subject:	Construction Site Handover for Project 2 –Al Jaba Nuba Pipeline Project
Location:	Surif/Hebron

Construction Site Handed Over	This receipt confirms the acceptance of Al Jaba Nuba Pipeline Project by the Palestinian Water Authority from the Engineer (BV) and the Contractor (IRD).

Major Component Item- Al Jaba Nuba Pipeline Project

Item No.	Road Name	Length (Meters)
1	**Al Jaba Nuba Main Pipeline Project**	
	Installation a total of 2,699.35 LM of 12" Steel pipeline along with its associated chambers, electromagnetic flow meters and fittings.	2,699.35 LM
	Installation a total of 8,032.58 LM of 10" Steel pipeline along with its associated chambers, electromagnetic flow meters and fittings.	8,032.58 LM
	Installation a total of 34.80 LM of 6" Steel pipeline along with its associated fittings.	34.80 LM
	Installation a total of 1,261.20 LM of 4" Steel pipeline along with its associated chambers and fittings.	1,261.20 LM
	Installation a total of 1,194.32 LM of 3" Steel pipeline along with its associated chambers and fittings.	1,194.32 LM
	Installation a total of 540.20 LM of 2" Steel pipeline along with its associated chambers and fittings.	540.20 LM
	TOTAL	**13,762.45 LM**
	Rehabilitation a total of 1,250.00 LM of Surif-Al Jaba Road and 150.00 LM of Kharas Road.	1,400.00 LM
	Safety Enhancement of a total of 9,108.00 LM.	9,108.00 LM
	TOTAL	**10,508.00 LM**

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Acceptance Confirmed			
PWA/WBWD	**USAID**	**Contractor (IRD)**	**Engineer (BV)**
Name: Raed Yacoub Title: Planning Manager Date: 31/10/2013 Signature:	Name: Chitahka Floore Title: Contracting Officer Date: 12/3/13 Signature:	Name: Naim Mani Title: General Manager Date: Oct. 31st, 2013 Signature:	Name: Adnan Safi Title: Construction Manager Date: Oct 31, 2013 Signature:
Taher Safi PWA. Eng. 2013.10.31	Name: Sonia Massis Title: COR Date: Oct 31, 2013 Signature:	Name: Ribhi Mustafa Title: Project Manager Date: 31/10/2013 Signature:	Name: Maher Awawdeh Title: Project Manager Date: 31/10/13 Signature:

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INSPECTION MINUTES OF MEETING – INITIAL PUNCH LIST

Task Order: Well #17 Pump Station and Al Jaba' Nuba Pipeline Project.

Project: Al-Jaba Nuba Main Transmission Pipeline (JNT).

Contract No.: AID-294-I-00-12-00003

Task Order No.: AID-294-TO-12-00002

Subject: Punch List for Al-Jaba Nuba Main Transmission Pipeline (JNT)

Date: October 31, 2013

Inspection was conducted at 12:00 PM on October 31, 2013.

The inspection committee inspected and accepted all works. The following items are to be corrected or completed to comply with the contract documents by November 10, 2013.

No.	Item Description	Yes	No	N/A	Engineer Sign off	Remarks
1	**General**					
	Contractor shall submit project key map.	✓			M.A	
	Contractor shall obtain release letter from PWA/WBWD.	✓			M.A	
	All strainers shall be cleaned and flushed	✓			M.A	
	Perform cleaning and touchup paints for pipelines and fitting inside chambers. Contractor shall re-instate the removed supports.	✓			M.A	
2	**F.M Chamber at Sta. 0+090** **Chamber #01** 1. Repair the concrete for the neck. 2. Smooth concrete for roughness area.	✓			M.A	
	Chamber #02 1. Rubber shall be adjusted.	✓			M.A	

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3	**Jaba' Connection Chamber at Sta. 0+100** 1. Repair leakage in Check valve.	✓			M.A	
4	**Surif Connection Chamber at Sta. (2+528)** 1. Base course shall be leveled and compacted. 2. Antenna end cap shall be covered by reinforced concrete.	✓			M.A	
5	**Nuba & Hata Connection Chamber at Sta. (11+250)** 1. Repair concrete around manhole cover.	✓			M.A	

Acceptance Confirmed			
PWA/WBWD	**USAID**	**Contractor (IRD)**	**Engineer (BV)**
Name: Raed Yaqub Title: Planning Manager Date: 31/10/2013 Signature:	Name: Sonia Massis Title: COR Date: Oct 31st, 2013 Signature:	Name: Naim Mani Title: Program Director Date: oct 31st, 2013 Signature:	Name: Adnan Safi Title: Construction Manager Date: 31 Oct 2013 Signature
Name: Taher Safi Title: pwa. eng. Date: Signature:		Name: Ribhi Mustafa Title: Project Manager Date: 31/10/2013 Signature:	Name: Maher Awawdeh Title: Project Manager Date: Signature:

Abbreviations:

BVSPC: Black and Veatch Special Project Corporation, **PWA**: Palestinian Water Authority, **USAID**: United States Agency for International Development, **IRD**: International Relief and Development.

IRD International Relief & Development

Construction Photo Log

Task Order: 02-JNT
Project: Al Jab'a' Nuba Main Transmission Pipeline Project

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-001	Construction site	Sep.29,12	Handing over Al-Jab'a Nuba main transmission pipeline construction site.
Photo-02-JNT-002	Engineer's secondary office-Surif	Oct.14,12	Painting of the engineer's secondary office.
Photo-02-JNT-003	Walk through JNT project	Oct.22,12	Participants in the walk through JNT project.
Photo-02-JNT-004	Walk through JNT project	Oct.31,12	JNT-walk through JNT project.
Photo-02-JNT-005	Surif at St. (02+700)	Nov.01,12	Continuing the work (preparing the storage yard).
Photo-02-JNT-006	Surif at St.(02+700)	Nov.03,12	Continuing of preparing the storage yard by spreading the base coarse.
Photo-02-JNT-007	Surif between St. (02+700) & St. (03+200)	Nov.04,12	Surveying work.
Photo-02-JNT-008	Surif at St. (02+700)	Nov.05,12	Installing the gate for the storage yard.
Photo-02-JNT-009	Surif between St. (03+200) & St. (03+500)	Nov.05,12	Surveying work.
Photo-02-JNT-010	Surif at St. (02+700)	Nov.07,12	Installing electricity, lighting and water for storage yard.
Photo-02-JNT-011	Surif at St (01+200)	Nov.08,12	Re Dilapidation survey
Photo-02-JNT-012	Kharas between St.(10+000) & St. (10+900).	Nov.08,12	Walkthrough in Kharas area to locate underground utilities.
Photo-02-JNT-013	Surif between St. (04+100) & St. (05+200)	Nov.11,12	Surveying work.
Photo-02-JNT-014	Surif at St. (02+700)	Nov.12,13	Installing the safety signs in the storage yard
Photo-02-JNT-015	Surif between St.(05+900) & St. (06+300)	Nov.13,12	Surveying work.
Photo-02-JNT-016	Surif at St. (02+680)	Nov.20,12	Preparing anew storage area.
Photo-02-JNT-017	Surif at St. (02+681)	Nov.21,12	Preparing anew storage area.
Photo-02-JNT-018	Second storage yard	Nov.22,13	Installation of the main entrance gate of the second storage yard.
Photo-02-JNT-019	Surif at St. (00+000)	Nov.25,12	Investigation and Setting the point for testing the pipe line pressure.
Photo-02-JNT-020	Nuba between St.(10+800) & St.(11+351)	Nov.26,12	Walkthrough the end of the project.
Photo-02-JNT-021	Kharas at St.(09+700)	Nov.28,12	Kharas municipality representative confirmed the locations of water and sewage pipes.
Photo-02-JNT-022	FIB (pipes Factory)	Nov.29,12	Visiting the water pipes factory (FIP) to inspect [(1000 ml), 12"] steel pipes.
Photo-02-JNT-023	Surif between St.(00+000) & St. (01+500)	Dec.02,12	Walkthrough Surif area.
Photo-02-JNT-024	Surif between St.(01+500) & St. (02+500)	Dec.03,12	Walkthrough Surif area.
Photo-02-JNT-025	FIB (pipes Factory)	Dec.04,12	Visiting the "FIP" & inspect the process of adding the internal lining.
Photo-02-JNT-026	Jab'a connection at St. (00+000)	Dec.04,12	Determined the DN 250mm and DN 800mm pipes by Makarot team.
Photo-02-JNT-027	Jab'a connection at St. (00+000)	Dec.12,12	Surveying the Jab'a connection.
Photo-02-JNT-028	Surif between St.(03+200) & St.(04+200)	Dec.13,12	Walkthrough in Surif area .
Photo-02-JNT-029	Surif at St. (00+900)	Dec.15,12	Supplying base course material & the site.
Photo-02-JNT-030	Surif at St. (00+900)	Dec.16,12	Taking base course samples for necessary laboratory test.
Photo-02-JNT-031	Surif at St. (05+200)	Dec.17,12	Supplying the single size aggregate.
Photo-02-JNT-032	Building center laboratory	Dec.18,12	Attending the base course lab test in the Building center.
Photo-02-JNT-033	Surif at St. (05+200)	Dec.19,13	Supplying single size aggregate.

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-034	Surif between St.(02+300) & St. (02+700)	Dec.20,12	Determined with Hebron municipality experts the location of electric cable (high voltage).
Photo-02-JNT-035	Surif at St. (05+200)	Dec.23,12	Supplying single size aggregate.
Photo-02-JNT-036	Surif at St. (02+700)	Dec.24,12	Supplying pipes 12" to storage yard.
Photo-02-JNT-037	Surif at St. (02+700)	Dec.25,12	Supplying pipes 12" & Storage yard.
Photo-02-JNT-038	Surif at St. (02+700)	Dec.26,12	Supplying steel mini guard & storage.
Photo-02-JNT-039	Surif at St. (00+900)	Dec.27,12	Taking sample for sand bedding material test by B.C laboratory.
Photo-02-JNT-040	FIB (pipes Factory) Dura	Dec.29,12	Applying of the external coating for 1633.5 of 12" Ø steel pipes on FIP.
Photo-02-JNT-041	Hebron - Wade Al Hairy	Dec.30,12	Visit the source of Base coarse (crusher).
Photo-02-JNT-042	FIB (pipes Factory) Dura	Dec.31,12	Visit to FIP factory to inspect the external coating of 12" Steel Pipes.
Photo-02-JNT-043	FIB (pipes Factory) Dura	Jan.01,13	Inspection visit to FIP for pipes internal lining in presence of task order manager Eng. Dauad Abu Ghana.
Photo-02-JNT-044	Surif at St. (02+700)	Jan.02,13	Arrangement the unsafe pipes in the storage yard to conform the QC plan.
Photo-02-JNT-045	Surif at St. (00+900)&St. (05+200)	Jan.03,13	Installing safety signs for backfilling stock pile in Surif.
Photo-02-JNT-046	Surif & Kharas	Jan.13,13	Installing traffic signs.
Photo-02-JNT-047	Surif between St.(00+00) & St.(01+500)	Jan.14,13	Determined the width of the asphalt.
Photo-02-JNT-048	Surif at St. (02+700)	Jan.15,13	Supplying pipes to storage yard.
Photo-02-JNT-049	Surif	Jan.16,13	Installing traffic signs.
Photo-02-JNT-050	Surif between St.(01+400) & St(01+000)	Jan.17,13	Marking the alignment.
Photo-02-JNT-051	Jab'a connection at St. (00+000)	Jan.17,13	Measuring pressure for existing water pipe line.
Photo-02-JNT-052	Kharas	Jan.20,13	Installing traffic signs.
Photo-02-JNT-053	Surif between St.(00+000) &St.(00+700)	Jan.20,13	Alignment marking.
Photo-02-JNT-054	Surif at St. (00+900)	Jan.22,13	Taking sample for backfilling material test (Base course).
Photo-02-JNT-055	Surif & Kharas	Jan.23,13	Walkthrough to determine the location of revised connection chamber.
Photo-02-JNT-056	Surif at St. (00+900)	Jan.24,13	Preparing excavation equipment's in the site (Trencher , JCB, Bobcat).
Photo-02-JNT-057	Kharas at St.(08+900)	Jan.27,13	Start of excavation.
Photo-02-JNT-058	Surif	Jan.28,13	Installation of 10" steel pipes.
Photo-02-JNT-059	Between St. (08+900) & St.(08+800)	Jan.29,13	Arranging the steel mini guards around the excavated trench.
Photo-02-JNT-060	At St.(08+828)	Jan.30,13	Compacting the backfilling material.
Photo-02-JNT-061	At the storage yard	Jan.31,13	Stacking the delivered wooden bases at the storage yard.
Photo-02-JNT-062	At St.(01+550)	Feb.02,13	Cleaning the sidewalk Between the stockpiled single size aggregate.
Photo-02-JNT-063	At St. (08+780)	Feb.03,13	Excavation the 10" pipeline trench .
Photo-02-JNT-064	At St. (08+650)	Feb.04,13	Welding the 10" steel pipes.
Photo-02-JNT-065	At St. (08+440)	Feb.05,13	Placing concrete to encase the 10" pipe above the culvert.
Photo-02-JNT-066	At the storage yard	Feb.06,13	String the delivered reinforcement steel bars using wooden bases and nylon sheets for covering.
Photo-02-JNT-067	At St. (08+235.5)	Feb.07,13	Placing concrete to encase the pipe above the culvert.
Photo-02-JNT-068	At the storage yard	Feb.09,13	RT testing for mitered bends welded joint .
Photo-02-JNT-069	At St.(07+965)	Feb.10,13	JNT- Placing concrete to encase the pipe above the road culvert.
Photo-02-JNT-070	Surif	Feb.11,13	Spraying water for dust control.
Photo-02-JNT-071	At St.(07+666)	Feb.12,13	JNT- Placing concrete & encase the installed 10" pipe above the culvert.
Photo-02-JNT-072	Surif	Feb.13,14	JNT- Installing the identification / marking tape and backfilling the excavated trench with base course material.
Photo-02-JNT-073	At St.(00+980)	Feb.14,13	Storage area after removal of all rejected bedding material.
Photo-02-JNT-074	At St. (07+320)	Feb.16,13	Concrete encasement for 10" steel pipes at road crossing .
Photo-02-JNT-075	Surif	Feb.17,13	Compacting the base course layer after watering.
Photo-02-JNT-076	Between St. (00+260) & St. (00+850)	Feb.18,13	Preparing the road detour.
Photo-02-JNT-077	Building Center Laboratory	Feb.19,13	Witnessing the testing of the collected base course samples.
Photo-02-JNT-078	At St. (08+200)	Feb.20,13	Removing the rejected base course material Between the trench.
Photo-02-JNT-079	Between St.(06+940) & St. (06+885)	Feb.21,13	Excavating the hard rock of the pipeline trench .
Photo-02-JNT-080	At the storage area -St. (00+950)	Feb.23,13	Delivering and stockpiling the base course material.

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-081	Between St. (02+688) & St.(02+460)	Feb.24,13	Marking the 12-inch pipeline alignment.
Photo-02-JNT-082	At St.(02+700)	Feb.25,13	Delivering the 3" and 2" steel pipes to the storage yard.
Photo-02-JNT-083	At St. (07+300)	Feb.26,13	Compacting top base course layer preparing for asphalting.
Photo-02-JNT-084	Between St.(02+529.08) &St.(02+478.76)	Feb.27,13	Hard rock encountered formation through the excavated 12" pipeline trench.
Photo-02-JNT-085	Surif	Feb.28,13	USAID and PWA representatives discussing the work progress with members Between Surif Municipality.
Photo-02-JNT-086	At St.(08+900)	Mar.02,13	Starting the asphalting works.
Photo-02-JNT-087	At St.(08+350)	Mar.03,13	Asphalting the first layer of the pipeline trench.
Photo-02-JNT-088	Between St.(08+010) & St. (07+520)	Mar.04,13	Asphalting the 10-inch pipeline trench.
Photo-02-JNT-089	At St.(02+370)	Mar.05,13	Collecting testing sample Between the delivered Somsom material.
Photo-02-JNT-090	Surif village	Mar.06,13	Distributing flyers for JNT project & the residents.
Photo-02-JNT-091	At St.(02+100)	Mar.07,13	Collecting testing samples Between the delivered single size aggregates material by authorized representatives Between BC lab.
Photo-02-JNT-092	Surif	Mar.09,13	Conducting the radiographic testing for the welded joints of the 12-inch steel pipes inside the trench.
Photo-02-JNT-093	Between St.(01+790) & St. (01+680)	Mar.10,13	Excavating the 12-inch and 3-inch pipelines trench.
Photo-02-JNT-094	At St.(07+887)	Mar.11,13	Excavating the air release valve chamber.
Photo-02-JNT-095	At St.(01+677)	Mar.12,13	Paced ready mix concrete to encase the weak soil section through the pipeline trench.
Photo-02-JNT-096	At FIP Factory	Mar.13,13	Inspecting the PE external coating thickness for 10" steel pipes.
Photo-02-JNT-097	At FIP Factory	Mar.14,13	The delivered 10-inch steel pipes – Before coating.
Photo-02-JNT-098	Between St.(01+390) & St. (01+240)	Mar.15,13	Excavating the 12-inch pipeline trench – night shift.
Photo-02-JNT-099	At St. (07+870)	Mar.16,13	Installing reinforcing steel bars for the ARV chamber base slab.
Photo-02-JNT-100	At St.(07+870)	Mar.17,13	Vibrating & consolidate the placed ready mix concrete (B350) for ARV chamber base slab.
Photo-02-JNT-101	Between St.(00+900) &St.(00+300)	Mar.18,13	The completed prepared road detour.
Photo-02-JNT-102	Between St. (01+100) & St. (01+000)	Mar.19,13	Cleaning the working area of the 12-inch pipeline trench.
Photo-02-JNT-103	Between St.(02+700) &St.(02+600)	Mar.20,13	Preparing the 12-inch pipeline trench for asphalting.
Photo-02-JNT-104	At St.(07+870)	Mar.21,13	Formwork for the ARV walls chamber.
Photo-02-JNT-105	At St.(01+700)	Mar.23,13	Formwork and steel reinforcement for the walls of the WO chamber.
Photo-02-JNT-106	At St.(01+700)	Mar.24,13	Continuing formwork for the walls of the WO chamber.
Photo-02-JNT-107	At St. (01+700)	Mar.25,13	USAID representative visiting the site working area & check work progress.
Photo-02-JNT-108	At St. (01+700)	Mar.26,13	Collecting concrete compressive strength testing samples – WO chamber.
Photo-02-JNT-109	At St.(07+870)	Mar.27,13	Curing process for the placed concrete of the walls and roof slab for ARV chamber.
Photo-02-JNT-110	At St. (02+500)	Mar.28,13	Visiting the project site by USAID representative to check the work progress.
Photo-02-JNT-111	At St..(01+454)	Mar.30,13	Completing formwork and steel reinforcement for the base slab of BFV and ARV chambers.
Photo-02-JNT-112	At St..(02+700)	Mar.31,13	Preparing & resume 10-inch pipeline excavation.
Photo-02-JNT-113	At St.(07+870)	Apr.01,13	Insulating the external walls of the ARV chamber using bitumen emulsion coating .
Photo-02-JNT-114	Between St.(00+285) & St.(00+212.03)	Apr.02,13	Installation of the 2" galvanized (SCH40) pipes.
Photo-02-JNT-115	At St. (04+243)	Apr.03,13	Starting 10-inch pipeline trenching.
Photo-02-JNT-116	Between St.(01+500 & St.(00+300)	Apr.04,13	Cleaning and removing the remaining backfilling material.
Photo-02-JNT-117	At St.(00+060)	Apr.06,13	Excavating Al-Jabaa and the flow monitoring chambers.
Photo-02-JNT-118	Kharas municipality	Apr.07,13	Conducting joint visit & Kharas municipality & coordinate for marking the pipeline alignment and starting the work.
Photo-02-JNT-119	At St. (00+970)	Apr.08,13	Formwork and steel reinforcement for the washout chamber base slab.
Photo-02-JNT-120	Al-Jab'a	Apr.09,13	Encountered hard rock during the excavation of Al-Jab'a connection chamber.
Photo-02-JNT-121	Al-Jab'a	Apr.10,13	Excavating work for AL-Jabaa connection chamber.
Photo-02-JNT-122	Between St. (03+256.28) & St.(03+195.78)	Apr.11,13	Installing the 10-inch steel pipeline.
Photo-02-JNT-123	At St.(04+200)	Apr.13,13	Preparing the top base course layer of the 10-inch pipeline trench for asphalting.
Photo-02-JNT-124	At St.(03+900)	Apr.14,13	Preparing the 10-inch pipeline trench for asphalting.
Photo-02-JNT-125	Between St.(01+610) & St.(01+580)	Apr.15,13	Asphalting the 12-inch pipeline trench section.
Photo-02-JNT-126	Between St.(02+960) &St.(02+810)	Apr.16,13	Excavating the 10-inch pipeline trench.

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-127	At St.(03+138)	Apr.17,13	Placed blinding concrete layer for the WO chamber.
Photo-02-JNT-128	Between St.(02+810) & St.(02+700)	Apr.18,13	Encountered hard rock layers during 10-inch pipeline trenching.
Photo-02-JNT-129	At St.(06+800)	Apr.20,13	Starting and continue excavation of the 10" steel pipe trench.
Photo-02-JNT-130	At St.(00+090)	Apr.21,13	Delivering new concrete barriers to protect the excavated chambers.
Photo-02-JNT-131	Building Center Laboratory	Apr.22,13	Witnessing the concrete compressive strength test.
Photo-02-JNT-132	Surif work shop	Apr.23,13	Fabricating 10-inch steel mitered bends (11.25 degrees).
Photo-02-JNT-133	At St.(00+089) and St.(00+090)	Apr.24,13	Leveling the placed concrete for the base slab of the flow monitoring chambers.
Photo-02-JNT-134	At St.(00+090)	Apr.25,13	USAID and PWA visit & JNT Project Site.
Photo-02-JNT-135	At St.(00+100)	Apr.27,13	Removing the formwork for the walls of Al-Jabaa connection.
Photo-02-JNT-136	At St.(00+100)	Apr.28,13	Formwork and steel reinforcement for Al-Jabaa connection chamber.
Photo-02-JNT-137	At Morex71 Israeli company	Apr.29,13	Checking the RT testing films.
Photo-02-JNT-138	At St.(02+550)	Apr.30,13	Formwork and steel reinforcement for the base slab of Surif connection chamber.
Photo-02-JNT-139	Between St.(03+140) & St.(02+720)	May 01,13	Saw cutting for the road asphalt & prepare for asphalting the 10" pipeline trench.
Photo-02-JNT-140	Between St.(04+100) & St.(04+240)	May 02,13	Spraying MC and TC low-viscosity prime coat prior & asphalting.
Photo-02-JNT-141	Between St.(03+140) & St.(02+720)	May 04,13	Preparing the 10-inch pipeline trench for asphalting.
Photo-02-JNT-142	At St.(00+090)	May 05,13	Collecting testing samples for concrete compressive strength.
Photo-02-JNT-143	Between St.(05+645.57) &St. (05+452.17)	May 06,13	Welding and installing the 10-inch steel pipes.
Photo-02-JNT-144	Kherbet Addair	May 07,13	Collecting testing samples for the delivered Somsom materials & the site.
Photo-02-JNT-145	At St.(03+138)	May 08,13	Formwork and steel reinforcement for walls of the washout chamber.
Photo-02-JNT-146	At St.(00+090)	May 09,13	Formwork and steel reinforcement for the roof slab of the flow monitoring chamber (Manhole # 2).
Photo-02-JNT-147	Between St.(04+330) & St.(04+480)	May 11,13	Excavating the 10-inch pipeline trench.
Photo-02-JNT-148	At St.(02+720)	May 12,13	Placing concrete for the roof slab of Kherbet Addair connection chamber.
Photo-02-JNT-149	Between St.(04+556.30) St. (04+704.30)	May 13,13	Installing the 10-inch steel pipes.
Photo-02-JNT-150	Between St.(04+710) & St.(04+870)	May 14,13	Excavating the 10-inch pipeline trench.
Photo-02-JNT-151	Surif	May 15,13	Testing the welded joints by the certified welding inspector.
Photo-02-JNT-152	At St.(07+878)	May 16,13	Core test for the in-place concrete of the walls of the ARV chamber.
Photo-02-JNT-153	Between St.(05+030 & St.(05+500)	May 18,13	Collecting testing samples for the base course top layer compaction test.
Photo-02-JNT-154	At St.(06+778)	May 19,13	Placing concrete for the walls of the WO chamber.
Photo-02-JNT-155	At St.(02+553)	May 20,13	Collecting concrete compressive strength testing samples.
Photo-02-JNT-156	At St.(01+700)	May 21,13	Conducting the core test for the walls of the WO chamber.
Photo-02-JNT-157	At St.(06+778) & St.(06+741)	May 22,13	Collecting testing samples for the delivered concrete compressive strength.
Photo-02-JNT-158	Between St.(09+3500 &St.(09+530)	May 25,13	Excavating the 10-inch pipeline trench.
Photo-02-JNT-159	At St.(06+741)	May 26,13	Casting concrete for the roof slab of the GV chamber.
Photo-02-JNT-160	Between St.(09+625)) & St.(09+690)	May 27,13	General cleaning of the 10-inch pipeline trench.
Photo-02-JNT-161	Between St.(05+500) & St.(05+800)	May 28,13	Collecting testing samples for base course compaction test by authorized representative Between BC laboratory.
Photo-02-JNT-162	Between St.(05+480) & St.(05+880)	May 29,13	Asphalting the first layer of the trench.
Photo-02-JNT-163	At St.(06+500)	May 30,13	Collecting testing samples for base course compaction test.
Photo-02-JNT-164	Between St.(06+400) & St.(06+600)	June 01,13	Asphalting the 10-inch pipeline trench.
Photo-02-JNT-165	At St.(09+939)	June 02,13	Starting excavation work for Kharas connection chamber.
Photo-02-JNT-166	Kharas village	June 03,13	Excavation work for the 10-inch pipeline trench.
Photo-02-JNT-167	Between St.(10+025) &St.(10+040)	June 04,13	Excavation work for the 10-inch pipeline trench.
Photo-02-JNT-168	Between St.(10+040) & St.(10+080)	June 05,13	Excavation work for the 10-inch pipeline trench inside Kharas village.
Photo-02-JNT-169	At St.(04+253)	June 06,13	Applied second layer of Bitumen Emulsion Coating for ARV chamber.
Photo-02-JNT-170	Kharas village	June 08,13	Excavation work for the 10-inch pipeline trench.
Photo-02-JNT-171	At St.(11+251)	June 09,13	Casting concrete for the walls of Nuba Hata connection chamber.
Photo-02-JNT-172	Kharas village	June 10,13	Excavating the 10-inch pipeline trench.
Photo-02-JNT-173	At St.(10+700)	June 11,13	Starting excavation work for Nuba main connection chamber.

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-174	Between St.(04+500) & St.(05+030)	June 12,13	Sprayed MC and TC low viscosity coating prior & start asphalting.
Photo-02-JNT-175	At St.(11+251)	June 13,13	Placing ready mix concrete (B350) for the roof slab of Nuba Hata connection chamber.
Photo-02-JNT-176	Between St.(10+220) &St.(10+280)	June 15,13	Trenching work for the 10-inch steel pipeline.
Photo-02-JNT-177	At Al-Jaba'a area.	June 16,13	Joint site visit with Surif municipality representatives through the proposed road.
Photo-02-JNT-178	At St.(10+700)	June 17,13	Leveling the placed concrete for the base slab of Nuba main connection chamber.
Photo-02-JNT-179	Between St.(09+970) &St.(10+150)	June 18,13	Asphalted first layer for 10-inch pipeline trench.
Photo-02-JNT-180	Between St.(10+650) & St.(10+702)	June 19,13	Excavating the last section of 10-inch pipeline trench using the JCB Backhoe.
Photo-02-JNT-181	Between St.(10+570) &St.(10+680)	June 20,13	Backfilled last section of the 10-inch pipeline trench.
Photo-02-JNT-182	At St.(10+700)	June 22,13	Protecting the excavated edges of Nuba main connection chamber using steel sheets and wooded frames.
Photo-02-JNT-183	Between St.(00+090) & St.(00+030)	June 23,13	Excavating the 12-inch pipeline trench.
Photo-02-JNT-184	At St.(10+700)	June 24,13	Placing ready mix concrete (B350) for the walls of Nuba main connection chamber.
Photo-02-JNT-185	At St.(09+670)	June 25,13	Placing concrete for the base slab of the washout chamber.
Photo-02-JNT-186	At St.(00+900)	June 26,13	Welding the washout line with the main 12-inch pipeline.
Photo-02-JNT-187	At St.(00+090)	June 27,13	Connected 12-inch steel pipeline with the Flow Monitoring Chamber.
Photo-02-JNT-188	At St.(00+900)	June 29,13	Excavation work & connect the WO line with outfall line.
Photo-02-JNT-189	At St.(09+670)	June 30,13	Ready mix concrete cubical samples for testing.
Photo-02-JNT-190	At Al Ameer factory	July 01,13	Pre-casted concrete chambers.
Photo-02-JNT-191	Between St.(10+150) & St.(10+450)	July 02,13	Compacting of the piping trench first layer of asphalt.
Photo-02-JNT-192	At St.(02+720)	July 03,13	Excavation of the trench piping for Kherbet AL Dier connection.
Photo-02-JNT-193	At St.(02+720)	July 04,13	Excavation of the piping trench for Kherbet Al Dier connection.
Photo-02-JNT-194	At St.(02+300)	July 06,13	Excavation of the trench piping connection to the ARV chamber.
Photo-02-JNT-195	Between St.(00+030) & St.(00+000)	July 07,13	Excavation of the piping trench.
Photo-02-JNT-196	At St.(02+300)	July 08,13	Excavation of the pre-casted ARV Chamber.
Photo-02-JNT-197	Between St.(00+030) & St.(00+000)	July 09,13	Excavation of the piping trench.
Photo-02-JNT-198	Between St.(09+200) & St.(08+900)	July 14,13	Prepared the top base course layer for asphalting the first layer.
Photo-02-JNT-199	At St.(04+230)	July 15,13	Starting filling JNT pipeline with water & conduct the hydro-static pressure test.
Photo-02-JNT-200	Between St.(09+200) & St.(08+900)	July 16,13	Asphalting the first layer of the 10-inch pipeline trench.
Photo-02-JNT-201	Between St.(04+230) & St(10+700)	July 17,13	Preparations to fill the second section of JNT pipeline and & conduct the hydro-static pressure test.
Photo-02-JNT-202	Al-Jab'a road	July 18,13	Excavation work for the first section of Al-Jabaa road.
Photo-02-JNT-203	Between St.(04+230) & St.(10+700)	July 21,13	Filling the second section of JNT pipeline.
Photo-02-JNT-204	At St.(06+770) with elevation:(420.87)	July 22,13	Test pressure value at the lowest point.
Photo-02-JNT-205	At St.(09+679)	July 23,13	Precast washout chamber.
Photo-02-JNT-206	Between St.(00+300) & St.(00+900)	July 24,13	The first section of Al-Jabaa road.
Photo-02-JNT-207	Between St.(02+700) & St.(01+500)	July 25,13	Hydro-static test pressure for the 4-inch pipeline section and the 3-inch pipeline section.
Photo-02-JNT-208	Between St.(00+300) & St.(01+500)	July 27,13	Excavation of the existing asphalt of Al Jab'a road.
Photo-02-JNT-209	Between St.(00+300) & St.(01+500)	July 28,13	Excavation of the existing asphalt of Al Jab'a road.
Photo-02-JNT-210	Between St.(06+800) & St. (07+300)	July 31,13	Milling of the trench.
Photo-02-JNT-211	At St.(00+900)	Aug.01,13	Base course sampling by the laboratory for comprehensive testing.
Photo-02-JNT-212	Between St.(06+731) & St.(06+185)	Aug.04,13	Marking the road / trench for milling.
Photo-02-JNT-213	At St.(02+300)	Aug.05,13	Installation of the precast chamber.

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-214	Al Jab'a road	Aug.06,13	Material loose sampling for testing.
Photo-02-JNT-215	Between St.(05+494) & St.(05+650)	Aug.13,13	Trench road milling.
Photo-02-JNT-216	Between St.(00+300) & St.(00+900)	Aug.14,13	Inspection of the sub grade survey of Al Jab'a road.
Photo-02-JNT-217	Between St. (03+000) & St.(00+900)	Aug.15,13	Survey works of Al Jab'a Sub grade.
Photo-02-JNT-218	Surif work shop	Aug.17,13	Delivered materials, valves and fittings.
Photo-02-JNT-219	Surif	Aug.18,13	Applying safety measures and preparing for the trench top base course layer compaction.
Photo-02-JNT-220	At St.(03+160)	Aug.19,13	Installation of the WO chamber gate valve.
Photo-02-JNT-221	Between station (00+300)& St.(00+900)	Aug.20,13	Preparation of Al Jab'a Sub grade.
Photo-02-JNT-222	Between St.(04+250) &St. (04+500)	Aug.21,13	Milling of the trench asphalt.
Photo-02-JNT-223	Between St.(00+300) & St.(00+900)	Aug.22,13	Spreading the base course layer for Al-Jabaa road.
Photo-02-JNT-224	Between St.(01+495) &St.(01+795)	Aug.23,13	Installing the 2-inch galvanized steel pipes.
Photo-02-JNT-225	Between St.(06+800) & St.(07+750)	Aug.24,13	Compacting the second layer of asphalt.
Photo-02-JNT-226	At St.(08+500)	Aug.25,13	Asphalting the 2nd layer for JNT pipeline trench.
Photo-02-JNT-227	At St.(04+400)	Aug.26,13	Milling work for the asphalted pipeline trench.
Photo-02-JNT-228	Between St.(08+900) &St.(10+700)	Aug.27,13	Asphalt milling in preparation for the asphalting the second layer.
Photo-02-JNT-229	At St.(10+200)	Aug.28,13	Milling work for the asphalted pipeline trench.
Photo-02-JNT-230	Between St.(05+280) & St.(04+200)	Aug.29,13	The sprayed RC for the asphalt second layer.
Photo-02-JNT-231	Between St.(00+300) & St.(00+920)	Aug.31,13	Compacting the asphalt of Al Jab'a road.
Photo-02-JNT-232	Between St.(00+920) & St.(01+500)	Sep.01,13	Compacting the asphalt layer of Al Jab'a road.
Photo-02-JNT-233	Between St.(02+800) & St.(03+800)	Sep.02,13	Preparing the road from asphalting the ¾" second layer.
Photo-02-JNT-234	Between St.(09+200) &St.(09+350)	Sep.03,13	Collecting samples of compacted sub grade.
Photo-02-JNT-235	Between St.(01+500) & St.(01+700)	Sep.04,13	Asphalting the ¾" second layer.
Photo-02-JNT-236	Between St.(01+700) & St.(02+400)	Sep.05,13	Asphalting the ¾" second layer.
Photo-02-JNT-237	Between St.(09+200) & St.(09+350)	Sep.07,13	Compacting the asphalt layer of the road.
Photo-02-JNT-238	Between St.(09+350) & St.(09+670)	Sep.08,13	The sprayed prime coat - MC.
Photo-02-JNT-239	Al Jab'a road.	Sep.09,13	Casting concrete protection.
Photo-02-JNT-240	Between St.(10+500) & St.(10+200)	Sep.10,13	Asphalting the second layer.
Photo-02-JNT-241	Between St.(10+200 & St.(10+050)	Sep.11,13	Asphalting the ¾" second layer.
Photo-02-JNT-242	From St. (00+000) to the existing 2" pipe.	Sep.12,13	Excavating the 2" trench of Al Jab'a connection.
Photo-02-JNT-243	Between St.(04+200) & St.(04+600)	Sep.15,13	General Cleaning of trench / road.
Photo-02-JNT-244	At St.(10+740)	Sep.16,13	Mechanical Installation in chambers.
Photo-02-JNT-245	At St.(09+200)	Sep.17,13	Road Marking of centerline.
Photo-02-JNT-246	At St.(01+200)	Sep.18,13	Road marking of side line.
Photo-02-JNT-247	At St.(09+939)	Sep.19,13	Installing the valves and fittings inside Kharas connection chamber.
Photo-02-JNT-248	JNT Pipeline	Sep.21,13	Using Calorimeter to test the chlorinated water concentration.
Photo-02-JNT-249	JNT Pipeline	Sep.22,13	Pouring sodium hypochlorite inside water hose to fill JNT pipeline with chlorinated water.
Photo-02-JNT-250	JNT Pipeline	Sep.23,13	Pouring and mixing sodium hypochlorite through the supply water hose and using safety equipment
Photo-02-JNT-251	At St.(04+200)	Sep.24,13	Installed JNT project permanent sign.
Photo-02-JNT-252	At St.(11+260)	Sep.25,13	Installing valves and fittings inside Nuba Hata connection chamber and preparing to asphalt the adjacent area.
Photo-02-JNT-253	Kharas	Sep.26,13	Initial Handover for JNT Project with representatives from USAID, PWA, WBWD, B&V, IRD, and Brothers.

Photo No.	Location/ Station	Date	Brief Description
Photo-02-JNT-254	Connection chamber	Sep.28,13	Install the pressure gauge.
Photo-02-JNT-255	Connection chamber	Sep.28,13	Check and calibrate bermad installed valves by Bermad representative
Photo-02-JNT-256	Connection chamber	Sep.29,13	Taking sample to start disinfection works.
Photo-02-JNT-257	Connection chamber	Sep.29,13	Starting disinfection works.
Photo-02-JNT-258	Site	Sep.30,13	Taking disinfection samples by laboratory representatives.
Photo-02-JNT-259	St. (00+000)	Oct.01,13	Connect to the existing network for Aljab 'a.
Photo-02-JNT-260	Connection chamber	Oct.05,13	Checking valves during water running.
Photo-02-JNT-261	At St.(10+700)	Oct.06,13	Connect to the existing network at Nuba main connection chamber.
Photo-02-JNT-262	Site	Oct.07,13	Installation of the marker post
Photo-02-JNT-263	From St.(00+230) to St.(03+400)	Oct.10,13	Taking asphalt core test samples by building center representatives.
Photo-02-JNT-264	From St.(00+230) to St.(03+400)	Oct.10,13	Measuring thickness of asphalt core sample using caliber by building center representatives.
Photo-02-JNT-265	From St.(03+400) to St.(10+700)	Oct.12,13	Taking asphalt core test samples by building center representatives.
Photo-02-JNT-266	From St.(03+400) to St.(10+700)	Oct.12,13	Asphalt core test sample after extracting.
Photo-02-JNT-267	At St. (11+250)	Oct.13,13	Connect to the existing Nuba and Hata Network.
Photo-02-JNT-268	At Al-Jab'a Gate	Oct.20,13	Hebron DCL through their visit.
Photo-02-JNT-269	IRD main office-Ramallah	Oct.27,13	Siemens presentation and training.
Photo-02-JNT-270	IRD main office-Ramallah	Oct.27,13	Siemens presentation and training.
Photo-02-JNT-271	Inside the chamber	Oct.28,13	Siemens training for electro magnetic flow meters.
Photo-02-JNT-272	On site	Oct.28,13	Siemens training for electro magnetic flow meters.
Photo-02-JNT-273	Inside the chamber	Oct.30,13	Training by Bermad for WBWD staff.
Photo-02-JNT-274	Inside the chamber	Oct.30,13	Training by Bermad for WBWD staff.
Photo-02-JNT-275	On site	Oct.31,13	Review punch list items during final handing over.
Photo-02-JNT-276	Engineer's site office	Oct.31,13	Meeting after performing final handing over on site.

IRD International Relief & Development

Construction Photo Log

Task Order:		**AID - 294 - TO - 12 - 00002**	
Project:		**Al Jaba' Nuba Main Transmission Pipeline Project**	
Photo No.	**Date**	**Photo**	**Description**
Photo-02-JNT-001	Sep.29,12		Handing over Al-Jab'a Nuba main transmission pipeline construction site.
Photo-02-JNT-002	Oct.14,12		Painting of the engineer's secondary office.
Photo-02-JNT-003	Oct.22,12		Participants in the walk through JNT project.
Photo-02-JNT-004	Oct.31,12		JNT-walk through JNT project.
Photo-02-JNT-005	Nov.01,12		Continuing the work (preparing the storage yard).
Photo-02-JNT-006	Nov.03,12		Continuing of preparing the storage yard by spreading the base coarse.
Photo-02-JNT-007	Nov.04,12		Surveying work.
Photo-02-JNT-008	Nov.05,12		Installing the gate for the storage yard.

Photo No.	Date	Photo	Description
Photo-02-JNT-009	Nov.05,12		Surveying work.
Photo-02-JNT-010	Nov.07,12		Installing electricity, lighting and water for storage yard.
Photo-02-JNT-011	Nov.08,12		Re Dilapidation survey
Photo-02-JNT-012	Nov.08,12		Walkthrough in Kharas area to locate underground utilities.
Photo-02-JNT-013	Nov.11,12		Surveying work.
Photo-02-JNT-014	Nov.12,13		Installing the safety signs in the storage yard
Photo-02-JNT-015	Nov.13,12		Surveying work.
Photo-02-JNT-016	Nov.20,12		Preparing anew storage area.

Photo No.	Date	Photo	Description
Photo-02-JNT-017	Nov.21,12		Preparing anew storage area.
Photo-02-JNT-018	Nov.22,13		Installation of the main entrance gate of the second storage yard.
Photo-02-JNT-019	Nov.25,12		Investigation and Setting the point for testing the pipe line pressure.
Photo-02-JNT-020	Nov.26,12		Walkthrough the end of the project.
Photo-02-JNT-021	Nov.28,12		Kharas municipality representative confirmed the locations of water and sewage pipes.
Photo-02-JNT-022	Nov.29,12		Visiting the water pipes factory (FIP) to inspect [(1000 ml), 12"] steel pipes.
Photo-02-JNT-023	Dec.02,12		Walkthrough Surif area.
Photo-02-JNT-024	Dec.03,12		Walkthrough Surif area.

Photo No.	Date	Photo	Description
Photo-02-JNT-025	Dec.04,12		Visiting the "FIP" & inspect the process of adding the internal lining.
Photo-02-JNT-026	Dec.04,12		Determined the DN 250mm and DN 800mm pipes by Makarot team.
Photo-02-JNT-027	Dec.12,12		Surveying the Jab'a connection.
Photo-02-JNT-028	Dec.13,12		Walkthrough in Surif area .
Photo-02-JNT-029	Dec.15,12		Supplying base course material & the site.
Photo-02-JNT-030	Dec.16,12		Taking base course samples for necessary laboratory test.
Photo-02-JNT-031	Dec.17,12		Supplying the single size aggregate.
Photo-02-JNT-032	Dec.18,12		Attending the base course lab test in the Building center.

Photo No.	Date	Photo	Description
Photo-02-JNT-033	Dec.19,13		Supplying the single size aggregate.
Photo-02-JNT-034	Dec.20,12		Determined with Hebron municipality experts the location of electric cable (high voltage).
Photo-02-JNT-035	Dec.23,12		Supplying single size aggregate.
Photo-02-JNT-036	Dec.24,12		Supplying pipes 12" to storage yard.
Photo-02-JNT-037	Dec.25,12		Supplying pipes 12" & Storage yard.
Photo-02-JNT-038	Dec.26,12		Supplying steel mini guard & storage.
Photo-02-JNT-039	Dec.27,12		Taking sample for sand bedding material test by B.C laboratory.
Photo-02-JNT-040	Dec.29,12		Applying of the external coating for 1633.5 of 12" Ø steel pipes on FIP.

Photo No.	Date	Photo	Description
Photo-02-JNT-041	Dec.30,12		Visit the source of Base coarse (crusher).
Photo-02-JNT-042	Dec.31,12		Visit to FIP factory to inspect the external coating of 12" Steel Pipes.
Photo-02-JNT-043	Jan.01,12		Inspection visit to FIP for pipes internal lining in presence of task order manager Eng. Dauad Abu Ghana.
Photo-02-JNT-044	Jan.02,13		Arrangement the unsafe pipes in the storage yard to conform the QC plan.
Photo-02-JNT-045	Jan.03,13		Installing safety signs for backfilling stock pile in Surif.
Photo-02-JNT-046	Jan.13,13		Installing traffic signs.
Photo-02-JNT-047	Jan.14,13		Determined the width of the asphalt.
Photo-02-JNT-048	Jan.15,13		Supplying pipes to storage yard.

Photo No.	Date	Photo	Description
Photo-02-JNT-049	Jan.16,13		Installing traffic signs.
Photo-02-JNT-050	Jan.17,13		Marking the alignment.
Photo-02-JNT-051	Jan.17,13		Measuring pressure for existing water pipe line.
Photo-02-JNT-052	Jan.20,13		Installing traffic signs.
Photo-02-JNT-053	Jan.20,13		Alignment marking.
Photo-02-JNT-054	Jan.22,13		Taking sample for backfilling material test (Base course).
Photo-02-JNT-055	Jan.23,13		Walkthrough to determine the location of revised connection chamber.
Photo-02-JNT-056	Jan.24,13		Preparing excavation equipment's in the site (Trencher , JCB, Bobcat).

Photo No.	Date	Photo	Description
Photo-02-JNT-057	Jan.27,13		Start of excavation.
Photo-02-JNT-058	Jan.28,13		Installation of 10" steel pipes.
Photo-02-JNT-059	Jan.29,13		Arranging the steel mini guards around the excavated trench.
Photo-02-JNT-060	Jan.30,13		Compacting the backfilling material.
Photo-02-JNT-061	Jan.31,13		Stacking the delivered wooden bases at the storage yard.
Photo-02-JNT-062	Feb.02,13		Cleaning the sidewalk Between the stockpiled single size aggregate.
Photo-02-JNT-063	Feb.03,13		Excavation the 10" pipeline trench .
Photo-02-JNT-064	Feb.04,13		Welding the 10" steel pipes.

Photo No.	Date	Photo	Description
Photo-02-JNT-065	Feb.05,13		Placing concrete to encase the 10" pipe above the culvert.
Photo-02-JNT-066	Feb.06,13		String the delivered reinforcement steel bars using wooden bases and nylon sheets for covering.
Photo-02-JNT-067	Feb.07,13		Placing concrete to encase the pipe above the culvert.
Photo-02-JNT-068	Feb.09,13		RT testing for mitered bends welded joint.
Photo-02-JNT-069	Feb.10,13		JNT- Placing concrete to encase the pipe above the road culvert.
Photo-02-JNT-070	Feb.11,13		Spraying water for dust control.
Photo-02-JNT-071	Feb.12,13		JNT- Placing concrete & encase the installed 10" pipe above the culvert.
Photo-02-JNT-072	Feb.13,14		JNT- Installing the identification / marking tape and backfilling the excavated trench with base course material.

Photo No.	Date	Photo	Description
Photo-02-JNT-073	Feb.14,13		Storage area after removal of all rejected bedding material.
Photo-02-JNT-074	Feb.16,13		Concrete encasement for 10" steel pipes at road crossing .
Photo-02-JNT-075	Feb.17,13		Compacting the base course layer after watering.
Photo-02-JNT-076	Feb.18,13		Preparing the road detour.
Photo-02-JNT-077	Feb.19,13		Witnessing the testing of the collected base course samples.
Photo-02-JNT-078	Feb.20,13		Removing the rejected base course material Between the trench.
Photo-02-JNT-079	Feb.21,13		Excavating the hard rock of the pipeline trench .
Photo-02-JNT-080	Feb.23,13		Delivering and stockpiling the base course material.

Photo No.	Date	Photo	Description
Photo-02-JNT-081	Feb.24,13		Marking the 12-inch pipeline alignment.
Photo-02-JNT-082	Feb.25,13		Delivering the 3" and 2" steel pipes to the storage yard.
Photo-02-JNT-083	Feb.26,13		Compacting top base course layer preparing for asphalting.
Photo-02-JNT-084	Feb.27,13		Hard rock encountered formation through the excavated 12" pipeline trench.
Photo-02-JNT-085	Feb.28,13		USAID and PWA representatives discussing the work progress with members Between Surif Municipality.
Photo-02-JNT-086	Mar.02,13		Starting the asphalting works.
Photo-02-JNT-087	Mar.03,13		Asphalting the first layer of the pipeline trench.
Photo-02-JNT-088	Mar.04,13		Asphalting the 10-inch pipeline trench.

Photo No.	Date	Photo	Description
Photo-02-JNT-089	Mar.05,13		Collecting testing sample Between the delivered Somsom material.
Photo-02-JNT-090	Mar.06,13		Distributing flyers for JNT project & the residents.
Photo-02-JNT-091	Mar.07,13		Collecting testing samples Between the delivered single size aggregates material by authorized representatives Between BC lab.
Photo-02-JNT-092	Mar.09,13		Conducting the radiographic testing for the welded joints of the 12-inch steel pipes inside the trench.
Photo-02-JNT-093	Mar.10,13		Excavating the 12-inch and 3-inch pipelines trench.
Photo-02-JNT-094	Mar.11,13		Excavating the air release valve chamber.
Photo-02-JNT-095	Mar.12,13		Paced ready mix concrete to encase the weak soil section through the pipeline trench.
Photo-02-JNT-096	Mar.13,13		Inspecting the PE external coating thickness for 10" steel pipes.

Photo No.	Date	Photo	Description
Photo-02-JNT-097	Mar.14,13		The delivered 10-inch steel pipes – Before coating.
Photo-02-JNT-098	Mar.15,13		Excavating the 12-inch pipeline trench – night shift.
Photo-02-JNT-099	Mar.16,13		Installing reinforcing steel bars for the ARV chamber base slab.
Photo-02-JNT-100	Mar.17,13		Vibrating & consolidate the placed ready mix concrete (B350) for ARV chamber base slab.
Photo-02-JNT-101	Mar.18,13		The completed prepared road detour.
Photo-02-JNT-102	Mar.19,13		Cleaning the working area of the 12-inch pipeline trench.
Photo-02-JNT-103	Mar.20,13		Preparing the 12-inch pipeline trench for asphalting.
Photo-02-JNT-104	Mar.21,13		Formwork for the ARV walls chamber.

Photo No.	Date	Photo	Description
Photo-02-JNT-105	Mar.23,13		Formwork and steel reinforcement for the walls of the WO chamber.
Photo-02-JNT-106	Mar.24,13		Continuing formwork for the walls of the WO chamber.
Photo-02-JNT-107	Mar.25,13		USAID representative visiting the site working area & check work progress.
Photo-02-JNT-108	Mar.26,13		Collecting concrete compressive strength testing samples – WO chamber.
Photo-02-JNT-109	Mar.27,13		Curing process for the placed concrete of the walls and roof slab for ARV chamber.
Photo-02-JNT-110	Mar.28,13		Visiting the project site by USAID representative to check the work progress.
Photo-02-JNT-111	Mar.30,13		Completing formwork and steel reinforcement for the base slab of BFV and ARV chambers.
Photo-02-JNT-112	Mar.31,13		Preparing & resume 10-inch pipeline excavation.

Photo No.	Date	Photo	Description
Photo-02-JNT-113	Apr.01,13		Insulating the external walls of the ARV chamber using bitumen emulsion coating .
Photo-02-JNT-114	Apr.02,13		Installation of the 2" galvanized (SCH40) pipes.
Photo-02-JNT-115	Apr.03,13		Starting 10-inch pipeline trenching.
Photo-02-JNT-116	Apr.04,13		Cleaning and removing the remaining backfilling material.
Photo-02-JNT-117	Apr.06,13		Excavating Al-Jabaa and the flow monitoring chambers.
Photo-02-JNT-118	Apr.07,13		Conducting joint visit & Kharas municipality & coordinate for marking the pipeline alignment and starting the work.
Photo-02-JNT-119	Apr.08,13		Formwork and steel reinforcement for the washout chamber base slab.
Photo-02-JNT-120	Apr.09,13		Encountered hard rock during the excavation of Al-Jab'a connection chamber.

Photo No.	Date	Photo	Description
Photo-02-JNT-121	Apr.10,13		Excavating work for AL-Jabaa connection chamber.
Photo-02-JNT-122	Apr.11,13		Installing the 10-inch steel pipeline.
Photo-02-JNT-123	Apr.13,13		Preparing the top base course layer of the 10-inch pipeline trench for asphalting.
Photo-02-JNT-124	Apr.14,13		Preparing the 10-inch pipeline trench for asphalting.
Photo-02-JNT-125	Apr.15,13		Asphalting the 12-inch pipeline trench section.
Photo-02-JNT-126	Apr.16,13		Excavating the 10-inch pipeline trench.
Photo-02-JNT-127	Apr.17,13		Placed blinding concrete layer for the WO chamber.
Photo-02-JNT-128	Apr.18,13		Encountered hard rock layers during 10-inch pipeline trenching.

Photo No.	Date	Photo	Description
Photo-02-JNT-129	Apr.20,13		Starting and continue excavation of the 10" steel pipe trench.
Photo-02-JNT-130	Apr.21,13		Delivering new concrete barriers to protect the excavated chambers.
Photo-02-JNT-131	Apr.22,13		Witnessing the concrete compressive strength test.
Photo-02-JNT-132	Apr.23,13		Fabricating 10-inch steel mitered bends (11.25 degrees).
Photo-02-JNT-133	Apr.24,13		Leveling the placed concrete for the base slab of the flow monitoring chambers.
Photo-02-JNT-134	Apr.25,13		USAID and PWA visit & JNT Project Site.
Photo-02-JNT-135	Apr.27,13		Removing the formwork for the walls of Al-Jabaa connection.
Photo-02-JNT-136	Apr.28,13		Formwork and steel reinforcement for Al-Jabaa connection chamber.

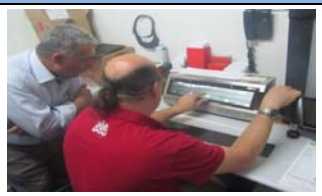
Photo No.	Date	Photo	Description
Photo-02-JNT-137	Apr.29,13		Checking the RT testing films.
Photo-02-JNT-138	Apr.30,13		Formwork and steel reinforcement for the base slab of Surif connection chamber.
Photo-02-JNT-139	May 01,13		Saw cutting for the road asphalt & prepare for asphalting the 10" pipeline trench.
Photo-02-JNT-140	May 02,13		Spraying MC and TC low-viscosity prime coat prior & asphalting.
Photo-02-JNT-141	May 04,13		Preparing the 10-inch pipeline trench for asphalting.
Photo-02-JNT-142	May 05,13		Collecting testing samples for concrete compressive strength.
Photo-02-JNT-143	May 06,13		Welding and installing the 10-inch steel pipes.
Photo-02-JNT-144	May 07,13		Collecting testing samples for the delivered Somsom materials & the site.

Photo No.	Date	Photo	Description
Photo-02-JNT-145	May 08,13		Formwork and steel reinforcement for walls of the washout chamber.
Photo-02-JNT-146	May 09,13		Formwork and steel reinforcement for the roof slab of the flow monitoring chamber (Manhole # 2).
Photo-02-JNT-147	May 11,13		Excavating the 10-inch pipeline trench.
Photo-02-JNT-148	May 12,13		Placing concrete for the roof slab of Kherbet Addair connection chamber.
Photo-02-JNT-149	May 13,13		Installing the 10-inch steel pipes.
Photo-02-JNT-150	May 14,13		Excavating the 10-inch pipeline trench.
Photo-02-JNT-151	May 15,13		Testing the welded joints by the certified welding inspector.
Photo-02-JNT-152	May 16,13		Core test for the in-place concrete of the walls of the ARV chamber.

Photo No.	Date	Photo	Description
Photo-02-JNT-153	May 18,13		Collecting testing samples for the base course top layer compaction test.
Photo-02-JNT-154	May 19,13		Placing concrete for the walls of the WO chamber.
Photo-02-JNT-155	May 20,13		Collecting concrete compressive strength testing samples.
Photo-02-JNT-156	May 21,13		Conducting the core test for the walls of the WO chamber.
Photo-02-JNT-157	May 22,13		Collecting testing samples for the delivered concrete compressive strength.
Photo-02-JNT-158	May 25,13		Excavating the 10-inch pipeline trench.
Photo-02-JNT-159	May 26,13		Casting concrete for the roof slab of the GV chamber.
Photo-02-JNT-160	May 27,13		General cleaning of the 10-inch pipeline trench.

Photo No.	Date	Photo	Description
Photo-02-JNT-161	May 28,13		Collecting testing samples for base course compaction test by authorized representative Between BC laboratory.
Photo-02-JNT-162	May 29,13		Asphalting the first layer of the trench.
Photo-02-JNT-163	May 30,13		Collecting testing samples for base course compaction test.
Photo-02-JNT-164	June 01,13		Asphalting the 10-inch pipeline trench.
Photo-02-JNT-165	June 02,13		Starting excavation work for Kharas connection chamber.
Photo-02-JNT-166	June 03,13		Excavation work for the 10-inch pipeline trench.
Photo-02-JNT-167	June 04,13		Excavation work for the 10-inch pipeline trench.
Photo-02-JNT-168	June 05,13		Excavation work for the 10-inch pipeline trench inside Kharas village.

Photo No.	Date	Photo	Description
Photo-02-JNT-169	June 06,13		Applied second layer of Bitumen Emulsion Coating for ARV chamber.
Photo-02-JNT-170	June 08,13		Excavation work for the 10-inch pipeline trench.
Photo-02-JNT-171	June 09,13		Casting concrete for the walls of Nuba Hata connection chamber.
Photo-02-JNT-172	June 10,13		Excavating the 10-inch pipeline trench.
Photo-02-JNT-173	June 11,13		Starting excavation work for Nuba main connection chamber.
Photo-02-JNT-174	June 12,13		Sprayed MC and TC low viscosity coating prior & start asphalting.
Photo-02-JNT-175	June 13,13		Placing ready mix concrete (B350) for the roof slab of Nuba Hata connection chamber.
Photo-02-JNT-176	July 15,13		Trenching work for the 10-inch steel pipeline.

Photo No.	Date	Photo	Description
Photo-02-JNT-177	June 16,13		Joint site visit with Surif municipality representatives through the proposed road.
Photo-02-JNT-178	June 17,13		Leveling the placed concrete for the base slab of Nuba main connection chamber.
Photo-02-JNT-179	July 18,13		Asphalted first layer for 10-inch pipeline trench.
Photo-02-JNT-180	June 19,13		Excavating the last section of 10-inch pipeline trench using the JCB Backhoe.
Photo-02-JNT-181	June 20,13		Backfilled last section of the 10-inch pipeline trench.
Photo-02-JNT-182	June 22,13		Protecting the excavated edges of Nuba main connection chamber using steel sheets and wooded frames.
Photo-02-JNT-183	June 23,13		Excavating the 12-inch pipeline trench.
Photo-02-JNT-184	June 24,13		Placing ready mix concrete (B350) for the walls of Nuba main connection chamber.

Photo No.	Date	Photo	Description
Photo-02-JNT-185	June 25,13		Placing concrete for the base slab of the washout chamber.
Photo-02-JNT-186	June 26,13		Welding the washout line with the main 12-inch pipeline.
Photo-02-JNT-187	June 27,13		Connected 12-inch steel pipeline with the Flow Monitoring Chamber.
Photo-02-JNT-188	June 29,13		Excavation work & connect the WO line with outfall line.
Photo-02-JNT-189	June 30,13		Ready mix concrete cubical samples for testing.
Photo-02-JNT-190	July 01,13		Pre-casted concrete chambers.
Photo-02-JNT-191	July 02,13		Compacting of the piping trench first layer of asphalt.
Photo-02-JNT-192	July 03,13		Excavation of the trench piping for Kherbet AL Dier connection.

Photo No.	Date	Photo	Description
Photo-02-JNT-193	July 04,13		Excavation of the piping trench for Kherbet Al Dier connection.
Photo-02-JNT-194	July 06,13		Excavation of the trench piping connection to the ARV chamber.
Photo-02-JNT-195	July 07,13		Excavation of the piping trench.
Photo-02-JNT-196	July 08,13		Excavation of the pre-casted ARV Chamber.
Photo-02-JNT-197	July 09,13		Excavation of the piping trench.
Photo-02-JNT-198	July 14,13		Prepared the top base course layer for asphalting the first layer.
Photo-02-JNT-199	June 15,13		Starting filling JNT pipeline with water & conduct the hydro-static pressure test.
Photo-02-JNT-200	June 16,13		Asphalting the first layer of the 10-inch pipeline trench.

Photo No.	Date	Photo	Description
Photo-02-JNT-201	July 17,13		Preparations to fill the second section of JNT pipeline and & conduct the hydro-static pressure test.
Photo-02-JNT-202	June 18,13		Excavation work for the first section of Al-Jabaa road.
Photo-02-JNT-203	June 21,13		Filling the second section of JNT pipeline.
Photo-02-JNT-204	July 22,13		Test pressure value at the lowest point.
Photo-02-JNT-205	July 23,13		Precast washout chamber.
Photo-02-JNT-206	July 24,13		The first section of Al-Jabaa road.
Photo-02-JNT-207	July 25,13		Hydro-static test pressure for the 4-inch pipeline section and the 3-inch pipeline section.
Photo-02-JNT-208	July 27,13		Excavation of the existing asphalt of Al Jab'a road.

Photo No.	Date	Photo	Description
Photo-02-JNT-209	July 28,13		Excavation of the existing asphalt of Al Jab'a road.
Photo-02-JNT-210	July 31,13		Milling of the trench.
Photo-02-JNT-211	Aug.01,13		Base course sampling by the laboratory for comprehensive testing.
Photo-02-JNT-212	Aug.04,13		Marking the road / trench for milling.
Photo-02-JNT-213	Aug.05,13		Installation of the precast chamber.
Photo-02-JNT-214	Aug.06,13		Material loose sampling for testing.
Photo-02-JNT-215	Aug.13,13		Trench road milling.
Photo-02-JNT-216	Aug.14,13		Inspection of the sub grade survey of Al Jab'a road.

Photo No.	Date	Photo	Description
Photo-02-JNT-217	Aug.15,13		Survey works of Al Jab'a Sub grade.
Photo-02-JNT-218	Aug.17,13		Delivered materials, valves and fittings.
Photo-02-JNT-219	Aug.18,13		Applying safety measures and preparing for the trench top base course layer compaction.
Photo-02-JNT-220	Aug.19,13		Installation of the WO chamber gate valve.
Photo-02-JNT-221	Aug.20,13		Preparation of Al Jab'a Sub grade.
Photo-02-JNT-222	Aug.21,13		Milling of the trench asphalt.
Photo-02-JNT-223	Aug.22,13		Spreading the base course layer for Al-Jabaa road.
Photo-02-JNT-224	Aug.23,13		Installing the 2-inch galvanized steel pipes.

Photo No.	Date	Photo	Description
Photo-02-JNT-225	Aug.24,13		Compacting the second layer of asphalt.
Photo-02-JNT-226	Aug.25,13		Asphalting the 2nd layer for JNT pipeline trench.
Photo-02-JNT-227	Aug.26,13		Milling work for the asphalted pipeline trench.
Photo-02-JNT-228	Aug.27,13		Asphalt milling in preparation for the asphalting the second layer.
Photo-02-JNT-229	Aug.28,13		Milling work for the asphalted pipeline trench.
Photo-02-JNT-230	Aug.29,13		The sprayed RC for the asphalt second layer.
Photo-02-JNT-231	Aug.31,13		Compacting the asphalt of Al Jab'a road.
Photo-02-JNT-232	Sep.01,13		Compacting the asphalt layer of Al Jab'a road.

Photo No.	Date	Photo	Description
Photo-02-JNT-233	Sep.02,13		Preparing the road from asphalting the ¾" second layer.
Photo-02-JNT-234	Sep.03,13		Collecting samples of compacted sub grade.
Photo-02-JNT-235	Sep.04,13		Asphalting the ¾" second layer.
Photo-02-JNT-236	Sep.05,13		Asphalting the ¾" second layer.
Photo-02-JNT-237	Sep.07,13		Compacting the asphalt layer of the road.
Photo-02-JNT-238	Sep.08,13		The sprayed prime coat - MC.
Photo-02-JNT-239	Sep.09,13		Casting concrete protection.
Photo-02-JNT-240	Sep.10,13		Asphalting the second layer.

Photo No.	Date	Photo	Description
Photo-02-JNT-241	Sep.11,13		Asphalting the ¾" second layer.
Photo-02-JNT-242	Sep.12,13		Excavating the 2" trench of Al Jab'a connection.
Photo-02-JNT-243	Sep.15,13		General Cleaning of trench / road.
Photo-02-JNT-244	Sep.16,13		Mechanical Installation in chambers.
Photo-02-JNT-245	Sep.17,13		Road Marking of centerline.
Photo-02-JNT-246	Sep.18,13		Road marking of side line.
Photo-02-JNT-247	Sep.19,13		Installing the valves and fittings inside Kharas connection chamber.
Photo-02-JNT-248	Sep.21,13		Using Calorimeter to test the chlorinated water concentration.

Photo No.	Date	Photo	Description
Photo-02-JNT-249	Sep.22,13		Pouring sodium hypochlorite inside water hose to fill JNT pipeline with chlorinated water.
Photo-02-JNT-250	Sep.23,13		Pouring and mixing sodium hypochlorite through the supply water hose and using safety equipment
Photo-02-JNT-251	Sep.24,13		Installed JNT project permanent sign.
Photo-02-JNT-252	Sep.25,13		Installing valves and fittings inside Nuba Hata connection chamber and preparing to asphalt the adjacent area.
Photo-02-JNT-253	Sep.26,13		Initial Handover for JNT Project with representatives from USAID, PWA, WBWD, B&V, IRD, and Brothers.
Photo-02-JNT-254	Sep.28,13		Install the pressure gauge.
Photo-02-JNT-255	Sep.28,13		Check and calibrate bermad installed valves by Bermad representative
Photo-02-JNT-256	Sep.29,13		Taking sample to start disinfection works.

Photo No.	Date	Photo	Description
Photo-02-JNT-257	Sep.29,13		Starting disinfection works.
Photo-02-JNT-258	Sep.30,13		Taking disinfection samples by laboratory representatives.
Photo-02-JNT-259	Oct.01,13		Connect to the existing network for Aljab 'a.
Photo-02-JNT-260	Sep.05,13		Checking valves during water running.
Photo-02-JNT-261	Oct.06,13		Connect to the existing network at Nuba main connection chamber.
Photo-02-JNT-262	Oct.07,13		Installation of the marker post
Photo-02-JNT-263	Oct.10,13		Taking asphalt core test samples by building center representatives.
Photo-02-JNT-264	Oct.10,13		Measuring thickness of asphalt core sample using caliber by building center representatives.

Photo No.	Date	Photo	Description
Photo-02-JNT-265	Oct.12,13		Taking asphalt core test samples by building center representatives.
Photo-02-JNT-266	Oct.12,13		Asphalt core test sample after extracting.
Photo-02-JNT-267	Oct.13,13		Connect to the existing Nuba and Hata Network.
Photo-02-JNT-268	Oct.20,13		Hebron DCL through their visit.
Photo-02-JNT-269	Oct.27,13		Siemens presentation and training.
Photo-02-JNT-270	Oct.27,13		Siemens presentation and training.
Photo-02-JNT-271	Oct.28,13		Siemens training for electro magnetic flow meters.
Photo-02-JNT-272	Oct.28,13		Siemens training for electro magnetic flow meters.

Photo No.	Date	Photo	Description
Photo-02-JNT-273	Oct.30,13		Training by Bermad for WBWD staff.
Photo-02-JNT-274	Oct.30,13		Training by Bermad for WBWD staff.
Photo-02-JNT-275	Oct.31,13		Review punch list items during final handing over.
Photo-02-JNT-276	Oct.31,13		Meeting after performing final handing over on site.

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Construction Photo Log

Task Order: **AID - 294 - TO - 12 - 00002**
Project: **Al Jab'a Nuba Main Transmission Pipeline Project**

Photo No.	Date	Photo	Description
Photo-02-JNT-001	Sep 29,2012		Handling over project "2" construction site bench marks.
Photo-02-JNT-002	Nov 21,2012		B&V,IRD and Meckrot representatives discussing the connection of the existing Meckrot water line at Al-Jab'a.
Photo-02-JNT-003	Dec 10,2012		Exposing of existing Mekerot pipes in presence of Mekerot representatives.
Photo-02-JNT-004	Dec 13,2012		Conducting of walk through in Surif area in presence of Surif municipality representative.
Photo-02-JNT-005	Dec 20,2012		Hebron Municipality engineer ,technician and in presence of Surif municipality technician checking the locations of the existing underground high voltage cables between St.(02+300) and St.(02+700).

Photo No.	Date	Photo	Description
Photo-02-JNT-006	Feb 05,2012		PWA representatives checking the work progress.
Photo-02-JNT-007	Feb 07,2012		Site visit by USAID and PWA representatives.
			Site visit by USAID and B&V representatives.
Photo-02-JNT-008	Feb 10,2012		Incident location onsite at St.(07+900) during the unloading of delivered 10" steel pipes in the presence of QC and production department representatives.
Photo-02-JNT-009	Feb 14,2012		USAID representative during the visit to the site working area at St.(07+300).

Photo No.	Date	Photo	Description
Photo-02-JNT-010	Feb 28,2012		Site visit by USAID and PWA representatives through the prepared pipeline trench for asphalting at St.(08+900), St.(02+500), and St. (01+400).
Photo-02-JNT-011	Mar 13,2013		Visiting the site working area by USAID representative from St.(01+980) to St.(01+915).
Photo-02-JNT-012	Mar 24 2013		Jawwal engineers checking the signal strength at the connection chambers locations.
Photo-02-JNT-013	Mar 25 2013		USAID representative visiting the site working area to check work progress at St.(01+700).
Photo-02-JNT-014	Mar 28,2013		Visiting the project site by USAID representative to check the work progress at St.(02+500).

Photo No.	Date	Photo	Description
Photo-02-JNT-015	Apr 15,2013		USAID representative site visit to site at St.(02+950).
Photo-02-JNT-016	Apr 22,2013		Joint site visit with Paltel team at Kharas village to mark the underground cables and conduits.
Photo-02-JNT-017	Apr 25,2013		USAID and PWA visiting to JNT project site at St.(06+350).
			USAID and PWA visit to JNT Project Site at St.(00+090).
Photo-02-JNT-018	May 07,2013		Excavating pits to locate the existing Makarot lines at St.(00+000) in the presence of Mekerot representatives.

Photo No.	Date	Photo	Description
Photo-02-JNT-019	May 13,2013		USAID visit to the project site at St.(04+650).
Photo-02-JNT-020			PWA QC team visit to the project site at St. (04+650).
Photo-02-JNT-021	May 20,2013		Joint visit with Arc Eyes team to discuss the alternate UT testing method.
Photo-02-JNT-022			Joint visit with PWA and Nuba municipality representatives to confirm the location of Nuba-Hata chamber.

Photo No.	Date	Photo	Description
Photo-02-JNT-023	May 23,2013		USAID and PWA representatives visiting the site at location of Al-Jab'a connection chamber.
Photo-02-JNT-024			USAID and PWA representatives visiting the site at location of the gate valve chamber at St.(06+741).
Photo-02-JNT-025	May 28,2013		RT testing for the 10-inch steel pipeline welded joints.
Photo-02-JNT-026	May 29,2013		RT testing for the 10-inch steel pipeline welded joints.
Photo-02-JNT-027	June 03,2013		Joint site visit with Kharas municipality members.

Photo No.	Date	Photo	Description
Photo-02-JNT-028	June11,2013		USAID and PWA representatives visiting the JNT project site inside Kharas village.
			USAID and PWA representatives visiting the JNT project site inside Kharas village.
Photo-02-JNT-029	June16,2013		Joint site visit with Surif municipality representatives through the proposed road at Al-Jab'a area.
Photo-02-JNT-030	June19,2013		USAID COR visiting the location of Nuba main connection chamber.
			USAID COR meeting the Mayor of Kharas village at the site.

Photo No.	Date	Photo	Description
Photo-02-JNT-031	Aug 20,2013		USAID COR site visit.
Photo-02-JNT-032	Sep 03,2013		COR Bi-weekly Progress meeting at B&V site office.
Photo-02-JNT-033	Sep 26,2013		Initial Handover for JNT Project with representatives from USAID, PWA, WBWD, B&V, IRD, and Brothers.
Photo-02-JNT-034	Oct 20,2013		Hebron DCL through their visit at Al-Jab'a gate

Photo No.	Date	Photo	Description
Photo-02-JNT-035	Oct 28,2013		Onsite Siemens training for electro magnetic flow meters.
Photo-02-JNT-036	Oct 30,2013		Onsite training by Bermad for WBWD staff.
Photo-02-JNT-037	Oct 31,2013		Review punch items comments during final handing over.

IRD International Relief & Development
SUBMITTAL REGISTER LOG/SCHEDULE

Contract No. AID-294-TO-12-00002
NTP: 27-Sep-12

Submittal Register Log

Task Order:	**WJN-02**
Project 1:	**Project 1: Well #17 Pump Station and Conveyance System**
Project 2:	**Project 2: Al Jaba' Nuba Main Transmission Pipeline Project**

NOA: 13-Sep-12

Submittal Categories		Submittal Classification		Identifiers:		Resubmittal Alpha Identifier		Submittal Disposition/ Color Coding
PD	PRODUCT DATA	PCS	Preconstruction	WJN	: Task Order No 02 Identifier	First Submittal	SUB-02-W17-001-A	A – No Exceptions Noted
SD	SHOP DRAWINGS	CONS	Construction	W17	: Project 1 Identifier	First RE-Submittal	SUB-02-W17-001-B	B - Make Corrections Noted
AD	ADMINISTRATIVE/OTHER	PSTS	Post construction	JNT	: Project 2 Identifier	Second Resubmittal	SUB-02-W17-001-C	C- Amend and Resubmit
TR	TEST REPORT							D- Rejected- Resubmit
SCH	SCHEDULE							E- Review Not Required
RPT	REPORT							Submitted Pending Response
SMP	SAMPLE							
CO	COMPLETION & CLOSEOUT							
MAT	MATERIAL							

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Submittal Number	Submittal Description	Specification Number	Submittal Category	Submittal Classification	Submittal Type	Project Identifier	Schedule Activity ID	BOQ Item No.	Rev.	Contractual Submission Date	Planned Submission Date to ENGINEER	Actual Submission Date	Submission Delay	Response Needed by (Max. 30 days)	Date Returned to IRD	Total Engineer Response Time	Submittal Disposition (Grade)	Remarks
SUB-002-JNT-001-A	Construction Risk Management Plan	N.A.	AD	PCS	SUB	JNT	PCS-JNT-260	MOB	A	N.A.		8-Oct-12		7-Nov-12	16-Oct-12	8	B	
SUB-002-WJN-002-A	Performance and Maintenance Bond	N.A.	AD	PCS	SUB	WJN		MOB	A	27-Sep-12	22-Sep-12	24-Sep-12		24-Oct-12	4-Oct-12	10	E	
SUB-002-JNT-003-A	Testing Lab CV	01400	AD	PCS	SUB	JNT	PCS-JNT-200	MOB	A	N.A.		2-Oct-12		1-Nov-12	10-Oct-12	8	B	
SUB-002-JNT-006-A	Project Permanent and Temporary Sign	01580	AD	PCS	SUB	JNT	PCS-JNT-170	MOB	A	7-Oct-12	2-Oct-12	2-Oct-12		1-Nov-12	4-Oct-12	2	B	
SUB-002-WJN-008-A	Key Staff	N.A.	AD	PCS	SUB	WJN	PCS-W17-160 PCS-JNT-160	MOB	A	N.A.	3-Oct-12	3-Oct-12		2-Nov-12	10-Oct-12	7	E	
SUB-002-WJN-010-A	Task Order Computer Systems Furniture and Miscellaneous	1590, 1591	AD	PCS	SUB	WJN	PCS-W17-190 PCS-JNT-190	MOB	A	11-Oct-12		8-Oct-12		7-Nov-12	16-Oct-12	8	B	
SUB-002-WJN-011-A	Engineer's Office Layout	1590, 1591	AD	PCS	SUB	WJN	PCS-W17-180 PCS-JNT-180	MOB	A	11-Oct-12		8-Oct-12		7-Nov-12	16-Oct-12	8	B	
SUB-002-WJN-012-A	Construction Safety Plan	01040, 01520, 01550, 01560, 01640, 01505	AD	PCS	SUB	WJN	PCS-W17-210 PCS-JNT-210	MOB	A	N.A.		8-Oct-12		7-Nov-12	22-Oct-12	14	B	
SUB-002-WJN-012-B	Construction Safety Plan	01040, 01520, 01550, 01560, 01640, 01505	AD	PCS	SUB	WJN	PCS-W17-210 PCS-JNT-210	MOB	A	N.A.		6-Nov-12		6-Dec-12	13-Nov-12	7	B	
SUB-002-JNT-013-A	Submittals Schedule	01300, P1.1D	AD	PCS	SUB	JNT	PCS-JNT-110	MOB	A	11-Oct-12		8-Oct-12		7-Nov-12	16-Oct-12	8	C	
SUB-002-JNT-014-A	Project 60 Days of operation	01311 P1.4	AD	PCS	SUB	JNT	PCS-JNT-130	MOB	A	11-Oct-12		8-Oct-12		7-Nov-12	17-Oct-12	9	C	
SUB-002-JNT-014-B	Project 60 Days of operation	01311 P1.4	AD	PCS	SUB	JNT	PCS-JNT-130	MOB	B			21-Oct-12		20-Nov-12	31-Oct-12	10	B	
SUB-002-JNT-015-A	Project Overview bar chart	01311 P1.4	AD	PCS	SUB	JNT	PCS-JNT-140	MOB	A			8-Oct-12		7-Nov-12	17-Oct-12	9	B	
SUB-002-WJN-016-A	List of permits & licenses		AD	PCS	SUB	WJN	PCS-JNT-120 PCS-W17-120	MOB	A	11-Oct-12		8-Oct-12		7-Nov-12	22-Oct-12	14	B	
SUB-002-JNT-017-A	EMMP-JNT	1560	AD	PCS	SUB	JNT	PCS-JNT-230	MOB	A			9-Oct-12		8-Nov-12	24-Oct-12	15	B	
SUB-002-WJN-018-A	Computerized CPM Capability Statement	Specs No. 1311 item 1.3A	AD	PCS	SUB	WJN	-	MOB	A	7-Oct-12		9-Oct-12		8-Nov-12	17-Oct-12	8	A	
SUB-002-WJN-019-A	IRD Insurance	01505	AD	PCS	SUB	WJN	PCS-W17-100 PCS-JNT-100	MOB	A			9-Oct-12		8-Nov-12	24-Oct-12	15	C	
SUB-002-WJN-019-B	IRD Insurance	01505	AD	PCS	SUB	WJN	PCS-W17-100 PCS-JNT-100	MOB	B			11-Nov-12		11-Dec-12	19-Nov-12	8	E	
SUB-002-JNT-020-A	Subcontractor Insurance	01505	AD	PCS	SUB	JNT	PCS-JNT-100	MOB	A			9-Oct-12		8-Nov-12	24-Oct-12	15	C	
SUB-002-JNT-020-B	Subcontractor Insurance	01505	AD	PCS	SUB	JNT	PCS-JNT-100	MOB	B			11-Nov-12		11-Dec-12	19-Nov-12	8	E	
SUB-002-JNT-021-A	Construction Method Statement	N.A.	AD	PCS	SUB	JNT	PCS-JNT-240	MOB	A			10-Oct-12		9-Nov-12	24-Oct-12	14	C	
SUB-002-JNT-021-B	Construction Method Statement	N.A.	AD	PCS	SUB	JNT	PCS-JNT-240	MOB	B			6-Nov-12		6-Dec-12	11-Nov-12	5	B	
SUB-002-JNT-023-A	Subcontractor Profile- JNT	N.A.	AD	PCS	SUB	JNT	PCS-JNT-150	MOB	A			11-Oct-12		10-Nov-12	22-Oct-12	11	E	
SUB-002-JNT-024-A	Concrete Mix Design	03300, 1.2 A&B	TR	PCS	SUB	JNT	CS-JNT-M100	MOB	A			11-Oct-12		10-Nov-12	5-Nov-12	25	B	
SUB-002-JNT-024-B	Concrete Mix Design	03300, 1.2 A&B	TR	PCS	SUB	JNT	CS-JNT-M100	MOB	B			12-Nov-12		12-Dec-12	19-Nov-12	7	B	
SUB-002-JNT-025-A	Dilapidation Survey	01532, Part 3-3.1	AD	PCS	SUB	JNT	PCS-JNT-270	MOB	A			10-Oct-12		9-Nov-12	22-Oct-12	12	C	
SUB-002-JNT-025-B	Dilapidation Survey	01532, Part 3-3.1	AD	PCS	SUB	JNT	PCS-JNT-270	MOB	B			12-Nov-12		12-Dec-12	20-Nov-12	8	B	
SUB-002-JNT-030-A	Traffic Control Plan	01040, 01550	AD	PCS	SUB	JNT	PCS-JNT-220	MOB	A			11-Oct-12		10-Nov-12	31-Oct-12	20	C	
SUB-002-JNT-030-B	Traffic Control Plan	01040, 01550	AD	PCS	SUB	JNT	PCS-JNT-220	MOB	A			6-Nov-12		6-Dec-12	13-Nov-12	7	B	
SUB-002-WJN-031-A	QA/QC	01400, Basic IQC Contract Section C.9.5	AD	PCS	SUB	WJN	PCS-W17-200 PCS-JNT-200	MOB	A			11-Oct-12		10-Nov-12	41218	25	B	
SUB-002-WJN-031-B	QA/QC	01400, Basic IQC Contract Section C.9.5	AD	PCS	SUB	WJN	PCS-W17-200 PCS-JNT-200	MOB	B			27-Nov-12		27-Dec-12	28-Nov-12	1	B	
SUB-002-JNT-033-A	Temporary Sign Sample	Section 01580-Part 1.2 C- Page 01580-1	SMP	PCS	SUB	JNT	PCS-JNT-170	MOB	A	17-Oct-12		11-Oct-12		10-Nov-12	16-Oct-12	5	A	
SUB-002-WJN-034-A	Mobiles Delivery Submittal	N.A.	MAT	PCS	SUB	WJN	PCS-JNT-190 PCS-W17-190	MOB	A			11-Oct-12		10-Nov-12	22-Oct-12	11	E	
SUB-002-WJN-036-B	Submittals Schedule	01300, P1.1D	AD	PCS	SUB	WJN	PCS-WJN-111	MOB	B			11-Dec-12		11-Dec-12	21-Jan-13	41	C	
SUB-002-WJN-042-A	Pipes and Fittings Product Data	15025, 15000, 02571	PD	PCS	SUB	WJN	CS-W17-321 CS-JNT-M124	MOB	A			30-Oct-12		29-Nov-12	5-Nov-12	6	B	
SUB-002-WJN-042-B	Pipes and Fittings Product Data	15025, 15000, 02572	PD	PCS	SUB	WJN			B			2-Dec-12		1-Jan-13	9-Dec-12	7	B	
SUB-002-JNT-045-A	Storage yard Submittal	01505-Mobilization Sections 1.1.B & 1.1F-8	SD	PCS	SUB	JNT	PCS-JNT-180	MOB	A			6-Nov-12		6-Dec-12	11-Nov-12	5	B	
SUB-002-JNT-046-A	Shop drawings for Main Transmission Pipeline between St. 6+400 to St. 7+900	Section 01300 -Part 1.3 Shop Drawings	SD	CONS	SUB	JNT	CS-JNT-SD 116	MOB	A			6-Nov-12		6-Dec-12	14-Nov-12	8	B	
SUB-002-WJN-048-A	Breakdown Analysis for W17& JNT			CONS	SUB	WJN			A			15-Nov-12		15-Dec-12	9-Dec-12	24	C	
SUB-002-WJN-049-A	Excavation & Trenching Safety Plan	Section 01537-TRENCH SAFETY SYSTEM	AD	PCS	SUB	WJN	PCS-W17-210 PCS-JNT-210	MOB	A			11-Nov-12		11-Dec-12	12-Nov-12	1	B	
SUB-002-JNT-050-A	Original CPM Construction Schedule	Section 1310	SCM	PCS	SUB	JNT	PCS-JNT-250	MOB	A			11-Nov-12		11-Dec-12	28-Nov-12	17	C	
SUB-002-JNT-054-A	Base course material	02200-Parag. 2.1 C7	TR	CONS	SUB	JNT	CS-JNT-M114	MOB	A			12-Nov-12		12-Dec-12	12-Nov-12	0	C	

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SUB-002-JNT-054-B	Base course material	02200-Parag. 2.1 C7	TR	CONS	SUB	JNT	CS-JNT-M114	MOB	B			17-Nov-12		17-Dec-12	21-Nov-12	4	B	
SUB-002-JNT-055-A	Bedding Material -Granular Fill	`	TR	CONS	SUB	JNT	CS-JNT-M104	MOB	A			12-Nov-12		12-Dec-12	12-Nov-12	0	D	
SUB-002-JNT-055-B	Bedding Material	02200-Parag. 2.1 c1& 2	TR	CONS	SUB	JNT	CS-JNT-M104		B			26-Nov-12		26-Dec-12	26-Nov-12	0	B	
SUB-002-JNT-056-A	Single Size Aggregate	02200-Parag. 2.1 C/single size	TR	CONS	SUB	JNT	CS-JNT-M102	MOB	A			12-Nov-12		12-Dec-12	12-Nov-12	0	C	
SUB-002-JNT-056-B	Single Size Aggregate	02200-Parag. 2.1 C/single size	TR	CONS	SUB	JNT	CS-JNT-M102	MOB	B			17-Nov-12		17-Dec-12	21-Nov-12	4	B	
SUB-002-JNT-058-A	Asphalt mix design 1/2 " & 3/4"	2460	TR	CONS	SUB	JNT	CS-JNT-M108	MOB	A			17-Nov-12		17-Dec-12	25-Nov-12	8	B	
SUB-002-JNT-059-A	Identification Tape (Product data & sample)	02200 parag. 2.3 B & C	PD	CONS	SUB	JNT	CS-JNT-M155	MOB	A			15-Nov-12			19-Nov-12	4	C	
SUB-002-JNT-059-B	Identification Tape (Product data & sample)	02200 parag. 2.3 B & C	PD	CONS	SUB	JNT	CS-JNT-M155	MOB	B			21-Nov-12		21-Dec-12	25-Nov-12	4	B	
SUB-002-JNT-063-A	MC (Prime Coat) and RC (Tack Coat)	Section 02460 1.4 C1 a, d2.4 and 2.5	PD	CONS	SUB	JNT	CS-JNT-M110		A			19-Nov-12		19-Dec-12	25-Nov-12	6	B	
SUB-002-JNT-064-A	Reinforcement Steel-Manufacture Data & Tests	01300/03200-parag. 1.2 C	PD	CONS	SUB	JNT	CS-JNT-M106		A			21-Nov-12		21-Dec-12	22-Nov-12	1	B	
SUB-002-JNT-065-A	Shop drawings for Main Transmission Pipeline between St. 7+900 to St. 9+900	1300 P1.3	SD	PCS	SUB	JNT	PCS-JNT-SD-116		A			21-Nov-12		21-Dec-12	3-Dec-12	12	B	
SUB-002-WJN-079-A	Reinforcement Steel bars test reports	03200 parag1.3A	PD	CONS	SUB	WJN	CS-Well 17-560 CS-JNT-M106		A			27-Nov-12		27-Dec-12	28-Nov-12	1	A	
SUB-002-JNT-086-A	Shop drawings for main transmission pipeline between St.9+900 to St.11+351.54	1300 Parag. 1.3	SD	PCS	SUB	JNT	PCS-JNT-SD 116		A			1-Dec-12		30-Dec-12	9-Dec-12	8	C	
SUB-002-JNT-086-B	Shop drawings for main transmission pipeline between St.9+900 to St.11+351.55	1301 Parag. 1.3	SD	PCS	SUB	JNT	PCS-JNT-SD 116		B			16-Dec-12		16-Jan-13	31-Dec-12	15	B	
SUB-002-JNT-088-A	Check valve	13203 parag. 2.1	PD	CONS	SUB	JNT	CS-W17-571		A			2-Dec-12		1-Jan-13	30-Dec-12	28	B	
SUB-002-WJN-089-A	Welding Procedure	02570 parag.:1.31	PD	CONS	SUB	WJN	CS-627		A			2-Dec-12		1-Jan-13	6-Dec-12	4	C	
SUB-02-JNT-093-A	Gate Valves with Actuators	15206+15201 parag. 2.2	PD	CONS	SUB	JNT	CS-JNT-M128		A			17-Dec-12		17-Jan-13	31-Dec-12	14	B	
SUB-002-JNT-094-A	Air Vacuum and air release valves	15230 parag. 2.1	PD	CONS	SUB	JNT	CS-JNT-M132		A			4-Dec-12		4-Jan-13	27-Dec-12	23	B	
SUB-002-JNT-097-A	Control Valves and Pressure Relief Valve	15217+15218 parag. 2.1	PD	CONS	SUB	JNT	CS-JNT-M134		A			4-Dec-12		4-Jan-13	31-Dec-12	27	C	
SUB-002-W17-097-B	Control Valves and Pressure Relief Valve	15217+15218 parag. 2.1	PD	CONS	SUB	JNT	CS-JNT-M134		B			27-Feb-13		5-Jan-13	4-Mar-13	5	B	
SUB-002-W17-097-C	Control Valves and Pressure Relief Valve	15217+15218 parag. 2.1	PD	CONS	SUB	JNT	CS-JNT-M135		C			17-Mar-13		6-Jan-13	19-Mar-13	2	B	
SUB-002-WJN-099-A	Long Lead and Equipment List.		PD	CONS	SUB	WJN			A			4-Dec-12		4-Jan-13	11-Dec-12	7	B	
SUB-002-JNT-0100-A	Dismantling Joint	15000	PD	CONS	SUB	JNT	CS-JNT-M126		A			4-Dec-12		4-Jan-13	9-Dec-12	5	C	
SUB-002-JNT-0100-B	Dismantling Joint	15000	PD	CONS	SUB	JNT	CS-JNT-M126		B			17-Dec-12		17-Jan-13	27-Dec-12	10	B	
SUB-002-JNT-0102-A	Ball Valve with Actuator	15204 parag.2.1+2.2	PD	CONS	SUB	JNT	CS-JNT-M128		A			4-Dec-12		4-Jan-13	9-Dec-12	5	C	
SUB-002-JNT-0102-B	Ball Valve with Actuator	15204 parag.2.1+2.2	PD	CONS	SUB	JNT			B			4-Jan-13		5-Jan-13	13-Jan-12	5	A	
SUB-002-JNT-0103-A	Strainer	15000	PD	CONS	SUB	JNT	CS-JNT-M126		A			4-Dec-12		4-Jan-13	9-Dec-12	5	B	
SUB-02-JNT-110-A	Shop Drawings for Main Transmission Pipeline between St.0+060 to St.2+300	1300 parag. 1.3	SD	PCS	SUB	JNT	PCS-JNT-SD-116		A			8-Dec-12		7-Jan-13	12-Dec-12	1	B	
SUB-02-WJN-121-A	Original CPM Construction Schedule	1310	SCM	PCS	SUB	WJN	CS-WJN-250		A			16-Dec-12		16-Jan-13	6-Jan-13	21	B	
SUB-02-WJN-121-B	Original CPM construction schedule	1310	SCM	PCS	SUB	WJN	CS-WJN-250		B			13-Jan-13		12-Feb-13	28-Jan-13	15	B	
SUB-02-JNT-123-A	Civil Shop Drawings for Water Chambers	1301 parag. 1.3	SD	PCS	SUB	JNT	PCS-JNT-SD-121		A			6-Jan-13		5-Feb-13	22-Jan-13	16	C	
SUB-02-JNT-123-B	Civil Shop Drawings for Water Chambers	1302 parag. 1.3	SD	PCS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 128		B			6-Mar-13		6-Feb-13	10-Mar-13	16	B	
SUB-02-JNT-126-A	Shop Drawings for Water Transmission Pipeline between stations 3+900 and 6+400 .	1300 parag. 1.3	SD	PCS	SUB	JNT	PCS-JNT-SD 116		A			23-Dec-12		23-Jan-12	31-Dec-12	8	B	
SUB-02-JNT-127-A	Shop Drawings for Water Transmission Pipeline between stations 2+260 and 3+900 .	1300 parag. 1.3	SD	PCS	SUB	JNT	PCS-JNT-SD-116		A			26-Dec-12		26-Jan-12	31-Dec-12	5	B	
SUB-02-JNT-128-A	Formwork Design and drawings	03100 parag. 2.2+3.2	SD	CONS	SUB	JNT	CS-JNT-SD 110		A			26-Dec-12		26-Jan-12	13-Jan-13	18	B	
SUB-02-JNT-129-A	Manhole Cover and Frame.	02490 parag. 2.1C,2.2A 16111 parag. 2.1A	PD	CONS	SUB	JNT	CS-JNT-M112		A			6-Jan-13		5-Feb-13	17-Jan-13	11	B	
SUB-02-JNT-130-A	Proposed Welders CVs	02570 parag. 1.3J	PD		SUB	JNT			A			7-Jan-13		6-Feb-13	13-Jan-13	6	A	
SUB-02-JNT-131-A	Shop Drawings for Main Transmission Pipeline from ST.+30 to ST. 10+480.	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD116 CS-JNT-SD 119		A			8-Jan-13		7-Feb-13	22-Jan-13	14	B	
SUB-02-JNT-132-A	Shop Drawings for Fabrication of Elbows.		SD	CONS	SUB	JNT			A			9-Jan-13		8-Feb-13	13-Jan-13	4	C	
SUB-02-JNT-132-B	Mitered Bends Fabrication.	02570 - Par. 2.4	SD	CONS	SUB	JNT			B			9-Feb-13		11-Mar-13	25-Feb-13	16	A	
SUB-02-JNT-134-A	Flow Meter	17102 parag. 2.3	PD	CONS	SUB	JNT			A			13-Jan-13		12-Feb-13	21-Jan-13	8	C	

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SUB-02-JNT-134-B	Flow Meter	17102 parag. 2.1	PD	CONS	SUB	JNT			B			1-Oct-13		12-Feb-13	2-Oct-13	1	A	
SUB-02-JNT-135-A	Shop Drawings for Main Transmission Pipeline from ST.0+00 to ST. 0+038.91.	1300 parag. 1.3	SD	CONS	SUB	JNT	PCS-JNT-SD-116		A			13-Jan-13		12-Feb-13	22-Jan-13	9	B	
SUB-02-JNT-136-A	Civil work shop drawings for chambers connections	1301 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 128		A			13-Jan-13		12-Feb-13	29-Jan-13	16	C	
SUB-02-JNT-136-B	Civil shop drawings for connection chambers	1302 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 128		A			13-Feb-13		15-Mar-13	20-Feb-13	7	A	
SUB-02-JNT-137-A	Butterfly Valve	15202 parag. 2.1	PD	CONS	SUB	JNT	CS-JNT-M130		A			13-Jan-13		12-Feb-13	21-Jan-13	8	B	
SUB-02-JNT-138-A	Hydraulic Analysis		PD	CONS	SUB	JNT			A			17-Jan-13		16-Feb-13	22-Jan-13	5	C	
SUB-02-JNT-138-B	Hydraulic Analysis		PD	CONS	SUB	JNT			B			17-Feb-13		19-Mar-13	25-Feb-13	8	A	
SUB-02-JNT-139-A	Installation method		PD	CONS	SUB	JNT			A			17-Jan-13		16-Feb-13	30-Jan-13	13	B	
SUB-02-JNT-140-A	Visual Welding Inspector	02570 parag. 3.3E1	PD	CONS	SUB	JNT			A			20-Jan-13		19-Feb-13	22-Jan-13	2	B	
SUB-02-JNT-141-A	Elcometer 266 Holiday Detector	02571 parag. 3.4 C	PD	CONS	SUB	JNT			A			20-Jan-13		19-Feb-13	22-Jan-13	2	E	
SUB-02-JNT-142-A	Welders qualification test certificates	02570 parag. 1.3J	PD	CONS	SUB	JNT			A			23-Jan-13		22-Feb-13	30-Jan-13	7	B	
SUB-02-JNT-143-A	Identification Tape	02200 parag. 2.3 B&C page 02200-7	PD	CONS	SUB	JNT	CS-JNT-M155		A			22-Jan-13		21-Feb-13	22-Jan-13	0	A	
SUB-02-JNT-144-A	Bedding Material -somsom	0200 parag. 2.1 C	PD	CONS	SUB	JNT	CS-JNT-M104		A			22-Jan-13		21-Feb-13	28-Jan-13	6	B	
SUB-02-JNT-145-A	Radiographic Testing (TR)	02570 parag. 3.3E	PD	CONS	SUB	JNT			A			23-Jan-13		22-Feb-13	28-Jan-13	5	B	
SUB-02-JNT-146-A	Internal Cement Lining Repair Procedure	02570 parag. 2.5	PD	CONS	SUB	JNT			A			23-Jan-13		22-Feb-13	28-Jan-13	5	B	
SUB-02-JNT-147-A	Welding Procedure and PQR	02570 parag. 1.3 I	PD	CONS	SUB	JNT	CS-JNT-M130		A			22-Jan-13		21-Feb-13	28-Jan-13	6	B	
SUB-02-JNT-148-A	2" Galvanized Steel pipes 3" and 4" Black Steel pipes.	15025 parag. 2.5	PD	CONS	SUB	JNT			A			28-Jan-13		27-Feb-13	30-Jan-13	2	B	
SUB-02-JNT-149-A	Shop drawings for 2" pipe line from Station (00+000) to Station (00+300)		SD	CONS	SUB	JNT			A			29-Jan-13		28-Feb-13	3-Feb-13	5	C	
SUB-02-JNT-149-B	Shop drawings for 2" pipe line from Station (00+000) to Station (00+276)		SD	CONS	SUB	JNT			B			18-Feb-13		20-Mar-13	20-Feb-13	2	B	
SUB-02-JNT-150-A	January-2013 CPM schedule.	1310	SCM	CONS	SUB	JNT	CS-WJN-250		A			5-Feb-13		7-Mar-13	17-Feb-13	12	C	
SUB-02-JNT-150-B	January-2013 CPM Schedule.	1310	SCM	CONS	SUB	JNT	CS-WJN-251		B			20-Feb-13		22-Mar-13	4-Mar-13	12	B	
SUB-02-JNT-151-A	JNT breakdown analysis			CONS	SUB	JNT			A			6-Feb-13		8-Mar-13	25-Feb-13	19	C	
SUB-02-JNT-151-B	JNT breakdown analysis			CONS	SUB	JNT			B			3-Mar-13		2-Apr-13	10-Mar-13	7	B	
SUB-02-JNT-152-A	Welded joints radiographic testing safety plan.	02570 parag. 3.3E	PD	CONS	SUB	JNT	CS-JNT-M130		A			7-Feb-13		9-Mar-13	12-Feb-13	5	B	
SUB-02-JNT-153-A	Pipeline trenching method statement		PD	CONS	SUB	JNT	CS-JNT-M130		A			7-Feb-13		9-Mar-13	12-Feb-13	5	B	

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SUB-02-JNT-154-A	Shop drawings for 3" and 4" steel pipeline -St. (1+520) to St. (2+684)		SD	CONS	SUB	JNT	CS-WJN-250		A			24-Feb-13		26-Mar-13	5-Mar-13	9	B	
SUB-02-JNT-155-A	Proposed road detour between Station (02+700) to Station (02+460)		SD	CONS	SUB	JNT			A			24-Feb-13		26-Mar-13	25-Feb-13	1	B	
SUB-02-JNT-156-A	February-2013 CPM schedule	1310	SCM	CONS	SUB	JNT	CS-WJN-250		A			3-Mar-13		2-Apr-13	13-Mar-13	10	B	
SUB-02-JNT-157-A	Proposed road detour between Station (02+400) and Station (01+850)		SD	CONS	SUB	JNT			A			3-Mar-13		2-Apr-13	4-Mar-13	1	B	
SUB-02-JNT-158-A	Proposed road detour between Station (0+300) and Station (0+900)		SD	CONS	SUB	JNT			A			6-Mar-13		5-Apr-13	10-Mar-13	4	B	
SUB-02-JNT-159-A	Proposed road detour between St. (0+900) to St..(1+400)		SD	CONS	SUB	JNT			A			6-Mar-13		5-Apr-13	10-Mar-13	4	B	
SUB-02-JNT-160-A	Mechanical shop drawings for flow monitoring chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			6-Mar-13		5-Apr-13	14-Mar-13	8	C	
SUB-02-JNT-160-B	Mechanical shop drawings for flow monitoring Chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			18-Mar-13		17-Apr-13	19-Mar-13	1	A	
SUB-02-JNT-161-A	Mechanical shop drawings for Al-Jaba' connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			6-Mar-13		5-Apr-13	13-Mar-13	7	C	
SUB-02-JNT-161-B	Mechanical shop drawings for Al-Jaba' connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			18-Mar-13		17-Apr-13	19-Mar-13	1	A	
SUB-02-JNT-162-A	Mechanical shop drawings for Kherbet Al-Deir connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			6-Mar-13		5-Apr-13	14-Mar-13	8	C	
SUB-02-JNT-162-B	Mechanical shop drawings for Kherbet Al-Deir connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			18-Mar-13		17-Apr-13	19-Mar-13	1	A	
SUB-02-JNT-163-A	Welding inspection reports 10" welded steel pipes from Station(08+887.9) to Station(06+828.60)		PD	CONS	SUB	JNT			A			6-Mar-13	,	5-Apr-13	14-Mar-13	8	C	
SUB-02-JNT-163-B	Welding inspection reports 10" welded steel pipes from Station(08+887.9) to Station(06+828.60)	N.A.	PD	CONS	SUB	JNT			B			13-May-13		12-Jun-13	16-May-13	3	B	
SUB-02-JNT-164-A	Mechanical shop drawings for Nuba and Hata connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			11-Mar-13		10-Apr-13	14-Mar-13	3	B	
SUB-02-JNT-164-B	Mechanical shop drawings for Nuba and Hata connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			20-Mar-13		19-Apr-13	21-Mar-13	1	A	
SUB-02-JNT-165-A	Mechanical shop drawings for Kharas connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			11-Mar-13		10-Apr-13	14-Mar-13	3	C	
SUB-02-JNT-165-B	Mechanical shop drawings for Kharas connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			18-Mar-13		17-Apr-13	19-Mar-13	1	A	
SUB-02-JNT-166-A	Mechanical shop drawings for Surif connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			11-Mar-13		10-Apr-13	17-Mar-13	6	C	
SUB-02-JNT-166-B	Mechanical shop drawings for Surif connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			21-Mar-13		20-Apr-13	3-Apr-13	13	B	
SUB-02-JNT-167-A	Mechanical shop drawings for Nuba main connection chambers with 12" DIP .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			11-Mar-13		10-Apr-13	17-Mar-13	6	C	
SUB-02-JNT-167-B	Mechanical shop drawings for Nuba main connection chambers with 12" DIP .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			20-Mar-13		19-Apr-13	21-Mar-13	1	A	
SUB-02-JNT-168-A	Mechanical shop drawings for Surif future connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		A			11-Mar-13		10-Apr-13	18-Mar-13	7	C	
SUB-02-JNT-168-B	Mechanical shop drawings for Surif future connection chambers .	1300 parag. 1.3	SD	CONS	SUB	JNT	CS-JNT-SD-120,122,124,126 and 129		B			20-Mar-13		19-Apr-13	21-Mar-13	1	A	
SUB-02-JNT-169-A	Proposed temporary replacement for CWI-Yousef Ghatasha's CV and qualification certificates	02570 parag. 1.3J	PD	CONS	SUB	JNT			A			12-Mar-13		11-Apr-13	14-Mar-13	2	B	

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SUB-02-JNT-170-A	Welding inspection reports 12" welded steel pipes St.(2+675.86) to St.(1+176.03), 3" welded Steel pipe (2+516.17) to (1+496.35) and 4" welded steel pipes St.(2+675.75) to St.(2+528.46).		PD	CONS	SUB	JNT			A			21-Mar-13		20-Apr-13	25-Mar-13	4	C	
SUB-02-JNT-170-B	Welding inspection reports 12" welded steel pipes St.(2+675.86) to St.(1+176.03), 3" welded steel pipe (2+516.17) to (1+496.35) and 4" welded steel pipes St.(2+675.75) to St.(2+528.46).		PD	CONS	SUB	JNT			B			13-May-13		12-Jun-13	15-May-13	2	B	
SUB-02-JNT-171-A	Civil shop drawings for Al-Jaba' connection chambers		SD	CONS	SUB	JNT			A			25-Mar-13		24-Apr-13	31-Mar-13	6	B	
SUB-02-JNT-172-A	Butterfly mechanical shop drawings		SD	CONS	SUB	JNT			A			27-Mar-13		26-Apr-13	1-Apr-13	5	B	
SUB-02-JNT-173-A	Butterfly civil shop drawings		SD	CONS	SUB	JNT			A			27-Mar-13		26-Apr-13	3-Apr-13	7	B	
SUB-02-JNT-174-A	ARV,WO,GV mechanical shop drawings/new chambers		SD	CONS	SUB	JNT			A			14-Apr-13		14-May-13	17-Apr-13	3	B	
SUB-02-JNT-175-A	ARV,WO,GV civil shop drawings/new chambers		SD	CONS	SUB	JNT			A			14-Apr-13		14-May-13	17-Apr-13	3	B	
SUB-02-JNT-176-A	Submittal register monthly update as of March 25 2013		SCH	CONS	SUB	JNT			A			28-Mar-13		27-Apr-13	2-Apr-13	5	B	
SUB-02-JNT-177-A	Construction safety plan monthly update as of March 26 2013		SCH	CONS	SUB	JNT			A			28-Mar-13		27-Apr-13	2-Apr-13	5	B	
SUB-02-JNT-178-A	QA/QC plan monthly update as of March 25 2013		SCH	CONS	SUB	JNT			A			28-Mar-13		27-Apr-13	2-Apr-13	5	B	
SUB-02-JNT-179-A	As built drawings-10 inch pipeline from Station (08+900) to Station (07+400)		SCH	CONS	SUB	JNT			A			28-Mar-13		27-Apr-13	8-Apr-13	11	B	
SUB-02-JNT-180-A	Simens electro-magnetic flow meters.		PD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	2-Apr-13	2	B	
SUB-02-JNT-181-A	Civil shop drawings for flow monitoring chamber		SD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	3-Apr-13	3	B	
SUB-02-JNT-182-A	Civil shop drawings for Nuba Main connection chamber with 12" DIP.		SD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	3-Apr-13	3	B	
SUB-02-JNT-183-A	Pressure gauge with needle valve		PD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	1-Apr-13	1	C	
SUB-02-JNT-183-B	Pressure gauge with needle valve		PD	CONS	SUB	JNT			B			30-Apr-13		30-May-13	2-May-13	2	B	
SUB-02-JNT-184-A	Civil shop drawings for Surif future connection Chamber		SD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	3-Apr-13	3	B	
SUB-02-JNT-185-A	Civil shop drawings for Nuba and Hata connection chamber		SD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	3-Apr-13	3	B	
SUB-02-JNT-186-A	Civil shop drawings for Kharas connection chamber		SD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	3-Apr-13	3	B	
SUB-02-JNT-187-A	Civil shop drawings for Kherbit Al-Deir connection chamber.		SD	CONS	SUB	JNT			A			31-Mar-13		30-Apr-13	3-Apr-13	3	B	
SUB-02-JNT-188-A	Proposed road detour from Station (9+200) to Station(9+500).		SD	CONS	SUB	JNT			A			4-Apr-13		4-May-13	24-Apr-13	20	B	
SUB-02-JNT-189-A	Proposed road detour from Station(9+550) to Station (9+770).		SD	CONS	SUB	JNT			A			4-Apr-13		4-May-13	7-Apr-13	3	B	
SUB-02-JNT-190-A	Proposed road detour from Station (9+800) to Station.(10+200).		SD	CONS	SUB	JNT			A			4-Apr-13		4-May-13	7-Apr-13	3	B	
SUB-02-JNT-191-A	Proposed road detour between Station(10+800) and Station (10+200).		SD	CONS	SUB	JNT			A			4-Apr-13		4-May-13	7-Apr-13	3	B	

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SUB-02-JNT-192-A	Construction risk management plan monthly update as of April 2nd, 2013.		SCH	CONS	SUB	JNT			A			4-Apr-13		4-May-13	9-Apr-13	5	B	
SUB-02-JNT-193-A	Environmental monitoring and mitigation plan monthly update as of April 4 2013		SCH	CONS	SUB	JNT			A			4-Apr-13		4-May-13	9-Apr-13	5	B	
SUB-02-JNT-194-A	Civil shop drawings for Surif connection chamber		SD	CONS	SUB	JNT			A			7-Apr-13		7-May-13	8-Apr-13	1	B	
SUB-02-JNT-195-A	Shop drawings for 4" pipeline from Station (9+195) to Station (10+250)		SD	CONS	SUB	JNT			A			14-Apr-13		14-May-13	17-Apr-13	3	C	
SUB-02-JNT-195-B	Shop drawings for 4" pipeline from Station (9+195) to Station (10+250)		SD	CONS	SUB	JNT			B			5-May-13		4-Jun-13	6-May-13	1	B	
SUB-02-JNT-196-A	Electrical conduit double- walled corrugated pipes.		PD	CONS	SUB	JNT			A			17-Apr-13		17-May-13	22-Apr-13	5	B	
SUB-02-JNT-197-A	New key staff		PD	CONS	SUB	JNT			A			30-Apr-13		30-May-13	2-May-13	2	E	
SUB-02-JNT-198-A	Water flow meters for Bypass lines		PD	CONS	SUB	JNT			A			30-Apr-13		30-May-13	2-May-13	2	C	
SUB-02-JNT-198-B	SENSUS/Meistream Water Flow Meters for Bypass Lines.	17102 - Par. 2.3	PD	CONS	SUB	JNT			B			1-Oct-13		31-Oct-13	2-Oct-13	1	A	
SUB-02-JNT-199-A	Alternative weld testing method -ultrasonic and magnetic particle testing method		PD	CONS	SUB	JNT			A			6-May-13		5-Jun-13	9-May-13	3	C	
SUB-02-JNT-199-B	Alternative weld testing method -ultrasonic and magnetic particle testing method	02570 - Par.- 3.3E	PD	CONS	SUB	JNT			B			6-Jun-13		6-Jul-13	17-Jun-13	11	A	
SUB-02-JNT-200-A	Flap valve		PD	CONS	SUB	JNT			A			18-May-13		17-Jun-13	19-May-13	1	B	
SUB-02-JNT-201-A	Submittal register monthly update as of May 8, 2013		PD	CONS	SUB	JNT			A			23-May-13		22-Jun-13	29-May-13	6	B	
SUB-02-JNT-202-A	QA/QC Plan monthly update as of May8, 2013		PD	CONS	SUB	JNT			A			23-May-13		22-Jun-13	29-May-13	6	B	
SUB-02-JNT-203-A	1-SO DIN PN steel flange mill certificates cimensions and QC certificate.2-sample of 6" SO DIN PN40 steel flange.		PD	CONS	SUB	JNT			A			26-May-13		25-Jun-13	2-Jun-13	7	C	
SUB-02-JNT-203-B	DIN PN40 - SO and Blind Steel Flanges.		PD	CONS	SUB	JNT			B			1-Oct-13		31-Oct-13	2-Oct-13	1	A	
SUB-02-JNT-204-A	As built drawing for transmission pipeline from ST.1+500 to St.2+714.		PD	CONS	SUB	JNT			A			2-Jun-13		2-Jul-13	5-Jun-13	3	B	
SUB-02-JNT-205-A	Raphael rising stem gate valves – Raphael letter and datasheets.	15206	PD	CONS	SUB	JNT			A			3-Jun-13		3-Jul-13	9-Jun-13	6	B	
SUB-02-JNT-206-A	Revised original CPM schedule	01310	PD	CONS	SUB	JNT			A			3-Jun-13		3-Jul-13	17-Jun-13	14	C	
SUB-02-JNT-206-B	Revised original CPM schedule	01310	PD	CONS	SUB	JNT			B			4-Jul-13		3-Aug-13	15-Jul-13	11	C	
SUB-02-JNT-206-C	Revised original CPM schedule	01310	PD	CONS	SUB	JNT			C			24-Jul-13		23-Aug-13	5-Aug-13	12	A	
SUB-02-JNT-207-A	Shop drawing for AL-Jab's road.	01310	PD	CONS	SUB	JNT			A			9-Jun-13		9-Jul-13	18-Jun-13	9	C	
SUB-02-JNT-207-B	Shop drawing for AL-Jab'a road.	01310	PD	CONS	SUB	JNT			B			30-Jun-13		30-Jul-13	9-Jul-13	9	B	
SUB-02-JNT-209-A	Raphael Gate Valves – TRL PN16 and PN25.	15206	PD	CONS	SUB	JNT			A			16-Jun-13		16-Jul-13	17-Jun-13	1	B	
SUB-02-JNT-210-A	Tails dismantling joint –PAS 10 PN16 and PN25.	1500	PD	CONS	SUB	JNT			A			16-Jun-13		16-Jul-13	18-Jun-13	2	B	

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SUB-02-JNT-211-A	ARI Combination Air release valve – D-052/ PN25.	15230	PD	CONS	SUB	JNT			A			16-Jun-13		16-Jul-13	17-Jun-13	1	B	
SUB-02-JNT-212-A	2-Part thixotropic epoxy adhesive.		PD	CONS	SUB	JNT	CS-WJN-250		A			20-Jun-13		20-Jul-13	24-Jun-13	4	B	
SUB-02-JNT-213-A	Mechanical shop drawings for ARV precast chambers.		PD	CONS	SUB	JNT	CS-WJN-250		A			26-Jun-13		26-Jul-13	1-Jul-13	5	B	
SUB-02-JNT-214-A	As built drawings for transmission pipeline from Station(02+714) to Station(04+720)		PD	CONS	SUB	JNT			A			26-Jun-13		26-Jul-13	10-Jul-13	14	B	
SUB-02-JNT-215-A	As Built drawings for transmission pipeline from Station(04+720) to Station(07+400).		PD	CONS	SUB	JNT			A			1-Jul-13		31-Jul-13	10-Jul-13	9	B	
SUB-02-JNT-216-A	Confined space entry plan.		PD	CONS	SUB	JNT			A			4-Jul-13		3-Aug-13	7-Jul-13	3	B	
SUB-02-JNT-217-A	JNT pipeline hydrostatic field test and disinfection Plan	1656	PD	CONS	SUB	JNT			A			7-Jul-13		6-Aug-13	11-Jul-13	4	B	
SUB-02-JNT-217-B	JNT pipeline hydrostatic field test and disinfection Plan	1656	PD	CONS	SUB	JNT						18-Sep-13		18-Oct-13	22-Sep-13	4	B	
SUB-02-JNT-218-A	Gaskets	2570	PD	CONS	SUB	JNT			A			8-Jul-13		7-Aug-13	9-Jul-13	1	B	
SUB-02-JNT-219-A	Road furniture(cat eyes, guard rails and thermoplastic paint)		PD	CONS	SUB	JNT			A			8-Jul-13		7-Aug-13	24-Jul-13	16	B	
SUB-02-JNT-220-A	Submittal register Monthly update as of July 07, 2013	1300	PD	CONS	SUB	JNT			A			8-Jul-13		7-Aug-13	10-Jul-13	2	B	
SUB-02-JNT-221-A	QA/QC Plan monthly update as of July 07,2013	01400,Basic IQC Contract Section C.9.5	PD	CONS	SUB	JNT			A			8-Jul-13		7-Aug-13	10-Jul-13	2	B	
SUB-02-JNT-222-A	As Built Drawings For Transmission Pipeline from Station (08+900) to Station(10+700)		PD	CONS	SUB	JNT			A			10-Jul-13		9-Aug-13	14-Jul-13	4	B	
SUB-02-JNT-223-A	Wash out fall in urban areas		PD	CONS	SUB	JNT			A			17-Jul-13		16-Aug-13	18-Jul-13	1	B	
SUB-02-JNT-224-A	Submittal register monthly update as of August 12,2013	1300	PD	CONS	SUB	JNT			A			12-Aug-13		11-Sep-13	15-Aug-13	3	B	
SUB-02-JNT-225-A	QA/QC plan monthly update as of August 12,2013	01400,Basic IQC Contract Section C.9.5	PD	CONS	SUB	JNT			A			12-Aug-13		11-Sep-13	15-Aug-13	3	B	
SUB-02-JNT-226-A	Draft O&M manual for Siemens electromagnetic flow meters and communication modules (SITRANS FM MAG8000)		PD	CONS	SUB	JNT			A			13-Aug-13		12-Sep-13	25-Aug-13	12	B	
SUB-02-JNT-227-A	Draft O&M manuals for Bermad valves		PD	CONS	SUB	JNT			A			13-Aug-13		12-Sep-13	20-Aug-13	7	B	
SUB-02-JNT-228-A	Project permanent sign	1580	PD	CONS	SUB	JNT			A			19-Aug-13		18-Sep-13	21-Aug-13	2	B	
SUB-02-JNT-229-A	August 2013/Updated CPM Schedule	1310	PD	CONS	SUB	JNT			A			2-Sep-13		2-Oct-13	12-Sep-13	10	B	
SUB-02-JNT-230-A	Insulation material (Epoxy paint)	9800	PD	CONS	SUB	JNT			A			5-Sep-13		5-Oct-13	12-Sep-13	7	B	
SUB-02-JNT-231-A	Ductile iron pipes fittings		PD	CONS	SUB	JNT			A			10-Sep-13		10-Oct-13	23-Sep-13	13	B	
SUB-02-JNT-232-A	Submittal register monthly update as of September 12,2013	1300	PD	CONS	SUB	JNT			A			12-Sep-13		12-Oct-13	15-Sep-13	3	B	
SUB-02-JNT-233-A	QA/QC Plan Monthly Update as of September 12,2013	1301	PD	CONS	SUB	JNT			A			12-Sep-13		12-Oct-13	15-Sep-13	3	B	
SUB-02-JNT-234-A	Bermad valves test conformity and certificates		PD	CONS	SUB	JNT			A			17-Sep-13		17-Oct-13	30-Sep-13	13	A	
SUB-02-JNT-235-A	Raphael and ARI Certificates of compliance and test certificates		PD	CONS	SUB	JNT			A			25-Sep-13		25-Oct-13	30-Sep-13	5	A	
SUB-02-JNT-236-A	Siemens electromagnetic flow meters certificates		PD	CONS	SUB	JNT			A			26-Sep-13		26-Oct-13	29-Sep-13	3	A	
SUB-02-JNT-237-A	Testing for Bermad Certificates		PD	CONS	SUB	JNT			A			28-Sep-13		28-Oct-13	3-Oct-13	5	B	
SUB-02-JNT-238-A	As built drawings for transmission pipeline from St.(00+000) to St.(10+7040		PD	CONS	SUB	JNT			A			1-Oct-13		31-Oct-13	21-Oct-13	20	A	
SUB-02-JNT-239-A	As built drawings for Al-Jaba and Kharas roads		PD	CONS	SUB	JNT						21-Oct-13		20-Nov-13	29-Oct-13	8	A	
SUB-02-JNT-240-A	As built drawings for Mechanical chambers		PD	CONS	SUB	JNT			A			8-Oct-13		7-Nov-13	10-Oct-13	2	A	
SUB-02-JNT-241-A	Civil as built drawings for chambers		PD	CONS	SUB	JNT						9-Oct-13		8-Nov-13	12-Oct-13	3	A	
SUB-02-JNT-252-A	Operation and maintinance manual		PD	CONS	SUB	JNT			A			28-Oct-13		27-Nov-13	20-Nov-13	23	B	
SUB-02-JNT-253-A	JNT As Built Schedule		PD	CONS	SUB	JNT			A			3-Nov-13		3-Dec-13	25-Nov-13	22	C	
SUB-02-JNT-253-B	JNT As Built Schedule		PD	CONS	SUB	JNT			A			28-Jan-14			29-Jan-14	1	A	
SUB-02-JNT-254-A	As Built DWGs		PD	CONS	SUB	JNT			A			28-Jan-14			28-Jan-14	0	A	

IRD International Relief & Development

Request For Information Report Log -RFI IRD/BV

Task Order: 02-JNT

Project: Al Jaba' Nuba Main Transmission Pipeline Project

RFI No.	Subject of RFI	BOQ item No.	Specification No.	Drawing No.	Date Submitted to Engineer	Response Needed by	Response Date from Engineer	No. of Days for Engineer Response	Status	Engineer Response	Potential Change Order	Status
RFI-02-WJN-C-E-001	Project Sings	N.A	01580		20-Sep-12	23-Sep-12	27-Sep-12	7	Answered	(via-email)- Attached are the approved project sings text and graphics for your further action. Project signs submitted for the Engineer's review and acceptance shall be made within 10 days from the NTP date. Temporary project signs must be installed prior the start of any construction activities. Permanent project sings shall be installed at later stage before project completion. the CMC will advise you on the project signs locations.	No	Reviewed
RFI-02-W17-C-E-002	Surge Control Bladder Tank	N.A	13206		3-Oct-12		4-Oct-12	1	Answered	1. Surge Tank Volumes: Contractor shall refer to the confirmed "DRWG 5M-1" (W17: 5m3 and duty motive pump tank: 1m3). 2.Tanks' Dimensions: The tanks' dimensions "including the diameter" shall be in accordance with the manufacturer standards. Moreover, contract shall take into consideration that the specified access manhole shall be 600mm, refer to "Section 13206/Paragraph 2.2B". 3. Surge Tank flow rates: for the tanks capacity calculations, contractor shall refer to pump schedule "DWG WB-CO05-M01-5M-1" (The boosters rate : 100m3/hr. and the motive pumps: 3.9 m3/hr.)	NO	Reviewed
RFI-02-W17-C-E-003	Vertical Turbine Pumps	N.A	11103		8-Oct-12		10-Oct-12	2	Rejected	1-No technical information provided on the proposed supplier. The provided information is insufficient to allow the Engineer to make determination. The Contractor is requested to submit full and detailed information with respect to the proposed supplier/material in accordance with the requirements as set forth under the relevant section of the Contract documents. 2-The Contractor shall proof the capability of the proposed supplier to provide site inspections and testing at the place of performance for the subject Task Order and the ability to provide future maintenance services for post contact period. In addition, the contractor to clearly advise on the ability for CMC and USAID staff to perform inspection, if required, at the manufactures facility. 3-It is the Contractor responsibility to comply with the new Source Nationality Requirements as per the Mission Notice holding Ref No. 2012-WBG-03 issued to all contractors on March 22,2012 under the heading: USAID Regulatory and Policy Changes in Source/ Nationality Procurement Requirements. 4.Based on the above, Contractor request is not accepted.	NO	Reviewed
RFI-02-W17-C-E-004	Services by Power Company	N.A	01620		10-Oct-12		17-Oct-12	7	Answered	1. The submitted calculations are based on having three Booster Pumps working simultaneously, whereas according to project documents "Well # 17 Station Control Description Section 17300" the pumps shall normally operate in Lead / Lag / Standby fashion. Therefore, calculation for the worst case scenario is having two Booster Pumps working simultaneously. 2. Based on the above, the total demand calculated shall be revised to 671 KVA; i.e. subtracting the third booster pump load (107KVA). 3. The demand of 750 KVA from JDECO is therefore sufficient for the station.	NO	Reviewed
RFI-02-W17-C-E-005	1-Property issue between the Owners of Well # 17 site and PWA. 2-Verifying the survey in the field that was conducted by IRD Surveyor. 3- Verifying the area of the fenced area for the proposed pump station yard (Contract Drawing N0.5C-1 shows 2555.7 SQ while the same are as calculated from the coordinates shown on the same drawing is 2985 SQ m).	N.A	Sections 01040 and 01505		21-Oct-12		31-Oct-12	10	Answered	Items 1, 2 and 3 were resolved on October 22, 2012 morning, see attached Item 4, the submitted information isn't sufficient to allow Engineer determination, Submit shop drawings with existing elevations and layout	NO	Reviewed
RFI-02-W17-C-E-006	Services by Power Company-JDECO-Settlement of payment to JDECo	N.A	01620		22-Oct-12		19-Nov-12	28	Answered	IRD is kindly requested to continue with the coordination with JDECo with respect to the technical issues raised by IRD during our previous progress meeting on Thursday, November 8, 2012. For the commercial issues, we are still working with JDECo. and PWA to resolve this issue.		Reviewed

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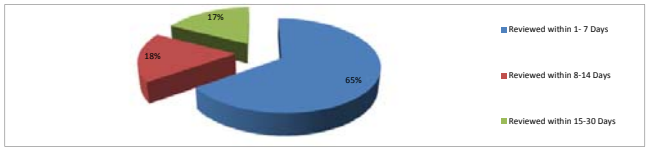
RFI-02-W17-C-E-007	Addition of portable generator connection (compartment and breaker) to the Medium Voltage Metal-Enclosed Switchgear	*NA*	16362 and 16480		4-Nov-12		20-Nov-12	16	Answered	Contractor proposal to delete the lug connection for the portable generator in the LV MCC Panel and to add a new compartment with all associated components for the generator connection in the Medium voltage switch gear (EC-SWGR-1) is acceptable . Contractor shall reflect all changes on shop drawings and submit all relevant material /components data sheets for engineers review in accordance with terms and conditions of contract.		Reviewed
RFI-02-WJN-C-E-008	Substitution of the New jersey Barriers with Steel Mini Guard	*NA*	RFTOP WATER-294-12-000014 Section C4.A		8-Nov-12		20-Nov-12	12	Answered	Contractor proposal is acceptable at no additional time cost impact on the project.		Reviewed
RFI-02-W17-C-E-009	Information related to site design geometry and accessibility of PWA service rig (T1700)	*NA*	NA	*NA*	18-Nov-12		29-Nov-12	11	Answered	Attached drawings.		Reviewed
RFI-02-W17-C-E-010	Information related to other protective device studies (protective device and arc flash Analysis)	*NA*	NA	*NA*	22-Nov-12		9-Dec-12	17	Answered	Contractor shall conduct the required analysis as specified in section 16431 for the LV MCC , including but not limited to short circuit analysis . Furthermore , contractor shall conduct all studies included in section 16431 for the medium voltage 33KV switch gear as per BOQ item 9.3.1 " Refer to amendment #6, Q&A #43 addressing the same issue".		Reviewed
RFI-02-W17-C-E-011	Weep Holes in walls of the retaining walls	*NA*	NA	*NA*	26-Nov-12		29-Nov-12	3	Answered	Weep holes aren't required.		Reviewed
RFI-02-W17-C-E-012	Washout outfall	*NA*	NA	*NA*	26-Nov-12		10-Dec-12	14	Answered	The out fall be outside the retaining wall ; Contractor to extend the washout pipes . The final location will be determined on site.		Reviewed
RFI-02-W17-C-E-013	Soil bearing capacity and depth of excavation below the mat foundation of the balance tank	*NA*	NA	*NA*	2-Dec-12		5-Dec-12	3	Answered	Contractors to follow technical recommendations to provide the following : 25 cm base course layer , 40cm rubble concrete , eliminate concrete blinding 8 cm layer		Reviewed
RFI-02-W17-C-E-014	Diameters and spacing of steel reinforcement bars	*NA*	NA	*NA*	3-Dec-12		5-Dec-12	2	Answered	In reference to point 1 (Base Slab Rebar): Detail #01 on sheet be applied to long direction of the balance tank , whereas Detail #04 on sheet PS2S-4 shall be applied to short direction , In reference to point 2 (Roof Slab Rebar) : the contractor can use Φ12 @ 190mm T&B instead of Φ13 @ 225mm T&B.		Reviewed
RFI-02-W17-C-E-015	Information related to pressure gauges installation requirement	*NA*	NA	*NA*	3-Dec-12		9-Dec-12	6	Answered	Type 316SS Pulsation snubber shall be installed between the isolation valve and pressure gauge as clearly specified in section 17108-2.1F and shall be submitted with the PG. The installation method is a contractor responsibility and should be as per the manufacturer recommendation.		Reviewed
RFI-02-W17-C-E-016	Electrical & Instrumentation connections (Conduits & cabling) and controls scheme of booster pumps control valves.	*NA*	NA	*NA*	3-Dec-12	____	____	____	____	Well #17 Project was Terminated	____	Review Not Required
RFI-02-W17-C-E-017	Additional External Epoxy Coating for Steel Column Pipes	*NA*	NA	*NA*	5-Dec-12		10-Dec-12	5	Answered	1. The column pipe coupling interior and exterior shall be epoxy coated as part of the requirements (100 amine cure epoxy). 2.Column pipe material shall be API 5L grade or X60 or API equal strength pipe with minimum thickness of 0.5 inch for the 8" inch pipe and shall be coated and lined in accordance with section 02570 , reference section 15025 items 2.1A and 2.4A. 3. Exterior coating shall comply with section 09800, reference section 02570 item 2.6. However the interior coating of column pipes shall be epoxy coated (not cement lined) as mentioned in section 11002 item 2.2D.		Reviewed
RFI-02-W17-C-E-018	Power Source for 48VDC Control Voltage of Medium Voltage Metal-Enclosed Switchgear Circuit Breakers.	*NA*	NA	*NA*	18-Dec-12	____	____	____	____	Well #17 Project was Terminated	____	Review Not Required

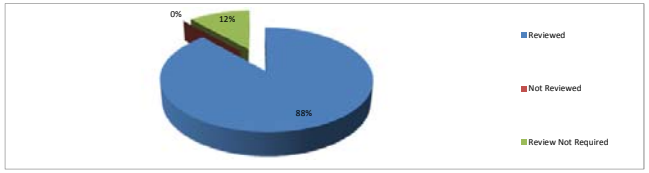
RFI No.	Subject of RFI	BOQ item No.	Specification No.	Drawing No.	Date Submitted to Engineer	Response Needed by	Response Date from Engineer	No. of Days for Engineer Response	Status	Engineer Response	Potential Change Order	Status
RFI-02-W17-C-E-019	Changed Site Condition-New Static Water Level measured at well no.17.	*NA*	NA	*NA*	18-Dec-12	____	____	____	____	Well #17 Project was Terminated	____	Review Not Required
RFI-02-JNT-C-E-020	Substitution of Sea Sand with Crushed Stone (Sumsum)	*NA*	NA	*NA*	16-Jan-13		21-Jan-13	5	Answered	IRD proposed to substitute sand backfill with crushed stone as bedding material is acceptable based on the followings: 1. Crushed aggregate shall meet the requirements as specified under 2200-2.1.C.2 of the project specification. 2. The Engineers response and acceptance is limited to the technical aspects only and shall not be considered or understood as Engineers acceptance of submitted prices. 3. The Contractor is requested to submit a Variation Order Request with all supporting documents to capture the cost impact for USAID approval.		Reviewed
RFI-02-JNT-C-E-021	Required data to prepare Bermad control valves the sizing (hydraulic calculation and valves selection) report.	*NA*	NA	*NA*	10-Feb-13		13-Feb-13	3	Answered	1.Contractor shall refer to the attached table for the required data. 2. Contractor shall arrange a joint meeting with manufacturer to discuss the functionality of the system.		Reviewed
RFI-02-JNT-C-E-022	Minimum size of BERMAD PN-40 Pressure Relief Valve, series 800 and 700.	*NA*	NA	*NA*	10-Feb-13		11-Feb-13	1	Answered	Contractor request for the usage of 40 mm pressure relief valve instead of 25 mm is accepted with no cost impact or time extension.		Reviewed
RFI-02-JNT-C-E-023	Substitution of 4" Such 40 steel pipes (wall thickness 6.02 mm) with the same pipe diameter and wall thickness of 3.96 mm. Substitution of 3" Such 40 steel pipes (wall thickness 5.49 mm) with the same pipes diameter and wall thickness of 3.96 mm. As per ASTM A 53 Grade B and Contract Specifications 02570 and 15025.	*NA*	NA	*NA*	19-Feb-13		20-Feb-13	1	Answered	The usage of 3.96 mm wall thickness for 3 inch and 4 inch pipes is acceptable . Contractor shall reflect the change in the VOR.		Reviewed
~~RFI-02-JNT-C-E-024~~	~~Provide IRD with the Geotechnical Report for Al-Jaba' Nuba Main Transmission Pipeline Project under TO#02.~~	~~NA~~	~~NA~~	~~NA~~	~~24-Feb-13~~	~~25-Feb-13~~	~~24-Feb-13~~	____	____	____	____	Retracted
RFI-02-JNT-C-E-024	Very Hard Rock trench sections and proposal to reduce the trench depth and to encase the installed steel pipes	*NA*	NA	*NA*	26-Feb-13	27-Feb-13	27-Feb-13	1	Answered	The proposed resolution by reducing the excavation depth and concrete encasement of the pipes in " hard rock " is not accepted . Contractor to continue with works as planned . However ; the engineer may request the contractor to reduce the depth of trench and place concrete encasement for a certain sections of the pipe as a result of unforeseen site conditions that prevents constructing the pipeline as planned.		Reviewed

RFI No.	Subject of RFI	BOQ item No.	Specification No.	Drawing No.	Date Submitted to Engineer	Response Needed by	Response Date from Engineer	No. of Days for Engineer Response	Status	Engineer Response	Potential Change Order	Status
RFI-02-JNT-C-E-025	1. Encased 12-inch steel pipeline with concrete to protect against the proposed rout of the Israeli Separation Wall (Station 0+087 to station 0+036).	*NA*	NA	*NA*	10-Apr-13	11-Apr-13	11-Apr-13	1	Answered	Contractor Proposal is acceptable.		Reviewed
RFI-02-JNT-C-E-026	10" Pipeline shop drawings	*NA*	NA	*NA*	29-Apr-13	30-Apr-13	2-May-13	4	Answered	1. Engineer has no objection to the proposed 10" steel pipe alignment from the original stations 9+200 to 9+460 to the new stations 9+200 to 9+350 and without any additional cost. 2. Contractor shall provide shop drawings for the proposed alignment for this section prior to start excavation and shall be reflected in the as built drawings. 3. Contractor shall identify any existing buried utilities in the new proposed alignment. 4. Contractor shall provide a revised traffic control plan (SUB-02-JNT-188-A) prior to start excavations.		Reviewed

RFIs Review Time Analysis	Total
Reviewed within 1- 7 Days	15
Reviewed within 8-14 Days	4
Reviewed within 15-30 Days	4



RFI Status	Total
Reviewed	23
Not Reviewed	0
Review Not Required	3
Retracted	1
Total No. of RFI	27



IRD International Relief & Development

Task Order:	**WJN:02**
Project 1:	**Well #17 Pump Station and Conveyance System**
Project 2:	**Al-Jab'a Nuba Main Transmission Pipeline Project**

Incoming Letters and Memoranda from Engineer to CONTRACTOR (EC) Log

Current as Date: 12-Nov-13

Number	Description/Subject	Date	Comments
Memo-02-W17-E-C-001	Well 17 Scope of work	November 21, 2012	Delete Erosion Sediment Control Systems and Harvest Cistern.
Memo-02-W17-E-C-002	Well 17 Scope of work	November 27, 2012	Delete the Duty Water Pumps with all associated equipments.
Memo-02-W17-E-C-003	Site Layout	November 27, 2012	Revised Site Layout.
Memo-02-W17-E-C-004	Site Layout	December 10, 2012	Revised Site Layout.
Memo-02-JNT-E-C-005	Pipeline Deleting	December 31, 2012	Delete the 250mm pipeline and fittings from station 10+840 to station 11+355 with all its related items.
Memo-02-JNT-E-C-006	Changes in the Requirements	January 17, 2013	B&V requested revision to connection chambers as listed in the site instructions .
Memo-02-JNT-E-C-007	Chambers Quantities and Locations	January 21, 2013	Refer to the attached tables which indicate the locations and quantities of chambers
Memo-02-JNT-E-C-008	Required data to prepare Bermad control valves the sizing (hydraulic and valves selection) report.	February 13, 2013	Add flow control valves at the connections as indicated in the attached table and the attached revised schematic drawing for the Jaba-Nuba transmission line. Submit a VOR capturing the above at the earliest.
Memo-02-JNT-E-C-009	Electromagnetic Flow Meter	March 4, 2013	Supply and install battery powered Electromagnetic flow meters in lieu of the specified propeller flow meters for connection chambers
Memo-02-JNT-E-C-010	Concrete Encasement	March 4, 2013	Supply and cast ready mix concrete B200 in selected sections of the pipe trench , over culverts and where deemed necessary due to unforeseen conditions.
Memo-02-JNT-E-C-011	Asphalt Reinstatement	March 25, 2013	Submit VOR at the earliest to capture the milling of the existing asphalt up to 4 cm , price shall to include milling , removal and disposal of all milled asphalt , debris unsuitable and surplus materials to approved locations`
Memo-02-JNT-E-C-012	Additional Chambers	March 25, 2013	Prepare and submit a variation order request
Memo-02-JNT-E-C-013	Chambers Quantities and Locations	April 3, 2013	Refer to the attached tables which indicate the locations and quantities of chambers
Memo-02-JNT-E-C-014	Chambers 2",3",4" Quantities and locations	April 4, 2013	Refer to the attached tables which indicate the locations and quantities of chambers
Memo-02-JNT-E-C-015	Patel Letter	April 21, 2013	Consider Patel letter with respect to damaged underground cables.
Memo-02-JNT-E-C-016	Asphalt Work Progress	May 7, 2013	Since April 30 2013 IRD started preparing the trench section from station 2+700 to 3+150 for asphalting and since then it was not completed . The surface of the base course is 10 cm lower than the existing asphalt surface and this creates unsafe conditions to the public.

Number	Description/Subject	Date	Comments
Memo-02-JNT-E-C-017	Concrete Tests	May 12, 2013	As per the received lab test Results "Test-02-JNT-047" and "Test-02-JNT-066" the tested concrete cubes failed to achieve the required compressive strength at 28 days. Referring to specification "03300 Cast in Place Concrete item 1.4 Devaluation and Acceptance of the compressive strength of concrete shall be in accordance with ACI 318.Therefore You are requested to take all necessary arrangements with Building Center to perform tests for drilled core samples for both chambers at the earliest.
Memo-02-JNT-E-C-018	Kharas critical segment backfilling	May 23, 2013	Due to site condition ,you are requested to place 20 cm of B 200 concrete instead of base course layer at Kharas critical segment from St. 9+960 to St. 10+220. Top of concrete shall be below finish level.
Memo-02-JNT-E-C-019	Damaged Cat Eyes	May 29, 2013	You are requested to replace all damaged middle line cat eyes which were smashed by bobcat improper use during backfilling of JNT pipeline.
Memo-02-JNT-E-C-020	Asphalt concrete protection	September 4, 2013	You are constructed to construct asphalt concrete protection on the RHS/LHS of Al-Jaba road certain sections from station (00+300) to station(01+150) which will be determined on site as shown in the attached drawing.
Memo-02-JNT-E-C-021	Additional works	September 25, 2013	Contractor is requested to construct the following additional works: 1- Supply and cast 30 m^3 ready mix concrete B250 in selected sections at Jaba Nuba under VOQ VO 4.1.1 per engineer instruction. 2- Supply and install 600 m^ 2 of crushed compacted base course layer 200 mm at Jaba-Dier Mousa road and under BOQ-VO 6.3.2 a per engineer instruction. 3-Supplyind, spreading and compacting 1700 m^2 (60 mm thick bituminous wearing course) at Jaba-Dier Mousa road and under BOQ-VO 6.3.3 a per engineer instruction. 4- Suppyling,spreading and compacting 500 m^2 (60 mm thick bituminous wearing course) at Kharas under BOQ 6.3.3.a per engineer instruction

IRD International Relief & Development

Daily Joint Construction Report - DJR
IRD/BV

Task Order: AID - 294 - TO - 12 - 00002
Project: Well #17 Pump Station and Conveyance System & Al-Jab'a Nuba Main Transmission Pipeline Projects

Contractor Trans. No.	Date Issued from Site	Date Reviewed from Engineer	Sender/Recipient	Subject	Remarks
DJR-02-WJN-C-E-001	27-Sep-12	27-Sep-12	IRD/BV	Daily Joint Construction Report 001	
DJR-02-WJN-C-E-002	28-Sep-12/No Activities	29-Sep-12	IRD/BV	Daily Joint Construction Report 002	Friday
DJR-02-WJN-C-E-003	29-Sep-12	29-Sep-12	IRD/BV	Daily Joint Construction Report 003	
DJR-02-WJN-C-E-004	30-Sep-12	30-Sep-12	IRD/BV	Daily Joint Construction Report 004	
DJR-02-WJN-C-E-005	1-Oct-12	1-Oct-12	IRD/BV	Daily Joint Construction Report 005	
DJR-02-WJN-C-E-006	2-Oct-12	2-Oct-12	IRD/BV	Daily Joint Construction Report 006	
DJR-02-WJN-C-E-007	3-Oct-12	3-Oct-12	IRD/BV	Daily Joint Construction Report 007	
DJR-02-WJN-C-E-008	4-Oct-12	4-Oct-12	IRD/BV	Daily Joint Construction Report 008	
DJR-02-WJN-C-E-009	5-Oct-12/No Activities	6-Oct-12	IRD/BV	Daily Joint Construction Report 009	Friday
DJR-02-WJN-C-E-010	6-Oct-12	6-Oct-12	IRD/BV	Daily Joint Construction Report 010	
DJR-02-WJN-C-E-011	7-Oct-12	7-Oct-12	IRD/BV	Daily Joint Construction Report 011	
DJR-02-WJN-C-E-012	8-Oct-12	8-Oct-12	IRD/BV	Daily Joint Construction Report 012	
DJR-02-WJN-C-E-013	9-Oct-12	9-Oct-12	IRD/BV	Daily Joint Construction Report 013	
DJR-02-WJN-C-E-014	10-Oct-12	10-Oct-12	IRD/BV	Daily Joint Construction Report 014	
DJR-02-WJN-C-E-015	11-Oct-12	11-Oct-12	IRD/BV	Daily Joint Construction Report 015	
DJR-02-WJN-C-E-016	12-Oct-12/No Activities	13-Oct-12	IRD/BV	Daily Joint Construction Report 016	Friday
DJR-02-WJN-C-E-017	13-Oct-12	13-Oct-12	IRD/BV	Daily Joint Construction Report 017	
DJR-02-WJN-C-E-018	14-Oct-12	14-Oct-12	IRD/BV	Daily Joint Construction Report 018	
DJR-02-WJN-C-E-019	15-Oct-12	15-Oct-12	IRD/BV	Daily Joint Construction Report 019	
DJR-02-WJN-C-E-020	16-Oct-12	16-Oct-12	IRD/BV	Daily Joint Construction Report 020	
DJR-02-WJN-C-E-021	17-Oct-12	17-Oct-12	IRD/BV	Daily Joint Construction Report 021	
DJR-02-WJN-C-E-022	18-Oct-12	18-Oct-12	IRD/BV	Daily Joint Construction Report 022	
DJR-02-WJN-C-E-023	19-Oct-12/No Activities	20-Oct-12	IRD/BV	Daily Joint Construction Report 023	Friday
DJR-02-WJN-C-E-024	20-Oct-12	20-Oct-12	IRD/BV	Daily Joint Construction Report 024	
DJR-02-WJN-C-E-025	21-Oct-12	21-Oct-12	IRD/BV	Daily Joint Construction Report 025	
DJR-02-WJN-C-E-026	22-Oct-12	22-Oct-12	IRD/BV	Daily Joint Construction Report 026	
DJR-02-WJN-C-E-027	23-Oct-12	23-Oct-12	IRD/BV	Daily Joint Construction Report 027	
DJR-02-WJN-C-E-028	24-Oct-12	24-Oct-12	IRD/BV	Daily Joint Construction Report 028	
DJR-02-WJN-C-E-029	25-Oct-12/No Activities	30-Oct-12	IRD/BV	Daily Joint Construction Report 029	Eid Al Adha Holiday
DJR-02-WJN-C-E-030	26-Oct-12/No Activities	30-Oct-12	IRD/BV	Daily Joint Construction Report 030	Friday/Eid Al Adha Holiday
DJR-02-WJN-C-E-031	28-Oct-12/No Activities	30-Oct-12	IRD/BV	Daily Joint Construction Report 031	Eid Al Adha Holiday
DJR-02-WJN-C-E-032	29-Oct-12/No Activities	30-Oct-12	IRD/BV	Daily Joint Construction Report 032	Eid Al Adha Holiday
DJR-02-WJN-C-E-033	30-Oct-12/No Activities	30-Oct-12	IRD/BV	Daily Joint Construction Report 033	Eid Al Adha Holiday
DJR-02-WJN-C-E-034	30-Oct-12	30-Oct-12	IRD/BV	Daily Joint Construction Report 034	
DJR-02-WJN-C-E-035	31-Oct-12	31-Oct-12	IRD/BV	Daily Joint Construction Report 035	
DJR-02-WJN-C-E-036	1-Nov-12	1-Nov-12	IRD/BV	Daily Joint Construction Report 036	
DJR-02-WJN-C-E-037	2-Nov-12/No Activities	3-Nov-12	IRD/BV	Daily Joint Construction Report 037	Friday
DJR-02-WJN-C-E-038	3-Nov-12	3-Nov-12	IRD/BV	Daily Joint Construction Report 038	
DJR-02-WJN-C-E-039	4-Nov-12	4-Nov-12	IRD/BV	Daily Joint Construction Report 039	
DJR-02-WJN-C-E-040	5-Nov-12	5-Nov-12	IRD/BV	Daily Joint Construction Report 040	
DJR-02-WJN-C-E-041	6-Nov-12	6-Nov-12	IRD/BV	Daily Joint Construction Report 041	
DJR-02-WJN-C-E-042	7-Nov-12	7-Nov-12	IRD/BV	Daily Joint Construction Report 042	
DJR-02-WJN-C-E-043	8-Nov-12	8-Nov-12	IRD/BV	Daily Joint Construction Report 043	
DJR-02-WJN-C-E-044	9-Nov-12/No Activities	10-Nov-12	IRD/BV	Daily Joint Construction Report 044	Friday
DJR-02-WJN-C-E-045	10-Nov-12	10-Nov-12	IRD/BV	Daily Joint Construction Report 045	
DJR-02-WJN-C-E-046	11-Nov-12	11-Nov-12	IRD/BV	Daily Joint Construction Report 046	
DJR-02-WJN-C-E-047	12-Nov-12	12-Nov-12	IRD/BV	Daily Joint Construction Report 047	
DJR-02-WJN-C-E-048	13-Nov-12	13-Nov-12	IRD/BV	Daily Joint Construction Report 048	
DJR-02-WJN-C-E-049	14-Nov-12	14-Nov-12	IRD/BV	Daily Joint Construction Report 049	
DJR-02-WJN-C-E-050	15-Nov-12	15-Nov-12	IRD/BV	Daily Joint Construction Report 050	
DJR-02-WJN-C-E-051	16-Nov-12/No Activities	17-Nov-12	IRD/BV	Daily Joint Construction Report 051	Friday
DJR-02-WJN-C-E-052	17-Nov-12	17-Nov-12	IRD/BV	Daily Joint Construction Report 052	
DJR-02-WJN-C-E-053	18-Nov-12	18-Nov-12	IRD/BV	Daily Joint Construction Report 053	
DJR-02-WJN-C-E-054	19-Nov-12	19-Nov-12	IRD/BV	Daily Joint Construction Report 054	
DJR-02-WJN-C-E-055	20-Nov-12	20-Nov-12	IRD/BV	Daily Joint Construction Report 055	
DJR-02-WJN-C-E-056	21-Nov-12	21-Nov-12	IRD/BV	Daily Joint Construction Report 056	
DJR-02-WJN-C-E-057	22-Nov-12	22-Nov-12	IRD/BV	Daily Joint Construction Report 057	
DJR-02-WJN-C-E-058	23-Nov-12/No Activities	24-Nov-12	IRD/BV	Daily Joint Construction Report 058	Friday
DJR-02-WJN-C-E-059	24-Nov-12	24-Nov-12	IRD/BV	Daily Joint Construction Report 059	
DJR-02-WJN-C-E-060	25-Nov-12	25-Nov-12	IRD/BV	Daily Joint Construction Report 060	
DJR-02-WJN-C-E-061	26-Nov-12	26-Nov-12	IRD/BV	Daily Joint Construction Report 061	
DJR-02-WJN-C-E-062	27-Nov-12	27-Nov-12	IRD/BV	Daily Joint Construction Report 062	
DJR-02-WJN-C-E-063	28-Nov-12	28-Nov-12	IRD/BV	Daily Joint Construction Report 063	

Contractor Trans. No.	Date Issued from Site	Date Reviewed from Engineer	Sender/Recipient	Subject	Remarks
DJR-02-WJN-C-E-064	29-Nov-12	29-Nov-12	IRD/BV	Daily Joint Construction Report 064	
DJR-02-WJN-C-E-065	30-Nov-12/No Activities	1-Dec-12	IRD/BV	Daily Joint Construction Report 065	Friday
DJR-02-WJN-C-E-066	1-Dec-12	1-Dec-12	IRD/BV	Daily Joint Construction Report 066	
DJR-02-WJN-C-E-067	2-Dec-12	2-Dec-12	IRD/BV	Daily Joint Construction Report 067	
DJR-02-WJN-C-E-068	3-Dec-12	3-Dec-12	IRD/BV	Daily Joint Construction Report 068	
DJR-02-WJN-C-E-069	4-Dec-12	4-Dec-12	IRD/BV	Daily Joint Construction Report 069	
DJR-02-WJN-C-E-070	5-Dec-12	5-Dec-12	IRD/BV	Daily Joint Construction Report 070	
DJR-02-WJN-C-E-071	6-Dec-12	6-Dec-12	IRD/BV	Daily Joint Construction Report 071	
DJR-02-WJN-C-E-072	7-Dec-12/No Activities	8-Dec-12	IRD/BV	Daily Joint Construction Report 072	Friday
DJR-02-WJN-C-E-073	8-Dec-12	8-Dec-12	IRD/BV	Daily Joint Construction Report 073	
DJR-02-WJN-C-E-074	9-Dec-12	9-Dec-12	IRD/BV	Daily Joint Construction Report 074	
DJR-02-WJN-C-E-075	10-Dec-12	10-Dec-12	IRD/BV	Daily Joint Construction Report 075	
DJR-02-WJN-C-E-076	11-Dec-12	11-Dec-12	IRD/BV	Daily Joint Construction Report 076	
DJR-02-WJN-C-E-077	12-Dec-12	12-Dec-12	IRD/BV	Daily Joint Construction Report 077	
DJR-02-WJN-C-E-078	13-Dec-12	13-Dec-12	IRD/BV	Daily Joint Construction Report 078	
DJR-02-WJN-C-E-079	14-Dec-12/No Activities	15-Dec-12	IRD/BV	Daily Joint Construction Report 079	Friday
DJR-02-WJN-C-E-080	15-Dec-12	15-Dec-12	IRD/BV	Daily Joint Construction Report 080	
DJR-02-WJN-C-E-081	16-Dec-12	16-Dec-12	IRD/BV	Daily Joint Construction Report 081	
DJR-02-WJN-C-E-082	17-Dec-12	17-Dec-12	IRD/BV	Daily Joint Construction Report 082	
DJR-02-WJN-C-E-083	18-Dec-12	18-Dec-12	IRD/BV	Daily Joint Construction Report 083	
DJR-02-WJN-C-E-084	19-Dec-12	19-Dec-12	IRD/BV	Daily Joint Construction Report 084	
DJR-02-WJN-C-E-085	20-Dec-12	20-Dec-12	IRD/BV	Daily Joint Construction Report 085	
DJR-02-WJN-C-E-086	21-Dec-12/No Activities	22-Dec-12	IRD/BV	Daily Joint Construction Report 086	Friday
DJR-02-WJN-C-E-087	22-Dec-12	22-Dec-12	IRD/BV	Daily Joint Construction Report 087	
DJR-02-WJN-C-E-088	23-Dec-12	23-Dec-12	IRD/BV	Daily Joint Construction Report 088	
DJR-02-WJN-C-E-089	24-Dec-12	24-Dec-12	IRD/BV	Daily Joint Construction Report 089	
DJR-02-WJN-C-E-090	25-Dec-12	25-Dec-12	IRD/BV	Daily Joint Construction Report 090	
DJR-02-WJN-C-E-091	26-Dec-12	26-Dec-12	IRD/BV	Daily Joint Construction Report 091	
DJR-02-WJN-C-E-092	27-Dec-12	27-Dec-12	IRD/BV	Daily Joint Construction Report 092	
DJR-02-WJN-C-E-093	28-Dec-12/No Activities	29-Dec-12	IRD/BV	Daily Joint Construction Report 093	Friday
DJR-02-WJN-C-E-094	29-Dec-12	29-Dec-12	IRD/BV	Daily Joint Construction Report 094	
DJR-02-WJN-C-E-095	30-Dec-12	30-Dec-12	IRD/BV	Daily Joint Construction Report 095	
DJR-02-WJN-C-E-096	31-Dec-12	31-Dec-12	IRD/BV	Daily Joint Construction Report 096	
DJR-02-WJN-C-E-097	1-Jan-13	1-Jan-13	IRD/BV	Daily Joint Construction Report 097	
DJR-02-WJN-C-E-098	2-Jan-13	2-Jan-13	IRD/BV	Daily Joint Construction Report 098	
DJR-02-WJN-C-E-099	3-Jan-13	3-Jan-13	IRD/BV	Daily Joint Construction Report 099	
DJR-02-WJN-C-E-100	4-Jan-13/No Activities	5-Jan-13	IRD/BV	Daily Joint Construction Report 100	Friday
DJR-02-WJN-C-E-101	5-Jan-13	5-Jan-13	IRD/BV	Daily Joint Construction Report 101	
DJR-02-WJN-C-E-102	6-Jan-13	6-Jan-13	IRD/BV	Daily Joint Construction Report 102	
DJR-02-WJN-C-E-103	7-Jan-13	7-Jan-13	IRD/BV	Daily Joint Construction Report 103	
DJR-02-WJN-C-E-104	8-Jan-13	8-Jan-13	IRD/BV	Daily Joint Construction Report 104	
DJR-02-WJN-C-E-105	9-Jan-13	9-Jan-13	IRD/BV	Daily Joint Construction Report 105	
DJR-02-WJN-C-E-106	10-Jan-13	10-Jan-13	IRD/BV	Daily Joint Construction Report 106	
DJR-02-WJN-C-E-107	11-Jan-13/No Activities	12-Jan-13	IRD/BV	Daily Joint Construction Report 107	Friday
DJR-02-WJN-C-E-108	12-Jan-13	12-Jan-13	IRD/BV	Daily Joint Construction Report 108	
DJR-02-WJN-C-E-109	13-Jan-13	13-Jan-13	IRD/BV	Daily Joint Construction Report 109	
DJR-02-WJN-C-E-110	14-Jan-13	14-Jan-13	IRD/BV	Daily Joint Construction Report 110	
DJR-02-WJN-C-E-111	15-Jan-13	15-Jan-13	IRD/BV	Daily Joint Construction Report 111	
DJR-02-WJN-C-E-112	16-Jan-13	16-Jan-13	IRD/BV	Daily Joint Construction Report 112	
DJR-02-WJN-C-E-113	17-Jan-13	17-Jan-13	IRD/BV	Daily Joint Construction Report 113	
DJR-02-WJN-C-E-114	18-Jan-13/No Activities	19-Jan-13	IRD/BV	Daily Joint Construction Report 114	Friday
DJR-02-WJN-C-E-115	19-Jan-13	19-Jan-13	IRD/BV	Daily Joint Construction Report 115	
DJR-02-WJN-C-E-116	20-Jan-13	20-Jan-13	IRD/BV	Daily Joint Construction Report 116	
DJR-02-WJN-C-E-117	21-Jan-13	21-Jan-13	IRD/BV	Daily Joint Construction Report 117	
DJR-02-WJN-C-E-118	22-Jan-13	22-Jan-13	IRD/BV	Daily Joint Construction Report 118	
DJR-02-WJN-C-E-119	23-Jan-13	23-Jan-13	IRD/BV	Daily Joint Construction Report 119	
DJR-02-WJN-C-E-120	24-Jan-13	24-Jan-13	IRD/BV	Daily Joint Construction Report 120	
DJR-02-WJN-C-E-121	25-Jan-13/No Activities	26-Jan-13	IRD/BV	Daily Joint Construction Report 121	Friday
DJR-02-WJN-C-E-122	26-Jan-13	26-Jan-13	IRD/BV	Daily Joint Construction Report 122	
DJR-02-WJN-C-E-123	27-Jan-13	27-Jan-13	IRD/BV	Daily Joint Construction Report 123	
DJR-02-WJN-C-E-124	28-Jan-13	28-Jan-13	IRD/BV	Daily Joint Construction Report 124	
DJR-02-WJN-C-E-125	29-Jan-13	29-Jan-13	IRD/BV	Daily Joint Construction Report 125	
DJR-02-WJN-C-E-126	30-Jan-13	30-Jan-13	IRD/BV	Daily Joint Construction Report 126	
DJR-02-WJN-C-E-127	31-Jan-13	31-Jan-13	IRD/BV	Daily Joint Construction Report 127	
DJR-02-WJN-C-E-128	1-Feb-13/No Activities	2-Feb-13	IRD/BV	Daily Joint Construction Report 128	Friday
DJR-02-WJN-C-E-129	2-Feb-13	2-Feb-13	IRD/BV	Daily Joint Construction Report 129	
DJR-02-WJN-C-E-130	3-Feb-13	3-Feb-13	IRD/BV	Daily Joint Construction Report 130	
DJR-02-WJN-C-E-131	4-Feb-13	4-Feb-13	IRD/BV	Daily Joint Construction Report 131	
DJR-02-WJN-C-E-132	5-Feb-13	5-Feb-13	IRD/BV	Daily Joint Construction Report 132	
DJR-02-WJN-C-E-133	6-Feb-13	6-Feb-13	IRD/BV	Daily Joint Construction Report 133	
DJR-02-WJN-C-E-134	7-Feb-13	7-Feb-13	IRD/BV	Daily Joint Construction Report 134	
DJR-02-WJN-C-E-135	8-Feb-13/No Activities	9-Feb-13	IRD/BV	Daily Joint Construction Report 135	Friday
DJR-02-WJN-C-E-136	9-Feb-13	9-Feb-13	IRD/BV	Daily Joint Construction Report 136	
DJR-02-WJN-C-E-137	10-Feb-13	10-Feb-13	IRD/BV	Daily Joint Construction Report 137	

Contractor Trans. No.	Date Issued from Site	Date Reviewed from Engineer	Sender/Recipient	Subject	Remarks
DJR-02-WJN-C-E-138	11-Feb-13	11-Feb-13	IRD/BV	Daily Joint Construction Report 138	
DJR-02-WJN-C-E-139	12-Feb-13	12-Feb-13	IRD/BV	Daily Joint Construction Report 139	
DJR-02-WJN-C-E-140	13-Feb-13	13-Feb-13	IRD/BV	Daily Joint Construction Report 140	
DJR-02-WJN-C-E-141	14-Feb-13	14-Feb-13	IRD/BV	Daily Joint Construction Report 141	
DJR-02-WJN-C-E-142	15-Feb-13/No Activities	16-Feb-13	IRD/BV	Daily Joint Construction Report 142	Friday
DJR-02-WJN-C-E-143	16-Feb-13	16-Feb-13	IRD/BV	Daily Joint Construction Report 143	
DJR-02-WJN-C-E-144	17-Feb-13	17-Feb-13	IRD/BV	Daily Joint Construction Report 144	
DJR-02-WJN-C-E-145	18-Feb-13	18-Feb-13	IRD/BV	Daily Joint Construction Report 145	
DJR-02-WJN-C-E-146	19-Feb-13	19-Feb-13	IRD/BV	Daily Joint Construction Report 146	
DJR-02-WJN-C-E-147	20-Feb-13	20-Feb-13	IRD/BV	Daily Joint Construction Report 147	
DJR-02-WJN-C-E-148	21-Feb-13	21-Feb-13	IRD/BV	Daily Joint Construction Report 148	
DJR-02-WJN-C-E-149	22-Feb-13/No Activities	23-Feb-13	IRD/BV	Daily Joint Construction Report 149	Friday
DJR-02-WJN-C-E-150	23-Feb-13	23-Feb-13	IRD/BV	Daily Joint Construction Report 150	
DJR-02-WJN-C-E-151	24-Feb-13	24-Feb-13	IRD/BV	Daily Joint Construction Report 151	
DJR-02-WJN-C-E-152	25-Feb-13	25-Feb-13	IRD/BV	Daily Joint Construction Report 152	
DJR-02-WJN-C-E-153	26-Feb-13	26-Feb-13	IRD/BV	Daily Joint Construction Report 153	
DJR-02-WJN-C-E-154	27-Feb-13	27-Feb-13	IRD/BV	Daily Joint Construction Report 154	
DJR-02-WJN-C-E-155	28-Feb-13	28-Feb-13	IRD/BV	Daily Joint Construction Report 155	
DJR-02-WJN-C-E-156	1-Mar-13/No Activities	2-Mar-13	IRD/BV	Daily Joint Construction Report 156	Friday
DJR-02-WJN-C-E-157	2-Mar-13	2-Mar-13	IRD/BV	Daily Joint Construction Report 157	
DJR-02-WJN-C-E-158	3-Mar-13	3-Mar-13	IRD/BV	Daily Joint Construction Report 158	
DJR-02-WJN-C-E-159	4-Mar-13	4-Mar-13	IRD/BV	Daily Joint Construction Report 159	
DJR-02-WJN-C-E-160	5-Mar-13	5-Mar-13	IRD/BV	Daily Joint Construction Report 160	
DJR-02-WJN-C-E-161	6-Mar-13	6-Mar-13	IRD/BV	Daily Joint Construction Report 161	
DJR-02-WJN-C-E-162	7-Mar-13	7-Mar-13	IRD/BV	Daily Joint Construction Report 162	
DJR-02-WJN-C-E-163	8-Mar-13/No Activities	9-Mar-13	IRD/BV	Daily Joint Construction Report 163	Friday
DJR-02-WJN-C-E-164	9-Mar-13	9-Mar-13	IRD/BV	Daily Joint Construction Report 164	
DJR-02-WJN-C-E-165	10-Mar-13	10-Mar-13	IRD/BV	Daily Joint Construction Report 165	
DJR-02-WJN-C-E-166	11-Mar-13	11-Mar-13	IRD/BV	Daily Joint Construction Report 166	
DJR-02-WJN-C-E-167	12-Mar-13	12-Mar-13	IRD/BV	Daily Joint Construction Report 167	
DJR-02-WJN-C-E-168	13-Mar-13	13-Mar-13	IRD/BV	Daily Joint Construction Report 168	
DJR-02-WJN-C-E-169	14-Mar-13	14-Mar-13	IRD/BV	Daily Joint Construction Report 169	
DJR-02-WJN-C-E-170	15-Mar-13/No Activities	16-Mar-13	IRD/BV	Daily Joint Construction Report 170	Friday
DJR-02-WJN-C-E-171	16-Mar-13	16-Mar-13	IRD/BV	Daily Joint Construction Report 171	
DJR-02-WJN-C-E-172	17-Mar-13	17-Mar-13	IRD/BV	Daily Joint Construction Report 172	
DJR-02-WJN-C-E-173	18-Mar-13	18-Mar-13	IRD/BV	Daily Joint Construction Report 173	
DJR-02-WJN-C-E-174	19-Mar-13	19-Mar-13	IRD/BV	Daily Joint Construction Report 174	
DJR-02-WJN-C-E-175	20-Mar-13	20-Mar-13	IRD/BV	Daily Joint Construction Report 175	
DJR-02-WJN-C-E-176	21-Mar-13	21-Mar-13	IRD/BV	Daily Joint Construction Report 176	
DJR-02-WJN-C-E-177	22-Mar-13/No Activities	23-Mar-13	IRD/BV	Daily Joint Construction Report 177	Friday
DJR-02-WJN-C-E-178	23-Mar-13	23-Mar-13	IRD/BV	Daily Joint Construction Report 178	
DJR-02-WJN-C-E-179	24-Mar-13	24-Mar-13	IRD/BV	Daily Joint Construction Report 179	
DJR-02-WJN-C-E-180	25-Mar-13	25-Mar-13	IRD/BV	Daily Joint Construction Report 180	
DJR-02-WJN-C-E-181	26-Mar-13	26-Mar-13	IRD/BV	Daily Joint Construction Report 181	
DJR-02-WJN-C-E-182	27-Mar-13	27-Mar-13	IRD/BV	Daily Joint Construction Report 182	
DJR-02-WJN-C-E-183	28-Mar-13	28-Mar-13	IRD/BV	Daily Joint Construction Report 183	
DJR-02-WJN-C-E-184	29-Mar-13/No Activities	30-Mar-13	IRD/BV	Daily Joint Construction Report 184	Friday
DJR-02-WJN-C-E-185	30-Mar-13	30-Mar-13	IRD/BV	Daily Joint Construction Report 185	
DJR-02-WJN-C-E-186	31-Mar-13	31-Mar-13	IRD/BV	Daily Joint Construction Report 186	
DJR-02-WJN-C-E-187	1-Apr-13	1-Apr-13	IRD/BV	Daily Joint Construction Report 187	
DJR-02-WJN-C-E-188	2-Apr-13	2-Apr-13	IRD/BV	Daily Joint Construction Report 188	
DJR-02-WJN-C-E-189	3-Apr-13	3-Apr-13	IRD/BV	Daily Joint Construction Report 189	
DJR-02-WJN-C-E-190	4-Apr-13	4-Apr-13	IRD/BV	Daily Joint Construction Report 190	
DJR-02-WJN-C-E-191	5-Apr-13/No Activities	6-Apr-13	IRD/BV	Daily Joint Construction Report 191	Friday
DJR-02-WJN-C-E-192	6-Apr-13	6-Apr-13	IRD/BV	Daily Joint Construction Report 192	
DJR-02-WJN-C-E-193	7-Apr-13	7-Apr-13	IRD/BV	Daily Joint Construction Report 193	
DJR-02-WJN-C-E-194	8-Apr-13	8-Apr-13	IRD/BV	Daily Joint Construction Report 194	
DJR-02-WJN-C-E-195	9-Apr-13	9-Apr-13	IRD/BV	Daily Joint Construction Report 195	
DJR-02-WJN-C-E-196	10-Apr-13	10-Apr-13	IRD/BV	Daily Joint Construction Report 196	
DJR-02-WJN-C-E-197	11-Apr-13	11-Apr-13	IRD/BV	Daily Joint Construction Report 197	
DJR-02-WJN-C-E-198	12-Apr-13/No Activities	13-Apr-13	IRD/BV	Daily Joint Construction Report 198	Friday
DJR-02-WJN-C-E-199	13-Apr-13	13-Apr-13	IRD/BV	Daily Joint Construction Report 199	
DJR-02-WJN-C-E-200	14-Apr-13	14-Apr-13	IRD/BV	Daily Joint Construction Report 200	
DJR-02-WJN-C-E-201	15-Apr-13	15-Apr-13	IRD/BV	Daily Joint Construction Report 201	
DJR-02-WJN-C-E-202	16-Apr-13	16-Apr-13	IRD/BV	Daily Joint Construction Report 202	
DJR-02-WJN-C-E-203	17-Apr-13	17-Apr-13	IRD/BV	Daily Joint Construction Report 203	
DJR-02-WJN-C-E-204	18-Apr-13	18-Apr-13	IRD/BV	Daily Joint Construction Report 204	
DJR-02-WJN-C-E-205	19-Apr-13/No Activities	20-Apr-13	IRD/BV	Daily Joint Construction Report 205	Friday
DJR-02-WJN-C-E-206	20-Apr-13	20-Apr-13	IRD/BV	Daily Joint Construction Report 206	
DJR-02-WJN-C-E-207	21-Apr-13	21-Apr-13	IRD/BV	Daily Joint Construction Report 207	
DJR-02-WJN-C-E-208	22-Apr-13	22-Apr-13	IRD/BV	Daily Joint Construction Report 208	
DJR-02-WJN-C-E-209	23-Apr-13	23-Apr-13	IRD/BV	Daily Joint Construction Report 209	
DJR-02-WJN-C-E-210	24-Apr-13	24-Apr-13	IRD/BV	Daily Joint Construction Report 210	
DJR-02-WJN-C-E-211	25-Apr-13	25-Apr-13	IRD/BV	Daily Joint Construction Report 211	

Contractor Trans. No.	Date Issued from Site	Date Reviewed from Engineer	Sender/Recipient	Subject	Remarks
DJR-02-WJN-C-E-212	26-Apr-13/No Activities	27-Apr-13	IRD/BV	Daily Joint Construction Report 212	Friday
DJR-02-WJN-C-E-213	27-Apr-13	27-Apr-13	IRD/BV	Daily Joint Construction Report 213	
DJR-02-WJN-C-E-214	28-Apr-13	28-Apr-13	IRD/BV	Daily Joint Construction Report 214	
DJR-02-WJN-C-E-215	29-Apr-13	29-Apr-13	IRD/BV	Daily Joint Construction Report 215	
DJR-02-WJN-C-E-216	30-Apr-13	30-Apr-13	IRD/BV	Daily Joint Construction Report 216	
DJR-02-WJN-C-E-217	1-May-13	1-May-13	IRD/BV	Daily Joint Construction Report 217	
DJR-02-WJN-C-E-218	2-May-13	2-May-13	IRD/BV	Daily Joint Construction Report 218	
DJR-02-WJN-C-E-219	3-May-13/No Activities	4-May-13	IRD/BV	Daily Joint Construction Report 219	Friday
DJR-02-WJN-C-E-220	4-May-13	4-May-13	IRD/BV	Daily Joint Construction Report 220	
DJR-02-WJN-C-E-221	5-May-13	5-May-13	IRD/BV	Daily Joint Construction Report 221	
DJR-02-WJN-C-E-222	6-May-13	6-May-13	IRD/BV	Daily Joint Construction Report 222	
DJR-02-WJN-C-E-223	7-May-13	7-May-13	IRD/BV	Daily Joint Construction Report 223	
DJR-02-WJN-C-E-224	8-May-13	8-May-13	IRD/BV	Daily Joint Construction Report 224	
DJR-02-WJN-C-E-225	9-May-13	9-May-13	IRD/BV	Daily Joint Construction Report 225	
DJR-02-WJN-C-E-226	10-May-13/No Activities	11-May-13	IRD/BV	Daily Joint Construction Report 226	Friday
DJR-02-WJN-C-E-227	11-May-13	11-May-13	IRD/BV	Daily Joint Construction Report 227	
DJR-02-WJN-C-E-228	12-May-13	12-May-13	IRD/BV	Daily Joint Construction Report 228	
DJR-02-WJN-C-E-229	13-May-13	13-May-13	IRD/BV	Daily Joint Construction Report 229	
DJR-02-WJN-C-E-230	14-May-13	14-May-13	IRD/BV	Daily Joint Construction Report 230	
DJR-02-WJN-C-E-231	15-May-13	15-May-13	IRD/BV	Daily Joint Construction Report 231	
DJR-02-WJN-C-E-232	16-May-13	16-May-13	IRD/BV	Daily Joint Construction Report 232	
DJR-02-WJN-C-E-233	17-May-13/No Activities	18-May-13	IRD/BV	Daily Joint Construction Report 233	Friday
DJR-02-WJN-C-E-234	18-May-13	18-May-13	IRD/BV	Daily Joint Construction Report 234	
DJR-02-WJN-C-E-235	19-May-13	19-May-13	IRD/BV	Daily Joint Construction Report 235	
DJR-02-WJN-C-E-236	20-May-13	20-May-13	IRD/BV	Daily Joint Construction Report 236	
DJR-02-WJN-C-E-237	21-May-13	21-May-13	IRD/BV	Daily Joint Construction Report 237	
DJR-02-WJN-C-E-238	22-May-13	22-May-13	IRD/BV	Daily Joint Construction Report 238	
DJR-02-WJN-C-E-239	23-May-13	23-May-13	IRD/BV	Daily Joint Construction Report 239	
DJR-02-WJN-C-E-240	24-May-13/No Activities	25-May-13	IRD/BV	Daily Joint Construction Report 240	Friday
DJR-02-WJN-C-E-241	25-May-13	25-May-13	IRD/BV	Daily Joint Construction Report 241	
DJR-02-WJN-C-E-242	26-May-13	26-May-13	IRD/BV	Daily Joint Construction Report 242	
DJR-02-WJN-C-E-243	27-May-13	27-May-13	IRD/BV	Daily Joint Construction Report 243	
DJR-02-WJN-C-E-244	28-May-13	28-May-13	IRD/BV	Daily Joint Construction Report 244	
DJR-02-WJN-C-E-245	29-May-13	29-May-13	IRD/BV	Daily Joint Construction Report 245	
DJR-02-WJN-C-E-246	30-May-13	30-May-13	IRD/BV	Daily Joint Construction Report 246	
DJR-02-WJN-C-E-247	31-May-13/No Activities	1-Jun-13	IRD/BV	Daily Joint Construction Report 247	Friday
DJR-02-WJN-C-E-248	1-Jun-13	1-Jun-13	IRD/BV	Daily Joint Construction Report 248	
DJR-02-WJN-C-E-249	2-Jun-13	2-Jun-13	IRD/BV	Daily Joint Construction Report 249	
DJR-02-WJN-C-E-250	3-Jun-13	3-Jun-13	IRD/BV	Daily Joint Construction Report 250	
DJR-02-WJN-C-E-251	4-Jun-13	4-Jun-13	IRD/BV	Daily Joint Construction Report 251	
DJR-02-WJN-C-E-252	5-Jun-13	5-Jun-13	IRD/BV	Daily Joint Construction Report 252	
DJR-02-WJN-C-E-253	6-Jun-13	6-Jun-13	IRD/BV	Daily Joint Construction Report 253	
DJR-02-WJN-C-E-254	7-Jun-13/No Activities	8-Jun-13	IRD/BV	Daily Joint Construction Report 254	Friday
DJR-02-WJN-C-E-255	8-Jun-13	8-Jun-13	IRD/BV	Daily Joint Construction Report 255	
DJR-02-WJN-C-E-256	9-Jun-13	9-Jun-13	IRD/BV	Daily Joint Construction Report 256	
DJR-02-WJN-C-E-257	10-Jun-13	10-Jun-13	IRD/BV	Daily Joint Construction Report 257	
DJR-02-WJN-C-E-258	11-Jun-13	11-Jun-13	IRD/BV	Daily Joint Construction Report 258	
DJR-02-WJN-C-E-259	12-Jun-13	12-Jun-13	IRD/BV	Daily Joint Construction Report 259	
DJR-02-WJN-C-E-260	13-Jun-13	13-Jun-13	IRD/BV	Daily Joint Construction Report 260	
DJR-02-WJN-C-E-261	14-Jun-13/No Activities	15-Jun-13	IRD/BV	Daily Joint Construction Report 261	Friday
DJR-02-WJN-C-E-262	15-Jun-13	15-Jun-13	IRD/BV	Daily Joint Construction Report 262	
DJR-02-WJN-C-E-263	16-Jun-13	16-Jun-13	IRD/BV	Daily Joint Construction Report 263	
DJR-02-WJN-C-E-264	17-Jun-13	17-Jun-13	IRD/BV	Daily Joint Construction Report 264	
DJR-02-WJN-C-E-265	18-Jun-13	18-Jun-13	IRD/BV	Daily Joint Construction Report 265	
DJR-02-WJN-C-E-266	19-Jun-13	19-Jun-13	IRD/BV	Daily Joint Construction Report 266	
DJR-02-WJN-C-E-267	20-Jun-13	20-Jun-13	IRD/BV	Daily Joint Construction Report 267	
DJR-02-WJN-C-E-268	21-Jun-13/No Activities	22-Jun-13	IRD/BV	Daily Joint Construction Report 268	Friday
DJR-02-WJN-C-E-269	22-Jun-13	22-Jun-13	IRD/BV	Daily Joint Construction Report 269	
DJR-02-WJN-C-E-270	23-Jun-13	23-Jun-13	IRD/BV	Daily Joint Construction Report 270	
DJR-02-WJN-C-E-271	24-Jun-13	24-Jun-13	IRD/BV	Daily Joint Construction Report 271	
DJR-02-WJN-C-E-272	25-Jun-13	25-Jun-13	IRD/BV	Daily Joint Construction Report 272	
DJR-02-WJN-C-E-273	26-Jun-13	26-Jun-13	IRD/BV	Daily Joint Construction Report 273	
DJR-02-WJN-C-E-274	27-Jun-13	27-Jun-13	IRD/BV	Daily Joint Construction Report 274	
DJR-02-WJN-C-E-275	28-Jun-13/No Activities	29-Jun-13	IRD/BV	Daily Joint Construction Report 275	Friday
DJR-02-WJN-C-E-276	29-Jun-13	29-Jun-13	IRD/BV	Daily Joint Construction Report 276	
DJR-02-WJN-C-E-277	30-Jun-13	30-Jun-13	IRD/BV	Daily Joint Construction Report 277	
DJR-02-WJN-C-E-278	1-Jul-13	1-Jul-13	IRD/BV	Daily Joint Construction Report 278	
DJR-02-WJN-C-E-279	2-Jul-13	2-Jul-13	IRD/BV	Daily Joint Construction Report 279	
DJR-02-WJN-C-E-280	3-Jul-13	3-Jul-13	IRD/BV	Daily Joint Construction Report 280	
DJR-02-WJN-C-E-281	4-Jul-13	4-Jul-13	IRD/BV	Daily Joint Construction Report 281	
DJR-02-WJN-C-E-282	5-Jul-13/No Activities	6-Jul-13	IRD/BV	Daily Joint Construction Report 282	Friday
DJR-02-WJN-C-E-283	6-Jul-13	6-Jul-13	IRD/BV	Daily Joint Construction Report 283	
DJR-02-WJN-C-E-284	7-Jul-13	7-Jul-13	IRD/BV	Daily Joint Construction Report 284	

Contractor Trans. No.	Date Issued from Site	Date Reviewed from Engineer	Sender/Recipient	Subject	Remarks
DJR-02-WJN-C-E-285	8-Jul-13	8-Jul-13	IRD/BV	Daily Joint Construction Report 285	
DJR-02-WJN-C-E-286	9-Jul-13	9-Jul-13	IRD/BV	Daily Joint Construction Report 286	
DJR-02-WJN-C-E-287	10-Jul-13	10-Jul-13	IRD/BV	Daily Joint Construction Report 287	
DJR-02-WJN-C-E-288	11-Jul-13	11-Jul-13	IRD/BV	Daily Joint Construction Report 288	
DJR-02-WJN-C-E-289	12-Jul-13/No Activities	13-Jul-13	IRD/BV	Daily Joint Construction Report 289	Friday
DJR-02-WJN-C-E-290	13-Jul-13	13-Jul-13	IRD/BV	Daily Joint Construction Report 290	
DJR-02-WJN-C-E-291	14-Jul-13	14-Jul-13	IRD/BV	Daily Joint Construction Report 291	
DJR-02-WJN-C-E-292	15-Jul-13	15-Jul-13	IRD/BV	Daily Joint Construction Report 292	
DJR-02-WJN-C-E-293	16-Jul-13	16-Jul-13	IRD/BV	Daily Joint Construction Report 293	
DJR-02-WJN-C-E-294	17-Jul-13	17-Jul-13	IRD/BV	Daily Joint Construction Report 294	
DJR-02-WJN-C-E-295	18-Jul-13	18-Jul-13	IRD/BV	Daily Joint Construction Report 295	
DJR-02-WJN-C-E-296	19-Jul-13/No Activities	20-Jul-13	IRD/BV	Daily Joint Construction Report 296	Friday
DJR-02-WJN-C-E-297	20-Jul-13	20-Jul-13	IRD/BV	Daily Joint Construction Report 297	
DJR-02-WJN-C-E-298	21-Jul-13	21-Jul-13	IRD/BV	Daily Joint Construction Report 298	
DJR-02-WJN-C-E-299	22-Jul-13	22-Jul-13	IRD/BV	Daily Joint Construction Report 299	
DJR-02-WJN-C-E-300	23-Jul-13	23-Jul-13	IRD/BV	Daily Joint Construction Report 300	
DJR-02-WJN-C-E-301	24-Jul-13	24-Jul-13	IRD/BV	Daily Joint Construction Report 301	
DJR-02-WJN-C-E-302	25-Jul-13	25-Jul-13	IRD/BV	Daily Joint Construction Report 302	
DJR-02-WJN-C-E-303	26-Jul-13/No Activities	27-Jul-13	IRD/BV	Daily Joint Construction Report 303	Friday
DJR-02-WJN-C-E-304	27-Jul-13	27-Jul-13	IRD/BV	Daily Joint Construction Report 304	
DJR-02-WJN-C-E-305	28-Jul-13	28-Jul-13	IRD/BV	Daily Joint Construction Report 305	
DJR-02-WJN-C-E-306	29-Jul-13	29-Jul-13	IRD/BV	Daily Joint Construction Report 306	
DJR-02-WJN-C-E-307	30-Jul-13	30-Jul-13	IRD/BV	Daily Joint Construction Report 307	
DJR-02-WJN-C-E-308	31-Jul-13	31-Jul-13	IRD/BV	Daily Joint Construction Report 308	
DJR-02-WJN-C-E-309	1-Aug-13	1-Aug-13	IRD/BV	Daily Joint Construction Report 309	
DJR-02-WJN-C-E-310	2-Aug-13/No Activities	3-Aug-13	IRD/BV	Daily Joint Construction Report 310	Friday
DJR-02-WJN-C-E-311	3-Aug-13	3-Aug-13	IRD/BV	Daily Joint Construction Report 311	
DJR-02-WJN-C-E-312	4-Aug-13	4-Aug-13	IRD/BV	Daily Joint Construction Report 312	
DJR-02-WJN-C-E-313	5-Aug-13	5-Aug-13	IRD/BV	Daily Joint Construction Report 313	
DJR-02-WJN-C-E-314	6-Aug-13	6-Aug-13	IRD/BV	Daily Joint Construction Report 314	
DJR-02-WJN-C-E-315	7-Aug-13/No Activities	12-Aug-13	IRD/BV	Daily Joint Construction Report 315	Ramadan Eid Holiday
DJR-02-WJN-C-E-316	8-Aug-13/No Activities	12-Aug-13	IRD/BV	Daily Joint Construction Report 316	Ramadan Eid Holiday
DJR-02-WJN-C-E-317	9-Aug-13/No Activities	12-Aug-13	IRD/BV	Daily Joint Construction Report 317	Friday/Ramadan Eid Holiday
DJR-02-WJN-C-E-318	10-Aug-13/No Activities	12-Aug-13	IRD/BV	Daily Joint Construction Report 318	Ramadan Eid Holiday
DJR-02-WJN-C-E-319	11-Aug-13/No Activities	12-Aug-13	IRD/BV	Daily Joint Construction Report 319	Ramadan Eid Holiday
DJR-02-WJN-C-E-320	12-Aug-13	12-Aug-13	IRD/BV	Daily Joint Construction Report 320	
DJR-02-WJN-C-E-321	13-Aug-13	13-Aug-13	IRD/BV	Daily Joint Construction Report 321	
DJR-02-WJN-C-E-322	14-Aug-13	14-Aug-13	IRD/BV	Daily Joint Construction Report 322	
DJR-02-WJN-C-E-323	15-Aug-13	15-Aug-13	IRD/BV	Daily Joint Construction Report 323	
DJR-02-WJN-C-E-324	16-Aug-13/No Activities	17-Aug-13	IRD/BV	Daily Joint Construction Report 324	Friday
DJR-02-WJN-C-E-325	17-Aug-13	17-Aug-13	IRD/BV	Daily Joint Construction Report 325	
DJR-02-WJN-C-E-326	18-Aug-13	18-Aug-13	IRD/BV	Daily Joint Construction Report 326	
DJR-02-WJN-C-E-327	19-Aug-13	19-Aug-13	IRD/BV	Daily Joint Construction Report 327	
DJR-02-WJN-C-E-328	20-Aug-13	20-Aug-13	IRD/BV	Daily Joint Construction Report 328	
DJR-02-WJN-C-E-329	21-Aug-13	21-Aug-13	IRD/BV	Daily Joint Construction Report 329	
DJR-02-WJN-C-E-330	22-Aug-13	22-Aug-13	IRD/BV	Daily Joint Construction Report 330	
DJR-02-WJN-C-E-331	23-Aug-13/No Activities	24-Aug-13	IRD/BV	Daily Joint Construction Report 331	Friday
DJR-02-WJN-C-E-332	24-Aug-13	24-Aug-13	IRD/BV	Daily Joint Construction Report 332	
DJR-02-WJN-C-E-333	25-Aug-13	25-Aug-13	IRD/BV	Daily Joint Construction Report 333	
DJR-02-WJN-C-E-334	26-Aug-13	26-Aug-13	IRD/BV	Daily Joint Construction Report 334	
DJR-02-WJN-C-E-335	27-Aug-13	27-Aug-13	IRD/BV	Daily Joint Construction Report 335	
DJR-02-WJN-C-E-336	28-Aug-13	28-Aug-13	IRD/BV	Daily Joint Construction Report 336	
DJR-02-WJN-C-E-337	29-Aug-13	29-Aug-13	IRD/BV	Daily Joint Construction Report 337	
DJR-02-WJN-C-E-338	30-Aug-13/No Activities	31-Aug-13	IRD/BV	Daily Joint Construction Report 338	Friday
DJR-02-WJN-C-E-339	31-Aug-13	31-Aug-13	IRD/BV	Daily Joint Construction Report 339	
DJR-02-WJN-C-E-340	1-Sep-13	1-Sep-13	IRD/BV	Daily Joint Construction Report 340	
DJR-02-WJN-C-E-341	2-Sep-13	2-Sep-13	IRD/BV	Daily Joint Construction Report 341	
DJR-02-WJN-C-E-342	3-Sep-13	3-Sep-13	IRD/BV	Daily Joint Construction Report 342	
DJR-02-WJN-C-E-343	4-Sep-13	4-Sep-13	IRD/BV	Daily Joint Construction Report 343	
DJR-02-WJN-C-E-344	5-Sep-13	5-Sep-13	IRD/BV	Daily Joint Construction Report 344	
DJR-02-WJN-C-E-345	6-Sep-13/No Activities	7-Sep-13	IRD/BV	Daily Joint Construction Report 345	Friday
DJR-02-WJN-C-E-346	7-Sep-13	7-Sep-13	IRD/BV	Daily Joint Construction Report 346	
DJR-02-WJN-C-E-347	8-Sep-13	8-Sep-13	IRD/BV	Daily Joint Construction Report 347	
DJR-02-WJN-C-E-348	9-Sep-13	9-Sep-13	IRD/BV	Daily Joint Construction Report 348	
DJR-02-WJN-C-E-349	10-Sep-13	10-Sep-13	IRD/BV	Daily Joint Construction Report 349	
DJR-02-WJN-C-E-350	11-Sep-13	11-Sep-13	IRD/BV	Daily Joint Construction Report 350	
DJR-02-WJN-C-E-351	12-Sep-13	12-Sep-13	IRD/BV	Daily Joint Construction Report 351	
DJR-02-WJN-C-E-352	13-Sep-13/No Activities	14-Sep-13	IRD/BV	Daily Joint Construction Report 352	Friday
DJR-02-WJN-C-E-353	14-Sep-13	14-Sep-13	IRD/BV	Daily Joint Construction Report 353	
DJR-02-WJN-C-E-354	15-Sep-13	15-Sep-13	IRD/BV	Daily Joint Construction Report 354	
DJR-02-WJN-C-E-355	16-Sep-13	16-Sep-13	IRD/BV	Daily Joint Construction Report 355	

Contractor Trans. No.	Date Issued from Site	Date Reviewed from Engineer	Sender/Recipient	Subject	Remarks
DJR-02-WJN-C-E-356	17-Sep-13	17-Sep-13	IRD/BV	Daily Joint Construction Report 356	
DJR-02-WJN-C-E-357	18-Sep-13	18-Sep-13	IRD/BV	Daily Joint Construction Report 357	
DJR-02-WJN-C-E-358	19-Sep-13	19-Sep-13	IRD/BV	Daily Joint Construction Report 358	
DJR-02-WJN-C-E-359	20-Sep-13/No Activities	21-Sep-13	IRD/BV	Daily Joint Construction Report 359	Friday
DJR-02-WJN-C-E-360	21-Sep-13	21-Sep-13	IRD/BV	Daily Joint Construction Report 360	
DJR-02-WJN-C-E-361	22-Sep-13	22-Sep-13	IRD/BV	Daily Joint Construction Report 361	
DJR-02-WJN-C-E-362	23-Sep-13	23-Sep-13	IRD/BV	Daily Joint Construction Report 362	
DJR-02-WJN-C-E-363	24-Sep-13	24-Sep-13	IRD/BV	Daily Joint Construction Report 363	
DJR-02-WJN-C-E-364	25-Sep-13	25-Sep-13	IRD/BV	Daily Joint Construction Report 364	
DJR-02-WJN-C-E-365	26-Sep-13	26-Sep-13	IRD/BV	Daily Joint Construction Report 365	
DJR-02-WJN-C-E-366	27-Sep-12/No Activities	28-Sep-13	IRD/BV	Daily Joint Construction Report 366	Friday
DJR-02-WJN-C-E-367	28-Sep-13	28-Sep-13	IRD/BV	Daily Joint Construction Report 367	
DJR-02-WJN-C-E-368	29-Sep-13	29-Sep-13	IRD/BV	Daily Joint Construction Report 368	
DJR-02-WJN-C-E-369	30-Sep-13	30-Sep-13	IRD/BV	Daily Joint Construction Report 369	
DJR-02-WJN-C-E-370	1-Oct-13	1-Oct-13	IRD/BV	Daily Joint Construction Report 370	
DJR-02-WJN-C-E-371	2-Oct-13	2-Oct-13	IRD/BV	Daily Joint Construction Report 371	
DJR-02-WJN-C-E-372	3-Oct-13	3-Oct-13	IRD/BV	Daily Joint Construction Report 372	
DJR-02-WJN-C-E-373	4-Oct-13/No Activities	5-Oct-13	IRD/BV	Daily Joint Construction Report 373	Friday
DJR-02-WJN-C-E-374	5-Oct-13	5-Oct-13	IRD/BV	Daily Joint Construction Report 374	
DJR-02-WJN-C-E-375	6-Oct-13	6-Oct-13	IRD/BV	Daily Joint Construction Report 375	
DJR-02-WJN-C-E-376	7-Oct-13	7-Oct-13	IRD/BV	Daily Joint Construction Report 376	
DJR-02-WJN-C-E-377	8-Oct-13	8-Oct-13	IRD/BV	Daily Joint Construction Report 377	
DJR-02-WJN-C-E-378	9-Oct-13	9-Oct-13	IRD/BV	Daily Joint Construction Report 378	
DJR-02-WJN-C-E-379	10-Oct-13	10-Oct-13	IRD/BV	Daily Joint Construction Report 379	
DJR-02-WJN-C-E-380	11-Oct-13/No Activities	12-Oct-13	IRD/BV	Daily Joint Construction Report 380	Friday
DJR-02-WJN-C-E-381	12-Oct-13	12-Oct-13	IRD/BV	Daily Joint Construction Report 381	
DJR-02-WJN-C-E-382	13-Oct-13	13-Oct-13	IRD/BV	Daily Joint Construction Report 382	
DJR-02-WJN-C-E-383	14-Oct-13/No Activities	19-Oct-13	IRD/BV	Daily Joint Construction Report 383	Eid Al Adha Holiday
DJR-02-WJN-C-E-384	15-Oct-13/No Activities	19-Oct-13	IRD/BV	Daily Joint Construction Report 384	Eid Al Adha Holiday
DJR-02-WJN-C-E-385	16-Oct-13/No Activities	19-Oct-13	IRD/BV	Daily Joint Construction Report 385	Eid Al Adha Holiday
DJR-02-WJN-C-E-386	17-Oct-13/No Activities	19-Oct-13	IRD/BV	Daily Joint Construction Report 386	Eid Al Adha Holiday
DJR-02-WJN-C-E-387	18-Oct-13/No Activities	19-Oct-13	IRD/BV	Daily Joint Construction Report 387	Friday/Eid Al Adha Holiday
DJR-02-WJN-C-E-388	19-Oct-13	19-Oct-13	IRD/BV	Daily Joint Construction Report 388	
DJR-02-WJN-C-E-389	20-Oct-13	20-Oct-13	IRD/BV	Daily Joint Construction Report 389	
DJR-02-WJN-C-E-390	21-Oct-13	21-Oct-13	IRD/BV	Daily Joint Construction Report 390	
DJR-02-WJN-C-E-391	22-Oct-13	22-Oct-13	IRD/BV	Daily Joint Construction Report 391	
DJR-02-WJN-C-E-392	23-Oct-13	23-Oct-13	IRD/BV	Daily Joint Construction Report 392	
DJR-02-WJN-C-E-393	24-Oct-13	24-Oct-13	IRD/BV	Daily Joint Construction Report 393	
DJR-02-WJN-C-E-394	25-Oct-13	26-Oct-13	IRD/BV	Daily Joint Construction Report 394	Friday
DJR-02-WJN-C-E-395	26-Oct-13	26-Oct-13	IRD/BV	Daily Joint Construction Report 395	
DJR-02-WJN-C-E-396	27-Oct-13	27-Oct-13	IRD/BV	Daily Joint Construction Report 396	
DJR-02-WJN-C-E-397	28-Oct-13	28-Oct-13	IRD/BV	Daily Joint Construction Report 397	
DJR-02-WJN-C-E-398	29-Oct-13	29-Oct-13	IRD/BV	Daily Joint Construction Report 398	
DJR-02-WJN-C-E-399	30-Oct-13	30-Oct-13	IRD/BV	Daily Joint Construction Report 399	
DJR-02-WJN-C-E-400	31-Oct-13	31-Oct-13	IRD/BV	Daily Joint Construction Report 400	

IRD International Relief & Development

Testing Log

Task Order: **WJN-02**

Project: **Project 1: Well #17 Pump Station and Conveyance System**
Project 2: Al Jaba' Nuba Main Transmission Pipeline Project

Current Date: 12-Nov-13

Submittal Number	Rev.	Material Tested	Project Identifier	Date Sent to Engineer	Date Returned to IRD	Submittal Disposition (Grade)	Total Engineer Response Time	Testing Lab	Report No.	Sample Date	Test Type	Location/ Station	Limits/ Specifications	Lab Results (Approved/ Resubmit)
TEST-02-JNT-001	A	Soil and Soil Aggregate	JNT	31-Dec-12	6-Jan-13	C	6	Building Center	ST/12298	Dec. 16,2012	Sieve Analysis, CBR and proctor tests	Surif/at St. (00+900)	2200 Type G	Rejected
TEST-02-JNT-002 -A	A	Single Size Aggregate	JNT	2-Jan-13	6-Jan-13	D	4	Building Center	BM/QC/12069	Dec.23.2012	Aggregate testing report for crushed aggregates size/single size	at St. (05+200)	2200 part 2 , item C	Rejected
		Sand	JNT	2-Jan-13	6-Jan-13	D	4	Building Center	BM/QC/12070	Dec.27.2012	Aggregate testing report for natural sand /bedding material	at St. (00+900)	2200-2 item C/type C	Rejected
TEST-02-JNT-002-B	B	Single Size/foul size	JNT	17-Jan-13	22-Jan-13	B	5	Building Center	BM/QC/13008	Jan.15.2013	Aggregate testing report for crushed aggregates Size/single size (foul)	Stockpiling area at the crusher site	2200-2 item C/single siz	Approved
~~TEST-02-JNT-003~~	~~A~~	~~Sand~~	~~JNT~~	~~6-Jan-13~~	~~1/8/2013(retracted)~~			~~Building Center~~	~~BM/QC/12070~~	~~Dec.27.2013~~	~~Source aggregate approval test for natural sand/bedding materials~~	~~at St. (00+901)~~	~~2200-2 fill and backfill materials item C/Type C~~	~~Approved~~
TEST-02-JNT-004	A	Crushed aggregate size/Bedding Material -Somsom size	JNT	13-Feb-13	14-Feb-13	B	1	Building Center	BM/QC/13014	4-Feb-13	Aggregate testing report for crushed aggregates Size/bedding material (Somsom size)	at St. (08+700)	2200-2 item C/type C	Approved
TEST-02-JNT-005	A	Bedding Material/ Somsom size	JNT	13-Feb-13	14-Feb-13	B	1	Building Center	BM/QC/13018	4-Feb-13	Aggregate testing report for crushed aggregates Size/bedding material (Somsom size)	at St. (08+050)	2200-2 item C/type C	Approved
TEST-02-JNT-006	A	Crushed limestone gravels with fines, beige for base course /loose sample	JNT	13-Feb-13	14-Feb-13	B	1	Building Center	ST/13038	5-Feb-13	Aggregate materials testing report for base course material/loose sample	at St. (08+440)	2200-2 /Type G and 2460 type A	Approved
TEST-02-JNT-007	A	Crushed aggregate size/Single Size-Foul Size	JNT	13-Feb-13	14-Feb-13	B	1	Building Center	BM/QC/13017	9-Feb-13	Aggregate testing report for crushed aggregates size/single size	at St. (08+050)	2200-2 part 2 item C	Approved
TEST-02-JNT-008	A	Crushed aggregate size/Single Size - Foul Size	JNT	13-Feb-13	14-Feb-13	B	1	Building Center	BM/QC/13015	4-Feb-13	Aggregate lab testing report for crushed aggregates size/single size	at St. (08+700)	2200-2 part 2 item C	Approved
TEST-02-JNT-009	A	Crushed limestone gravels with fines, beige for base course /loose sample	JNT	13-Feb-13	14-Feb-13	B	1	Building Center	ST/13037	4-Feb-13	Aggregate materials testing report for base course material/loose sample	at St. (08+700)	2200-2 /Type G and 2460 type A	Approved
TEST-02-JNT-010	A	Base course	JNT	25-Feb-13	26-Feb-13	B	1	Building Center	ST/FD/13112	23-Feb-13	Density of soil in place test report ,sand cone method(compaction test)	at St.(08+515),(08+665) and(08+815)	– – –	Approved
TEST-02-JNT-011	A	Crushed aggregate size/Single Size - Foul Size	JNT	25-Feb-13	26-Feb-13	A	1	Building Center	BM/QC/13025	21-Feb-13	Aggregate lab testing report for crushed aggregates size/single size-foul size	at St. (06+850)	2200-2 Item C/type C	Approved
TEST-02-JNT-012	A	Crushed aggregate size/Bedding Material -Somsom Size	JNT	25-Feb-13	26-Feb-13	B	1	Building Center	BM/QC/13024	21-Feb-13	Aggregate testing report for crushed aggregates size/bedding material-Somsom size	at St. (06+850)	2200-2 Item C/type C	Approved
TEST-02-JNT-013	A	10-Inch,12-inch pipes and fittings	JNT	27-Feb-13	4-Mar-13	B	5	MOREX 71 LTD	8132338/13	12-Feb-13	Radio graphic examination/RT testing results	from St. (08+208) to St. (08+165) and at storage yard	– – –	Approved
TEST-02-JNT-014	A	~~Base course material/loose sample~~	~~JNT~~	~~3-Mar-13~~	~~RETRACTED~~			~~Building Center~~	~~ST/13047~~	~~9-Feb-13~~	Base course test results	~~at St. (07+900) to(08+400)~~	~~2200 Type G~~	~~Approved~~
TEST-02-JNT-015	A	~~Single size (Foul Size)~~	~~JNT~~	~~3-Mar-13~~	~~RETRACTED~~			~~Building Center~~	~~BM/QC/13017~~	~~9-Feb-13~~	~~Aggregate lab testing result for crushed aggregates size/single size (foul)~~	~~at St. (08+050)~~	~~2200-2 item C/Type C~~	~~Approved~~
TEST-02-JNT-016	A	~~Bedding Material (Somsom size)~~	~~JNT~~	~~3-Mar-13~~	~~RETRACTED~~			~~Building Center~~	~~BM/QC/13018~~	~~9-Feb-13~~	~~Aggregate lab testing result for crushed aggregates size/bedding material (Somsom)~~	~~at St. (08+050)~~	~~2200-2 item C/Type C~~	~~Approved~~
TEST-02-JNT-014	A	Base course/loose sample	JNT	10-Mar-13	12-Mar-13	B	2	Building Center	ST/13047	9-Feb-13	Aggregate lab testing report for base course /loose sample	at St. (08+060)	2200/Type G	Approved
TEST-02-JNT-015	A	Base course/loose sample	JNT	10-Mar-13	12-Mar-13	B	2	Building Center	ST/13056	19-Feb-13	Aggregate lab testing report for base course /loose sample	at St. (08+100)	2200/Type G	Approved
TEST-02-JNT-016	A	Crushed aggregate size/single size - foul Size	JNT	10-Mar-13	12-Mar-13	B	2	Building Center	BM/QC/13020	13-Feb-13	Aggregate lab testing report for crushed aggregates size/single size-foul size	at St. (07+450)	2200-2 item C/Type C	Approved
TEST-02-JNT-017	A	Base course/loose sample	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	ST/13051	13-Feb-13	Aggregate lab testing report for base course/loose sample	at St.(07+450)	2200/Type G	Approved
TEST-02-JNT-018	A	Bedding Material /Somsom Size)	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	BM/QC/13019	13-Feb-13	Aggregate lab testing results for base course/loose sample	Route is from St.(07+400) to St.(07+900) and test was conducted at St.(07+450)	2200-2 Item C/type C	Approved
TEST-02-JNT-019	A	Bedding material/single size	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	BM/QC/13023	17-Feb-13	Aggregate lab testing report for Single Size (Foul Size)	Route is from St.(06+900) to St.(04+400) and test was conducted at St.(07+150)	2200-2 Item C/type C	Approved
TEST-02-JNT-020	A	Base course/loose sample	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	ST/13051	20-Feb-13	Aggregate lab testing report for base course/loose sample	Route is from St.(07+000) to St.(07+400) and test was conducted at St. (07+100)	2200/Type G	Approved
TEST-02-JNT-021	A	Bedding material/Somsom size	JNT	10-Mar-13	12-Mar-13	B	2	Building Center	BM/QC/13022	17-Feb-13	Aggregate lab testing result for bedding material/Somsom size	Route is from St.(06+900) at St.(07+400) and test was conducted at St. (07+200)	2200-2 Item C/type C	Approved

Submittal Number	Rev.	Material Tested	Project Identifier	Date Sent to Engineer	Date Returned to IRD	Submittal Disposition (Grade)	Total Engineer Response Time	Testing Lab	Report No.	Sample Date	Test Type	Location/ Station	Limits/ Specifications	Lab Results (Approved/ Resubmit)
TEST-02-JNT-022	A	Base course/loose sample	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	ST/13060	21-Feb-13	Aggregate lab testing report for base course/loose sample	Route is from St.(07+000) at St.(06+600) and test was conducted at St. (06+900)	2200/Type G	Approved
TEST-02-JNT-023	A	Base course	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	ST/FD/13130	3-Mar-13	Density of soil	Route is between St.(08+000) and St.(08+450) and test was conducted at St.(08+100),St.(08+250) and St.(08+400)	_ _ _	Approved
TEST-02-JNT-024	A	Base course/loose sample	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	ST/13068	27-Feb-13	Aggregate lab testing result for base course /loose sample	Route is from St.(02+300) to St.(02+700) and test was conducted at St.(02+530)	2200/Type G	Approved
TEST-02-JNT-025	A	Bedding material/single size	JNT	10-Mar-13	12-Mar-13	A	2	Building Center	BM/QC/13022	27-Feb-13	Aggregate lab resting report for crushed aggregates size/single size (foul)	Route is between St. (02+200) and St.(02+700) and test was conducted at St.(02+530)	2200-2 Item C/type C	Approved
TEST-02-JNT-026	A	RT Testing Results (Pipes and Fabricated Mitered Bends)-	JNT	17-Mar-13	19-Mar-13	A	2	MOREX 71 LTD	8132677/13	12-Mar-13	Radio graphic examination	between St. (01+960) &St. (01+900) and storage yard at St. (05+200)	_ _ _	Approved
TEST-02-JNT-027	A	Compaction Test Result at St.(7+650) ,(7+800) and St. (7+950)	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	ST/FD/13132	3-Mar-13	Density of soil	St.(07+650) , St.(07+800) and St. (07+950)	_ _ _	Approved
TEST-02-JNT-028	A	Compaction Test Result at St.(6+855) ,(7+055) , (7+255) and St. (7+455)	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	ST/FD/13141	12-Mar-13	Density of soil	St.(06+855) ,St.(07+055) , (07+255) and St. (07+455)	_ _ _	Approved
TEST-02-JNT-029	A	Bedding Material (Somsom Size) Test Results at St.(2+530)	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	BM/QC/13026	27/2/2013	Crushed aggregates size/bedding material (Somsom)	at St.(02+530)	2200-2 Item C/type C	Approved
TEST-02-JNT-030	A	Bedding Material (Somsom Size) Test Results at St.(2+100)	JNT	21-Mar-13	25-Mar-13	B	4	Building Center	BM/QC/13029	7-Mar-13	Crushed aggregates size/bedding material (Somsom)	at St.(02+100)	2200-2 Item C/type C	Approved
TEST-02-JNT-031	A	Bedding Material (Somsom Size) Test Results at St.(1+700)	JNT	21-Mar-13	25-Mar-13	B	4	Building Center	BM/QC/13031	11-Mar-13	Crushed aggregates size/bedding material (Somsom)	at St.(01+700)	2200-2 Item C/type C	Approved
TEST-02-JNT-032	A	Single Size (Foul Size) at Station (2+100)	JNT	21-Mar-13	25-Mar-13	B	4	Building Center	BM/QC/13030	7-Mar-13	Crushed aggregates size/single size (foul)	at St.(02+100)	2200-2 Item C/type C	Approved
TEST-02-JNT-033	A	Single Size (Foul Size) at Station (1+700)	JNT	21-Mar-13	25-Mar-13	B	4	Building Center	BM/QC/13032	11-Mar-13	Crushed aggregates size/single size (foul)	at St.(01+700)	2200-2 Item C/type C	Approved
TEST-02-JNT-034	A	Asphalt Loose Test (Binder Layer) at station 8+800	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	AS/TBM/13054	2-Mar-13	Asphalt /loose sample	at St.(08+800)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-035	A	Asphalt Loose Test (Binder Layer) at station 8+300	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	AS/TBM/13058	3-Mar-13	Asphalt /loose sample	at St.(08+300)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-036	A	Asphalt Loose Test (Binder Layer) at station 7+600	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	AS/TBM/13060	4-Mar-13	Asphalt /loose sample	at St.(07+600)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-037	A	Asphalt Loose Test (Binder Layer) at station 7+450	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	BM/QC/13080	13-Mar-13	Asphalt /loose sample	at St.(07+450)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-038	A	Concrete Compressive Strength Testing Results (7 days and 28 days) at St.(8+440)	JNT	21-Mar-13	25-Mar-13	B	4	Building Center	BM/CT/13199	5-Feb-13	Ready mix normal concrete	at St.(08+440)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-039	A	Concrete Compressive Strength Testing Results (7 days) at St.(2+595) to (2+630)	JNT	21-Mar-13	25-Mar-13	B	4	Building Center	BM/CT/13268	26-Feb-13	Ready mix normal concrete	from St.(02+595) to St.(02+630)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-040	A	Base Course Test Results between St.(1+900) to St.(2+300)	JNT	21-Mar-13	25-Mar-13	A	4	Building Center	ST/13076	6-Mar-13	Base course material/loose sample	from St.(01+900) to St.(02+300)	2200 Type "G" and 2460 Type "A"	Approved
TEST-02-JNT-041	A	Concrete Compressive Strength Testing Results (7 days) at St.(7+870)	JNT	3-Apr-13	7-Apr-13	B	4	Building Center	BM/CT/13321	24-Mar-13	Ready mix normal concrete	at station (07+870)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-042	A	Concrete Compressive Strength Testing Results (7 days and 28 days) at St.(2+595 to 2+630)	JNT	3-Apr-13	7-Apr-13	B	4	Building Center	BM/CT/13268	26-Mar-13	Ready mix normal concrete	between St. (02+595)and St.(02+630)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-043	A	Concrete Compressive Strength Testing Results (7 days and 28 days) at St.(1+648 to 1+727)	JNT	23-Apr-13	28-Apr-13	A	3	Building Center	BM/CT/13312	12-Mar-13	Ready mix normal concrete	between St. (01+648) and St. (01+727)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-044	A	Concrete Compressive Strength Testing Results (7 days) at St.(1+440)	JNT	23-Apr-13	28-Apr-13	A	3	Building Center	BM/CT/13377	2-Apr-13	Ready mix normal concrete	at St. (01+440)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-045	A	Concrete Compressive Strength Testing Results (7 days and 28 days) ARV Chamber base slab at St.(7+870)	JNT	23-Apr-13	28-Apr-13	A	3	Building Center	BM/CT/13321	17-Mar-13	Ready mix normal concrete	at St.(07+870)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-046	A	Concrete Compressive Strength Testing Results (7 days) WO Chamber base slab at St.(0+970)	JNT	23-Apr-13	28-Apr-13	A	3	Building Center	BM/CT/13402	8-Apr-13	Ready mix normal concrete	at St. (00+970)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-047	A	Concrete Compressive Strength Testing Results (7 days and 28 days) ARV Chamber base slab at St.(7+870)	JNT	23-Apr-13	28-Apr-13	D	3	Building Center	BM/CT/13337	23-Mar-13	Ready mix normal concrete	at St. (07+870)	PS 55 -2001:Part 3 &19	Rejected

Submittal Number	Rev.	Material Tested	Project Identifier	Date Sent to Engineer	Date Returned to IRD	Submittal Disposition (Grade)	Total Engineer Response Time	Testing Lab	Report No.	Sample Date	Test Type	Location/ Station	Limits/ Specifications	Lab Results (Approved/ Resubmit)
TEST-02-JNT-048	A	Concrete Compressive Strength Testing Results (7 days) Al-Jaba connection chamber blinding concrete St.(0+060)	JNT	23-Apr-13	28-Apr-13	A	3	Building Center	BM/CT/13411	13-Apr-13	Ready mix normal concrete	at St. (00+060)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-049	A	Concrete Compressive Strength Testing Results (7 days) Al-WO manhole walls at St.(0+970)	JNT	23-Apr-13	28-Apr-13	A	3	Building Center	BM/CT/13412	13-Apr-13	Ready mix normal concrete	at St. (00+970)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-050	A	Lab testing report (Bedding Material - Somsom size) at St. 4+000	JNT	24-Apr-13	28-Apr-13	B	4	Building Center	BM/CT/13040	10-Apr-13	Bedding material (somsom size)	at St. (04+000)	2200-2 item C/type C	Approved
TEST-02-JNT-051	A	Lab testing report (Bedding Material - Somsom size) at St. 3+600	JNT	24-Apr-13	28-Apr-13	B	4	Building Center	BM/CT/13041	11-Apr-13	Bedding material (somsom size)	at St. (03+600)	2200-2 Item C/type C	Approved
TEST-02-JNT-052	A	Lab testing report (Bedding Material - Somsom size) at St. 2+900	JNT	24-Apr-13	28-Apr-13	B	4	Building Center	BM/CT/13051	21-Apr-13	Bedding material (somsom size)	at St. (02+900)	2200-2 Item C/type C	Approved
TEST-02-JNT-053	A	Lab testing report (single size) at St.4+000	JNT	24-Apr-13	28-Apr-13	B	4	Building Center	BM/CT/13039	9-Apr-13	Single size	at St. (04+000)	2200-2 Item C/type C	Approved
TEST-02-JNT-054	A	Lab testing report (single size) at St.3+600	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	BM/CT/13042	11-Apr-13	Single size	at St. (03+600)	2200-2 Item C/type C	Approved
TEST-02-JNT-055	A	Lab testing report (single size) at St.2+900	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	BM/CT/13052	21-Apr-13	Single size	at St. (02+900)	2200-2 Item C/type C	Approved
TEST-02-JNT-056	A	Asphalt loose sample test station 2+020	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	BM/CT/13097	6-Apr-13	Asphalt /loose sample	at St. (02+020)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-057	A	Asphalt loose sample test station 2+120	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	BM/CT/13099	9-Apr-13	Asphalt /loose sample	at St. (02+120)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-058	A	Asphalt loose sample test station 1+500	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	BM/CT/13102	11-Apr-13	Asphalt /loose sample	at St. (01+500)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-059	A	Base course/loose sample	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	ST/13097	7-Apr-13	Aggregate lab testing result for base course/loose sample	Route is from St.(00+200) and St.(00+700) and test was conducted at St. (00+400)	2200/Type G	Approved
TEST-02-JNT-060	A	Base course/loose sample	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	ST/13102	8-Apr-13	Aggregate lab testing result for base course/loose sample	Route is from St.(03+700) and St.(04+200) and test was conducted at St.(04+000)	2200/Type G	Approved
TEST-02-JNT-061	A	Test Lab results for Base course-Loose sample.	JNT	24-Apr-13	29-Apr-13	B	5	Building Center	BM/CT/13107	14-Apr-13	Base Course /loose sample	at St. (03+600)	2200/Type G	Approved
TEST-02-JNT-062	A	Base course	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	ST/FD/13164	3-Apr-13	Compaction test result	at St. (01+775) and St. (01+950)	_ _ _	Approved
TEST-02-JNT-063	A	Base course	JNT	24-Apr-13	28-Apr-13	A	4	Building Center	ST/FD/13172	8-Apr-13	Compaction test result	at St. (01+525) and St. (01+650)	_ _ _	Approved
TEST-02-JNT-064	A	Reinforcement steel bars	JNT	2-May-13	6-May-13	A	4	Building Center	BM/STL/13009	20-Apr-13	Reinforcement steel bars test result	Φ 20 & Φ 16 Steel Bars	PS 821-3-2005 & ASTM 615	Approved
TEST-02-JNT-065	A	Radio graphic examination	JNT	7-May-13	9-May-13	B	2	MOREX 71 LTD	8133116/13	30-Apr-13	RT resting results 10" welded steel mitered bends (20 pieces) with RT-Films	_ _ _	_ _ _	Approved
TEST-02-JNT-066	A	Ready mix normal concrete	JNT	12-May-13	15-May-13	D	3	Building Center	BM/CT/13350	23-Apr-13	Concrete Compressive Strength Testing Results (7 days and 28 days)	Walls of wash out manhole at St. (01+700) and roof slab of air release valve at St.(07+870)	PS 55 -2001:Part 3 &19	Rejected
TEST-02-JNT-067	A	Base course	JNT	12-May-13	15-May-13	A	3	Building Center	ST/FD/13214	9-May-13	Compaction test	at St. (02+775) , St.(02+925) and St. (01+950)	_ _ _	Approved
TEST-02-JNT-068	A	Single Size (Foul Size).	JNT	12-May-13	15-May-13	B	3	Building Center	BM/QC/13059	9-May-13	Crushed aggregates size/single size (foul)	at St. (02+200)	2200-2 Item C/type C	Approved
TEST-02-JNT-069	A	Bedding material /somsom size	JNT	12-May-13	15-May-13	A	3	Building Center	BM/QC/13060	9-May-13	Lab testing report of Bedding Material - Somsom size.	at St. (05+200)	2200-2 Item C/type C	Approved
TEST-02-JNT-070	A	Base course /loose sample	JNT	18-May-13	19-May-13	B	1	Building Center	ST/13132	5-Apr-13	Lab testing report for Base Course/ Loose Sample	at St.(05+200)	(2200 type G)and(2460 type A).	Approved
TEST-02-JNT-071	A	Ready mix normal concrete	JNT	30-May-13	13-Jun-13	B	14	Building Center	BM/COR/13012	21-May-13	Core Tests Results and BC Lab Evaluation Report.	at St. (07+878)	_ _ _	Approved
TEST-02-JNT-072	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13377	3-Apr-13	Concrete Compressive Strength Testing Results (28 days)	Walls of Butterfly valve chamber at St. (01+446)	PS 55 -2001:Part 3 &4	Approved
TEST-02-JNT-073	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13402	9-Apr-13	Concrete Compressive Strength Testing Results (28 days)	Base slab of wash out chamber at St. (00+900)	PS 55 -2001:Part 3 &5	Approved
TEST-02-JNT-074	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13411	14-Apr-13	Concrete Compressive Strength Testing Results (28 days)	Blinding concrete for Al-Jabaa chamber at St. (00+100)	PS 55 -2001:Part 3 &6	Approved
TEST-02-JNT-075	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13412	14-Apr-13	Concrete Compressive Strength Testing Results (28 days)	Walls of wash out chamber at St. (00+900)	PS 55 -2001:Part 3 &7	Approved
TEST-02-JNT-076	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13423	17-Apr-13	Concrete Compressive Strength Testing Results (7 days and 28 days)	Blinding concrete for flow monitoring chamber at St. (00+090)	PS 55 -2001:Part 3 &8	Approved
TEST-02-JNT-077	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13425	18-Apr-13	Concrete Compressive Strength Testing Results (7 days and 28 days)	Base slab of Al-Jabaa Chamber at St. (00+100) and roof slab of wash out chamber at St. (00+900)	PS 55 -2001:Part 3 &9	Approved

Submittal Number	Rev.	Material Tested	Project Identifier	Date Sent to Engineer	Date Returned to IRD	Submittal Disposition (Grade)	Total Engineer Response Time	Testing Lab	Report No.	Sample Date	Test Type	Location/ Station	Limits/ Specifications	Lab Results (Approved/ Resubmit)
TEST-02-JNT-078	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13443	25-Apr-13	Concrete Compressive Strength Testing Results (7 days and 28 days)	Base slab of flow monitoring chamber at St. (00+090) and roof slab of wad out chamber at St. (03+138)	PS 55 -2001:Part 3 &10	Approved
TEST-02-JNT-079	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13442	27-Apr-13	Concrete Compressive Strength Testing Results (7 days and 28 days)	Walls of Al-Jabaa chamber at St. (00+100)	PS 55 -2001:Part 3 &11	Approved
TEST-02-JNT-080	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13450	30-Apr-13	Concrete Compressive Strength Testing Results (7 days and 28 days)	Roof slab for Al-Jabaa chamber at St. (00+100)	PS 55 -2001:Part 3 &12	Approved
TEST-02-JNT-081	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13481	6-May-13	Concrete Compressive Strength Testing Results (7days)	Walls of flow monitoring chamber at St. (00+090)	PS 55 -2001:Part 3 &13	Approved
TEST-02-JNT-082	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13495	12-May-13	Concrete Compressive Strength Testing Results (7days)	Roof slab of flow monitoring chamber(No.2) at St. (00+090)	PS 55 -2001:Part 3 &14	Approved
TEST-02-JNT-083	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13502	13-May-13	Concrete Compressive Strength Testing Results (7days)	Roof slab of Khirbit Al-Dier chamber at St.	PS 55 -2001:Part 3 &15	Approved
TEST-02-JNT-084	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13503	13-May-13	Concrete Compressive Strength Testing Results (7days)	Walls of Wash out chamber between St. (06+778) and St. (03+134)	PS 55 -2001:Part 3 &16	Approved
TEST-02-JNT-085	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13517	18-May-13	Concrete Compressive Strength Testing Results (7days)	Walls of Surif connection Chamber(No.2) at St. (02+528)	PS 55 -2001:Part 3 &17	Approved
TEST-02-JNT-086	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13518	18-May-13	Concrete Compressive Strength Testing Results (7days)	Roof slab of flow monitoring chamber at St. (00+090)	PS 55 -2001:Part 3 &18	Approved
TEST-02-JNT-087	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13526	20-May-13	Concrete compressive strength lab testing results (7days)	Walls of Wash out chamber at St.(06+778)	PS 55 -2001:Part 3 &19	Approved
TEST-02-JNT-088	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13530	21-May-13	Concrete compressive strength lab testing results (7days)	Roof slab for both of Surif connection chambers at St. (02+528)	PS 55 -2001:Part 3 &20	Approved
TEST-02-JNT-089	A	Ready mix normal concrete	JNT	30-May-13	4-Jun-13	A	5	Building Center	BM/CT/13531	21-May-13	Concrete compressive strength lab testing results (7days).	Base slab for Surif future connection chamber at St. (04+230)	PS 55 -2001:Part 3 &4	Approved
TEST-02-JNT-090	A	Base course	JNT	3-Jun-13	4-Jun-13	A	1	Building Center	ST/FD/13193	24-Apr-13	Compaction test result	at St.(04+000), St.(03+600) and St. (03+300)	– – –	Approved
TEST-02-JNT-091	A	Base course	JNT	3-Jun-13	4-Jun-13	B	1	Building Center	ST/FD/13235	18-May-13	Compaction test result	at St. (05+100) , St.(05+250) and St. (05+400)	– – –	Approved
TEST-02-JNT-092	A	Base course	JNT	3-Jun-13	4-Jun-13	B	1	Building Center	ST/FD/13241	23-May-13	Compaction test result	at St. (05+600) ,St. (05+750) and St. (05+900)	– – –	Approved
TEST-02-JNT-093	A	Base course	JNT	3-Jun-13	4-Jun-13	A	1	Building Center	ST/FD/13247	28-May-13	Compaction re-test result	at St. (05+600) and St.(05+750)	– – –	Approved
TEST-02-JNT-094	A	Base course	JNT	3-Jun-13	4-Jun-13	A	1	Building Center	ST/FD/13246	28-May-13	Compaction test result	at St. (05+100),St. (06+250) and St.(06+400)	– – –	Approved
TEST-02-JNT-095	A	Asphalt /loose sample	JNT	3-Jun-13	4-Jun-13	A	1	Building Center	AS/TBM/13111	25-Apr-13	Asphalt loose test /binder layer	Route is between St.(03+200) and St.(04+000) and test is at St.(03+700)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-096	A	Asphalt /loose sample	JNT	3-Jun-13	4-Jun-13	A	1	Building Center	AS/TBM/13113	30-Apr-13	Asphalt loose test /binder layer	Route is between St.(03+150) and St.(03+300) and test is at St.(03+200)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-097	A	Asphalt /loose sample	JNT	3-Jun-13	4-Jun-13	A	1	Building Center	AS/TBM/13121	9-May-13	Asphalt loose test /binder layer	Route is between St.(02+720) and St.(03+150) and test is at St. (03+000)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-098	A	Crushed aggregate size/bedding material -somsom size	JNT	4-Jun-13	5-Jun-13	B	1	Building Center	BM/QC/13053	22-Apr-13	Lab testing report for bedding material -Somsom size	Route is between St.(06+300) and St.(06+800) and test is at St. (06+800)	Section 02200-Part 2 fill and backfill materials, Item C/bedding material, type "A" and type "B"	Approved
TEST-02-JNT-099	A	Crushed aggregate size for bedding material -somsom size	JNT	4-Jun-13	5-Jun-13	B	1	Building Center	BM/QC/13058	29-Apr-13	Lab testing report for bedding material /somsom size	Route is between St.(05+800) and St.(06+300) and test is at St. (05+200)	Section 02200-Part 2 fill and backfill materials, Item C/Bedding Material, Type "A" and Type	Approved
TEST-02-JNT-100	A	Crushed aggregate size/bedding material-somsom size	JNT	4-Jun-13	5-Jun-13	B	1	Building Center	BM/QC/13063	12-May-13	Lab testing report for bedding material -somsom size	Route is between St.(04+200) and St.(04+700) and test is at St. (04+400)	Section 02200-Part 2 fill and backfill materials, Item C/bedding material, type "A" and type "B"	Approved
TEST-02-JNT-101	A	Crushed aggregate size/bedding material -somsom size	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	BM/QC/13072	26-May-13	Lab testing report for bedding material -Somsom size	Route is between St.(09+000) and St.(09+500) and test is at St. (09+350)	Section 02200-Part 2 fill and backfill materials, Item C/bedding material, type "A" and type "B"	Approved

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TEST-02-JNT-102	A	Base course/loose sample	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	ST/13120	18-Apr-13	Lab test report for base course /loose sample	Route is between St.(02+700) and St.(03+200) and test is at St. (02+900)	2200 Type "G" and 2460 type "A"	Approved
TEST-02-JNT-103	A	Base course/loose sample	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	ST/13127	22-Apr-13	Lab test report for base course /loose sample	Route is between St.(06+300) and St.(06+800) and test is at St. (06+800)	2200 Type "G" and 2460 type "A"	Approved
TEST-02-JNT-104	A	Base course/loose sample	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	ST/13133	29-Apr-13	Lab test report for base course /loose sample	Route is between St.(05+800) and St.(06+300) and test is at St. (05+200)	2200 Type "G" and 2460 type "A"	Approved
TEST-02-JNT-105	A	Base course/loose sample	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	ST/13144	7-May-13	Lab test report for base course /loose sample	Route is between St.(05+300) and St.(05+800) and test is at St. (05+200)	2200 Type "G" and 2460 type "A"	Approved
TEST-02-JNT-106	A	Base course/loose sample	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	ST/13151	12-May-13	Lab test report for base course /loose sample	Route is between St.(04+200) and St.(04+700) and test is at St. (04+400)	2200 Type "G" and 2460 type "A"	Approved
TEST-02-JNT-107	A	Crushed aggregate size/bedding material-single size	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	BM/QC/13054	18-Apr-13	Lab testing report for bedding material /single size	Route is between St.(06+300) and St.(06+800) and test is at St. (06+800)	Section 02200-Part 2 fill and backfill materials, Item C/single size	Approved
TEST-02-JNT-108	A	Crushed aggregate size/bedding material-single size , foul +Adas	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	BM/QC/13057	29-Apr-13	Lab testing report for single size/foul and Adas size	Route is between St.(05+800) and St.(06+300) and test is at St. (05+200)	Section 02200-Part 2 fill and backfill materials, Item C/single size	Approved
TEST-02-JNT-109	A	Crushed aggregate size/bedding material-foul size	JNT	4-Jun-13	5-Jun-13	D	1	Building Center	BM/QC/13062	12-May-13	Lab testing report for single size/foul size-quality assurance test	at Stockpiling area at the project site.	Section 02200-Part 2 fill and backfill materials, Item C/single size	Rejected
TEST-02-JNT-110	A	Crushed aggregate size/bedding material-foul size	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	BM/QC/13061	12-May-13	Lab testing report for Single Size /foul size	Route is from St.(04+200) and St.(04+700) and the test is at St. (04+400)	Section 02200-Part 2 fill and backfill materials, Item C/single size	Approved
TEST-02-JNT-111	A	Crushed aggregate size/bedding material -foul size)	JNT	4-Jun-13	5-Jun-13	A	1	Building Center	BM/QC/13071	26-May-13	Lab testing report for single size /foul size	Route is between St.(09+000) and (09+500) and test is at St.(09+350)	Section 02200-Part 2 fill and backfill materials, Item C/single size	Approved
TEST-02-JNT-112	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	E	3	Building Center	BM/CT/13321	18-Mar-13	Concrete compressive strength for 7 and 28 days test	Footing of water drainage culvert at St. (07+870)	PS 55-2001:part 3&4/PS 55-2001:part 1	Approved
TEST-02-JNT-113	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	E	3	Building Center	BM/CT/13402	9-Apr-13	Concrete compressive strength for 7 and 28 days test	Footing of washout manhole at St.(00+970)	PS 55-2001:part3&4	Approved
TEST-02-JNT-114	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	E	3	Building Center	BM/CT/13412	14-Apr-13	Concrete compressive strength for 7 and 28 days test	Walls of washout manhole at St. (00+970)	PS 55-2001:part3&4	Approved
TEST-02-JNT-115	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	E	3	Building Center	BM/CT/13411	14-Apr-13	Concrete compressive strength for 7 and 28 days test	Lean concrete pad of the washout manhole at St. (00+060)	PS 55-2001:part3&4	Approved
TEST-02-JNT-116	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13552	30-May-13	Concrete compressive strength for 7 days test	Walls of the manhole at St.(04+200) and slab of the manhole at St. (05+200)	PS 55-2001:part3&4	Approved
TEST-02-JNT-117	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/CT/13470	11-May-13	Concrete compressive strength for 7 and 28 days test	Walls of flow monitoring chamber (manhole No.1) at St. (00+090)	PS 55-2001:part3&4	Approved
TEST-02-JNT-118	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/CT/13495	12-May-13	Concrete compressive strength for 7 and 28 days test	Roof slab of low monitoring chamber (manhole No.2)e at St. (00+090)	PS 55-2001:part3&4	Approved
TEST-02-JNT-119	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13503	13-May-13	Concrete compressive strength for 7 and 28 days test	Walls of washout manhole at St. (03+134) and St. (06+778)	PS 55-2001:part3&4	Approved
TEST-02-JNT-120	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13568	3-Jun-13	Concrete compressive strength for 7 days test	Base slab of Nuba-Hata manhole at St.(11+250)	PS 55-2001:part3&4	Approved
TEST-02-JNT-121	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13502	13-May-13	Concrete compressive strength for 7 and 28 days test	Slab of Khirbit Al Dear manhole at St. (02+725)	PS 55-2001:part3&4	Approved
TEST-02-JNT-122	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13509	16-May-13	Concrete compressive strength for 7 and 28 days test	Walls of Sorif connection chamber(manhole No.1) at St. (02+528)	PS 55-2001:part3&4	Approved
TEST-02-JNT-123	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/CT/13517	18-May-13	Concrete compressive strength for 7 and 28 days test	Walls of Sorif manhole No.2 at St. (02+528)	PS 55-2001:part3&4	Approved
TEST-02-JNT-124	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13518	18-May-13	Concrete compressive strength for 7 and 28 days test	Slab of flow monitoring No.1 manhole at St. (00+090)	PS 55-2001:part3&4	Approved
TEST-02-JNT-125	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13526	20-May-13	Concrete compressive strength for 7 and 28 days test	Walls of washout manhole at St. (06+778)	PS 55-2001:part3&4	Approved

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TEST-02-JNT-126	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	A	3	Building Center	BM/CT/13531	21-May-13	Concrete compressive strength for 7 and 28 days test	Footing of Surif future connection chamber at St. (04+230)	PS 55-2001:part3&4	Approved
TEST-02-JNT-127	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/CT/13530	21-May-13	Concrete compressive strength for 7 and 28 days test	Roof slab of Surif connection chamber at St. (02+528)	PS 55-2001:part3&4	Approved
TEST-02-JNT-128	A	Ready- mix normal concrete	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/CT/13539	26-May-13	Concrete compressive strength for 7 and 28 days test	Walls of gate valve manhole at Station (06+741) and slab of washout manhole at Station (06+778)	PS 55-2001:part3&4	Approved
TEST-02-JNT-129	A	Crushed aggregate size/bedding material/single size(foul with Adas)	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/QC/13073	28-May-13	Aggregate testing result report for bedding material/single size(foul with Adas)	Route is from St. (09+500) to St. (10+000) and the test is at St. (09+750)	Section 022200-part 2 fill and backfill material , item c/single size	Approved
TEST-02-JNT-130	A	Crushed aggregate size/bedding material/somsom size	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/QC/13074	28-May-13	Aggregate testing result report for bedding material/somsom size	Route is from St.(09+500) to St. (10+00) and the test is at St. (09+750)	Section 022200-part 2 fill and backfill material , item c/bedding material, type "A" and type" B".	Approved
TEST-02-JNT-131	A	Crushed limestone aggregate size/single size(foul)	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/QC/13076	5-Jun-13	Aggregate testing result report for bedding material/single size-foul	Stockpiling area at the project site at St.(05+200)	Section 022200-part 2 fill and backfill material , item c/single size	Approved
TEST-02-JNT-132	A	Crushed limestone aggregate	JNT	27-Jun-13	30-Jun-13	B	3	Building Center	BM/QC/13075	5-Jun-13	Aggregate testing result report for crushed limestone aggregate	Route is from St.(10+000) to St. (10+500) and the test is at St. (10+200)	Section 022200-part 2 fill and backfill material , item c/bedding material, type "A" and type" B".	Approved
TEST-02-JNT-133	A	Ready- mix normal concrete	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	BM/CT/13487	8-May-13	Concrete compressive strength for 7 and 28 days test	Walls of Khirbit Al Dier manhole at St.(02+720)	PS 55-2001:part3&4	Approved
TEST-02-JNT-134	A	Ready- mix normal concrete	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	BM/CT/13554	30-May-13	Concrete compressive strength for 7 and 28 days test	Walls of Surif future connection chamber at St. (04+230),walls of air valve manhole at St.(04+351)and slab of air valve manhole at St.(05+260)	PS 55-2001:part3&4	Approved
TEST-02-JNT-135	A	Ready- mix normal concrete	JNT	30-Jun-13	7-Jul-13	B	7	Building Center	BM/CT/13561	30-May-13	Concrete compressive strength for 7 and 28 days test	Roof slab of Surif future connection chamber at St. (04+230)	PS 55-2001:part3&4	Approved
TEST-02-JNT-136	A	Asphalt/loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	AS/TBM/13148	19-Jun-13	Testing bituminous paving mixture (HMA/binder layer-size 3/4") report	Route is from St.(09+700) to St. (09+900)and the test is at St. (09+700)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-137	A	Asphalt/loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	AS/TBM/13153	25-Jun-13	Testing bituminous paving mixture (HMA/binder layer-size 3/4") report	Route is from St. (09+400) to St. (09+700)and the test is at St. (09+500)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-138	A	Base course/loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/FD/13254	30-May-13	Density of soil in place test report ,sand cone method(compaction test)	Route is from St.(06+500) to St. (06+800) and the test is at St. (06+600) and St. (06+720)	– – –	Approved
TEST-02-JNT-139	A	Base course/loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/FD/13266	9-Jun-13	Density of soil in place test report ,sand cone method(compaction test)	Route is from St. (04+250) to St. (04+550) and the test is at St. (04+330) and St. (04+480)	– – –	Approved
TEST-02-JNT-140	A	Base course /loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/FD/13270	11-Jun-13	Density of soil in place test report ,sand cone method(compaction test)	Route is from St.(04+600) to St. (05+000) and the test is at St. (04+750) and St. (04+900)	– – –	Approved
TEST-02-JNT-141	A	Base course/loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/FD/13280	18-Jun-13	Density of soil in place test report ,sand cone method(compaction test)	Route is from St.(10+150) and the test is at St.(10+010) and St.(10+100)	– – –	Approved
TEST-02-JNT-142	A	Base course/loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/FD/13281	19-Jun-13	Density of soil in place test report ,sand cone method(compaction test)	Route is from St.(09+700) to St. (09+900) and the test is at St. (09+750) and St.(09+850)	– – –	Approved
TEST-02-JNT-143	A	Base course /loose sample	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/FD/13286	23-Jun-13	Density of soil in place test report ,sand cone method(compaction test)	Route is from St.(09+350) to St. (09+700) and the test is at St.(09+400) and St. (09+600)	– – –	Approved
TEST-02-JNT-144	A	Crushed limestone gravels with fines, beige	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/13170	26-May-13	Aggregate materials testing result report for base course/loose sample	Route is from St. (09+000) to St. (09+500) and the test is at St. (09+350)	Limits 2200 type" and 2460 type "A"	Approved

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TEST-02-JNT-145	A	Crushed limestone gravels with fines, beige	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/13174	28-May-13	Aggregate materials testing result report for base course/loose sample	Route is from St.(09+500) to St. (10+000) and the test is at St. (09+750)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-146	A	Crushed limestone gravels with fines, beige	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	ST/13187	5-Jun-13	Aggregate materials testing result report for base course/loose sample	Stockpiling area at project site at St. (05+200)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-147	A	Cast iron tops for inspection chambers for sewerage system /circular open /steel frame	JNT	30-Jun-13	7-Jul-13	A	7	Building Center	BM/PTIC/13012	_ _ _	Precast tops for inspection chambers tops test	Tops of inspection chambers	BN EN124-05	Approved
TEST-02-JNT-148	A	Crushed limestone gravels with fines, beige	JNT	4-Jul-13	7-Jul-13	A	3	Building Center	ST/13085	17-Mar-13	Aggregate materials testing result report for base course/loose sample	Route is from St.(01+100) and St. (01+500) and the test is at St. (01+200)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-149	A	Crushed limestone gravels with fines, beige	JNT	4-Jul-13	7-Jul-13	A	3	Building Center	ST/13092	23-Mar-13	Aggregate materials testing result report for base course/loose sample	Route is from St.(00+700) and St. (01+100) and the test is at S. (00+900)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-150	A	Crushed aggregate size/bedding material /Adas size	JNT	4-Jul-13	7-Jul-13	B	3	Building Center	BM/QC/13034	17-Mar-13	Aggregate testing report for bedding material/Adas size	Route is from St.(00+700) and St. (01+200) and the test is at St. (01+100)	Section 022200-part 2 fill and backfill material , item c/bedding material, type "A" and type" B".	Approved
TEST-02-JNT-151	A	Crushed aggregate size/single size	JNT	4-Jul-13	7-Jul-13	A	3	Building Center	BM/QC/13035	17-Mar-13	Aggregate testing report for crushed aggregate size/single size	Route is from St. (00+700) and St. (01+200) and the test is at St. (01+100)	Section 022200-part 2 fill and backfill material , item c/single size	Approved
TEST-02-JNT-152	A	Crushed aggregate size/bedding material/somsom size	JNT	4-Jul-13	7-Jul-13	B	3	Building Center	BM/QC/13037	23-Mar-13	Aggregate testing report for crushed aggregate size/somsom size	Route is from St.(00+200) and St. (00+700) and the test is at St. (00+650)	Section 022200-part 2 fill and backfill material , item c/bedding material, type "A" and type" B".	Approved
TEST-02-JNT-153	A	Crushed aggregate size/single size	JNT	4-Jul-13	7-Jul-13	B	3	Building Center	BM/QC/13038	23-Mar-13	Aggregate testing report for crushed aggregate size/single size	Route is from St.(00+200) and St. (00+700) and the test is at St. (00+650)	Section 022200-part 2 fill and backfill material , item c/single size	Approved
TEST-02-JNT-154	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13570	3-Jun-13	Concrete compressive strength lab test result report for base slab of gate valve chamber and base slab of air release valve chamber	Gate valve manhole is at St.(09+200)and air release valve is at St.(09+190)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-155	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13585	6-Jun-13	Concrete compressive strength lab test result report for walls of air release valve chamber at St.(09+190)	at St.(09+190)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-156	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13590	9-Jun-13	Concrete compressive strength lab test result report for walls of Nuba-Hatta chamber	at St.(11+251)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-157	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13591	9-Jun-13	Concrete compressive strength lab test result report for base slab of Kharas connection chamber	at St.(09+939)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-158	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13616	17-Jun-13	Concrete compressive strength lab test result report for base slab of Nuba main connection chamber	at St.(10+700)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-159	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13626	19-Jun-13	Concrete compressive strength lab test result report for walls of Kharas connection chamber (No.2) and roof slab for Kharas connection chamber (No.1)	at St.(09+939)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-160	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13647	24-Jun-13	Concrete compressive strength lab test result report for walls of Nuba main connection chamber and roof slab of Kharas connection chamber (No.2).	Nuba main connection chamber is at St.(10+700)and Kharas connection chamber (No.2) is at St.(09+939)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-161	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13656	26-Jun-13	Concrete compressive strength lab test result report for roof slab of Nuba main connection chamber	at St.(10+700)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-162	A	Ready mix normal concrete	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	BM/CT/13670	30-Jun-13	Concrete compressive strength lab test result report for walls of wash out chamber	at St.(09+670)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-163	A	Base course	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	ST/FD/13302	15-Jul-13	Compaction lab test result report for base course	Route is between St.(08+900) and St.(09+200) and the test is at St.(09+125) and St.(09+000)	_ _ _	Approved
TEST-02-JNT-164	A	Base course	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	ST/FD/13297	2-Jul-13	Compaction lab test result report for base course	Route is between St.(10+450) and St.(10+650) and the test is at St.(10+530) and St.(10+620)	_ _ _	Approved
TEST-02-JNT-165	A	Base course	JNT	25-Jul-13	30-Jul-13	A	5	Building Center	ST/FD/13295	1-Jul-13	Compaction lab test result report for base course	Route is between St.(10+150) and St.(10+450) and the test is at St.(10+225) and St.(10+375)	_ _ _	Approved

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TEST-02-JNT-166	A	Aggregate/base course-loose sample	JNT	25-Jul-13	30-Jul-13	D	5	Building center	ST/13213	21-Jul-13	Aggregate lab testing result for base course/loose sample	at Project site, between St.(00+000) and St.(0+500)	2200 Type "G" and 2460 Type "A"	Rejected
TEST-02-JNT-167	A	Asphalt layer	JNT	1-Aug-13	6-Aug-13	A	5	Building center	AS/COR/13091	27-Jul-13	Testing bituminous paving mixture report	between St.(04+000) and St.(09+000)	AASHTO T 166-10,AASHTO T 230-10 and AASHTO T 3549-10	Approved
TEST-02-JNT-168	A	Asphalt layer	JNT	1-Aug-13	6-Aug-13	A	5	Building center	AS/COR/13092	28-Jul-13	Testing bituminous paving mixture report	between St(01+450) and St.(04+150) and also between St.(09+000) and St.(10+750)	AASHTO T 166-10,AASHTO T 230-10 and AASHTO T 3549-10	Approved
TEST-02-JNT-169	A	Sub grade layer	JNT	12-Aug-13	15-Aug-13	B	3	Building center	ST/FD/13314	6-Aug-13	Density of soil in place lab testing result report for subgrade layer	Al-Jaba'a road at St.(00+340L),(00+680 R), (00+945L),(01+090 R) and St.(01+100 R)	ASSHTO T191-10,ASTM D1556-10	Approved
TEST-02-JNT-170	A	Sub grade layer	JNT	12-Aug-13	15-Aug-13	A	3	Building center	ST/13223	6-Aug-13	Soil aggregate lab testing result report for subgrade layer	at St.(00+090) and St.(00+945)	Soil shall not be of group A-6,A-7according to ASSHTO M 145-98,the soil was classified as group A-2-4,so it is O.K.	Approved
TEST-02-JNT-171	A	Ready mix normal concrete	JNT	1-Sep-13	3-Sep-13	A	2	Building center	BM/CT/13713	10-Jul-13	Concrete compressive strength lab testing result for walls of wash out manhole	at St.(10+689)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-172	A	Ready mix normal concrete	JNT	1-Sep-13	3-Sep-13	A	2	Building center	BM/CT/13684	7-Jul-13	Concrete compressive strength lab testing result for footing of wash out manhole	at St.(10+689)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-173	A	Base course/loose sample	JNT	1-Sep-13	3-Sep-13	A	2	Building center	ST/13220	1-Aug-13	Aggregate lab testing result for base course/loose sample	Route is from St.(00+300) to St.(01+500)at St.(00+900)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-174	A	Base course/loose sample	JNT	1-Sep-13	3-Sep-13	A	2	Building center	ST/13230	21-Aug-13	Aggregate lab testing result for base course/loose sample	at Stockpiling area at crusher plant	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-175	A	Base course/loose sample	JNT	1-Sep-13	3-Sep-13	A	2	Building center	ST/13231	22-Aug-13	Aggregate lab testing result for base course/loose sample	Route is from St.(00+300) to St.(00+900) and test is conducted at St.(00+500) and St.(00+800)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-176	A	Base course/loose sample	JNT	1-Sep-13	3-Sep-13	A	2	Building center	ST/13232	24-Aug-13	Aggregate lab testing result for base course/loose sample	Route is from St.(00+900) to St.(01+500) and test is conducted at St.(01+300)	Limits 2200 type" and 2460 type "A"	Approved
TEST-02-JNT-177	A	Asphalt layer	JNT	1-Sep-13	3-Sep-13	A	2	Building center	AS/TBM/13192	24-Aug-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(06+700) to St.(08+900) and test is conducted at St.(06+980)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-178	A	Sub grade /compacted sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	ST/13235	3-Sep-13	Aggregate lab testing result for sub grade/compacted sample	Route is from St.(09+200) to St.(09+350) and test is conducted at St.(09+290)	Relating to ASSHTO T 180-10-method "D", modified proctor	Approved
TEST-02-JNT-179	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13196	28-Aug-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(05+400) to St.(06+480) and test is conducted at St.(05+700)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-180	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13197	29-Aug-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(04+200) to St.(05+200) and test is conducted at St.(04+600)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-181	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13198	31-Aug-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(00+300) to St.(00+800) and test is conducted at St.(00+360)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-182	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13199	31-Aug-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(00+800) to St.(01+080) and test is conducted at St.(00+800)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-183	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13200	1-Sep-13	Testing bituminous paving mixture (HMA wearing course -nominal size 3/4")report	Route is from St.(00+920) to St.(01+080) and test is conducted at St.(00+940)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-184	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13201	1-Sep-13	Testing bituminous paving mixture (HMA wearing course -size 3/4")report	Route is from St.(01+080) to St.(01+170) and test is conducted at St.(01+100)	JMF and design criteria of the asphalt mix	Approved

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TEST-02-JNT-185	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13202	1-Sep-13	Testing bituminous paving mixture (HMA wearing course -size 3/4")report	Route is from St.(01+170) to St.(01+500) and test is conducted at St.(01+400)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-186	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13203	2-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(02+800) to St.(03+800) and test is conducted at St.(03+100)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-187	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13204	3-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(03+800) to St.(04+250) and test is conducted at St.(04+100)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-188	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13207	5-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(01+700) to St.(02+350) and test is conducted at St.(02+080)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-189	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13209	7-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(08+830) to St.(09+350) and test is conducted at St.(08+950)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-190	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13212	8-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(09+350) to St.(09+900) and test is conducted at St.(09+450)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-191	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13213	9-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(09+660) to St.(10+300) and test is conducted at St.(09+720)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-192	A	Asphalt/loose sample	JNT	19-Sep-13	22-Sep-13	A	3	Building center	AS/TBM/13216	10-Sep-13	Testing bituminous paving mixture (HMA wearing course second(top)layer-size 3/4")report	Route is from St.(10+300) to St.(10+500) and test is conducted at St.(10+400)	JMF and design criteria of the asphalt mix	Approved
TEST-02-JNT-193	A	Base course	JNT	19-Sep-13	22-Sep-13	A	3	Building center	ST/FD/13336	29-Aug-13	Compaction lab test report for base course layer	Route is between St.(00+300) and St.(01+500) and test is conducted at stations shown in report.	Compaction degree at least 100%	Approved
TEST-02-JNT-194	A	Sub grade	JNT	19-Sep-13	22-Sep-13	A	3	Building center	ST/FD/13340	3-Sep-13	Compaction lab test report for sub grade layer	Route is between St.(09+200) and St.(09+350) and test is conducted at stations shown in report.	Compaction degree at least 100%	Approved
TEST-02-JNT-195	A	Base course	JNT	22-Sep-13	22-Sep-13	A	0	Building center	ST/FD/13341	5-Sep-13	Compaction lab test report for base course layer	Route is between St.(09+200) and St.(09+350) and test is conducted at stations shown in report.	Compaction degree at least 100%	Approved
TEST-02-JNT-196	A	Transmission pipeline	JNT	26-Sep-13	6-Oct-13	A	10	Center of chemical and biological analysis-Al-Quds university	—	26-Sep-13	Microbiology test for Surif-Kharas new pipeline(10")	Srom St.(00+000) to St.(10+740)	– – –	Approved
TEST-02-JNT-197	A	Transmission pipeline	JNT	7-Oct-13	8-Oct-13	B	1	Center of chemical and biological analysis-Al-Quds university	—	2-Oct-13	Microbiology test for Surif-Kharas new pipeline(3") and (4")	Srom St.(00+000) to St.(10+740)	– – –	Approved
TEST-02-JNT-198	A	Transmission pipeline	JNT	7-Oct-13	10-Oct-13	A	3	Poison control and chemical biological center in Al-Najah university.	2013080655	18-Aug-13	Test Result for Chlor used in chlorination process	Test on Chlor sample	P.S 568(2001)* ,P.S 568(2001)* and Instruction manual of ASS	Approved
TEST-02-JNT-199	A	Ready- mix normal concrete/shoulders of Al-Jab'a road	JNT	22-Oct-13	23-Oct-13	A	1	Building center	BM/CT/13899	8-Sep-13	Concrete compressive strength lab testing result for shoulders of Al-Jab'a road	between St.(00+250) and St.(00+650)	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-200	A	Ready- mix normal concrete/shoulders of Al-Jab'a road	JNT	22-Oct-13	23-Oct-13	A	1	Building center	BM/CT/13906	9-Sep-13	Concrete compressive strength lab testing result for shoulders of Al-Jab'a road	between St.(00+402) & St.(00+609) RHS and between St.(00+403) & St.(00+720)LHS.	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-201	A	Ready- mix normal concrete/shoulders of Al-Jab'a road	JNT	22-Oct-13	23-Oct-13	A	1	Building center	BM/CT/13909	10-Sep-13	Concrete compressive strength lab testing result for shoulders of Al-Jab'a road	between St.(00+609) & St.(01+164) RHS and between St.(00+720) & St.(01+002)LHS.	PS 55-2001:Part 3&4	Approved
TEST-02-JNT-202	A	Ready- mix normal concrete/shoulders of Al-Jab'a and Kharas roads	JNT	22-Oct-13	23-Oct-13	A	1	Building center	BM/CT/13914	11-Sep-13	Concrete compressive strength lab testing result for shoulders of Al-Jab'a and Kharas roads	between St.(01+164) & St.(01+409) RHS , between St.(01+002) & St.(01+454)LHS ,between St.(09+227) & St.(09+350) RHS and between St.(09+266) &St.(09+350) LHS	PS 55-2001:Part 3&4	Approved

Submittal Number	Rev.	Material Tested	Project Identifier	Date Sent to Engineer	Date Returned to IRD	Submittal Disposition (Grade)	Total Engineer Response Time	Testing Lab	Report No.	Sample Date	Test Type	Location/ Station	Limits/ Specifications	Lab Results (Approved/ Resubmit)
TEST-02-JNT-203	A	Asphalt layer	JNT	22-Oct-13	23-Oct-13	A	1	Building center	AS/COR/13108	10-Oct-13	Testing bituminous paving mixture report	Between St.(00+200)& St.(01+480) and between St.(01+800) & St.(03+500)	AASHTO T 166-10,10,AASHTO T 230-10 and AASHTO T 3549-10	Approved
TEST-02-JNT-204	A	Asphalt layer	JNT	22-Oct-13	23-Oct-13	A	1	Building center	AS/COR/13109	12-Oct-13	Testing bituminous paving mixture report	Between St.(03+500) and St.(10+900)	AASHTO T 166-10 ,AASHTO T 230-10 and AASHTO T 3549-11	Approved
TEST-02-JNT-206	A	Asphalt layer	JNT	22-Oct-13	23-Oct-13	A	1	Building center	AS/COR/13110	10-Oct-13	Testing bituminous paving mixture report	Between St.(10+500) and St.(10+900)	AASHTO T 166-10 ,AASHTO T 230-10 and AASHTO T 3549-12	Approved
TEST-02-JNT-206	A	Asphalt layer	JNT	22-Oct-13	23-Oct-13	A	1	Building center	AS/COR/13112	20-Oct-13	Testing bituminous paving mixture report	At St.(03+905) and St.(07+905)	AASHTO T 166-10 ,AASHTO T 230-10 and AASHTO T 3549-13	Approved

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Contractor's Submittal Transmittal Review Form

Instructions: Contractor shall complete all shaded fields as appropriate except area in green reserved for Engineer.

Submit Date: 27-Feb-13	USAID Contract No. AID-294-I-00-12-00003		Log ID	TO No.	TO/Project ID	Seq. No.	Rev.
Electronic Delivery Method: ☐ FTP ☐ EMAIL			TEST	02	JNT	013	A
Delivery Method: (Hard Copy) BY HAND			No. Items Attached: 4 Copies.				
To:	BVSPC		From:	International Relief and Development			
Attention:	Mr. Maher Awawdeh		Attention:	Rami Abu Ktaish, (PM) Nidal Merazzeq, (QCM)			
Specification No.	02570	Parag. 3.3E	Description: RT Testing Results for 10" and 12" Pipes and Fittings.		TO/Project: Al-Jaba'-Nuba Main Transmission Pipeline Project.		
Supplier/Subcontractor			Drawing No.:	Rev.	Schedule Activity No.		

Subject Submittal has been reviewed and review action is as shown below:

Item No.	Contractor's Item Description	No. of Pages	QTY	[For Engineer's use] Comments	Action	Reviewer
1	RT Testing Results (Pipes and Fabricated Mitered Bends) – Station 8+208 to Station 8+165 and Storage Yard.	4	4	See Attached	B	
2	CD		1			

A = No Exceptions Taken, B = Make Corrections Noted, C = Amend - Resubmit, D = Rejected – Resubmit E = Review Not Required

Contractor's Verification: complete either (a) or (b) following

☒ (a) We have verified that the materials or equipment contained in this submittal meets all the requirements specified or shown (no exceptions)

☐ (b) We have verified that the material or equipment contained in this submittal meets all the requirements specific or shown, except for the following deviations (List Deviations below or attach separate sheet).

Deviations

BY:
Rami Abu Ktaish, (PM)
Nidal Merazzeq, (QCM)

Submittal Date: 27-Feb-13

Contractor's Authorized Representative

Notice from the Owner: Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all qualifies and dimensions; selecting fabrication processes and techniques of construction/ coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

Engineer's Remarks: ☐ See comments below, ☐ see attached sheet, ☐ see red-marks on submittal or indicate here: None ☐.

By: Maher Awawdeh — Review Date: Mar 04, 201

Project Manager/ Resident Engineer

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27-02-2013
Eliana Salameh
RECEIVED
3:10 PM

Distribution 1. Contractor
2. CMC

(Rev. 02/12)

Infrastructure Needs Program INPII
TO 02, Well #17 Pump Station and Al Jaba' Nuba Pipeline Project
Submittal Review Comments

From: Black and Veatch
To: IRD
Date: March 04, 2013
Submittal No.: TEST - 02 – JNT – 013A
Subject: RT Testing Results (Pipes and Fabricated Mitered Bends)-Sta. 8+208 to Sta. 8+165 and Storage Yard.

☒ New Submittal
☐ Re-Submittal

The following are submittal review comments:

No.	Comments	Specification Paragraph
1.	**RT Testing Results (Pipes and Fabricated Mitered Bends)-Sta. 8+208 to Sta. 8+165 and Storage Yard:** 1.1 Rejected Joints shall be repaired in the presence of engineer.	
	1.2 Joint numbers shall be reflected into the weld book.	

Following ENGINEER'S review of CONTRACTOR'S above submittal, the CONTRACTOR is hereby informed on the following submittal disposition:

	A = No Exceptions Noted
X	B = Make Corrections Noted
	C = Amend - Resubmit
	D = Rejected - Resubmit
	E = Review Not Required

M 04/3/13

By Khaled Haramy / Maher Awawdeh

Date March 04, 2013

IRD
Main Office Ramallah
04-03-2013
Received-Internal
Document Control Dep.
2:30 PM

Distribution 1. Contractor
2. CMC

Note: The RT Testing Films will be handed to the Engineer during the next testing by the RT testing staff.

The submitted RT testing reports is reflecting the result of the tested welded joints at the following location and joint numbers:

Pipe Size	Fitting / Pipe	Joint Number	Location / Station
10-inch	Welded Steel Pipe	AE 10” A -1	10” Pipeline - St.8+208
10-inch	Welded Steel Pipe	AE 10” A -2	10” Pipeline - St.8+189
10-inch	Welded Steel Pipe	AE 10” A -3	10” Pipeline - St.8+177
10-inch	Welded Steel Pipe	AE 10” A -4	10” Pipeline - St.8+165
10-inch	Fabricated Mitered Bend 11.25 Degree	AE 10” - 1	Storage area- St.5+200
10-inch	Fabricated Mitered Bend 11.25 Degree	AE 10” – 2	Storage area- St.5+200
10-inch	Fabricated Mitered Bend 11.25 Degree	AE 10” – 3	Storage area- St.5+200
10-inch	Fabricated Mitered Bend 11.25 Degree	AE 10” – 4	Storage area- St.5+200
10-inch	Fabricated Mitered Bend 11.25 Degree	AE 10” – 5	Storage area- St.5+200
10-inch	Fabricated Mitered Bend 11.25 Degree	AE 10” – 6	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 1	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 2	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 3	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 4	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 5	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 6	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 7	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 8	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 9	Storage area- St.5+200
12-inch	Fabricated Mitered Bend 11.25 Degree	AE 12” - 10	Storage area- St.5+200

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Radiographic Examination Interpretation Report

Report No.: 8132338/13
Date: 12.02.2013
Page 1 **of** 3 **pages**

Customer: ARC EYES	**Examination site:** Bait Omar	**File :** 455א	
Order No.: 05.02.13	**By:** Mr. Chaim Daon		
Component part: 10" DIA WELDS	**Sampling :** By the client		
Examination acc. to: ES AWWA	**RT Procedure No:** MRX-20		
Material type: C.S	**Examination** after / before/. **heat treatment - N.A**		
Material Thickness (mm): 3/8"	**Film Brand & Type:** FOMA R7		
App. weld reinforcement (mm): +2	**IQI :** EN 462-1	**Location:** Film side	
O.D (mm): 10"	**Sensitivity:** W 13		
Distance SFD (mm): Contact	**Radiographic Density :** 2.0 - 3.5		
Developing equip.: GE- M - Eco	**Front & back screens type & thickness(mm):** Pb 0.1		
Voltage (KV): - **Current (mA):** -	**Exposure time (sec) :** 140		
Isotope Type: Ir192 **Activity (Ci):** 10	**Focal spot size (mm):** 2x3		
Exposure technique: Double wall – Single image	**Viewing technique:** Single		

RESULT													Evaluation		
No.	Weld Number	Measured Density	Aa	Ab	Ba	Bb	C	D	E	U	Hb	RC	Acc	Rej	Remarks
1.	AE 10" A - 1 A	3.2						x					x		
2.	B	3.2						x					x		
3.	C	3.2						x					x		
4.	2 A	3.2						x					x		
5.	B	3.2						x					x		
6.	C	3.2						x					x		
7.	3 A	3.2						x					x		
8.	B	3.2						x					x		
9.	C	3.2						x					x		
10.	4 A	3.2											x		
11.	B	3.2											x		
12.	C	3.2											x		
13.	AE 10" - 1 A	3.2											x		Broken concrete
14.	B	3.2											x		Broken concrete
15.	C	3.2											x		Broken concrete
16.	2 A	3.2											x		Broken concrete
17.	B	3.2											x		Broken concrete
18.	C	3.2											x		Broken concrete
19.	3 A	3.2											x		Broken concrete
20.	B	3.2											x		Broken concrete
21.	C	3.2											x		Broken concrete
22.	4 A	3.2											x		Broken concrete
23.	B	3.2											x		Broken concrete
24.	C	3.2											x		Broken concrete

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;**Hb**- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut ;**BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.02.13	S. Tayer	S. Tayer	A. Pessach

HEAD OFFICE: HAELA ST. P.O.B. 145 EVEN-YEHUDA 40500 Tel. 09-8997660 משרד ראשי: רח' האלה ת.ד. 145 אבן יהודה 40500 טל.
WEB. www.morex71.co.il E-mail: info@morex71.co.il FAX. 09-8998577 פקס.
BEER-SHEVA: FAX. 08-6232775 :פקס TEL. 08-6278947 באר שבע: טל. HAIFA: FAX. 04-8768373 :פקס TEL. 04-8765663 חיפה: טל.

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Radiographic Examination Interpretation Report

Report No.: 8132338/13
Date: 12.02.2013
Page 2 **of** 3 **pages**

Customer: ARC EYES		**Examination site:** Bait Omar	**File :** 455א
Order No.: 05.02.13		**By:** Mr. Chaim Daon	
Component part: 10"+12" DIA WELDS		**Sampling :** By the client	
Examination acc. to: ES AWWA		**RT Procedure No:** MRX-20	
Material type: C.S		**Examination after / before/. heat treatment** - N.A	
Material Thickness (mm): 3/8"		**Film Brand & Type:** FOMA R7	
App. weld reinforcement (mm): +2		**IQI :** EN 462-1	**Location:** Film side
O.D (mm): 10"		**Sensitivity:** W 13	
Distance SFD (mm): Contact		**Radiographic Density :** 2.0 - 3.5	
Developing equip.: GE- M - Eco		**Front & back screens type & thickness(mm):** Pb 0.1	
Voltage (KV): -	**Current (mA):** -	**Exposure time (sec) :** 140+180	
Isotope Type: Ir192	**Activity (Ci):** 10	**Focal spot size (mm):** 2x3	
Exposure technique: Double wall – Single image		**Viewing technique:** Single	

RESULT													Evaluation		
No.	Weld Number	Measured Density	Aa	Ab	Ba	Bb	C	D	E	U	Hb	RC	Acc	Rej	Remarks
25.	AE 10" - 5 A	3.2											x		Broken concrete
26.	B	3.2	x										x		Broken concrete
27.	C	3.2											x		Broken concrete
28.	6 A	3.2	x										x		Broken concrete
29.	B	3.2											x		Broken concrete
30.	C	3.2											x		Broken concrete
31.	AE 12" - 1 A	3.4											x		Broken concrete
32.	B	3.4											x		Broken concrete
33.	C	3.4											x		Broken concrete
34.	2 A	3.4											x		Broken concrete
35.	B	3.4											x		Broken concrete
36.	C	3.4											x		Broken concrete
37.	3 A	3.4											x		Broken concrete
38.	B	3.4											x		Broken concrete
39.	C	3.4											x		Broken concrete
40.	4 A	3.4	x										x		Broken concrete
41.	B	3.4											x		Broken concrete
42.	C	3.4											x		Broken concrete
43.	5 A	3.4											x		Broken concrete
44.	B	3.4	x										x		Broken concrete
45.	C	3.4											x		Broken concrete
46.	6 A	3.4	x										x		Broken concrete
47.	B	3.4											x		Broken concrete
48.	C	3.4	x										x		Broken concrete

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;**Hb**- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut ;**BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.02.13	S. Tayer	S. Tayer	A. Pessach

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Radiographic Examination Interpretation Report

Report No.: 8132338/13
Date: 12.02.2013
Page 3 of 3 pages

Customer: ARC EYES	**Examination site:** Bait Omar	**File :** 455א	
Order No.: 05.02.13	**By:** Mr. Chaim Daon		
Component part: 12" DIA WELDS	**Sampling :** By the client		
Examination acc. to: ES AWWA	**RT Procedure No:** MRX-20		
Material type: C.S	**Examination after / before/. heat treatment - N.A**		
Material Thickness (mm): 3/8"	**Film Brand & Type:** FOMA R7		
App. weld reinforcement (mm): +2	**IQI :** EN 462-1	**Location:** Film side	
O.D (mm): 10"	**Sensitivity:** W 13		
Distance SFD (mm): Contact	**Radiographic Density :** 2.0 - 3.5		
Developing equip.: GE- M - Eco	**Front & back screens type & thickness(mm):** Pb 0.1		
Voltage (KV): - **Current (mA):** -	**Exposure time (sec) :** 180		
Isotope Type: Ir192 **Activity (Ci):** 10	**Focal spot size (mm):** 2x3		
Exposure technique: Double wall – Single image	**Viewing technique:** Single		

RESULT													Evaluation		
No.	Weld Number	Measured Density	Aa	Ab	Ba	Bb	C	D	E	U	Hb	RC	Acc	Rej	Remarks
49.	AE 12" - 7 A	3.4	x										x		Broken concrete
50.	B	3.4											x		Broken concrete
51.	C	3.4											x		Broken concrete
52.	8 A	3.4											x		Broken concrete
53.	B	3.4											x		Broken concrete
54.	C	3.4											x		Broken concrete
55.	9 A	3.4											x		Broken concrete
56.	B	3.4	x										x		Broken concrete
57.	C	3.4											x		Broken concrete
58.	10 A	3.4	x											x	Broken concrete 7-15
59.	B	3.4											x		Broken concrete
60.	C	3.4	x											x	Broken concrete 86-0

End Of Report

Aa- Porosity ; **Ab-** Elongated cavity ; **Ba-** Slag inclusion ; **Bb-** Slag inclusion linear ; **C-** Lack of fusion ;**Hb-** Hollow bead
D- Lack of penetration ; **E-** Crack ; **U-** undercut ;**BT-** Burn through ; **FF-** film damage; **TI-** Transverse ind; **Tu-** Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.02.13	S. Tayer	S. Tayer	A. Pessach

HEAD OFFICE: HAELA ST. P.O.B. 145 EVEN-YEHUDA 40500 Tel. 09-8997660 משרד ראשי: רח' האלה ת.ד. 145 אבן יהודה 40500 טל.
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Contractor's Submittal Transmittal Review Form

Instructions: Contractor shall complete all shaded fields as appropriate except area in green reserved for Engineer.

Submit Date: 17-Mar-13	USAID Contract No. AID-294-I-00-12-00003	Log ID	TO No.	TO/Project ID	Seq. No	Rev.
Electronic Delivery Method: ☐ FTP ☐ EMAIL		TEST	02	JNT	026	A
Delivery Method: (Hard Copy) BY HAND		No. Items Attached: 4 Copies.				
To:	BVSPC	From:	International Relief and Development			
Attention:	Mr. Maher Awawdeh	Attention:	Rami Abu Ktaish, (PM) Nidal Merazzeq, (QCM)			
Specification No.	02570	Parag. 3.3E	Description: RT Testing Results for 10" Mitered bends and 12" and 3" Pipes.		TO/Project: Al-Jaba'-Nuba Main Transmission Pipeline Project.	
Supplier/Subcontractor			Drawing No.:	Rev.	Schedule Activity No.	

Subject Submittal has been reviewed and review action is as shown below:

Item No.	Contractor's Item Description	No. of Pages	QTY	[For Engineer's use] Comments	Action	Reviewer
1	RT Testing Results (Pipes and Fabricated Mitered Bends) Station 1+960 to Station 1+900 and storage yard at (5+200).	4	4	See Attached	B	
2	CD		1			

A = No Exceptions Taken, B = Make Corrections Noted, C = Amend - Resubmit, D = Rejected – Resubmit E = Review Not Required

Contractor's Verification: complete either (a) or (b) following

☒ (a) We have verified that the materials or equipment contained in this submittal meets all the requirements specified or shown (no exceptions)

☐ (b) We have verified that the material or equipment contained in this submittal meets all the requirements specific or shown, except for the following deviations (List Deviations below or attach separate sheet).

Deviations

BY:
Rami Abu Ktaish, (PM)
Nidal Merazzeq, (QCM)

Submittal Date: 17-Mar-13

Contractor's Authorized Representative

Notice from the Owner: Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all qualifies and dimensions; selecting fabrication processes and techniques of construction/ coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

Engineer's Remarks: ☐ See comments below, ☐ see attached sheet, ☐ see red-marks on submittal or indicate here: None ☒.

By: Maher Awawdeh — Review Date: Mar 19, 2013

Project Manager/ Resident Engineer

BLACK & VEATCH Building a world of difference.
17-03-2013
Chinu Sidhwani

Distribution 1. Contractor
2. CMC

(Rev. 02/12)

Infrastructure Needs Program INPII
TO 02, Well #17 Pump Station and Al Jaba' Nuba Pipeline Project
Submittal Review Comments

From: Black and Veatch
To: IRD
Date: March 19, 2013
Submittal No.: TEST - 02 – JNT– 026A
Subject: RT Testing Results (Pipes and Fabricated Mitered Bends)-Sta. 1+960 to Sta. 1+900 and Storage Yard at Sta. 5+200

☐ New Submittal

☒ Re-Submittal

The following are submittal review comments:

No.	Comments	Specification Paragraph
1.	**RT Testing Results (Pipes and Fabricated Mitered Bends)-Sta. 1+960 to Sta. 1+900 and Storage Yard at Sta. 5+200:**	
	1.1 All rejected joints to be repaired under CMC supervision and re-tested.	
	1.2 All repairs with undercut shall be repaired and inspected (6 and 8).	
	1.3 Joint numbers 1 & 7 to be repaired	

Following ENGINEER'S review of CONTRACTOR'S above submittal, the CONTRACTOR is hereby informed on the following submittal disposition:

	A = No Exceptions Noted
X	B = Make Corrections Noted
	C = Amend - Resubmit
	D = Rejected - Resubmit
	E = Review Not Required

MA 19/3/13

By Khaled Haramy/Maher Awawdeh

Date March 19, 2013

Distribution 1. Contractor
2. CMC

Radiographic Examination Interpretation Report

Report No.: 8132677/13
Date: 12.03.2013

Customer: ARC EYES	**Examination site:** Bait Omar	**File :** 455א	
Order No.:	**By:** Mr. Chaim Daon		
Component part: 10" DIA WELDS	**Sampling** : By the client		
Examination acc. to: AWWA+API 1104	**RT Procedure No:** MRX-20		
Material type: C.S	**Examination** after / before/. **heat treatment - N.A**		
Material Thickness (mm): 3/8"	**Film Brand & Type:** FOMA R7		
App. weld reinforcement (mm): +2	**IQI :** EN 462-1	**Location:** Film side	
O.D (mm): 10"	**Sensitivity:** W 13		
Distance SFD (mm): Contact	**Radiographic Density :** 2.0 - 3.5		
Developing equip.: GE- M - Eco	**Front & back screens type & thickness(mm):** Pb 0.1		
Voltage (KV): - **Current (mA):** -	**Exposure time (sec) :** 37		
Isotope Type: Ir192 **Activity (Ci):** 36	**Focal spot size (mm):** 2x3		
Exposure technique: Double wall – Single image	**Viewing technique:** Single		

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
1.	SR 10" - 1 A	3.0-3.5											x		Broken concrete
2.	B	3.0-3.5	x					x					x		Broken concrete
3.	C	3.0-3.5	x					x					x		Broken concrete
4.	2 A	3.0-3.5	x										x		Broken concrete
5.	B	3.0-3.5											x		Broken concrete
6.	C	3.0-3.5											x		Broken concrete
7.	3 A	3.0-3.5											x		Broken concrete
8.	B	3.0-3.5											x		Broken concrete
9.	C	3.0-3.5											x		Broken concrete
10.	4 A	3.0-3.5	x					x					x		Broken concrete
11.	B	3.0-3.5	x										x		Broken concrete
12.	C	3.0-3.5											x		Broken concrete
13.	5 A	3.0-3.5											x		Broken concrete
14.	B	3.0-3.5											x		Broken concrete
15.	C	3.0-3.5											x		Broken concrete
16.	6 A	3.0-3.5	x							x			x		Broken concrete
17.	B	3.0-3.5											x		Broken concrete
18.	C	3.0-3.5											x		Broken concrete
19.	7 A	3.0-3.5	x										x		Broken concrete
20.	B	3.0-3.5	x										x		Broken concrete
21.	C	3.0-3.5	x										x		Broken concrete
22.	8 A	3.0-3.5											x		Broken concrete
23.	B	3.0-3.5											x		Broken concrete
24.	C	3.0-3.5								x			x		Broken concrete

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.03.13	N. Ozana	S. Tayer	A. Pessach

Radiographic Examination Interpretation Report

Report No.: 8132677/13
Date: 12.03.2013
Page 2 **of** 4 **pages**

Customer: ARC EYES	**Examination site:** Bait Omar	**File :** 455א	
Order No.:	**By:** Mr. Chaim Daon		
Component part: 10" DIA WELDS	**Sampling** : By the client		
Examination acc. to: AWWA+API 1104	**RT Procedure No:** MRX-20		
Material type: C.S	**Examination** after / before/. **heat treatment - N.A**		
Material Thickness (mm): 3/8"	**Film Brand & Type:** FOMA R7		
App. weld reinforcement (mm): +2	**IQI :** EN 462-1	**Location:** Film side	
O.D (mm): 10"	**Sensitivity:** W 13		
Distance SFD (mm): Contact	**Radiographic Density :** 2.0 - 3.5		
Developing equip.: GE- M - Eco	**Front & back screens type & thickness(mm):** Pb 0.1		
Voltage (KV): - **Current (mA):** -	**Exposure time (sec) :** 37		
Isotope Type: Ir192 **Activity (Ci):** 36	**Focal spot size (mm):** 2x3		
Exposure technique: Double wall – Single image	**Viewing technique:** Single		

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
25.	SR 10" - 9 A	3.0-3.5						x					x		Broken concrete
26.	B	3.0-3.5						x					x		Broken concrete
27.	C	3.0-3.5					x							x	75-0
28.	10 A	3.0-3.5						x					x		Broken concrete
29.	B	3.0-3.5											x		Broken concrete
30.	C	3.0-3.5											x		Broken concrete
31.	11 A	3.0-3.5					x	x						x	0-30
32.	B	3.0-3.5						x					x		Broken concrete
33.	C	3.0-3.5					x	x						x	75-0
34.	12 A	3.0-3.5											x		Broken concrete
35.	B	3.0-3.5						x					x		Broken concrete
36.	C	3.0-3.5						x					x		Broken concrete
37.	13 A	3.0-3.5	x					x					x		Broken concrete
38.	B	3.0-3.5	x										x		Broken concrete
39.	C	3.0-3.5											x		Broken concrete
40.	14 A	3.0-3.5	x										x		Broken concrete
41.	B	3.0-3.5										x	x		Broken concrete
42.	C	3.0-3.5											x		Broken concrete
43.	15 A	3.0-3.5	x										x		Broken concrete
44.	B	3.0-3.5											x		Broken concrete
45.	C	3.0-3.5	x										x		Broken concrete

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.03.13	N. Ozana	S. Tayer	A. Pessach

Radiographic Examination Interpretation Report

Report No.: 8132677/13
Date: 12.03.2013
Page 3 **of** 4 **pages**

Customer: ARC EYES		**Examination site:** Bait Omar	**File :** 455א
Order No.:		**By:** Mr. Chaim Daon	
Component part: 12" DIA WELDS		**Sampling** : By the client	
Examination acc. to: AWWA		**RT Procedure No:** MRX-20	
Material type: C.S		**Examination** after / before/. **heat treatment - N.A**	
Material Thickness (mm): 3/8"		**Film Brand & Type:** FOMA R7	
App. weld reinforcement (mm): +2		**IQI :** EN 462-1	**Location:** Film side
O.D (mm): 12"		**Sensitivity:** W 13	
Distance SFD (mm): Contact		**Radiographic Density :** 2.0 - 3.5	
Developing equip.: GE- M - Eco		**Front & back screens type & thickness(mm):** Pb 0.1	
Voltage (KV): -	**Current (mA):** -	**Exposure time (sec) :** 55	
Isotope Type: Ir192	**Activity (Ci):** 36	**Focal spot size (mm):** 2x3	
Exposure technique: Double wall – Single image		**Viewing technique:** Single	

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
46.	SR 12" - 1 A	3.0-3.5											x		
47.	B	3.0-3.5		x									x		
48.	C	3.0-3.5											x		
49.	2 A	3.0-3.5										HL	x		
50.	B	3.0-3.5											x		
51.	C	3.0-3.5											x		

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.03.13	N. Ozana	S. Tayer	A. Pessach

Radiographic Examination Interpretation Report

Report No.: 8132677/13
Date: 12.03.2013
Page 4 **of** 4 **pages**

Customer: ARC EYES		**Examination site:** Bait Omar	**File :** 455א
Order No.:		**By:** Mr. Chaim Daon	
Component part: 3" DIA WELDS		**Sampling** : By the client	
Examination acc. to: AWWA+API 1104		**RT Procedure No:** MRX-20	
Material type: C.S		**Examination** after / before/. **heat treatment - N.A**	
Material Thickness (mm): 3/8"		**Film Brand & Type:** FOMA R7	
App. weld reinforcement (mm): +2		**IQI :** EN 462-1	**Location:** Film side
O.D (mm): 3"		**Sensitivity:** W 13	
Distance SFD (mm): Contact		**Radiographic Density :** 2.0 - 3.5	
Developing equip.: GE- M - Eco		**Front & back screens type & thickness(mm):** Pb 0.1	
Voltage (KV): -	**Current (mA):** -	**Exposure time (sec) :** 12	
Isotope Type: Ir192	**Activity (Ci):** 36	**Focal spot size (mm):** 2x3	
Exposure technique: Double wall – Single image		**Viewing technique:** Single	

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
52.	SR 3" - 1 A	2.3-2.7											x		
53.	B	2.3-2.7											x		
54.	C	2.3-2.7											x		
55.	2 A	2.3-2.7											x		
56.	B	2.3-2.7			x								x		
57.	C	2.3-2.7											x		

End Of Report

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level II	Level III
09.03.13	N. Ozana	S. Tayer	A. Pessach

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Contractor's Submittal Transmittal Review Form

Instructions: Contractor shall complete all shaded fields as appropriate except area in green reserved for Engineer.

Submit Date: 07-May-13	USAID Contract No. AID-294-I-00-12-00003	Log ID	TO No.	TO/Project ID	Seq. No	Rev.
Electronic Delivery Method: ☐ FTP ☐ EMAIL		TEST	02	JNT	065	A
Delivery Method: (Hard Copy) BY HAND		No. Items Attached: 4 Copies.				
To:	BVSPC	From:	International Relief and Development			
Attention:	Mr. Maher Awawdeh	Attention:	Rami Abu Ktaish, (PM) Nidal Merazzeq, (QCM)			
Specification No.	02570	Parag. 3.3E	Description: RT Testing Results for 10" Steel Mitered Bends + RT Films.	TO/Project: Al-Jaba'-Nuba Main Transmission Pipeline Project.		
Supplier/Subcontractor			Drawing No.:	Rev.	Schedule Activity No.	

Subject Submittal has been reviewed and review action is as shown below:

Item No.	Contractor's Item Description	No. of Pages	QTY	[For Engineer's use] Comments	Action	Reviewer
1	RT Testing Results for 10" Welded Steel Mitered Bends (20 Pieces) with RT-Films.	3	4	See Attached	B	
2	CD		1			

A = No Exceptions Taken, B = Make Corrections Noted, C = Amend - Resubmit, D = Rejected – Resubmit E = Review Not Required

Contractor's Verification: complete either (a) or (b) following

☒ (a) We have verified that the materials or equipment contained in this submittal meets all the requirements specified or shown (no exceptions)

☐ (b) We have verified that the material or equipment contained in this submittal meets all the requirements specific or shown, except for the following deviations (List Deviations below or attach separate sheet).

Deviations

BY:
Rami Abu Ktaish, (PM)
Nidal Merazzeq, (QCM)

Submittal Date: 07-May-13

Contractor's Authorized Representative

Notice from the Owner: Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all qualifies and dimensions; selecting fabrication processes and techniques of construction/ coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

Engineer's Remarks: ☐ See comments below, ☐ see attached sheet, ☐ see red-marks on submittal or indicate here: ~~None~~ ☐.

By: Maher Awawdeh Review Date: May 09, 201

Project Manager/ Resident Engineer

BLACK & VEATCH

Eliana Salame 3:25PM

Distribution 1. Contractor
2. CMC

(Rev. 02/12)

Infrastructure Needs Program INPII
TO 02, Well #17 Pump Station and Al Jaba' Nuba Pipeline Project
Submittal Review Comments

From: Black and Veatch
To: IRD
Date: May 09, 2013
Submittal No.: TEST - 02 – JNT– 065A
Subject: RT Testing Result for 10" Welded Steel Mitered Bends & RT Films

☐ New Submittal

☒ Re-Submittal

The following are submittal review comments:

No.	Comments	Specification Paragraph
1.	RT Testing Result for 10" Welded Steel Mitered Bends & RT Films: 1.1 Rejected joint to be repaired under CMC supervision.	
	1.2 Undercut shall be repaired and inspected.	

Following ENGINEER'S review of CONTRACTOR'S above submittal, the CONTRACTOR is hereby informed on the following submittal disposition:

	A = No Exceptions Noted
X	B = Make Corrections Noted
	C = Amend - Resubmit
	D = Rejected - Resubmit
	E = Review Not Required

By Khaled Haramy/Maher Awawdeh

Date May 09, 2013

Distribution 1. Contractor
2. CMC

Radiographic Examination Interpretation Report

Report No.: 8133116/13
Date: 30.04.2013
Page 1 **of** 3 **pages**

Customer: ARC EYES LTD.		**Examination site:** Lab.MOREX 71, Even Yehuda	**File :** 455א
Order No.:		**By:** Mr. Romi Abu Ktaish	
Component part: 10" DIA WELDS		**Sampling** : By the client	
Examination acc. to: AWWA+API 1104		**RT Procedure No:** MRX-20	
Material type: C.S		**Examination** after / before/. **heat treatment - N.A**	
Material Thickness (mm): SCh.20		**Film Brand & Type:** FOMA R7	
App. weld reinforcement (mm): +2		**IQI :** EN 462-1	**Location:** Film side
O.D (mm): 10"		**Sensitivity:** W 13	
Distance SFD (mm): 130		**Radiographic Density :** 2.0 - 3.5	
Developing equip.: GE- M - Eco		**Front & back screens type & thickness(mm):** Pb 0.1	
Voltage (KV): -	**Current (mA):** -	**Exposure time (sec) :** 15	
Isotope Type: Ir192	**Activity (Ci):** 40	**Focal spot size (mm):** 2x3	
Exposure technique: Single wall – Single image		**Viewing technique:** Single	

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
1.	CD WT 10" - 1 A	2.6-3.2											x		
2.	B	2.6-3.2			x								x		
3.	C	2.6-3.2											x		
4.	2 A	2.6-3.2			x								x		
5.	B	2.6-3.2											x		
6.	C	2.6-3.2			x								x		
7.	3 A	2.6-3.2											x		
8.	B	2.6-3.2											x		
9.	C	2.6-3.2					x							x	66-70
10.	4 A	2.6-3.2			x								x		
11.	B	2.6-3.2				x							x		
12.	C	2.6-3.2											x		
13.	5 A	2.6-3.2											x		
14.	B	2.6-3.2			x								x		
15.	C	2.6-3.2											x		
16.	6 A	2.6-3.2			x								x		
17.	B	2.6-3.2											x		
18.	C	2.6-3.2			x								x		
19.	7 A	2.6-3.2											x		
20.	B	2.6-3.2			x	x							x		
21.	C	2.6-3.2											x		
22.	8 A	2.6-3.2			x								x		
23.	B	2.6-3.2			x								x		
24.	C	2.6-3.2											x		

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level III	Level III
29.04.13	I. Glikman	A. Pessach	A. Pessach

Radiographic Examination Interpretation Report

Report No.: 8133116/13
Date: 30.04.2013
Page 2 **of** 3 **pages**

Customer: ARC EYES LTD.		**Examination site:** Lab.MOREX 71, Even Yehuda	**File :** 455א
Order No.:		**By:** Mr. Romi Abu Ktaish	
Component part: 10" DIA WELDS		**Sampling** : By the client	
Examination acc. to: AWWA+API 1104		**RT Procedure No:** MRX-20	
Material type: C.S		**Examination** after / before/. **heat treatment - N.A**	
Material Thickness (mm): SCh.20		**Film Brand & Type:** FOMA R7	
App. weld reinforcement (mm): +2		**IQI :** EN 462-1	**Location:** Film side
O.D (mm): 10"		**Sensitivity:** W 13	
Distance SFD (mm): 130		**Radiographic Density :** 2.0 - 3.5	
Developing equip.: GE- M - Eco		**Front & back screens type & thickness(mm):**Pb 0.1	
Voltage (KV): -	**Current (mA):** -	**Exposure time (sec) :** 15	
Isotope Type: Ir192	**Activity (Ci):** 40	**Focal spot size (mm):** 2x3	
Exposure technique: Single wall – Single image		**Viewing technique:** Single	

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
25.	CD WT 10" - 9 A	2.6-3.2											x		
26.	B	2.6-3.2											x		
27.	C	2.6-3.2											x		
28.	10 A	2.6-3.2											x		
29.	B	2.6-3.2						x					x		
30.	C	2.6-3.2											x		
31.	11 A	2.6-3.2											x		
32.	B	2.6-3.2											x		
33.	C	2.6-3.2											x		
34.	12 A	2.6-3.2											x		
35.	B	2.6-3.2											x		
36.	C	2.6-3.2								x			x		
37.	13 A	2.6-3.2											x		
38.	B	2.6-3.2											x		
39.	C	2.6-3.2											x		
40.	14 A	2.6-3.2			x								x		
41.	B	2.6-3.2			x								x		
42.	C	2.6-3.2											x		
43.	15 A	2.6-3.2											x		
44.	B	2.6-3.2			x								x		
45.	C	2.6-3.2			x	x							x		
46.	16 A	2.6-3.2											x		
47.	B	2.6-3.2								x			x		
48.	C	2.6-3.2											x		

End Of Page

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level III	Level III
29.04.13	I. Glikman	A. Pessach	A. Pessach

Radiographic Examination Interpretation Report

ISRAC הרשות הלאומית להסמכת מעבדות מעבדה 0028

Report No.: 8133116/13
Date: 30.04.2013
Page 3 **of** 3 **pages**

Customer: ARC EYES LTD.	**Examination site:** Lab.MOREX 71, Even Yehuda	**File :** 455א	
Order No.:	**By:** Mr. Romi Abu Ktaish		
Component part: 10" DIA WELDS	**Sampling** : By the client		
Examination acc. to: AWWA+API 1104	**RT Procedure No:** MRX-20		
Material type: C.S	**Examination** after / before/. **heat treatment - N.A**		
Material Thickness (mm): SCh.20	**Film Brand & Type:** FOMA R7		
App. weld reinforcement (mm): +2	**IQI :** EN 462-1	**Location:** Film side	
O.D (mm): 10"	**Sensitivity:** W 13		
Distance SFD (mm): 130	**Radiographic Density :** 2.0 - 3.5		
Developing equip.: GE- M - Eco	**Front & back screens type & thickness(mm):** Pb 0.1		
Voltage (KV): - **Current (mA):** -	**Exposure time (sec) :** 15		
Isotope Type: Ir192 **Activity (Ci):** 40	**Focal spot size (mm):** 2x3		
Exposure technique: Single wall – Single image	**Viewing technique:** Single		

RESULT													Evaluation		
No.	**Weld Number**	**Measured Density**	**Aa**	**Ab**	**Ba**	**Bb**	**C**	**D**	**E**	**U**	**Hb**	**RC**	**Acc**	**Rej**	**Remarks**
49.	CD WT 10" - 17 A	2.6-3.2											x		
50.	B	2.6-3.2											x		
51.	C	2.6-3.2											x		
52.	18 A	2.6-3.2			x								x		
53.	B	2.6-3.2											x		
54.	C	2.6-3.2			x								x		
55.	19 A	2.6-3.2			x								x		
56.	B	2.6-3.2											x		
57.	C	2.6-3.2											x		
58.	20 A	2.6-3.2			x								x		
59.	B	2.6-3.2											x		
60.	C	2.6-3.2			x								x		

End Of Report

Aa- Porosity ; **Ab**- Elongated cavity ; **Ba**- Slag inclusion ; **Bb**- Slag inclusion linear ; **C**- Lack of fusion ;Hb- Hollow bead
D- Lack of penetration ; **E**- Crack ; **U**- undercut **;BT**- Burn through ; **FF**- film damage; **TI**- Transverse ind; **Tu**- Tungsten

Examination Date:	Performed by:	Interpreted by:	Approved by:
	Level II	Level III	Level III
29.04.13	I. Glikman	A. Pessach	A. Pessach

INFRASTRUCTURE NEEDS PROGRAM (II) - INPII
TASK ORDER NO. WATER- 294-12-00002

DATE OF TEST: 17-JULY-2013
CONTRACTOR: IRD-BROTHERS
PIPE SECTION TESTED: AL-JABA NUBA TRANSMISSION PIPELINE
FIELD ENGINEER: GHALEB NAJAJREH

Description of Test:

Number of Joints Tested: Approximately 420

Length of Pipe Section Tested:4225 meters (Station 0+005 to station 4+230)

Pipe Internal Diameter:250mm and 300mm (10" and 12")

Test Pressure:42 bar

Test Start Time:1 PM

Test End Time:3 PM

Test Duration (hours):2 hours

Test Methodology:

Pressure Gage Height (m) 2.0

	Pipe elevation	Gage elevation	Meter H2O	Bar
Low Point St.	499.13	501.13		42
Gage #1Sta.3+136	499.13	501.13		42
Gage#2 Sta.0+005	579.45	581.45		34

Other:

Test Results:

Actual Leakage: Zero

Allowed Leakage: Zero

Test Results (Pass/Fail):Pass

Comments:

Contractor Signature:

Engineer's Signature:

Distribution 1. Contractor
2. CMC

PIPELINE LEAKAGE TEST LOG

IRD International Relief & Development

INFRASTRUCTURE NEEDS PROGRAM (II) - INPII
TASK ORDER NO. WATER- 294-12-00002

DATE OF TEST: 22-JULY-2013
CONTRACTOR: IRD-BROTHERS
PIPE SECTION TESTED: AL-JABA NUBA TRANSMISSION PIPELINE
FIELD ENGINEER: GHALEB NAJAJREH

Description of Test:

Number of Joints Tested: Approximately 660

Length of Pipe Section Tested:6540 meters (Station 4+200 to station 10+740)

Pipe Internal Diameter:250mm (10")

Test Pressure:50 bar

Test Start Time:1 PM

Test End Time:3 PM

Test Duration (hours):2 hours

Test Methodology:

Pressure Gage Height (m) 2.0

	Pipe elevation	Gage elevation	Meter H2O	Bar
Low Point St.	420.87	422.87		50
Gage #1Sta.6+770	420.87	422.87		50
Gage#2 Sta.9+180	550.09	552.09		38

Other:

Test Results:

Actual Leakage: Zero

Allowed Leakage: Zero

Test Results (Pass/Fail):Pass

Comments:

IRD
Main Office Ramallah
22-07-2013
Received-Internal
Document Control Dep.

Contractor Signature:

Engineer's Signature:

USAID WEST BANK/GAZA
INFRASTRUCTURE NEEDS PROGRAM INPII

TO 12-00002
AL JABA NUBA MAIN TRANSMISSION PIPELINE

PRESSURE AND FLOW READINGS

FEBRUARY 26, 2014

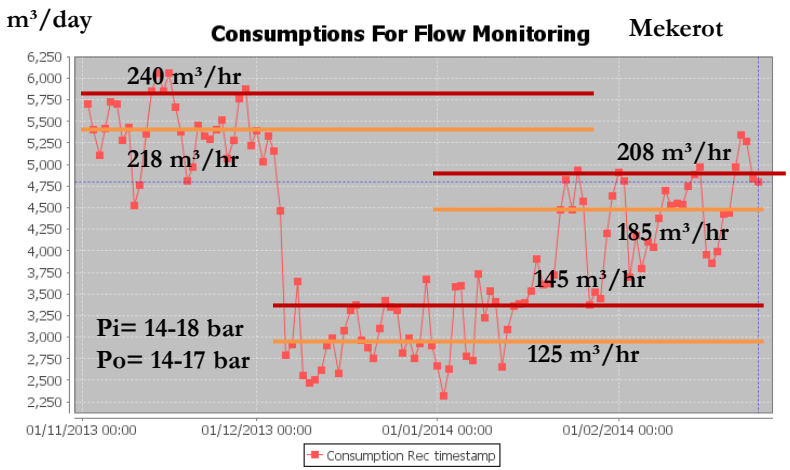

FIGURE #1 (St. 0+000)

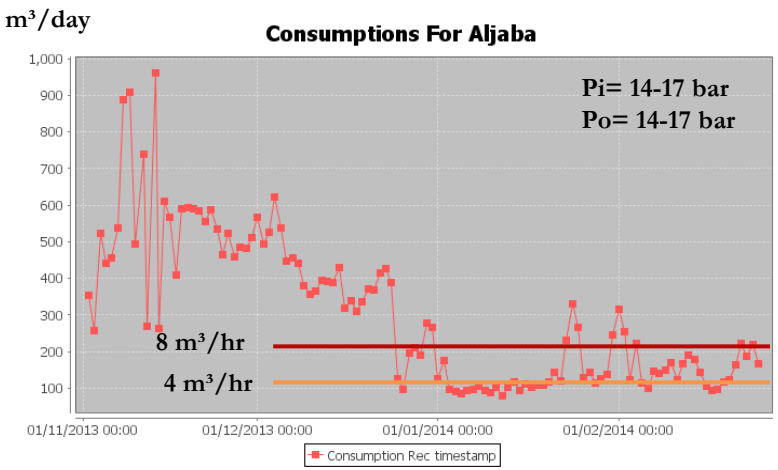

FIGURE #2 (St. 0+100)

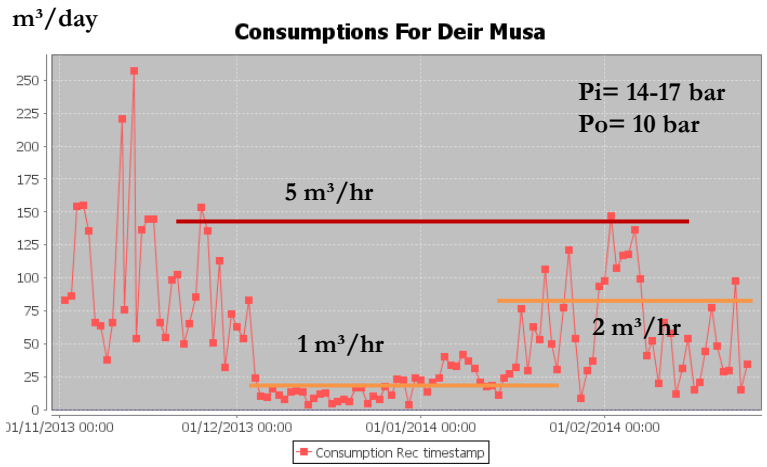

FIGURE #3 (St. 0+100)

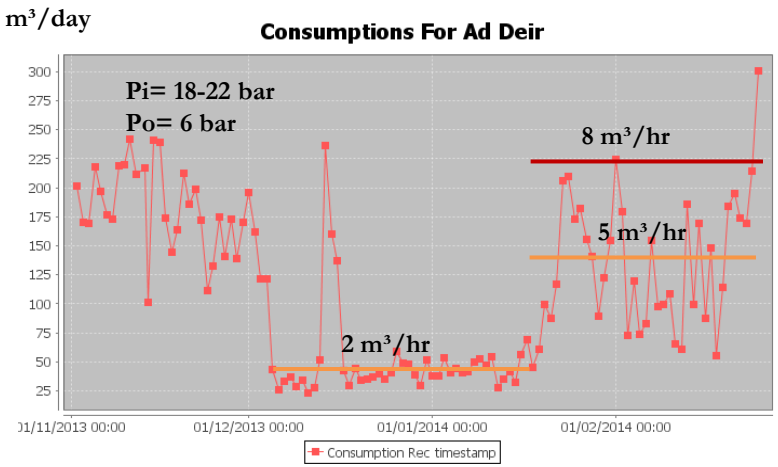

FIGURE #4 (St. 2+700)

Flow Control Setting (Peak)

Actual Average Consumption

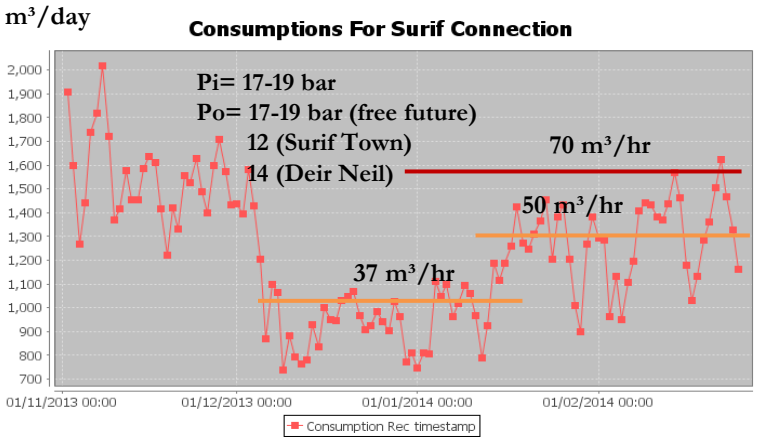

FIGURE #5 (St. 2+528)

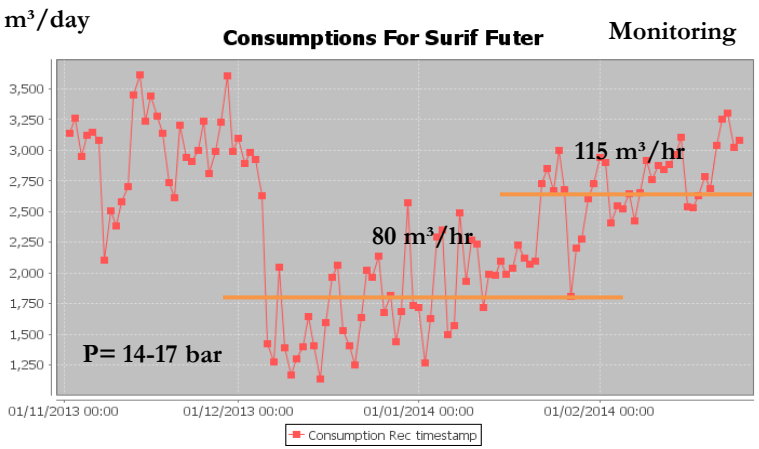

FIGURE #6 (St. 4+200)

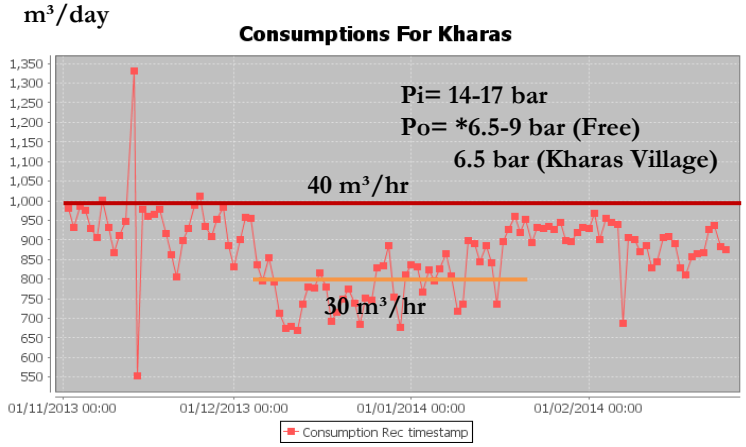

FIGURE #7 (St. 9+940)

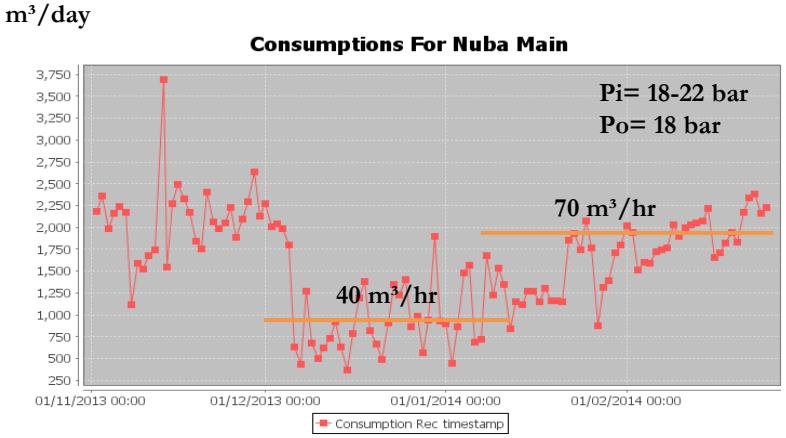

FIGURE #8 (St. 10+740)

Flow Control Setting (Peak)

Actual Average Consumption

* Pressure drop due to flow control valve limiting

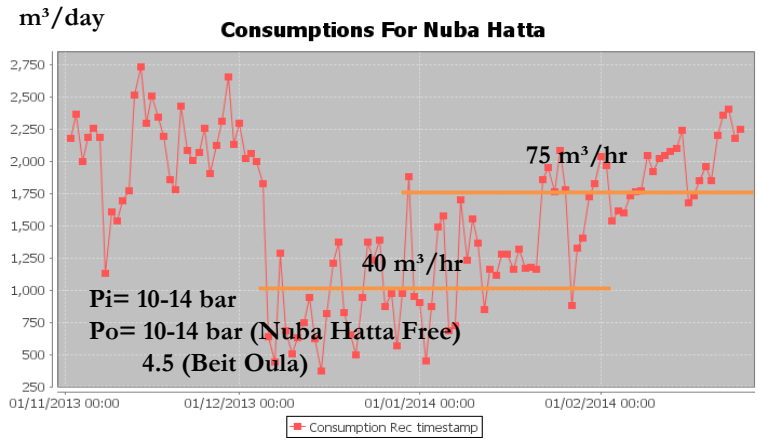

FIGURE #9 (St. 11+250)

Flow Control Setting (Peak)

Actual Average Consumption

IRD International Relief & Development

Inspection Requests Log
IRD/BV

Task Order: JNT-02
Project: Al Jaba' Nuba Main Transmission Pipeline Project
Sender/ Recipient IRD/BV

			1st Inspection		2nd Inspection		
No.	**Request Date**	**Date Inspection Required**	**Description of Works Inspected**	**Response Date**	**Grade**	**Response Date**	**Grade**
IR-02-JNT-01-A	23-Oct-12	24-Oct-12	Engineer's Field Office at Surif	24-Oct-12	Approved as Noted		
IR-02-JNT-02-A	23-Oct-12	24-Oct-12	Temporary project signs installed at Nuba and Kharas	24-Oct-12	Approved as Noted		
IR-02-JNT-03-A	8-Nov-12	11-Nov-12	Mobilization	11-Nov-12	Approved as Noted		
IR-02-JNT-04-B	2-Dec-12	3-Dec-12	Welded steel pipes	2-Dec-12	Make correction noted		
IR-02-JNT-05-A	23-Dec-12	24-Dec-12	Delivery of 923 Lm Φ 300mm pipes stored on site	30-Dec-12	Make correction noted		
IR-02-JNT-06-A	26-Dec-12	26-Dec-12	External coating and internal lining of 2177.39 Lm Φ 250 mm pipes on FIP	27-Dec-12	Make correction noted		
IR-02-JNT-07-A	29-Dec-12	30-Dec-12	Applying of the External Coating and Internal Lining for 1633.5 Lm of 12" Φ Steel Pipes (108 piece) at FIP Factory .	30-Dec-12	Make correction noted		
IR-02-JNT-08-A	2-Jan-13	3-Jan-13	Inspecting of the quantities that had been inspected by BV for the external Coating and the Internal Lining and sored at FIP Factory Warehouse .	3-Jan-13	Make correction noted		
IR-02-JNT-09-A	13-Jan-13	16-Jan-13	Welders Qualifications Test.	17-Jan-13	Make correction noted		
IR-02-JNT-10-A	20-Jan-13	21-Jan-13	Inspecting of the Traffic control signs installed as approved control plan	21-Jan-13	Make correction noted		
IR-02-JNT-11-A	22-Jan-13	23-Jan-13	Inspecting of the quantities for 30 pipes DN 300 mm stored in the storage yard in Surif.	23-Jan-13	Make correction noted		
IR-02-JNT-12-A	27-Jan-13	27-Jan-13	Inspecting of the preparations to start excavation for the section of the 10" diameter Transmission Pipeline between stations 8+800 and 8+000 using trencher	28-Jan-13	Make correction noted		
IR-02-JNT-13-A	27-Jan-13	28-Jan-13	Inspecting the delivered 10-inch welded steel pipes to the site .	29-Jan-13	Make correction noted		
IR-02-JNT-14-A	7-Feb-13	9-Feb-13	Preparation to conduct the Radiographic testing for the 10" steel pipes welded joints and the fabricated mitered bends welded joints .	9-Feb-13	Make correction noted		
IR-02-JNT-15-A	10-Feb-13	11-Feb-13	Inspecting the delivered 10-inch welded steel pipes to the site .	11-Feb-13	Make correction noted		
IR-02-JNT-16-A	20-Feb-13	20-Feb-13	Inspecting the delivered 10-inch welded steel pipes and 12-inch welded steel pipes to the site .	21-Feb-13	Make correction noted		
IR-02-JNT-17-A	21-Feb-13	23-Feb-13	Inspecting the 2" galvanized steel pipes , 3" welded steel pipes and 4" welded steel pipes.	23-Feb-13	Make correction noted		
IR-02-JNT-18-A	23-Feb-13	23-Feb-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 8+900 to station 4+440, in addition to conduct the required base course compaction tests through the selected section.	24-Feb-13	Nake Correction Noted		
IR-02-JNT-19-A	23-Feb-13	24-Feb-13	Inspecting the preparations to start 12" pipeline installation and 4" steel pipes from station 2+700.	24-Feb-13	Make correction noted		
IR-02-JNT-20-A	25-Feb-13	25-Feb-13	Inspecting the prepared base course top layer before asphalting the trench section from station 8+900 to station 8+440.	25-Feb-13	Make correction noted		
IR-02-JNT-21-A	26-Feb-13	27-Feb-13	Inspecting the delivered steel pipes to the storage areas at the site as follows: 2" galvanized steel pipes. 3" welded steel pipes. 4" welded steel pipes. Fittings and heat shrinkable sheet.	28-Feb-13	Make correction noted		
IR-02-JNT-22-A	27-Feb-13	27-Feb-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 8+440 to station 7+400, in addition to conduct the required base course compaction tests through the selected section.	13-Mar-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-22-B	2-Mar-13	2-Mar-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 8+440 to station 7+900, in addition to conduct the required base course compaction tests through the selected section.	2-Mar-13	Make correction noted		
IR-02-JNT-23-A	3-Mar-13	3-Mar-13	Inspecting the prepared base course top layer before asphalting the trench section from station 8+440 to station 7+900.	3-Mar-13	Make correction noted		
IR-02-JNT-24-A	3-Mar-13	3-Mar-13	Inspecting the production of 10" welded steel pipes (SCH 40) at Middle East Company	12-Mar-13	Make correction noted		
IR-02-JNT-25-A	3-Mar-13	4-Mar-13	Inspecting the prepared base course top layer before asphalting the trench section from station 8+000 to station 7+600.	4-Mar-13	Make correction noted		
IR-02-JNT-26-A	7-Mar-13	9-Mar-13	Conduct the Radiographic Testing (RT) for the 12" Pipeline and 10" Steel fittings	12-Mar-13	Make correction noted		
IR-02-JNT-27-A	12-Mar-13	12-Mar-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 7+520 to station 6+820, in addition to conduct the required base course compaction tests through the selected section.	13-Mar-13	Make correction noted		
IR-02-JNT-28-A	12-Mar-13	13-Mar-13	Inspecting the PE external coating process for the delivered 10-inch welded steel pipes at FIP company (Quantity of delivered 10-inch steel pipes is about 2000 meters.	14-Mar-13	Make correction noted		
IR-02-JNT-29-A	12-Mar-13	14-Mar-13	Inspecting the internal cement lining process for the delivered 10-inch welded steel pipes at FIP company (Quantity of delivered 10-inch steel pipes is about 2000 meters.	17-Mar-13	Make correction noted		
IR-02-JNT-30-A	12-Mar-13	13-Mar-13	Inspecting the prepared base course top layer before asphalting the trench section from station 7+520 to station 6+820.	13-Mar-13	Make correction noted		
IR-02-JNT-31-A	13-Mar-13	13-Mar-13	Inspecting the excavation work for the first air release valve chamber at station 7+887. And preparation to place the blinding concrete	14-Mar-13	Make correction noted		
IR-02-JNT-32-A	13-Mar-13	13-Mar-13	Inspecting the preparation to start excavation work and 12-inch pipeline installation during the night (Night shift). For today ONLY, the night shift will work between 20:00 pm till 4:00 am. Starting from tomorrow, the night shift will start from 19:00 pm to 4:00 am and as per the agreement and instructions from Surif Municipality.	14-Mar-13	Make correction noted		
IR-02-JNT-33-A	16-Mar-13	17-Mar-13	Inspecting the formwork and steel reinforcement prior to placing the concrete for the base slab of the air release valve chamber at station 7+870.	17-Mar-13	Make correction noted		
IR-02-JNT-34-A	17-Mar-13	17-Mar-13	Inspecting the excavation work and preparation to place the blinding concrete for the washout chamber at station 1+700.	17-Mar-13	Make correction noted		
IR-02-JNT-35-A	19-Mar-13	19-Mar-13	Inspecting the delivered 12" welded steel pipes and other fittings and accessories	20-Mar-13	Amend/Resubmit		
IR-02-JNT-35-B	20-Mar-13	20-Mar-13	Inspecting the delivered 12" welded steel pipes and other fittings and accessories	20-Mar-13	Make correction noted		
IR-02-JNT-36-A	20-Mar-13	20-Mar-13	Inspecting the formwork and steel reinforcement prior to placing the concrete for the base slab of the wash out chamber at station 1+700.	21-Mar-13	No Exceptions Noted		
IR-02-JNT-37-A	20-Mar-13	20-Mar-13	Inspecting the formwork and steel reinforcement prior to placing the concrete for the walls of the air release valve chamber at station 7+870.	21-Mar-13	Amend/Resubmit		
IR-02-JNT-37-B	22-Mar-13	22-Mar-13	Inspecting the formwork and steel reinforcement prior to placing the concrete for the walls of the air release valve chamber at station 7+870.	22-Mar-13	Make correction noted		
IR-02-JNT-38-A	24-Mar-13	25-Mar-13	Inspecting the delivered 12" steel pipes to the site working area. (Quantity =351.92m/30 Pipes)	25-Mar-13	Make correction noted		
IR-02-JNT-39-A	24-Mar-13	25-Mar-13	Inspecting the prepared 10" – SCH 20 –ERW –ASTM A53 Grade B steel pipes with 3LPE Coating and internal cement lining at FIP Company (Quantity=2379m).	25-Mar-13	Make correction noted		
IR-02-JNT-40-A	25-Mar-13	25-Mar-13	Inspecting the excavation work for the butterfly chamber and air release valve chamber at station 1+446.	25-Mar-13	Make correction noted		
IR-02-JNT-41-A	26-Mar-13	26-Mar-13	Inspecting the formwork and steel reinforcement prior to place concrete for the following chambers : 1- Roof Slab for the air release valve chamber at station 7+870. 2- Walls for the washout chamber at station 1+700.	26-Mar-13	Make correction noted		
IR-02-JNT-42-A	26-Mar-13	28-Mar-13	Inspecting the prepared 10" – SCH 20 –ERW –ASTM A53 Grade B steel pipes with 3LPE Coating and internal cement lining at FIP Company (Quantity=2308 m /190 pipes).	28-Mar-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-43-A	26-Mar-13	26-Mar-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 2+700 to station 2+400. In addition, to conduct the required base course compaction tests through the selected section.	27-Mar-13	Make correction noted		
IR-02-JNT-44-A	26-Mar-13	26-Mar-13	Inspecting the prepared base course top layer before asphalting the trench section from station 2+687 to station 2+400.	27-Mar-13	Make correction noted		
IR-02-JNT-45-A	28-Mar-13	28-Mar-13	Inspecting the form work and steel reinforcement prior to place concrete for washout chamber roof slab at station 1+700.	28-Mar-13	Make correction noted		
IR-02-JNT-46-A	28-Mar-13	28-Mar-13	Inspecting the marked location for the flow monitoring chamber and Jaba' connection chamber between station (0+070) to station (0+085).	30-Mar-13	No Exceptions Noted		
IR-02-JNT-47-A	31-Mar-13	31-Mar-13	Inspecting the installed reinforcing steel bars for the walls of the butterfly valve chamber and air release valve chamber at station 1+454 prior to closing the formwork.	1-Apr-13	Amend/Resubmit		
IR-02-JNT-47-B	2-Apr-13	2-Apr-13	Inspecting the installed reinforcing steel bars for the walls of the butterfly valve chamber and air release valve chamber at station 1+454 prior to closing the formwork.	2-Apr-13	No Exception Noted		
IR-02-JNT-48-A	31-Mar-13	1-Apr-13	Inspecting the repaired concrete external surfaces at locations of tie rods before applying the Bitumen Emulsion (Nit proof 230) for the walls of air release valve chamber at station 7+870 and Washout chamber at station 1+700.	1-Apr-13	Make correction noted		
IR-02-JNT-49-A	1-Apr-13	1-Apr-13	Inspecting the marked location for Khirbet Al-Deir connection chamber at station 2+720.	2-Apr-13	Amend/Resubmit		
IR-02-JNT-49-B	11-Apr-13	11-Apr-13	Inspecting the marked location for Khirbet Al-Deir connection chamber at station 2+720	11-Apr-13	Make correction noted		
IR-02-JNT-50-A	1-Apr-13	4-Apr-13	Inspecting all remaining prepared 10" steel pipes at FIP company (144 pipes)	4-Apr-13	Make correction noted		
IR-02-JNT-51-A	30-Mar-13	30-Mar-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 2+420 to station 2+000. In addition, to conduct the required base course compaction tests through the selected section	30-Mar-13	Make correction noted		
IR-02-JNT-52-A	30-Mar-13	30-Mar-13	Inspecting the prepared base course top layer before asphalting the trench section from station 2+420 to station 2+000.	30-Mar-13	Make correction noted		
IR-02-JNT-53-A	2-Apr-13	2-Apr-13	Inspecting the prepared base course top layer before asphalting the trench section from station 2+000 to station 1+700.	2-Apr-13	Make correction noted		
IR-02-JNT-54-A	2-Apr-13	2-Apr-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 2+000 to station 1+700. In addition, to conduct the required base course compaction tests through the selected section.	2-Apr-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-55-A	2-Apr-13	2-Apr-13	Inspecting the formwork and steel reinforcement prior to placing concrete for the butterfly valve chamber and air release valve chamber at station 1+446	2-Apr-13	No Exceptions Noted		
IR-02-JNT-56-A	2-Apr-13	2-Apr-13	Inspecting the applied first coat of Bitumen Emulsion (Nito Proof 230) for the external walls and roof slab for the air release valve chamber at station 7+870.	2-Apr-13	Make correction noted		
IR-02-JNT-57-A	3-Apr-13	3-Apr-13	Inspecting the prepared and cleaned external surfaces for the washout chamber external walls and roof slab before applying the first layer of Bitumen Emulsion (Nito Proof 230) coating .	3-Apr-13	Make correction noted		
IR-02-JNT-58-A	3-Apr-13	3-Apr-13	Inspecting the marked location for the washout chamber at station 0+900	3-Apr-13	Make correction noted		
IR-02-JNT-59-A	4-Apr-13	4-Apr-13	Inspecting the applied first coat of Bitumen Emulsion (Nito Proof 230) for the external walls and roof slab for the washout chamber at station 1+700.	4-Apr-13	No Exceptions Noted		
IR-02-JNT-60-A	4-Apr-13	4-Apr-13	Inspecting Formwork and steel reinforcement prior to placing concrete for the roof slab of the butterfly valve chamber and air release valve chamber at station 1+446	4-Apr-13	No Exceptions Noted		
IR-02-JNT-61-A	3-Apr-13	3-Apr-13	Inspecting the preparations to start the 10-inch pipeline trenching and installation at station 4+243. In addition, to inspect the marked location for Surif future connection chamber.	3-Apr-13	Make correction noted		
IR-02-JNT-62-A	4-Apr-13	4-Apr-13	Inspecting the applied second coat of Bitumen Emulsion (Nito Proof 230) for the external walls and roof slab for the air release valve chamber at station 8+870, In addition, to inspect the external piping connections between the 10-inch main pipeline and the chamber wall mounted pipes prior to backfilling the excavated area around the chamber .	4-Apr-13	Make correction noted		
IR-02-JNT-63-A	7-Apr-13	7-Apr-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 1+700 to station 1+450. In addition, to conduct the required base course compaction tests through the selected section.	7-Apr-13	Make correction noted		
IR-02-JNT-64-A	7-Apr-13	7-Apr-13	Inspecting the prepared base course top layer before asphalting the trench section from station 1+700 to station 1+450.	7-Apr-13	Make correction noted		
IR-02-JNT-65-A	7-Apr-13	7-Apr-13	Inspecting the delivered 10" welded steel pipes and 10" heat shrinkable sheets to the storage areas at JNT project site. Location: Station 2+700 & station 6+800.	7-Apr-13	Make correction noted		
IR-02-JNT-66-A	8-Apr-13	8-Apr-13	Inspecting the formwork and steel reinforcement prior to placing concrete for the base slab of the washout chamber at station 0+900.	8-Apr-13	No Exceptions Noted		
IR-02-JNT-67-A	9-Apr-13	9-Apr-13	Inspecting the excavation work for AL-Jaba' connection chamber and the flow monitoring chamber prior to placing the blinding concrete at station 0+060 .	9-Apr-13	Amend/Resubmit		
IR-02-JNT-67-B	11-Apr-13	11-Apr-13	Inspecting the excavation work for AL-Jaba' connection chamber and the flow monitoring chamber prior to placing the blinding concrete at station 0+060.	15-Apr-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-68-A	10-Apr-13	10-Apr-13	Inspecting the prepared and clean external surfaces of the wall and base slab for the butterfly valve and air release valve chamber at station 1+446 before applying first coat of Bitumen Emulsion (Nito Proof 230)	10-Apr-13	Make correction noted		
IR-02-JNT-69-A	11-Apr-13	11-Apr-13	Inspecting the applied first coat of Bitumen Emulsion (Nito Proof 230) for the external walls and roof slab for the Butterfly valve chamber and air release valve chamber at station 1+446.	11-Apr-13	No Exception Noted		
IR-02-JNT-70-A	11-Apr-13	11-Apr-13	Inspecting the installed reinforcing steel bars for walls of the washout chamber at station 0+900 before closing the formwork.	11-Apr-13	No Exceptions Noted		
IR-02-JNT-71-A	13-Apr-13	13-Apr-13	Inspecting the formwork and steel reinforcement for the walls of the washout chamber at station 0+900 prior to placing the concrete	13-Apr-13	No Exceptions Noted		
IR-02-JNT-72-A	16-Apr-13	16-Apr-13	Inspecting the Marked location for the washout chamber at station 3+138 before start the excavation work.	16-Apr-13	Make correction noted		
IR-02-JNT-73-A	16-Apr-13	16-Apr-13	Inspecting the form work, steel reinforcement, and conduit for EM flow meter, for the base slab of Al-Jaba connection chamber at Station 0+087 prior to placing the concrete.	17-Apr-13	Make correction noted		
IR-02-JNT-74-A	15-Apr-13	15-Apr-13	Inspecting the Excavation work for the flow monitoring chamber prior to placing the blinding concrete at station 0+087.	15-Apr-13	Make correction noted		
IR-02-JNT-75-A	18-Apr-13	18-Apr-13	Inspecting the delivered 10-inch welded steel pipes (SCH20-with external PE coating and internal cement lining) to the storage areas at the project site. Total delivered quantity 3804.63 meters-315 pipes. The pipes were delivered during the period from 11 April 2013 to 16 April 2013.	18-Apr-13	Make correction noted		
IR-02-JNT-76-A	17-Apr-13	17-Apr-13	Inspecting the formwork and reinforcement prior to placing concrete for the top slab of the washout chamber at station 0+900.	17-Apr-13	No Exception Noted		
IR-02-JNT-77-A	17-Apr-13	17-Apr-13	Inspecting the excavation work for the washout chamber prior to placing blinding concrete at station 3+138	17-Apr-13	No Exception Noted		
IR-02-JNT-78-A	21-Apr-13	21-Apr-13	Inspecting the marked location for the following connection chambers prior to start excavation works. 1- Surif future connection chamber -station 4+200. 2- Surif connection chamber -station 2+550. In addition, the contractor will start the excavation work at the marked and the approved location of Khirbet Al-der connection chamber station 2+700.	21-Apr-13	Make correction noted		
IR-02-JNT-79-A	23-Apr-13	23-Apr-13	Inspecting the formwork and steel reinforcement for the base slab of the flow monitoring chamber (two manholes) at station 0+090 prior to placing concrete. In addition, to inspect the electromagnetic flow meters conduits at the base slab.	24-Apr-13	Make correction noted		
IR-02-JNT-80-A	23-Apr-13	23-Apr-13	Inspecting the formwork and steel reinforcement for the base slab of the washout chamber at station 3+138 prior to placing concrete.	24-Apr-13	Make correction noted		
IR-02-JNT-81-A	23-Apr-13	23-Apr-13	Inspecting the two applied coats of Bitumen Emulsion for the external walls and roof slab for washout chamber at station 0+900 prior to backfilling the excavated area around the manhole	24-Apr-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-82-A	23-Apr-13	23-Apr-13	Inspecting the excavated Surif Connection Chamber at station 2+535 prior to placing the blinding concrete layer.	24-Apr-13	Make correction noted		
IR-02-JNT-83-A	23-Apr-13	24-Apr-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 4+200 to station 3+300. In addition, to conduct the required base course compaction tests through the selected section.	24-Apr-13	Make correction noted		
IR-02-JNT-84-A	23-Apr-13	24-Apr-13	Inspecting the prepared base course top layer before asphalting the trench section from station 4+200 to station 3+300.	24-Apr-13	Make correction noted		
IR-02-JNT-85-A	24-Apr-13	24-Apr-13	Inspecting the steel reinforcement for the walls of Al-Jaba' connection chamber at station 0+090 before closing the formwork.	24-Apr-13	Make correction noted		
IR-02-JNT-86-A	25-Apr-13	25-Apr-13	Inspecting the steel reinforcement and formwork prior to placing concrete for the walls of Al-Jaba' connection chamber at station 0+090 .	25-Apr-13	Make correction noted		
IR-02-JNT-87-A	27-Apr-13	27-Apr-13	Inspecting the excavation work for Kherbet-Addair connection chamber (Station 2+720) and Surif connection chamber at station 2+535 prior to placing the blinding concrete layer for both chambers	27-Apr-13	Make correction noted		
IR-02-JNT-88-A	29-Apr-13	29-Apr-13	Inspecting the steel reinforcement and formwork prior to placing concrete for the Slab of Al-Jaba' connection chamber at station 0+090 .	29-Apr-13	Make correction noted		
IR-02-JNT-89-A	2-May-13	2-May-13	Inspecting the formwork, steel reinforcement, and the electrical conduit for EM flow meters prior to placing concrete for the base slab of Surif connection chamber at station 2+535 and Khirbit Al-Dair connection chamber at station 2+720.	2-May-13	Make correction noted		
IR-02-JNT-90-A	4-May-13	4-May-13	Inspecting the marked location for the washout chamber at station 6+778.17 and the gate valve chamber at station 6+741.85 prior to starting excavation work	5-May-13	Amend/Resubmit		
IR-02-JNT-90-B	5-May-13	5-May-13	Inspecting the marked location for the washout chamber at station 6+778.17 and the gate valve chamber at station 6+741.85 prior to starting excavation work	5-May-13	Make correction noted		
IR-02-JNT-91-A	4-May-13	4-May-13	Inspecting the steel reinforcement for the walls of the Flow Monitoring Chamber (Manhole#2) prior to closing the formwork of the walls	4-May-13	Make correction noted		
IR-02-JNT-92-A	5-May-13	5-May-13	Inspecting the formwork for the walls of the Flow Monitoring Chamber (Manhole#2) prior to placing concrete at station 0+090.	6-May-13	Make correction noted		
IR-02-JNT-93-A	6-May-13	6-May-13	Inspecting the steel reinforcement for the walls of Kherbit Al-Dier connection chamber prior to closing the formwork at station 2+720.	6-May-13	Make correction noted		
IR-02-JNT-94-A	7-May-13	7-May-13	Inspecting the formwork and steel reinforcement prior to placing concrete for the walls of Kherbit Al-Dier connection chamber at station 2+720	7-May-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-95-A	7-May-13	7-May-13	Inspecting the marked location for the washout chamber at station 6+778 prior to starting excavation work. Note: the concrete barriers to be installed around the chamber after complete excavation.	7-May-13	Make correction noted		
IR-02-JNT-96-A	8-May-13	8-May-13	Inspecting the steel reinforcement for the flow monitoring chamber walls (chamber # 1) at station 0+087 prior to closing the formwork	8-May-13	Amend/Resubmit		
IR-02-JNT-96-B	9-May-13	9-May-13	Inspecting the steel reinforcement for the flow monitoring chamber walls (chamber # 1) at station 0+087 prior to closing the formwork	9-May-13	Make correction noted		
IR-02-JNT-97-A	8-May-13	8-May-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 2+700 to station 3+150. In addition, to conduct the required base course compaction tests through the selected section.	8-May-13	Make correction noted		
IR-02-JNT-98-A	8-May-13	8-May-13	Inspecting the prepared base course top layer before asphalting the trench section from station 2+700 to station 3+150.	9-May-13	Make correction noted		
IR-02-JNT-99-A	9-May-13	9-May-13	Inspecting the excavated washout chamber at station 6+778 prior to placing blinding concrete layer	9-May-13	Make correction noted		
IR-02-JNT-100-A	9-May-13	9-May-13	Inspecting the formwork and steel reinforcement for the walls of flow monitoring chamber (Manhole #1) prior to placing concrete at station 0+090.	9-May-13	Make correction noted		
IR-02-JNT-101-A	9-May-13	9-May-13	Inspecting the steel reinforcement for the walls of washout chamber prior to closing formwork at station 3+136.	9-May-13	Make correction noted		
IR-02-JNT-102-A	11-May-13	11-May-13	Inspecting the form work and steel reinforcement prior to placing concrete for the Flow Monitoring chamber roof slab "chamber No2" at station 0+090.	12-May-13	Make correction noted		
IR-02-JNT-103-A	12-May-13	12-May-13	Inspecting the form work and steel reinforcement prior to placing concrete for the base slab of the washout chamber at station 6+778.	12-May-13	Make correction noted		
IR-02-JNT-104-A	12-May-13	12-May-13	Inspecting the form work and steel reinforcement prior to placing concrete for the walls of the washout chamber at station 3+138.	12-May-13	Make correction noted		
IR-02-JNT-105-A	11-May-13	11-May-13	Inspecting the marked location for the gate valve chamber prior to excavation at station 6+740.	12-May-13	Make correction noted		
IR-02-JNT-106-A	12-May-13	12-May-13	Inspecting the marked location for the Surif future connection chamber prior to excavation at station 4+230.	12-May-13	Make correction noted		
IR-02-JNT-107-A	13-May-13	13-May-13	Inspecting the steel reinforcement and formwork prior to placing concrete for the walls of the Surif connection chamber at station 2+528.	13-May-13	Amend/Resubmit		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-107-B	14-May-13	14-May-13	Inspecting the steel reinforcement and formwork prior to placing concrete for the walls of the Surif connection chamber at station 2+528.	14-May-13	Make correction noted		
IR-02-JNT-108-A	12-May-13	12-May-13	Inspecting the steel reinforcement and formwork for the roof slab of Kherbit Al-Dier connection chamber prior to placing concrete at station 2+720.	12-May-13	Make correction noted		
IR-02-JNT-109-A	14-May-13	14-May-13	Inspecting the steel reinforcement for the walls of Surif connection chamber (Chamber #2) prior to closing the formwork at station 2+553.	14-May-13	Make correction noted		
IR-02-JNT-110-A	14-May-13	14-May-13	Inspecting the excavation works for Surif future connection chamber prior to casting the blinding concrete at station 4+230.	15-May-13	Make correction noted		
IR-02-JNT-111-A	14-May-13	14-May-13	Inspecting the steel reinforcement and formwork for the base slab of the gate valve chamber prior to placing concrete at station 6+741.	14-May-13	Amend/Resubmit		
IR-02-JNT-111-B	15-May-13	16-May-13	Inspecting the steel reinforcement and formwork for the base slab of the gate valve chamber prior to placing concrete at station 6+741.	15-May-13	Make correction noted		
IR-02-JNT-112-A	15-May-13	16-May-13	Inspecting the steel reinforcement and formwork for the roof slab of the flow monitoring connection chamber (Chamber #1) prior to placing concrete at station 0+090.	15-May-13	Make correction noted		
IR-02-JNT-113-A	16-May-13	16-May-13	Inspecting the formwork and steel reinforcement for Surif connection chamber walls (chamber No. 2) prior to placing concrete at station 2+528 .	19-May-13	Make correction noted		
IR-02-JNT-114-A	18-May-13	18-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Al-Jabaa connection chamber at station 0+090 before insulating and applying the first layer of Bitumen Emulsion Coating.	19-May-13	Make correction noted		
IR-02-JNT-115-A	18-May-13	18-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for the flow monitoring connection chambers at station 0+090 before insulating and applying the first layer of Bitumen Emulsion Coating.	19-May-13	Make correction noted		
IR-02-JNT-116-A	18-May-13	18-May-13	Inspecting the backfilled trench, the top base course layer, and preparation to start asphalting for the section between stations 5+030 to station 5+800. In addition, to conduct the required base course compaction tests through the selected section.	19-May-13	Make correction noted		
IR-02-JNT-117-A	18-May-13	18-May-13	Inspecting the formwork and steel reinforcement for WO chamber walls, prior to closing the formwork at station 6+778.	19-May-13	Make correction noted		
IR-02-JNT-118-A	19-May-13	19-May-13	Inspecting the marked location for the ARV chamber at station 4+253 prior to starting excavation work.	19-May-13	Make correction noted		
IR-02-JNT-119-A	19-May-13	19-May-13	Inspecting the marked location for the ARV chamber at station 5+260,prior to starting excavation work.	19-May-13	Make correction noted		
IR-02-JNT-120-A	19-May-13	19-May-13	Inspecting the formwork and steel reinforcement for WO chamber walls, prior to placing concrete at station 6+778.	19-May-13	Make correction noted		
IR-02-JNT-121-A	19-May-13	19-May-13	Inspecting the formwork and steel reinforcement for Surif future connection chamber base slab, prior to placing concrete at station 4+230.	19-May-13	Amend/Resubmit		
IR-02-JNT-121-B	20-May-13	19-May-13	Inspecting the formwork and steel reinforcement for Surif future connection chamber base slab, prior to placing concrete at station 4+230.	20-May-13	Make correction noted		
IR-02-JNT-122-A	16-May-13	16-May-13	Inspecting the formwork and steel reinforcement for WO chamber roof slab prior to placing concrete at station 3+160.	16-May-13	Make correction noted		
IR-02-JNT-123-A	20-May-13	20-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for AL-DIER connection chambers at station 2+720 before insulating and applying the first layer of Bitumen Emulsion Coating.	20-May-13	Make correction noted		
IR-02-JNT-124-A	20-May-13	20-May-13	Inspecting the formwork and steel reinforcement for Surif connection chamber roof slab (Chamber No.1 and No.2) prior to placing concrete at station 2+528.	20-May-13	Make correction noted		
IR-02-JNT-125-A	20-May-13	20-May-13	Inspecting the excavation for the ARV chambers at stations (5+260 and 4+253), prior to placing blinding concrete.	20-May-13	Make correction noted		

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IR-02-JNT-126-A	20-May-13	20-May-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for Al –Jaba connection chamber at station 0+090 prior to applying the second layer.	20-May-13	Make correction noted		
IR-02-JNT-127-A	20-May-13	20-May-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for AD-Deir connection chamber at station 2+720 , prior to applying the second layer.	20-May-13	Make correction noted		
IR-02-JNT-128-A	20-May-13	20-May-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for Flow monitoring chamber at station 0+090 , prior to applying the second layer.	20-May-13	Make correction noted		
IR-02-JNT-129-A	21-May-13	21-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Al-Jaba Connection chamber at station 0+090 prior to backfilling excavated area.	21-May-13	Make correction noted		
IR-02-JNT-130-A	21-May-13	21-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for AD-Deir Connection chamber at station 2+720 , prior to backfilling excavated area.	21-May-13	Make correction noted		
IR-02-JNT-131-A	21-May-13	21-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Flow Monitoring chamber at station 0+090 , prior to backfilling excavated area.	21-May-13	Make correction noted		
IR-02-JNT-132-A	21-May-13	21-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for WO chambers at station 3+160 before insulating and applying the first layer of Bitumen Emulsion Coating.	21-May-13	Make correction noted		
IR-02-JNT-133-A	21-May-13	21-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for WO chamber at station 3+160, prior to backfilling excavated area .	21-May-13	Make correction noted		
IR-02-JNT-134-A	21-May-13	21-May-13	Inspecting the form work and steel reinforcement for GV chamber walls at station 6+741, prior to closing the form work.	21-May-13	Make correction noted		
IR-02-JNT-135-A	22-May-13	22-May-13	Inspecting the form work and steel reinforcement for WO chamber roof slab at station 6+778 , prior to placing concrete	22-May-13	Make correction noted		
IR-02-JNT-136-A	22-May-13	22-May-13	Inspecting the form work and steel reinforcement for GV chamber walls at station 6+741, prior to placing concrete.	22-May-13	Make correction noted		
IR-02-JNT-137-A	22-May-13	22-May-13	Inspecting the form work and steel reinforcement for ARV chamber base slab at station 5+260, prior to placing concrete.	22-May-13	Make correction noted		
IR-02-JNT-138-A	22-May-13	22-May-13	Inspecting the form work and steel reinforcement for ARV chamber base slab at station 4+253, prior to placing concrete.	22-May-13	Make correction noted		
IR-02-JNT-139-A	22-May-13	22-May-13	Inspecting the backfill trench , the top base course layer and preparation to start asphalting for the section between stations 5+500 to station 6+000, in addition to conduct the required base compaction tests through the selected section.	22-May-13	Make correction noted		
IR-02-JNT-140-A	22-May-13	22-May-13	Inspecting the backfill trench , the top base course layer and preparation to start asphalting for the section between stations 5+500 to station 6+000, in addition to conduct the required base compaction tests through the selected section.	22-May-13	Make correction noted		
IR-02-JNT-141-A	25-May-13	25-May-13	Inspecting the form work and steel reinforcement for ARV chamber Walls at station 5+260 Prior to Closing the form work .	25-May-13	Make correction noted		
IR-02-JNT-142-A	25-May-13	25-May-13	Inspecting the form work and steel reinforcement for Surif Future connection chamber Walls at station 4+230 Prior to Closing the form work .	25-May-13	Make correction noted		
IR-02-JNT-143-A	26-May-13	26-May-13	Inspecting the form work and steel reinforcement for GV chamber of slab at station 6+741 prior to placing concrete.	26-May-13	Make correction noted		
IR-02-JNT-144-A	26-May-13	26-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for WO chambers at station 6+778 before insulating and applying the first layer of Bitumen Emulsion Coating..	26-May-13	Make correction noted		
IR-02-JNT-145-A	26-May-13	26-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Surif connection chambers at station 2+528 before insulating and applying the first layer of Bitumen Emulsion Coating.	27-May-13	Make correction noted		
IR-02-JNT-146-A	26-May-13	26-May-13	Inspecting the form work and steel reinforcement for ARV chamber of walls at station 5+260 prior to placing concrete.	26-May-13	Make correction noted		
IR-02-JNT-147-A	26-May-13	26-May-13	Inspecting the marked location of Nuba and Hata connection chamber at station 11+251(making test bit to investigate 12" DIP at the site) prior to starting the excavation.	26-May-13	Make correction noted		
IR-02-JNT-148-A	26-May-13	26-May-13	Inspecting the marked location of ARV chamber at station 9+180 prior to starting the excavation.	26-May-13	Make correction noted		
IR-02-JNT-149-A	26-May-13	26-May-13	Inspecting the marked location of Gate Valve chamber at station 9+200 prior to starting the excavation.	26-May-13	Make correction noted		
IR-02-JNT-150-A	27-May-13	27-May-13	Inspecting the formwork and steel reinforcement for ARV chamber walls at station 4+235 prior to closing the formwork.	27-May-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-151-A	27-May-13	27-May-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for Surif connection chamber at station 2+528 prior to applying the second layer.	27-May-13	Make correction noted		
IR-02-JNT-152-A	27-May-13	27-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Surif Connection chamber at station 2+528 , prior to backfilling excavated area.	27-May-13	Make correction noted		
IR-02-JNT-153-A	27-May-13	27-May-13	Inspecting the formwork and steel reinforcement for Surif Future connection chamber walls prior to placing concrete at station 4+230.	27-May-13	Make correction noted		
IR-02-JNT-154-A	27-May-13	27-May-13	Inspecting the formwork and steel reinforcement for ARV chamber walls prior to placing concrete at station 4+253.	27-May-13	Make correction noted		
IR-02-JNT-155-A	27-May-13	27-May-13	Inspecting the formwork and steel reinforcement for ARV chamber roof slab prior to placing concrete at station 5+260.	27-May-13	Make correction noted		
IR-02-JNT-156-A	27-May-13	27-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for GV chamber at station 6+741 before insulating and applying the first layer of Bitumen Emulsion Coating.	28-May-13	Make correction noted		
IR-02-JNT-157-A	28-May-13	28-May-13	Inspecting the backfill trench , the top base course layer and preparation to start asphalting for the section between stations 6+000 to station 6+700, in addition to conduct the required base compaction tests through the selected section.	28-May-13	Make correction noted		
IR-02-JNT-158-A	28-May-13	28-May-13	Inspecting the backfill trench , the top base course layer and preparation to start asphalting for the section between stations 5+500 to station 5+800, in addition to conduct the required base compaction tests through the selected section.	28-May-13	Make correction noted		
IR-02-JNT-159-A	28-May-13	29-May-13	To inspect the available 10-inch welded steel pipes at FIP company (SCH20 – PE External Coating and Internal Cement Lining). Total Quantity is 42 pipes. Total length is 508.2 meters. The Proposed plan is to deliver 39 pipes of 472 meters total length to Madama Storage Yard – South West Nablus Project and to Deliver the remaining 3 pipes of total length 36.2 meters to JNT Project.	29-May-13	Make correction noted		
IR-02-JNT-160-A	29-May-13	29-May-13	Inspecting the prepared base course top layer before asphalting the trench section from station 5+480 to station 6+500.	29-May-13	Make correction noted		
IR-02-JNT-161-A	29-May-13	29-May-13	Inspecting the applied first layer of bitumen emulsion coating for WO chamber at station 6+778 prior to applying the second layer.	29-May-13	Make correction noted		
IR-02-JNT-162-A	29-May-13	29-May-13	Inspecting the applied first layer of bitumen emulsion coating for GV chamber at station 6+741 prior to applying the second layer.	29-May-13	Make correction noted		
IR-02-JNT-163-A	29-May-13	29-May-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for ARV chambers at station 5+260 before insulating and applying the first layer of Bitumen Emulsion Coating.	29-May-13	Make correction noted		
IR-02-JNT-164-A	29-May-13	29-May-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for ARV chamber at station 5+260 prior to applying the second layer.	29-May-13	Make correction noted		
IR-02-JNT-165-A	29-May-13	29-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for GV chamber at station 6+741 prior to backfilling excavated area.	29-May-13	Make correction noted		
IR-02-JNT-166-A	29-May-13	29-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for WO chamber at station 6+778 prior to backfilling excavated area.	29-May-13	Make correction noted		
IR-02-JNT-167-A	29-May-13	29-May-13	Inspecting the form work and steel reinforcement for Surif future connection chamber for roof slab at station 4+230 prior to closing the formwork.	29-May-13	Make correction noted		
IR-02-JNT-168-A	29-May-13	29-May-13	Inspecting the form work and steel reinforcement for ARV chamber for roof slab at station 4+253 prior to closing the formwork.	29-May-13	Make correction noted		
IR-02-JNT-169-A	29-May-13	29-May-13	Inspecting the excavated area for Nuba-Hata connection chamber at station 11+251 prior to placing blinding concrete.	29-May-13	Make correction noted		
IR-02-JNT-170-A	30-May-13	30-May-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for ARV chamber at station 5+260 prior to backfilling excavated area.	30-May-13	Make correction noted		
IR-02-JNT-171-A	30-May-13	30-May-13	Inspecting the excavated area for ARV chamber at station 9+180 and GV chamber at station 9+200 prior to placing blinding concrete.	30-May-13	Make correction noted		
IR-02-JNT-172-A	30-May-13	30-May-13	Inspecting the marked location for Nuba connection chamber at station 10+947prior to starting excavation.	30-May-13	Amend-Resubmit		
IR-02-JNT-172-B	9-Jun-13	9-Jun-13	Inspecting the marked location for Nuba connection chamber at station 10+947prior to starting excavation.	9-Jun-13	Make correction noted		
IR-02-JNT-173-A	30-May-13	30-May-13	Inspecting the backfill trench , the top base course layer and preparation to start asphalting for the section between station 6+500 to station 6+800, in addition to conduct the required base compaction tests through the selected section.	30-May-13	Make correction noted		
IR-02-JNT-174-A	2-Jun-13	2-Jun-13	Inspecting the marked location for Kharas connection chamber at station 9+939 prior to starting excavation.	2-Jun-13	Make correction noted		
IR-02-JNT-175-A	2-Jun-13	2-Jun-13	Inspecting the formwork and steel reinforcement for Nuba-Hata connection chamber base at station 11+251 prior to placing concrete.	2-Jun-13	Make correction noted		
IR-02-JNT-176-A	2-Jun-13	2-Jun-13	Inspecting the formwork and steel reinforcement for ARV chamber base at station 9+190 prior to placing concrete.	2-Jun-13	Make correction noted		
IR-02-JNT-177-A	2-Jun-13	2-Jun-13	Inspecting the formwork and steel reinforcement for GV chamber base at station 9+200 prior to placing concrete.	2-Jun-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-178-A	3-Jun-13	3-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Surif future connection chamber at station 4+230 before insulating and applying the first layer of Bitumen Emulsion Coating.	3-Jun-13	Amend-Resubmit		
IR-02-JNT-178-B	5-Jun-13	5-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Surif future connection chamber at station 4+230 before insulating and applying the first layer of Bitumen Emulsion Coating.	5-Jun-13	Make correction noted		
IR-02-JNT-179-A	3-Jun-13	3-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for ARV chamber at station 4+253 before insulating and applying the first layer of Bitumen Emulsion Coating.	3-Jun-13	Amend-Resubmit		
IR-02-JNT-179-B	5-Jun-13	5-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for ARV chamber at station 4+253 before insulating and applying the first layer of Bitumen Emulsion Coating.	5-Jun-13	Make correction noted		
IR-02-JNT-180-A	4-Jun-13	4-Jun-13	Inspecting the excavated area for Kharas connection chamber at station 9+939 prior to placing blinding concrete.	4-Jun-13	Make correction noted		
IR-02-JNT-181-A	5-Jun-13	5-Jun-13	Inspecting the formwork and steel reinforcement for ARV chamber walls at station 9+190 prior to closing the formwork.	5-Jun-13	Make correction noted		
IR-02-JNT-182-A	5-Jun-13	5-Jun-13	Inspecting the formwork and steel reinforcement for Nuba Hata connection chamber walls at station 11+251 prior to closing the formwork.	5-Jun-13	Make correction noted		
IR-02-JNT-183-A	5-Jun-13	5-Jun-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for ARV chamber at station 4+253 prior to applying the second layer.	5-Jun-13	Make correction noted		
IR-02-JNT-184-A	6-Jun-13	6-Jun-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for Surif future connection chamber at station 4+230 prior to applying the second layer.	6-Jun-13	Make correction noted		
IR-02-JNT-185-A	6-Jun-13	6-Jun-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for ARV chamber at station 4+253 prior to backfilling excavated area.	6-Jun-13	Make correction noted		
IR-02-JNT-186-A	6-Jun-13	6-Jun-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Surif future connection chamber at station 4+230 prior to backfilling excavated area	6-Jun-13	Make correction noted		
IR-02-JNT-187-A	9-Jun-13	9-Jun-13	Inspecting the formwork and steel reinforcement for Kharas connection chamber base at station 09+939 prior to placing concrete.	9-Jun-13	Amend-Resubmit	9-Jun-13	Make correction noted
IR-02-JNT-188-A	9-Jun-13	9-Jun-13	Inspecting the formwork and steel reinforcement for Nuba-Hata connection chamber walls at station 11+251 prior to placing concrete.	10-Jun-13	Make correction noted		
IR-02-JNT-189-A	9-Jun-13	9-Jun-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 04+250 to station 05+050, in addition to conduct the required base course compaction tests through the selected section.	9-Jun-13	Amend-Resubmit	9-Jun-13	Make correction noted
IR-02-JNT-190-A	6-Jun-13	6-Jun-13	Inspecting the formwork and steel reinforcement for ARV chamber walls prior to placing concrete at station 9+190.	6-Jun-13	Make correction noted		
IR-02-JNT-191-A	10-Jun-13	10-Jun-13	Inspecting the formwork and steel reinforcement for ARV chamber roof slab prior to placing concrete at station 9+190.	10-Jun-13	Make correction noted		
IR-02-JNT-192-A	11-Jun-13	11-Jun-13	Inspecting the safe concrete barriers that installed around Nuba main chamber at station 10+400.	11-Jun-13	Make correction noted		
IR-02-JNT-193-A	11-Jun-13	11-Jun-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between station 04+650 to station 05+000, in addition to conduct the required base course compaction tests through the selected section	11-Jun-13	Make correction noted		
IR-02-JNT-194-A	12-Jun-13	12-Jun-13	Inspecting the prepared base course top layer prior to asphalting the trench section from station 4+650 to station 5+000	12-Jun-13	Make correction noted		
IR-02-JNT-195-A	12-Jun-13	12-Jun-13	Inspecting the formwork and steel reinforcement for GV chamber walls at station 09+200 prior to closing the formwork.	12-Jun-13	Make correction noted		
IR-02-JNT-196-A	12-Jun-13	12-Jun-13	Inspecting the formwork and steel reinforcement for Nuba-Hata connection chamber roof slab at station 11+251 prior to placing concrete	12-Jun-13	Make correction noted		
IR-02-JNT-197-A	12-Jun-13	12-Jun-13	Inspecting the excavated area for Nuba main chamber at station 10+400 prior to placing blinding concrete layer.	12-Jun-13	Make correction noted		
IR-02-JNT-198-A	12-Jun-13	12-Jun-13	Inspecting the prepared base course top layer before asphalting the trench section from station 02+700 to station 02+740	12-Jun-13	Make correction noted		
IR-02-JNT-199-A	13-Jun-13	13-Jun-13	Inspecting the formwork and steel reinforcement for GV chamber walls at station 09+200 prior to placing concrete.	13-Jun-13	Make correction noted		
IR-02-JNT-200-A	15-Jun-13	15-Jun-13	Inspecting the formwork and steel reinforcement for Kharas connection chamber walls at station 9+939 prior to closing the formwork.	15-Jun-13	Make correction noted		
IR-02-JNT-201-A	16-Jun-13	16-Jun-13	Inspecting the formwork and steel reinforcement for Kharas connection chamber walls (chamber No.1) at station 09+939 prior to placing concrete.	16-Jun-13	Make correction noted		
IR-02-JNT-202-A	16-Jun-13	16-Jun-13	Inspecting the formwork and steel reinforcement for GV chamber roof slab at station 09+200 prior to placing concrete.	16-Jun-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-203-A	16-Jun-13	16-Jun-13	Inspecting the marked location for WO chamber at station 9+770 prior to starting excavation.	16-Jun-13	Make correction noted		
IR-02-JNT-204-A	16-Jun-13	16-Jun-13	Inspecting the formwork and steel reinforcement for Nuba main connection chamber base slab at station 10+700 prior to placing concrete.	16-Jun-13	Make correction noted		
IR-02-JNT-205-A	17-Jun-13	17-Jun-13	Inspecting the safety concrete barriers that installed around Wash Out chamber at station 09+770 prior to starting excavation work	17-Jun-13	Make correction noted		
IR-02-JNT-206-A	17-Jun-13	17-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for ARV chamber at station 09+190 before insulating and applying the first layer of Bitumen Emulsion Coating.	18-Jun-13	Make correction noted		
IR-02-JNT-207-A	17-Jun-13	17-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Nuba Hata connection chamber at station 11+251before insulating and applying the first layer of Bitumen Emulsion Coating.	19-Jun-13	Make correction noted		
IR-02-JNT-208-A	17-Jun-13	17-Jun-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 09+700 to station 09+900, in addition to conduct the required base course compaction tests through the selected section.	18-Jun-13	Amend-Resubmit		
IR-02-JNT-208-B	19-Jun-13	19-Jun-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 09+700 to station 09+900, in addition to conduct the required base course compaction tests through the selected section.	19-Jun-13	Make correction noted		
IR-02-JNT-209-A	17-Jun-13	17-Jun-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 09+970 to station 10+150, in addition to conduct the required base course compaction tests through the selected section.	18-Jun-13	Make correction noted		
IR-02-JNT-210-A	19-Jun-13	19-Jun-13	Inspecting the formwork and steel reinforcement for Kharas connection chamber roof slab (Chamber No.1) prior to placing concrete at station 09+939.	19-Jun-13	Make correction noted		
IR-02-JNT-211-A	19-Jun-13	19-Jun-13	Inspecting the formwork and steel reinforcement for Kharas connection chamber walls (Chamber No.2) prior to placing concrete at station 09+939.	19-Jun-13	Make correction noted		
IR-02-JNT-212-A	19-Jun-13	19-Jun-13	Inspecting the excavated area for Wash Out chamber at station 09+670 prior to placing blinding concrete.	19-Jun-13	Make correction noted		
IR-02-JNT-213-A	20-Jun-13	20-Jun-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for ARV chamber at station 09+190 prior to applying the second layer.	20-Jun-13	Make correction noted		
IR-02-JNT-214-A	20-Jun-13	20-Jun-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for Nuba Hata connection chamber at station 11+251 prior to applying the second layer.	20-Jun-13	Make correction noted		
IR-02-JNT-215-A	20-Jun-13	20-Jun-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Nuba Hata connection chamber at station 11+251 prior to backfilling excavated area.	20-Jun-13	Make correction noted		
IR-02-JNT-216-A	22-Jun-13	22-Jun-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for GV connection chamber at station 09+200 before insulating and applying the first layer of Bitumen Emulsion Coating.	22-Jun-13	Make correction noted		
IR-02-JNT-217-A	22-Jun-13	22-Jun-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for GV chamber at station 09+200 prior to applying the second layer.	22-Jun-13	Make correction noted		
IR-02-JNT-218-A	23-Jun-13	24-Jun-13	Inspecting the formwork and steel reinforcement for Kharas connection chamber (Chamber No. 2) roof slab prior to placing concrete at station 09+939.	24-Jun-13	Make correction noted		
IR-02-JNT-219-A	23-Jun-13	24-Jun-13	Inspecting the formwork and steel reinforcement for Nuba main connection chamber walls at station 10+700 prior to placing concrete.	22-Jun-13	Make correction noted		
IR-02-JNT-220-A	23-Jun-13	23-Jun-13	Inspecting the backfill trench , the top base course layer and preparation to start asphalting for the section between stations 09+350 to station 09+700, in addition to conduct the required base compaction tests through the selected section.	23-Jun-13	Make correction noted		
IR-02-JNT-221-A	23-Jun-13	23-Jun-13	Inspecting the formwork and steel reinforcement for Nuba main connection chamber walls at station 10+700 prior to placing concrete.	24-Jun-13	Make correction noted		
IR-02-JNT-222-A	24-Jun-13	24-Jun-13	Inspecting the Marked location for the Gate Valve chamber (Precast Chamber) at station 01+522 before starting the excavation work.	24-Jun-13	Amend-Resubmit		
IR-02-JNT-222-B	1-Jul-13	1-Jul-13	Inspecting the Marked location for the Gate Valve chamber (Precast Chamber) at station 01+522 before starting the excavation work.	1-Jul-13	Amend-Resubmit		
IR-02-JNT-222-C	2-Jul-13	2-Jul-13	Inspecting the Marked location for the Gate Valve chamber (Precast Chamber) at station 01+522 before starting the excavation work.	2-Jul-13	Make correction noted		
IR-02-JNT-223-A	24-Jun-13	24-Jun-13	Inspecting the Marked location for the Gate Valve chamber (Precast Chamber) at station 00+276 before starting the excavation work.	24-Jun-13	Amend-Resubmit		
IR-02-JNT-223-B	30-Jun-13	1-Jul-13	Inspecting the Marked location for the Gate Valve chamber (Precast Chamber) at station 00+276 before starting the excavation work.	1-Jul-13	Amend-Resubmit		
IR-02-JNT-223-C	2-Jul-13	2-Jul-13	Inspecting the Marked location for the Gate Valve chamber (Precast Chamber) at station 00+276 before starting the excavation work.	2-Jul-13	Make correction noted		
IR-02-JNT-224-A	24-Jun-13	24-Jun-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for ARV chamber at station 09+190 prior to backfilling excavated area.	24-Jun-13	Make correction noted		

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IR-02-JNT-225-A	25-Jun-13	25-Jun-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for GV chamber at station 09+200 prior to backfilling excavated area.	24-Jun-13	Make correction noted		
IR-02-JNT-226-A	25-Jun-13	25-Jun-13	Inspecting the formwork and steel reinforcement for WO chamber base slab at station 09+670 prior to placing concrete.	25-Jun-13	Make correction noted		
IR-02-JNT-227-A	25-Jun-13	25-Jun-13	Inspecting the prepared base course top layer before asphalting the trench section from station 09+350 to station 09+700.	25-Jun-13	Make correction noted		
IR-02-JNT-228-A	26-Jun-13	26-Jun-13	Inspecting the formwork and steel reinforcement for Nuba main connection chamber roof slab at station 10+700 prior to placing concrete.	26-Jun-13	Make correction noted		
IR-02-JNT-229-A	27-Jun-13	27-Jun-13	Inspecting the formwork and steel reinforcement for Wash Out chamber walls at station 09+670 prior to closing the formwork.	27-Jun-13	Make correction noted		
IR-02-JNT-230-A	30-Jun-13	30-Jun-13	Inspecting the formwork and steel reinforcement for Wash Out chamber walls at station 09+670 prior to placing concrete.	30-Jun-13	Make correction noted		
IR-02-JNT-231-A	30-Jun-13	1-Jul-13	Inspecting the precast manhole in Al-Amer manufactory prior to starting marking and excavation at working area.	1-Jul-13	Make correction noted		
IR-02-JNT-232-A	1-Jul-13	1-Jul-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between stations 10+150 to station10+450, in addition to conduct the required base course compaction tests through the selected section.	1-Jul-13	Make correction noted		
IR-02-JNT-233-A	2-Jul-13	2-Jul-13	Inspecting the Marked location for Washout chamber at Station 10+689 prior to starting the excavation work.	2-Jul-13	Make correction noted		
IR-02-JNT-234-A	2-Jul-13	2-Jul-13	Inspecting the formwork and steel reinforcement for Washout chamber roof slab at Station 09+670 prior to placing concrete.	2-Jul-13	Make correction noted		
IR-02-JNT-235-A	2-Jul-13	2-Jul-13	Inspecting the backfilled trench , the top base course layer and preparation to start asphalting for the section between Station 10+450 and Station10+650, in addition to conduct the required base course compaction tests through the selected section.	2-Jul-13	Make correction noted		
IR-02-JNT-236-A	3-Jul-13	3-Jul-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Kharas connection chambers(Chamber No.1 and No.2) at station 09+939 before insulating and applying the first layer of Bitumen Emulsion Coating.	3-Jul-13	Amend-Resubmit	3-Jul-13	No Exceptions Noted
IR-02-JNT-237-A	3-Jul-13	3-Jul-13	Inspecting the excavated area for Washout chamber at station 10+689 prior to placing blinding concrete layer.	3-Jul-13	Make correction noted		
IR-02-JNT-238-A	3-Jul-13	3-Jul-13	Inspecting the preparations to start the 3-inch, 4-inch and 6-inch steel pipes excavation, installation, bedding backfill and final backfill around 24 meters for Surif connection chamber at station	3-Jul-13	Make correction noted		
IR-02-JNT-239-A	3-Jul-13	3-Jul-13	Inspecting the preparations to start the 10-inch steel pipes excavation, installation and backfill around 12 meters for Washout chamber at station 10+689.	3-Jul-13	Make correction noted		
IR-02-JNT-240-A	3-Jul-13	3-Jul-13	Inspecting the preparations to start the 4-inch steel pipes excavation, installation, bedding backfill and final backfill for Khirbit Al-Deir chamber at station 02+720.	3-Jul-13	Make correction noted		
IR-02-JNT-241-A	4-Jul-13	4-Jul-13	Inspecting the formwork and steel reinforcement for Washout chamber base slab at Station 10+689 prior to placing concrete.	4-Jul-13	Make correction noted		
IR-02-JNT-242-A	4-Jul-13	4-Jul-13	Inspecting the Natural Ground Level (NGL) from Station 0+300 to Station 01+500 prior to starting preparation for asphalting the selected section.	4-Jul-13	Amend-Resubmit		
IR-02-JNT-242-B	7-Jul-13	7-Jul-13	Inspecting the Natural Ground Level (NGL) from Station 0+300 to Station 01+500 prior to starting preparation for asphalting the selected section.	7-Jul-13	Make correction noted		
IR-02-JNT-243-A	7-Jul-13	7-Jul-13	Inspecting the formwork and steel reinforcement for washout chamber walls at Station 10+689 prior to closing the formwork.	7-Jul-13	Make correction noted		
IR-02-JNT-244-A	8-Jul-13	8-Jul-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for Kharas connection chambers(Chamber No.1 and No.2) at station 09+939 prior to applying the second layer.	8-Jul-13	Make correction noted		
IR-02-JNT-245-A	8-Jul-13	8-Jul-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Kharas connection chambers(Chamber No.1 and No.2) at station 09+939 prior to backfilling excavated area.	8-Jul-13	Make correction noted		
IR-02-JNT-246-A	9-Jul-13	9-Jul-13	Inspecting the marked location for the precast manhole(washout manhole)at 3-inch steel pipe line at station 01+700 prior to starting the excavation work.	9-Jul-13	Make correction noted		
IR-02-JNT-247-A	9-Jul-13	9-Jul-13	Inspecting the marked location for the precast manhole(gate valve manhole) at 3-inch steel pipe line at station 01+500 prior to starting the excavation work.	9-Jul-13	Make correction noted		
IR-02-JNT-248-A	9-Jul-13	9-Jul-13	Inspecting the formwork and steel reinforcement for washout chamber walls at Station 10+689 prior to placing concrete.	9-Jul-13	Make correction noted		
IR-02-JNT-249-A	11-Jul-13	11-Jul-13	Inspecting the formwork and steel reinforcement for washout chamber roof slab at Station 10+689 prior to placing concrete.	11-Jul-13	Make correction noted		
IR-02-JNT-250-A	13-Jul-13	13-Jul-13	Inspecting the installation of precast manhole at the excavated area for air release valve chamber at station 02+330 on 12-inch pipeline, washout chamber at station 01+700 on 3-inch pipeline, gate valve chamber at station 01+500 on 3-inch pipeline and gate valve chamber at station 00+270 on 2-inch pipeline.	13-Jul-13	Make correction noted		
IR-02-JNT-251-A	17-Jul-13	17-Jul-13	Inspecting the marked location for the precast manhole(3-Inch air release valve manhole) at10-inch steel pipe line at station 10+060 prior to starting the excavation work.	17-Jul-13	Make correction noted		

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IR-02-JNT-252-A	17-Jul-13	17-Jul-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for wash out chamber at station 10+689 before insulating and applying the first layer of bitumen emulsion coating.	17-Jul-13	Make correction noted		
IR-02-JNT-253-A	17-Jul-13	17-Jul-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for Nuba main connection chamber at station 10+700 before insulating and applying the first layer of bitumen emulsion coating.	17-Jul-13	Make correction noted		
IR-02-JNT-254-A	17-Jul-13	17-Jul-13	Inspecting the repaired and prepared external surfaces of the walls and roof slab for wash out chamber at station (09+670)before insulating and applying the first layer of bitumen emulsion coating.	17-Jul-13	Make correction noted		
IR-02-JNT-255-A	17-Jul-13	18-Jul-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for wash out chamber at station (10+689)prior to applying the second layer.	18-Jul-13	Make correction noted		
IR-02-JNT-256-A	17-Jul-13	18-Jul-13	Inspecting starting of the excavation work and preparation for subgrade layer for the first section of the road , from Station (00+300) to Station (00+900)	18-Jul-13	Make correction noted		
IR-02-JNT-257-A	18-Jul-13	18-Jul-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab forNuba main connection chamber at station (10+700)prior to applying the second layer.	18-Jul-13	Make correction noted		
IR-02-JNT-258-A	17-Jul-13	17-Jul-13	Hydro-static pressure test for the first section of JNT pipeline from station 0+005 to station 4+230. The two pressure gauges are installed at station 0+005 and station 3+136	17-Jul-13	No Exceptions Noted		
IR-02-JNT-259-A	18-Jul-13	18-Jul-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for wash out chamber at Station (10+689) prior to backfilling excavated area.	18-Jul-13	Make correction noted		
IR-02-JNT-260-A	18-Jul-13	18-Jul-13	Inspecting the applied first layer of bitumen emulsion coating for the walls and roof slab for wash out chamber at station (09+670) prior to applying the second layer.	18-Jul-13	Make correction noted		
IR-02-JNT-261-A	18-Jul-13	18-Jul-13	Inspecting the applied second layer of bitumen emulsion coating for the walls and roof slab for Nuba main connection chamber at station (10+700) prior to backfilling excavated area.	18-Jul-13	Make correction noted		
IR-02-JNT-262-A	20-Jul-13	20-Jul-13	Inspecting the marked location for the precast wash out manhole at 3-inch steel pipe line at station (09+670) prior to starting the excavation work	20-Jul-13	Make correction noted		
IR-02-JNT-263-A	21-Jul-13	21-Jul-13	Inspecting the marked location for the precast air release valve manhole at 4-inch steel pipe line at station (09+170) prior to starting the excavation work	21-Jul-13	Make correction noted		
IR-02-JNT-264-A	22-Jul-13	22-Jul-13	Hydro-static pressure test for the second section of JNT pipeline from station(04+200) to station (10+740) .The two pressure gauges are installed at station (06+770) and station (09+180)	22-Jul-13	Make correction noted		
IR-02-JNT-265-A	24-Jul-13	24-Jul-13	Inspecting the marked location for the air release valve precast chamber at Station (02+330) prior to starting the excavation work	24-Jul-13	Make correction noted		
IR-02-JNT-266-A	24-Jul-13	24-Jul-13	Inspecting the starting of excavation work and preparation for subgrade layer for the second section of the road , from Station (00+900) to Station (01+500)	24-Jul-13	Make correction noted		
IR-02-JNT-267-A	24-Jul-13	24-Jul-13	Marking the asphalt milling width for the 10-inch steel pipeline trench prior to starting asphalting for the second layer from Station (08+900) to Station (08+600)	24-Jul-13	Make correction noted		
IR-02-JNT-268-A	28-Jul-13	28-Jul-13	Inspecting the marked location for the precast ARV chamber at station (00+003) prior to starting excavation work.	28-Jul-13	Make correction noted		
IR-02-JNT-269-A	28-Jul-13	28-Jul-13	Marking the asphalt width for the 10-inch steel pipeline trench prior to starting milling the asphalt for the second layer from Station (08+600) to Station (08+000)	28-Jul-13	Make correction noted		
IR-02-JNT-270-A	30-Jul-13	30-Jul-13	Marking the asphalt width for the 10-inch steel pipeline trench prior to starting milling the asphalt for the second layer from Station (08+000) to Station (07+300)	30-Jul-13	Make correction noted		
IR-02-JNT-271-A	31-Jul-13	31-Jul-13	Marking the asphalt width for the 10-inch steel pipeline trench prior to starting milling the asphalt for the second layer from Station (07+300) to Station (07+090)	31-Jul-13	Make correction noted		
IR-02-JNT-272-A	4-Aug-13	4-Aug-13	Marking the asphalt width for the 10-inch steel pipeline trench prior to starting milling the asphalt for the second layer from Station (07+031) to Station (06+185)	4-Aug-13	Make correction noted		
IR-02-JNT-273-A	14-Aug-13	14-Aug-13	Inspecting the subgrade layer for Al-Jaba road prior to starting the works of base course layer, from station (00+300) to station(01+500)	14-Aug-13	Amend-Resubmit		
IR-02-JNT-273-B	20-Aug-13	20-Aug-13	Inspecting the subgrade layer for Al-Jaba road prior to starting the works of base course layer, from station (00+300) to station(01+500)	20-Aug-13	Make correction noted		
IR-02-JNT-274-A	14-Aug-13	14-Aug-13	Inspecting the internal finishes for the flow monitoring chamber at station (00+089) , Jaba connection chamber at station(00+100),wash out chamber at station (00+900),butterfly chamber at station (01+450) and wash out chamber at station (01+700) prior to fittings and valves installation	15-Aug-13	Amend-Resubmit		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-274-B	17-Aug-13	17-Aug-13	Inspecting the internal finishes for the flow monitoring chamber at station (00+089) , Jaba connection chamber at station(00+100),wash out chamber at station (00+900),butterfly chamber at station (01+450) and wash out chamber at station (01+700) prior to fittings and valves installation	17-Aug-13	Make correction noted		
IR-02-JNT-275-A	18-Aug-13	18-Aug-13	Inspecting the received materials from Al-Masri investment company (Raphael and ARI fittings) at the work shop prior to starting install them.	19-Aug-13	Amend-Resubmit		
IR-02-JNT-275-B	26-Sep-13	26-Sep-13	Inspecting the received materials from Al-Masri investment company (Raphael and ARI fittings) at the work shop prior to starting install them.	23-Sep-13	Make correction noted		
IR-02-JNT-276-A	20-Aug-13	20-Aug-13	Inspecting the received materials from Al-Masri investment company (strainers,pressure reducing valves,pressure relief valves and flow control valves) at the work shop prior to starting install them.	20-Aug-13	Amend-Resubmit		
IR-02-JNT-276-B	23-Sep-13	23-Sep-13	Inspecting the received materials from Al-Masri investment company (strainers,pressure reducing valves,pressure relief valves and flow control valves) at the work shop prior to starting install them.	23-Sep-13	Make correction noted		
IR-02-JNT-277-A	22-Aug-13	22-Aug-13	Inspecting the received materials from Al-Masri investment company (Air release valves) at the work shop prior to starting install them.	22-Aug-13	Amend-Resubmit		
IR-02-JNT-277-B	26-Sep-13	26-Sep-13	Inspecting the received materials from Al-Masri investment company (Air release valves) at the work shop prior to starting install them.	26-Sep-13	No exceptions noted		
IR-02-JNT-278-A	22-Aug-13	22-Aug-13	Inspecting the prepared first layer asphalt above and around Wash out and Gate valve for the section between St.(06+730) to St.(06+800),above and around Surif future and Air release valve chambers from St.(04+220) to St.(04+253),above and around Khirbit Al-Dier chamber at St.(02+720),Wash out at 3"steel pipe line and Wash out at 12"steel pipeline at St.(01+700) and Air release valve chamber at St.(05+300).	22-Aug-13	Make correction noted		
IR-02-JNT-279-A	26-Aug-13	26-Aug-13	Inspecting milling and overlay works for asphalt layer ,from station (01+500) to station(10+650) .	26-Aug-13	Make correction noted		
IR-02-JNT-280-A	29-Aug-13	29-Aug-13	Inspecting the base course layer and preparation to start asphalting for Al-Jabaa road from station (00+300) to station (01+500), in addition to conduct the required base course compaction tests through the selected section.	29-Aug-13	Make correction noted		
IR-02-JNT-281-A	31-Aug-13	31-Aug-13	Inspecting the sprayed MC primary coat of Al-Jabaa road prior to starting asphalting ,from station(00+300) to station(01+500).	31-Aug-13	Make correction noted		
IR-02-JNT-282-A	1-Sep-13	1-Sep-13	Inspecting the received materials from Al-Masri investment company (Gate valves,Butterfly valves,Ballvalves,combination of Air release valves and Dismantling joints) at the work shop prior to starting install them.	1-Sep-13	Amend-Resubmit		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-282-B	26-Sep-13	26-Sep-13	Inspecting the received materials from Al-Masri investment company (Gate valves,Butterfly valves,Ballvalves,combination of Air release valves and Dismantling joints) at the work shop prior to starting install them.	26-Sep-13	Make correction noted		
IR-02-JNT-283-A	3-Sep-13	3-Sep-13	Inspecting the sub grade layer for Kharas road from station (09+200) to station (09+350), in addition to conduct the required subgrade compaction tests through the selected section.	3-Sep-13	Make correction noted		
IR-02-JNT-284-A	3-Sep-13	3-Sep-13	Inspecting the alignment and installation of guard rails at left hand side from station(00+300) to station(00+400) and at right hand side from station(00+970) to station(01+270).	3-Sep-13	Make correction noted		
IR-02-JNT-285-A	5-Sep-13	5-Sep-13	Inspecting the base course layer and preparation to start asphalting for Kharas road from station (09+200) to station (09+350), in addition to conduct the required base course compaction tests through the selected section.	5-Sep-13	Make correction noted		
IR-02-JNT-286-A	8-Sep-13	8-Sep-13	Inspecting the installation of valves , fittings and preparation of pipes prior to starting epoxy paint for the following manholes: 1-Precast ARV at St.(10+260). 2-Precast WO on 4" steel pipeline at St.(09+670). 3-WO on 10" steel pipeline at St.(09+670). 4-ARV on 10" steel pipeline at St.(09+190). 5-GV on 10" steel pipeline at St.(09+200). 6- Precast ARV and GV on 4" steel pipeline at St.(09+160). 7-ARV on 10" steel pipeline at St.(07+878). 8- WO on 10" steel pipeline at St.(06+800). 9- GV on 10" steel pipeline at St.(06+741). 10- ARV on 10" steel pipe line at St.(05+260). 11- ARV on 10" steel pipeline at St.(04+250). 12- WO on 10" steel pipeline at St.(03+160).	8-Sep-13	Amend-Resubmit		
IR-02-JNT-286-B	9-Sep-13	9-Sep-13	Inspecting the installation of valves , fittings and preparation of pipes prior to starting epoxy paint for the following manholes: 1-Precast ARV at St.(10+260). 2-Precast WO on 4" steel pipeline at St.(09+670). 3-WO on 10" steel pipeline at St.(09+670). 4-ARV on 10" steel pipeline at St.(09+190). 5-GV on 10" steel pipeline at St.(09+200). 6- Precast ARV and GV on 4" steel pipeline at St.(09+160). 7-ARV on 10" steel pipeline at St.(07+878). 8- WO on 10" steel pipeline at St.(06+800). 10- ARV on 10" steel pipe line at St.(05+260). 11- ARV on 10" steel pipeline at St.(04+250). 12- WO on 10" steel pipeline at St.(03+160).	9-Sep-13	Make correction noted		
IR-02-JNT-287-A	8-Sep-13	8-Sep-13	Inspecting the received material from Al-Masri investment company (Ductile flanges adapter) at the work shop prior to starting install them .	8-Sep-13	Amend-Resubmit		
IR-02-JNT-287-B	23-Sep-13	23-Sep-13	Inspecting the received material from Al-Masri investment company (Ductile flanges adapter) at the work shop prior to starting install them .	23-Sep-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-288-A	12-Sep-13	12-Sep-13	Inspecting the received material from Al-Masri investment company (Flap and Check Valves) at the work shop prior to starting install them .	12-Sep-13	Amend-Resubmit		
IR-02-JNT-288-B	26-Sep-13	26-Sep-13	Inspecting the received material from Al-Masri investment company (Flap and Check Valves) at the work shop prior to starting install them .	26-Sep-13	Make correction noted		
IR-02-JNT-289-A	18-Sep-13	18-Sep-13	Inspecting the installation of valves , fittings and preparation of pipes prior to starting preparing epoxy paint for the following chambers: 1-Precast ARV at St.(00+000). 2-FM at St.(00+089). 3-Al-Jabaa connection at St.(00+100). 4- Precast GV on 2" steel pipeline at St.(00+230). 5- WO at St.(00+970). 6- BF at St.(01+454). 7-Precast GV at St.(01+500). 8-WO at St.(01+700). 9- Precast WO at St.(01+700).	18-Sep-13	Amend-Resubmit		
IR-02-JNT-289-B	19-Sep-13	19-Sep-13	Inspecting the installation of valves , fittings and preparation of pipes prior to starting preparing epoxy paint for the following chambers: 1-Precast ARV at St.(00+000). 2-FM at St.(00+089). 3-Al-Jabaa connection at St.(00+100). 4- Precast GV on 2" steel pipeline at St.(00+230). 5- WO at St.(00+970). 6- BF at St.(01+454). 7-Precast GV at St.(01+500). 8-WO at St.(01+700). 9- Precast WO at St.(01+700).	19-Sep-13	Make correction noted		
IR-02-JNT-290-A	18-Sep-13	18-Sep-13	Inspecting the installation of valves , fittings and preparation of pipes prior to starting preparing epoxy paint for the following chambers: 1-Precast ARV on 2" steel pipeline at St.(02+330). 2-Precast ARV on 3" steel pipeline at St.(02+330). 3-Surif connection at St.(02+528). 4- Al-Dier connection at St.(02+720). 5-Surif future at St.(04+230). 6-Kharas connection at St.(09+939). 7- Nuba main connection at St.(10+700). 8-WO at St.(10+700). 9-Nuba Hatta at St.(11+260).	18-Sep-13	Amend-Resubmit		
IR-02-JNT-290-B	19-Sep-13	19-Sep-13	Inspecting the installation of valves , fittings and preparation of pipes prior to starting preparing epoxy paint for the following chambers: 1-Precast ARV on 2" steel pipeline at St.(02+330). 2-Precast ARV on 3" steel pipeline at St.(02+330). 3-Surif connection at St.(02+528). 4- Al-Dier connection at St.(02+720). 5-Surif future at St.(04+230). 6-Kharas connection at St.(09+939). 7- Nuba main connection at St.(10+700). 8-WO at St.(10+700). 9-Nuba Hatta at St.(11+260).	19-Sep-13	Make correction noted		
IR-02-JNT-291-A	26-Sep-13	26-Sep-13	Inspecting the chlorination and disinfection woks of transmission pipeline from station (00+000) to station(10+700) prior to taking disinfection samples.	26-Sep-13	Make correction noted		
IR-02-JNT-292-A	26-Sep-13	26-Sep-13	Inspecting the marked locations for the permanent signs at the following specific stations: 1- At station (04+200). 2-At station (10+740).	26-Sep-13	Make correction noted		

No.	Request Date	Date Inspection Required	Description of Works Inspected	Response Date	Grade	Response Date	Grade
IR-02-JNT-293-A	26-Sep-13	28-Sep-13	Inspecting calibration test for Bermad (PRV,Strainer and Flow control) for the following chambers: 1- Flow monitoring at St.(00+089)-Strainer and PRV. 2- Al-Jaba connection /Jaba at St.(00+100). 3-Al-Jaba connection/Dier Mousa at St.(00+100). 4-Al-Dier connection at St.(02+720). 5- Surif connection at St.(02+550). 6-Kharas connection at St.(09+939). 7- Nuba main connection at St.(10+700). 8- Nuba Hatta connection at St.(11+251)-Strainer only.	28-Sep-13	Make correction noted		
IR-02-JNT-294-A	10-Oct-13	10-Oct-13	Inspecting the conduct of core test by building center representatives through Al-Jab'a road and through the overlay of the entire road between St. (01+500) to St. (10+700).	10-Oct-13	Make correction noted		

International Relief & Development

Non Compliance Notice Log-NCN
IRD/BV

Task Order: 02-JNT
Project: Al Jaba' Nuba Main Transmission Pipeline Project

No.	Date Issued	Date Received	Sender/Recipient	Location	Brief Description of NCR	Solation
AIR-02-JNT-C-E-001	February 19, 2013	February 19, 2013	BV-IRD	At project site	The delivered base course material does not conform to the specification requirements.	Many of corrective actions and additional corrective measures have been taken by IRD and been clarified in NCR to fully control the delivery of base course material.

IRD International Relief & Development

Equipment Log

Task Order: AID - 294 - TO - 12 - 00002

Project: Al Jaba' Nuba Main Transmission Pipeline Project

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1	07 Oct,12	Survey equipment	1	8	0
2	08 Oct,12	Survey equipment	1	8	0
3	09 Oct,12	Survey equipment	1	8	0
4	10 Oct,12	Survey equipment	1	8	0
5	11 Oct,12	Survey equipment	1	8	0
6	13 Oct,12	Survey equipment	1	8	0
7	14 Oct,12	Survey equipment	1	8	0
8	15 Oct,12	Survey equipment	1	8	0
9	16 Oct,12	Survey equipment	1	8	0
10	17 Oct,12	Survey equipment	1	8	0
11	18 Oct,12	Survey equipment	1	8	0
12	20 Oct,12	Survey equipment	1	8	1
13	21 Oct,12	Survey equipment	0	0	1
14	22 Oct,12	Survey equipment	0	0	1
15	23 Oct,12	Survey equipment	0	0	1
16	24 Oct,12	Survey equipment	0	0	1
17		Concrete mixer	0	0	1
18		JCB	1	4	0
19	25 Oct,12	Survey equipment	0	0	1
20		Concrete mixer	1	1	0
21		JCB	1	2	0
22		Crane	1	2	0
23	30 Oct,12	Survey equipment	1		0
24	31 Oct,12	Survey equipment	0	0	1
25	01 Nov,12	Survey equipment	0	0	1
26	03 Nov,12	Survey equipment	1	5	0
27		JCB	1	2	0
28	04 Nov,12	Survey equipment	1	5	0
29	05Nov,12	Survey equipment	1	6	0
30	06 Nov,12	Survey equipment	0	0	1
31	07 Nov,12	Survey equipment	1	5	0
32		JCB	1	3	0
33		Water tank	1	1	0
34		Compactor	1	2	0
35	08 Nov,12	Survey equipment	0	0	1
36	09Nov,12	Survey equipment	0	0	1
37	10-Nov-12	Survey equipment	1	5	0
38	11 Nov,12	Survey equipment	1	4	0
39	12 Nov,122	Survey equipment	1	4	0
40	13 Nov,12	Survey equipment	1	4	0
41	14 Nov,12	Survey equipment	0	0	1
42	15 Nov,12	Survey equipment	0	0	1
43	16 Nov,12	Survey equipment	0	0	1
44	17 Nov,12	Survey equipment	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
45	18 Nov,12	Survey equipment	0	0	1
46	19Nov,12	Survey equipment	0	0	1
47	20 Nov,12	JCB	1	5	0
48	21 Nov,12	Survey equipment	0	0	1
49	22 Nov,12	Survey equipment	0	0	1
50	23 Nov,12	Survey equipment	0	0	1
51	24 Nov,12	Survey equipment	0	0	1
52	25 Nov,12	Survey equipment	0	0	1
53	26 Nov,12	Survey equipment	0	0	1
54	27 Nov,12	Survey equipment	0	0	1
55	28 Nov,12	Survey equipment	0	0	1
56	29 Nov,12	Survey equipment	0	0	1
57	30 Nov,12	Survey equipment	0	0	1
58	01 Dec,12	Survey equipment	0	0	1
59	02 Dec,12	Survey equipment	0	0	1
60	03 Dec,12	Survey equipment	0	0	1
61	04Dec,12	Survey equipment	0	0	1
62	05 Dec,12	Survey equipment	0	0	1
63	06 Dec,12	Survey equipment	0	0	1
64	07 Dec,12	Survey equipment	0	0	1
65	08 Dec,12	Survey equipment	0	0	1
66	09 Dec,12	Survey equipment	0	0	1
67	10 Dec,12	JCB	1	4	0
68	11 Dec,12	Survey equipment	0	0	1
69	12 Dec,12	Survey equipment	0	0	1
70	13 Dec,12	JCB	1	4	0
71		Trucks	5	10	0
72		Survey equipment	0	0	1
73	15 Dec,12	JCB	1	4	0
74		Trucks	5	10	0
75		Survey equipment	0	0	1
76	16 Dec,12	Trucks	5	10	0
77		Survey equipment	0	0	1
78	17 Dec,12	JCB	1	3	0
79		Trucks	3	10	0
80		Survey equipment	0	0	1
81	18 Dec,12	Trucks	3	5	0
82		Survey equipment	0	0	1
83	19 Dec,12	JCB	1	3	0
84		Trucks	3	8	0
85		Survey equipment	0	0	1
86	20 Dec,12	Survey equipment	0	0	1
87	21 Dec,12	Survey equipment	0	0	1
88	22 Dec,12	Survey equipment	0	0	1
89	23 Dec,12	Trucks	5	8	0
90		Survey equipment	0	0	1
91	24Dec,12	Trailer	1	4	0
92		Crane	1	3	0
93		Survey equipment	0	0	1
94	25 Dec,12	Trucks	5	8	0
95		Trailer	1	5	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
96	25 Dec,12	Crane	1	3	0
97		Survey equipment	0	0	1
98	26 Dec,12	Trucks	5	8	0
99	27 Dec,12	Survey equipment	0	0	1
100		Trucks	5	8	0
101	03 Jan,13	Survey equipment	0	0	1
102		JCB	1	2	0
103	05 Jan,13	Survey equipment	0	0	1
104	06 Jan,13	Survey equipment	0	0	1
105	07 Jan,13	Survey equipment	0	0	1
106	08 Jan,13	Survey equipment	0	0	1
107	09 Jan,13	Survey equipment	0	0	1
108	12 Jan,13	Survey equipment	0	0	1
109	13 Jan,13	Survey equipment	0	0	1
110		Trucks	3	4	0
111	14 Jan,13	Survey equipment	0	0	1
112	15 Jan,13	Survey equipment	0	0	1
113		Trailer	1	4	0
114		Crane	1	4	0
115	16 Jan,13	Survey equipment	1	1	0
116		Trucks	1	8	0
117	17 Jan,13	Survey equipment	1	4	0
118		Trucks	1	8	0
119	19 Jan,13	Survey equipment	0	0	1
120	20 Jan,13	Survey equipment	1	6	0
121		Trucks	2	8	0
122	21 Jan,13	Survey equipment	0	0	1
123	22 Jan,13	Survey equipment	0	0	1
124		Trucks	1	4	0
125	23 Jan,13	Survey equipment	1	5	0
126		Trucks	2	8	0
127	24 Jan,13	Survey equipment	1	5	0
128		Trucks	2	8	0
129		Trencher	0	0	1
130		JCB	0	0	1
131		Bobcat	0	0	1
132		Trailer	1	4	0
133	26 Jan,13	Trencher	0	0	1
134		JCB	0	0	1
135		Bobcat	0	0	1
136	27 Jan,13	Trencher	1	0	0
137		JCB	1	0	0
138		Bobcat	1	0	0
139		Trailer	1	0	0
140	28 Jan,13	JCB	2	8	0
141		Bobcat	1	8	0
142		Trencher	1	8	0
143		4*4 Car	3	8	0
144		Truck	4	8	0
145		Mobile crane	1	8	0
146		4*4 Car	1	8	0
147		Trencher	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
148	29 Jan,13	JCB	1	4	0
149		Bobcat	0	0	1
150		Mobile crane	0	0	1
151		Compactor	0	0	1
152	30 Jan,13	4*4 Car	1	8	0
153		Trencher	0	0	1
154		JCB	1	4	0
155		Bobcat	1	4	0
156		Mobile crane	0	0	1
157		Compactor	1	4	0
158	31 Jan,13	4*4 Car	1	8	0
159		Trencher	0	0	1
160		JCB	1	5	0
161		Bobcat	0	0	1
162		Mobile crane	0	0	1
163		Compactor	0	0	1
164	02 Feb,13	Welding machine	0	0	1
165		4*4 Car	1	8	0
166		Trencher	0	0	1
167		JCB	1	3	0
168		Bobcat	0	0	1
169		Mobile crane	0	0	1
170		Compactor	0	0	1
171	03 Feb,13	Truck	2	8	0
172		Welding Machine	1	8	0
173		4*4 Car	1	8	0
174		Trencher	1	8	0
175		JCB	2	8	0
176		Bobcat	2	8	0
177		Mobile crane	1	8	1
178		Compactor	1	8	0
179	04 Feb,13	Truck	2	8	0
180		Welding machine	1	8	0
181		4*4 Car	1	8	0
182		Trencher	1	8	0
183		JCB	2	8	0
184		Bobcat	2	8	0
185		Mobile crane	1	8	1
186		Compactor	1	8	0
187		Truck	2	8	0
188		Welding machine	1	8	0
189		4*4 Car	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
190	05 Feb,13	Trencher	1	8	0
191		JCB	1	8	0
192		Bobcat	2	8	0
193		Mobile crane	1	8	1
194		Compactor	1	8	0
195	06 Feb,13	Welding machine	0	0	2
196		4*4 Car	1	8	0
197		Trencher	0	0	1
198		JCB	1	4	0
199		Bobcat	2	4	0
200		Mobile crane	1	6	0
201		Compactor	1	4	0
202	07 Feb,13	Truck	2	8	0
203		Welding machine	1	8	0
204		4*4 Car	1	8	0
205		Trencher	1	8	0
206		JCB	1	8	0
207		Bobcat	2	8	0
208		Mobile crane	1	8	1
209		Compactor	1	8	0
210	09 Feb,13	Trailer	1	5	0
211		Truck	3	8	0
212		Welding machine	1	8	0
213		4*4 Car	1	8	0
214		Trencher	1	8	0
215		JCB	1	8	0
216		Bobcat	2	8	0
217		Mobile crane	2	8	0
218		Compactor	1	8	0
219	10 Feb,13	Trailer	1	5	0
220		Truck	3	8	0
221		Welding machine	1	8	0
222		4*4 Car	1	8	0
223		Trencher	1	8	0
224		JCB	1	8	0
225		Bobcat	2	8	0
226		Mobile crane	2	8	0
227		Compactor	1	8	0
228	11 Feb,13	Water tank	1	2	0
229		Truck	3	8	0
230		Welding machine	1	8	1
231		4*4 Car	1	8	0
232		Trencher	1	8	0
233		JCB	1	8	0
234		Bobcat	2	8	0
235		Mobile crane	1	8	0
236		Compactor	1	8	0
237		Truck	3	8	0
238	12 Feb,13	Welding machine	1	8	1
239		4*4 Car	1	8	0
240		Trencher	1	8	0
241		JCB	1	8	0
242		Bobcat	2	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
243		Mobile crane	2	8	0
244		Compactor	1	8	0
245	13 Feb,13	Truck	3	8	0
246		Welding machine	1	8	1
247		4*4 Car	1	8	0
248		Trencher	1	8	0
249		JCB	1	8	0
250		Bobcat	2	8	0
251		Mobile crane	1	8	0
252		Compactor	1	8	0
253	14 Feb,13	Truck	4	6	0
254		Welding machine	1	5	1
255		4*4 Car	1	10	0
256		Trencher	0	0	1
257		JCB	1	5	0
258		Bobcat	2	5	0
259		Mobile crane	1	5	0
260		Compactor	1	5	0
261	16 Feb,13	Truck	4	10	0
262		Welding machine	1	10	1
263		4*4 Car	1	10	0
264		Trencher	1	8	0
265		JCB	2	10	0
266		Bobcat	2	10	0
267		Mobile crane	1	10	0
268		Compactor (JCB-VMD 120)	1	10	0
269		Compactor (BOMAG-BW75)	1	10	0
270		Water tank truck	2	3	0
271	17 Feb,13	Truck	4	10	0
272		Welding machine	1	10	1
273		4*4 Car	1	10	0
274		Trencher	1	8	0
275		JCB	2	10	0
276		Bobcat	2	10	0
277		Mobile crane	1	10	0
278		Compactor (JCB-VMD 120)	1	10	0
279		Compactor (BOMAG-BW75)	1	10	0
280		Water tank truck	1	8	0
281	18 Feb,13	Truck	0	0	0
282		Welding machine	0	0	2
283		4*4 Car	2	8	0
284		Trencher	0	0	1
285		JCB	2	8	0
286		Bobcat	1	8	0
287		Mobile crane	0	0	1
288		Compactor (JCB-VMD 120)	1	8	0
289		Compactor (BOMAG-BW75)	0	0	1
290		Water tank truck	1	8	0
291	19 Feb,13	Truck	1	1	0
292		Welding machine	0	0	2
293		4*4 Car	2	8	0
294		Trencher	0	0	1
295		JCB	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
296	19 Feb,13	Bobcat	0	0	2
297		Mobile crane	0	0	1
298		Compactor (JCB-VMD 120)	1	8	0
299		Compactor (BOMAG-BW75)	0	0	1
300		JCB	1	2.5	0
301	20 Feb,13	Truck	3	10	0
302		Welding machine	1	10	1
303		4*4 Car	1	10	0
304		Trencher	1	10	0
305		JCB	1	10	0
306		Bobcat	2	10	0
307		Mobile crane	1	10	0
308		Compactor (JCB-VMD 120)	0	0	1
309		Compactor (BOMAG-BW75)	1	10	0
310	21 Feb,13	Truck	3	10	0
311		Welding machine	1	10	1
312		4*4 Car	1	10	0
313		Trencher	1	10	0
314		JCB	1	10	0
315		Bobcat	2	10	0
316		Mobile crane	1	10	0
317		Compactor (JCB-VMD 120)	0	0	0
318		Compactor (BOMAG-BW75)	1	10	0
319	23 Feb,13	Truck	3	10	0
320		Welding machine	1	10	1
321		4*4 Car	2	10	0
322		Trencher	1	10	0
323		JCB	2	10	0
324		Bobcat	2	10	0
325		Mobile crane	1	10	0
326		Compactor (JCB-VMD 120)	0	0	1
327		Compactor (BOMAG-BW75)	1	10	0
328		Asphalt cutting saw	1	6	0
329	24 Feb,13	Truck	3	10	0
330		Welding machine	0	0	2
331		4*4 Car	2	10	0
332		Trencher	1	10	0
333		JCB	2	10	0
334		Bobcat	2	10	0
335		Mobile crane	1	3	0
336		Compactor (JCB-VMD 120)	1	10	0
337		Compactor (BOMAG-BW75)	0	0	1
338		Asphalt cutting saw	1	6	0
339		Water tank truck	1	10	0
340	25 Feb,13	Truck	3	10	0
341		Welding machine	1	10	1
342		4*4 Car	2	10	0
343		Trencher	1	10	0
344		JCB	2	10	0
345		Bobcat	2	10	0
346		Mobile crane	1	10	0
347		Compactor (JCB-VMD 120)	1	10	0
348		Compactor (BOMAG-BW75)	1	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
349		Asphalt cutting saw	0	0	1
350		Water tank truck	1	10	0
351	28 Feb,13	Truck	3	10	0
352		Welding machine	1	10	1
353		4*4 Car	2	10	0
354		Trencher	1	10	0
355		JCB	2	10	0
356		Bobcat	2	10	0
357		Mobile crane	1	10	0
358		Compactor (JCB-VMD 120)	1	10	0
359		Compactor (BOMAG-BW75)	1	10	0
360		Asphalt cutting saw	0	0	1
361		Water tank truck	1	10	0
362	01 Mar,13	MC Spraying truck	1	3	0
363	02 Mar,13	Truck	3	10	0
364		Welding machine	1	10	1
365		4*4 Car	2	10	0
366		Trencher	1	10	0
367		Wheel roller	1	10	0
368		Bobcat	2	10	0
369		Mobile crane	1	10	0
370		Compactor (JCB-VMD 120)	1	10	0
371		Compactor (BOMAG-BW75)	1	10	0
372		Asphalt cutting saw	0	0	1
373		Water tank truck	1	10	0
374		Wheel excavator	1	4	0
375	03 Mar,13	Truck	3	10	0
376		Welding machine	1	10	1
377		4*4 Car	2	10	0
378		Trencher	1	10	0
379		Wheel roller	1	10	0
380		Bobcat	2	10	0
381		Mobile crane	1	10	0
382		Compactor (JCB-VMD 120)	1	10	0
383		Compactor (BOMAG-BW75)	1	10	0
384		Asphalt cutting saw	1	4	0
385		Water tank truck	1	10	0
386		JCB	2	10	0
387	04 Mar,13	Truck	3	10	0
388		Welding machine	1	10	1
389		4*4 Car	2	10	0
390		Trencher	1	10	0
391		Wheel roller	1	10	0
392		Bobcat	2	10	0
393		Mobile crane	1	10	0
394		Compactor (JCB-VMD 120)	1	10	0
395		Compactor (BOMAG-BW75)	1	10	0
396		Asphalt cutting saw	1	5	0
397		Water tank truck	1	10	0
398		JCB	2	10	0
399		Truck	3	10	0
400		Welding machine	1	10	1
401		4*4 Car	2	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
402	05 Mar,13	Trencher	1	10	0
403		Wheel roller	0	0	1
404		Bobcat	2	10	0
405		Mobile crane	1	10	0
406		Compactor (JCB-VMD 120)	1	10	0
407		Compactor (BOMAG-BW75)	1	10	0
408		Asphalt cutting saw	1	5	0
409		Water tank truck	1	10	0
410		JCB	2	10	0
411	06 Mar,13	Truck	3	10	0
412		Welding machine	1	10	1
413		4*4 Car	2	10	0
414		Trencher	1	10	0
415		Wheel roller	0	0	1
416		Bobcat	2	10	0
417		Mobile crane	1	10	0
418		Compactor (JCB-VMD 120)	1	10	0
419		Compactor (BOMAG-BW75)	1	10	0
420		Asphalt cutting saw	1	5	0
421		Water tank truck	1	10	0
422		JCB	2	10	0
423	07 Mar,13	Truck	3	10	0
424		Welding machine	1	10	1
425		4*4 Car	2	10	0
426		Trencher	1	10	0
427		Wheel roller	0	0	1
428		Bobcat	2	10	0
429		Mobile crane	1	10	0
430		Compactor (JCB-VMD 120)	0	0	1
431		Compactor (BOMAG-BW75)	1	10	0
432		Asphalt cutting saw	0	0	1
433		Water tank truck	1	10	0
434		JCB	2	10	0
435	09 Mar,13	Truck	3	10	0
436		Welding machine	1	10	1
437		4*4 Car	2	10	0
438		Trencher	1	10	0
439		Wheel roller	0	0	1
440		Bobcat	2	10	0
441		Mobile crane	1	10	0
442		Compactor (JCB-VMD 120)	0	0	1
443		Compactor (BOMAG-BW75)	1	10	0
444		Asphalt cutting saw	0	0	1
445		Water tank truck	1	10	0
446		JCB	1	10	0
447	10 Mar,13	Truck	3	10	0
448		Welding machine	1	10	1
449		4*4 Car	2	10	0
450		Trencher	1	10	0
451		Wheel roller	0	0	1
452		Bobcat	2	10	0
453		Mobile crane	1	10	0
454		Compactor (JCB-VMD 120)	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
455		Compactor (BOMAG-BW75)	1	10	0
456		Asphalt cutting saw	1	2	0
457		Water tank truck	1	10	0
458		JCB	1	10	0
459	11 Mar,13	Truck	3	10	0
460		Welding machine	1	10	1
461		4*4 Car	2	10	0
462		Trencher	1	10	0
463		Wheel eoller	0	0	1
464		Bobcat	2	10	0
465		Mobile crane	1	5	0
466		Compactor (JCB-VMD 120)	0	0	1
467		Compactor (BOMAG-BW75)	1	10	0
468		Asphalt cutting saw	1	5	0
469		Water tank truck	1	10	0
470		JCB	2	10	0
471	12 Mar,13	Truck	3	10	0
472		Welding machine	1	10	1
473		4*4 Car	2	10	0
474		Trencher	0	0	1
475		Wheel roller	0	0	1
476		Bobcat	2	10	0
477		Mobile crane	1	10	0
478		Compactor (JCB-VMD 120)	0	0	1
479		Compactor (BOMAG-BW75)	1	10	0
480		Asphalt cutting saw	0	0	2
481		Water tank truck	1	10	0
482		JCB	1	10	0
483	13 Mar,13	Truck	3	10	0
484		Welding machine	1	10	1
485		4*4 Car	2	10	0
486		Trencher	1	10	0
487		Wheel roller	1	10	0
488		Bobcat	2	10	0
489		Mobile crane	1	10	0
490		Compactor (JCB-VMD 120)	1	10	0
491		Compactor (BOMAG-BW75)	1	10	0
492		Asphalt cutting saw	1	2	1
493		Water tank truck	1	10	0
494		JCB	2	10	0
495		Night lighting projectors with generators	2	10	0
496	14 Mar,13	Truck	3	10	0
497		Welding machine	2	10	1
498		4*4 Car	2	10	0
499		Trencher	1	10	0
500		Wheel roller	1	10	0
501		Bobcat	2	10	0
502		Mobile crane	1	10	0
503		Compactor (JCB-VMD 120)	1	10	0
504		Compactor (BOMAG-BW75)	1	10	0
505		Asphalt cutting saw	0	0	2
506		Water tank truck	1	10	0
507		JCB	3	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
508		Night lighting projectors with generators	2	10	0
509	15 Mar,13	Truck	3	10	0
510		Welding machine	2	10	1
511		4*4 Car	2	10	0
512		Trencher	1	10	0
513		Wheel roller	0	0	1
514		Bobcat	2	10	0
515		Mobile crane	1	10	0
516		Compactor (JCB-VMD 120)	0	0	1
517		Compactor (BOMAG-BW75)	1	10	0
518		Asphalt cutting saw	0	0	2
519		Water tank truck	1	10	0
520		JCB	2	10	0
521		Night lighting projectors with generators	2	10	0
522	16 Mar,13	Truck	3	10	0
523		Welding machine	2	10	1
524		4*4 Car	2	10	0
525		Trencher	1	10	0
526		Wheel roller	0	0	1
527		Bobcat	2	10	0
528		Mobile crane	1	10	0
529		Compactor (JCB-VMD 120)	0	0	1
530		Compactor (BOMAG-BW75)	1	10	0
531		Asphalt cutting saw	1	3	1
532		Water tank truck	1	10	0
533		JCB	2	10	0
534		Night lighting projectors with generators	2	10	0
535		Road steel roller compactor	1	10	0
536		Road grader	1	10	0
537	17 Mar,13	Welding machine	1	8	2
538		4*4 Car	1	10	0
539		Trencher	0	0	1
540		Wheel roller	0	0	1
541		Bobcat	0	0	2
542		Mobile crane	0	0	1
543		Compactor (JCB-VMD 120)	0	0	1
544		Compactor (BOMAG-BW75)	0	0	1
545		Asphalt cutting saw	0	0	1
546		Water tank truck	0	0	1
547		JCB	1	1	1
548		Night lighting projectors with generators	0	0	2
549	18 Mar,13	Dumping truck	3	10	0
550		Welding machine	2	10	1
551		4*4 Car	2	10	0
552		Trencher	1	10	0
553		Trailer	1	4	0
554		Bobcat	2	10	0
555		Mobile crane	1	10	0
556		Compactor (JCB-VMD 120)	0	0	1
557		Compactor (BOMAG-BW75)	1	10	0
558		Asphalt cutting saw	0	0	1
559		Water tank truck	1	10	0
560		JCB	2	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
561		Night lighting projectors with generators	2	10	0
562		Mobile crane	1	4	0
563	19 Mar,13	Dumping truck	3	10	0
564		Welding machine	2	10	1
565		4*4 Car	2	10	0
566		Trencher	1	10	0
567		Bobcat	2	10	0
568		Mobile crane	1	10	0
569		Compactor (JCB-VMD 120)	0	0	1
570		Compactor (BOMAG-BW75)	1	10	0
571		Asphalt cutting saw	0	0	1
572		Water tank truck	1	10	0
573		JCB	2	10	0
574		Night lighting projectors with generators	2	10	0
575	20 Mar,13	Dumping truck	3	10	0
576		Welding machine	2	10	1
577		4*4 Car	2	10	0
578		Trencher	1	10	0
579		Bobcat	2	10	0
580		Mobile crane	1	10	0
581		Compactor (JCB-VMD 120)	0	0	1
582		Compactor (BOMAG-BW75)	2	10	0
583		Asphalt cutting saw	0	0	1
584		Water tank truck	1	10	0
585		JCB	3	10	0
586		Night lighting projectors with generators	2	10	0
587	21 Mar,13	Dumping truck	0	0	0
588		Welding machine	0	0	3
589		4*4 Car	0	0	0
590		Trencher	0	0	1
591		Bobcat	0	0	2
592		Mobile crane	0	0	1
593		Compactor (JCB-VMD 120)	0	0	1
594		Compactor (BOMAG-BW75)	0	0	2
595		Asphalt cutting saw	0	0	1
596		Water tank truck	0	0	1
597		JCB	0	0	2
598		Night lighting projectors with generators	0	0	2
599	23 Mar,13	Dumping truck	3	10	0
600		Welding machine	1	10	2
601		4*4 Car	2	10	0
602		Trencher	1	10	0
603		Bobcat	2	10	0
604		Mobile crane	1	10	0
605		Compactor (JCB-VMD 120)	0	0	0
606		Compactor (BOMAG-BW75)	2	10	0
607		Asphalt cutting saw	0	0	1
608		Water tank truck	1	10	0
609		JCB	2	10	0
610		Night lighting projectors with generators	0	0	2
611		Trailer	1	4	0
612		Mobile crane	1	4	0
613		Dumping truck	3	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
614	24 Mar,13	Welding machine	0	0	3
615		4*4 Car	2	10	0
616		Trencher	1	10	0
617		Bobcat	2	10	0
618		Mobile crane	0	0	1
619		Compactor (JCB-VMD 120)	0	0	0
620		Compactor (BOMAG-BW75)	0	0	2
621		Asphalt cutting saw	1	5	0
622		Water tank truck	1	10	0
623		JCB	3	10	0
624		Night lighting projectors with generators	0	0	2
625		Mobile crane	1	4	0
626	25 Mar,13	Dumping truck	3	10	0
627		Welding machine	0	0	3
628		4*4 Car	2	10	0
629		Trencher	1	10	0
630		Bobcat	2	10	0
631		Mobile crane	0	0	1
632		Compactor (JCB-VMD 120)	1	10	0
633		Compactor (BOMAG-BW75)	0	0	1
634		Asphalt cutting saw	1	5	0
635		Water tank truck	1	10	0
636		JCB	2	10	0
637		Night lighting projectors with generators	0	0	2
638		Mobile crane	0	0	1
639	26 Mar,13	Dumping truck	3	10	0
640		Welding machine	1	10	2
641		4*4 Car	2	10	0
642		Trencher	1	10	0
643		Bobcat	2	10	0
644		Mobile crane	1	10	0
645		Compactor (JCB-VMD 120)	1	10	0
646		Compactor (BOMAG-BW75)	1	10	1
647		Asphalt cutting saw	1	2	0
648		Water tank truck	1	10	0
649		JCB	2	10	0
650		Night lighting projectors with generators	0	0	2
651	27 Mar,13	Dumping truck	3	10	0
652		Welding machine	0	0	3
653		4*4 Car	2	10	0
654		Trencher	1	10	0
655		Bobcat	2	10	0
656		Mobile crane	0	0	1
657		Compactor (JCB-VMD 120)	1	10	0
658		Compactor (BOMAG-BW75)	0	0	2
659		Asphalt cutting saw	0	0	2
660		Water tank truck	1	10	0
661		JCB	2	10	0
662		Night lighting projectors with generators	0	0	2
663		Wheel roller	1	10	0
664		Dumping truck	2	10	0
665		Welding machine	1	10	2
666		4*4 Car	2	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
667	28 Mar,13	Trencher	1	10	0
668		Bobcat	2	10	0
669		Mobile crane	1	10	0
670		Compactor (JCB-VMD 120)	1	10	0
671		Compactor (BOMAG-BW75)	1	10	1
672		Asphalt cutting saw	1	5	1
673		Water tank truck	1	10	0
674		JCB	3	10	0
675		Night lighting projectors with generators	0	0	2
676	30 Mar,13	Dumping truck	2	10	0
677		Welding machine	0	0	3
678		4*4 Car	2	10	0
679		Trencher	1	10	0
680		Bobcat	1	3	1
681		Mobile crane	1	4	0
682		Compactor (JCB-VMD 120)	1	10	0
683		Compactor (BOMAG-BW75)	0	0	1
684		Asphalt cutting saw	0	0	2
685		Water tank truck	1	10	0
686		JCB	1	10	0
687		Night lighting projectors with generators	0	0	2
688		Trailer	1	4	0
689		Wheel roller	1	10	0
690		Crawler excavator (Doosan DX 340 LG)	1	10	0
691	31 Mar,13	Dumping truck	2	10	0
692		Welding machine	0	0	3
693		4*4 Car	2	10	0
694		Trencher	0	0	1
695		Bobcat	2	10	0
696		Mobile crane	1	7	0
697		Compactor (JCB-VMD 120)	2	10	0
698		Compactor (BOMAG-BW75)	0	0	1
699		Asphalt cutting saw	1	5	1
700		Water tank truck	1	10	0
701		JCB	1	10	0
702		Night lighting projectors with generators	0	0	2
703		Trailer	1	7	0
704		Wheel roller	0	0	0
705		Crawler excavator (Doosan DX 340 LG)	1	10	0
706	01 Apr,13	Dumping truck	2	10	0
707		Welding machine	1	10	2
708		4*4 Car	2	10	0
709		Trencher	0	0	1
710		Bobcat	2	10	0
711		Mobile crane	1	10	0
712		Compactor (JCB-VMD 120)	0	0	1
713		Compactor (BOMAG-BW75)	2	10	0
714		Asphalt cutting saw	0	0	1
715		Water tank truck	1	10	0
716		JCB	2	10	0
717		Night lighting projectors with generators	0	0	2
718		Crawler excavator (Doosan DX 340 LG)	1	10	0
719		Dumping truck	2	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
720	02 Apr,13	Welding machine	1	10	2
721		4*4 Car	2	10	0
722		Trencher	0	0	1
723		Bobcat	2	10	0
724		Mobile crane	1	10	0
725		Compactor (JCB-VMD 120)	0	0	1
726		Compactor (BOMAG-BW75)	2	10	0
727		Asphalt cutting saw	1	5	0
728		Water tank truck	1	10	0
729		JCB	3	10	0
730		Crawler excavator (Doosan DX 340 LG)	1	10	0
731		Night lighting projectors with generators	0	0	2
732		Mobile crane	1	6	0
733		Trailer	1	6	0
734	03 Apr,13	Dumping truck	2	10	0
735		Welding machine	1	10	2
736		4*4 Car	2	10	0
737		Trencher	1	10	0
738		Bobcat	2	10	0
739		Mobile crane	1	10	0
740		Compactor (JCB-VMD 120)	1	10	0
741		Compactor (BOMAG-BW75)	1	10	0
742		Asphalt cutting saw	1	5	0
743		Water tank truck	2	10	0
744		JCB	2	10	0
745		Crawler excavator (CAT 330 B)	1	10	0
746		Wheel roller	1	10	0
747	04 Apr,13	Dumping truck	2	10	0
748		Welding machine	1	10	2
749		4*4 Car	2	10	0
750		Trencher	0	0	1
751		Bobcat	1	10	1
752		Mobile crane	1	10	0
753		Compactor (JCB-VMD 120)	0	0	1
754		Compactor (BOMAG-BW75)	0	0	1
755		Asphalt cutting saw	1	2	0
756		Water tank truck	1	10	0
757		JCB	2	10	0
758		Crawler excavator (CAT 330 B)	1	10	0
759		Wheel roller	0	0	1
760	06 Apr,13	Dumping truck	2	10	0
761		Welding machine	1	10	2
762		4*4 Car	2	10	0
763		Trencher	1	10	0
764		Bobcat	2	10	0
765		Mobile crane	1	10	0
766		Compactor (JCB-VMD 120)	1	10	0
767		Compactor (BOMAG-BW75)	1	10	0
768		Asphalt cutting saw	0	0	1
769		Water tank truck	1	10	0
770		JCB	2	10	0
771		Crawler excavator (CAT 330 B)	1	10	0
772		Wheel roller	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
773	07 Apr,13	Dumping truck	2	10	0
774		Welding machine	1	10	2
775		4*4 Car	2	10	0
776		Trencher	1	10	0
777		Bobcat	2	10	0
778		Mobile crane	1	10	0
779		Compactor (JCB-VMD 120)	0	0	1
780		Compactor (BOMAG-BW75)	1	10	0
781		Asphalt cutting saw	0	0	1
782		Water tank truck	1	10	0
783		JCB	2	10	0
784		Crawler excavator (CAT 330 B)	1	10	0
785		Wheel roller	0	0	1
786	08 Apr,13	Dumping truck	2	10	0
787		Welding machine	1	10	2
788		4*4 Car	2	10	0
789		Trencher	1	10	0
790		Bobcat	2	10	0
791		Mobile crane	1	10	0
792		Compactor (JCB-VMD 120)	1	8	0
793		Compactor (BOMAG-BW75)	1	10	0
794		Asphalt cutting saw	0	0	1
795		Water tank truck	1	10	0
796		JCB	2	10	0
797		Crawler excavator (CAT 330 B)	1	10	0
798		Wheel roller	1	8	0
799	09 Apr,13	Dumping truck	2	10	0
800		Welding machine	1	10	2
801		4*4 Car	2	10	0
802		Trencher	1	10	0
803		Bobcat	2	10	0
804		Mobile crane	1	10	0
805		Compactor (JCB-VMD 120)	0	0	1
806		Compactor (BOMAG-BW75)	1	10	0
807		Asphalt cutting saw	0	0	1
808		Water tank truck	1	10	0
809		JCB	2	10	0
810		Crawler excavator (CAT 330 B)	1	10	0
811		Wheel roller	0	0	1
812	10 Apr,13	Dumping truck	2	10	0
813		Welding machine	1	10	2
814		4*4 Car	2	10	0
815		Trencher	1	10	0
816		Bobcat	2	10	0
817		Mobile crane	1	10	0
818		Compactor (JCB-VMD 120)	0	0	1
819		Compactor (BOMAG-BW75)	1	10	0
820		Asphalt cutting saw	0	0	1
821		Water tank truck	1	10	0
822		JCB	2	10	0
823		Crawler excavator (CAT 330 B)	1	10	0
824		Wheel roller	0	0	1
825		Dumping truck	2	6	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
826	11 Apr,13	Welding machine	1	10	2
827		4*4 Car	2	10	0
828		Trencher	1	6	0
829		Bobcat	2	10	0
830		Mobile crane	1	10	0
831		Compactor (JCB-VMD 120)	0	0	1
832		Compactor (BOMAG-BW75)	1	10	0
833		Asphalt cutting saw	0	0	1
834		Water tank truck	1	10	0
835		JCB	2	10	0
836		Crawler excavator (CAT 330 B)	1	10	0
837		Wheel roller	0	0	1
838	13 Apr,13	Dumping truck	2	10	0
839		Welding machine	1	10	2
840		4*4 Car	2	10	0
841		Trencher	0	0	0
842		Bobcat	2	10	0
843		Mobile crane	1	10	0
844		Compactor (JCB-VMD 120)	1	10	0
845		Compactor (BOMAG-BW75)	1	10	0
846		Asphalt cutting saw	2	6	0
847		Water tank truck	1	10	0
848		JCB	2	10	0
849		Crawler excavator (Daewoo 420 B)	1	10	0
850	14 Apr,13	Dumping truck	2	10	0
851		Welding machine	0	0	3
852		4*4 Car	2	10	0
853		Trencher	0	0	0
854		Bobcat	2	10	0
855		Mobile crane	1	7	0
856		Compactor (JCB-VMD 120)	1	10	0
857		Compactor (BOMAG-BW75)	1	10	0
858		Asphalt cutting saw	2	6	0
859		Water tank truck	1	10	0
860		JCB	3	10	0
861		Crawler excavator (CAT 380)	1	5	0
862		Wheel excavator	1	10	0
863	15 Apr,13	Dumping truck	2	10	0
864		Welding machine	1	10	2
865		4*4 Car	2	10	0
866		Trencher	1	10	0
867		Bobcat	2	10	0
868		Mobile crane	1	10	0
869		Compactor (JCB-VMD 120)	1	10	0
870		Compactor (BOMAG-BW75)	1	10	0
871		Asphalt cutting saw	1	2	1
872		Water tank truck	1	10	0
873		JCB	3	10	0
874		Trailer	1	5	0
875		Wheel excavator (Doosan 210W)	1	8	0
876		Wheel roller	1	10	0
877		Mobile crane	1	7	0
878		Dumping truck	2	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
879	16 Apr,13	Welding machine	1	10	2
880		4*4 Car	3	10	0
881		Trencher	1	10	0
882		Bobcat	2	10	0
883		Mobile crane	1	10	0
884		Compactor (JCB-VMD 120)	1	10	0
885		Compactor (BOMAG-BW75)	1	10	0
886		Asphalt cutting saw	1	2	1
887		Water tank truck	1	10	0
888		JCB	3	10	0
889		Trailer	1	5	0
890		Wheel excavator (Doosan 210W)	1	5	0
891		Wheel roller	0	0	1
892		Mobile crane	1	5	0
893	17 Apr,13	Dumping truck	1	10	0
894		Welding machine	1	5	2
895		4*4 Car	2	10	0
896		Trencher	0	0	1
897		Bobcat	1	10	1
898		Mobile crane	1	5	0
899		Compactor (JCB-VMD 120)	1	10	0
900		Compactor (BOMAG-BW75)	1	10	0
901		Asphalt cutting saw	1	5	1
902		Water tank truck	1	10	0
903		JCB	3	10	0
904		Wheel excavator (Doosan 210W)	0	0	1
905		Wheel roller	0	0	1
906	18 Apr,13	Dumping truck	3	10	0
907		Welding machine	1	10	2
908		4*4 Car	2	10	0
909		Trencher	1	10	0
910		Bobcat	2	10	0
911		Mobile crane	1	10	0
912		Compactor (JCB-VMD 120)	1	10	0
913		Compactor (BOMAG-BW75)	1	10	0
914		Asphalt cutting saw	1	5	1
915		Water tank truck	1	10	0
916		JCB	3	10	0
917		Wheel excavator (Doosan 210W)	0	0	1
918		Wheel roller	0	0	1
919	20 Apr,13	Dumping truck	3	10	0
920		Welding machine	1	10	2
921		4*4 Car	2	10	0
922		Trencher	0	0	1
923		Bobcat	2	10	0
924		Mobile crane	1	10	0
925		Compactor (JCB-VMD 120)	1	10	0
926		Compactor (BOMAG-BW75)	1	10	0
927		Asphalt cutting saw	1	3	1
928		Water tank truck	1	10	0
929		JCB	3	10	0
930		Wheel excavator (Doosan 210W)	0	0	1
931		Wheel roller	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
932	21 Apr,13	Dumping truck	1	8	0
933		Welding machine	0	0	3
934		4*4 Car	2	8	0
935		Trencher	0	0	1
936		Bobcat	0	0	2
937		Mobile crane	2	3	1
938		Compactor (JCB-VMD 120)	0	0	1
939		Compactor (BOMAG-BW75)	0	0	1
940		Asphalt cutting saw	0	0	2
941		Water tank truck	0	0	0
942		JCB	1	8	2
943		Wheel excavator (Doosan 210W)	1	6	0
944		Wheel roller	0	0	1
945	22 Apr,13	Dumping truck	3	10	0
946		Welding machine	1	10	2
947		4*4 Car	2	10	0
948		Trencher	1	10	0
949		Bobcat	2	10	0
950		Mobile crane	1	10	0
951		Compactor (JCB-VMD 120)	1	10	0
952		Compactor (BOMAG-BW75)	1	10	0
953		Asphalt cutting saw	0	0	2
954		Water tank truck	1	10	0
955		JCB	3	10	0
956		Wheel excavator (Doosan 210W)	1	10	0
957		Wheel roller	0	0	1
958	23 Apr,13	Dumping truck	3	10	0
959		Welding machine	1	10	2
960		4*4 Car	2	10	0
961		Trencher	1	10	0
962		Bobcat	2	10	0
963		Mobile crane	1	10	0
964		Compactor (JCB-VMD 120)	1	10	0
965		Compactor (BOMAG-BW75)	1	10	0
966		Asphalt cutting saw	0	0	2
967		Water tank truck	1	10	0
968		JCB	3	10	0
969		Wheel excavator (Doosan 210W)	1	10	0
970		Wheel roller	0	0	1
971	24 Apr,13	Dumping truck	3	10	0
972		Welding machine	1	10	2
973		4*4 Car	2	10	0
974		Trencher	1	10	0
975		Bobcat	2	10	0
976		Mobile crane	1	10	0
977		Compactor (JCB-VMD 120)	1	10	0
978		Compactor (BOMAG-BW75)	1	10	0
979		Asphalt cutting saw	0	0	2
980		Water tank truck	1	10	0
981		JCB	4	10	0
982		Wheel excavator (Doosan 210W)	1	10	0
983		Wheel roller	1	10	0
984		Mobile crane	2	5	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
985	25 Apr,13	Dumping truck	3	10	0
986		Welding machine	1	10	2
987		4*4 Car	2	10	0
988		Trencher	1	10	0
989		Bobcat	2	10	0
990		Mobile crane	1	10	0
991		Compactor (JCB-VMD 120)	0	0	1
992		Compactor (BOMAG-BW75)	1	10	0
993		Asphalt cutting saw	0	0	2
994		Water tank truck	1	10	0
995		JCB	2	10	0
996		Wheel excavator (Doosan 210W)	0	0	1
997		Wheel roller	0	0	1
998	27 Apr,13	Dumping truck	3	8	0
999		Welding machine	1	8	2
1000		4*4 Car	2	8	0
1001		Trencher	1	8	0
1002		Bobcat	1	8	1
1003		Mobile crane	0	0	1
1004		Compactor (JCB-VMD 120)	0	0	1
1005		Compactor (BOMAG-BW75)	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1006		Asphalt cutting saw	0	0	2
1007		Water tank truck	1	8	0
1008		JCB	1	8	1
1009		Wheel excavator (Doosan 210W)	1	2	0
1010		Wheel roller	0	0	1
1011		Dumping truck	3	8	0
1012		Welding machine	1	8	2
1013		4*4 Car	2	8	0
1014		Trencher	0	0	1
1015		Bobcat	1	8	1
1016		Mobile crane	1	8	0
1017	28 Apr,13	Compactor (JCB-VMD 120)	0	0	1
1018		Compactor (BOMAG-BW75)	1	8	0
1019		Asphalt cutting saw	0	0	2
1020		Water tank truck	1	8	0
1021		JCB	1	8	1
1022		Wheel excavator (Doosan 210W)	0	0	1
1023		Wheel roller	0	0	1
1024		Dumping truck	3	10	0
1025		Welding machine	1	10	2
1026		4*4 Car	2	10	0
1027		Trencher	1	10	0
1028		Bobcat	2	10	0
1029		Mobile crane	1	10	0
1030	29 Apr,13	Compactor (JCB-VMD 120)	0	0	1
1031		Compactor (BOMAG-BW75)	1	10	0
1032		Asphalt cutting saw	0	0	2
1033		Water tank truck	1	10	0
1034		JCB	2	10	0
1035		Wheel excavator (Doosan 210W)	0	0	1
1036		Wheel roller	0	0	1
1037		Dumping truck	3	10	0
1038		Welding machine	1	5	2
1039		4*4 Car	2	10	0
1040		Trencher	1	10	0
1041		Bobcat	2	10	0
1042		Mobile crane	1	5	0
1043	30 Apr,13	Compactor (JCB-VMD 120)	1	10	0
1044		Compactor (BOMAG-BW75)	0	0	1
1045		Asphalt cutting saw	0	0	2
1046		Water tank truck	1	10	0
1047		JCB	2	10	1
1048		Wheel excavator (Doosan 210W)	0	0	1
1049		Wheel roller	1	10	0
1050		Dumping truck	3	10	0
1051		Welding machine	1	10	2
1052		4*4 Car	2	10	0
1053		Trencher	1	10	0
1054		Bobcat	2	10	0
1055		Mobile crane	1	10	0
1056	01 May,13	Compactor (JCB-VMD 120)	1	10	0
1057		Compactor (BOMAG-BW75)	1	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1058		Asphalt cutting saw	1	5	1
1059		Water tank truck	1	10	0
1060		JCB	3	10	0
1061		Wheel excavator (Doosan 210W)	0	0	1
1062		Wheel roller	0	0	1
1063		Dumping truck	3	10	0
1064		Welding machine	1	8	2
1065		4*4 Car	2	10	0
1066		Trencher	1	8	0
1067		Bobcat	1	8	1
1068		Mobile crane	1	8	0
1069	02 May,13	Compactor (JCB-VMD 120)	1	8	0
1070		Compactor (BOMAG-BW75)	0	0	1
1071		Asphalt cutting saw	1	5	1
1072		Water tank truck	1	10	0
1073		JCB	2	8	1
1074		Wheel excavator (Doosan 210W)	0	0	1
1075		Wheel roller	1	8	0
1076		Dumping truck	3	10	0
1077		Welding machine	1	6	2
1078		4*4 Car	2	10	0
1079		Trencher	1	10	0
1080		Bobcat	1	10	1
1081		Mobile crane	1	6	0
1082	04 May,13	Compactor (JCB-VMD 120)	1	10	0
1083		Compactor (BOMAG-BW75)	1	10	0
1084		Asphalt cutting saw	1	5	1
1085		Water tank truck	1	10	0
1086		JCB	2	10	1
1087		Wheel excavator (Doosan 210W)	0	0	1
1088		Wheel roller	0	0	1
1089		Dumping truck	3	10	0
1090		Welding machine	1	8	2
1091		4*4 Car	2	10	0
1092		Trencher	1	10	0
1093		Bobcat	1	10	1
1094		Mobile crane	1	8	0
1095	05 May,13	Compactor (JCB-VMD 120)	0	0	1
1096		Compactor (BOMAG-BW75)	1	10	0
1097		Asphalt cutting saw	0	0	2
1098		Water tank truck	1	10	0
1099		JCB	2	10	1
1100		Wheel excavator (Doosan 210W)	0	0	1
1101		Wheel roller	0	0	1
1102		Dumping truck	3	10	0
1103		Welding machine	1	10	2
1104		4*4 Car	2	10	0
1105		Trencher	1	10	0
1106		Bobcat	1	10	1
1107		Mobile crane	1	10	0
1108	06 May,13	Compactor (JCB-VMD 120)	0	0	1
1109		Compactor (BOMAG-BW75)	1	10	0
1110		Asphalt cutting saw	0	0	2

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1111		Water tank truck	1	10	0
1112		JCB	2	10	0
1113		Wheel excavator (Doosan 210W)	0	0	1
1114		Wheel roller	0	0	1
1115	07 May,13	Dumping truck	3	10	0
1116		Welding machine	1	10	2
1117		4*4 Car	2	10	0
1118		Trencher	1	10	0
1119		Bobcat	2	10	0
1120		Mobile crane	1	10	0
1121		Compactor (JCB-VMD 120)	0	0	1
1122		Compactor (BOMAG-BW75)	1	10	0
1123		Asphalt cutting saw	0	0	2
1124		Water tank truck	1	10	0
1125		JCB	2	10	1
1126		Wheel excavator (Doosan 210W)	0	0	1
1127		Wheel roller	0	0	1
1128	08 May,13	Dumping truck	3	10	0
1129		Welding machine	1	10	2
1130		4*4 Car	2	10	0
1131		Trencher	1	10	0
1132		Bobcat	2	10	0
1133		Mobile crane	1	10	0
1134		Compactor (JCB-VMD 120)	1	10	0
1135		Compactor (BOMAG-BW75)	1	10	0
1136		Asphalt cutting saw	1	5	1
1137		Water tank truck	1	10	0
1138		JCB	2	10	1
1139		Wheel roller	0	0	1
1140	09 May,13	Dumping truck	3	10	0
1141		Welding machine	1	10	2
1142		4*4 Car	2	10	0
1143		Trencher	1	10	0
1144		Bobcat	2	10	0
1145		Mobile crane	1	10	0
1146		Compactor (JCB-VMD 120)	1	10	0
1147		Compactor (BOMAG-BW75)	1	10	0
1148		Asphalt cutting saw	1	5	1
1149		Water tank truck	1	10	0
1150		JCB	2	10	1
1151		Wheel roller	1	10	0
1152	11 May,13	Dumping truck	3	10	0
1153		Welding machine	1	10	2
1154		4*4 Car	2	10	0
1155		Trencher	1	10	0
1156		Bobcat	2	10	0
1157		Mobile crane	1	10	0
1158		Compactor (JCB-VMD 120)	1	10	0
1159		Compactor (BOMAG-BW75)	1	10	0
1160		Asphalt cutting saw	1	2	1
1161		Water tank truck	1	10	0
1162		JCB	2	10	1
1163		Welding machine	1	10	2

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1164	12 May,13	Trencher	1	10	0
1165		4*4 car	2	10	0
1166		Dumping truck	3	10	0
1167		Compactor (BOMAG-BW75)	1	10	0
1168		Water tank truck	1	10	0
1169		JCB	2	10	0
1170		Bobcat	0	0	1
1171		Mobile crane	1	10	0
1172		Compactor cutting saw	1	2	1
1173		Asphalt cutting saw	1	2	1
1174		Wheel roller	0	0	1
1175		Wheel excavator	1	10	0
1176	13 May,13	Welding machine	1	10	2
1177		Trencher	1	10	0
1178		4*4 Car	2	10	0
1179		Dumping truck	3	10	0
1180		Compactor (BOMAG-BW75)	1	10	0
1181		Water tank truck	1	10	0
1182		JCB	3	10	0
1183		Bobcat	2	10	0
1184		Mobile crane	1	10	0
1185		Compactor (JCB-VMD 120)	1	10	0
1186		Asphalt cutting saw	1	2	1
1187		Wheel roller	0	0	1
1188		Wheel excavator	1	10	0
1189	14 May,13	Welding machine	1	10	2
1190		Trencher	1	8	0
1191		4*4 Car	5	10	0
1192		Dumping truck	3	10	0
1193		Compactor (BOMAG-BW75)	1	10	0
1194		Water tank truck	1	10	0
1195		JCB	3	10	0
1196		Bobcat	2	10	0
1197		Mobile crane	1	10	0
1198		Compactor (JCB-VMD 120)	1	10	0
1199		Asphalt cutting saw	1	2	1
1200		Wheel roller	0	0	1
1201		Wheel excavator	0	0	1
1202	15 May,13	Welding machine	1	10	2
1203		Trencher	0	0	1
1204		4*4 Car	3	10	0
1205		Dumping truck	3	10	0
1206		Compactor (BOMAG-BW75)	1	10	0
1207		Water tank truck	0	0	1
1208		JCB	2	10	2
1209		Bobcat	2	10	0
1210		Mobile crane	1	10	0
1211		Compactor (JCB-VMD 120)	0	0	1
1212		Asphalt cutting saw	0	0	1
1213		Wheel roller	0	0	1
1214		Wheel excavator	0	0	1
1215		Welding machine	1	10	2
1216		Trencher	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1217	16 May,13	4*4 Car	5	10	0
1218		Dumping truck	3	10	0
1219		Compactor (BOMAG-BW75)	1	10	0
1220		Water tank truck	1	10	0
1221		JCB	3	10	0
1222		Bobcat	2	10	0
1223		Mobile crane	1	10	0
1224		Compactor (JCB-VMD 120)	1	10	0
1225		Asphalt cutting saw	1	2	1
1226		Wheel roller	0	0	1
1227		Wheel excavator	0	0	1
1228	18 May,13	Welding machine	1	10	2
1229		Trencher	1	10	0
1230		4*4 Car	5	10	0
1231		Dumping truck	3	10	0
1232		Compactor (BOMAG-BW75)	1	10	0
1233		Water tank truck	1	10	0
1234		JCB	3	10	0
1235		Bobcat	2	10	0
1236		Mobile crane	1	10	0
1237		Compactor (JCB-VMD 120)	0	0	1
1238		Asphalt cutting saw	0	0	1
1239		Wheel roller	0	0	1
1240		Wheel excavator	0	0	1
1241	19 May,13	Welding machine	1	10	2
1242		Trencher	1	10	0
1243		4*4 Car	5	10	0
1244		Dumping truck	3	10	0
1245		Compactor (BOMAG-BW75)	1	10	0
1246		Water tank truck	1	10	0
1247		JCB	3	10	0
1248		Bobcat	2	10	0
1249		Mobile crane	1	10	0
1250		Compactor (JCB-VMD 120)	1	10	0
1251		Asphalt cutting saw	0	0	1
1252		Wheel roller	0	0	1
1253		Wheel excavator	1	10	0
1254	20 May,13	Welding machine	1	10	2
1255		Trencher	1	10	0
1256		4*4 Car	5	10	0
1257		Dumping truck	3	10	0
1258		Compactor (BOMAG-BW75)	1	10	0
1259		Water tank truck	1	10	0
1260		JCB	3	10	0
1261		Bobcat	2	10	0
1262		Mobile crane	1	10	0
1263		Compactor (JCB-VMD 120)	1	10	0
1264		Asphalt cutting saw	0	0	1
1265		Wheel roller	1	10	0
1266		Welding machine	1	10	2
1267		Trencher	1	10	0
1268		4*4 Car	5	10	0
1269		Dumping truck	3	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1270	21 May,13	Compactor (BOMAG-BW75)	1	10	0
1271		Water tank truck	1	10	0
1272		JCB	3	10	0
1273		Bobcat	2	10	0
1274		Mobile crane	1	10	0
1275		Compactor (JCB-VMD 120)	1	10	0
1276		Asphalt cutting saw	0	0	1
1277		Wheel roller	0	0	1
1278	22 May,13	Welding machine	1	10	2
1279		Trencher	1	10	0
1280		4*4 Car	5	10	0
1281		Dumping truck	3	10	0
1282		Compactor (BOMAG-BW75)	1	10	0
1283		Water tank truck	1	10	0
1284		JCB	3	10	0
1285		Bobcat	2	10	0
1286		Mobile crane	1	10	0
1287		Compactor (JCB-VMD 120)	1	10	0
1288		Asphalt cutting saw	1	2	0
1289		Wheel roller	0	0	1
1290	23 May,13	Welding machine	1	10	2
1291		Trencher	1	10	0
1292		4*4 Car	5	10	0
1293		Dumping truck	3	10	0
1294		Compactor (BOMAG-BW75)	1	10	0
1295		Water tank truck	1	10	0
1296		JCB	3	10	0
1297		Bobcat	2	10	0
1298		Mobile crane	1	10	0
1299		Compactor (JCB-VMD 120)	1	10	0
1300		Asphalt cutting saw	1	2	0
1301		Wheel roller	0	0	1
1302	25 May,13	Welding machine	1	10	2
1303		Trencher	1	10	0
1304		4*4 Car	5	10	0
1305		Dumping truck	3	10	0
1306		Compactor (BOMAG-BW75)	1	10	0
1307		Water tank truck	1	10	0
1308		JCB	3	10	0
1309		Bobcat	2	10	0
1310		Mobile crane	1	10	0
1311		Compactor (JCB-VMD 120)	1	10	0
1312		Asphalt cutting saw	1	2	0
1313		Wheel roller	1	10	0
1314	26 May,13	Welding machine	1	10	2
1315		Trencher	1	10	0
1316		4*4 Car	5	10	0
1317		Dumping truck	3	10	0
1318		Compactor (BOMAG-BW75)	1	10	0
1319		Water tank truck	1	10	0
1320		JCB	3	10	0
1321		Bobcat	2	10	0
1322		Mobile crane	1	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1323		Compactor (JCB-VMD 120)	1	10	0
1324		Asphalt cutting saw	1	2	0
1325		Wheel roller	0	0	1
1326	27 May,13	Welding machine	1	10	2
1327		Trencher	1	10	0
1328		4*4 Car	3	10	0
1329		Dumping truck	3	10	0
1330		Compactor (BOMAG-BW75)	1	10	0
1331		Water tank truck	1	10	0
1332		JCB	2	10	1
1333		Bobcat	2	10	0
1334		Mobile crane	1	10	0
1335		Compactor (JCB-VMD 120)	1	10	0
1336		Asphalt cutting saw	0	0	1
1337		Wheel roller	0	0	1
1338		Wheel excavator	1	10	0
1339	28 May,13	Welding machine	1	10	2
1340		Trencher	1	10	0
1341		4*4 Car	3	10	0
1342		Dumping truck	3	10	0
1343		Compactor (BOMAG-BW75)	1	10	0
1344		Water tank truck	1	10	0
1345		JCB	2	10	1
1346		Bobcat	2	10	0
1347		Mobile crane	1	10	0
1348		Compactor (JCB-VMD 120)	1	10	0
1349		Asphalt cutting saw	0	0	1
1350		Wheel roller	0	0	1
1351		Wheel excavator	1	10	0
1352	29 May,13	Welding machine	1	10	2
1353		Trencher	1	10	0
1354		4*4 Car	3	10	0
1355		Dumping truck	3	10	0
1356		Compactor (BOMAG-BW75)	1	10	0
1357		Water tank truck	1	10	0
1358		JCB	2	10	1
1359		Bobcat	2	10	0
1360		Mobile crane	1	10	0
1361		Compactor (JCB-VMD 120)	1	10	0
1362		Asphalt cutting saw	0	0	1
1363		Wheel roller	1	10	0
1364		Chain excavator -420	1	10	0
1365	31 May,13	Mobile crane	1	10	2
1366		Trencher	0	0	1
1367		4*4 Car	3	10	0
1368		Dumping truck	3	10	0
1369		Compactor (BOMAG-BW75)	1	10	0
1370		Water tank truck	1	10	0
1371		JCB	2	10	1
1372		Bobcat	2	10	0
1373		Mobile crane	1	10	0
1374		Compactor (JCB-VMD 120)	1	10	0
1375		Asphalt cutting saw	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1376		Wheel roller	1	10	0
1377		Chain excavator -420	1	10	0
1378	01 Jun,13	Welding machine	0	0	3
1379		Trencher	0	0	1
1380		4*4 Car	3	10	0
1381		Dumping truck	0	0	3
1382		Compactor (BOMAG-BW75)	0	0	1
1383		Water tank truck	1	10	0
1384		JCB	1	10	1
1385		Bobcat	1	10	1
1386		Mobile crane	0	0	1
1387		Compactor (JCB-VMD 120)	1	10	0
1388		Asphalt cutting saw	1	2	1
1389		Wheel roller	1	10	0
1390		Chain excavator - 420	0	0	1
1391	02 Jun,13	Welding machine	0	0	3
1392		Trencher	0	0	1
1393		4*4 Car	3	10	0
1394		Dumping truck	3	10	0
1395		Compactor (BOMAG-BW75)	0	0	1
1396		Water tank truck	1	10	0
1397		JCB	2	10	1
1398		Bobcat	2	10	0
1399		Mobile crane	0	0	1
1400		Compactor (JCB-VMD 120)	1	10	0
1401		Asphalt cutting saw	1	2	1
1402		Wheel roller	1	10	0
1403		Chain excavator - 420	1	10	0
1404	03 Jun,13	Welding machine	1	10	2
1405		Trencher	1	2	0
1406		4*4 Car	3	10	0
1407		Dumping truck	3	10	0
1408		Compactor (BOMAG-BW75)	1	10	0
1409		Water tank truck	1	10	0
1410		JCB	2	10	1
1411		Bobcat	2	10	0
1412		Mobile crane	0	0	1
1413		Compactor (JCB-VMD 120)	0	0	1
1414		Asphalt cutting saw	0	0	1
1415		Wheel roller	0	0	1
1416		Chain excavator - 420	1	10	0
1417	04 Jun,13	Welding machine	1	10	2
1418		Trencher	1	2	0
1419		4*4 Car	3	10	0
1420		Dumping truck	3	10	0
1421		Compactor (BOMAG-BW75)	1	10	0
1422		Water tank truck	1	10	0
1423		JCB	2	10	1
1424		Bobcat	2	10	0
1425		Mobile crane	1	10	0
1426		Compactor (JCB-VMD 120)	0	0	1
1427		Asphalt cutting saw	0	0	1
1428		Wheel roller	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1429		Chain excavator - 420	1	10	0
1430	05 Jun,13	Welding machine	1	10	2
1431		Trencher	1	2	0
1432		4*4 Car	3	10	0
1433		Dumping truck	3	10	0
1434		Compactor (BOMAG-BW75)	1	10	0
1435		Water Tank truck	1	10	0
1436		JCB	3	10	0
1437		Bobcat	2	10	0
1438		Mobile crane	1	10	0
1439		Compactor (JCB-VMD 120)	1	10	0
1440		Asphalt cutting saw	0	0	1
1441		Wheel roller	0	0	1
1442		Chain excavator - 420	1	5	0
1443	06 Jun,13	Welding machine	1	10	2
1444		Trencher	1	2	0
1445		4*4 Car	3	10	0
1446		Dumping truck	3	10	0
1447		Compactor (BOMAG-BW75)	1	10	0
1448		Water tank truck	1	10	0
1449		JCB	3	10	0
1450		Bobcat	2	10	0
1451		Mobile crane	1	10	0
1452		Compactor (JCB-VMD 120)	1	10	0
1453		Asphalt cutting saw	0	0	1
1454		Wheel roller	0	0	1
1455		Chain excavator - 420	1	5	0
1456	08 Jun,13	Welding machine	1	10	2
1457		Trencher	1	2	0
1458		4*4 Car	3	10	0
1459		Dumping truck	3	10	0
1460		Compactor (BOMAG-BW75)	1	10	0
1461		Water tank truck	1	10	0
1462		JCB	3	10	0
1463		Bobcat	2	10	0
1464		Mobile crane	1	10	0
1465		Compactor (JCB-VMD 120)	1	10	0
1466		Asphalt cutting saw	1	2	1
1467		Wheel roller	0	0	1
1468		Chain excavator - 420	1	5	0
1469	09 Jun,13	Welding machine	1	10	2
1470		Trencher	1	2	0
1471		4*4 Car	3	10	0
1472		Dumping truck	3	10	0
1473		Compactor (BOMAG-BW75)	1	10	0
1474		Water tank truck	1	10	0
1475		JCB	2	10	1
1476		Bobcat	2	10	0
1477		Mobile crane	1	10	0
1478		Compactor (JCB-VMD 120)	0	0	1
1479		Asphalt cutting saw	1	2	1
1480		Wheel roller	0	0	1
1481		Chain excavator - 420	1	5	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1482	10 Jun,13	Welding machine	1	10	2
1483		Trencher	0	0	1
1484		4*4 Car	3	10	0
1485		Dumping truck	3	10	0
1486		Compactor (BOMAG-BW75)	1	10	0
1487		Water tank truck	1	10	0
1488		JCB	2	10	1
1489		Bobcat	2	10	0
1490		Mobile crane	1	10	0
1491		Compactor (JCB-VMD 120)	1	10	0
1492		Asphalt cutting saw	1	2	1
1493		Wheel roller	1	10	0
1494		Chain excavator - 420	1	5	0
1495	11 Jun,13	Welding machine	1	10	2
1496		Trencher	0	0	1
1497		4*4 Car	3	10	0
1498		Dumping truck	3	10	0
1499		Compactor (BOMAG-BW75)	1	10	0
1500		Water tank truck	1	10	0
1501		JCB	2	10	1
1502		Bobcat	2	10	0
1503		Mobile crane	1	10	0
1504		Compactor (JCB-VMD 120)	1	10	0
1505		Asphalt cutting saw	1	2	1
1506		Wheel roller	0	0	1
1507		Chain excavator - 420	1	10	0
1508	12 Jun,13	Welding machine	1	10	2
1509		Trencher	1	2	0
1510		4*4 Car	3	10	0
1511		Dumping truck	3	10	0
1512		Compactor (BOMAG-BW75)	1	10	0
1513		Water tank truck	1	10	0
1514		JCB	3	10	0
1515		Bobcat	2	10	0
1516		Mobile crane	1	10	0
1517		Compactor (JCB-VMD 120)	1	10	0
1518		Asphalt cutting saw	1	2	1
1519		Wheel roller	1	10	0
1520		Welding machine	1	10	2
1521		Trencher	1	2	0
1522		4*4 Car	3	10	0
1523		Dumping truck	3	10	0
1524		Compactor (BOMAG-BW75)	1	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1525	13 Jun,13	Water tank truck	3	10	0
1526		JCB	3	10	0
1527		Bobcat	2	10	0
1528		Mobile Crane	1	10	0
1529		Compactor (JCB-VMD 120)	1	10	0
1530		Asphalt cutting saw	0	0	1
1531		Wheel roller	1	10	0
1532	15 Jun,13	Welding machine	0	0	3
1533		Trencher	1	8	0
1534		4*4 Car	3	10	0
1535		Dumping truck	3	10	0
1536		Compactor (BOMAG-BW75)	0	0	1
1537		Water tank truck	1	10	0
1538		JCB	2	10	1
1539		Bobcat	2	10	0
1540		Mobile crane	0	0	1
1541		Compactor (JCB-VMD 120)	1	10	0
1542		Asphalt cutting saw	0	0	1
1543		Wheel roller	0	0	1
1544	16 Jun,13	Welding machine	1	10	2
1545		Trencher	1	8	0
1546		4*4 Car	3	10	0
1547		Dumping truck	3	10	0
1548		Compactor (BOMAG-BW75)	1	10	0
1549		Water tank truck	1	10	0
1550		JCB	3	10	0
1551		Bobcat	2	10	0
1552		Mobile crane	1	10	0
1553		Compactor (JCB-VMD 120)	1	10	0
1554		Asphalt cutting saw	0	0	1
1555		Wheel roller	0	0	1
1556	17 Jun,13	Welding machine	1	10	1
1557		Trencher	1	8	0
1558		4*4 Car	3	10	0
1559		Dumping truck	3	10	0
1560		Compactor (BOMAG-BW75)	1	10	0
1561		Water tank truck	1	10	0
1562		JCB	3	10	0
1563		Bobcat	2	10	0
1564		Mobile crane	1	10	0
1565		Compactor (JCB-VMD 120)	1	10	0
1566		Asphalt cutting saw	0	0	1
1567		Wheel roller	0	0	1
1568	18 Jun,13	Welding machine	1	10	0
1569		Trencher	1	8	0
1570		4*4 Car	3	10	0
1571		Dumping truck	3	10	0
1572		Compactor (BOMAG-BW75)	1	10	0
1573		Water tank truck	1	10	0
1574		JCB	3	10	0
1575		Bobcat	3	10	0
1576		Mobile crane	1	10	0
1577		Compactor (JCB-VMD 120)	1	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1578		Asphalt cutting saw	1	3	0
1579		Wheel roller	1	10	0
1580	19 Jun,13	Welding machine	1	10	1
1581		Trencher	1	8	0
1582		4*4 car	3	10	0
1583		Dumping truck	3	10	0
1584		Compactor (BOMAG-BW75)	1	10	0
1585		Water tank truck	1	10	0
1586		JCB	3	10	0
1587		Bobcat	3	10	0
1588		Mobile crane	1	10	0
1589		Compactor (JCB-VMD 120)	1	10	0
1590		Asphalt cutting saw	1	3	0
1591		Wheel roller	1	10	0
1592	20 Jun,13	Welding machine	0	0	2
1593		Trencher	0	0	0
1594		4*4 Car	3	10	0
1595		Dumping truck	3	10	0
1596		Compactor (BOMAG-BW75)	1	10	0
1597		Water tank truck	1	10	0
1598		JCB	3	10	0
1599		Bobcat	3	10	0
1600		Mobile crane	1	10	0
1601		Compactor (JCB-VMD 120)	1	10	0
1602		Asphalt cutting saw	1	3	0
1603		Wheel roller	0	0	1
1604	22 Jun,13	Welding machine	0	0	2
1605		4*4 Car	3	10	0
1606		Dumping truck	0	0	3
1607		Compactor (BOMAG-BW75)	0	0	1
1608		Water tank truck	0	0	1
1609		JCB	2	10	1
1610		Bobcat	0	0	3
1611		Mobile crane	0	0	1
1612		Compactor (JCB-VMD 120)	0	0	1
1613		Asphalt cutting saw	0	0	1
1614		Wheel roller	0	0	1
1615	23 Jun,13	Welding machine	0	0	2
1616		4*4 Car	1	10	0
1617		Dumping truck	1	10	0
1618		Compactor (BOMAG-BW75)	0	0	1
1619		Water tank truck	1	10	0
1620		JCB	2	10	1
1621		Bobcat	1	10	2
1622		Mobile crane	0	0	1
1623		Compactor (JCB-VMD 120)	1	10	0
1624		Asphalt cutting saw	0	0	1
1625		Wheel roller	0	0	1
1626	24 Jun,13	Welding machine	0	0	2
1627		4*4 Car	1	10	0
1628		Dumping truck	1	10	0
1629		Water tank truck	1	10	0
1630		JCB	1	10	2

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1631	24 Jun,13	Bobcat	1	10	2
1632		Mobile crane	0	0	1
1633		Compactor (JCB-VMD 120)	1	10	0
1634		Asphalt cutting saw	0	0	1
1635		Wheel roller	0	0	1
1636	25 Jun,13	Welding machine	1	10	1
1637		4*4 Car	1	10	0
1638		Dumping truck	1	10	0
1639		Water tank truck	1	10	0
1640		JCB	2	10	1
1641		Bobcat	1	10	2
1642		Mobile crane	1	10	0
1643		Compactor (JCB-VMD 120)	1	10	0
1644		Asphalt cutting saw	0	0	1
1645		Wheel roller	1	10	0
1646	26 Jun,13	Welding machine	1	10	1
1647		4*4 Car	1	10	0
1648		Dumping truck	1	5	0
1649		Water Tank truck	1	5	0
1650		JCB	2	10	1
1651		Bobcat	1	10	2
1652		Mobile crane	1	10	0
1653		Compactor (JCB-VMD 120)	1	10	0
1654		Asphalt cutting saw	0	0	1
1655		Wheel roller	0	0	1
1656	27 Jun,13	Welding machine	1	10	1
1657		4*4 Car	1	10	0
1658		Dumping truck	1	5	0
1659		Water tank truck	1	5	0
1660		JCB	2	10	1
1661		Bobcat	1	10	0
1662		Mobile crane	1	10	0
1663		Compactor (JCB-VMD 120)	1	10	0
1664		Asphalt cutting saw	1	3	0
1665		Wheel roller	0	0	1
1666	29 Jun,13	Welding machine	1	10	1
1667		4*4 Car	1	10	0
1668		Dumping truck	1	10	0
1669		Compactor (BOMAG-BW75)	0	0	1
1670		JCB	2	10	0
1671		Bobcat	0	0	1
1672		Mobile crane	1	10	0
1673		Compactor (JCB-VMD 120)	1	10	0
1674		Asphalt cutting saw	0	0	1
1675		Wheel roller	0	0	1
1676		Welding machine	1	10	1
1677		4*4 Car	1	10	0
1678		Dumping truck	1	5	0
1679		Compactor (BOMAG-BW75)	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1680	30 Jun,13	Water tank truck	1	5	0
1681		JCB	2	10	0
1682		Bobcat	1	10	0
1683		Mobile crane	1	10	0
1684		Compactor (JCB-VMD 120)	1	10	0
1685		Asphalt cutting saw	0	0	1
1686		Wheel roller	0	0	1
1687	01 Jul,13	Welding machine	1	10	1
1688		4*4 Car	1	10	0
1689		Dumping truck	1	5	0
1690		Compactor (BOMAG-BW75)	0	0	1
1691		Water tank truck	1	5	0
1692		JCB	2	10	0
1693		Bobcat	1	10	0
1694		Mobile crane	1	10	0
1695		Compactor (JCB-VMD 120)	1	10	0
1696		Asphalt cutting saw	0	0	1
1697		Wheel roller	0	0	1
1698	02 Jul,13	Welding machine	1	10	1
1699		4*4 Car	1	10	0
1700		Dumping truck	1	5	0
1701		Compactor (BOMAG-BW75)	0	0	1
1702		Water tank truck	1	5	0
1703		JCB	2	10	0
1704		Bobcat	1	10	0
1705		Mobile crane	1	10	0
1706		Compactor (JCB-VMD 120)	1	10	0
1707		Asphalt cutting saw	0	0	1
1708		Wheel roller	1	10	0
1709	03 Jul,13	Welding machine	1	10	1
1710		4*4 Car	1	10	0
1711		Dumping truck	1	5	0
1712		Compactor (BOMAG-BW75)	0	0	1
1713		Water tank truck	1	5	0
1714		Wheel excavator	1	10	0
1715		JCB	3	10	0
1716		Bobcat	1	10	0
1717		Mobile crane	1	10	0
1718		Compactor (JCB-VMD 120)	1	10	0
1719		Asphalt cutting saw	0	0	1
1720		Wheel roller	1	10	0
1721	04 Jul,13	Welding machine	1	10	1
1722		4*4 Car	1	10	0
1723		Dumping truck	1	5	0
1724		Compactor (BOMAG-BW75)	0	0	1
1725		Water tank truck	1	5	0
1726		Wheel excavator	1	10	0
1727		JCB	3	10	0
1728		Bobcat	1	10	0
1729		Mobile crane	1	10	0
1730		Compactor (JCB-VMD 120)	1	10	0
1731		Asphalt cutting saw	0	0	1
1732		Wheel roller	1	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1733	06 Jul,13	Welding machine	1	10	1
1734		4*4 Car	1	10	0
1735		Dumping truck	1	5	0
1736		Compactor (BOMAG-BW75)	0	0	1
1737		Water tank truck	1	5	0
1738		Wheel excavator	1	10	0
1739		JCB	2	10	0
1740		Bobcat	1	10	0
1741		Mobile crane	1	10	0
1742		Compactor (JCB-VMD 120)	1	10	0
1743		Asphalt cutting saw	0	0	1
1744		Wheel roller	0	0	1
1745	07 Jul,13	Welding machine	1	10	1
1746		4*4 Car	1	10	0
1747		Dumping truck	1	5	0
1748		Compactor (BOMAG-BW75)	0	0	1
1749		Water tank truck	1	5	0
1750		Wheel excavator	1	10	0
1751		JCB	2	10	0
1752		Bobcat	1	10	0
1753		Mobile crane	1	10	0
1754		Compactor (JCB-VMD 120)	1	10	0
1755		Asphalt cutting saw	0	0	1
1756		Wheel roller	0	0	1
1757	08 Jul,13	Welding machine	0	0	2
1758		4*4 Car	1	10	0
1759		Dumping truck	1	5	0
1760		Compactor (BOMAG-BW75)	0	0	1
1761		Water tank truck	1	5	0
1762		Wheel excavator	1	10	0
1763		JCB	2	10	0
1764		Bobcat	1	10	0
1765		Mobile crane	0	0	1
1766		Compactor (JCB-VMD 120)	0	0	1
1767		Asphalt cutting saw	0	0	1
1768		Wheel roller	0	0	1
1769	09 Jul,13	Welding machine	1	10	1
1770		4*4 Car	1	10	0
1771		Dumping truck	1	5	0
1772		Compactor (BOMAG-BW75)	0	0	1
1773		Water tank truck	1	5	0
1774		Wheel excavator	1	10	0
1775		JCB	2	10	0
1776		Bobcat	1	10	0
1777		Mobile crane	1	10	0
1778		Compactor (JCB-VMD 120)	0	0	1
1779		Asphalt cutting saw	0	0	1
1780		Wheel roller	0	0	1
1781		Welding machine	0	0	2
1782		4*4 Car	1	10	0
1783		Dumping truck	1	5	0
1784		Compactor (BOMAG-BW75)	0	0	1
1785		Water tank truck	1	5	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1786	10 Jul,13	Wheel excavator	1	10	0
1787		JCB	2	10	0
1788		Bobcat	1	10	0
1789		Mobile crane	0	0	1
1790		Compactor (JCB-VMD 120)	0	0	1
1791		Asphalt cutting saw	0	0	1
1792		Wheel roller	0	0	1
1793	11 Jul,13	Welding machine	0	0	2
1794		4*4 Car	1	10	0
1795		Dumping truck	1	5	0
1796		Compactor (BOMAG-BW75)	0	0	1
1797		Water tank truck	1	5	0
1798		Wheel excavator	1	10	0
1799		JCB	2	10	0
1800		Bobcat	1	10	0
1801		Mobile crane	0	0	1
1802		Compactor (JCB-VMD 120)	0	0	1
1803		Asphalt cutting saw	0	0	1
1804		Wheel roller	0	0	1
1805	13 Jul,13	Welding machine	1	10	1
1806		4*4 Car	1	10	0
1807		Dumping truck	1	5	0
1808		Compactor (BOMAG-BW75)	0	0	1
1809		Water tank truck	0	0	1
1810		JCB	2	10	0
1811		Bobcat	1	10	0
1812		Mobile crane	1	5	0
1813		Compactor (JCB-VMD 120)	0	0	1
1814		Asphalt cutting saw	0	0	1
1815		Wheel roller	0	0	1
1816	14 Jul,13	Welding machine	1	8	0
1817		4*4 Car	1	8	0
1818		Dumping truck	1	5	0
1819		Compactor (BOMAG-BW75)	0	0	1
1820		Water tank truck	0	0	1
1821		JCB	2	8	0
1822		Bobcat	1	8	0
1823		Mobile crane	1	5	0
1824		Compactor (JCB-VMD 120)	1	8	0
1825		Asphalt cutting saw	0	0	1
1826		Wheel roller	0	0	1
1827	15 Jul,13	Welding machine	1	8	0
1828		4*4 Car	1	8	0
1829		Dumping truck	1	4	0
1830		Compactor (BOMAG-BW75)	0	0	1
1831		Water tank truck	0	0	1
1832		JCB	2	8	0
1833		Bobcat	1	8	0
1834		Mobile crane	1	4	0
1835		Compactor (JCB-VMD 120)	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1836		Asphalt cutting saw	1	2	0
1837		Wheel roller	0	0	1
1838	16 Jul,13	Welding machine	1	8	0
1839		4*4 Car	1	8	0
1840		Dumping truck	1	4	0
1841		Compactor (BOMAG-BW75)	0	0	1
1842		Water tank truck	0	0	1
1843		JCB	2	8	0
1844		Bobcat	1	8	0
1845		Mobile crane	1	4	0
1846		Compactor (JCB-VMD 120)	1	8	0
1847		Asphalt cutting saw	1	2	0
1848		Wheel roller	1	8	0
1849	17 Jul,13	Welding machine	1	8	0
1850		4*4 Car	1	8	0
1851		Dumping truck	1	4	0
1852		Compactor (BOMAG-BW75)	0	0	1
1853		Water tank truck	0	0	1
1854		JCB	2	8	0
1855		Bobcat	1	8	0
1856		Mobile crane	1	4	0
1857		Compactor (JCB-VMD 120)	0	0	1
1858		Asphalt cutting saw	1	2	0
1859		Wheel roller	0	0	1
1860	18 Jul,13	Welding machine	1	8	0
1861		4*4 Car	1	8	0
1862		Dumping truck	1	4	0
1863		Chain Bulldozer	1	8	0
1864		Water tank truck	1	8	0
1865		JCB	2	8	0
1866		Bobcat	1	8	0
1867		Mobile crane	1	4	0
1868		Compactor (JCB-VMD 120)	0	0	1
1869		Asphalt cutting saw	1	2	0
1870		Wheel roller	0	0	1
1871		Grader	1	8	0
1872	20 Jul,13	Dumping truck	1	4	0
1873		Chain Bulldozer	1	8	0
1874		Water tank truck	1	8	0
1875		JCB	2	8	0
1876		Bobcat	0	0	1
1877		Mobile crane	1	4	0
1878		Compactor (JCB-VMD 120)	0	0	1
1879		Asphalt cutting saw	0	0	1
1880		Wheel roller	0	0	1
1881		Grader	1	8	0
1882	21 Jul,13	Welding machine	1	8	0
1883		4*4 Car	1	8	0
1884		Dumping truck	1	4	0
1885		Chain Bulldozer	1	8	0
1886		Water tank truck	2	8	0
1887		JCB	1	8	0
1888		Bobcat	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1889		Mobile crane	1	4	0
1890		Compactor (JCB-VMD 120)	0	0	1
1891		Asphalt cutting saw	0	0	1
1892		Wheel roller	0	0	1
1893		Grader	1	8	0
1894	22 Jul,13	Welding machine	1	8	0
1895		4*4 Car	1	8	0
1896		Dumping truck	1	4	0
1897		Chain Bulldozer	1	8	0
1898		Water tank truck	2	8	0
1899		JCB	2	8	0
1900		Bobcat	0	0	1
1901		Mobile crane	0	0	1
1902		Compactor (JCB-VMD 120)	0	0	1
1903		Asphalt cutting saw	0	0	1
1904		Wheel roller	0	0	1
1905		Grader	1	8	0
1906	23 Jul,13	Welding machine	0	0	1
1907		Dumping truck	1	8	0
1908		Chain Bulldozer	1	8	0
1909		Water tank truck	2	8	0
1910		JCB	2	8	0
1911		Bobcat	0	0	1
1912		Mobile crane	0	0	1
1913		Compactor (JCB-VMD 120)	0	0	1
1914		Asphalt cutting saw	0	0	1
1915		Wheel roller	0	0	1
1916		Grader	1	8	0
1917	24 Jul,13	Welding machine	1	8	0
1918		4*4 Car	1	8	0
1919		Dumping truck	1	8	0
1920		Chain Bulldozer	1	8	0
1921		Water tank truck	1	8	0
1922		JCB	2	8	0
1923		Asphalt milling machine	0	0	1
1924		Mobile crane	0	0	1
1925		Compactor (JCB-VMD 120)	0	0	1
1926		Asphalt cutting saw	0	0	1
1927		Wheel roller	0	0	1
1928		Grader	1	8	0
1929	25 Jul,13	Welding machine	0	0	1
1930		Dumping truck	1	8	0
1931		Chain Bulldozer	1	8	0
1932		Water tank truck	1	8	0
1933		JCB	2	8	0
1934		Asphalt milling machine	1	8	0
1935		Mobile crane	0	0	1
1936		Compactor (JCB-VMD 120)	0	0	1
1937		Asphalt cutting saw	0	0	1
1938		Wheel roller	0	0	1
1939		Grader	1	8	0
1940		Welding machine	0	0	1
1941		Dumping truck	2	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1942	27 Jul,13	Chain Bulldozer	1	8	0
1943		Water tank truck	1	8	0
1944		JCB	2	8	0
1945		Asphalt milling machine	0	0	1
1946		Compactor (JCB-VMD 120)	0	0	1
1947		Asphalt cutting saw	0	0	2
1948		4*4 Car	2	8	2
1949		Bobcat	0	0	1
1950	28 Jul,13	Welding machine	0	0	1
1951		Dumping truck	2	8	0
1952		Chain Bulldozer	1	8	0
1953		Grader	1	8	0
1954		JCB	1	8	0
1955		Asphalt milling machine	0	0	1
1956		Compactor (JCB-VMD 120)	0	0	1
1957		Asphalt cutting saw	0	0	2
1958		4*4 Car	2	8	0
1959		Bobcat	0	0	1
1960	29 Jul,13	Welding machine	0	0	1
1961		Grader	0	0	1
1962		JCB	0	0	1
1963		Asphalt milling machine	1	6	0
1964		Compactor (JCB-VMD 120)	0	0	1
1965		Asphalt cutting saw	0	0	2
1966		Bobcat	0	0	1
1967	30 Jul,13	Welding machine	0	0	1
1968		Grader	0	0	1
1969		JCB	2	8	0
1970		Asphalt milling machine	1	8	0
1971		Compactor (JCB-VMD 120)	0	0	1
1972		Asphalt cutting saw	0	0	2
1973		Bobcat	0	0	1
1974	31 Jul,13	Welding machine	0	0	1
1975		Grader	0	0	1
1976		JCB	1	8	0
1977		Asphalt milling machine	1	8	0
1978		Compactor (JCB-VMD 120)	0	0	1
1979		Asphalt cutting saw	0	0	2
1980		Bobcat	0	0	1
1981	01 Aug,13	Welding machine	0	0	1
1982		Grader	0	0	1
1983		JCB	1	8	0
1984		Asphalt milling machine	0	0	1
1985		Compactor (JCB-VMD 120)	0	0	1
1986		Asphalt cutting saw	0	0	2
1987		Bobcat	0	0	1
1988	03 Aug,13	Welding machine	0	0	1
1989		Grader	0	0	1
1990		JCB	1	8	0
1991		Asphalt milling machine	0	0	1
1992		Compactor (JCB-VMD 120)	0	0	1
1993		Asphalt cutting saw	0	0	2
1994		Bobcat	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
1995	04 Aug,13	Welding machine	0	0	1
1996		Grader	0	0	1
1997		JCB	1	8	0
1998		Asphalt milling machine	0	0	1
1999		Compactor (JCB-VMD 120)	0	0	1
2000		Asphalt cutting saw	0	0	2
2001		Bobcat	0	0	1
2002	05 Aug,13	Welding machine	0	0	1
2003		Grader	0	0	1
2004		JCB	1	8	0
2005		Asphalt milling machine	1	4	0
2006		Compactor (JCB-VMD 120)	0	0	1
2007		Asphalt cutting saw	0	0	2
2008		Bobcat	0	0	1
2009		Chain bulldozer	0	0	1
2010	06 Aug,13	Welding machine	0	0	1
2011		Grader	0	0	1
2012		JCB	1	8	0
2013		Asphalt milling machine	1	4	0
2014		Compactor (JCB-VMD 120)	0	0	1
2015		Asphalt cutting saw	0	0	2
2016		Bobcat	0	0	1
2017	12 Aug,13	Welding machine	0	0	1
2018		Grader	0	0	1
2019		Asphalt milling machine	0	0	1
2020		Compactor (JCB-VMD 120)	0	0	1
2021		Asphalt cutting saw	0	0	2
2022		Bobcat	0	0	1
2023	13 Aug,13	Welding machine	0	0	1
2024		Grader	0	0	1
2025		Asphalt milling machine	1	8	0
2026		Compactor (JCB-VMD 120)	0	0	1
2027		Asphalt cutting saw	0	0	2
2028		Bobcat	0	0	1
2029		Chain bulldozer	0	0	1
2030		JCB	1	8	0
2031	14 Aug,13	Welding machine	0	0	1
2032		Grader	0	0	1
2033		Asphalt milling machine	0	0	1
2034		Compactor (JCB-VMD 120)	0	0	1
2035		Asphalt cutting saw	0	0	2
2036		Bobcat	0	0	1
2037		JCB	1	8	0
2038	15 Aug,13	Welding machine	0	0	1
2039		Grader	0	0	2
2040		Asphalt milling machine	0	0	1
2041		Compactor (JCB-VMD 120)	0	0	1
2042		Asphalt cutting saw	0	0	2
2043		Bobcat	0	0	1
2044		JCB	1	8	0
2045		Dumping truck	1	8	0
2046		Welding machine	0	0	1
2047		Grader	0	0	1

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2048	17 Aug,13	Asphalt milling machine	0	0	1
2049		Compactor (JCB-VMD 120)	1	8	0
2050		Asphalt cutting saw	0	0	2
2051		Bobcat	0	0	1
2052		JCB	1	8	0
2053		Dumping truck	1	8	0
2054	18 Aug,13	Welding machine	0	0	1
2055		Grader	0	0	1
2056		Asphalt milling machine	0	0	1
2057		Compactor (JCB-VMD 120)	1	8	0
2058		Asphalt cutting saw	1	2	0
2059		Bobcat	0	0	1
2060		JCB	1	8	0
2061		Dumping truck	1	8	0
2062		Chain bulldozer	0	0	1
2063	19 Aug,13	Welding machine	1	8	0
2064		Grader	0	0	1
2065		Compactor (JCB-VMD 120)	1	8	0
2066		Asphalt cutting saw	0	0	1
2067		Bobcat	0	0	1
2068		JCB	1	8	0
2069		Dumping truck	1	8	0
2070		4*4 Car	1	8	0
2071	20 Aug,13	Welding machine	1	8	0
2072		Asphalt milling machine	0	0	1
2073		Grader	0	0	1
2074		Compactor (JCB-VMD 120)	1	8	0
2075		Asphalt cutting saw	0	0	1
2076		Bobcat	0	0	1
2077		JCB	1	8	0
2078		Dumping truck	1	8	0
2079		4*4 Car	1	8	0
2080	21 Aug,13	Welding machine	1	8	0
2081		Asphalt milling machine	1	8	0
2082		Grader	0	0	1
2083		Compactor (JCB-VMD 120)	0	0	1
2084		Asphalt cutting saw	0	0	1
2085		Bobcat	0	0	1
2086		JCB	2	8	0
2087		Dumping truck	1	8	0
2088		4*4 Car	1	8	0
2089		Road marking machine	1	3	0
2090	22 Aug,13	Welding machine	1	8	0
2091		Asphalt milling machine	0	0	1
2092		Grader	1	8	0
2093		Compactor (JCB-VMD 120)	1	8	0
2094		Asphalt cutting saw	0	0	1
2095		Bobcat	1	8	0
2096		JCB	2	8	0
2097		Dumping truck	1	8	0
2098		4*4 Car	1	8	0
2099		Water tank truck	1	8	0
2100		Wheel roller	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2101	23 Aug,13	Welding machine	1	8	0
2102		Asphalt milling machine	0	0	1
2103		Grader	0	0	1
2104		Compactor (JCB-VMD 120)	0	0	1
2105		Asphalt cutting saw	0	0	1
2106		Bobcat	0	0	1
2107		JCB	1	8	0
2108		Dumping truck	1	8	0
2109		4*4 Car	1	8	0
2110		Water tank truck	0	0	1
2111		Wheel roller	0	0	1
2112	24 Aug,13	Welding machine	1	8	0
2113		Asphalt milling machine	0	0	1
2114		Grader	1	8	0
2115		Compactor (JCB-VMD 120)	1	8	0
2116		Asphalt cutting saw	0	0	1
2117		Bobcat	1	8	0
2118		JCB	2	8	0
2119		Dumping truck	3	8	0
2120		4*4 Car	1	8	0
2121		Water tank truck	1	8	0
2122		Wheel roller	1	8	0
2123		Asphalt finisher	1	8	0
2124	25 Aug,13	Welding machine	1	8	0
2125		Asphalt milling machine	0	0	1
2126		Grader	1	8	0
2127		Compactor (JCB-VMD 120)	1	8	0
2128		Asphalt cutting saw	0	0	1
2129		Bobcat	1	8	0
2130		JCB	2	8	0
2131		Dumping truck	3	8	0
2132		4*4 Car	1	8	0
2133		Water tank truck	1	8	0
2134		Wheel roller	1	8	0
2135		Asphalt finisher	1	8	0
2136	26 Aug,13	Welding machine	1	8	0
2137		Asphalt milling machine	1	8	0
2138		Grader	1	8	0
2139		Compactor (JCB-VMD 120)	0	0	1
2140		Asphalt cutting saw	1	2	1
2141		Bobcat	1	8	0
2142		JCB	2	8	0
2143		Dumping truck	3	8	0
2144		4*4 Car	1	8	0
2145		Water tank truck	1	8	0
2146		Wheel roller	0	0	1
2147		Asphalt finisher	0	0	1
2148		Welding machine	1	8	0
2149		Asphalt milling machine	1	8	0
2150		Grader	1	8	0
2151		MR and RC spraying truck	1	8	0
2152		Asphalt cutting saw	1	2	1
2153		Bobcat	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2154	27 Aug,13	JCB	2	8	0
2155		Dumping truck	3	8	0
2156		4*4 Car	1	8	0
2157		Water tank truck	1	8	0
2158		Wheel roller (Asphalt)	1	8	0
2159		Asphalt finisher	1	8	0
2160		Steel (asphalt) compactor	1	8	0
2161		Steel compactor (base course)	1	8	0
2162	28 Aug,13	Welding machine	1	8	0
2163		Asphalt milling machine	1	4	0
2164		Grader	1	8	0
2165		MR and RC spraying truck	1	8	0
2166		Asphalt cutting saw	1	2	1
2167		Bobcat	1	8	0
2168		JCB	1	8	0
2169		Dumping truck	3	8	0
2170		4*4 Car	1	8	0
2171		Water tank truck	1	8	0
2172		Wheel roller (Asphalt)	1	8	0
2173		Asphalt finisher	1	8	0
2174		Steel compactor (asphalt)	1	8	0
2175		Compactor (JCB-VMD 120)	1	8	0
2176	29 Aug,13	Welding machine	1	8	0
2177		MR and RC spraying truck	1	8	0
2178		Asphalt cutting saw	1	2	1
2179		Bobcat	1	8	0
2180		JCB	1	8	0
2181		Dumping truck	3	8	0
2182		4*4 Car	1	8	0
2183		Water tank truck	1	8	0
2184		Asphalt finisher	1	8	0
2185		Steel compactor (asphalt)	1	8	0
2186		Compactor (JCB-VMD 120)	1	8	0
2187	30 Aug,13	MR spraying truck	1	8	0
2188		4*4 Car	1	8	0
2189		Compactor (JCB-VMD 120)	1	8	0
2190	31 Aug,13	Welding machine	1	8	0
2191		MR and RC spraying truck	1	8	0
2192		Asphalt cutting saw	1	2	1
2193		Bobcat	1	8	0
2194		JCB	2	8	0
2195		Dumping truck	3	8	0
2196		4*4 Car	1	8	0
2197		Water tank truck	1	8	0
2198		Asphalt finisher	1	8	0
2199		Steel compactor (asphalt)	1	8	0
2200		Steel compactor (base course)	1	8	0
2201		Wheel roller	1	8	0
2202		Welding machine	1	8	0
2203		MR and RC spraying truck	1	8	0
2204		Asphalt cutting saw	1	2	1
2205		Bobcat	1	8	0
2206		JCB	2	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2207	01 Sep,13	Dumping truck	3	8	0
2208		4*4 Car	1	8	0
2209		Water tank truck	1	8	0
2210		Asphalt finisher	1	8	0
2211		Steel compactor (asphalt)	1	8	0
2212		Wheel roller	1	8	0
2213	02 Sep,14	Welding machine	1	8	0
2214		MR and RC spraying truck	1	8	0
2215		Asphalt cutting saw	1	2	1
2216		Bobcat	1	8	0
2217		JCB	2	8	0
2218		Dumping truck	3	8	0
2219		4*4 Car	1	8	0
2220		Water tank truck	1	8	0
2221		Asphalt finisher	1	8	0
2222		Steel compactor (asphalt)	1	8	0
2223		Wheel roller (asphalt)	1	8	0
2224	03 Sep,14	Welding machine	1	8	0
2225		MR and RC spraying truck	1	8	0
2226		Asphalt cutting saw	0	0	1
2227		Bobcat	1	8	0
2228		JCB	2	8	0
2229		Dumping truck	3	8	0
2230		4*4 Car	1	8	0
2231		Water tank truck	1	8	0
2232		Asphalt finisher	1	8	0
2233		Steel compactor (asphalt)	1	8	0
2234		Compactor (base course)	1	8	0
2235		Guard rail installation hammer	1	8	0
2236		Guard Rail transport truck	1	8	0
2237	04 Sep,14	Welding machine	1	8	0
2238		MR and RC spraying truck	1	8	0
2239		Asphalt cutting saw	0	0	1
2240		Bobcat	1	8	0
2241		JCB	2	8	0
2242		Dumping truck	3	8	0
2243		4*4 Car	1	8	0
2244		Water tank truck	1	8	0
2245		Asphalt finisher	1	8	0
2246		Steel compactor (asphalt)	1	8	0
2247		Compactor (base course)	2	8	1
2248		Wheel roller (asphalt)	1	8	0
2249	05 Sep,14	Welding machine	1	8	0
2250		MR and RC spraying truck	1	8	0
2251		Asphalt cutting saw	0	0	1
2252		Bobcat	1	8	0
2253		JCB	3	8	0
2254		Dumping truck	3	8	0
2255		4*4 Car	1	8	0
2256		Water tank truck	1	8	0
2257		Asphalt finisher	1	8	0
2258		Steel compactor (asphalt)	1	8	0
2259		Compactor (base course)	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2260	07 Sep,14	Welding machine	1	8	0
2261		MR and RC spraying truck	1	8	0
2262		Asphalt cutting saw	0	0	1
2263		Bobcat	1	8	0
2264		JCB	2	8	0
2265		Dumping truck	3	8	0
2266		4*4 Car	1	8	0
2267		Water tank truck	1	8	0
2268		Asphalt finisher	1	8	0
2269		Steel compactor (asphalt)	1	8	0
2270		Compactor (base course)	1	8	0
2271	08 Sep,14	Welding machine	1	8	0
2272		MR and RC spraying truck	1	8	0
2273		Asphalt cutting saw	0	0	1
2274		Bobcat	1	8	0
2275		JCB	1	8	0
2276		Dumping truck	3	8	0
2277		4*4 Car	1	8	0
2278		Water tank truck	1	8	0
2279		Asphalt finisher	1	8	0
2280		Steel compactor (asphalt)	1	8	0
2281		Compactor (base course)	2	8	0
2282		Wheel roller (asphalt)	1	8	0
2283	09 Sep,14	Welding machine	1	8	0
2284		MR and RC spraying truck	1	8	0
2285		Asphalt cutting saw	0	0	1
2286		Bobcat	1	8	0
2287		JCB	1	8	0
2288		Dumping truck	3	8	0
2289		4*4 Car	1	8	0
2290		Water tank truck	1	8	0
2291		Asphalt finisher	1	8	0
2292		Steel compactor (asphalt)	1	8	0
2293		Compactor (base course)	2	8	0
2294		Wheel roller (asphalt)	1	8	0
2295	10 Sep,14	Welding machine	1	8	0
2296		MR and RC spraying truck	1	8	0
2297		Asphalt cutting saw	0	0	1
2298		Bobcat	1	8	0
2299		JCB	1	8	0
2300		Dumping truck	3	8	0
2301		4*4 Car	1	8	0
2302		Water tank truck	1	8	0
2303		Asphalt finisher	1	8	0
2304		Steel compactor (asphalt)	1	8	0
2305		Compactor (base course)	1	8	0
2306		Wheel roller (asphalt)	1	8	0
2307		Asphalt milling machine	1	8	0
2308		Welding machine	1	8	0
2309		MR and RC spraying truck	1	8	0
2310		Asphalt cutting saw	0	0	1
2311		Bobcat	1	8	0
2312		JCB	2	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2313	11 Sep,14	Dumping truck	3	8	0
2314		4*4 Car	1	8	0
2315		Water tank truck	1	8	0
2316		Asphalt finisher	1	8	0
2317		Steel compactor (asphalt)	1	8	0
2318		Wheel roller (asphalt)	1	8	0
2319		Asphalt milling machine	1	8	0
2320		Small Steel Compactor (Asphalt)	1	8	0
2321	12 Sep,14	Welding machine	1	8	0
2322		JCB	1	8	0
2323		4*4 Car	1	8	0
2324	14 Sep,14	Welding machine	1	8	0
2325		Bobcat	1	8	0
2326		JCB	1	8	0
2327		4*4 Car	1	8	0
2328		Mobile crane	1	8	0
2329	15 Sep,14	Welding machine	1	8	0
2330		Bobcat	1	8	0
2331		JCB	1	8	0
2332		4*4 Car	1	8	0
2333		Mobile crane	1	8	0
2334		Water tank truck	1	8	0
2335	16 Sep,13	Welding machine	1	8	0
2336		Bobcat	2	8	0
2337		JCB	1	8	0
2338		4*4 Car	1	8	0
2339		Mobile crane	1	8	0
2340		Asphalt milling machine	1	8	0
2341		Small Steel Compactor (Asphalt)	1	8	0
2342		MC &RC spraying truck	1	8	0
2343		Road marking mixer	1	8	0
2344		Road marking paint vehicle	1	8	0
2345	17 Sep,13	Welding machine	1	8	0
2346		Bobcat	1	8	0
2347		4*4 Car	1	8	0
2348		Mobile crane	1	8	0
2349		Road marking mixer	1	8	0
2350		Road marking paint vehicle	1	8	0
2351		Dumping truck	1	8	0
2352		Asphalt cutting saw	0	0	1
2353	18 Sep,13	Welding machine	1	8	0
2354		Bobcat	1	8	0
2355		4*4 Car	1	8	0
2356		Mobile crane	1	8	0
2357		Road marking mixer	1	8	0
2358		Road marking paint vehicle	1	8	0
2359		Dumping truck	1	8	0
2360		Asphalt cutting saw	0	0	1
2361		Welding machine	1	8	0
2362		Bobcat	1	8	0
2363		4*4 Car	1	8	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2364	19 Sep,13	Mobile crane	1	8	0
2365		Road marking mixer	1	8	0
2366		Road marking paint vehicle	1	8	0
2367		Dumping truck	1	8	0
2368		Asphalt cutting saw	0	0	1
2369	20 Sep,13	Welding machine	1	4	0
2370		4*4 Car	1	4	0
2371	21 Sep,13	Welding machine	1	8	0
2372		4*4 Car	2	8	0
2373		Water tank truck	2	8	0
2374		Asphalt cutting saw	0	0	1
2375	22 Sep,13	Welding machine	1	8	0
2376		4*4 Car	2	8	0
2377		Asphalt cutting saw	0	0	1
2378	23 Sep,13	Welding machine	1	8	0
2379		4*4 Car	2	8	0
2380		Asphalt cutting saw	0	0	1
2381		JCB	1	0	8
2382	24 Sep,13	Welding machine	2	8	0
2383		4*4 Car	2	8	0
2384		JCB	2	0	8
2385	25 Sep,13	Welding machine	1	8	0
2386		4*4 Car	2	8	0
2387		Dumping truck	1	8	0
2388		Water tank truck	1	8	0
2389		Steel compactor (asphalt)	1	8	0
2390		Bobcat	1	8	0
2391		Asphalt milling machine	1	3	0
2392		JCB	1	0	8
2393	26 Sep,13	Welding machine	1	8	0
2394		4*4 Car	2	8	0
2395		JCB	1	0	8
2396	28 Sep,13	Welding machine	1	10	0
2397		4*4 Car	2	10	0
2398	29 Sep,13	Welding machine	1	10	0
2399		4*4 Car	2	10	0
2400	30 Sep,13	Welding machine	1	10	0
2401		4*4 Car	2	10	0
2402	01 Oct,13	Welding machine	1	10	0
2403		4*4 Car	2	10	0
2404		Dumping Truck	1	10	0
2405		JCB	1	10	0
2406	02 Oct,13	Welding machine	1	10	0
2407		4*4 Car	2	10	0
2408		Dumping Truck	1	10	0
2409		JCB	1	10	0
2410	03 Oct,13	Welding machine	1	10	0
2411		4*4 Car	2	10	0
2412	05 Oct,13	Welding machine	1	10	0
2413		4*4 Car	2	10	0
2414		JCB	1	10	0
2415	06 Oct,13	Welding machine	1	10	0
2416		4*4 Car	2	10	0

No.	Date on Site	Description	Quantity in use	Hours	Quantity Idle
2417	06 Oct,13	JCB	1	10	0
2418		Dumping truck	1	10	0
2419	07 Oct,13	Welding machine	1	10	0
2420		4*4 Car	2	10	0
2421		JCB	1	10	0
2422		Dumping truck	1	10	0
2423	08 Oct,13	Welding machine	1	10	0
2424		4*4 Car	2	10	0
2425	09 Oct,13	Welding machine	1	10	0
2426		4*4 Car	2	10	0
2427	10 Oct,13	Welding machine	1	10	0
2428		4*4 Car	2	10	0
2429	12 Oct,13	Welding machine	1	10	0
2430		4*4 Car	2	10	0
2431	13 Oct,13	Welding machine	1	10	0
2432		4*4 Car	2	10	0
2433		JCB	1	10	0
2434		Dumping truck	1	10	0
2435	19 Oct,13	Welding machine	1	8	0
2436		4*4 Car	1	8	0
2437	20 Oct,13	Welding machine	1	8	0
2438		4*4 Car	1	8	0
2439	21 Oct,13	Welding machine	1	8	0
2440		4*4 Car	1	8	0
2441	22 Oct,13	Welding machine	1	8	0
2442		4*4 Car	1	8	0
2443	23 Oct,13	Welding machine	1	8	0
2444		4*4 Car	1	8	0
2445	24 Oct,13	Welding machine	1	8	0
2446		4*4 Car	1	8	0
2447	26 Oct,13	Welding machine	1	8	0
2448		4*4 Car	1	8	0
2449	27 Oct,13	Welding machine	1	8	0
2450		4*4 Car	1	8	0
2451	28 Oct,13	Welding machine	1	8	0
2452		4*4 Car	1	8	0
2453	29 Oct,13	Welding machine	1	8	0
2454		4*4 Car	1	8	0
2455	30 Oct,13	Welding machine	1	8	0
2456		4*4 Car	1	8	0
2457	31 Oct,13	Welding machine	0	0	1
2458		4*4 Car	1	8	0

IRD International Relief & Development

Material Log

Task Order: AID - 294 - TO - 12 - 00002

Project: Al Jaba' Nuba Main Transmission Pipeline Project

No.	Date	Item	Description	QTY	Location
1	01 Nov,12	Base course	Spreading base course material in the storage yard	35 m3	Storage yard
2	02 Nov,12	Base course	Spreading base course material in the new storage yard	2 5m3	Storage yard
3	13 Dec,12	Base course	Supplying base course to the site	150 m3	Surif at St. (00+900)
4	15 Dec,12	Base course	supplying base course to the site	180m3	Surif at St.(00+900)
5	16 Dec,12	Base course	supplying base course to the site	120m3	Surif at St. (05+200)
6	17 Dec,12	Single size aggregate	supplying aggregate to the site	210m3	Surif at St.(05+200)
7	18 Dec,12	Single size aggregate	supplying aggregate to the site	100m3	Surif at St. (05+200)
8	19 Dec,12	Single size aggregate	supplying aggregate to the site	180m3	Surif at St. (05+200)
9	23 Dec,12	Single size aggregate	supplying aggregate to the site	440m3	Surif at St.(05+200)
10	24 Dec,12	Shrinkable sheets	Supplying shrinkable sheets to the site	28 PCS	Surif at St. (03+340)
11		Pipes 12"	Supplying Pipes 12" to the storage yard	28PCS-340.29 Lm	Storage yard
12	25 Dec,12	Pipes 12"	Supplying Pipes 12" to the storage yard	31PCS-376.68 Lm	Storage yard
13		Shrinkable sheets	Supplying shrinkable sheets to the site	31 PCS	Surif at St. (03+340)
14		Sand	Supplying sand to the site	221m3	Surif at St. (00+900)
15	26 Dec,12	Sand	Supplying sand to the site	68m3	Surif at St. (00+900)
16		Steel mini guard	Supplying steel mini guard to the storage yard	69 PCS	Storage yard
17		Single size aggregate	Supplying aggregate to the site	238m3	Surif at St. (05+200)
18	27 Dec,12	Sand	Supplying sand to the site	306m3	Surif at St. (00+900)
19	13 Jan,13	Traffic signs	Supplying traffic signs for all project		Along the path of project
20		Single size aggregate	Supplying single size to the site	34m3	Surif at St. (00+900)
21		Crushed stone (Somsom)	Supplying Somsom to the site	34m3	Surif at St. (00+900)
22	15 Jan,13	Pipes 12"	Supplying pipes 12" to the storage yard	30PCS-364.35LM	Storage yard
23		Shrinkable sheets	Supplying shrinkable sheets to the site	30 PCS	Surif at St. (03+340)
24	20 Jan,13	Base course	Supplying base course to the site	20m3	Surif at St. (00+900)
25		Single size aggregate	Supplying single size to the site	205m3	Surif at St. (00+900)
26	22 Jan,13	Base course	Supplying base course to the site	40m3	Surif at St. (00+900)
27		Crushed stone (Somsom)	Supplying somsom to the site	40m3	Surif at St.(00+400)
28	24 Jan,13	Single size aggregate	Supplying single size to the site	55m3	Surif at St. (00+400)
29		Crushed stone (somsom)	Supplying somsom to the site	140m3	Surif at St. (00+400)
30	27 Jan,13	Pipes 10"	Supplying 10-inch pipes to the storage yard	42PCS-505.27 Lm	Surif at St. (08+000)
31		Shrinkable sheets	Supplying shrinkable sheets to the site	42PCS	Surif at St. (03+340)
32	28 Jan,13	Somsom	Supplying somsom to the site	120 MC	Surif at St. (05+200)
33		Single size aggregate	Supplying single size to the site	360 MC	Surif at St. (05+200)
34		Base course material	Supplying base course to the site	200 MC	Surif at St. (05+200)
35		T(10"*10"*8")	Supplying to the storage yard	4 PCS	Storage yard
36		T(10"*10"*8")	Supplying to the storage yard	4 PCS	Storage yard
37		Shrinkable sheets 2" (10*10)	Supplying shrinkable sheets	18 pieces	Storage yard
38	30 Jan,13	New Jersey concrete barrier	Supplying barriers to the site	12 PCS	Storage yard
39		Single size aggregate	Supplying single size to the site	20 MC	Surif at St. (05+200)
40	31 Jan,13	New Jersey concrete barrier	Supplying barriers to the site	20 PCS	Storage yard
41		Wooden frames	Supplying frames to the site	1.5 MC	Storage yard
42		Single size aggregate	Supplying single size to the site	60 MC	From St. (08+900) to St. (08+800)

No.	Date	Item	Description	QTY	Location
43	03 Feb,13	Base course	Supplying base course to the site	40 CM	From St. (08+900) to St. (08+801)
44		Somsom	Supplying somsom to the site	20 MC	From St. (08+900) to St. (08+802)
45		Ready mix concrete (B200)	Supplying concrete to the site	3 MC	Culvert at St. (08+795)
46	04 Feb,13	Single size aggregate	Supplying single size to the site	200 CM	From St. (08+750)to St. (08+540)
47		Base course	Supplying base course to the site	80 CM	From St. (08+750) to St. (08+540)
48		Somsom	Supplying somsom to the site	160 CM	From St. (08+750) to St. (08+540)
49	05 Feb,13	Single size aggregate	Supplying single size to the site	20 CM	From St. (08+750) to St. (08+540)
50		Base course	Supplying base course to the site	80 CM	From St. (08+750) to St. (08+540)
51		Somsom	Supplying somsom to the site	80 CM	From St. (08+750) to St. (08+540)
52		Concrete	Supplying concrete to the site	10 CM	Road culvert at St. (08+440)
53	07 Feb,13	Single size aggregate	Supplying single size to the site	135 CM	From St. (08+310) to St. (08+230)
54		Base course	Supplying base course to the site	120 CM	From St. (08+310) to St. (08+230)
55		Somsom	Supplying somsom to the site	40 CM	From St. (08+310) to St. (08+230)
56		Concrete (B250)	Supplying concrete to the site	3 CM	Road culvert at St.(08+235.5)
57	09 Feb,13	Single size aggregate	Supplying single size to the site	100 CM	From St. (08+230) to St. (08+010)
58		Base course	Supplying base course to the site	100 CM	From St. (08+230) to St. (08+010)
59		Somsom	Supplying Somsom to the site	80 CM	From St. (08+230) to St. (08+010)
60		10" Steel pipes	Supplying 10-inch steel pipes to the site	507.78 m (42 pieces)	Storage yardat St.(07+800)
61	10 Feb,13	Single size aggregate	Supplying single size to the site	120 CM	From St. (08+010) to St. (07+970)
62		Base course	Supplying base course to the site	40 CM	From St. (08+010) to St. (07+970)
63		Somsom	Supplying somsom to the site	80 CM	From St. (08+010) to St. (07+970)
64		10" Steel pipes	Supplying 10-inch steel pipes to the site	507.78 m (42 pieces)	Storage yard at St. (07+900)
65		Concrete (B250)	Supplying concrete to the site	3 CM	Road culvert at St. (07+965)
66		Heat shrinkable sheets	Supplying shrinkable sheets to the site	42 Pcs	Road culvert at St.(07+900)
67		45 Degree steel elbows	Supplying steel elbow to the site	3 Pcs	Road culvert at St.(07+900)
68	11 Feb,13	Single size aggregate	Supplying single size to the site	140 CM	from St. (07+900) to St. (07+680)
69		Somsom	Supplying somsom to the site	140 CM	from St. (07+900) to St.(07+680)
70		Base course	Supplying base course to the site	40 CM	St 7+900 at St.(07+680)
71		New steel barriers guards (without flashing lights)	Supplying barriers guards to the site	50 Pcs	Storage yardat St.(06+200)

No.	Date	Item	Description	QTY	Location
72	12 Feb,13	Single size aggregate	Supplying single size to the site	120 CM	From St (07+680) to St.(07+530)
73		Somsom	Supplying somsom to the site	180 CM	From St. (07+680) to St.(07+530)
74		Base course	Supplying base course to the site	40 CM	From St.(07+680) to St.(07+530)
75		Ready mix concrete (B250)	Supplying concrete to the site	2.5 CM	Culvert at St. (07+666)
76	13 Feb,13	Single size aggregate	Supplying single size to the site	180 CM	From St.(07+500) to St.(07+530)
77		Somsom	Supplying somsom to the site	60 CM	From St. (07+500) to St.07+530)
78		Base course	Supplying base course to the site	80 CM	From St. (07+500) to St.(07+530)
79	14 Feb,13	Single size aggregate	Supplying single size to the site	80 CM	From St. (07+500) to St.(07+530)
80		Somsom	Supplying somsom to the site	100 CM	From St 07+500-St.07+530
81		Base course	Supplying base course to the site	20 CM	From St. (07+500) to St.(07+530)
82	16 Feb,13	Single size aggregate	Supplying single size to the site	100 CM	From St. (07+350) to St.(07+190)
83		Somsom	Supplying somsom to the site	100 CM	From St. (07+350) to St.(07+190)
84		Base course	Supplying base course to the site	60 CM	From St. (07+350) to St.(07+190)
85		Concrete	Supplying concrete to the site	8 CM	From St.(07+350) to St.(07+190)
86	17 Feb,13	Somsom	Supplying somsom to the site	20 CM	From St.(07+185) to St.(07+065)
87		Base course	Supplying base course to the site	60 CM	From St.(07+185) to St.(07+065)
88	18 Feb,13	10" Welded steel pipes	Supplying 10-inch steel pipes to the site	132.83 m	Storage area at St. (07+900)
89		12" Welded steel pipes	Supplying 12-inch steel pipes to the site	242.76 m	Storage area St. (07+700)
90		10" Heat shrinkable sheet	Supplying shrinkable sheet to the site	12 Pcs	Fabrication shop
91		12" Heat shrinkable sheet	Supplying shrinkable sheet to the site	20 Pcs	Fabrication shop
92		Steel T (10"x10"x8")	Supplying to the site	1	Fabrication shop
93		Steel T (10"x10"x6")	Supplying to the site	2	Fabrication shop
94	Feb.19.2013	Base course	Supplying base course to the site	40 CM	At St. (08+200)
95	Feb.20.2013	Base course	Supplying base course to the site	60 CM	From St. (07+060) to St.(06+950)
96		Single size aggregate	Supplying single size to the site	100 CM	From St. (07+060) to St.(06+950)
97		Somsom	Supplying somsom to the site	60 CM	From St. (07+060) to St.(06+950)
98		Ready mix concrete (B200)	Supplying concrete to the site	2.5 MC	Culvert at St. (07+074)
99	Feb.21.2013	Base course	Supplying base course to the site	180 CM	From St. (06+900) to St.(06+750)
100		Single size aggregate	Supplying single size to the site	20 CM	From St.(06+900) to St.(06+750)
101		Somsom	Supplying somsom to the site	60 CM	From St. (06+900) to St.(06+750)
102		Base course	Supplying base course to the site	160 CM	Storage Area at St. (00+950)
103		Single size aggregate	Supplying single size to the site	40 CM	From St. (06+900) to St.(06+810)

No.	Date	Item	Description	QTY	Location
104	Feb.23.2013	Somsom	Supplying somsom to the site	40 CM	From St. (06+900) to St.(06+810)
105		4" Welded steel pipes	Supplying steel pipes to the site	1293.2 Meters	From St. (02+700) to St.(07+900)
106		4" Heat shrinkable sheet	Supplying shrinkable sheet to the site	106 Pcs	Brothers site office
107		2" Heat shrinkable sheet	Supplying shrinkable sheet to the site	54 Pcs	Brothers site office
108	Feb.24.2013	Base course	Supplying base course to the site	40 CM	Storage area at St. (00+950)
109		Somsom	Supplying somsom to the site	20 CM	Storage area at St. (00+950)
110	Feb.25.2013	Base course	Supplying base course to the site	140 CM	Storage area at St. (00+950)
111		Somsom	Supplying somsom to the site	20 CM	Storage area at St. (00+950)
112		Ready mix concrete (B200)	Supplying concrete to the site	36 MC	Pipe encasement from St. (02+686) to St. (02+636)
113		12" Welded steel pipes	Supplying steel pipes to the site	96.43 m (8 pipes)	Storage area at St.(02+700)
114		12" Heat shrinkable sheets	Supplying shrinkable sheets to the site	8 Pcs	Brothers site office
115		3" Welded steel pipes	Supplying steel pipes to the site	1195.6 m (98 pipes)	Storage Area at St.(02+700)
116		2" Galvanized steel pipes (SCH40-threaded end)	Supplying steel pipes to the site	300m (50 Pipes)	Storage area at St. (02+700)
117		Welded steel reduced tee 12"/10"	Supplying reduced tee to the site	2 pieces	Storage area at St. (02+700)
118		Welded steel reduced tee 12"/6"	Supplying reduced tee to the site	2 pieces	Storage area at St. (02+700)
119		Welded steel reduced tee 4"/2"	Supplying reduced tee to the site	4 pieces	Storage area at St. (02+700)
120		4" Welded steel 45 degree elbow	Supplying elbow to the site	2 pieces	Storage area at St. (02+700)
121	Feb.28.2013	Base course	Supplying base course to the site	40 CM	Storage area at St. (00+950)
122		Somsom	Supplying somsom to the site	80 CM	Site working area at St. (02+500)
123		Single size aggregate	Supplying single size to the site	100 CM	Site working area at St. (02+500)
124	02 Mar,13	Base course	Supplying base course to the site	40 CM	Storage area at St. (00+950)
125		Somsom	Supplying somsom to the site	60 CM	Site working area at St. (02+500)
126		Single size aggregate	Supplying aggregate to the site	20 CM	Site working area at St. (02+500)
127		Asphalt	Supplying asphalt to the site	54800kg	from St. (08+900) to St. (08+480)
128	03 Mar,13	Asphalt	Supplying asphalt to the site	65600kg	from St. (08+480) to St. (08+010)
129	04 Mar,13	Asphalt	Supplying asphalt to the site	66900kg	from St. (8+010) to St. (07+520)
130		Ready mix concrete (B200)	Supplying concrete to the site	16 CM	from St. (02+330) to St. (02+242)
131		Base course	Supplying base course to the site	20 CM	Storage area at St. (00+950)
132		Single size aggregate	Supplying single size to the site	20 CM	Site working area at St. (02+300)

No.	Date	Item	Description	QTY	Location
133		Somsom	Supplying somsom to the site	60 CM	Site working area at St. (02+300)
134	05 Mar,13	Ready mix concrete (B200)	Supplying concrete to the site	9 CM	from St. (02+242) to St. (02+192)
135		Base course	Supplying base course to the site	20 CM	Storage area at St. (00+950)
136		Somsom	Supplying somsom to the site	80 CM	Site working area from St. (02+242) to St. (02+190)
137	06 Mar,13	Ready mix concrete (B200)	Supplying concrete to the site	9 CM	from St. (02+192) to St. (02+142)
138		Base course	Supplying base course to the site	40 CM	Storage area at St. (00+950)
139		Somsom	Supplying somsom to the site	60 CM	Site working area, from St. (02+190) to St.(02+050)
140		Single size aggregate	Supplying single size to the site	20 CM	Site working area, from St. (02+190) to St.(02+050)
141	07 Mar,13	Single size aggregate	Supplying single size to the site	40 CM	Site working area, from St. (02+050) to St.(01+950)
142		Base course	Supplying base course to the site	20 CM	Storage area at St.(00+950)
143		Somsom	Supplying somsom to the site	60 CM	Site working area, from St. (02+050) to St. (01+950)
144	09 Mar,13	Single size aggregate	Supplying single size to the site	40 CM	Site working area, from St. (01+940) to St.(01+850)
145		Base course	Supplying base course to the site	20 CM	Storage area at St.(00+950)
146		Somsom	Supplying somsom to the site	60 CM	Site working area, from St. (01+940) to St. (01+850)
147	10 Mar,13	Single size aggregate	Supplying single size to the site	40 CM	Site working area, from St. (01+940) to St.(01+850)
148		Base course	Supplying base course to the site	20 CM	Storage area at St.(00+950)
149		Somsom	Supplying somsom to the site	80 CM	Site working area, from St. (01+940) to St. (01+850)
150		3-Inch , 90 degree welded steel elbows	Supplying welded elbows to the site	10	Fabrication shop
151	11 Mar,13	Single size aggregate	Supplying single size to the site	40 CM	Site working area, from St. (01+790) to St. (01+720)
152		Base course	Supplying base course to the site	60 CM	Storage area at St. (00+950)
153		Somsom	Supplying somsom to the site	80 CM	Site working area from St. (01+790) to St.(01+720)
154		12-Inch SCH20 welded steel pipes	Supplying steel pipes to the storage yard	363.96-30 pipes	Storage yard at St. (02+700)
155		12-Inch heat shrinkable sheets	Supplying shrinkable sheets to the storage yard	30 pieces	Storage yard at St. (02+700)
156		12-Inch SCH40 galvanized steel coupling	Supplying galvanized steel pipes to the storage yard	50	Storage yard at St. (02+700)

No.	Date	Item	Description	QTY	Location
157	12 Mar,13	Somsom	Supplying somsom to the site	40 CM	Site working area from St. (01+670) to St.(01+620)
158		Ready mix concrete (B200)	Supplying concrete to the site	36CM	Road culver and pipeline trench from St. (01+727) to St. (01+686) and from St. (01+677) to St. (01+648)
159		16mm Reinforcement steel bars	Supplying steel bars to the site	1438 Kg	Air release valve chamber at St. (07+870)
160		12" -45 Degree welded steel elbow	Supplying steel elbow to the site	3 pieces	Site office
161	13 Mar,13	Somsom	Supplying somsom to the site	60 CM	Site working area from St. (10+650) to St. (01+520)
162		Single size aggregate	Supplying single size to the site	20 CM	Site working area from St. (01+650) to St. (01+520)
163		Base course	Supplying base course to the site	40 CM	Storage area at St. (00+950)
164		Asphalt	Supplying asphalt to the site	63440 Kg	From St. (07+530) to St. (07+100)
165		Ready mix concrete (B200)	Supplying concrete to the site	1CM	Air release valve chamber at St. (07+870)
166		Welded steel Tee-12"/6"	Supplying steel tee to the site office	1 piece	Site office
167		2-Inch heat shrinkable sheets	Supplying shrinkable sheets to the site	36 piece	Site office
168	14 Mar,13	Somsom	Supplying somsom to the site	120 CM	Site working area from St. (01+520) to St.(01+430)
169		Single size aggregate	Supplying single size to the site	40 CM	Site working area, from St. (01+520) to St. (01+430)
170		Base course	Supplying base course to the site	80 CM	Storage area at St. (00+950)
171		Asphalt	Supplying asphalt to the site	32600 Kg	From St. (07+100) to St. (06+840)
172	16 Mar,13	Somsom	Supplying somsom to the site	200 CM	Site working area from St. (01+261) to St.(01+180)
173		Single size aggregate	Supplying single size to the site	60 CM	Site working area from St. (01+261) to St.(01+180)
174		Base course	Supplying base course to the site	120 CM	Storage area at St.(00+950)
175	17 Mar,13	Somsom	Supplying somsom to the site	40 CM	Site working area at St. (01+500)
176		Ready mix concrete (B200)	Supplying concrete to the site	7.5CM	Air release valve base slab chamber at St. (07+870) , wash out chamber at St. (01+700) (blinding), and road culver at St. (01+304)
177		3"-SCH40 Epoxy coated welded steel pipe	Supplying to the fabrication shop	5.75 Meters	Fabrication shop
178		12-Inch heat shrinkable sheets	Supplying shrinkable sheets to the site	30 pieces	Site office
179		Somsom	Supplying somsom to the site	200 CM	Site working area from St. (01+180) to St. (01+090)
180		Single size aggregate	Supplying single size to the site	60 CM	Site working area from St. (01+180) to St. (01+090)

No.	Date	Item	Description	QTY	Location
181	18 Mar,13	Base course	Supplying base course base course to the site	60 CM	Storage area at St. (00+950)
182		12-Inch SCH20 welded steel pipes	Supplying steel pipes to the storage area	363.7 meters 30 pieces	Storage area at St. (01+500)
183		12-Inch heat shrinkable sheets	Supplying shrinkable sheets to the site	30 pieces	Site office
184		Tie rods	Supplying tie rods to the site	500 pieces	Site office
185		16mm Reinforcement steel bars	Supplying steel bars to the site		Washout chamber at St. (01+700)
186	19 Mar,13	Somsom	Supplying somsom to the site	40 CM	Site working area srom St. (01+090) to St. (00+955)
187	20 Mar,13	Somsom	Supplying somsom to the site	60 CM	Site working area at St. (01+090) to St. (00+830)
188		16mm Reinforcement steel bars	Supplying steel bars to the site	309 Kg	Washout chamber at St. (01+700)
189	21 Mar,13	Ready mix concrete (B350)	Supplying concrete to the site	2.5 CM	Washout base slab chamber at St. (01+700)
190	23 Mar,13	Ready mix Concrete (B350)	Supplying concrete to the site	6 CM	ARV chamber walls at St. (07+870)
191		12-Inch SCH20 welded steel pipes	Supplying steel pipes to the site	351.92 meters 30 pieces	Storage area at St. (00+900)
192		12-Inch heat shrinkable sheets	Supplying shrinkable sheets to the site	30 pieces	Site office
193		16mm Reinforcement steel bars	Supplying steel bars to the site	271 Kg	Washout chamber at St. (01+700)
194		Concrete New Jersey barriers	Supplying barriers to the site	15 pieces	Site working area at St. (01+500)
195		Base course	Supplying base course to the site	200 CM	Storage area at St. (00+900)
196		Single size aggregate	Supplying single size to the site	40 CM	Site working area from St.(00+830) to St. (00+685)
197		Somsom	Supplying somsom to the site	80 CM	Site working area from St. (00+830) to St. (00+685)
198	24 Mar,13	16mm Reinforcement steel bars	Supplying steel bars to the site	15180 Kg	Storage yard at St. (02+700)
199	26 Mar,13	Ready mix concrete (B350)	Supplying concrete to the site	7 CM	Washout chamber at St. (01+700) and ARV Chamber at St. (07+870)
200		Base course	Supplying base course to the site	40 CM	Storage area at St. (0+900)
201		Single size aggregate	Supplying aggregate to the site	20 CM	Site working area from St. (00+685) to St. (00+515)
202		Somsom	Supplying somsom to the site	80 CM	Site working area from St. (00+685) to St. (00+515)
203	27 Mar,13	Ready mix concrete (B200)	Supplying concrete to the site	2.5 CM	BFV chamber and ARV chamber at St.(01+454)
204		Single size aggregate	Supplying single size to the site	60 CM	Site working area at St. (00+450)
205		Asphalt 3/4"	Supplying asphalt to the site	37720Kg	Asphalted pipeline trench St. (02+620) to St.(02+420)
206	28 Mar,13	Ready mix concrete (B350)	Supplying concrete to the site	1.5 CM	Washout chamber at St. (01+700)
207		Ready mix concrete (B350)	Supplying concrete to the site	4.5 CM	BFV chamber and ARV chamber at St.(01+454)
208		10" SCH20 Welded steel pipes (PE external coating and internal cement lining)	Supplying steel pipes to the site	254.42 Meters ,21 pipes	Storage area at St.(02+700)

No.	Date	Item	Description	QTY	Location
209	30 Mar,13	12" SCH20 Welded steel pipes (PE external coating and internal cement lining)	Supplying steel pipes to the site	174.29 Meters ,15 pipes	Storage area at St.(00+900)
210		12" SCH20 Welded steel pipes (PE external coating and internal cement lining)	Supplying steel pipes to the site	12.16 Meters 1 pipe	Storage area at St.(02+700)
211		10" Heat shrinkable sheet	Supplying shrinkable sheet to the site	21 pieces	Site office
212		12" Heat shrinkable sheet	Supplying shrinkable sheet to the site	23 pieces	Site office
213		Asphalt 3/4"	Supplying asphalt to the site	70 Tons	From St. (02+420) to St. (02+000) , From St. (02+680) to St.(02+620)
214	31 Mar,13	10" SCH20 Welded steel pipes (PE external coating and internal cement lining)	Supplying steel pipe to the site	944.76 M ,78 pipes	Storage area at St. (02+700)
215		10" SCH20 Welded steel pipes (PE external coating and internal cement lining)	Supplying steel pipes to the site	48.51 M 4 pipes	Storage area at St.(02+700)
216		10" Heat shrinkable sheet	Supplying shrinkable sheet to the site	99 pieces	Site office
217		2"-SCH40 Threaded 45 degree elbow	Supplying elbow to the site	5 pieces	Site office
218		2"-SCH40 Threaded 90 degree elbow	Supplying elbow to the site	5 pieces	Site office
219		2"-SCH40 both sides threaded nipple	Supplying nipple to the site	5 pieces	Site office
220		6"-90 Degree welded steel elbow	Supplying steel elbow to the site	1 pieces	Site office
221		3"/6" Welded steel reducer	Supplying steel reducer to the site	1 pieces	Site office
222		3"-90 Degree Welded steel elbow	Supplying steel elbow to the site	2 pieces	Site office
223		10"-90 Degree welded steel elbow	Supplying steel elbow to the site	1 pieces	Site office
224		12"/10" Degree welded steel reducer	Supplying steel reducer to the site	1 pieces	Site office
225		12"/12"/6" Welded steel reducer tee	Supplying steel tee to the site	1 pieces	Site office
226	02 Apr,13	10" SCH20 Welded steel pipes (PE external coating and internal cement lining)	Supplying steel pipes to the site	969.76 M ,81 pipes	Storage Area at St. (06+880)
227		10" Heat shrinkable sheet	Supplying shrinkable sheet to the site	100 pieces	Site office
228		Ready mix concrete (B350)	Supplying concrete to the site	8 CM	BFV chamber and ARV chamber at St.(01+446)
229	03 Apr,13	Asphalt 3/4"	Supplying asphalt to the site	37 Tons	Working area, from St. (02+020) to St.(01+750)
230		Single size aggregate	Supplying single size to the site	20 CM	Working area, from St.(04+243) to St.(04+200)
231		Somsom	Supplying somsom to the site	60 CM	Working area, from St. (04+243) to St.(04+200)
232	04 Apr,13	Ready mix concrete (B350)	Supplying concrete to the site	3 CM	BFV chamber and ARV chamber at St.(00+446)
233		Ready mix concrete (B200)	Supplying concrete to the site	7 CM	Road crossing at St.(01+700)
234		16 mm Reinforcing steel bars	Supplying steel bars to the site	5630 Kg	Storage area at St.(02+700)
235	06 Apr,13	Ready mix concrete (B200)	Supplying concrete to the site	1.5 CM	Washout chamber at St. (00+900)
236		16 mm Reinforcing steel bars	Supplying steel bars to the site	13514 Kg	Storage area at St.(02+700)

No.	Date	Item	Description	QTY	Location
237	07 Apr,13	Somsom	Supplying somsom to the site	20 CM	Working area, from St. (04+025) to St.(03+765)
238		Single size aggregate	Supplying single size to the site	60 CM	Working area, from St.(04+025) to St.(03+765)
239		Base course	Supplying base course to the site	60 CM	Working area, from St. (04+025) to St.(03+765)
240	08 Apr,13	Somsom	Supplying somsom to the site	200 CM	Working area, from St. (03+765) to St.(03+640)
241		Single size aggregate	Supplying single size to the site	64	Working area, from St. (03+765) to St.(03+640)
242		Base course	Supplying base course to the site	60 CM	Working area, from St. (03+765) to St.(03+640)
243		Asphalt 3/4"	Supplying asphalt to the site	37.620 Tons	Working area, from St. (01+480) to St.(01+750)
244		Ready mix concrete (B350)	Supplying concrete to the site	3 CM	Washout chamber at St. (00+900)
245	09 Apr,13	Somsom	Supplying somsom to the site	140 CM	Working area, from St. (03+650) to St.(03+480)
246		single size aggregate	Supplying single size to the site	80CM	Working area, from S. (03+650) to St.03+480)
247		Base course	Supplying base course to the site	60 CM	Working area, from St. (03+650) to St.(03+480)
248	10 Apr,13	Somsom	Supplying somsom to the site	160 CM	Working area, from St. (03+480) to St.(03+260)
249		Single size aggregate	Supplying single size to the site	40CM	Working area, from St. (03+480) to St.(03+260)
250		Base course	Supplying base course to the site	60 CM	Working area, from St. (03+480) to St.(03+260)
251	11 Apr,13	Somsom	Supplying somsom to the site	100 CM	Working area, from St. (03+265) to St.(03+190)
252		Base course	Supplying base course to the site	20CM	Working area , from St. (03+265) to St.(03+190)
253		10" Welded steel pipes (SCH20)-with PE external coating and internal cement lining	Supplying pipes to the site	968.58 meters 82 pipes	Storage area at St.(06+800)
254		Ready mix concrete (B200)	Supplying concrete to the site	6 CM	Pipe encasement from St.(02+400) to St.(02+415)
255	13 Apr,13	Somsom	Supplying somsom to the site	80 CM	Working area from St.(03+190) to St. (03+080)
256		Base course	Supplying base course to the site	20CM	Working area from St.(03+190) to St.(03+080)
257		Ready mix concrete (B350)	Supplying concrete to the site	6 CM	Wash out chamber at St. (00+970)
258		Ready mix concrete (B200)	Supplying concrete to the site	6 CM	Al-Jaba' connection chamber at St.(00+087)
259	14 Apr,13	10" Welded steel pipes (SCH20)-with PE external coating and internal cement lining	Supplying pipes to the site	942.84 meters 78 pieces	Storage area at St.(09+800)
260		Ready mix concrete (B200)	Supplying concrete to the site	3 CM	Road culvert at St.(03+147)
261		Somsom	Supplying somsom to the site	100 CM	Site area at St.(03+080)

No.	Date	Item	Description	QTY	Location
262	15 Apr,13	Somsom	Supplying somsom to the site	80 CM	Site area from St.(03+080) to St. (02+980)
263		10" Welded Steel Pipes (SCH20)-with PE external coating and internal cement lining	Supplying pipes to the site	980.24 meters 81 pieces	Storage area at St.(09+800)
264		Ready mix concrete (B200)	Supplying concrete to the site	8 CM	Flow monitoring chamber at St.(00+087)
265		Asphalt 3/4"	Supplying asphalt to the site	28.7 Tons	From St. (01+610) to St. (01+580) , from St.(02+365) to St. (02+350) and road crossings at St. (02+340) , (02+365) and St. (02+380)
266	16 Apr,13	Somsom	Supplying somsom to the site	40 CM	Site area from St.(02+980) to St. (02+830)
267		10" Welded steel pipes (SCH20)-with PE external coating and internal cement lining	Supplying pipes to the site	428.94 meters 36 pieces	Storage area at St.(09+800)
268		Base course	Supplying base course to the site	4CM	Working area from St. (02+980) to St.(02+830)
269	17 Apr,13	Ready mix concrete (B350)	Supplying concrete to the site	15 CM	Al-Jaba' connection base slab chamber at St. (00+095) , wash out roof slab chamber at St.(00+970) and wash out blinding concrete chamber at St. (03+318)
270	18Apr,13	Ready mix concrete (B200)	Supplying concrete to the site	31 CM	10" Pipeline trench from St. (02+812) to St. (02+768)
271	20Apr,13	Ready mix concrete (B200)	Supplying concrete to the site	7 CM	12" Pipeline trench from St. (02+707) to St.(02+694)
272	22 Apr,13	Somsom	Supplying somsom to the site	100 CM	Site area from St.(06+810) to St. (06+680)
273		Base course	Supplying base course to the site	60CM	Site area from St.(06+810) to St. (06+680)
274	24Apr,13	Ready mix concrete (B350)	Supplying concrete to the site	22.5 CM	Working area at St.(00+087) and St.(03+138)
275		Asphalt 3/4"	Supplying asphalt to the site	107.98 Tons	From St. (03+200) to St. (04+000)
276	25 Apr,13	Ready mix concrete (B350)	Supplying concrete to the site	15.5 CM	Al-Jaba connection chamber at St.(00+090)
277		Base course	Supplying base course to the site	60 CM	Site working area, from St. (06+450) to St. (06+300)
278	27 Apr,13	Base course	Supplying base course to the site	20 CM	Site working area, from St, (06+450) to St, (06+301)
279		Ready mix concrete (B200)	Supplying concrete to the site	11 CM	Surif connection chamber at St. (02+553) and kherbet Aldier connection chamber at St. (02+720)

No.	Date	Item	Description	QTY	Location
280		Somsom	Supplying somsom to the site	80 CM	Site area ,from St. (06+300) to St.(06+200)
281	28 Apr,13	New Jersey concrete barriers	Supplying barriers to the storage yard	11 Pieces	Storage area at the site
282	29 Apr,13	Ready mix concrete (B200)	Supplying concrete to the site	3.5 CM	Road culvert at St. (06+303)
283		Ready mix concrete (B350)	Supplying concrete to the site	7.5 CM	Al-Jaba chamber roof slab at St. (00+090)
284	30 Apr,13	Asphalt 3/4"	Supplying asphalt to the site	29.96 Tons	From St. (03+300) to St. (03+150)
285	02 May,13	Ready mix concrete (B350)	Supplying concrete to the site	28 CM	Surif connection chamber at St. (02+535) and kherbet Aldier connection chamber at St. (02+720)
286		Asphalt 3/4"	Supplying asphalt to the site	27 Tons	10" Pipeline trench between St. (04+100) and St. (04+240)
287	05 May,13	Ready mix concrete (B350)	Supplying concrete to the site	13 CM	Flow monitoring chamber at St. (00+090)
288	06 May,13	Somsom	Supplying somsom to the site	120 CM	Working area at St.(05+650) to St.(05+450)
289		Base course	Supplying base course to the site	80CM	Working area at St. (05+650) to St.(05+450)
290		Single size aggregate	Supplying single size to the site	20CM	Working area at St.(05+650) to St.(05+450)
291	07 May,13	Ready mix concrete (B350)	Supplying concrete to the site	15 CM	Kherbit Aldier connection chamber at St. at St. (02+720)
292		Somsom	Supplying somsom to the site	80 CM	Working area at St.(05+450) to St. (05+300)
293		Base course	Supplying base course to the site	40 CM	Working area at St.(05+450) to St.(05+300)
294		Single size aggregate	Supplying single size to the site	20 CM	Working area at St. (05+450) to St.(05+300)
295	08 May,13	Somsom	Supplying somsomm to the site	120	Working area at St. (05+300) to St.(05+050)
296		Base course	Supplying base course to the site	80 CM	Working area at St. (05+300) to St.(05+050)
297		Single size aggregate	Supplying single size to the site	20 CM	Working area at St.(05+300) to St. (05+050)
298	09 May,13	Asphalt 3/4"	Supplying asphalt to the site	58 Tons	From St. (02+720) to St. (03+100)
299		Ready mix concrete (B350)	Supplying concrete to the site	9 CM	Flow monitoring chamber at St. (00+090)
300		Ready mix concrete (B200)	Supplying concrete to the site	1.5 CM	Wash out chamber at St. (06+800)
301		Base course	Supplying base course to the site	80 CM	Working area from St. (04+250) to St.(04+350)
302		Somsom	Supplying somsom to the site	100	Working area from St. (04+250) to St.(04+350)

No.	Date	Item	Description	QTY	Location
303		Single size aggregate	Supplying single size to the site	20 CM	Working area from St.(04+250) to St.(04+350)
304	11 May,13	Ready mix concrete (B350)	Supplying concrete to the site	7.5 CM	Flow monitoring chamber at St. (00+090)
305		Somsom	Supplying somsom to the site	120	Working area from St. (04+350) to St.(04+450)
306		Base course	Supplying base course to the site	80 CM	Working area from St. (04+350) to St. (04+450)
307	12 May,13	Ready mix concrete (B350)	Supplying concrete to the site	16.5 CM	Wash out chamber at St. (06+800)
308		Somsom	Supplying somsom to the site	60 CM	Working area from St. (04+450) to St. (04+550)
309		Base course	Supplying base course to the site	40CM	Working area from St. (04+450) to St.(04+550)
310		Ready mix concrete (B200)	Supplying concrete to the site	2CM	Gate valve chamber at St. (06+741)
311		10"-90 Degree welded steel elbow	Supplying elbow to the site	1 Piece	Site office
312		10"-45 Degree welded steel elbow	Supplying elbow to the site	5Piece	Site office
313	13May,13	Somsom	Supplying somsom to the site	60 CM	Work area from St.(04+550) to St.(04+690)
314		Base course	Supplying base course to the site	60 CM	Working area from St. (04+550) to St.(04+690)
315	14 May,13	Somsom	Supplying somsom to the site	60 CM	Work area from St.(04+690) to St.(04+800)
316		Base course	Supplying base course to the site	140 CM	Working area from St. (04+690) to St.(04+800)
317		Ready mix concrete (B350)	Supplying concrete to the site	12 CM	Surif connection chamber at St.(02+553)
318		Ready mix concrete (B200)	Supplying concrete to the site	4 CM	Surif future connection chamber at St. (04+230)
319	16 May,13	Base course	Supplying base course to the site	140 CM	Working area between St. (04+860) and St.(5+025)
320		Somsom	Supplying somsom to the site	60 CM	Working area between St.(04+860) to St.(05+025)
321		Ready mix concrete (B350)	Supplying concrete to the site	17 CM	Flow monitoring chamber at St. (00+060),Surif connection chamber at St. (02+553),wash out chamber at St.(03+138) and gate valve chamber at St. (06+741)
322		Ready mix concrete (B200)	Supplying concrete to the site	1.5 CM	Road culvert at St.(04+880)
323	18 May,13	Base course	Supplying base course to the site	120 CM	Working area between St. (09+220) and St.(09+160)
324		Somsom	Supplying somsom to the site	80 CM	Working area between St. (09+220) and St.(09+160)
325		Base course	Supplying base course to the site	120 CM	Working area between St. (09+220) to St. (09+120)

No.	Date	Item	Description	QTY	Location
326	May.19.2013	Somsom	Supplying somsom to the site	80 CM	Working area between St. (09+220) and St.(09+120)
327		Ready mix concrete (B350)	Supplying concrete to the site	5.5 CM	Wash out chamber at St. (06+778)
328	20 May,13	Base course	Supplying base course to the site	120 CM	Working area between St. (09+120) and St.(09+020)
329		Somsom	Supplying somsom to the site	80 CM	Working area between St. (09+120) and St. (09+020)
330		Ready mix concrete (B350)	Supplying concrete to the site	20CM	Surif connection chamber at St. (02+553) and Surif future connection chamber at St.(04+230)
331		Ready mix concrete (B200)	Supplying concrete to the site	3 CM	Air release valve chamber at St. (04+253) and Air release valve chamber at St.(05+260)
332		Asphalt(3/4")	Supplying asphalt to the site	33.24 Ton	10" Pipeline trench from St.(05+050) to St.(05+330)
333	21 May,13	Base course	Supplying base course to the site	80 CM	Work area between St. (09+020) and St.(08+900)
334		Somsom	Supplying somsom to the site	120 CM	Working area between St.(09+020) and St. (08+900)
335	22 May,13	Base course	Supplying base course to the site	80 CM	Working area between St. (09+220) and St.(09+300)
336		Somsom	Supplying somsom to the site	120 CM	Working area between St. (09+220) and St.(09+300)
337		Single size aggregate	Supplying aggregate to the site	40 CM	Working area between St. (09+220) to St.(09+300)
338		Ready mix concrete (B350)	Supplying concrete to the site	13 CM	Wash out chamber at St. (06+778),gate valve chamber at St. (06+741), air release valve chamber at St. (05+260), and Air release valve chamber at St.(04+253).
339	23 May,13	Base course	Supplying base course to the site	80 CM	Working area between St. (09+290) and St.(09+330)
340		Somsom	Supplying somsom to the site	120 CM	Working area between St. (09+290) and St. (09+330)
341		Single size aggregate	Supplying single size to the site	40 CM	Working area between St. (09+290) to St.(09+330)
342	25 May,13	Base course	Supplying base course to the site	80 CM	Working area between St. (09+330) and St. (09+500)
343		Somsom	Supplying to the site	120 CM	Working area between St.(09+330) and St. (09+500)
344		Single size aggregate	Supplying single size to the site	40 CM	Working area between St. (09+330) to St.(09+500)
345		Asphalt (3/4")	Supplying asphalt to the site	34 Ton	10" Pipeline trench from St. (03+050) to St. (03+150) and from St. (05+330) to St. (05+480)

No.	Date	Item	Description	QTY	Location
346	26 May,13	Base course	Supplying base course to the site	40 CM	Working area between St. (09+500) to St. (09+600)
347		Somsom	Supplying somsom to the site	80 CM	Working area between St. (09+500) to St. (09+600)
348		Single size aggregate	Supplying single size to the site	120CM	Working area between St. (09+500) to St. (09+600)
349		Ready mix concrete (B350)	Supplying concrete to the site	7.5CM	Gate valve chamber at St. (06+741) and air release valve chamber at St.(05+260)
350	27 May,13	Base course	Supplying base course to the site	80CM	Working area between St. (09+600) and St. (09+700)
351		Somsom	Supplying somsom to the site	100CM	Working area between St. (09+600) and St. (09+700)
352		Single size aggregate	Supplying single size to the site	80CM	Working area between St. (09+600) and St.(09+700)
353	28 May,13	Base course	Supplying base course to the site	80CM	Working area between St. (09+600) and St.(09+700)
354		Somsom	Supplying somsom to the site	100CM	Working area between St. (09+600) and St.(09+700)
355		Single size aggregate	Supplying single size to the site	80CM	Working area between St.(09+600) and St.(09+700)
356	29 May,13	Base course	Supplying base course to the site	100CM	Working area between St.(09+950) and St.(09+850)
357		Somsom	Supplying somsom to the site	100CM	Working area between St. (09+950) and St.(09+850)
358		Single size aggregate	Supplying single size to the site	120CM	Working area between St. (09+950) and St.(09+850)
359		Ready mix concrete(B350)	Supplying concrete to the site	7.5CM	Surif future connection chamber at St.(04+230) and air release valve chamber at St.(04+253)
360		Ready mix concrete(B200)	Supplying concrete to the site	6CM	Nuba Hata connection chamber at St.(11+251)
361		Asphalt (3/4")	Supplying asphalt to the site	72.88 Ton	10- Inch pipeline trench from St. (05+480) to St. (05+880)
362	30 May,13	Base course	Supplying base course to the site	80CM	Working area between St.(09+700) to St. (09+850)
363		Somsom	Supplying somsom to the site	100CM	Working area between St. (09+700) to St. (09+850)
364		Single size aggregate	Supplying single size to the site	80CM	Working area between St. (09+700) and St.(09+850)
365		Ready mix concrete(B200)	Supplying concrete to the site	35CM	Air release valve chamber at St. (09+190) and gate valve chamber at St.(09+200)
366		Asphalt (3/4")	Supplying asphalt to the site	69.7 Ton	10- Inch pipeline trench from St. (05+880) to St. (06+400)
367	01 Jun,13	Asphalt (3/4")	Supplying asphalt to the site	26 Ton	10- Inch pipeline trench from St. (06+400) to St. (06+670)

No.	Date	Item	Description	QTY	Location
368	02 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	11 CM	Nuba Hata connection chamber at St.(11+251)
369		Asphalt (3/4")	Supplying asphalt to the site	21.92Ton	10- Inch pipeline trench from St. (06+670) to St. (06+740)and from St. (06+785) to St.(06+840)
370	03 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	6CM	Gate valve chamber at St. (09+200) and air release valve chamber at St.(09+190)
371	04 Jun,13	Ready mix concrete (B200)	Supplying concrete to the site	8CM	Kharas connection chamber at St.(09+939)
372	06 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	5.5CM	Air release valve chamber at St. (90+190)
373	09 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	31CM	Nuba Hata connection chamber at St.(11+251) and Kharas connection chamber at St.(09+939)
374	10 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	2CM	Air release valve chamber at St. (09+190)
375		Asphalt (3/4")	Supplying asphalt to the site	69.08Ton	10-Inch pipeline trench from St. (04+255) to St. (04+500)
376	12 Jun,13	Asphalt (3/4")	Supplying asphalt to the site	64.86 Ton	10-Inch pipeline trench between St.(04+500) and (05+030) and from St. (02+700) to St.(02+740)
377	13 Jun,13	Asphalt (3/4")	Supplying asphalt to the site	10 Ton	10-Inch pipeline trench between St. (05+030) and (05+050)
378		Ready mix concrete (B350)	Supplying concrete to the site	14.5 CM	Nuba Hata connection chamber at St. (11+251) and gate valve chamber at St. (09+200)
379		Ready mix concrete (B200)	Supplying concrete to the site	5 CM	Nuba main connection chamber at St. (10+700)
380	17 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	23 CM	Roof slab of the gate valve chamber at St. (09+200) and walls of Kharas connection chamber at St. (09+939)
381	18 Jun ,13	Asphalt (3/4")	Supplying asphalt to the site	67.43 Ton	10-Inch pipeline trench between St.(09+970) and St.(10+150)
382	19 Jun,13	Asphalt (3/4")	Supplying asphalt to the site	25.8 Ton	10-Inch pipeline trench between St.(09+900) and St. (09+740)
383		Ready mix concrete (B350)	Supplying concrete to the site	17 CM	Kharas connection Chamber at St.(09+939)
384		Ready mix concrete (B200)	Supplying concrete to the site	2.5 CM	Wash out chamber at St.(09+670)
385	24 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	16 CM	Nuba main connection chamber at St. (10+700) and Kharas connection Chamber at St. (09+939)
386		Ready mix concrete (B350)	Supplying concrete to the site	3CM	Wash out chamber at St. (09+650)

No.	Date	Item	Description	QTY	Location
387	25 Jun,13	Asphalt (3/4")	Supplying asphalt to the site	55.56Ton	10-Inch pipeline trench between St. (09+350) and St. (09+700)
388	26 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	6.5CM	Nuba main connection chamber at St. (10+700)
389	27 Jun,13	Ready mix concrete (B200)	Supplying concrete to the site	26 CM	12-Inch pipeline trench from St.(00+087)to St.(00+055)
390	30 Jun,13	Ready mix concrete (B350)	Supplying concrete to the site	5.5 CM	Washout chamber at St. (09+670)
391	02 Jul,13	Asphalt (3/4")	Supplying asphalt to the site	59.44 Ton	10-Inch pipeline trench from St. (10+150) to St. (10+450).
392		Ready mix concrete (B350)	Supplying concrete to the site	3 CM	Wash out chamber at St. 9+670
393		Ready mix concrete (B200)	Supplying concrete to the site	1.5 CM	Wash out Chamber at St. (10+689)
394	03 Jul,13	Asphalt (3/4")	Supplying asphalt to the site	18.3 Ton	10-Inch pipeline trench from St. (10+450) to St. (10+650).
395	04 Jul,13	Ready mix concrete (B350)	Supplying concrete to the site	3.5 CM	Wash out chamber at St.10+689.
396	09 Jul,13	Ready mix concrete (B350)	Supplying concrete to the site	5.5 CM	Wash out chamber at St. 10+689.
397	10 Jul,13	Ready mix concrete (B200)	Supplying concrete to the site	22 CM	12-Inch pipeline trench between St.(00+030) and St. (0+000) and to encase the 12-inch steel pipeline through existing Makarot pipes.
398	11 Jul,13	Ready mix concrete (B350)	Supplying concrete to the site	1.5 CM	Wash out chamber at St. (10+689)
399	13 Jul,13	Precast concrete manholes (1.5mX1.5mX1.8m)	Supplying precast manholes to the site	2 CM	At St. (01+700) and St. (01+550)
400	14 Jul,13	Base course	Supplying base course to the site	60 CM	At site working area
401	16 Jul,13	Asphalt (3/4")	Supplying asphalt to the site	46 Ton	10-Inch pipeline trench from St.(09+200) to St.(08+900)
402	21 Jul,13	Ready mix concrete (B200)	Supplying concrete to the site	6 CM	Road culvert at St.(10+710) and air release valve chamber at St. (09+260)
403	22 Jul,13	Single size aggregates	Supplying single size to the site	120 CM	Site working area to backfill around the excavated chambers
404	23 Jul,13	Single size aggregates	Supplying single size to the site	80 CM	Site working area to backfill around the excavated chambers.
405		Precast concrete square manhole (1.5mX1.5mX1.8m)	Supplying concrete square manhole size to the site	1	At St.(09+679)
406		Precast concrete ring manhole (1.5mX1.35m)	Supplying concrete ring manhole size to the site	1	At St.(10+250)
407	24 Jul,13	Precast concrete manholes	Supplying precast manholes to the site	3	2-inch air release valve chamber at St.(02+330), 12-inch air release valve chamber at St. (00+002)and 4-inch air release valve chamber at St. (09+200)
408	01 Aug,13	Base course	Supplying base course to the site	20 CM	At St. (00+900)
409	21 Aug,13	Base course	Supplying base course to the stockpiling yard	80 CM	Stockpiling yard at St. (00+900)

No.	Date	Item	Description	QTY	Location
410	22 Aug,13	Base course	Supplying base course to the stockpiling yard	120 CM	Stockpiling yard at St.(00+900) / Al-Jabaa road
411		Asphalt (3/4")	Supplying asphalt to the site	30.8 Tons	JNT pipeline trench at St. (04+230), (01+700) and (05+260)
412	23 Aug,13	2-Inch galvanized steel pipes	Supplying pipes to the site	300 M	JNT pipeline at St. (01+500)
413	24 Aug,13	Asphalt (3/4")	Supplying asphalt to the site	6 Trucks	JNT pipeline trench between St. (06+800) and St. (07+750)
414		Base course	Supplying base course to the site	120 CM	Al-Jabaa road
415	25 Aug,13	Asphalt (3/4")	Supplying asphalt to the site	6 Trucks	JNT pipeline trench Between St.(07+750) and St.(08+830)
416		Base course	Supplying base course to the site	120 CM	Al-Jabaa road
417	27 Aug,13	Asphalt (3/4")	Supplying asphalt to the site	70 Tons	From St.(06+800) to St. (04+480)
418	28 Aug,13	Asphalt (3/4")	Supplying asphalt to the site	210 Tons	From St.(06+480) to St. (05+280)
419	29 Aug,13	Asphalt (3/4")	Supplying asphalt to the site	270 Tons	From St.(05+280) to St.(04+220)
420	31 Aug,13	Asphalt (3/4")	Supplying asphalt to the site	450 Tons	From St.(00+300) to St. (00+920)
421	01 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	480 Tons	From St. (00+920) to St. (01+500)
422	02 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	10 Truks	From St. (02+800) to St. (03+800)
423	03 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	300 Tons	From St.(03+800 to (04+200) and from St.(02+800) to St.(02+712)
424		Guard rail SP 2.0	Supplying guard rail to Al-Jab'a road	400 M	From St.(00+300) to St. (01+500)
425	04 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	120 Tons	From St. (01+500) to St. (01+700)
426	05 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	120 Tons	From St. (01+700) to St. (02+400)
427	07 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	210 Tons	From St. (08+830) to St.(09+200) and from St. (09+200) to St.(09+350)
428		Ready mix concrete B250	Supplying concrete to the site	36 CM	Concrete protection from St.(00+216) to St.(00+321) and from St.(00+230) to St. (00+378)
429	8 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	120 Tons	From St.(09+350) to St. (09+670)
430		Ready mix concrete B250	Supplying concrete to Al-Jab'a road	36 CM	Concrete protection at Al Jab'a road
431	09 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	120 Tons	From St.(09+670) to St. (10+050) and from St. (10+740) to St.(10+500)
432		Ready mix concrete B250	Supplying concrete to Al-Jab'a road	36 CM	Concrete protection at Al Jab'a road
433	10 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	120 Tons	From St.(10+500) to St.(10+200)
434		Ready mix concrete B250	Supplying concrete to Al-Jab'a road and Sawana	36 CM	Concrete protection at Al Jab'a road and Al Sawana

No.	Date	Item	Description	QTY	Location
435	11 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	120 Tons	From St. (100+200) to St. (10+050) and Kherbet Al Deir
436	20 Sep,13	Sodium hypochlorite (NAOCL),concentration (10-12%)	Supplying sodium to the storage area	450 Lit	Contractor storage area
437	23 Sep,13	Ready mix concrete B200	Supplying concrete to the site	6CM	Permanent project signs Locations – St.(04+200) and St.(10+740)
438	25 Sep,13	Asphalt (3/4")	Supplying asphalt to the site	30 Ton	St.(11+260),St.(09+939)and St.(10+700)
439	26 Sep,13	Ready mix concrete (B200)	Supplying concrete to the site	12 CM	Washout outfall at St.(01+700),St.(03+160) and St.(06+800)
440	01 Oct,13	Single Size	Supplying single size to the site	40 CUM	At St.(00+032), St.(01+500) & St.(02+528)
441	02 Oct,13	Single Size	Supplying single size to the site	20 CUM	At St.(09+160) and St.(02+720)
442	05 Oct,13	Ready mix concrete B200	Supplying concrete to the site	3 CUM	Marker post along the project route
443	06 Oct,13	Single size	Supplying single size to the site	20 CUM	At St.(10+740)
444	07 Oct,13	Single size	Supplying single size to the site	20 CUM	At St.(09+939)
445	13 Oct,13	Single size	Supplying single size to the site	20 CUM	Nuba Hata at St.(11+250)
446	19 Oct,13	2" Water meter	Supplying water meters to the site	4 Pieces	Kharas connection/Deir Connection/Surif connection/Nuba Hata connection
447	20 Oct,13	2" Water meter	Supplying water meters to the site	5 Pieces	Kharas connection/Deir Connection/Surif connection/Nuba Hata connection

Annex B14 Project Workforce Level of Effort Log

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
September 1, 2012						0
September 2, 2012						0
September 3, 2012						0
September 4, 2012						0
September 5, 2012						0
September 6, 2012						0
September 7, 2012						0
September 8, 2012						0
September 9, 2012						0
September 10, 2012						0
September 11, 2012						0
September 12, 2012						0
September 13, 2012						0
September 14, 2012						0
September 15, 2012						0
September 16, 2012						0
September 17, 2012						0
September 18, 2012						0
September 19, 2012						0
September 20, 2012						0
September 21, 2012						0
September 22, 2012						0
September 23, 2012						0
September 24, 2012						0
September 25, 2012						0
September 26, 2012						0
September 27, 2012	1.5				1	2.5
September 28, 2012						0
September 29, 2012	1	1			1	3
September 30, 2012	1.5	1			1	3.5
Total of Month	**4**	**2**	**0**	**0**	**3**	**9**

Annex B14 Project Workforce Level of Effort Log

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
October 1, 2012	2.5	1			1	4.5
October 2, 2012	2.5				1	3.5
October 3, 2012	3.5	2			1	6.5
October 4, 2012	3.5	2			1	6.5
October 5, 2012						0
October 6, 2012	3.5	2			1	6.5
October 7, 2012	2.5	3	1			6.5
October 8, 2012	2.5	3	1			6.5
October 9, 2012	2.5	3	1			6.5
October 10, 2012	2.5	3	1			6.5
October 11, 2012	2.5	3	1			6.5
October 12, 2012						0
October 13, 2012	2.5	3	1			6.5
October 14, 2012	2.5	3	1			6.5
October 15, 2012	2.5	3	1			6.5
October 16, 2012	2.5	3	1			6.5
October 17, 2012	2.5	3	1			6.5
October 18, 2012	2.5	3			1	6.5
October 19, 2012						0
October 20, 2012	2.5	3	1		1	7.5
October 21, 2012	2.5	2			1	5.5
October 22, 2012	2.5	2			1	5.5
October 23, 2012	2.5	2			1	5.5
October 24, 2012	2.5	2			1	5.5
October 25, 2012	2				1	3
October 26, 2012						0
October 27, 2012						0
October 28, 2012						0
October 29, 2012						0
October 30, 2012	3.375	2			1	6.375
October 31, 2012	3.375	2			1	6.375
Total of Month	**64.25**	**55**	**11**	**0**	**14**	**144.25**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
November 1, 2012	4.375	2			1	7.375
November 2, 2012						
November 3, 2012	4.375	2			1	7.375
November 4, 2012	4.375	2	1		1	8.375
November 5, 2012	4.375	2	1		1	8.375
November 6, 2012	4.375	2	1		1	8.375
November 7, 2012	4.375	2	1		1	8.375
November 8, 2012	4.375	1			1	6.375
November 9, 2012						0
November 10, 2012	4.375	2	1		1	8.375
November 11, 2012	4.375	2	1		1	8.375
November 12, 2012	4.375	2	1		1	8.375
November 13, 2012	4.375	1	1		1	7.375
November 14, 2012	4.375	1			1	6.375
November 15, 2012	4.375	1			1	6.375
November 16, 2012						0
November 17, 2012	4.375	2			1	7.375
November 18, 2012	4.375	2			1	7.375
November 19, 2012	4.375	2			1	7.375
November 20, 2012	4.375	2			1	7.375
November 21, 2012	4.375	2			1	7.375
November 22, 2012	4.375	2			1	7.375
November 23, 2012						0
November 24, 2012	4.375	2			1	7.375
November 25, 2012	4.375	2			1	7.375
November 26, 2012	4.375	2			1	7.375
November 27, 2012	4.375	2			1	7.375
November 28, 2012	4.375	2			1	7.375
November 29, 2012	4.375	2			1	7.375
November 30, 2012						0
Total of Month	**109.375**	**46**	**8**	**0**	**25**	**188.375**

Annex B14 Project Workforce Level of Effort Log

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
December 1, 2012	4.375	2	0	0	1	7.375
December 2, 2012	3.375	2	0	0	1	6.375
December 3, 2012	4.375	2	0	0	1	7.375
December 4, 2012	3.375	2	0	0	1	6.375
December 5, 2012	3.375	2	0	0	1	6.375
December 6, 2012	3.375	2	0	0	1	6.375
December 7, 2012						0
December 8, 2012	3.375	2	0	0	1	6.375
December 9, 2012	4.375	2	0	0	1	7.375
December 10, 2012	4.375	2	0.5	1	2	9.875
December 11, 2012	3.375	2	0	0	2	7.375
December 12, 2012	3.375	2	0	0	2	7.375
December 13, 2012	3.375	3	0	0	1	7.375
December 14, 2012						0
December 15, 2012	3.375	3	5	0	1	12.375
December 16, 2012	3.375	3	5	0	1	12.375
December 17, 2012	3.375	3	4	0	1	11.375
December 18, 2012	3.375	3	1.875	0	1	9.25
December 19, 2012	3.375	3	3.375	0	1	10.75
December 20, 2012	3.375	3	0	0	1	7.375
December 21, 2012	0	0	0	0	0	0
December 22, 2012	3.375	3	0	0	1	7.375
December 23, 2012	3.375	3	0	0	1	7.375
December 24, 2012	3.375	3	2	1.5	1	10.875
December 25, 2012	3.375	3	6.75	1.5	1	15.625
December 26, 2012	3.375	3	5.75	0.75	1	13.875
December 27, 2012	3.375	3	5.75	0	1	13.125
December 28, 2012	0	0	0	0	0	0
December 29, 2012	3.75	3	0.75	0	1	8.5
December 30, 2012	3.75	3	0.75	0	1	8.5
December 31, 2012	3.75	3	0.75	0	1	8.5
Total of Month	**96.25**	**70**	**42.25**	**4.75**	**30**	**243.25**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
January 1, 2013	3.75	3	0	0.75	1	8.5
January 2, 2013	3.75	3	0	1.5	1	9.25
January 3, 2013	2.75	4	0.25	1.5	1	9.5
January 4, 2013	0	0	0	0	0	0
January 5, 2013	2.75	4	0	0	1	7.75
January 6, 2013	3.75	4	0	0	1	8.75
January 7, 2013	3.75	4	0	0	1	8.75
January 8, 2013	2.75	4	0	0	0	6.75
January 9, 2013	2.75	4	0	0	0	6.75
January 10, 2013	0	0	0	0	0	0
January 11, 2013	0	0	0	0	0	0
January 12, 2013	2.75	4	0	0	0	6.75
January 13, 2013	2.75	4	1.5	0	0	8.25
January 14, 2013	2.75	4	0	0	0	6.75
January 15, 2013	3.75	4	1.75	2.25	0	11.75
January 16, 2013	2.75	4	6	0.125	0	12.875
January 17, 2013	2.75	4	0	0.5	0	7.25
January 18, 2013	0	0	0	0	0	0
January 19, 2013	2.75	4	0	0	0	6.75
January 20, 2013	2.75	4	7	0.75	0	14.5
January 21, 2013	2.75	4	0	0	0	6.75
January 22, 2013	3.25	4	0.5	0	0	7.75
January 23, 2013	2.75	4	2	0.625	0	9.375
January 24, 2013	2.75	4	2	1.25	0	10
January 25, 2013	0	0	0	0	0	0
January 26, 2013	2.75	4	3	1.25	0	11
January 27, 2013	3.75	4	12.875	6	0	26.625
January 28, 2013	3.75	4	18	6	0	31.75
January 29, 2013	3	4	1.5	1.5	0	10
January 30, 2013	3	4	2.5	3	0	12.5
January 31, 2013	3	4.125	1.625	1.25	0	10
Total of Month	**79.75**	**102.125**	**60.5**	**28.25**	**6**	**276.625**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
February 1, 2013	0	0	0	0	0	0
February 2, 2013	2	4	1.375	2	0	9.375
February 3, 2013	3	4	13	8	0	28
February 4, 2013	3	4	10	14	0	31
February 5, 2013	3	4	10	14	0	31
February 6, 2013	3	4	4	3	0	14
February 7, 2013	3	6	10	12	0	31
February 8, 2013	0	0.5	0	0	0	0.5
February 9, 2013	3	5	11	11	0	30
February 10, 2013	3	7	11	11	0	32
February 11, 2013	3	6	11.25	11	0	31.25
February 12, 2013	4	7	11	10	0	32
February 13, 2013	4.5	8.25	13.75	15	0	41.5
February 14, 2013	4.25	7.5	13.75	15	0	40.5
February 15, 2013	0	0	0	0	0	0
February 16, 2013	4.5	5.75	15	18.75	0	44
February 17, 2013	4.5	5.75	17.5	16.25	0	44
February 18, 2013	4	5	13	4	0	26
February 19, 2013	4	5	8.31	0	0	17.31
February 20, 2013	5	5.75	13.75	12.5	0	37
February 21, 2013	4.75	5.875	13.75	12.5	0	36.875
February 22, 2013	0	0	0	0	0	0
February 23, 2013	5	5	22.5	12.5	0	45
February 24, 2013	5	6	22.5	15	0	48.5
February 25, 2013	4.9	6	22.5	15	0	48.4
February 26, 2013	5	5.88	22.5	13.75	0	47.13
February 27, 2013	3.75	6.25	22.5	15	0	47.5
February 28, 2013	2.375	7	22.5	15	0	46.875
Total of Month	**91.525**	**136.505**	**336.435**	**276.25**	**0**	**840.715**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
March 1, 2013	0	0.375	1.125	0	0	1.5
March 2, 2013	2.25	5	23.75	15	0	46
March 3, 2013	2.5	7	23.75	15	0	48.25
March 4, 2013	2.5	7	23.75	15	0	48.25
March 5, 2013	1.25	7	23.75	16.25	0	48.25
March 6, 2013	2.25	7	25	16.25	0	50.5
March 7, 2013	3.25	5.5	16.25	11.25	0	36.25
March 8, 2013	0	0	1.5	0	0	1.5
March 9, 2013	4.75	3.5	16.25	11.25	0	35.75
March 10, 2013	4.5	5.75	16	12.25	0	38.5
March 11, 2013	4.5	6.75	16.25	12.5	0	40
March 12, 2013	5	6.75	18.75	12.5	0	43
March 13, 2013	8	7	24.75	12.5	0	52.25
March 14, 2013	6	7	23.75	12.5	0	49.25
March 15, 2013	5.5	2.25	15	12.5	0	35.25
March 16, 2013	6	5	17	12.5	0	40.5
March 17, 2013	4	5.5	6	3	0	18.5
March 18, 2013	5.75	6	19.5	16.5	0	47.75
March 19, 2013	4.75	6	20.5	16.6	0	47.85
March 20, 2013	4.75	6	32.5	15	0	58.25
March 21, 2013	1.625	5.5	6.5	2.5	0	16.125
March 22, 2013	0	0	0	0	0	0
March 23, 2013	5	5	28.75	12.5	0	51.25
March 24, 2013	5	7	22.5	10	0	44.5
March 25, 2013	5	7	22.5	9.75	0	44.25
March 26, 2013	5	7	23.75	10	0	45.75
March 27, 2013	5	7	22.5	11.25	0	45.75
March 28, 2013	4.5	6	31.25	10	0	51.75
March 29, 2013	0	0	0	0	0	0
March 30, 2013	5	5	25	8.75	0	43.75
March 31, 2013	5	7	25	10	0	47
Total of Month	**118.625**	**162.875**	**572.875**	**323.1**	**0**	**1177.475**

Annex B14 Project Workforce Level of Effort Log

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
April 1, 2013	3.5	6	25	12.5	0	47
April 2, 2013	4.125	4.625	33.75	12.5	0	55
April 3, 2013	3.75	4.75	33.75	12.5	0	54.75
April 4, 2013	4.25	6.5	30	12.5	0	53.25
April 5, 2013	0	0	0	0	0	0
April 6, 2013	3.75	4.75	27.5	12.5	0	48.5
April 7, 2013	3.625	6.25	27.5	12.5	0	49.875
April 8, 2013	3.5	6	27.5	12.5	0	49.5
April 9, 2013	3.75	6	18.75	12.5	0	41
April 10, 2013	3.5	4.75	18.75	12.5	0	39.5
April 11, 2013	3.75	6	18.75	12.5	0	41
April 12, 2013	0	0	2.5	0	0	2.5
April 13, 2013	3.75	3.75	20	12.5	0	40
April 14, 2013	3.75	4.75	22.5	12.5	0	43.5
April 15, 2013	3.75	6	23.75	12.5	0	46
April 16, 2013	3.75	6	31.25	12.5	0	53.5
April 17, 2013	3.75	6	27.25	12.5	0	49.5
April 18, 2013	3.75	5.375	31.25	12.5	0	52.875
April 19, 2013	0	0	0	0	0	0
April 20, 2013	3.75	5	37.5	12.5	0	58.75
April 21, 2013	3	5	4	0	0	12
April 22, 2013	3.75	6.25	37.5	12.5	0	60
April 23, 2013	3.75	6	37.5	12.5	0	59.75
April 24, 2013	3.75	6	35	12.5	0	57.25
April 25, 2013	3.75	5.75	27.5	12.5	0	49.5
April 26, 2013	0	0	0	0	0	0
April 27, 2013	3	4	22	10	0	39
April 28, 2013	3	4	22	8	0	37
April 29, 2013	3.75	6	27.5	12.5	0	49.75
April 30, 2013	3.75	6	32.5	12.5	0	54.75
Total of Month	**95.25**	**141.5**	**702.75**	**305.5**	**0**	**1245**

Annex B14 Project Workforce Level of Effort Log

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
May 1, 2013	3.75	5	35	12.5	0	56.25
May 2, 2013	3.75	6	35	12.5	0	57.25
May 3, 2013	0	0	0	0	0	0
May 4, 2013	3.75	5	32.5	12.5	0	53.75
May 5, 2013	3.75	6	27.25	12.5	0	49.5
May 6, 2013	3.75	6	27.5	8.75	0	46
May 7, 2013	3.75	6	27.5	12.5	0	49.75
May 8, 2013	3.75	6	35	12.5	0	57.25
May 9, 2013	3.75	6	35	12.5	0	57.25
May 10, 2013						0
May 11, 2013	3.75	5	35	12.5	0	56.25
May 12, 2013	3.75	6.25	35	12.5	0	57.5
May 13, 2013	3.75	6.25	35	15	0	60
May 14, 2013	3.75	6.25	46.25	12.5	2.5	71.25
May 15, 2013	3.75	6	22.5	3.75	2.5	38.5
May 16, 2013	3.75	6	46.25	12.5	2.5	71
May 17, 2013	0	0.5	0.5			1
May 18, 2013	3.75	6	38.75	12.5	2.5	63.5
May 19, 2013	3.75	6	47.5	12.5	2.5	72.25
May 20, 2013	3.75	6	46.25	12.5	2.5	71
May 21, 2013	3.75	6	46.25	12.5	2.5	71
May 22, 2013	3.75	6	47.5	12.5	2.5	72.25
May 23, 2013	3.75	6	47.5	12.5	2.5	72.25
May 24, 2013		0.5			0.5	1
May 25, 2013	3.75	5	47.5	12.5	2.5	71.25
May 26, 2013	3.75	6	47.5	12.5	2.5	72.25
May 27, 2013	3.75	6	37.5	12.5	2.5	62.25
May 28, 2013	3.75	6	45	12.5	2.5	69.75
May 29, 2013	3.75	6	45	12.5	2.5	69.75
May 30, 2013	3.75	6	45	12.5	2.5	69.75
May 31, 2013	0					0
Total of Month	**97.5**	**153.75**	**1016.5**	**315**	**38**	**1620.75**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days					Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Other	
June 1, 2013	3.75	5	26.25	6.25	2.5	43.75
June 2, 2013	3.75	6	32.5	12.5	2.5	57.25
June 3, 2013	3.75	6	26.25	12.5	2.5	51
June 4, 2013	3.75	6	26.25	12.5	2.5	51
June 5, 2013	3.75	6	31.25	12.5	2.5	56
June 6, 2013	3.75	6	31.25	12.5	2.5	56
June 7, 2013						0
June 8, 2013	3.75	5	31.25	12.5	2.5	55
June 9, 2013	3.75	6	25	12.5	2.5	49.75
June 10, 2013	3.75	6	36.25	12.5	2.5	61
June 11, 2013	3.75	6	36.25	12.5	2.5	61
June 12, 2013	3.75	6	36.25	12.5	2.5	61
June 13, 2013	3.75	6	36.25	12.5	2.5	61
June 14, 2013						0
June 15, 2013	3.75	5	32.5	11.25	2.5	55
June 16, 2013	3.75	6	36.25	12.5	2.5	61
June 17, 2013	3.75	6	36.25	12.5	2.5	61
June 18, 2013	3.75	6	36.25	12.5	2.5	61
June 19, 2013	3.75	6	36.25	12.5	2.5	61
June 20, 2013	3.75	6	36.25	7.5	2.5	56
June 21, 2013	0					0
June 22, 2013	3.75	5	18.75	3.75	0	31.25
June 23, 2013	3.75	6	27.5	3.75	0	41
June 24, 2013	3.75	6	26.25	3.75	0	39.75
June 25, 2013	3.75	6	31.25	5	0	46
June 26, 2013	3.75	6	30	5	0	44.75
June 27, 2013	3.75	6	30	5	0	44.75
June 28, 2013	0					0
June 29, 2013	3.75	5	32.5	5	0	46.25
June 30, 2013	3.75	6	31.25	5	0	46
Total of Month	**97.5**	**151**	**816.25**	**248.75**	**45**	**1358.5**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days						Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Land and Quantity Surveyor	Other	
July 1, 2013	3.75	6	31.25	5		0	46
July 2, 2013	3.75	6	31.25	5		0	46
July 3, 2013	3.75	7.25	33.75	5		0	49.75
July 4, 2013	3.75	6	33.75	5		0	48.5
July 5, 2013	0						0
July 6, 2013	3.75	5	31.25	5		0	45
July 7, 2013	3.75	6	31.25	5		0	46
July 8, 2013	3.75	6	22.5	5		0	37.25
July 9, 2013	3.75	6	23.75	5		0	38.5
July 10, 2013	3.75	6	16.25	5		0	31
July 11, 2013	3.75	6	15	5		0	29.75
July 12, 2013	0						0
July 13, 2013	3.75	5	15	5		0	28.75
July 14, 2013	3	5	21	4		0	33
July 15, 2013	3	5	15	2		0	25
July 16, 2013	3	4	16	2		0	25
July 17, 2013	3	5	13	2		0	23
July 18, 2013	3	4	19	2		0	28
July 19, 2013	0						0
July 20, 2013	3	3	18	2		0	26
July 21, 2013	3	5	18	2		0	28
July 22, 2013	3	5	13	2		0	23
July 23, 2013	3	5	16	2		0	26
July 24, 2013	3	5	18	2		0	28
July 25, 2013	3	5	14	2		0	24
July 26, 2013	0						0
July 27, 2013	3	4	12	2	2	1	24
July 28, 2013	3	4	11	2	2	2	24
July 29, 2013	3	4	1.5	0	0.75	1.5	10.75
July 30, 2013	3	4	9	1	2	2	21
July 31, 2013	3	4	9	1	2	2	21
Total of Month	**89.25**	**136.25**	**508.5**	**85**	**8.75**	**8.5**	**836.25**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Jaba' Nuba Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days						Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Land & Quantity Surveyor	Other	
August 1, 2013	3	4	7	1	2		17
August 2, 2013	0						0
August 3, 2013	3	4	7	1	2		17
August 4, 2013	3	3	7	1	2		16
August 5, 2013	3	4	4	1	2		14
August 6, 2013	3	4	2	1	1.5		11.5
August 7, 2013	Eid Holiday						0
August 8, 2013							0
August 9, 2013							0
August 10, 2013							0
August 11, 2013							0
August 12, 2013	3	4	3	1	1		12
August 13, 2013	3	4	6	1	1		15
August 14, 2013	3	4	6	1	1		15
August 15, 2013	3	4	5.625	1	1		14.625
August 16, 2013							0
August 17, 2013	3	4	7	1	1		16
August 18, 2013	3	3	8	1	1		16
August 19, 2013	3	4	10	1	1		19
August 20, 2013	3	4	10	1	1		19
August 21, 2013	3	4	14	1	1		23
August 22, 2013	3	4	14	1	1		23
August 23, 2013	3	0	6	1	0		10
August 24, 2013	3	2	17	1	1		24
August 25, 2013	3	2	17	1	1		24
August 26, 2013	3	3	22	1	1		30
August 27, 2013	3	3	22	1	1		30
August 28, 2013	3	3	22	1	1		30
August 29, 2013	3	3	24	1	1		32
August 30, 2013	1	0	5	0	1		7
August 31, 2013	3	3	29	1	1		37
Total of Month	**70**	**77**	**274.625**	**23**	**27.5**	**0**	**472.125**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report							
Sub-project Name:	WI-ōI-ɥ bdzōI- a I-ʎy ¢WI-yãY ʎããʎ2y t ʎLJŜfɣŜ						
CONTRACTOR:	IRD						
SUBCONTRACTOR(s):							
DATE	**Site Staff Job Days**						**Man-Days Subtotal**
	Management	Engineers	Skilled labor	Unskilled labor	Land & Quantity Surveyor	Other	
September 1, 2013	3	3	24	1	1		32
September 2, 2013	3	3	24	1	1		32
September 3, 2013	3	3	38	1	1		46
September 4, 2013	3	3	33	1	1		41
September 5, 2013	3	3	23	1	1		31
September 6, 2013							0
September 7, 2013	3	3	31	1	1		39
September 8, 2013	3	3	29	1	0		36
September 9, 2013	3	3	29	1	0		36
September 10, 2013	3	3	30	1	0		37
September 11, 2013	3	3	24	2	0		32
September 12, 2013	3	2	4	3	0		12
September 13, 2013							0
September 14, 2013	3	2	10	2	0		17
September 15, 2013	3	2	11	3	0		19
September 16, 2013	3	3	25	3	0		34
September 17, 2013	3	3	14	5	0		25
September 18, 2013	3	3	16	5	0		27
September 19, 2013	3	3	13	5	0		24
September 20, 2013	1.5	0	2.5	0	0		4
September 21, 2013	3	3	14	1	0		21
September 22, 2013	3	3	7	1	0		14
September 23, 2013	3	3	18	1	0		25
September 24, 2013	3	3	18	1	0		25
September 25, 2013	3	3	27.5	1	0		34.5
September 26, 2013	3	3	17	1	0		24
September 27, 2013							0
September 28, 2013	3.75	3.75	10			1.25	18.75
September 29, 2013	3.75	3.75	12.5				20
September 30, 2013	3.75	3.75	8.5			2.5	18.5
Total of Month	**81.75**	**77.25**	**513**	**43**	**6**	**3.75**	**724.75**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Report

Sub-project Name: Ⅶ·ōů· bʤōa Main Transmission Pipeline
CONTRACTOR: IRD
SUBCONTRACTOR(s):

DATE	Site Staff Job Days						Man-Days Subtotal
	Management	Engineers	Skilled labor	Unskilled labor	Land & Quantity Surveyor	Other	
October 1, 2013	3.75	3.75	10				17.5
October 2, 2013	3.75	3.75	10				17.5
October 3, 2013	3.75	3.75	7.5				15
October 4, 2013							0
October 5, 2013	3.75	2.5	10				16.25
October 6, 2013	3.75	2.5	11.25				17.5
October 7, 2013	3.75	2.5	11.25				17.5
October 8, 2013	3.75	2.5	10				16.25
October 9, 2013	3.75	2.5	10				16.25
October 10, 2013	3.75	2.5	10				16.25
October 11, 2013							0
October 12, 2013	3.75	2.5	8.75				15
October 13, 2013	3.75	2.5	11.25				17.5
October 14, 2013							0
October 15, 2013							0
October 16, 2013							0
October 17, 2013							0
October 18, 2013							0
October 19, 2013	3	1	6				10
October 20, 2013	3	1	6				10
October 21, 2013	3	1	6				10
October 22, 2013	3	1	6				10
October 23, 2013	3	1	6				10
October 24, 2013	3	1	6				10
October 25, 2013							0
October 26, 2013	3	1	4				8
October 27, 2013	3	1	4			0.5	8.5
October 28, 2013	3	1	4			0.75	8.75
October 29, 2013	3	1	6				10
October 30, 2013	3	1	4			0.75	8.75
October 31, 2013	3	2	4				9
Total of Month	**77.25**	**44.25**	**172**	**0**	**0**	**2**	**295.5**

USAID WEST BANK/ GAZA

INFRASTRUCTURE NEEDS PROGRAM

TASK ORDER NO: 02

Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System

Temproray Job Days Summary Report

Task Order Name: Jaba' Nuba Main Transmission Pipeline and Well #17 Pump Station and Conveyance System **PERIOD FROM:**

Sub-project or Activity Name: Jaba' Nuba Main Transmission Pipeline **PERIOD TO:**

CONTRACTOR: IRD

Date		Site Staff Job Days					Total Job Days	No of Full Time Equivalent (FTE) Jobs in the Month*	Notes of Comments
Month	Year	Management	Engineers	Skilled Labor	Unskilled Labor	Other			
September	2011								
October	2011						0	0	
November	2011						0	0	
December	2011						0	0	
January	2012						0	0	
February	2012						0	0	
March	2012						0	0	
April	2012						0	0	
May	2012						0	0	
June	2012						0	0	
July	2012						0	0	
August	2012						0	0	
September	2012	4	2	0	0	3	9	0	
Total of FY 2012							9	0.378151261	
October	2012	64	55	11	0	14	144	6	
November	2012	109	46	8	0	25	188	8	
December	2012	96	70	42	5	30	243	10	
January	2013	80	102	61	28	6	277	12	
February	2013	92	137	336	276	0	841	35	
March	2013	119	163	573	323	0	1177	49	
April	2013	95	142	703	306	0	1245	52	
May	2013	98	154	1017	315	38	1621	68	
June	2013	98	151	816	249	45	1359	57	
July	2013	89	136	509	85	17	836	35	
August	2013	70	77	275	23	28	472	20	
September	2013	82	77	513	43	10	725	30	
Total of FY 2013							9128	383.5216387	
October	2013	77	44	172	0	2	296	12	
November	2013						0	0	
December	2013						0	0	
January	2014						0	0	
February	2014						0	0	
March	2014						0	0	
April	2014						0	0	
May	2014						0	0	
June	2014						0	0	
July	2014						0	0	
August	2014						0	0	
September	2014						0	0	
Total of FY 2014							296	12.41596639	
October	2014						0	0	
November	2014						0	0	
December	2014						0	0	
January	2015						0	0	
February	2015						0	0	
March	2015						0	0	
April	2015						0	0	
May	2015						0	0	
June	2015						0	0	
July	2015						0	0	
August	2015						0	0	
September	2015						0	0	
Total of FY 2015							0	0	

IRD International Relief & Development

Notice of Unsafe Conditions Log-NUC
IRD/Subcontractor

Task Order: 02-JNT
Project: **Al Jaba' Nuba Main Transmission Pipeline Project**

No.	Date Issued	Date Received	Sender/Recipient	Location	Subject	Level	Response Date	Status	Return Date	Resubmitted Date	Close Date
There were No Notice Of Unsafe Conditions for TO-12-00002-JNT-Al Jaba' Nuba Main Transmission Pipeline Project											

Level A- Requires Immediate Response

Level B- Moderately Serious- Correction within 48 hours

Level C- Minor corrective action is required

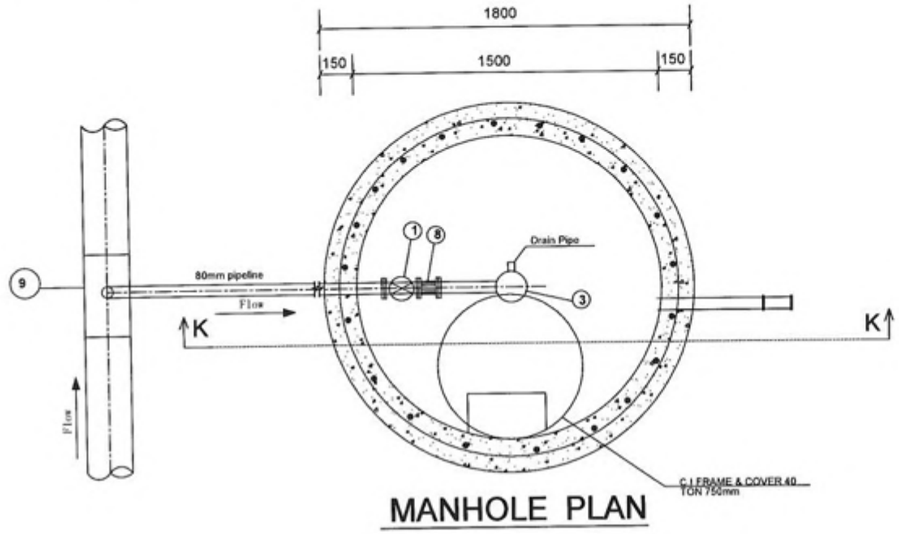
IRD International Relief & Development

Accident Investigation Report Log-AIR IRD/BV

Task Order: 02-JNT

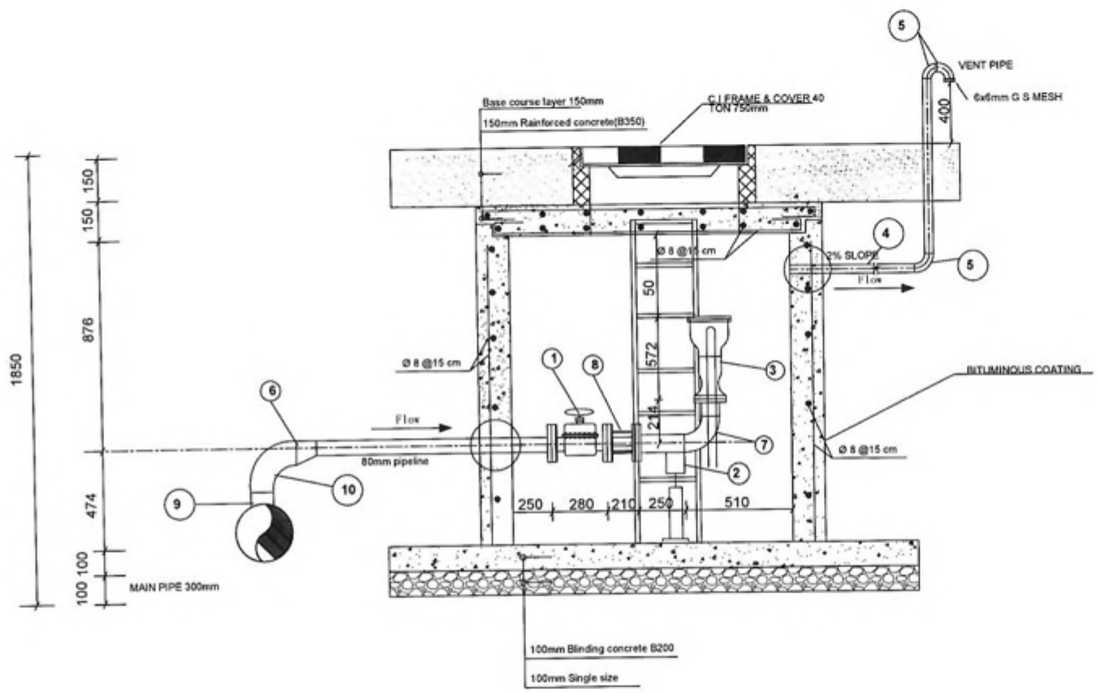
Project: Al Jaba' Nuba Main Transmission Pipeline Project

No.	Time/Date Issued	Date Received	Location	Sender/Recipient	Brief Description of Incident	No. of workers Impaired	No. of hours lost (ea)	Total Man Lost Man Hours
AIR-00002-JNT-01-A	Feb 12,2013, 2:00 PM	February 12, 2013	Surif work site St. (07+880)	IRD/BV	While a laborer was unloading pipes delivered to the stockpile area, one of the pipes slid on to the laborer's right hand and broke two of his fingers, the laborer was transferred to the emergency room and immediately treated for his injury	1	24	24
AIR-00002-JNT-02-A	March 10,2013, 2:00 PM	March 10, 2013	Surif work site St. (01+800)	IRD/BV	While the welding inspector was checking the pipe angle inside the trench he slid in the trench and a minor fracture in the bottom of the left foot occurred to him. The Welding Inspector was transferred to the emergency room of Al-Ahli Hospital for immediate medical treatment.	1	56	80



MANHOLE PLAN

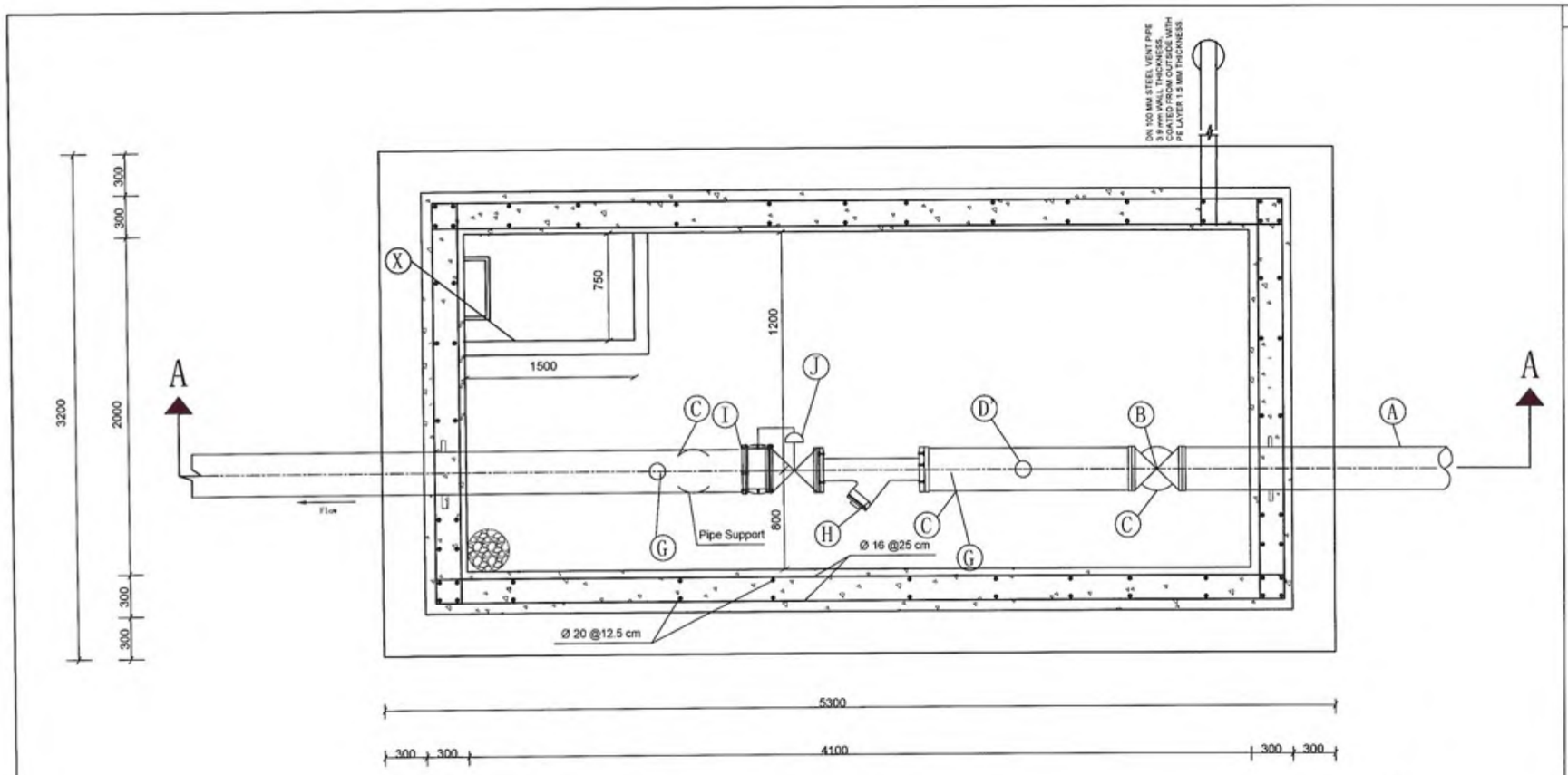
LEGEND		No
1	DN 80mm GATE VALVE	1
2	ADJUSTABLE PIPE SUPPORT	1
3	80mm COMBINATION AIR VALVE	1
4	Ø100mm STEEL PIPES FOR VENT.	
5	Ø100mm SCH 40 STEEL 90' Elbow .	3
6	Reducer 150 /80 mm	1
7	Ø80mm STEEL 90' Elbow .	2
8	DN 80 mm DISMANTLING JOINT.	1
9	WST(300*300*150)	1
10	Ø150mm STEEL 90' Elbow .	1



SECTION K- K

PRECAST CIRCULAR CONCRETE MANHOLE

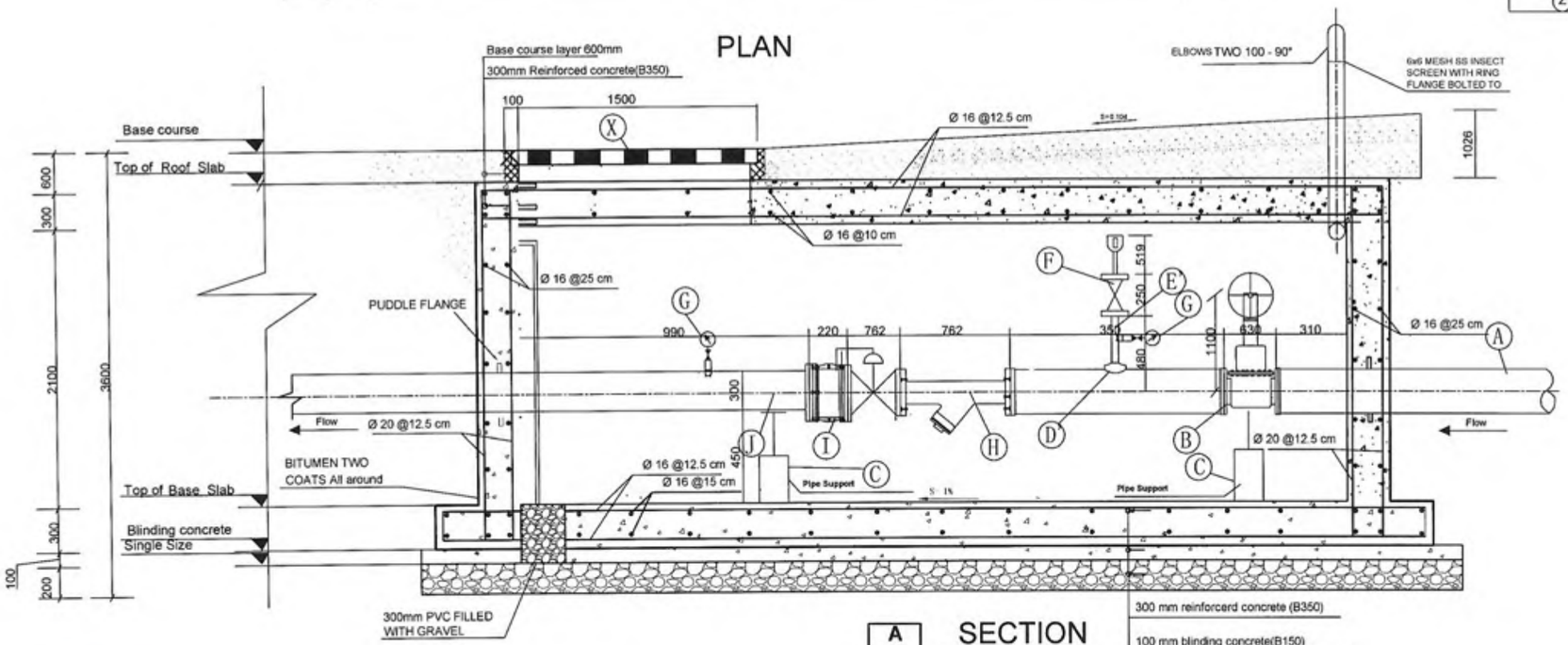
AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : COMBINATION AIR VALVE PRECAST CHAMBER ON At St(0+04)	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET: GMC-1	Sheet : 8 Of : 129 Date OCTOBER 2013 Scale : NTS



PLAN

LEGEND

- (A) 300mm - PW (41)
- (B) 300mm FLANGED GATE VALVE
- (C) ADJUSTABLE PIPE SUPPORT , Type B
- (D) weld olet 75mm
- (D') weld olet 50mm
- (E) 75mm FLANGED STOP VALVE
- (E') 50mm FLANGED STOP VALVE
- (F) 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 804)
- (G) 25 WELDED COUPLING WITH STOP VALVE & PRESSURE GAUGE I-301
- (H) 300mm FLANGED ANGLE STRAINER
- (I) 300mm FLANGED DISMANTLING JOINT
- (J) 300mm FLANGED PRESSURE REDUCING VALVE
- (K) 3" FLANGED PRESSURE RELIEF VALVE
- (M) REDUCER 300/200
- (N) WS-T 200x200x150mm
- (O) 200mm FLANGED GATE VALVE
- (P) 200mm FLANGED DISMANTLING JOINT
- (Q) 200mm FLANGED FLOW WATER METER
- (R) 150mm FLANGED GATE VALVE
- (S) 150mm-90° WS ELBOW
- (T) 150mm FLANGED DISMANTLING JOINT
- (U) 150 PW (40)
- (V) 150mm FLANGED FLOW WATER METER
- (W) 200mm FLANGED CHECK VALVE
- (X) 40 TON HEAVY DUTY FRAME AND COVER
- (Y) INSIDE LADDER Ø 25MM @ 300MM
- (Z) VENTILATION PIPE



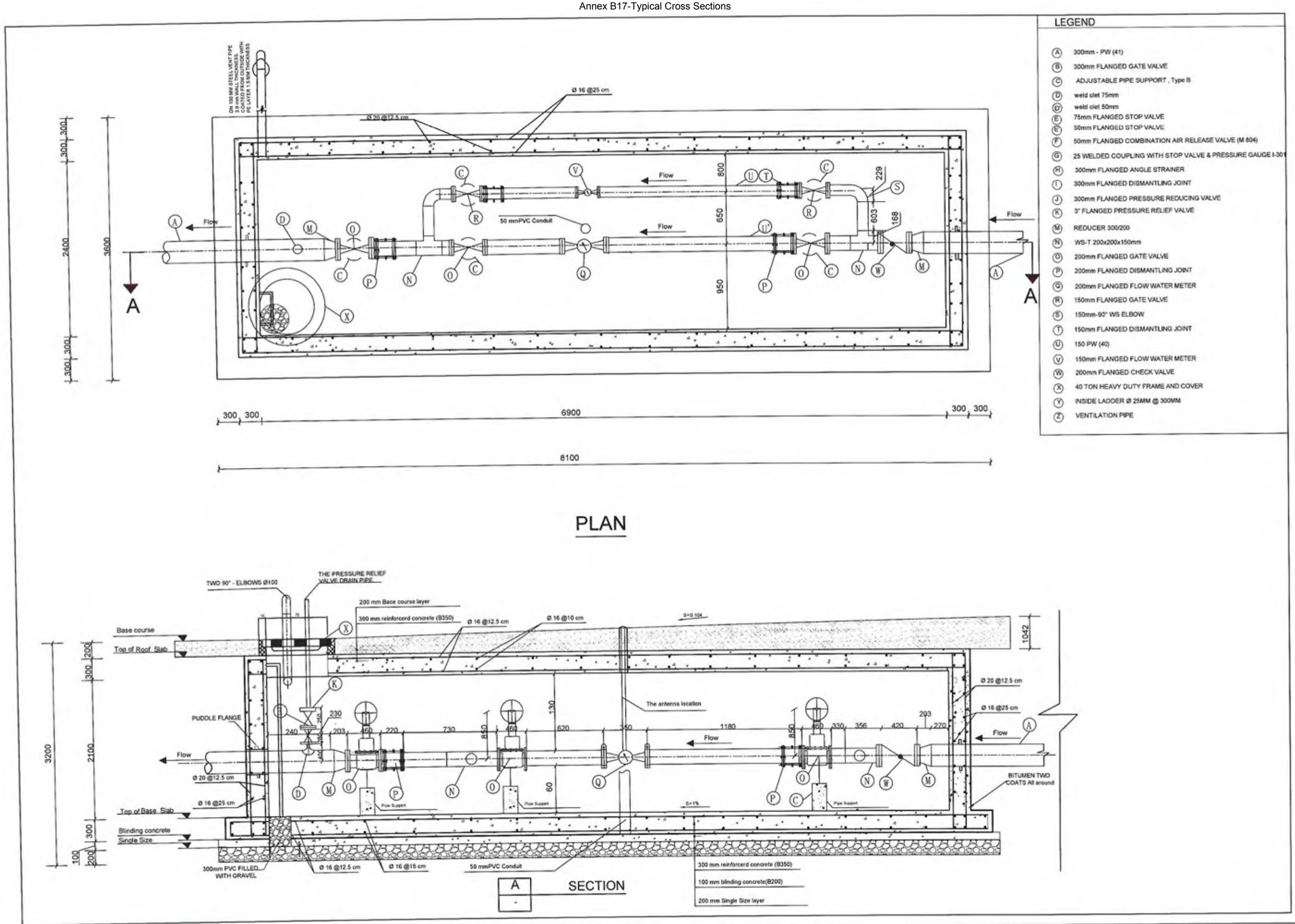
A SECTION

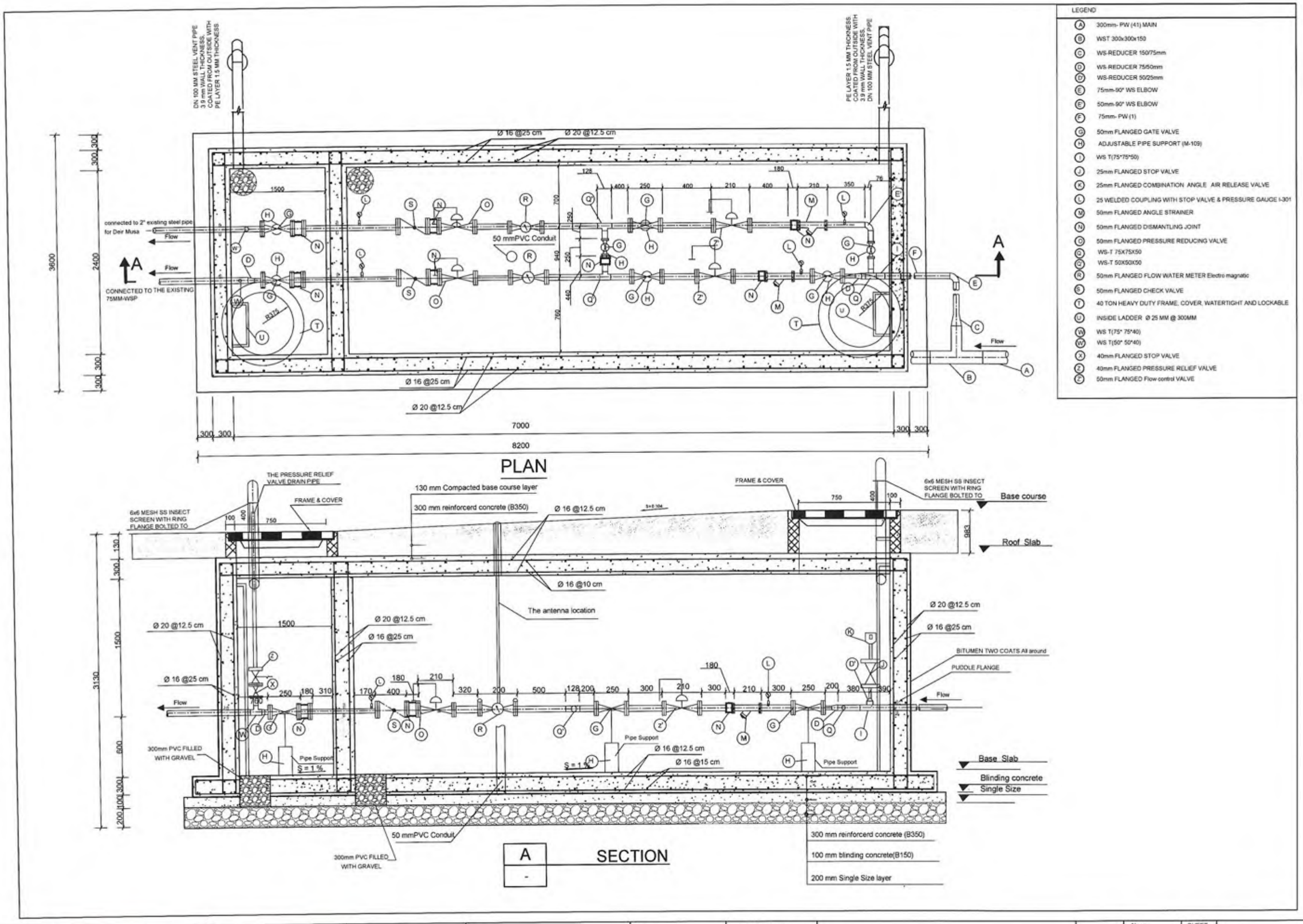
300 mm reinforcerd concrete (B350)

100 mm blinding concrete(B150)

200 mm Single Size layer

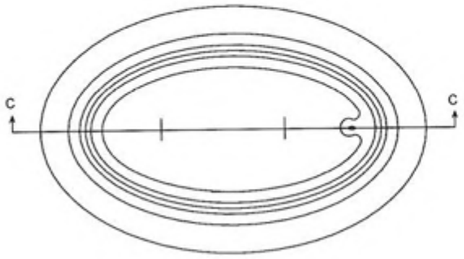
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : FLOW MONITORING CHAMBER At St (0+100) -A	Prepared By	ENG. M.ABIDO	GMC-2	Sheet : 9 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		


LEGEND
A 300mm - PW (41)
B 300mm FLANGED GATE VALVE
C ADJUSTABLE PIPE SUPPORT , Type B
D weld olet 75mm
D weld olet 50mm
E 75mm FLANGED STOP VALVE
E 50mm FLANGED STOP VALVE
F 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 804)
G 25 WELDED COUPLING WITH STOP VALVE & PRESSURE GAUGE I-301
H 300mm FLANGED ANGLE STRAINER
I 300mm FLANGED DISMANTLING JOINT
J 300mm FLANGED PRESSURE REDUCING VALVE
K 3" FLANGED PRESSURE RELIEF VALVE
M REDUCER 300/200
N WS-T 200x200x150mm
O 200mm FLANGED GATE VALVE
P 200mm FLANGED DISMANTLING JOINT
Q 200mm FLANGED FLOW WATER METER
R 150mm FLANGED GATE VALVE
S 150mm-90° WS ELBOW
T 150mm FLANGED DISMANTLING JOINT
U 150 PW (40)
V 150mm FLANGED FLOW WATER METER
W 200mm FLANGED CHECK VALVE
X 40 TON HEAVY DUTY FRAME AND COVER
Y INSIDE LADDER Ø 25MM @ 300MM
Z VENTILATION PIPE
DN 100 MM STEEL VENT PIPE 3.9 mm WALL THICKNESS COATED FROM OUTSIDE WITH PE LAYER 1.5 MM THICKNESS
Ø 16 @25 cm
Ø 20 @12.5 cm
50 mmPVC Conduit
Flow
3600
2400
6900
8100
PLAN
TWO 90° - ELBOWS Ø100
THE PRESSURE RELIEF VALVE DRAIN PIPE
200 mm Base course layer
300 mm reinforcerd concrete (B350)
Ø 16 @12.5 cm
Ø 16 @10 cm
Base course
Top of Roof Slab
PUDDLE FLANGE
The antenna location
Top of Base Slab
Blinding concrete
Single Size
300mm PVC FILLED WITH GRAVEL
Ø 16 @15 cm
BITUMEN TWO COATS All around
Pipe Support
300 mm reinforcerd concrete (B350)
100 mm blinding concrete(B200)
200 mm Single Size layer
SECTION
AS-BUILT
Client
USAID
من الشعب الأمريكي
Owner
سلطة المياه الفلسطينية
PALESTINIAN WATER AUTHORITY
Engineer
MWH
CMC
BLACK AND VEATCH
CONTRACTOR:
IRD
SUB CONTRACTOR:
BROTHERS
JABA'-NUBA MAIN TRANSMISSION PIPELINE
DRAWING TITLE :
FLOW MONITORING CHAMBER At St (0+100) - B
Prepared By ENG. M.ABIDO
Drawn By ENG. M.ABIDO
Checked By ENG. N.MRIZEQ
Approved By ENG. R.MUSTAFA
SHEET GMC-3
Sheet : 10 Of : 129
Date OCTOBER 2013
Scale : NTS



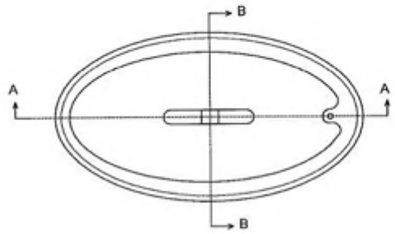
AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : ALJABA CONNECTION CHAMBER AT ST(0+110)		Name	SHEET	
								Prepared By	ENG. M.ABIDO	GMC-4	Sheet : 11 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		

LEGEND	No
1 DN50mm GATE VALVE WITH EXTENSION H.W	1
2 DN50mm FLANGED DISMANTLING JOINT	1
3 DN50mm STEEL FLANGE	2



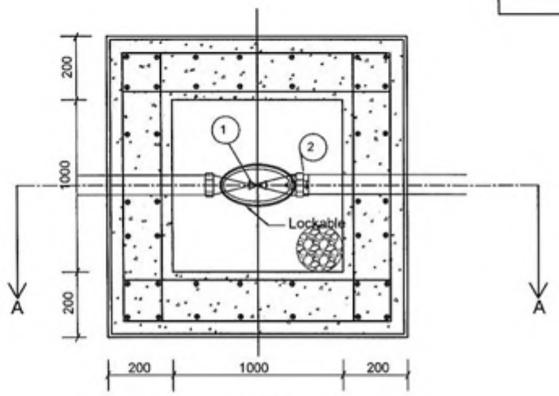
HAND HOLE FRAME

PLAN

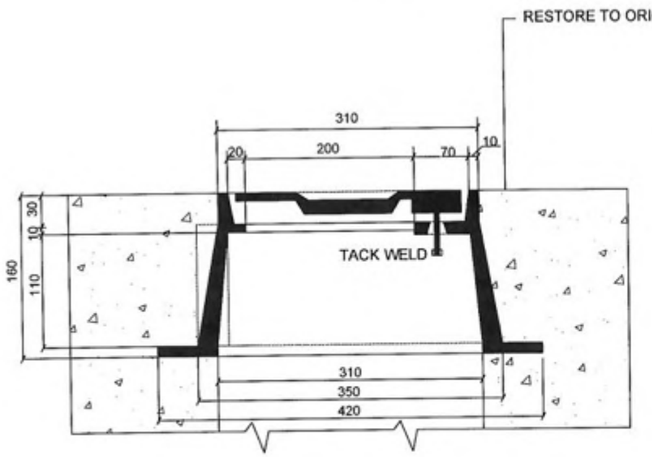


HAND HOLE COVER

PLAN

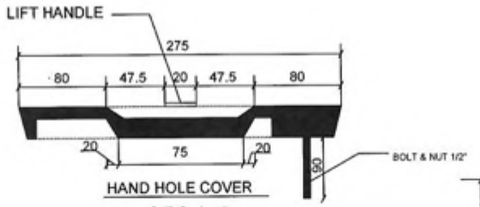


PLAN



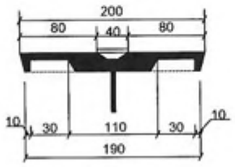
HAND HOLE FRAME

SEC. C-C



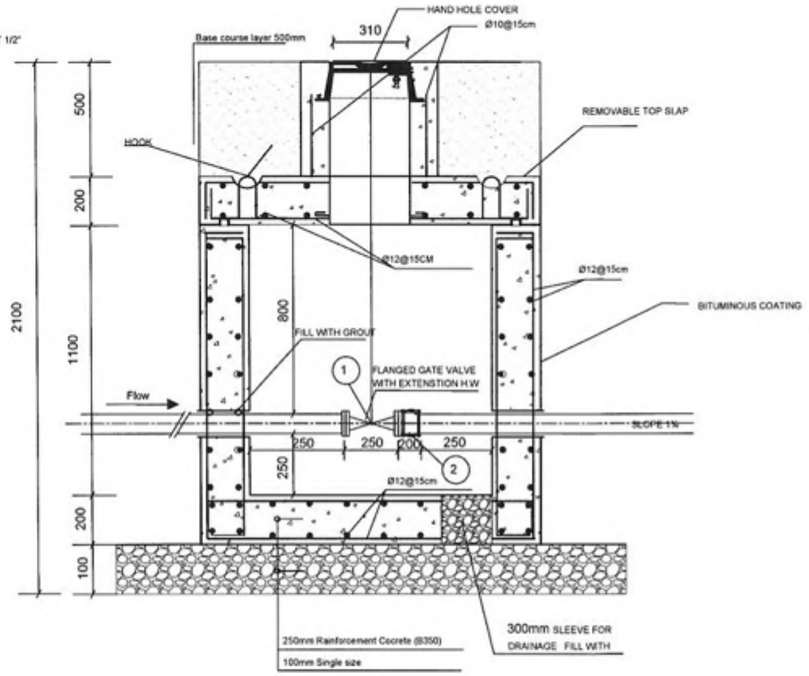
HAND HOLE COVER

SEC. A-A



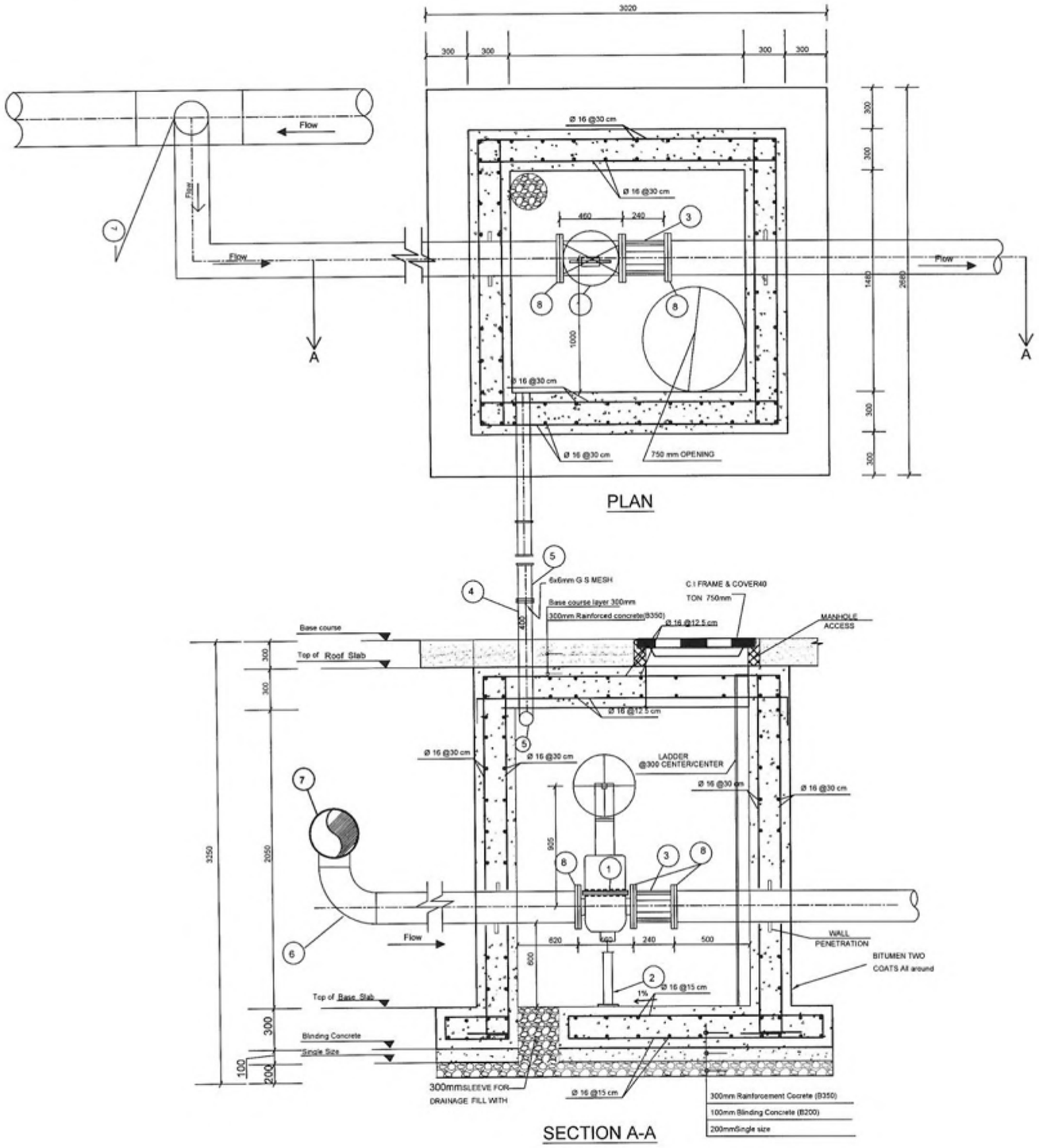
HAND HOLE COVER

SEC. B-B



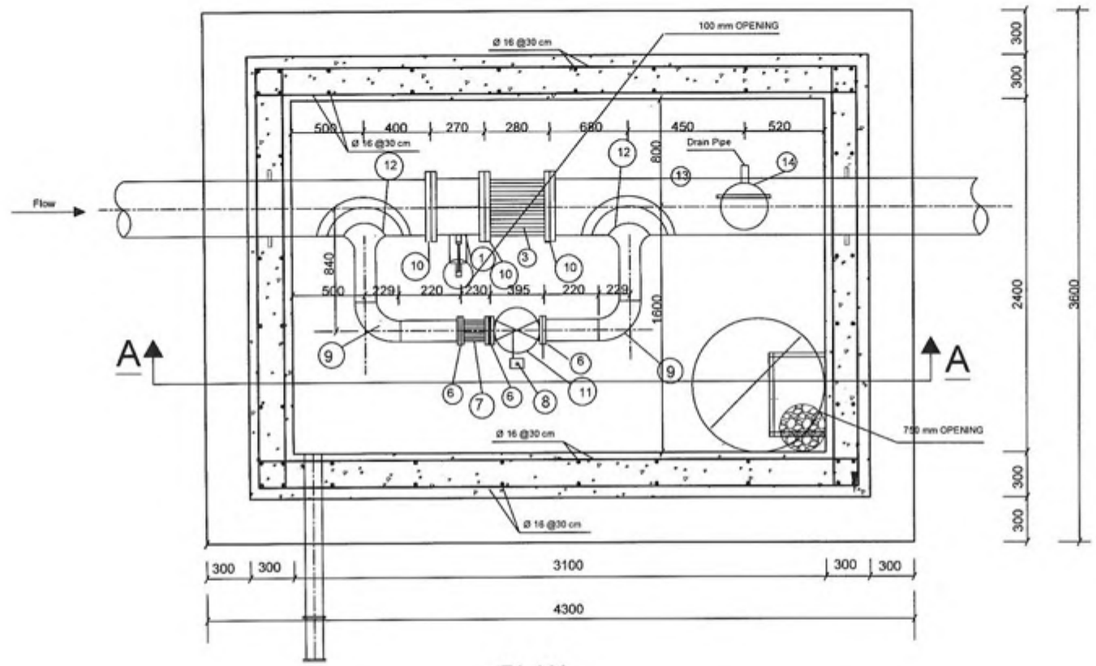
SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : 2" GATE VALVE PRECAST CHAMBER AT ST(0+230)	Prepared By	ENG. M.ABIDO	GMC-5	Sheet : 12 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		

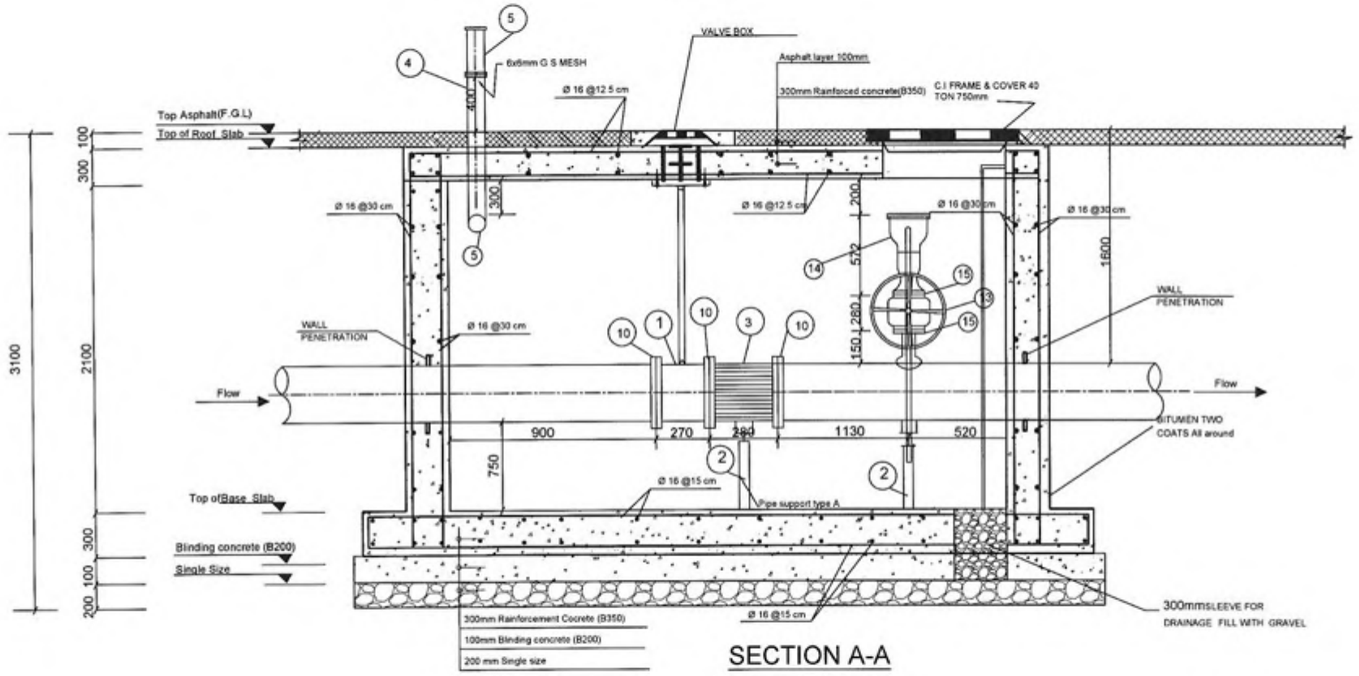


LEGEND	No
1 DN250mm GATE VALVE WITH ACTUATOR PN40	1
2 ADJUSTABLE PIPE SUPPORT	1
3 DN250mm FLANGED DISMANTLING JOINT(PN40).	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN250mm STEEL 90' Elbow .	1
7 WS TEE 300X300X250	1
8 Ø250mm STEEL FLANGE (PN40).	2

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:				
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 10" WO CHAMBER AT STATION (0+980)	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET GMC-6	Sheet : 13 Of : 129 Date OCTOBER 2013 Scale : NTS



PLAN

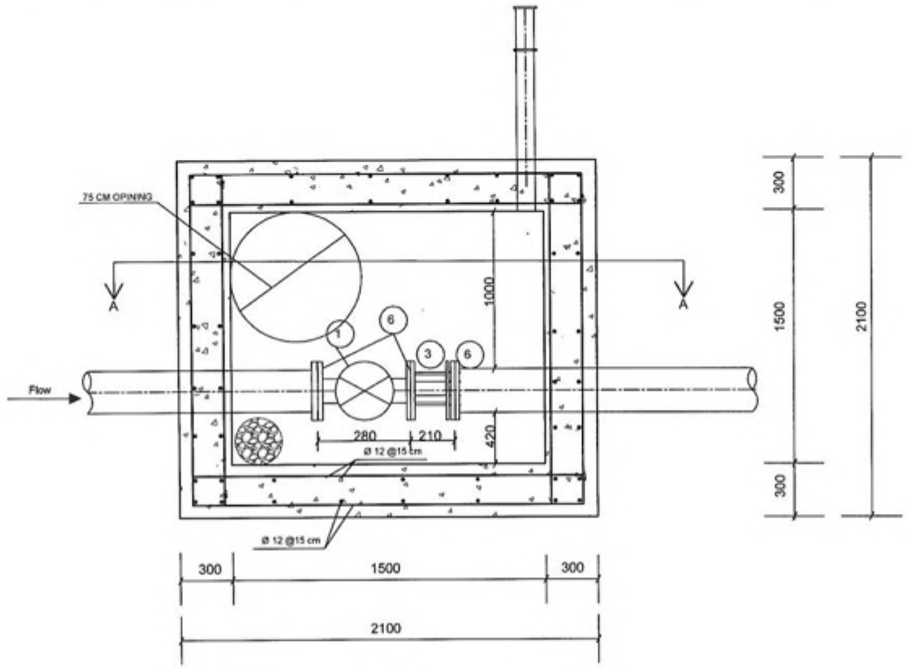


SECTION A-A

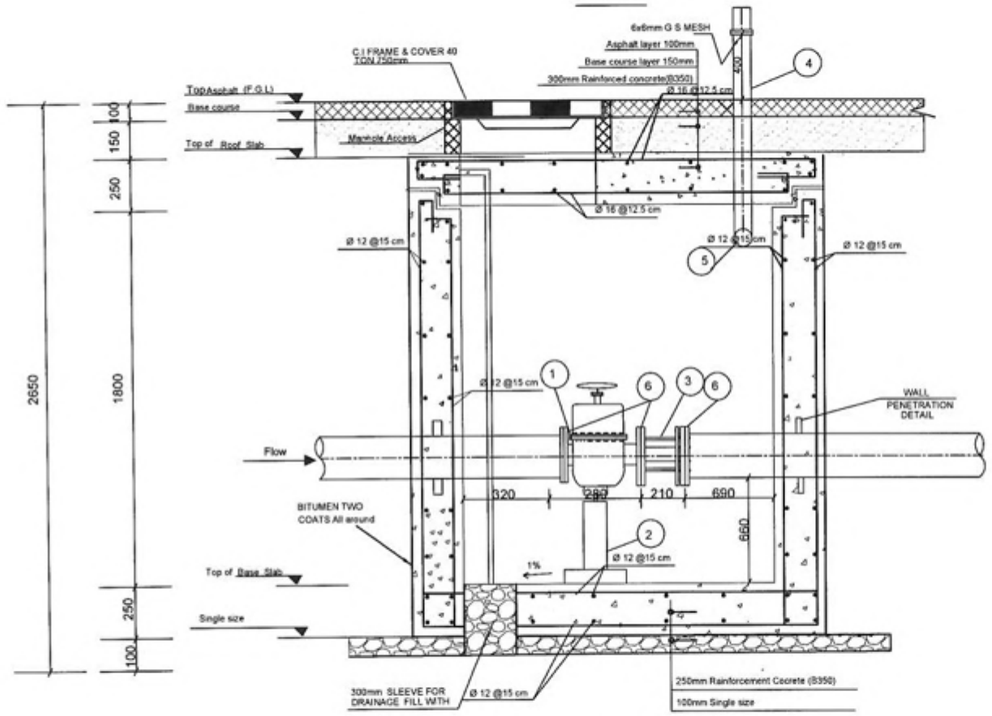
LEGEND	No
1 DN 300mm BUTTERFLY VALVE PN40	1
2 ADJUSTABLE SUPPORT.	2
3 DN 300mm FLANGED DISMANTLING JOINT (PN40).	1
4 DN 100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN 100mm SCH 40 STEEL 90' Elbow .	3
6 DN 150mm STEEL FLANGE (PN40).	6
7 DN 150mm FLANGED DISMANTLING JOINT(PN40).	1
8 ACTUATOR	1
9 DN 150mm FLANGED STEEL 90' Elbow (PN40).	2
10 DN 300mm STEEL FLANGE (PN 40).	2
11 DN 150mm BALL VALVE (PN40).	1
12 150mm WELDED STEEL SUDDLE	2
13 80 mm Gate Valve	1
14 80mmCOMBINATION AIR VALVE WITH SURGE CHECK PN40.	1
15 80mm Flange	

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:				
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By: ENG. M.ABIDO	SHEET: GMC-7	Sheet: 14 Of: 129
							DRAWING TITLE : COMBINATION BF&ARV CHAMBER AT STATION (1+455)	Drawn By: ENG. M.ABIDO		Date: OCTOBER 2013
								Checked By: ENG. N.MRIZEQ		Scale: NTS
								Approved By: ENG. R.MUSTAFA		

LEGEND	No
1 DN80mm GATE VALVE	1
2 ADJUSTABLE SUPPORT	1
3 DN80mm FLANGED DISMANTLING JOINT	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN80mm STEEL FLANGE	2

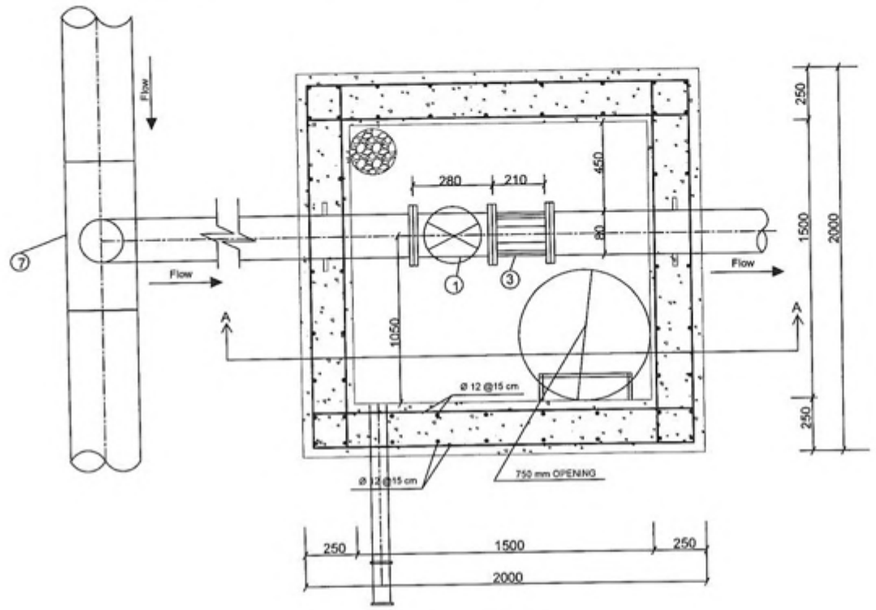


PLAN

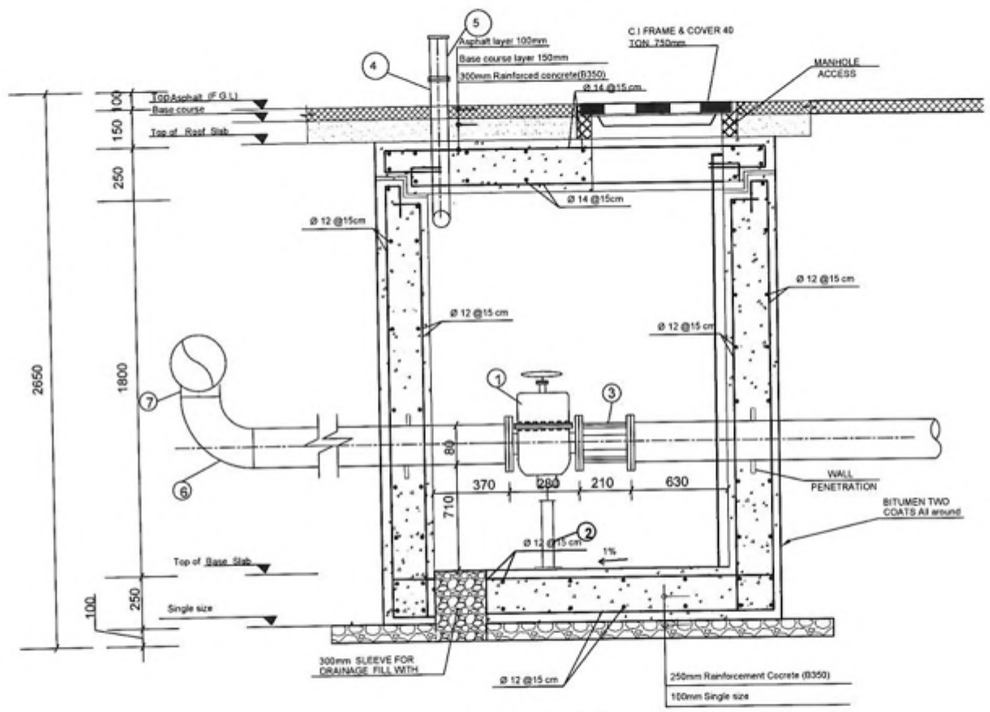


SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:					
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	SHEET	Sheet : 15 Of : 129
							DRAWING TITLE : 3"GATE VALVE PRECAST CHAMBER AT St(1+495)	Drawn By	ENG. M.ABIDO	GMC-8	Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



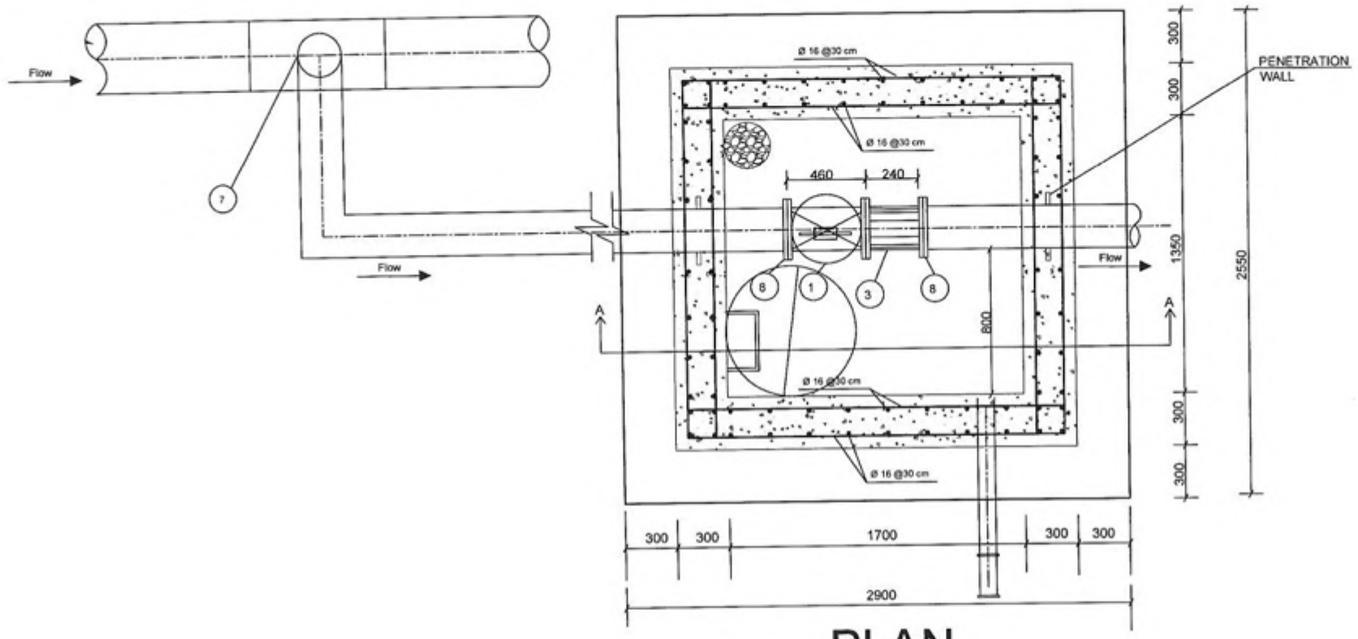
PLAN



SECTION A-A

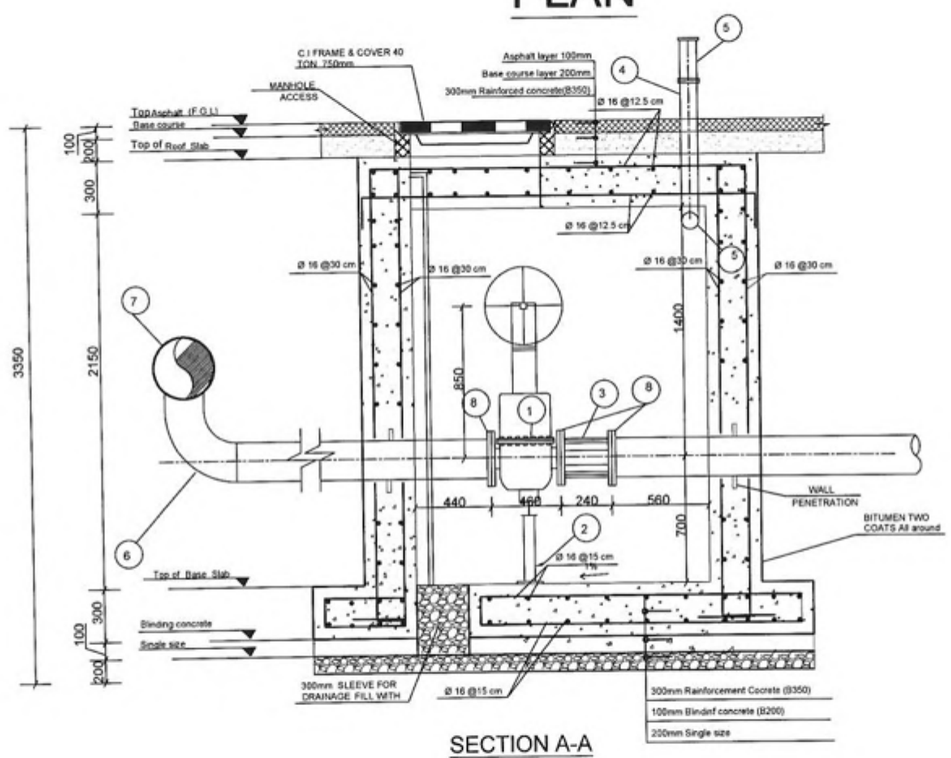
LEGEND	No
1 DN80mm GATE VALVE	1
2 ADJUSTABLE PIPE SUPPORT	1
3 DN80mm FLANGED DISMANTLING JOINT	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90° Elbow .	3
6 DN80mm STEEL 90° Elbow .	1
7 WST(80*80*80)	1
8 80mm STEEL FLANGE	2

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : 3" WO Precast CHAMBER AT STATION (1+680)	Prepared By	ENG. M.ABIDO	GMC-9	Sheet : 16 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



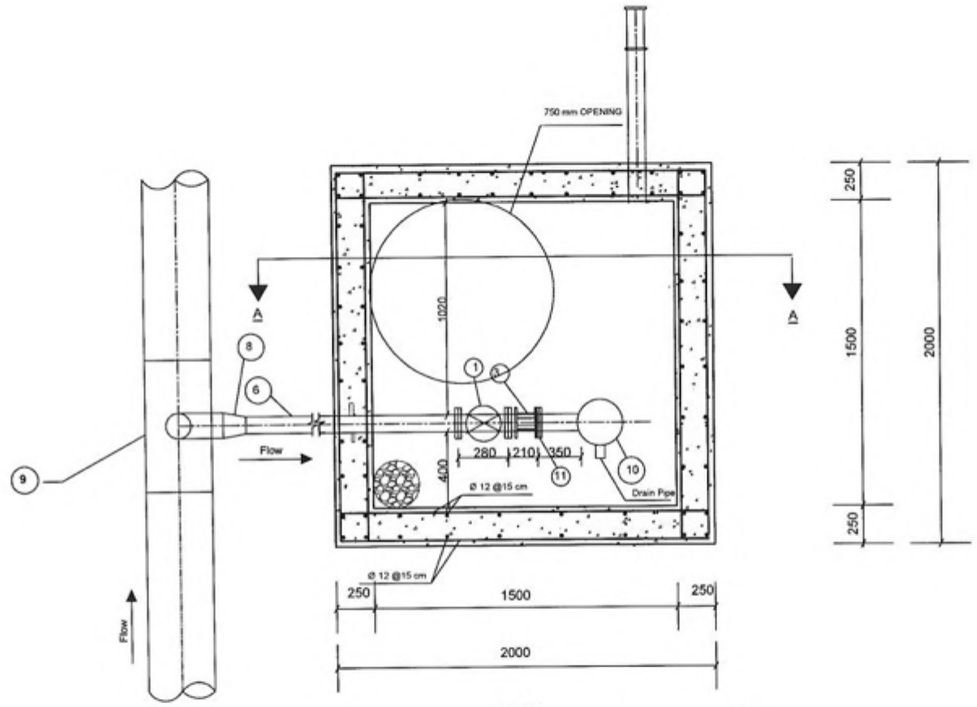
PLAN

LEGEND	No
(1) DN250mm GATE VALVE WITH ACTUATOR PN40	1
(2) ADJUSTABLE PIPE SUPPORT	1
(3) DN250mm FLANGED DISMANTLING JOINT(PN40).	1
(4) DN100mm SCH 40 STEEL PIPES FOR VENT.	
(5) DN100mm SCH 40 STEEL 90' Elbow .	3
(6) DN200mm STEEL 90' Elbow .	1
(7) WS TEE 300X300X250	1
(8) Ø250mm STEEL FLANGE (PN40).	2



SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : 10" WO CHAMBER AT STATION (1+682)	Prepared By	ENG. M.ABIDO	GMC-10	Sheet : 17 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



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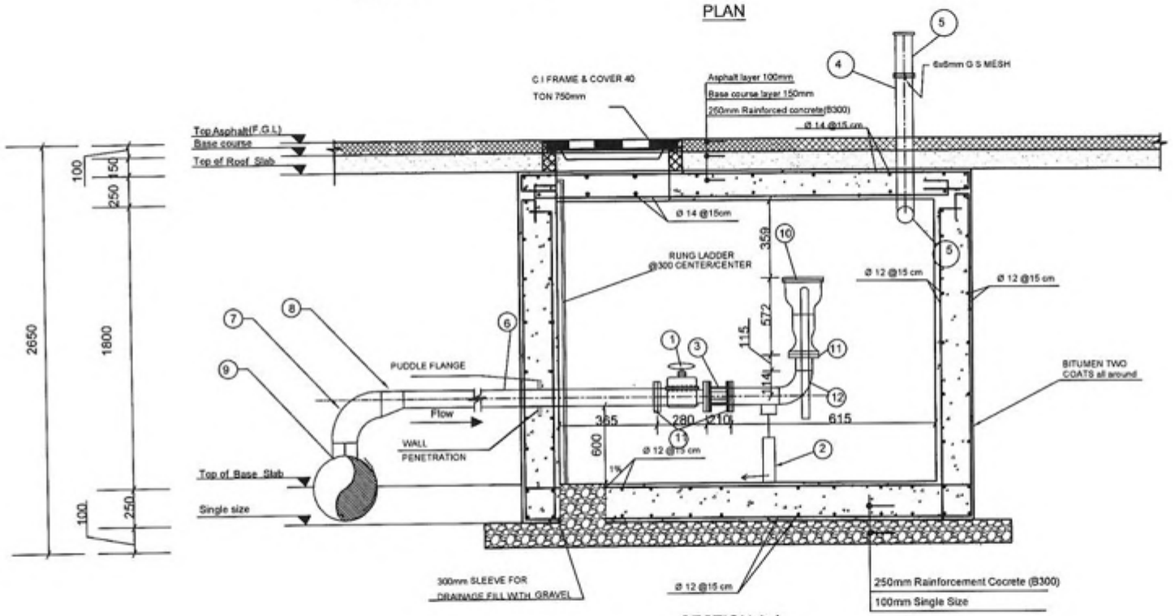
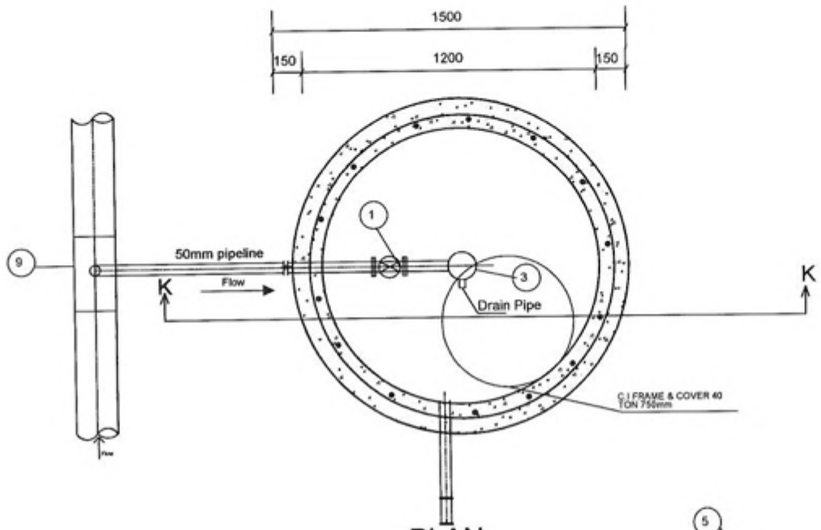


SECTION A-A

LEGEND	No
1 DN 80mm GATE VALVE PN40.	1
2 ADJUSTABLE PIPES SUPPORT	1
3 Dismantling Joint 80mm	1
4 Ø100mm STEEL PIPES FOR VENT.	
5 Ø100mm SCH 40 STEEL 90' Elbow .	3
6 DN 80mm STEEL PIPES FOR AIR VALVE.	
7 Ø150mm STEEL 90' Elbow .	1
8 REDUCER 150/80	1
9 TEE 300X300X150	1
10 80mm COMBINATION AIR VALVE with surge check PN40.	1
11 DN 80mm STEEL FLANGE (PN40).	3
12 Ø80mm SCH 40 STEEL 90' Elbow .	1
13 150mm Welded Saddel	1

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:				
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 3" ARV PRECAST CHAMBER AT STATION (2+350)A	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET GMC-11	Sheet : 18 Of : 129 Date OCTOBER 2013 Scale : NTS



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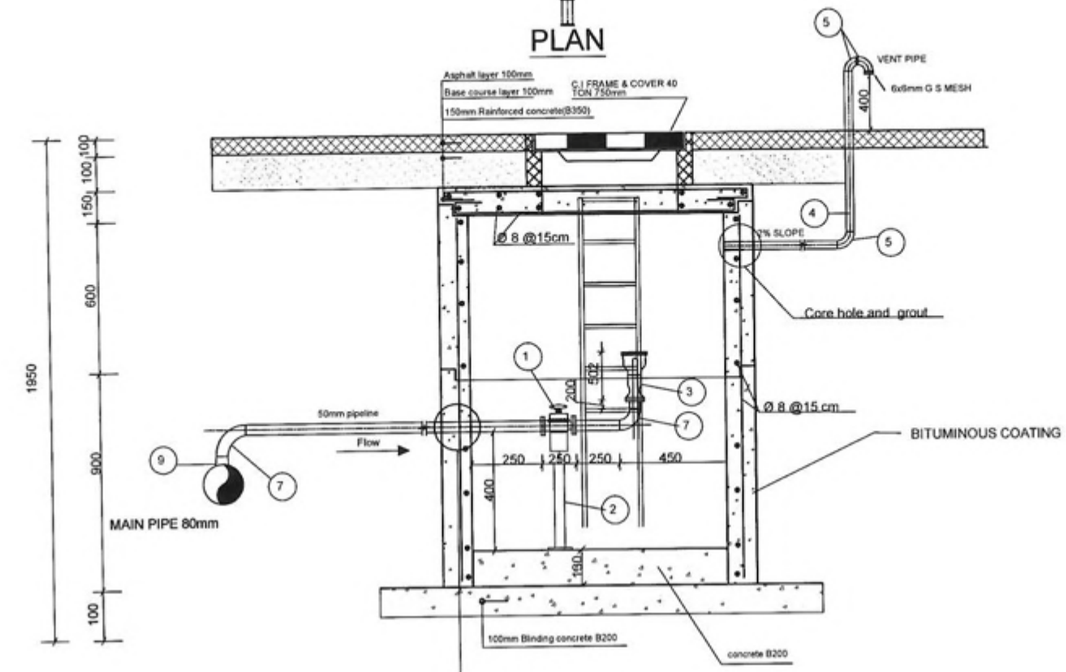


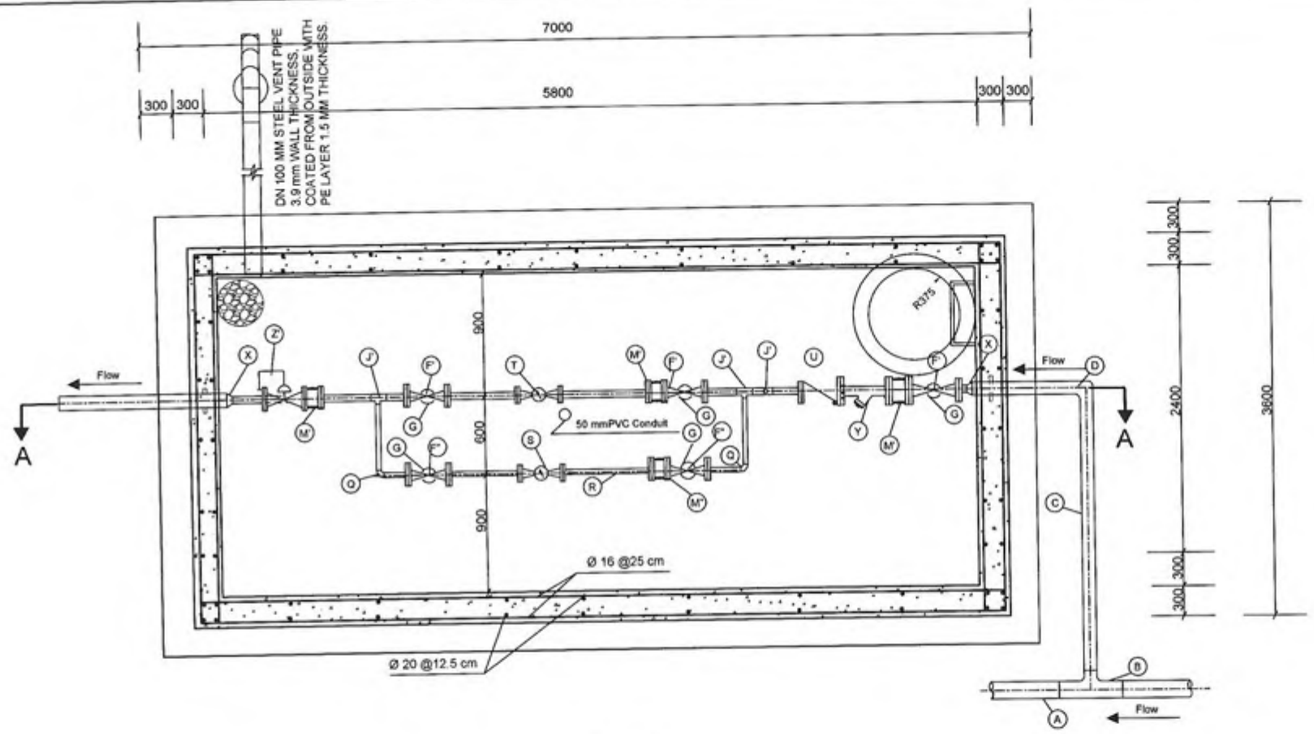
Core hole 2.5" and grout prior to installed the second ring

SECTION K- K

LEGEND		No
1	DN 50mm GATE VALVE	1
2	ADJUSTABLE PIPE SUPPORT	1
3	50mm COMBINATION AIR VALVE	1
4	Ø100mm STEEL PIPES FOR VENT.	
5	Ø100mm SCH 40 STEEL 90' Elbow .	3
6	DN 50mm STEEL PIPES FOR AIR VALVE.	
7	Ø50mm STEEL 90' Elbow .	2
8	DN 50mm STEEL FLANGE (PN40).	3
9	WST(80*80*50)	1

PRECAST CIRCULAR CONCRETE MANHOLE

AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 2" ARV PRECAST CHAMBER AT STATION (2+330)	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET: GMC-12	Sheet : 19 Of : 129 Date OCTOBER 2013 Scale : NTS	



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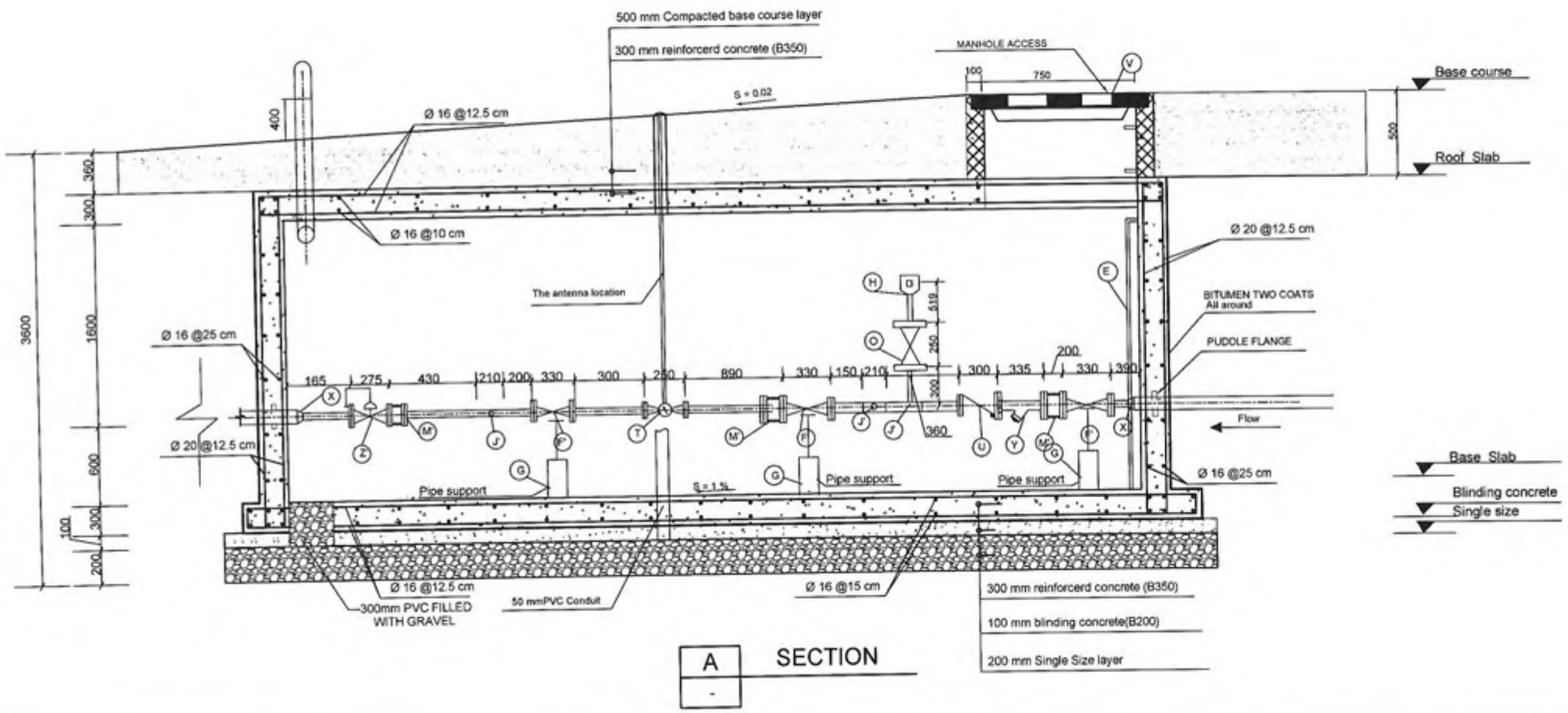
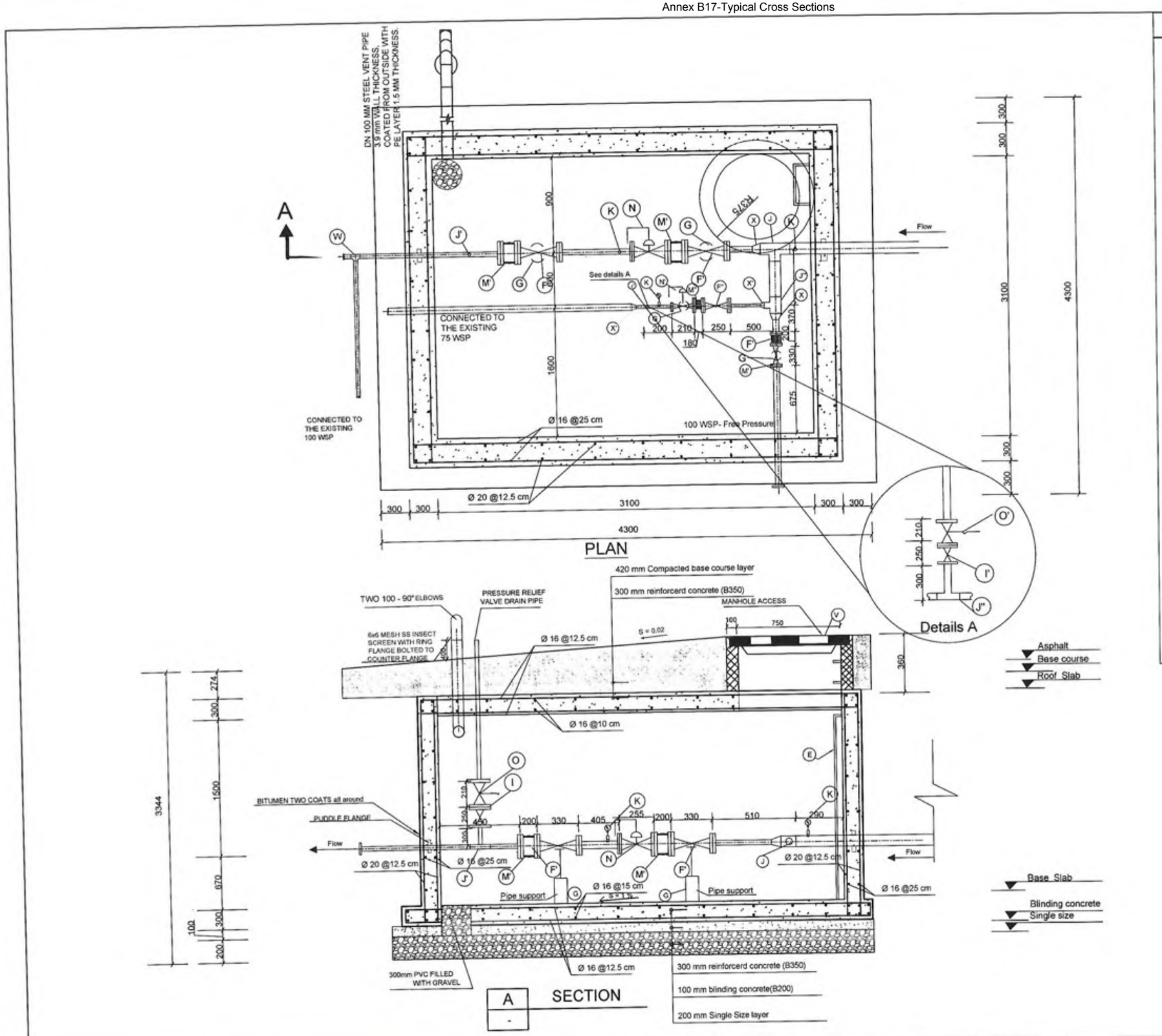


A SECTION

LEGEND

- (A) 300mm - PW (41)
- (B) WS-T 300x300x150mm
- (C) 150mm PW (40)
- (D) 150mm-90° WS ELBOW
- (E) INSIDE LADDER Ø 25 MM @ 300MM
- (F) 150mm FLANGED GATE VALVE
- (F') 100mm FLANGED GATE VALVE
- (F") 50mm FLANGED GATE VALVE
- (G) ADJUSTABLE PIPE SUPPORT (M-109)
- (H) 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 805)
- (I) 50mm FLANGED STOP VALVE
- (I') 40mm FLANGED STOP VALVE
- (J) WS-T150x150x150mm
- (J') WS-T100x100x50mm
- (J") WS- T 50*50*50
- (J'") WS- T 150*150*100
- (K) PRESSURE GAUGE
- (M) 150mm FLANGED DISMANTLING JOINT
- (M') 100mm FLANGED DISMANTLING JOINT
- (M") 50mm FLANGED DISMANTLING JOINT
- (N) 100mm FLANGED PRESSURE REDUCING VALVE
- (N') 50mm FLANGED PRESSURE REDUCING VALVE
- (O) 50mm FLANGED PRESSURE RELIEF VALVE
- (O') 40mm FLANGED PRESSURE RELIEF VALVE
- (Q) 50mm-90° WS ELBOW
- (R) 50mm PW (40)
- (S) 50mm FLANGED FLOW WATER METER
- (T) 100mm FLANGED FLOW WATER METER ELECTRO MAGNATIC
- (U) 100mm FLANGED CHECK VALVE
- (V) 40 TON HEAVY DUTY FRAME AND COVER, WATERTIGHT AND LOCKABLE
- (W) 100mmTEE WITH BLIND FLANGE
- (X) WS REDUCER 150/100 mm
- (X') WS REDUCER 75/50 mm
- (Y) 100mm FLANGED ANGLE STRAINER
- (Z) WS-T 100x100x100mm
- (Z') 100mm Flow control Valve

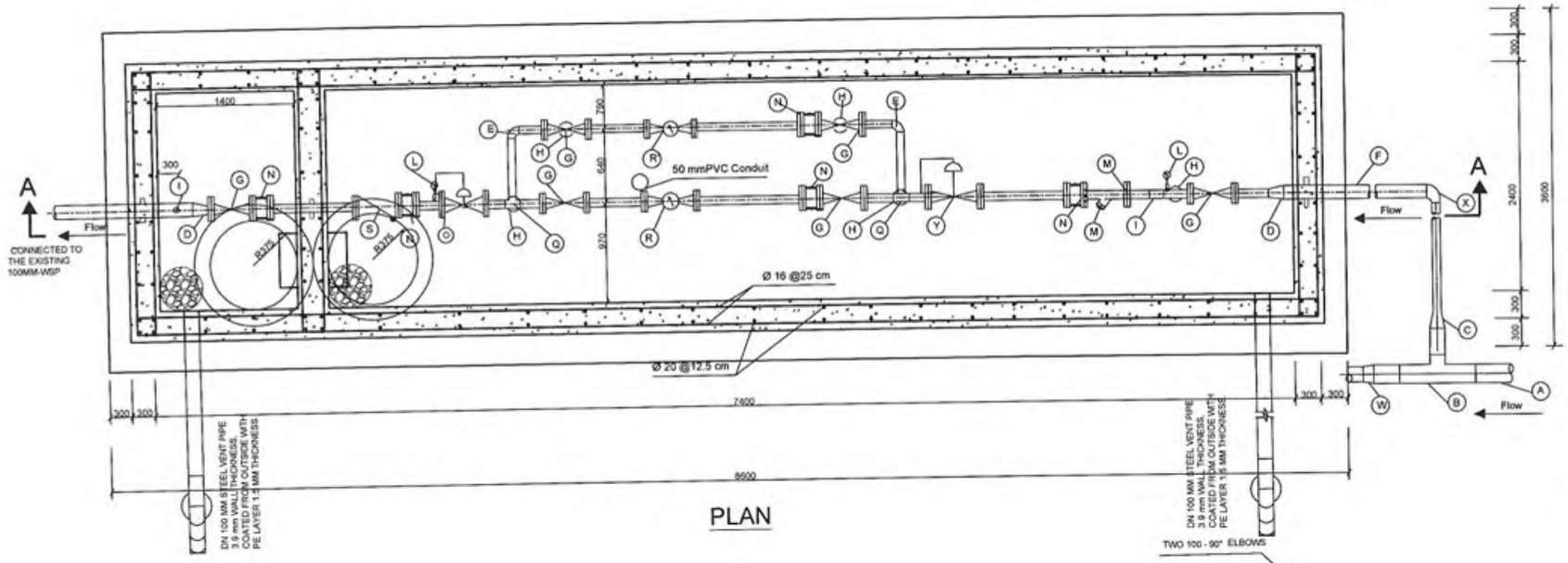
AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : SURIF CONNECTION CHAMBER AT STATION (2+522)- A		Name	SHEET	
								Prepared By	ENG. M.ABIDO	GMC-13	Sheet : 20 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



LEGEND

- (A) 300mm - PW (41)
- (B) WS-T 300x300x150mm
- (C) 150mm PW (40)
- (D) 150mm-90° WS ELBOW
- (E) INSIDE LADDER Ø 25 MM @ 300MM
- (F) 150mm FLANGED GATE VALVE
- (F') 100mm FLANGED GATE VALVE
- (F") 50mm FLANGED GATE VALVE
- (G) ADJUSTABLE PIPE SUPPORT (M-109)
- (H) 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 805)
- (I) 50mm FLANGED STOP VALVE
- (I') 40mm FLANGED STOP VALVE
- (J) WS-T150x150x150mm
- (J') WS-T100x100x50mm
- (J") WS- T 50*50*50
- (J'") WS- T 150*150*100
- (K) PRESSURE GAUGE
- (M) 150mm FLANGED DISMANTLING JOINT
- (M') 100mm FLANGED DISMANTLING JOINT
- (M") 50mm FLANGED DISMANTLING JOINT
- (N) 100mm FLANGED PRESSURE REDUCING VALVE
- (N') 50mm FLANGED PRESSURE REDUCING VALVE
- (O) 50mm FLANGED PRESSURE RELIEF VALVE
- (O') 40mm FLANGED PRESSURE RELIEF VALVE
- (Q) 50mm-90° WS ELBOW
- (R) 50mm PW (40)
- (S) 50mm FLANGED FLOW WATER METER
- (T) 100mm FLANGED FLOW WATER METER
- (U) 100mm FLANGED CHECK VALVE
- (V) 40 TON HEAVY DUTY FRAME AND COVER, WATERTIGHT AND LOCKABLE
- (W) 100mmTEE WITH BLIND FLANGE
- (X) WS REDUCER 150/100 mm
- (X') WS REDUCER 75/50 mm
- (Y) 100mm FLANGED ANGLE STRAINER
- (Z) WS-T 100x100x100mm
- (Z') 100mm Flow control Valve

AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : SURIF CONNECTION CHAMBER AT STATION (2+522) - B		Name	SHEET		
								Prepared By	ENG. M.ABIDO	GMC-14	Sheet : 21 Of : 129	
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013	
								Checked By	ENG. N.MRIZEQ		Scale : NTS	
								Approved By	ENG. R.MUSTAFA			



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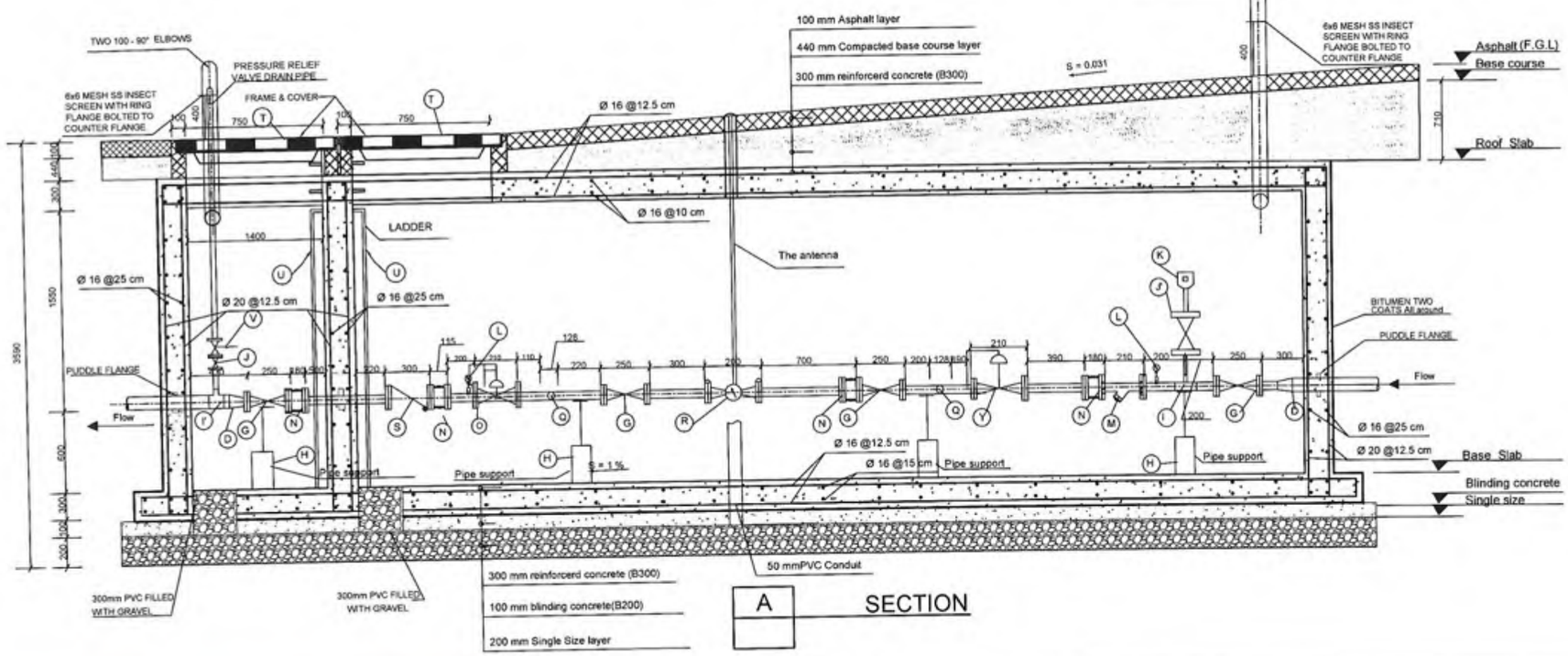
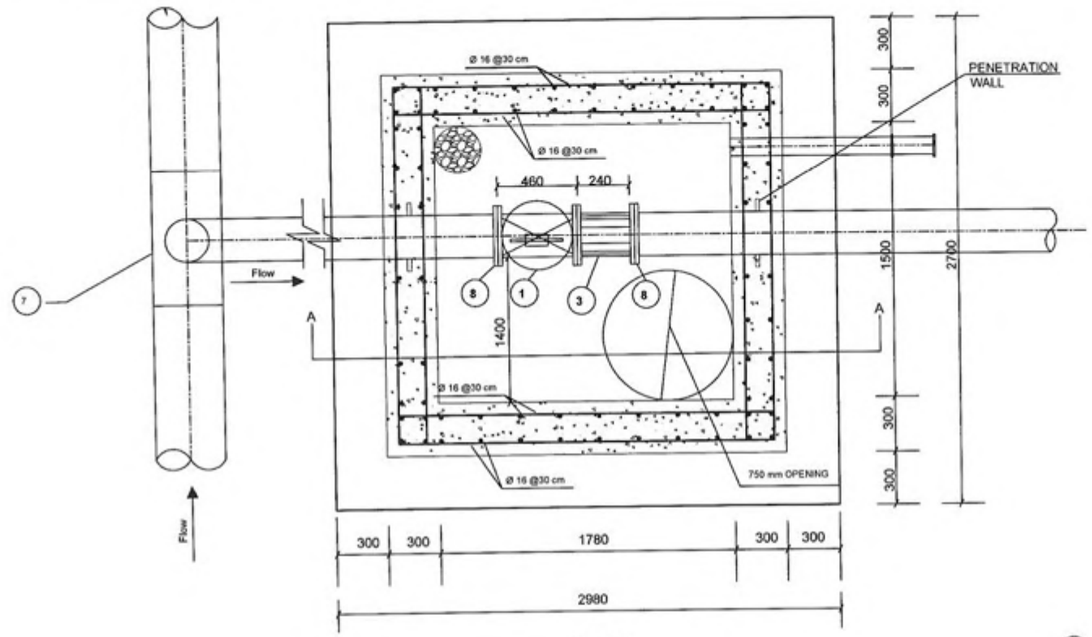


A SECTION

LEGEND

- (A) 300mm- PW (41) MAIN
- (B) WST 300x300x150
- (C) WS-REDUCER 150/100mm
- (D) WS-REDUCER 100/50mm
- (E) 50mm-90° WS ELBOW
- (F) 100mm- PW (1)
- (G) 50mm FLANGED GATE VALVE
- (H) ADJUSTABLE PIPE SUPPORT (M-109)
- (I) WS T(50*50*25)
- (I') WS T(100*100*40)
- (J') 25mm FLANGED STOP VALVE
- (J) 40mm FLANGED STOP VALVE
- (K) 25mm FLANGED COMBINATION AIR RELEASE VALVE (M 804)
- (L) 25 WELDED COUPLING WITH STOP VALVE & PRESSURE GAUGE I-301
- (M) 50mm FLANGED ANGLE STRAINER
- (N) 50mm FLANGED DISMANTLING JOINT
- (O) 50mm FLANGED PRESSURE REDUCING VALVE
- (Q) WS-T 50X50X50
- (R) 50mm FLANGED FLOW WATER METER electro magnatic
- (R') 50mm FLANGED FLOW WATER METER
- (S) 50mm FLANGED CHECK VALVE
- (T) 40 TON HEAVY DUTY FRAME, COVER, WATERTIGHT AND LOCKABLE
- (U) INSIDE LADDER Ø 25 MM @ 300MM
- (V) 40mm FLANGED PRESSURE RELIEF VALVE
- (W) WS-REDUCER 300/250mm
- (X) 100mm-90° WS ELBOW
- (Y) 50mm Flanged flow control valve

AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : AD-DEIR CONNECTION CHAMBER AT STATION (2+711)	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET: GMC-15	Sheet : 22 Of : 129 Date OCTOBER 2013 Scale : NTS



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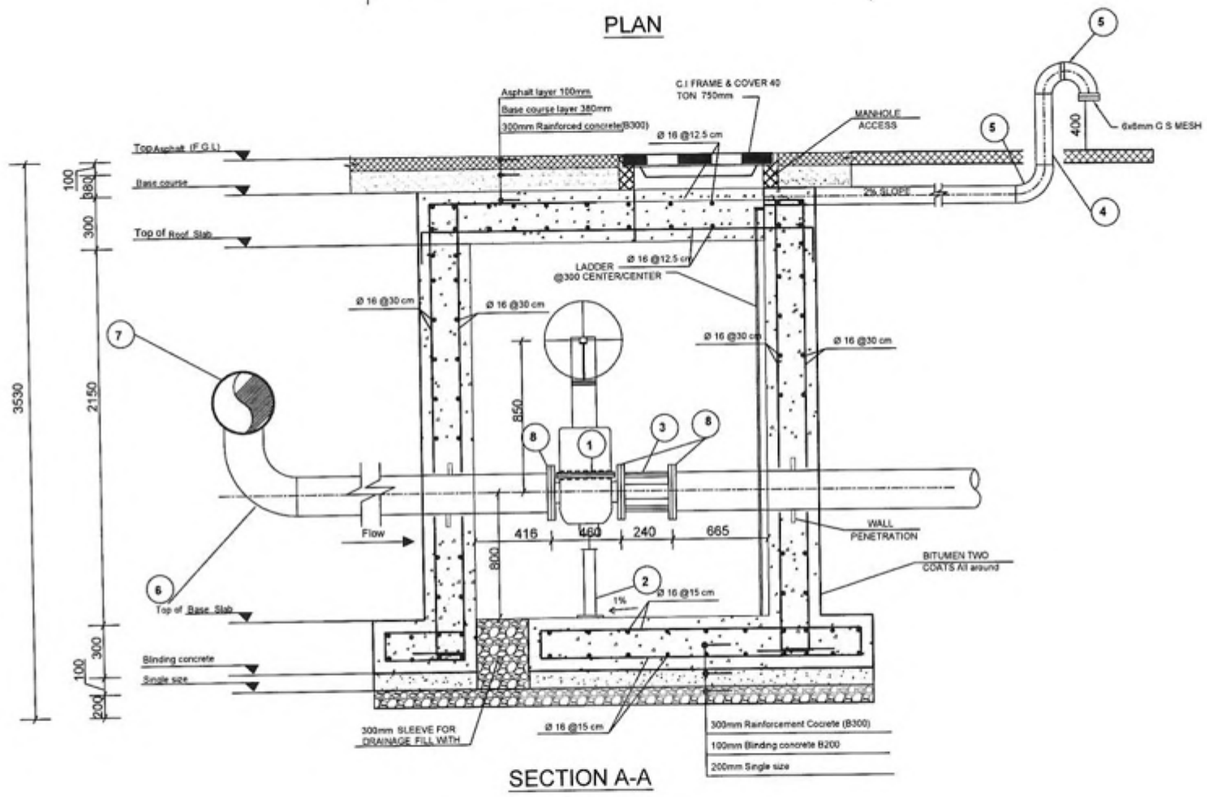
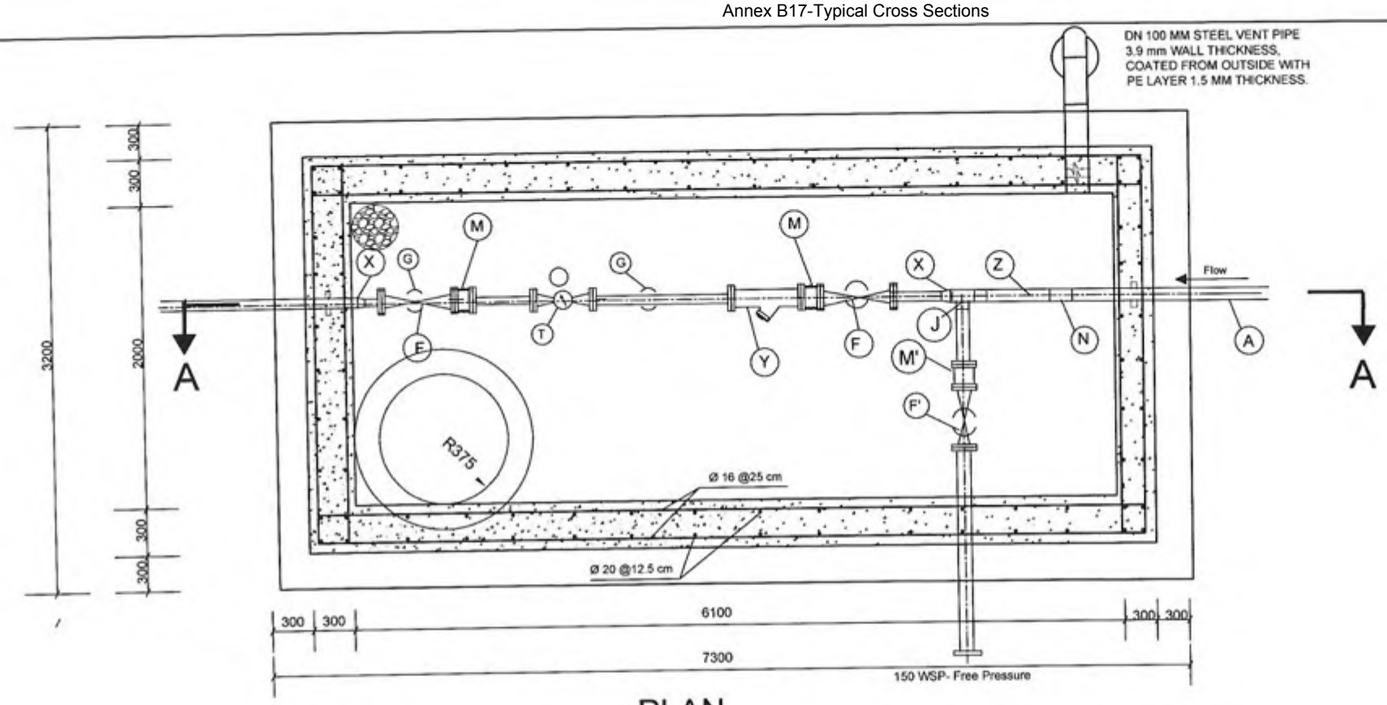


SECTION A-A

LEGEND	No
1 DN200mm GATE VALVE WITH ACTUATOR PN40	1
2 ADJUSTABLE PIPE SUPPORT	1
3 DN200mm FLANGED DISMANTLING JOINT(PN40).	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN200mm STEEL 90' Elbow .	1
7 WS TEE 250X250X200	1
8 Ø200mm STEEL FLANGE (PN40).	2

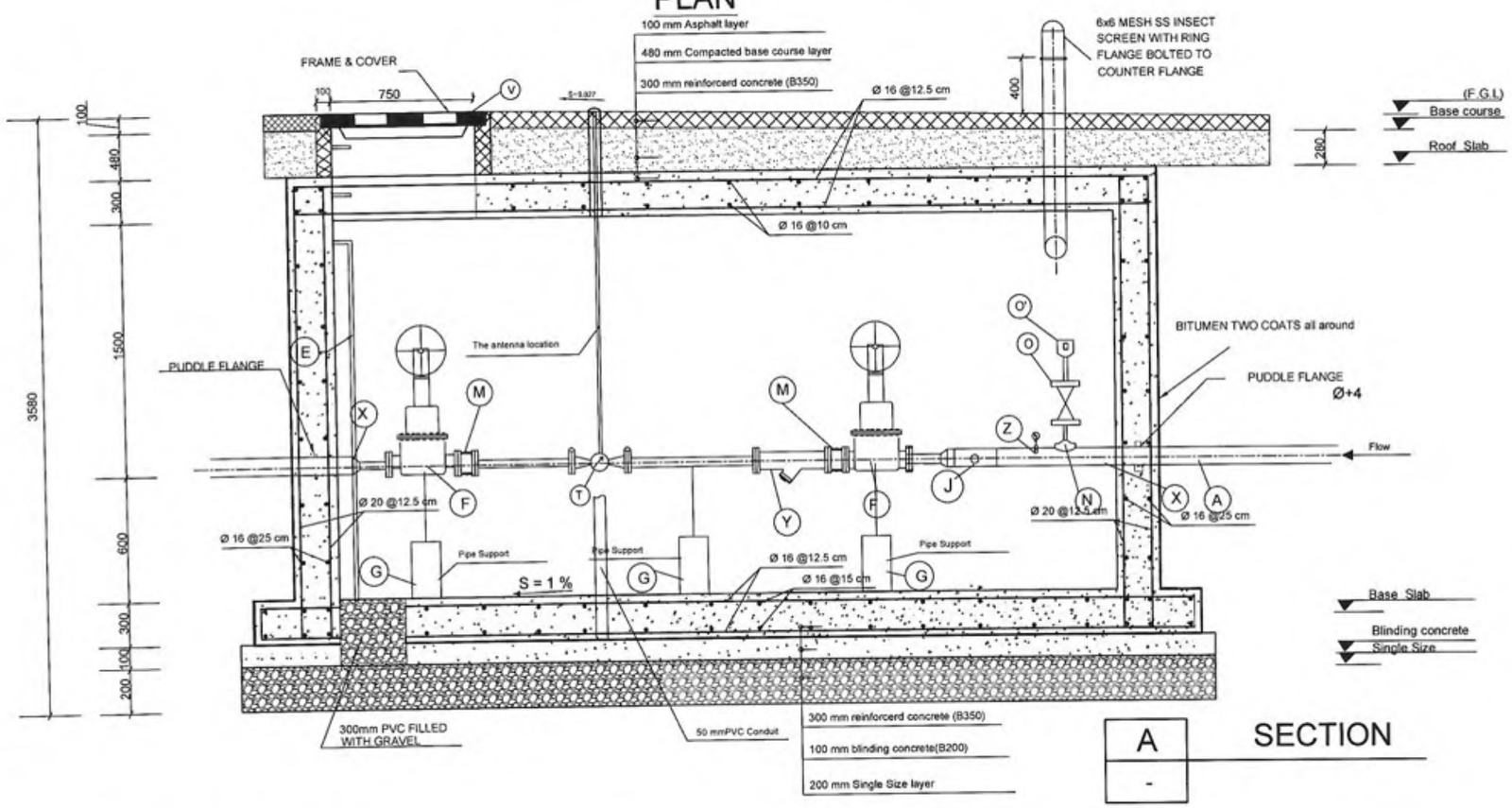
AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 8" WO CHMBER AT STATION (3+125)	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	Name	SHEET: GMC-16	Sheet : 23 Of : 129 Date OCTOBER 2013 Scale : NTS



PLAN

LEGEND

- (A) 250mm - PW (41)
- (E) INSIDE LADDER Ø 25 MM @ 300MM
- (F) 200mm FLANGED GATE VALVE
- (F') 150mm FLANGED GATE VALVE
- (G) ADJUSTABLE PIPE SUPPORT (M-109)
- (J) WS-T250x250x150mm
- (M) 200mm FLANGED DISMANTLING JOINT
- (M') 150mm FLANGED DISMANTLING JOINT
- (N) WELD OLET 50mm
- (O) 50mm FLANGED STOP VALVE
- (O') 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 804)
- (T) 200mm FLANGED FLOW WATER METER electro magnatic
- (V) 40 TON HEAVY DUTY FRAME AND COVERE , WATERTIGHT AND LOCKABL
- (X) WS REDUCER 250/200 mm
- (Y) 200mm FLANGED ANGLE STRAINER
- (Z) 25 mmWELDED COUPLING WITH STOP VALVE & PRESSURE GAUGE I-301



A

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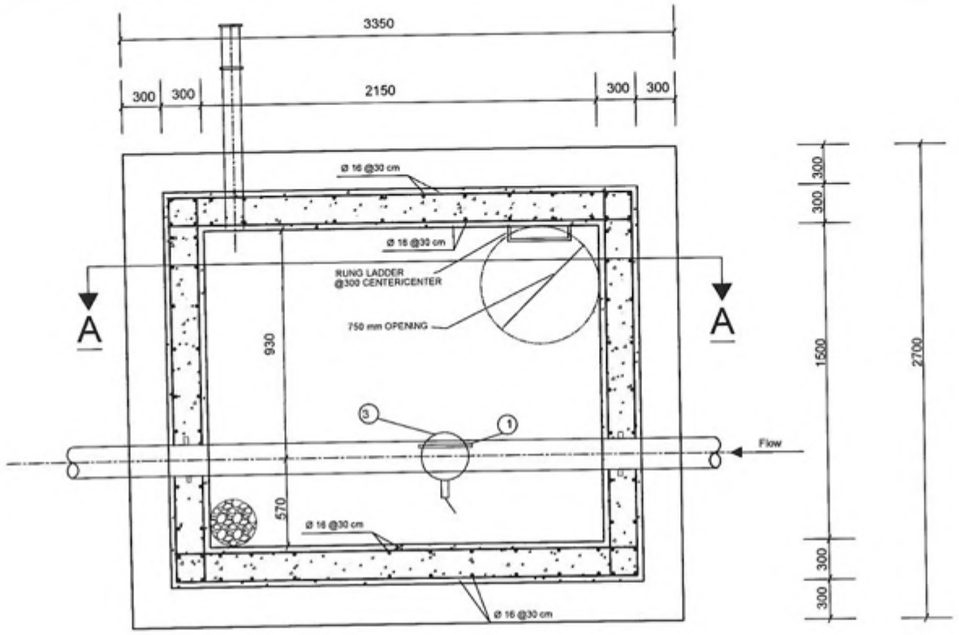
SECTION

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : SURIF FUTURE CONNECTION CHAMBER AT STATION (4+193)	Prepared By	ENG. M.ABIDO	GMC-17	Sheet : 24 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



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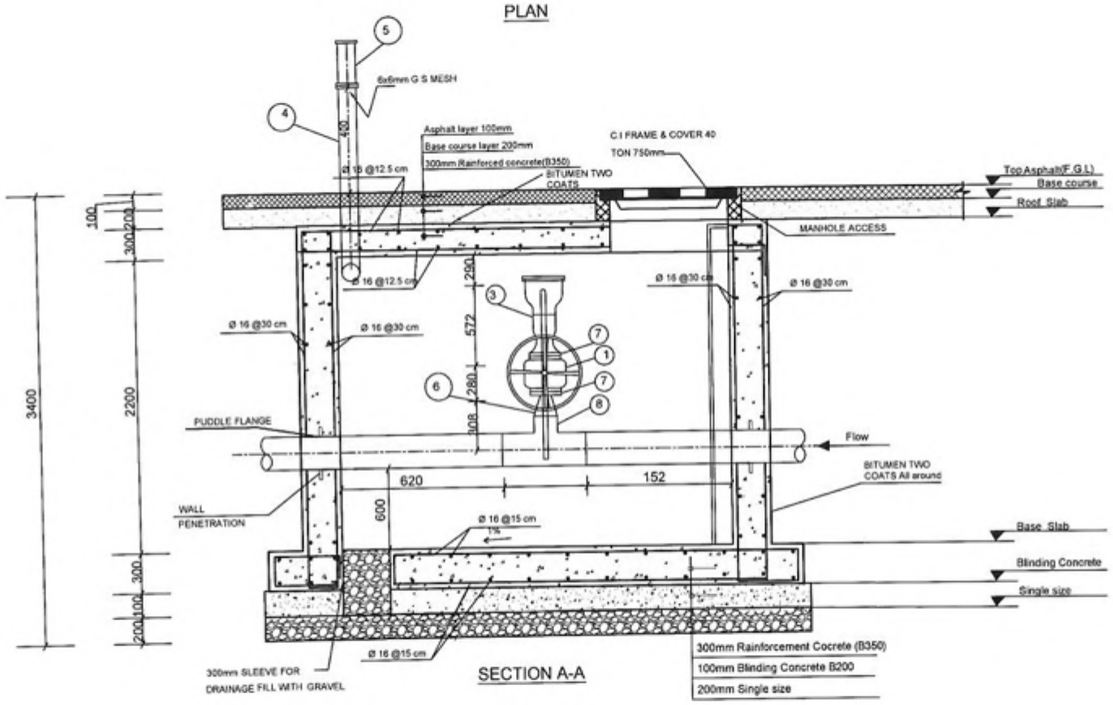
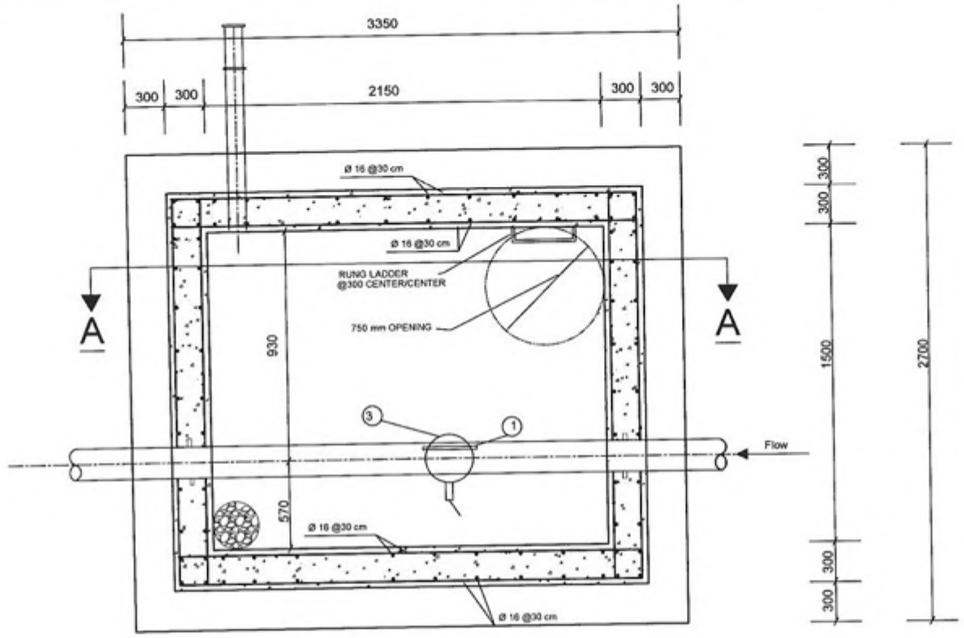


SECTION A-A

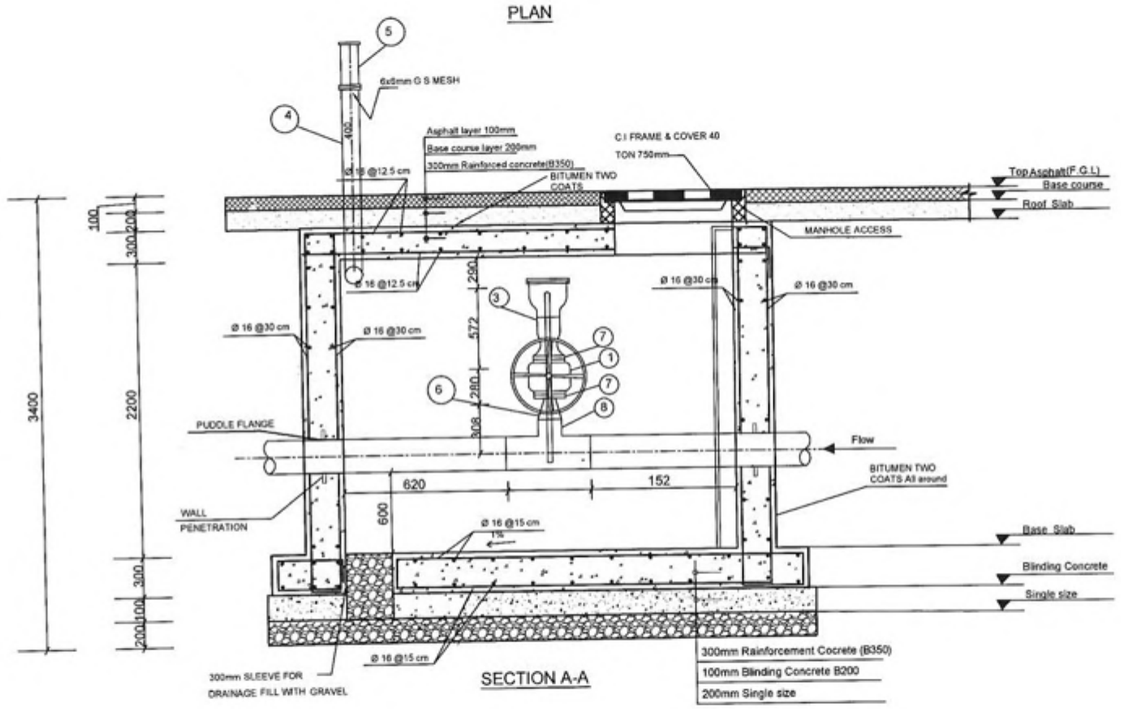
LEGEND	No
1 DN 80mm GATE VALVE PN40.	1
2 ADJUSTABLE PIPE SUPPORT	1
3 80mmCOMBINATION AIR VALVE WITH SURGE CHECK PN40.	1
4 Ø100mm STEEL PIPES FOR VENT.	
5 Ø100mm SCH 40 STEEL 90' Elbow .	3
6 WS 150/80 Reducer	1
7 DN 80mm STEEL FLANGE (PN40).	1
8 WS T(300*300*150)	1

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:					
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	SHEET	Sheet : 25 Of : 129
							DRAWING TITLE : 3" ARV CHAMBER AT STATION (4+232)	Drawn By	ENG. M.ABIDO	GMC-18	Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



PLAN

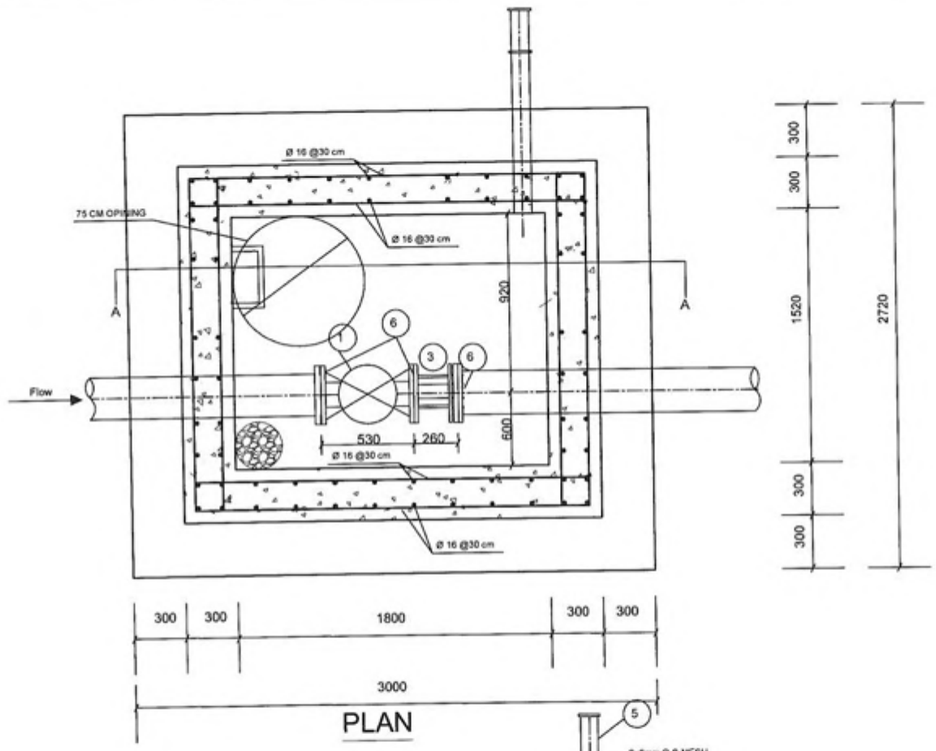
LEGEND	No
(1) DN 80mm GATE VALVE PN40.	1
(2) ADJUSTABLE PIPE SUPPORT	1
(3) 80mmCOMBINATION AIR VALVE WITH SURGE CHECK PN40.	1
(4) Ø100mm STEEL PIPES FOR VENT.	
(5) Ø100mm SCH 40 STEEL 90' Elbow .	3
(6) WS 150/80 Reducer	1
(7) DN 80mm STEEL FLANGE (PN40).	1
(8) WS T(300*300*150)	1



SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : 3" ARV CHAMBER AT STATION (5+252)	Prepared By	ENG. M.ABIDO	GMC-19	Sheet : 26 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		

LEGEND	No
1 DN250mm GATE VALVE WITH ACTUATOR PN40 .	1
2 ADJUSTABLE SUPPORT	1
3 DN250mm FLANGED DISMANTLING JOINT(PN40).	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN250mm STEEL FLANGE (PN40).	2



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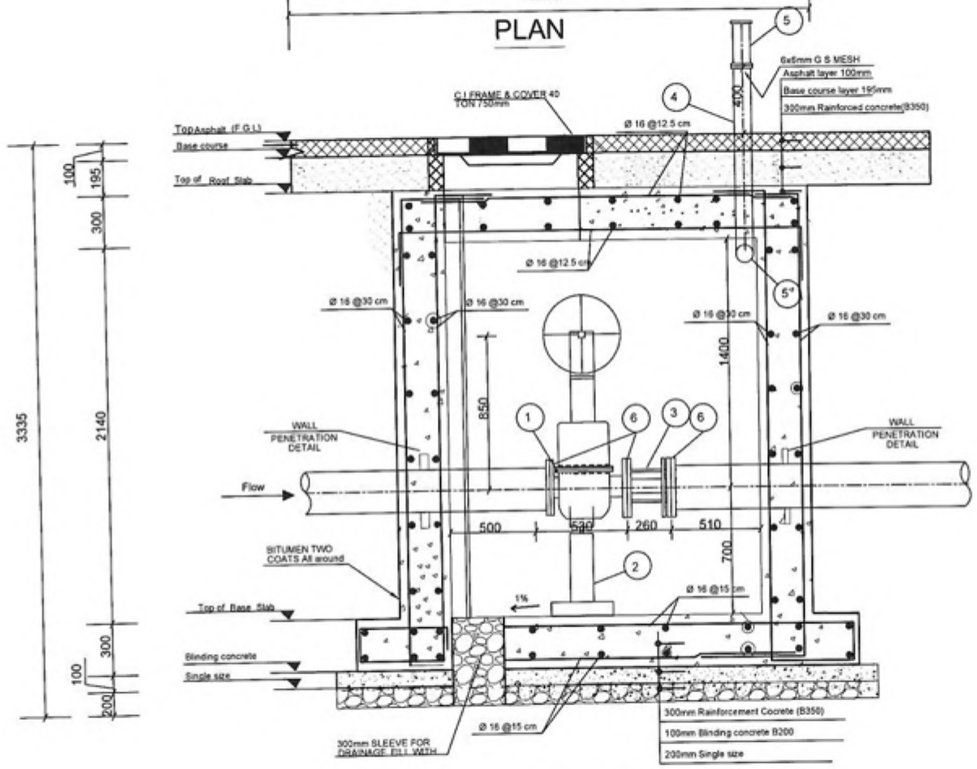
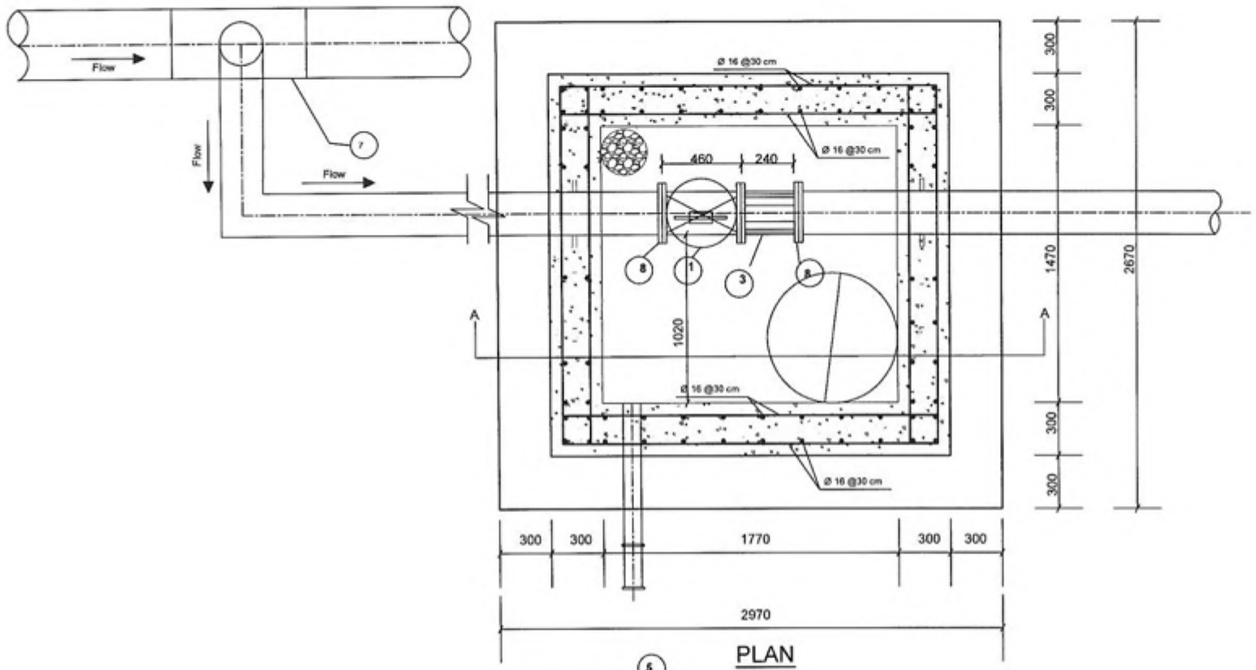


SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : 10" GV CHAMBER AT STATION 6+733	Prepared By	ENG. M.ABIDO	GMC-20	Sheet : 27 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



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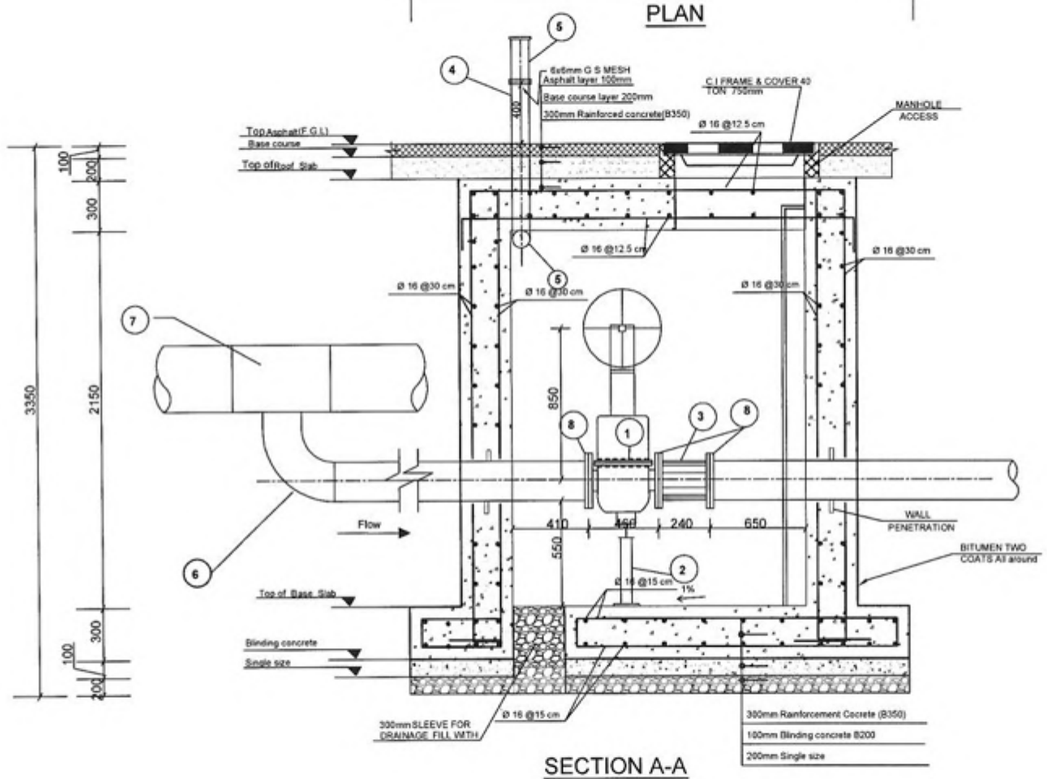
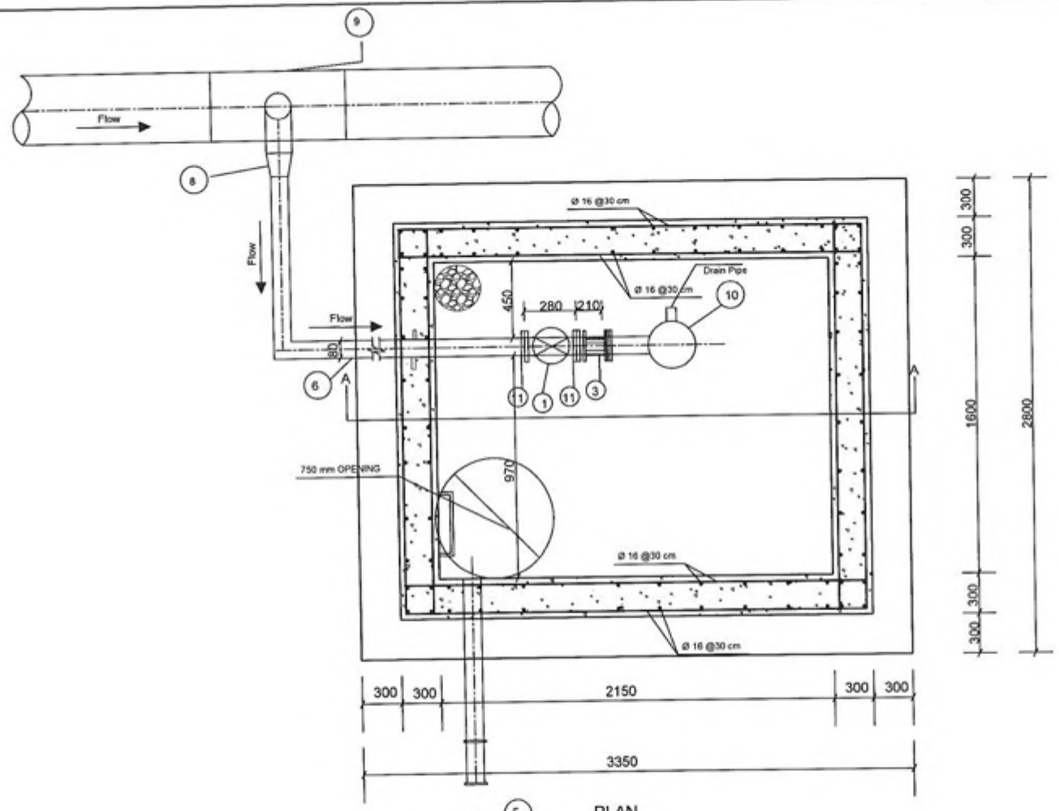


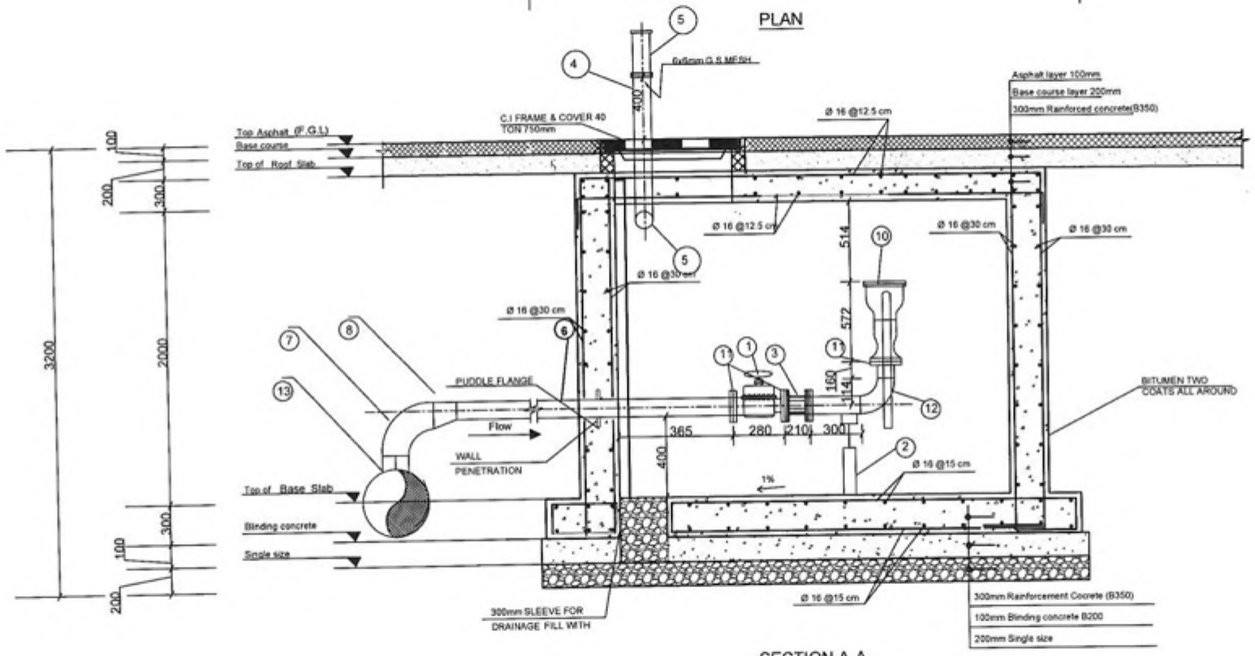
SECTION A-A

LEGEND	No
(1) DN200mm GATE VALVE WITH ACTUATOR PN40	1
(2) ADJUSTABLE PIPE SUPPORT	1
(3) DN200mm FLANGED DISMANTLING JOINT(PN40).	1
(4) DN100mm SCH 40 STEEL PIPES FOR VENT.	
(5) DN100mm SCH 40 STEEL 90' Elbow .	3
(6) DN200mm STEEL 90' Elbow .	1
(7) WS TEE 250X250X200	1
(8) Ø200mm STEEL FLANGE (PN40).	2

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : 8" WO CHMBER AT STATION (6+774)	Prepared By	ENG. M.ABIDO	GMC-21	Sheet : 28 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



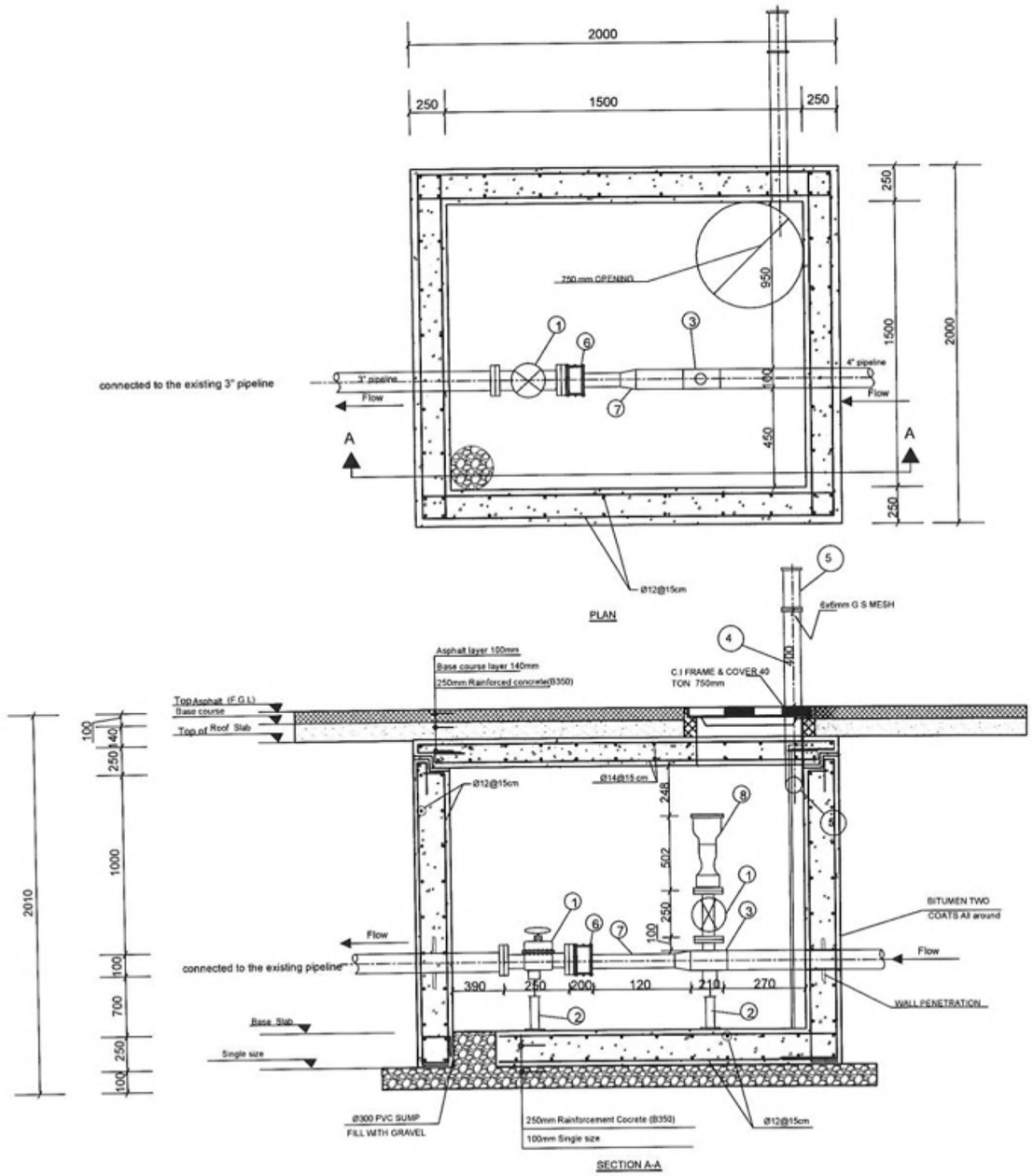
PLAN



SECTION A-A

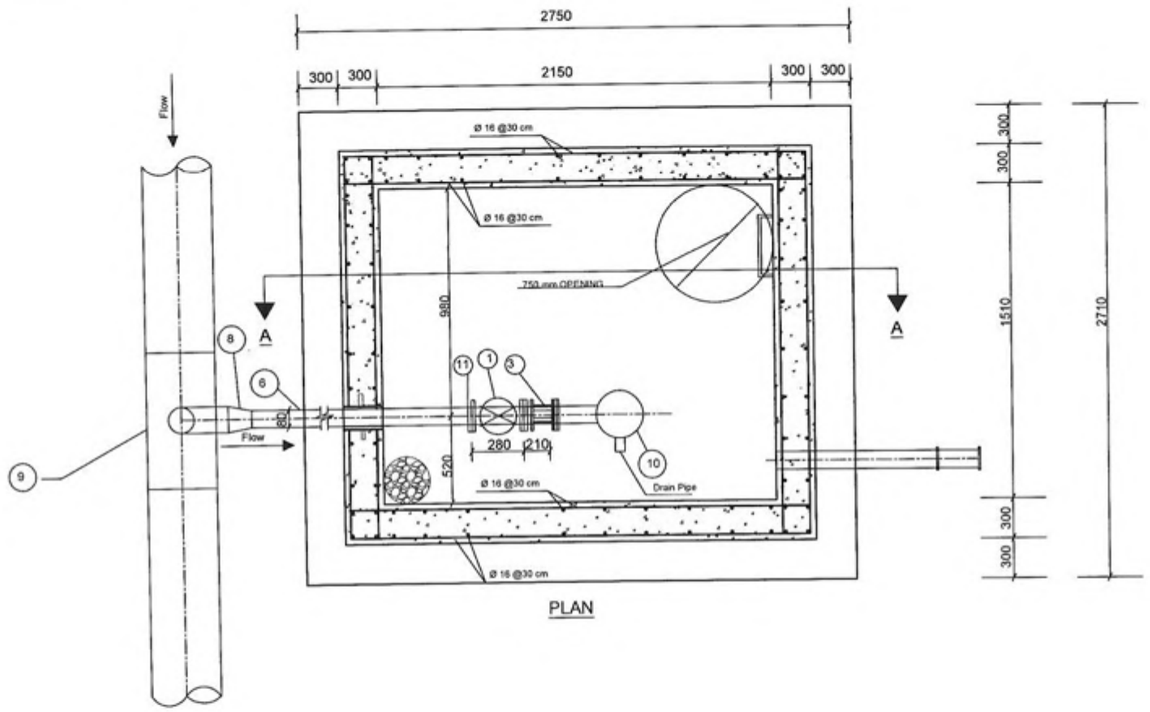
LEGEND	No
1 DN 80mm GATE VALVE PN40.	1
2 ADJUSTABLE PIPES SUPPORT	1
3 Dismantling Joint 80mm	1
4 Ø100mm STEEL PIPES FOR VENT.	
5 Ø100mm SCH 40 STEEL 90' Elbow .	3
6 DN 80mm STEEL PIPES FOR AIR VALVE.	
7 Ø150mm STEEL 90' Elbow .	1
8 REDUCER 150/80	1
9 TEE 300X300X150	1
10 80mm COMBINATION AIR VALVE with surge check PN40.	1
11 DN 80mm STEEL FLANGE (PN40).	3
12 Ø80mm SCH 40 STEEL 90' Elbow .	1
13 150mm Welded Saddel	1

AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 3" ARV CHAMBER AT STATION (7+880)	Prepared By	ENG. M.ABIDO	SHEET GMC-22	Sheet : 29 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



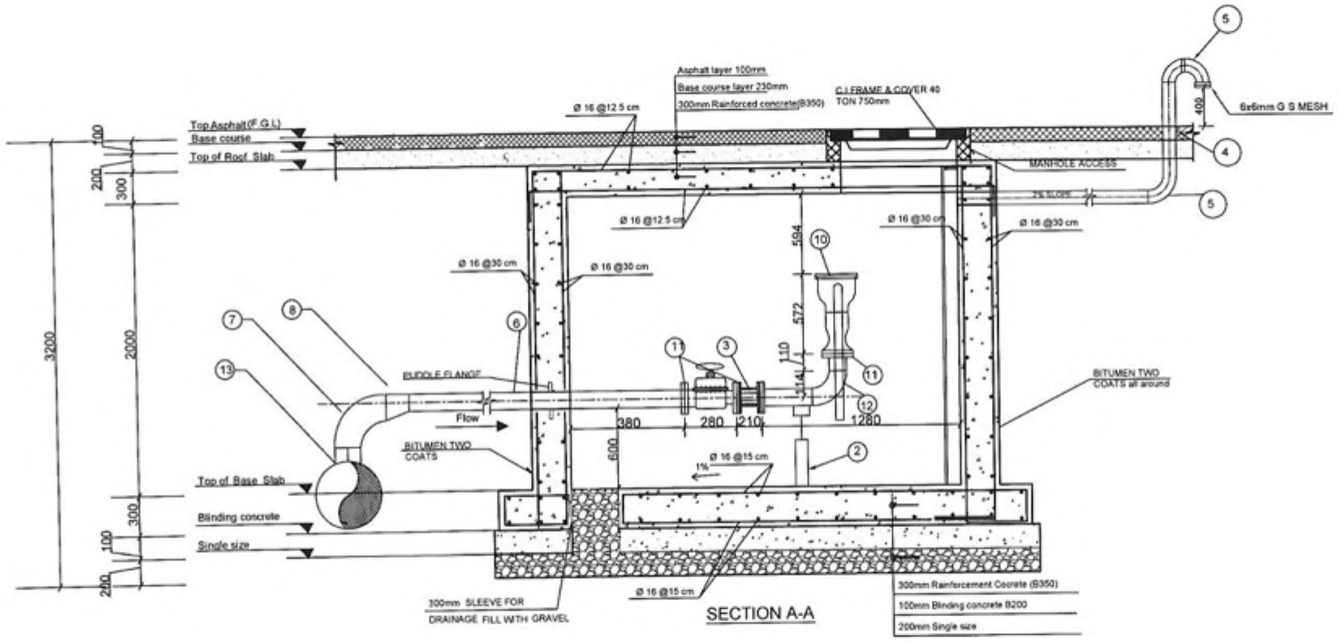
LEGEND		No
1	DN 80mm GATE VALVE .	2
2	ADJUSTABLE PIPE SUPPORT	2
3	WST(100*100*50)	2
4	Ø100mm STEEL PIPES FOR VENT.	
5	Ø100mm SCH 40 STEEL 90' Elbow .	3
6	80mm Dismantling Joint	1
7	Reducer 100/80	1
8	50mm COMBINATION AIR VALVE	1
9	DN 80mm STEEL FLANGE	2

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:			Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	GMC-23	Sheet : 30 Of : 129
							DRAWING TITLE : COMBINATION GV & ARV Precast CHAMBER AT STATION (9+175)	Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



PLAN

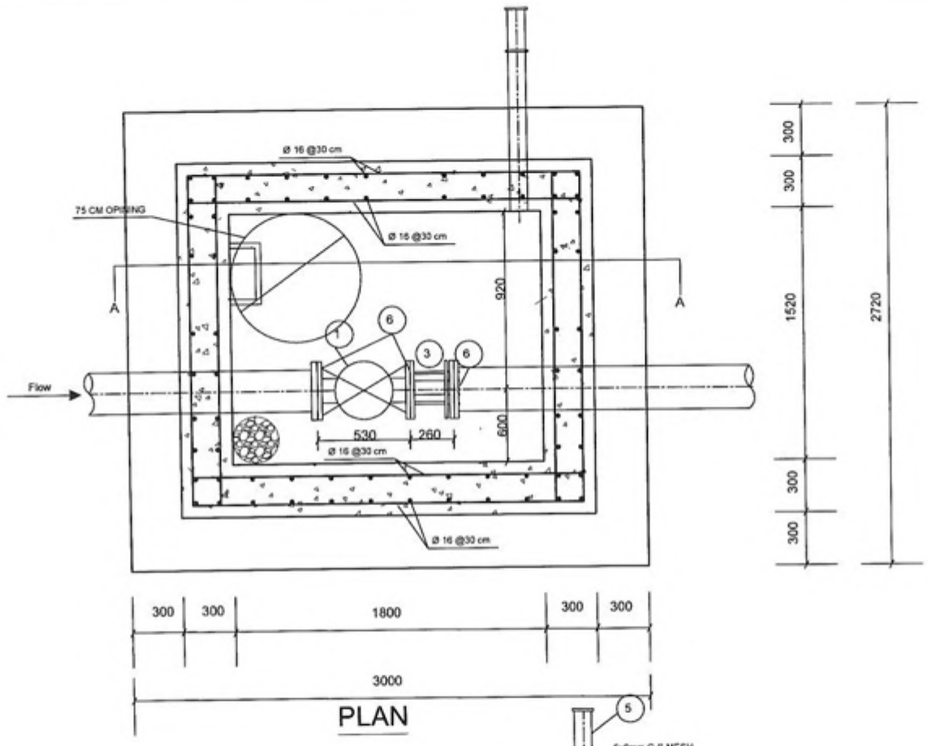
LEGEND		No
1	DN 80mm GATE VALVE PN40.	1
2	ADJUSTABLE PIPE SUPPORT	1
3	Dismantling Joint 80mm	1
4	Ø100mm STEEL PIPES FOR VENT.	
5	Ø100mm SCH 40 STEEL 90' Elbow .	3
6	DN 80mm STEEL PIPES FOR AIR VALVE.	
7	Ø100mm STEEL 90' Elbow .	1
8	REDUCER 100/80	1
9	TEE 250*250*100	1
10	80mm COMBINATION AIR VALVE with surge check PN40.	1
11	DN 80mm STEEL FLANGE (PN40).	3
12	Ø80mm SCH 40 STEEL 90' Elbow .	1
13	100mm Welded Saddel	1



SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:			Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	GMC-24	Sheet : 31 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
							DRAWING TITLE : 3" ARV CHAMBER AT STATION (9+175)	Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		

LEGEND	No
1 DN250mm GATE VALVE WITH ACTUATOR PN40 .	1
2 ADJUSTABLE SUPPORT	1
3 DN250mm FLANGED DISMANTLING JOINT(PN40).	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN250mm STEEL FLANGE (PN40).	2



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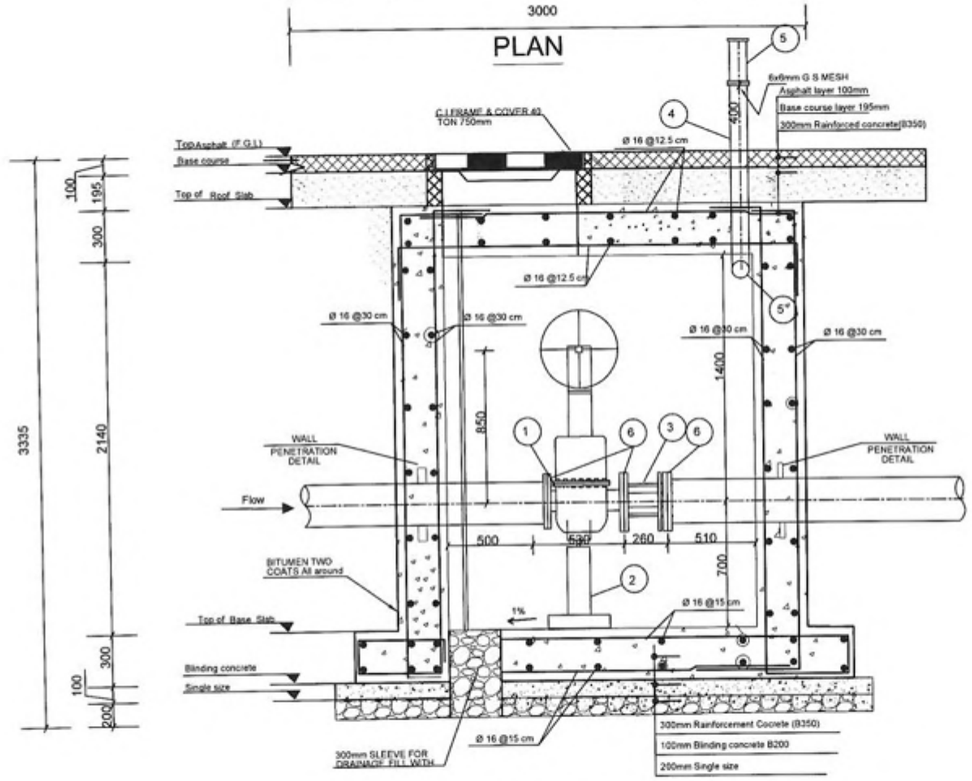
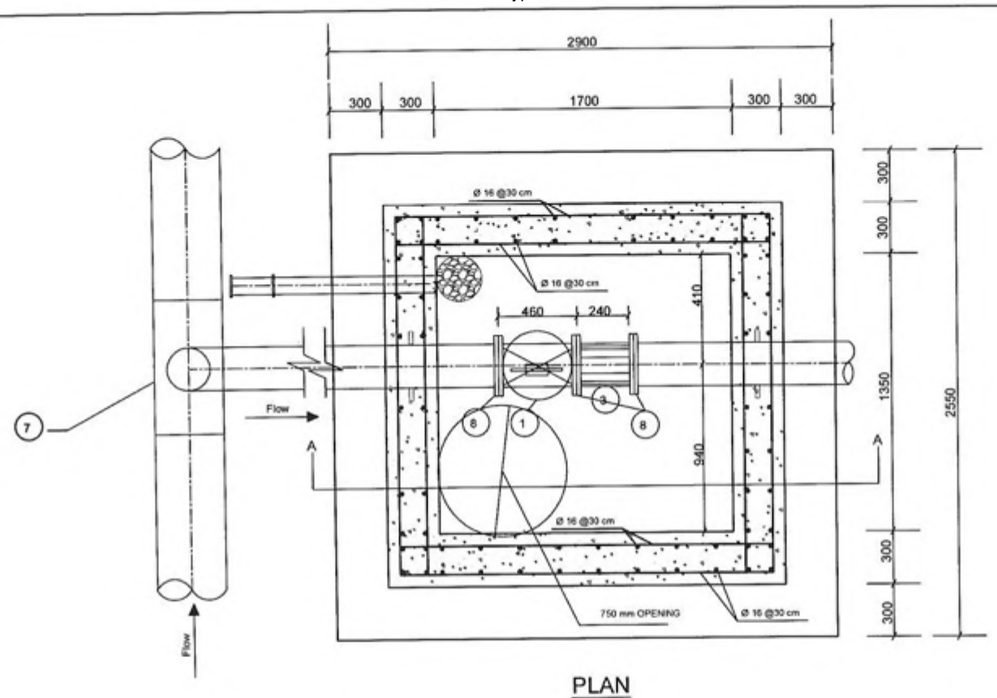


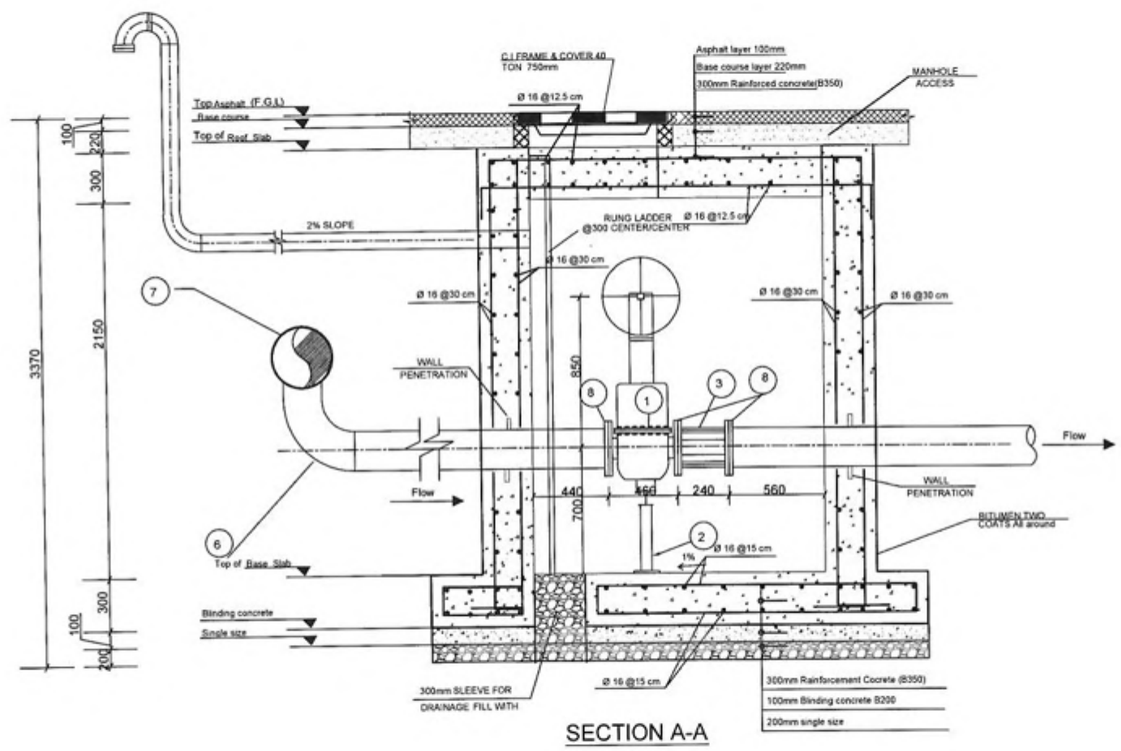
SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:				
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 10" GV CHAMBER AT STATION 9+194	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET GMC-25	Sheet : 32 Of : 129 Date OCTOBER 2013 Scale : NTS



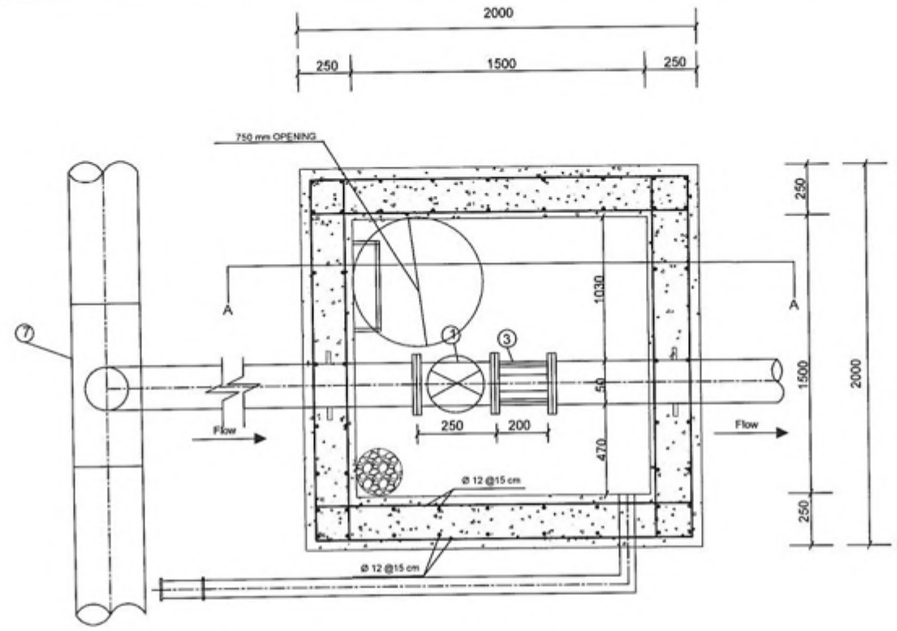
PLAN

LEGEND	No
(1) DN200mm GATE VALVE WITH ACTUATOR PN40	1
(2) ADJUSTABLE PIPE SUPPORT	1
(3) DN200mm FLANGED DISMANTLING JOINT(PN40).	1
(4) DN100mm SCH 40 STEEL PIPES FOR VENT.	
(5) DN100mm SCH 40 STEEL 90' Elbow .	3
(6) DN200mm STEEL 90' Elbow .	1
(7) WS TEE 250X250X200	1
(8) Ø200mm STEEL FLANGE (PN40).	2

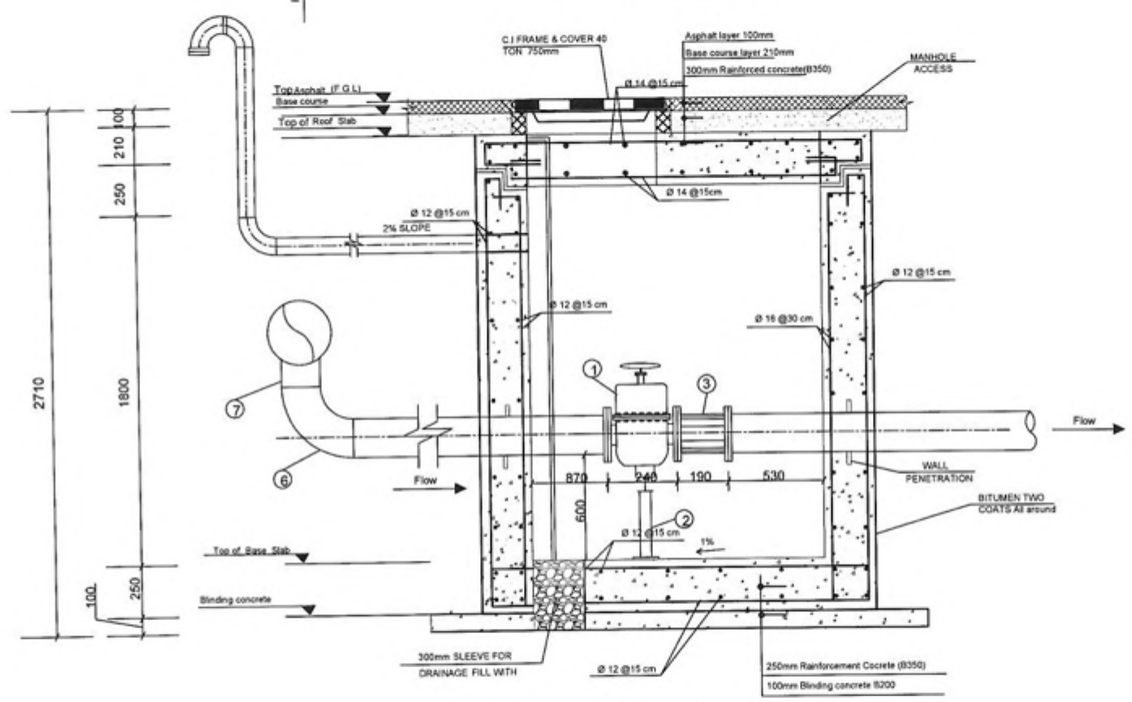


SECTION A-A

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:				
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 8"WO CHAMBER AT STATION 9+654	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET GMC-26	Sheet : 33 Of : 129 Date OCTOBER 2013 Scale : NTS



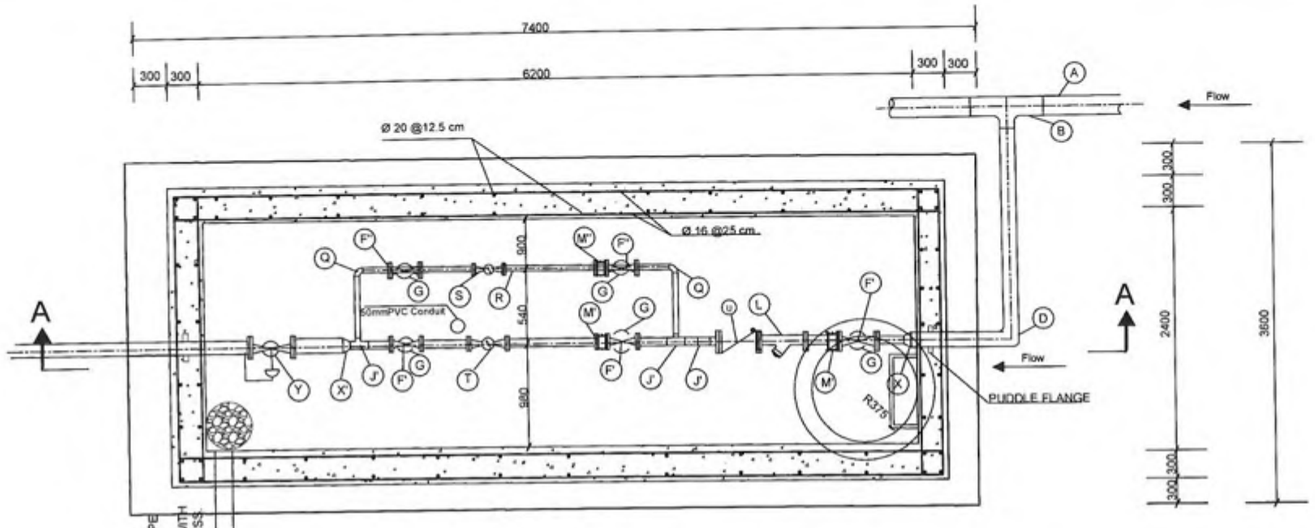
PLAN



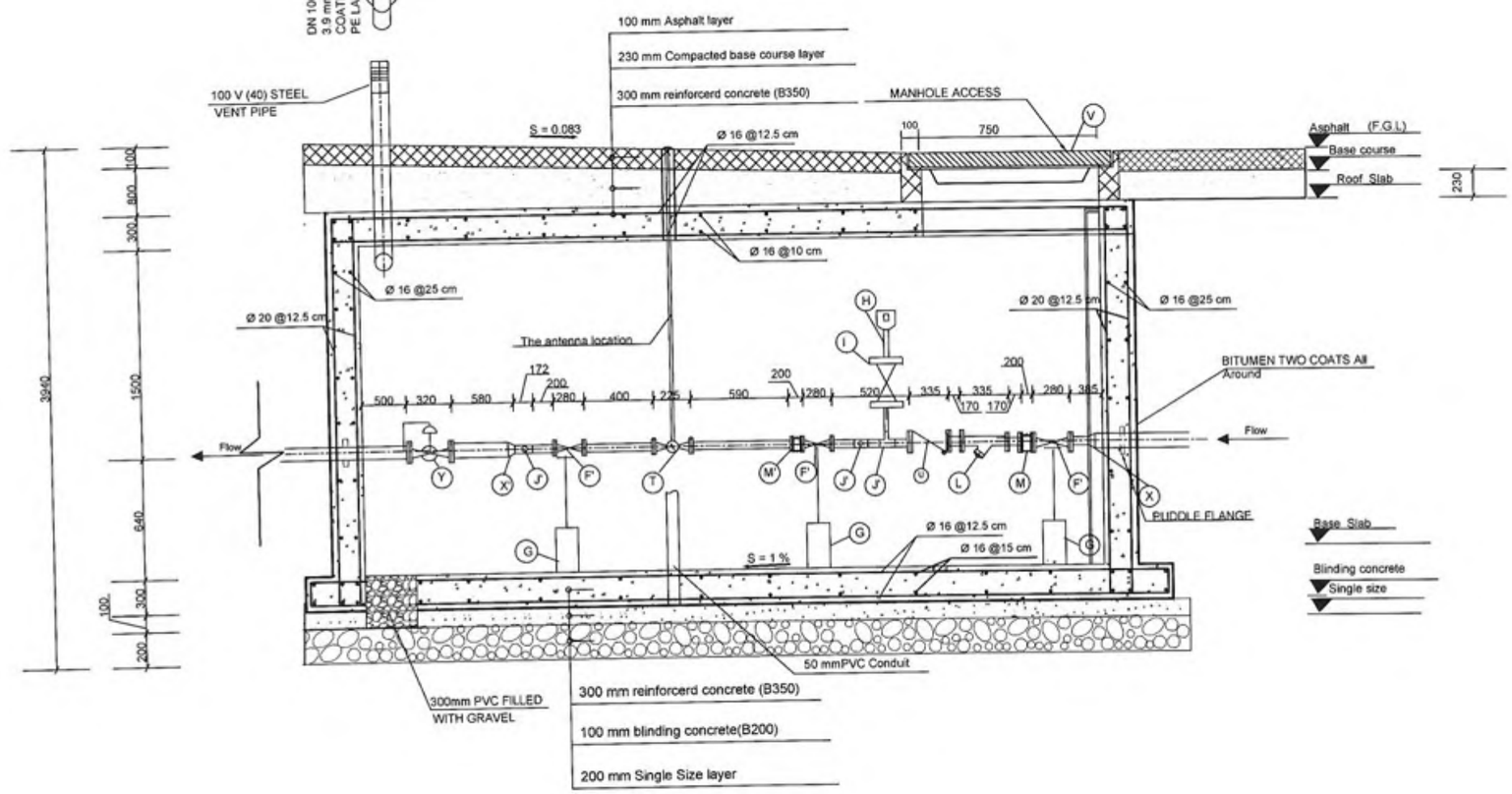
SECTION A-A

LEGEND	No
1 DN50mm GATE VALVE	1
2 ADJUSTABLE PIPE SUPPORT	1
3 DN50mm FLANGED DISMANTLING JOINT(PN40).	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN50mm STEEL 90' Elbow .	1
7 WST(100*100*50)	1
8 Ø50mm STEEL FLANGE (PN40).	2

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:			Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	GMC-27	Sheet : 34 Of : 129
							DRAWING TITLE : 2" WO Precast CHAMBER AT STATION 9+670	Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



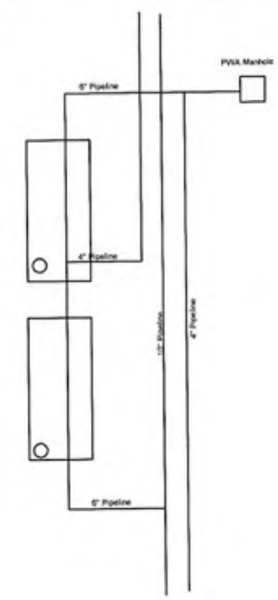
PLAN



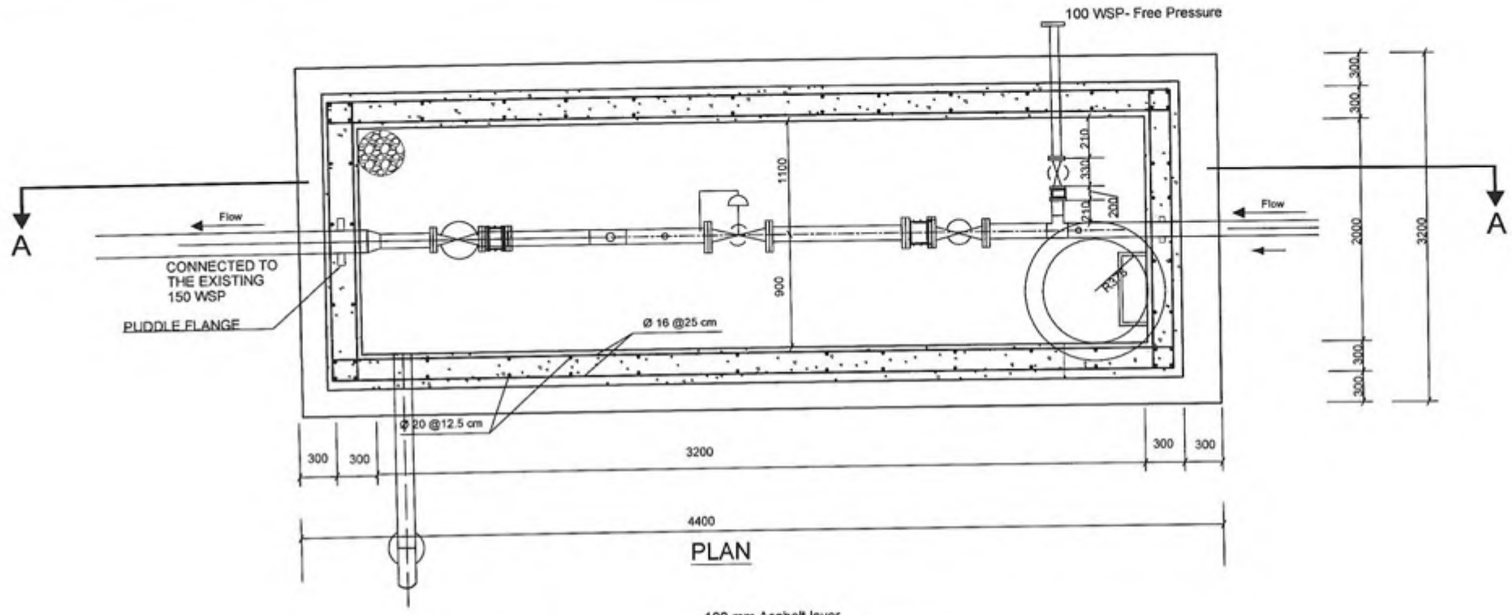
A SECTION

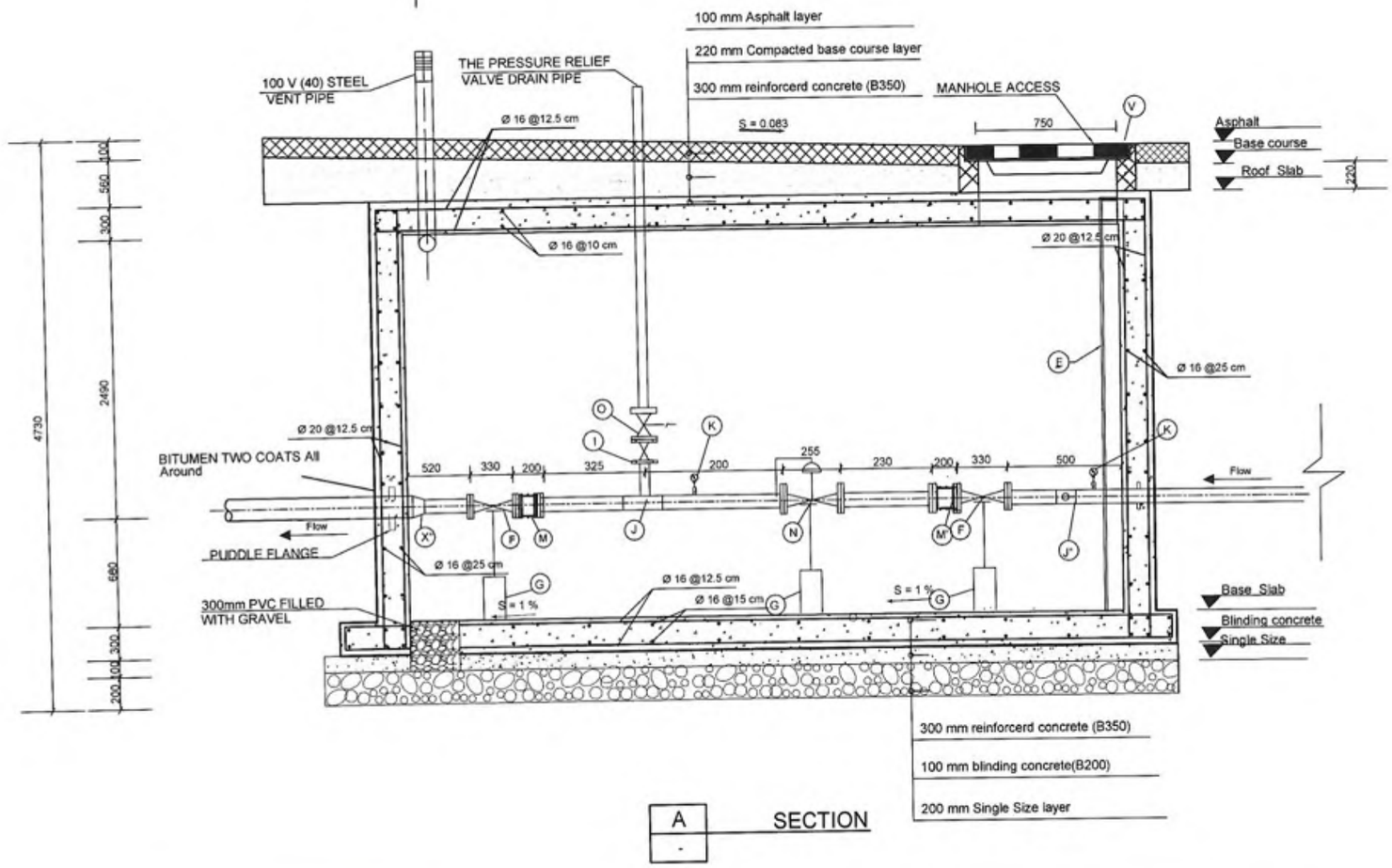
LEGEND

- (A) 250mm - PW (41)
- (B) WS-T 250x250x150mm
- (C) 150mm PW (40)
- (D) 150mm-90° WS ELBOW
- (E) INSIDE LADDER Ø 25 MM @ 300MM
- (F) 100mm FLANGED GATE VALVE
- (F') 75mm FLANGED GATE VALVE
- (F") 50mm FLANGED GATE VALVE
- (G) ADJUSTABLE PIPE SUPPORT (M-109)
- (H) 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 805)
- (I) 50mm FLANGED STOP VALVE
- (J) WS- T(100*100*50)
- (J') WS-T75x75x50mm
- (J") WS-T75x75x75mm
- (J'") WS-T100x100x100mm
- (K) PRESSURE GAUGE
- (L) 100mm FLANGED ANGLE STRAINER
- (M) 100mm FLANGED DISMANTLING JOINT
- (M') 75mm FLANGED DISMANTLING JOINT
- (M") 50mm FLANGED DISMANTLING JOINT
- (N) 100mm FLANGED PRESSURE REDUCING VALVE
- (O) 50mm FLANGED PRESSURE RELIEF VALVE
- (Q) 50mm-90° WS ELBOW
- (R) 50mm PW (40)
- (S) 50mm FLANGED FLOW WATER METER
- (T) 75mm FLANGED FLOW WATER METER
- (U) 75mm FLANGED CHECK VALVE
- (V) 40 TON HEAVY DUTY FRAME AND COVER WATERTIGHT AND LOCKABLE
- (X) WS REDUCER 150/75 mm
- (X') WS REDUCER 100/75 mm
- (X") WS REDUCER 150/100 mm
- (Y) 100mm Flow control valve



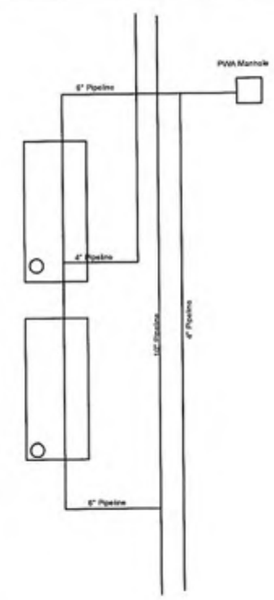
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : KHARAS CONNECTION CHAMBER AT ST 9+929 - A	Prepared By	ENG. M.ABIDO	GMC-28	Sheet : 35 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		





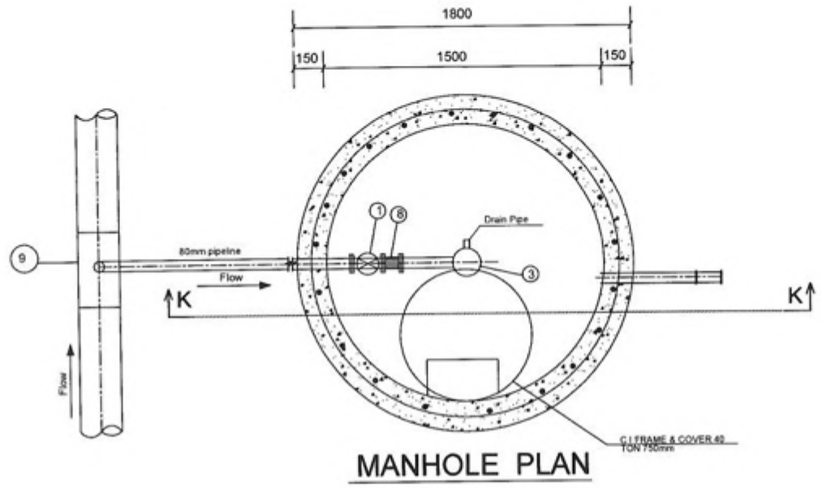
LEGEND

- (A) 250mm - PW (41)
- (B) WS-T 250x250x150mm
- (C) 150mm PW (40)
- (D) 150mm-90° WS ELBOW
- (E) INSIDE LADDER Ø 25 MM @ 300MM
- (F) 100mm FLANGED GATE VALVE
- (F') 75mm FLANGED GATE VALVE
- (F") 50mm FLANGED GATE VALVE
- (G) ADJUSTABLE PIPE SUPPORT (M-109)
- (H) 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 805)
- (I) 50mm FLANGED STOP VALVE
- (J) WS- T(100*100*50)
- (J') WS-T75x75x50mm
- (J") WS-T75x75x75mm
- (J'") WS-T100x100x100mm
- (K) PRESSURE GAUGE
- (L) 100mm FLANGED ANGLE STRAINER
- (M) 100mm FLANGED DISMANTLING JOINT
- (M') 75mm FLANGED DISMANTLING JOINT
- (M") 50mm FLANGED DISMANTLING JOINT
- (N) 100mm FLANGED PRESSURE REDUCING VALVE
- (O) 50mm FLANGED PRESSURE RELIEF VALVE
- (Q) 50mm-90° WS ELBOW
- (R) 50mm PW (40)
- (S) 50mm FLANGED FLOW WATER METER
- (T) 75mm FLANGED FLOW WATER METER
- (U) 75mm FLANGED CHECK VALVE
- (V) 40 TON HEAVY DUTY FRAME AND COVER , WATERTIGHT AND LOCKABLE
- (X) WS REDUCER 150/75 mm
- (X') WS REDUCER 100/75 mm
- (X") WS REDUCER 150/100 mm
- (Y) 100mm Flow control valve

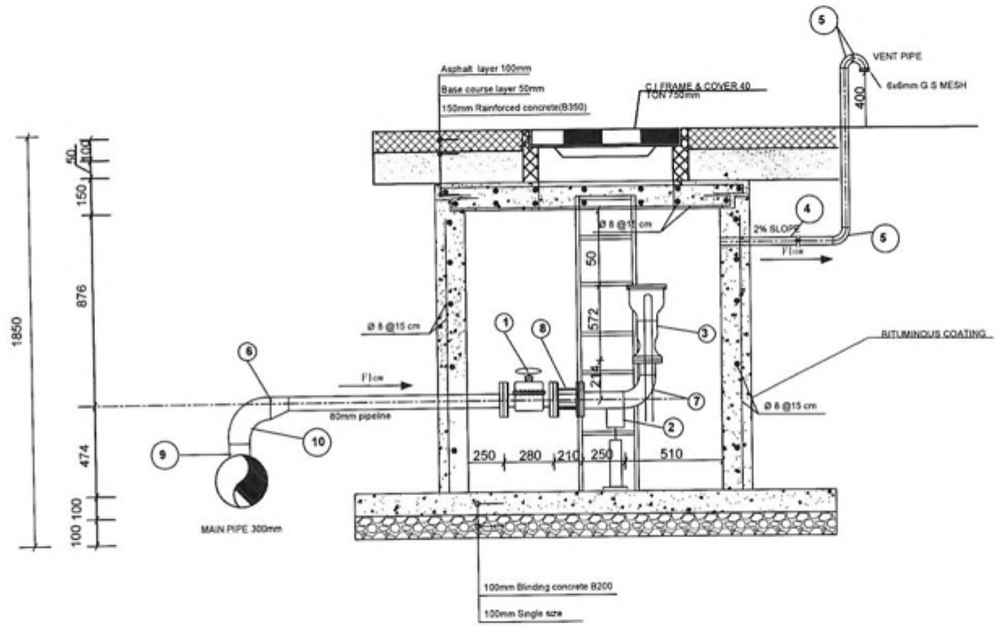


AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : KHARAS CONNECTION CHAMBER AT ST 9+929 - B	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET: GMC-29	Sheet : 36 Of : 129 Date OCTOBER 2013 Scale : NTS

LEGEND		No
1	DN 80mm GATE VALVE	1
2	ADJUSTABLE PIPE SUPPORT	1
3	80mm COMBINATION AIR VALVE	1
4	Ø100mm STEEL PIPES FOR VENT.	
5	Ø100mm SCH 40 STEEL 90' Elbow .	3
6	Reducer 150 /80 mm	1
7	Ø80mm STEEL 90' Elbow .	2
8	DN 80 mm DISMANTLING JOINT.	1
9	WST(300*300*150)	1
10	Ø150mm STEEL 90' Elbow .	1



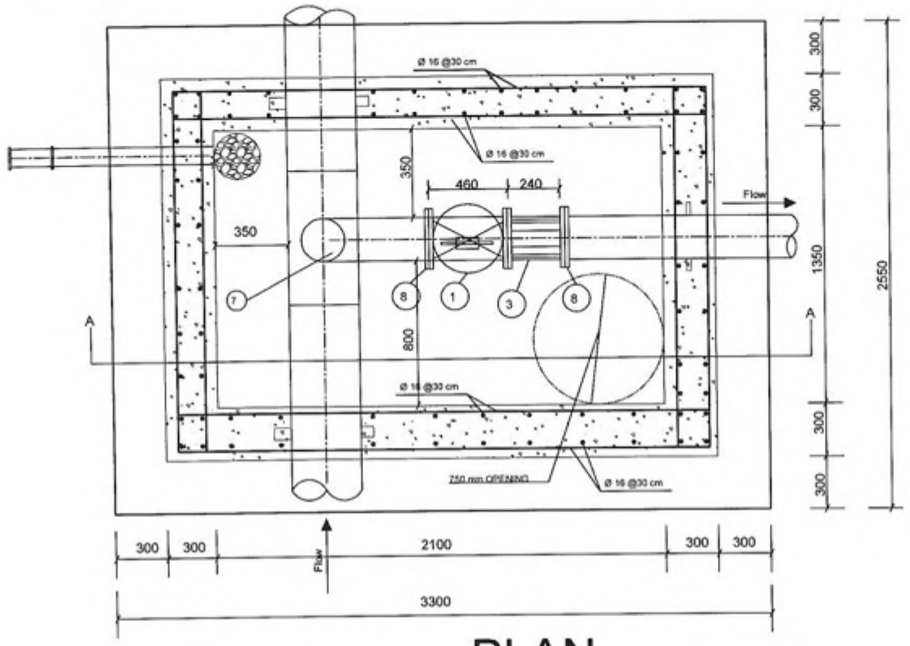
MANHOLE PLAN



SECTION K- K

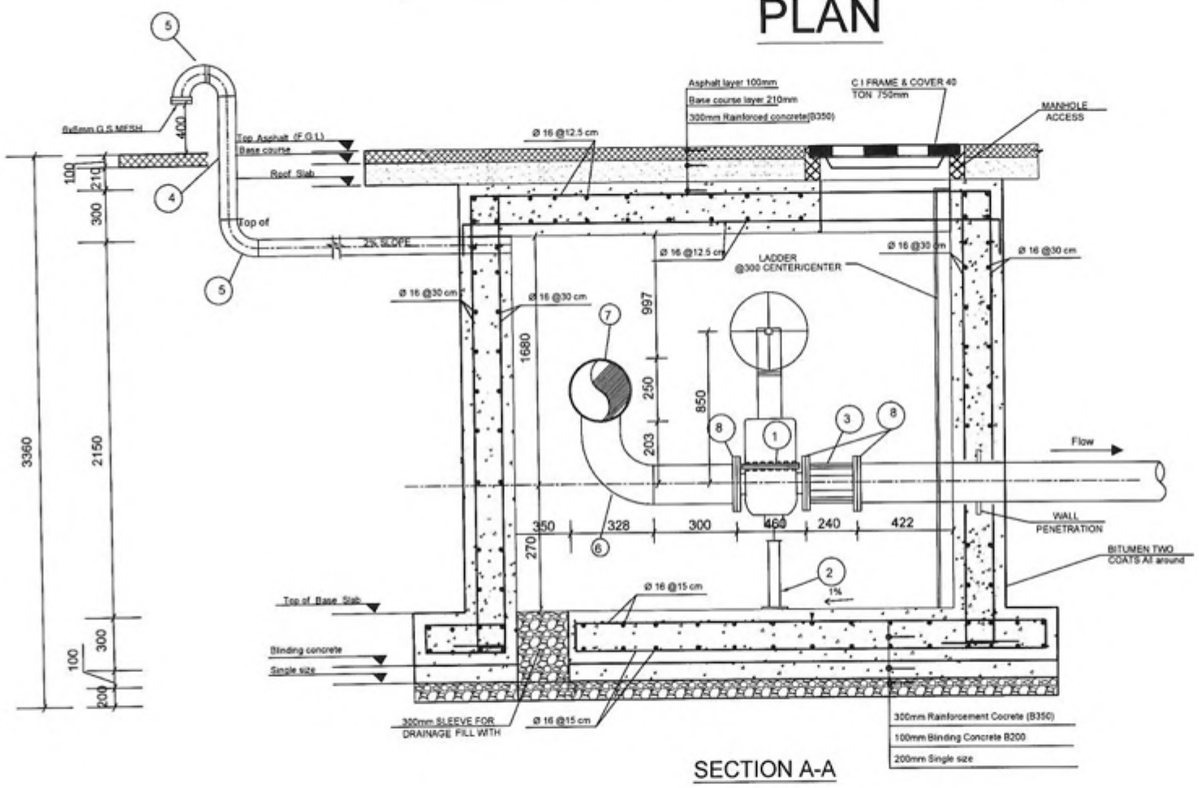
PRECAST CIRCULAR CONCRETE MANHOLE

AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : COMBINATION AIR VALVE PRECAST CHAMBERON At St(10+115)	Prepared By Drawn By Checked By Approved By	Name ENG. M.ABIDO ENG. M.ABIDO ENG. N.MRIZEQ ENG. R.MUSTAFA	SHEET GMC-30	Sheet : 37 Of : 129 Date OCTOBER 2013 Scale : NTS



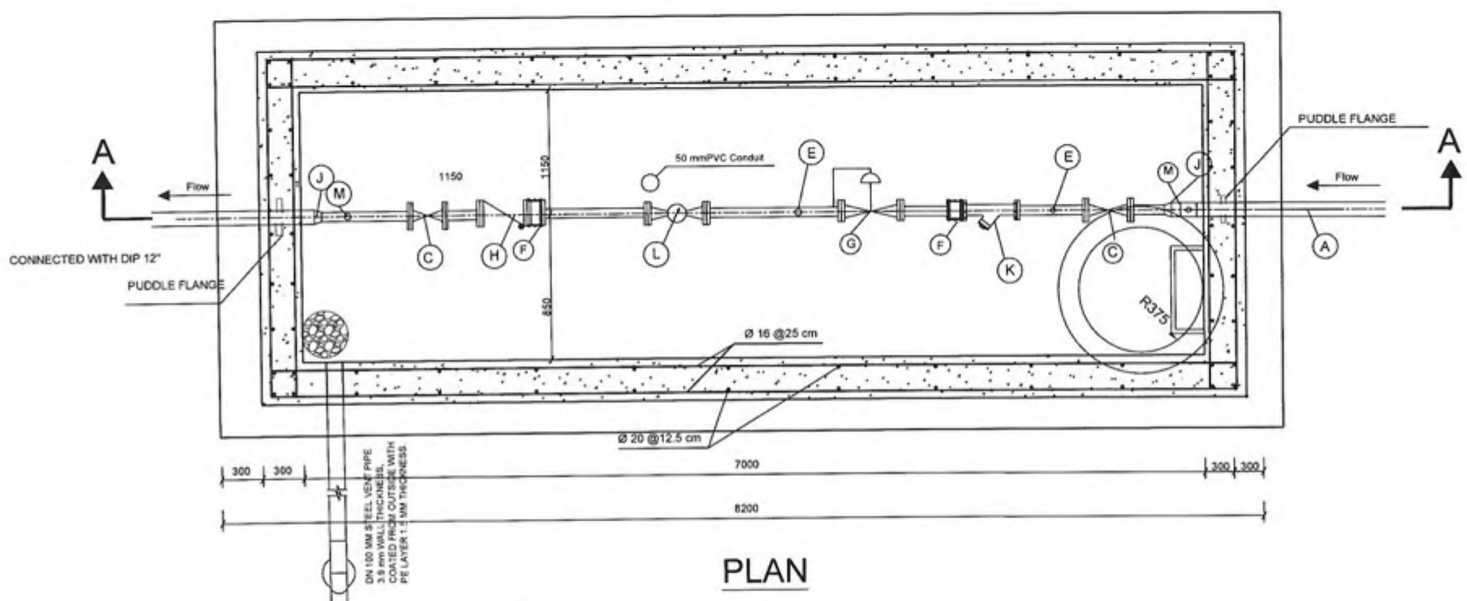
PLAN

LEGEND	No
1 DN200mm GATE VALVE WITH ACTUATOR PN40	1
2 ADJUSTABLE PIPE SUPPORT	1
3 DN200mm FLANGED DISMANTLING JOINT(PN40).	1
4 DN100mm SCH 40 STEEL PIPES FOR VENT.	
5 DN100mm SCH 40 STEEL 90' Elbow .	3
6 DN200mm STEEL 90' Elbow .	1
7 WS TEE 250X250X200	1
8 Ø200mm STEEL FLANGE (PN40).	2



SECTION A-A

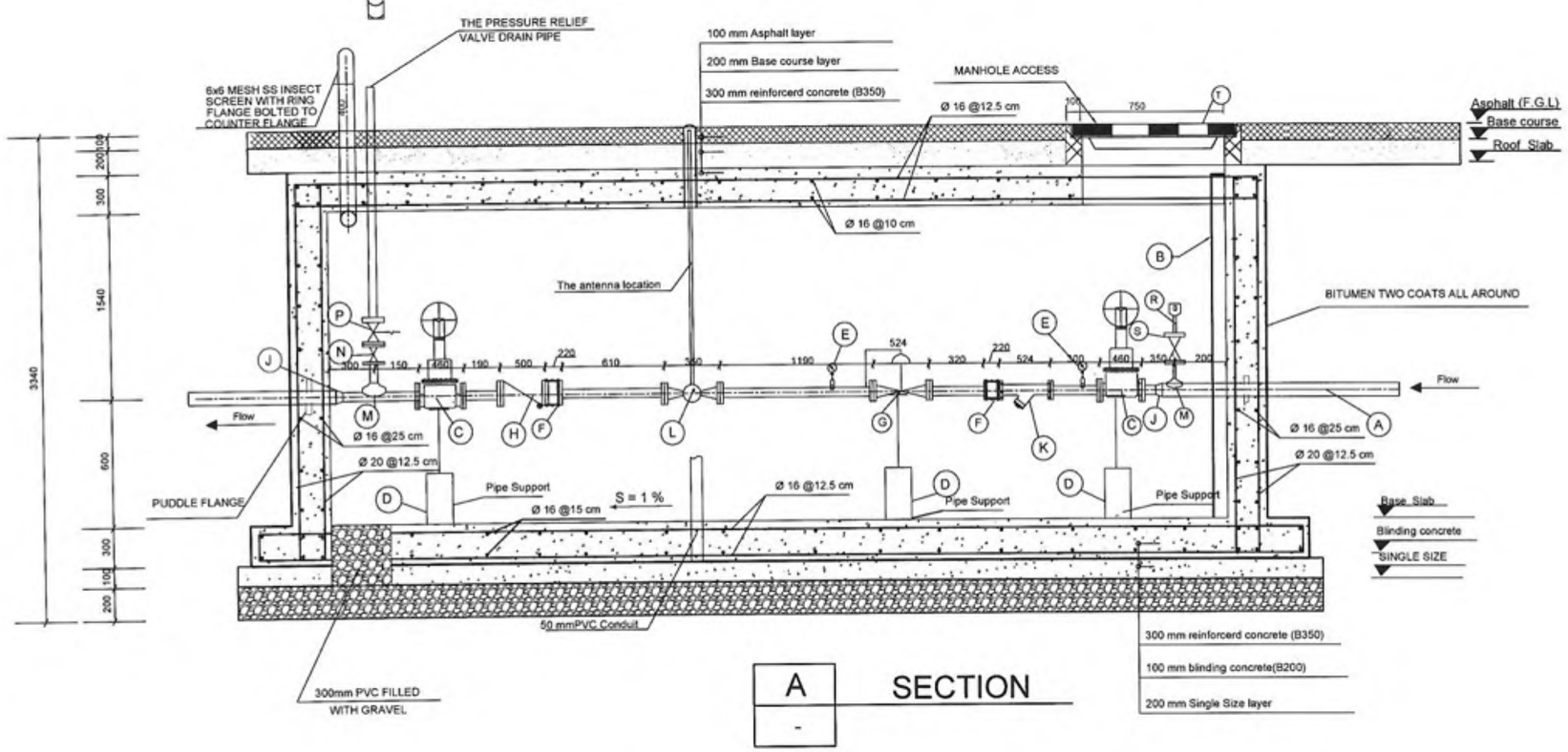
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:					
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : 8" WO CHAMBER AT STATION 10+687	Prepared By: ENG. M.ABIDO Drawn By: ENG. M.ABIDO Checked By: ENG. N.MRIZEQ Approved By: ENG. R.MUSTAFA	SHEET: GMC-31	Sheet: 38 Of: 129 Date: OCTOBER 2013 Scale: NTS	



PLAN

LEGEND

A	250mm - PW (41)
B	INSIDE LADDER Ø 25 MM @ 300MM
C	200mm FLANGED GATE VALVE
D	ADJUSTABLE PIPE SUPPORT (M-109)
E	25 WELDED COUPLING WITH STOP VALVE & PRESSURE GAUGE I-301
F	200mm FLANGED DISMANTLING JOINT
G	200mm FLANGED PRESSURE REDUCING VALVE
H	200mm FLANGED CHECK VALVE
I	40 TON HEAVY DUTY FRAME AND COVER, WATERTIGHT AND LOCKABLE
J	WS REDUCER 250/200 mm
J	WS REDUCER 100/50 mm
J	WS REDUCER 50/25 mm
K	200mm FLANGED ANGLE STRAINER
L	200mm FLANGED FLOW WATER METER
M	WELD OLET 50mm
N	50mm FLANGED STOP VALVE
P	50mm FLANGED PRESSURE RELIEF VALVE
R	50mm FLANGED COMBINATION AIR RELEASE VALVE (M 804)
S	50mm FLANGED GATE VALVE



A
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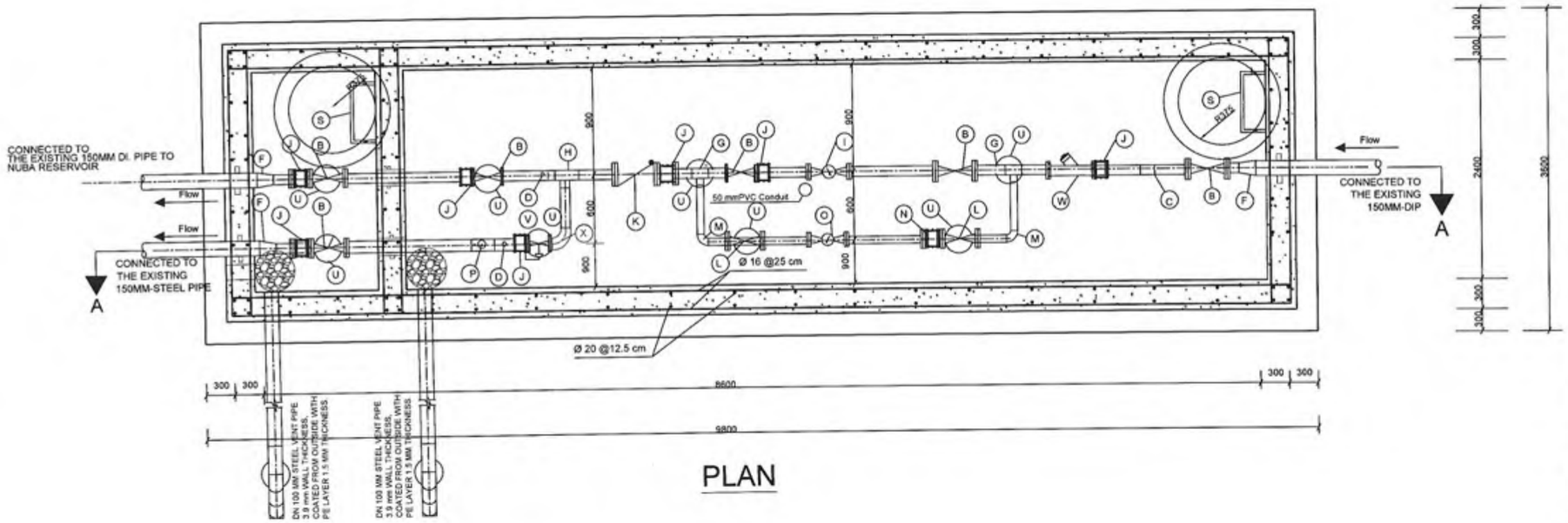
SECTION

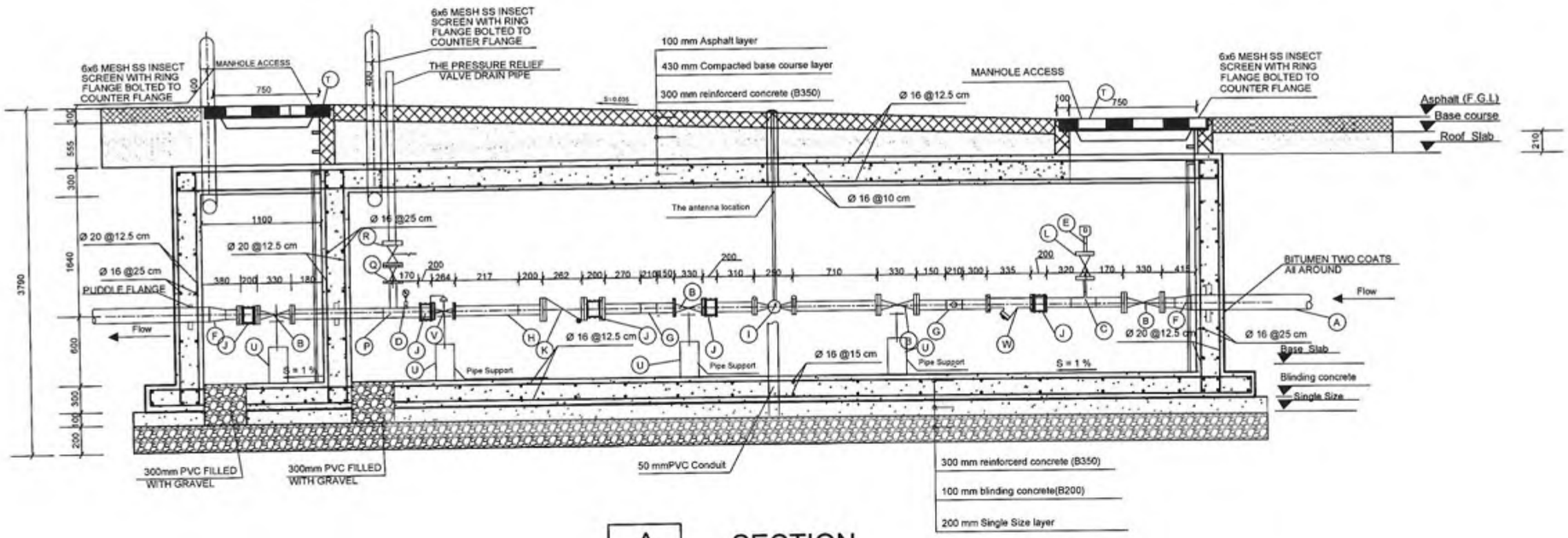
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : NUBA MAIN CONNECTION CHAMBER AT STATION 10+691	Prepared By	ENG. M.ABIDO	GMC-32	Sheet : 39 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



PLAN

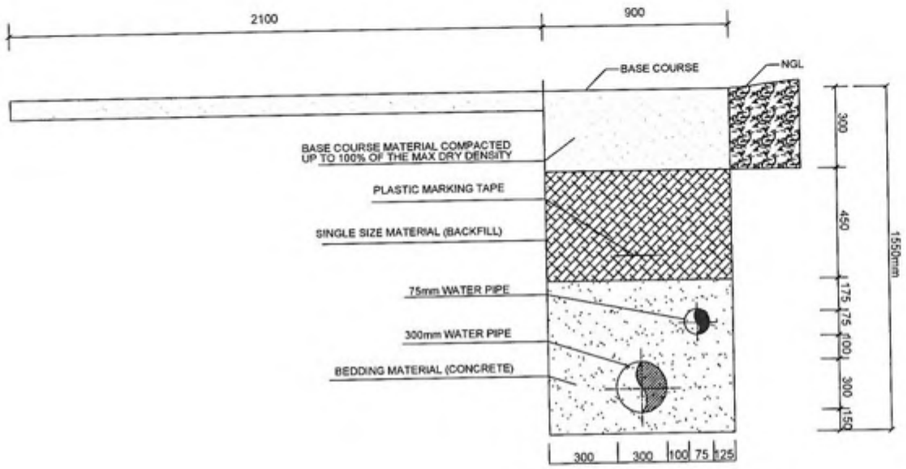
LEGEND

- (A) 150mm- PW (41) MAIN
- (B) 100mm FLANGED GATE VALVE
- (B') 75mm FLANGED GATE VALVE
- (C) WS T (100*100*50)
- (D) 25mm WELDED COUPLING W. STOP VALVE & PRESSURE GAUGE I-301
- (E) 50mm FLANGED COMBINATION AIR RELEASE VALVE (M 804)
- (F) WS-REDUCER 150/100mm
- (F') WS-REDUCER 150/75mm
- (F") WS-REDUCER 100/75mm
- (G) WS-T 100x100x50mm
- (H) WS-T 100x100x100mm
- (I) 100mm FLANGED FLOW WATER METER electro magnatic
- (J) 100mm FLANGED DISMANTLING JOINT
- (J') 75mm FLANGED DISMANTLING JOINT
- (K) 100mm FLANGED CHECK VALVE
- (L) 50mm FLANGED GATE VALVE
- (M) 50 WS ELBOW 90
- (N) 50 FLANGED DISMANTLING JOINT
- (O) 50 mm FLANGED FLOW WATER METER
- (P) WS T(100*100*40)
- (Q) 40mm FLANGED STOP VALVE
- (R) 40mm FLANGED PRESSURE RELIEF VALVE
- (S) INSIDE LADDER Ø 25 MM @ 300MM
- (T) 40 TON HEAVY DUTY FRAME, COVER WATERTIGHT AND LOCKABLE
- (U) ADJUSTABLE PIPE SUPPORT (M-109)
- (V) 100mm PRESSURE REDUCING VALVE
- (W) 100 mm FLANGED ANGLE STRANER
- (X) 100 WS ELBOW 90

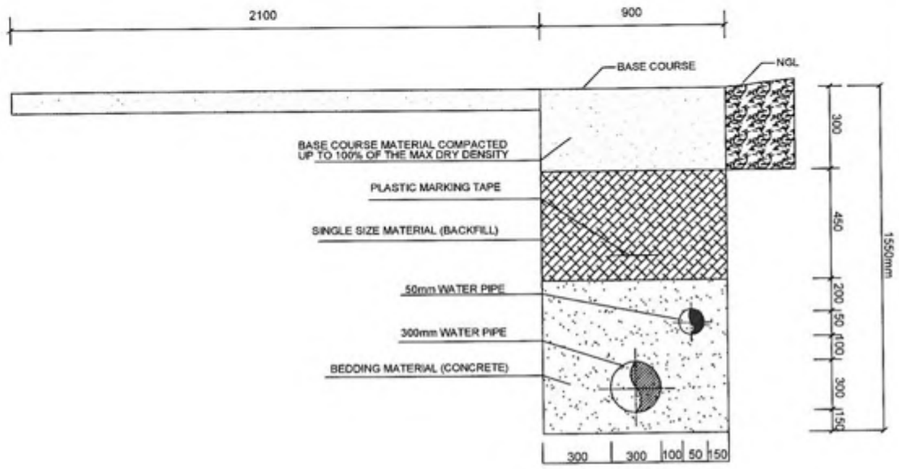


A	SECTION
-	

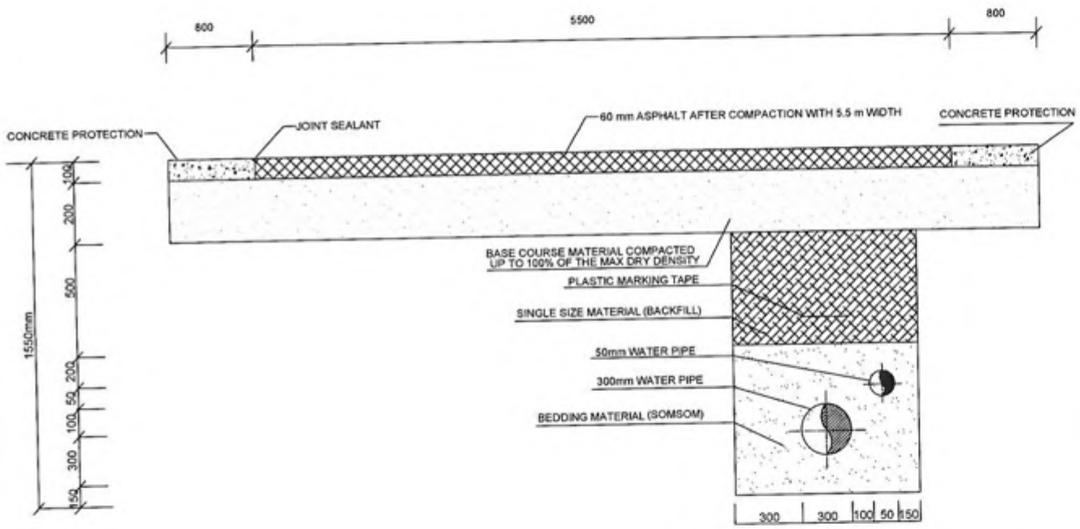
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:			Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	GMC-33	Sheet : 40 Of : 129
							DRAWING TITLE : NUBA AND HATA CONNECTION CHAMBER AT ST 11+253	Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



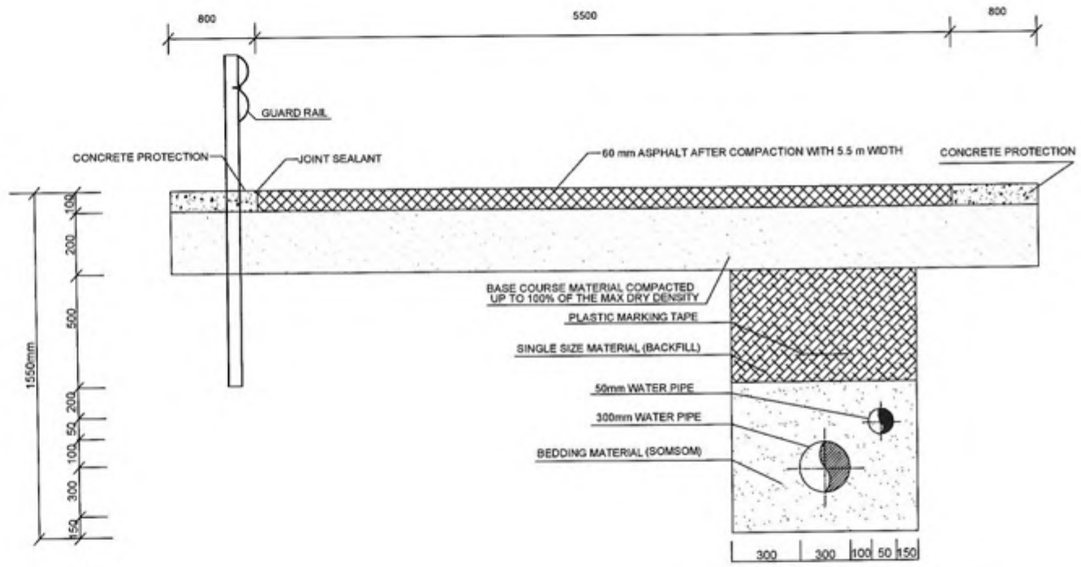
CROSS SECTION FOR TWO PIPE 300&75mm
UNPAVED ROAD IN THE SAME TRENCH
FROM STATION **0+003** TO STATION **0+117.2**



CROSS SECTION FOR TWO PIPE 300&50mm
UNPAVED ROAD IN THE SAME TRENCH
FROM STATION **0+107.91** TO STATION **0+230**

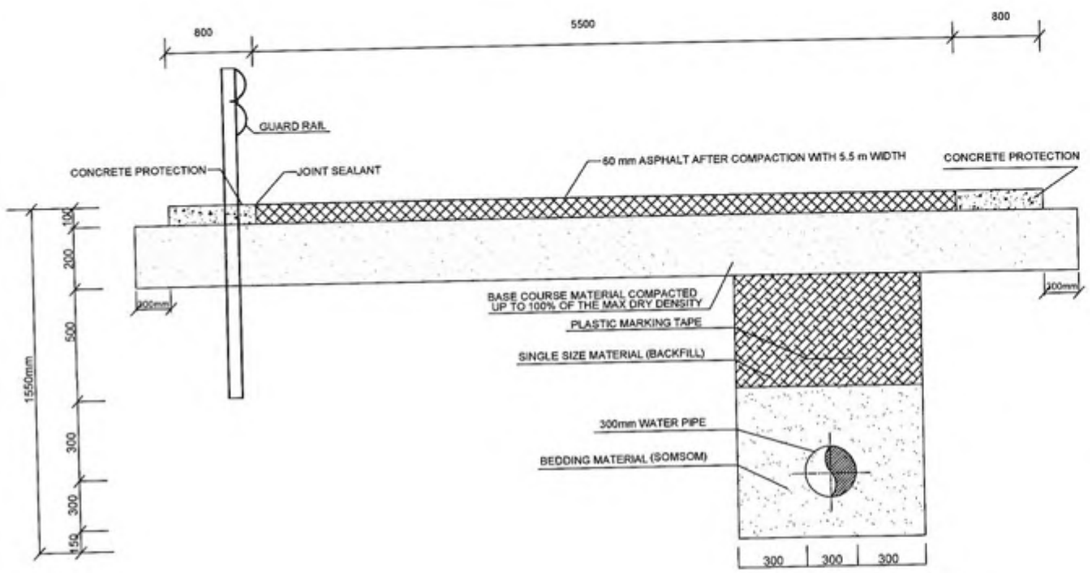


300mm AND 50mm PIPES ALONG AND ACROSS
ASPHALTED ROAD
FROM STATION **0+230**TO STATION **0+275**

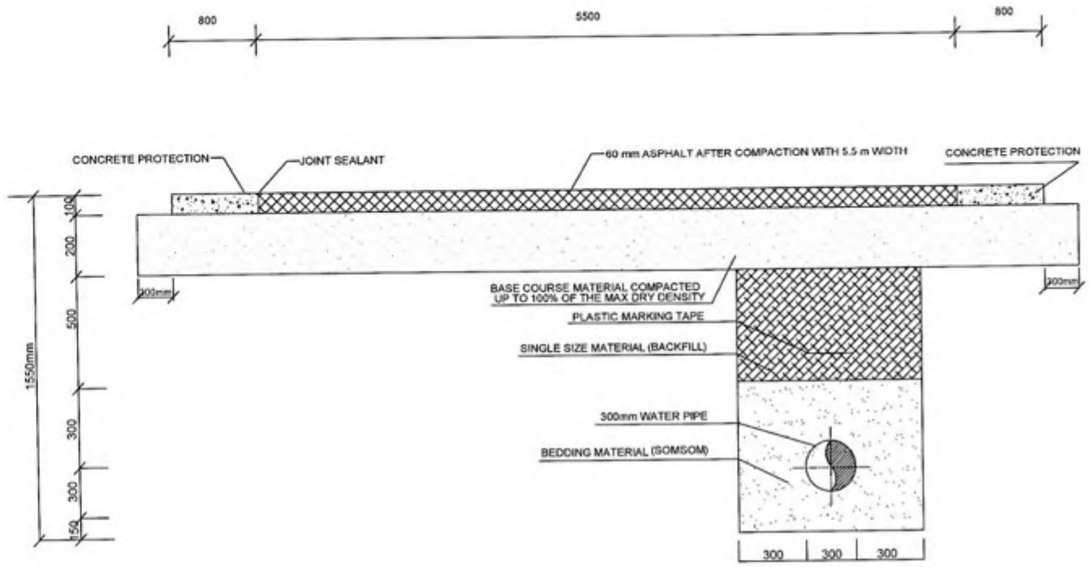


300mm AND 50mm PIPES ALONG AND ACROSS
ASPHALTED ROAD
FROM STATION **0+275**TO STATION **0+307.91**

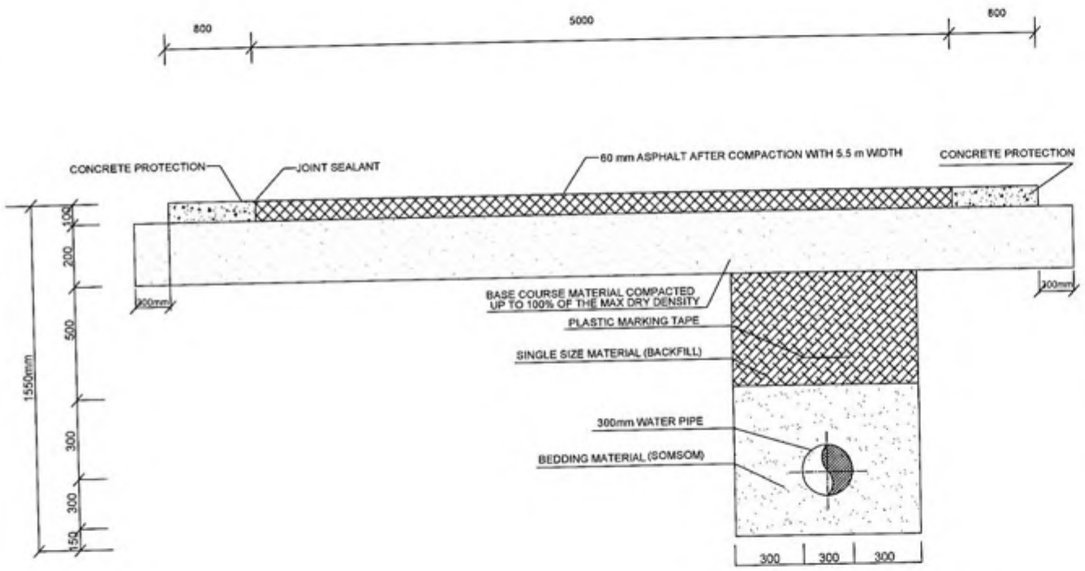
AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : TRENCH CROSS SECTION I		Name	SHEET	
								Prepared By	ENG. M.ABIDO	GMC-34	Sheet : 41 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



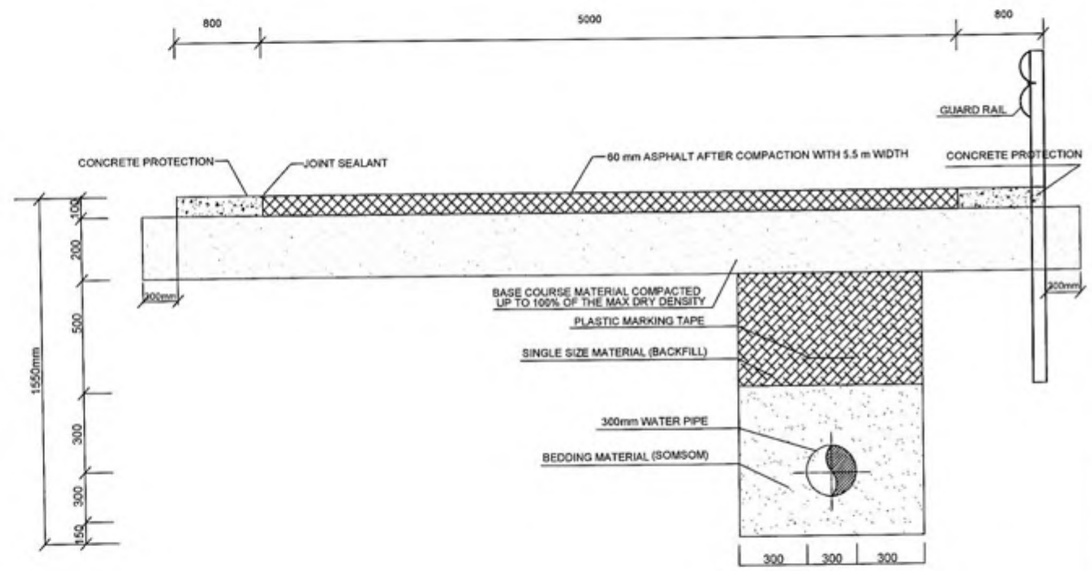
300mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 0+307.91 TO STATION 0+387



300mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 0+387 TO STATION 0+875



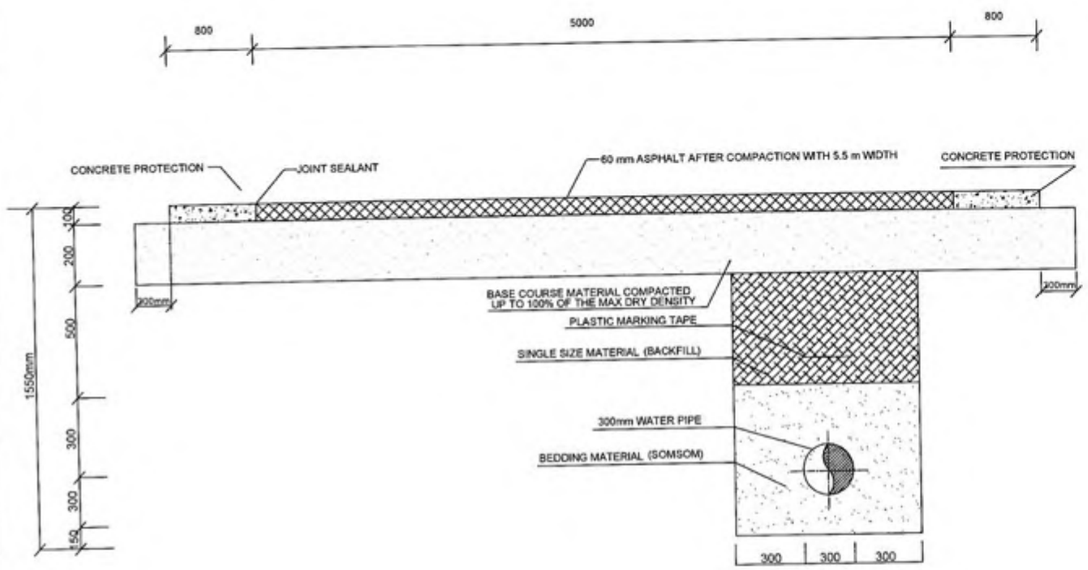
300mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 0+875 TO STATION 0+970



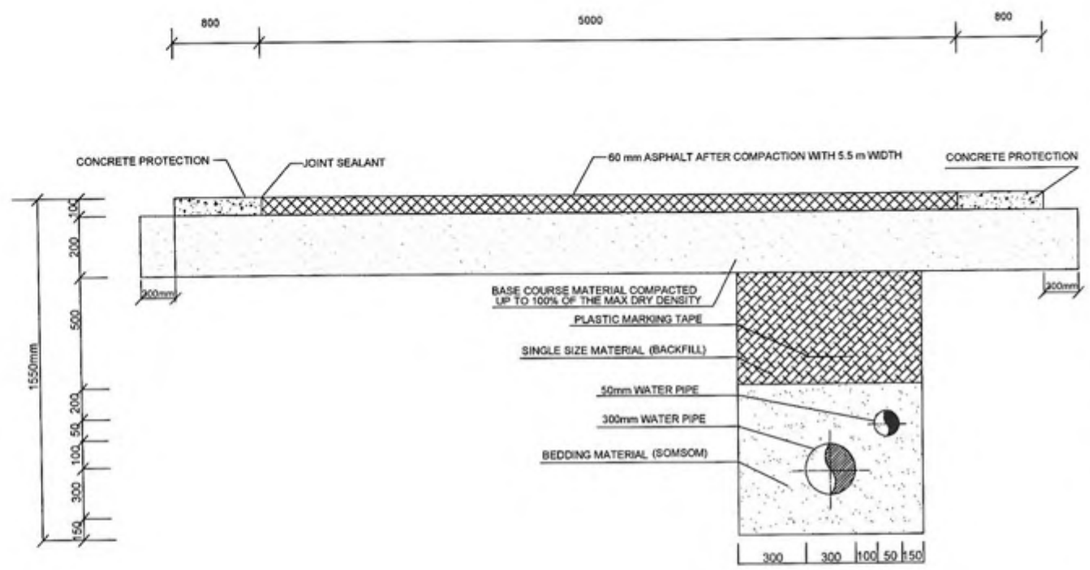
300mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 0+970 TO STATION 1+162

AS-BUILT	Client: USAID من الشعب الأمريكي	Owner: سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	Engineer: MWH	CMC: BLACK AND VEATCH	CONTRACTOR: IRD	SUB CONTRACTOR: BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE DRAWING TITLE : TRENCH CROSS SECTION II

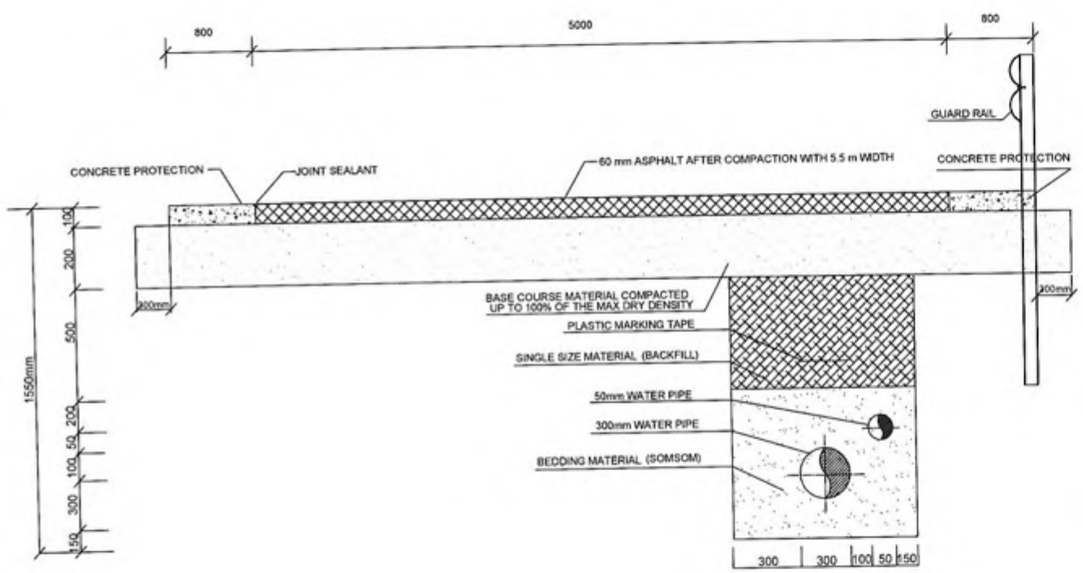
	Name	SHEET	
Prepared By	ENG. M.ABIDO	GMC-35	Sheet : 42 Of : 129
Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
Checked By	ENG. N.MRIZEQ		Scale : NTS
Approved By	ENG. R.MUSTAFA		



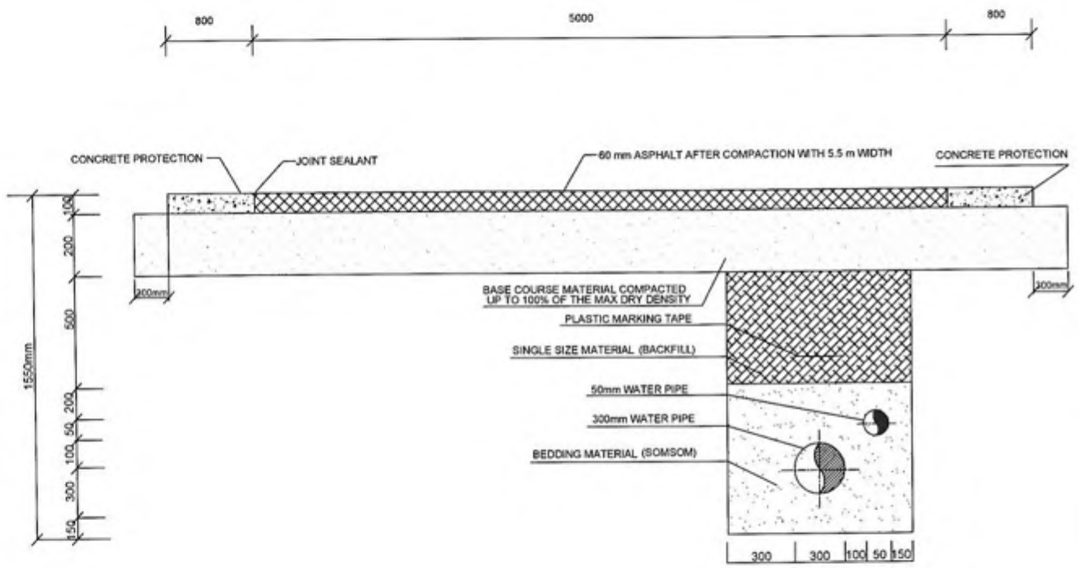
300mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 1+162 TO STATION 1+195



300mm AND 50mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 1+195 TO STATION 1+241

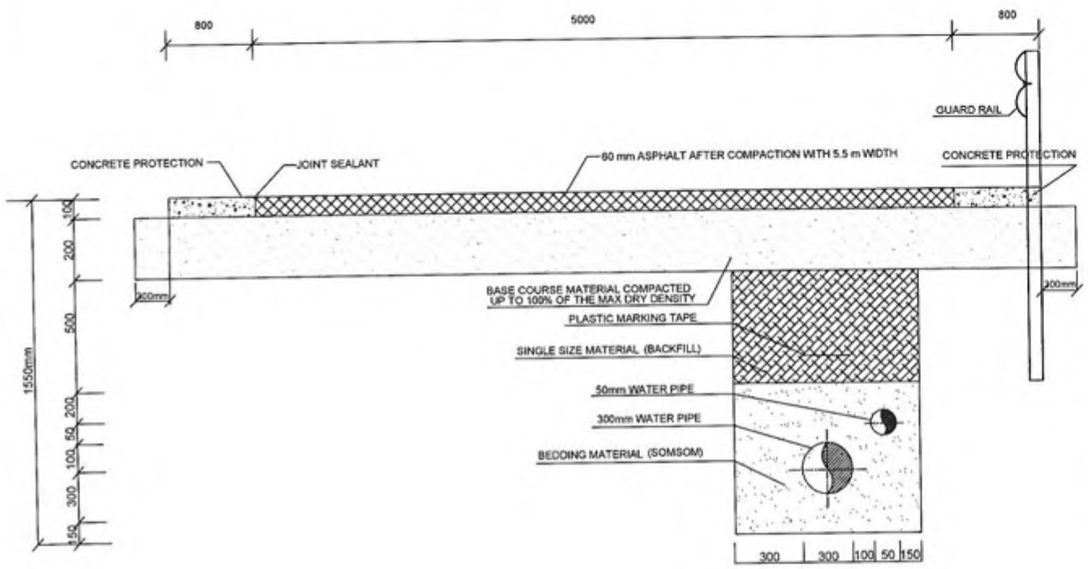


300mm AND 50mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 1+241 TO STATION 1+313

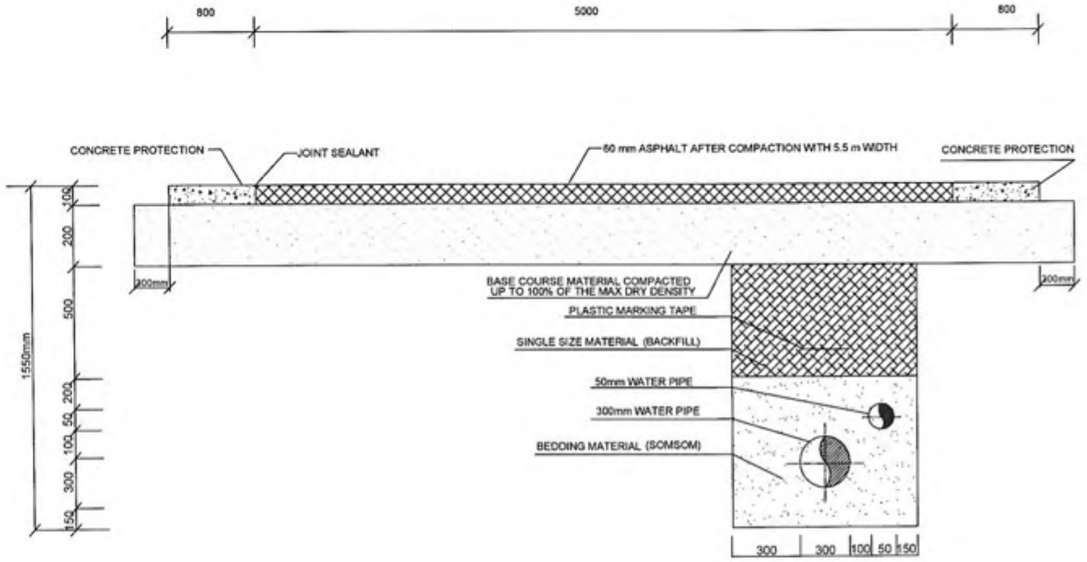


300mm AND 50mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 1+313 TO STATION 1+349

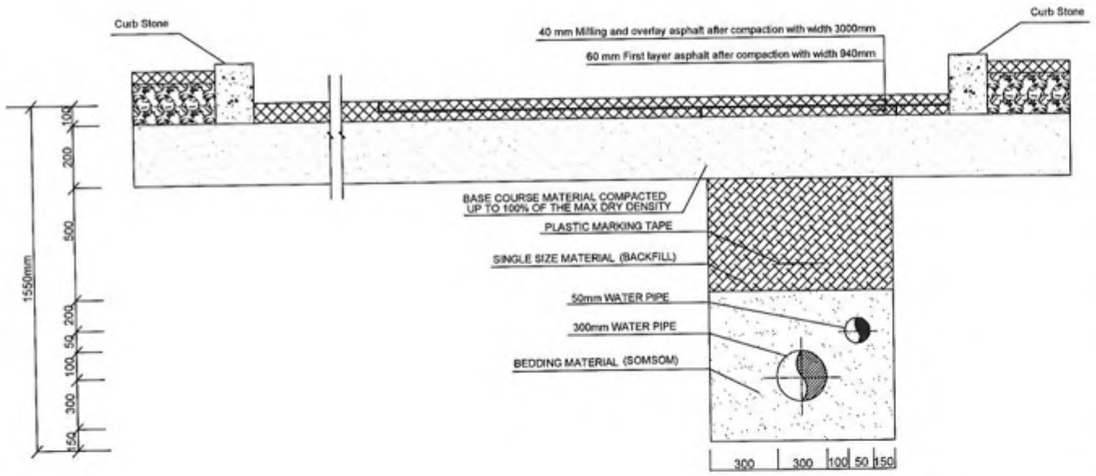
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : TRENCH CROSS SECTION III	Prepared By	ENG. M.ABIDO	GMC-36	Sheet : 43 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



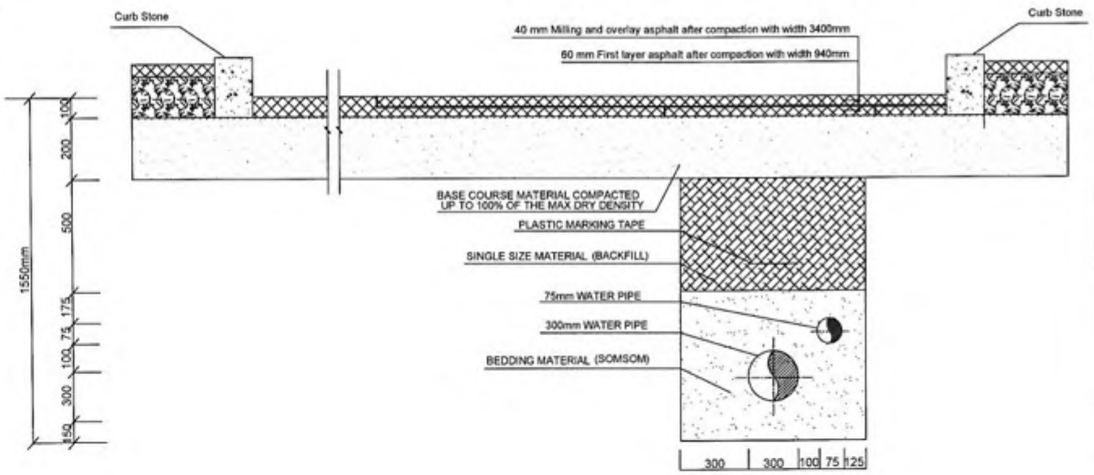
300mm AND 50mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 1+349 TO STATION 1+373



300mm AND 50mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 1+373 TO STATION 1+480

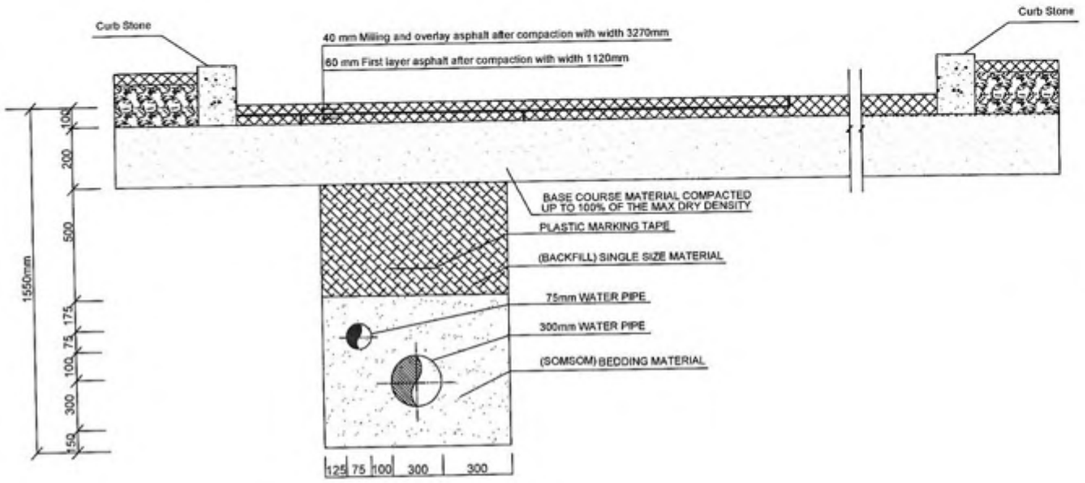


300mm AND 50mm PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE
FROM STATION 1+480 TO STATION 1+495

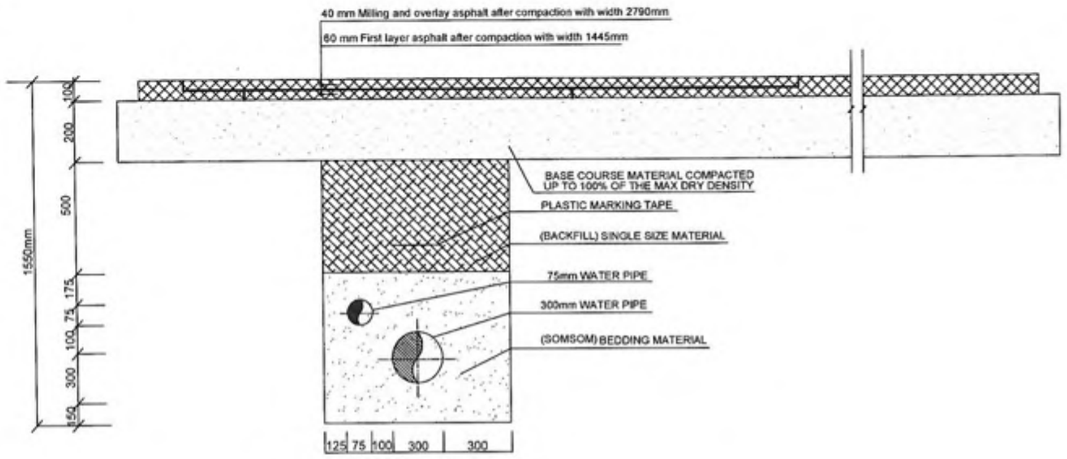


300mm AND 75mm PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE
FROM STATION 1+486.2 TO STATION 1+600

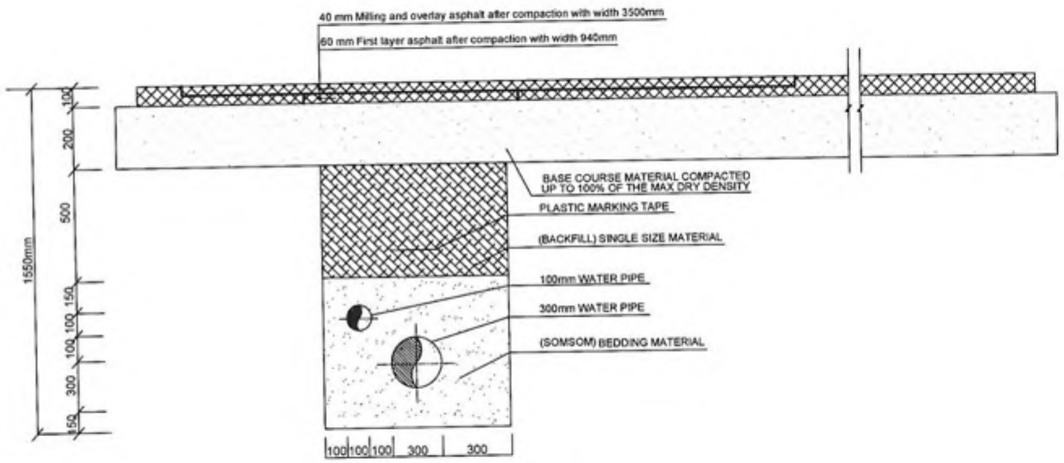
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : TRENCH CROSS SECTION IV	Prepared By	ENG. M.ABIDO	GMC-37	Sheet : 44 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



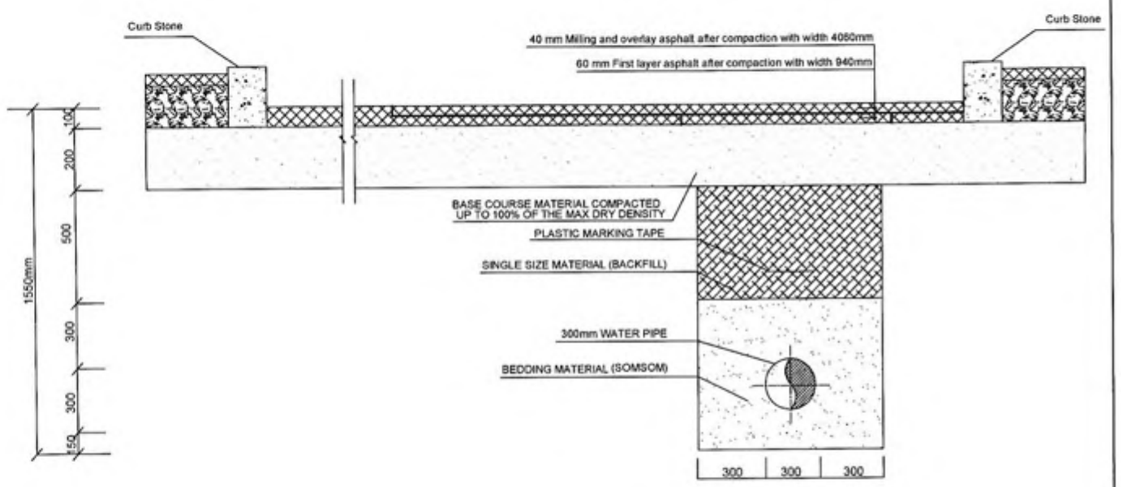
300mm AND 75mm PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE FROM STATION 1+600 TO STATION 2+340



300mm AND 75mm PIPES ALONG AND ACROSS ASPHALTED ROAD FROM STATION 2+340 TO STATION 2+528.5

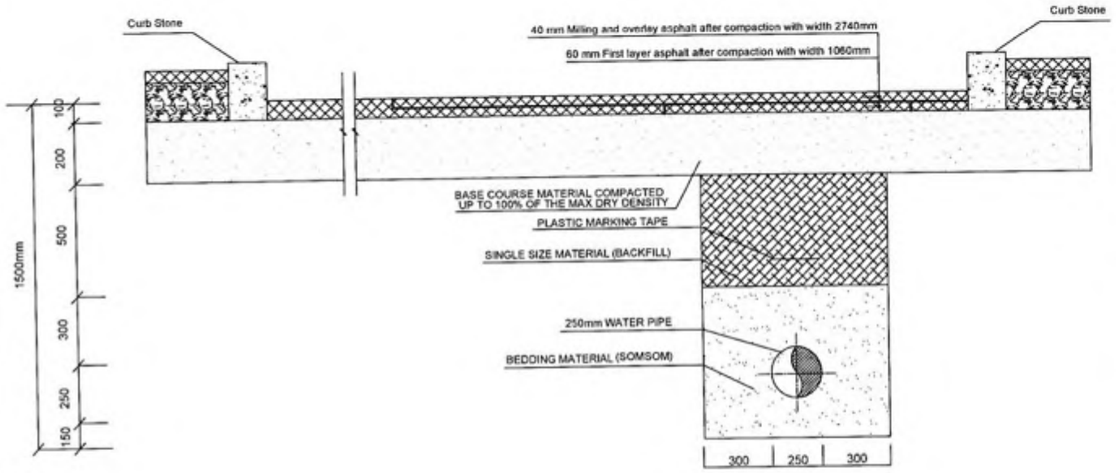


300mm AND 100mm PIPES ALONG AND ACROSS ASPHALTED ROAD FROM STATION 2+528.5TO STATION 2+688

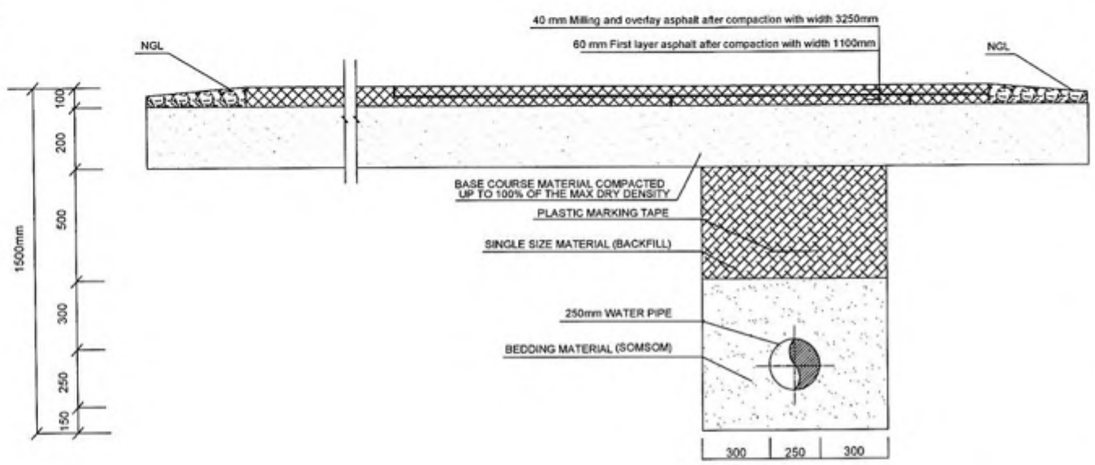


300mm AND PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE FROM STATION 2+688 TO STATION 2+714.55

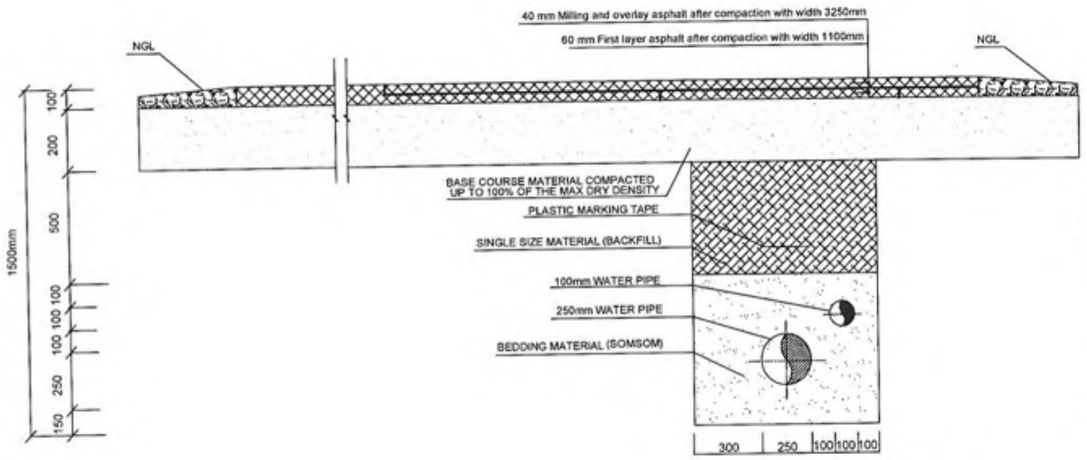
AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : TRENCH CROSS SECTION V	Prepared By	ENG. M.ABIDO	GMC-38	Sheet : 45 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		



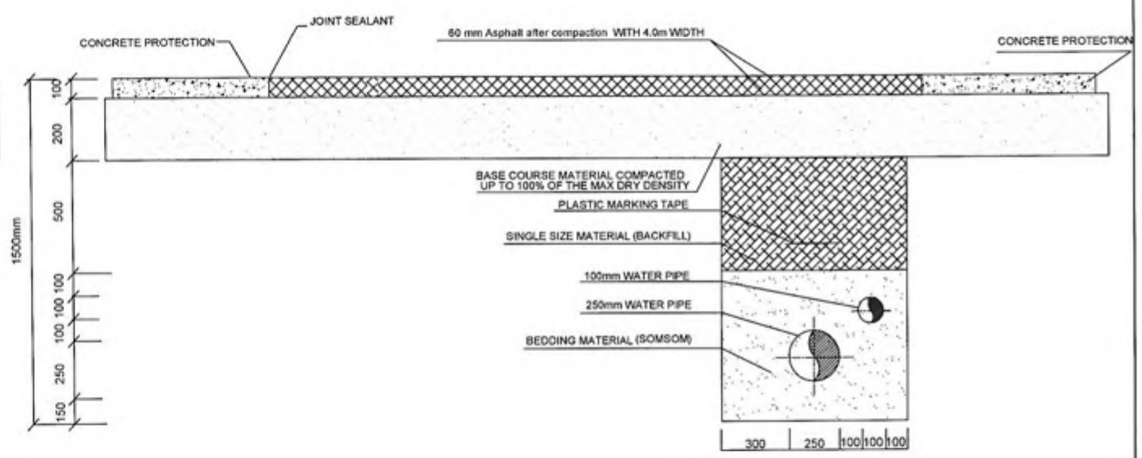
250mm AND PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE.
FROM STATION 2+714.55 TO STATION 3+630



250mm AND PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 3+630 TO STATION 9+165.2

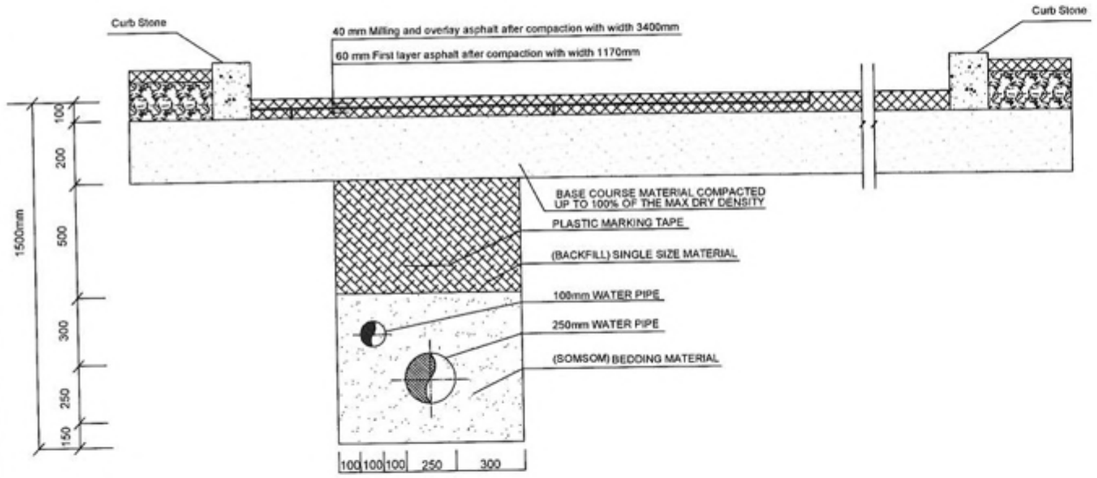


250mm AND 100mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 9+165.2 TO STATION 9+200

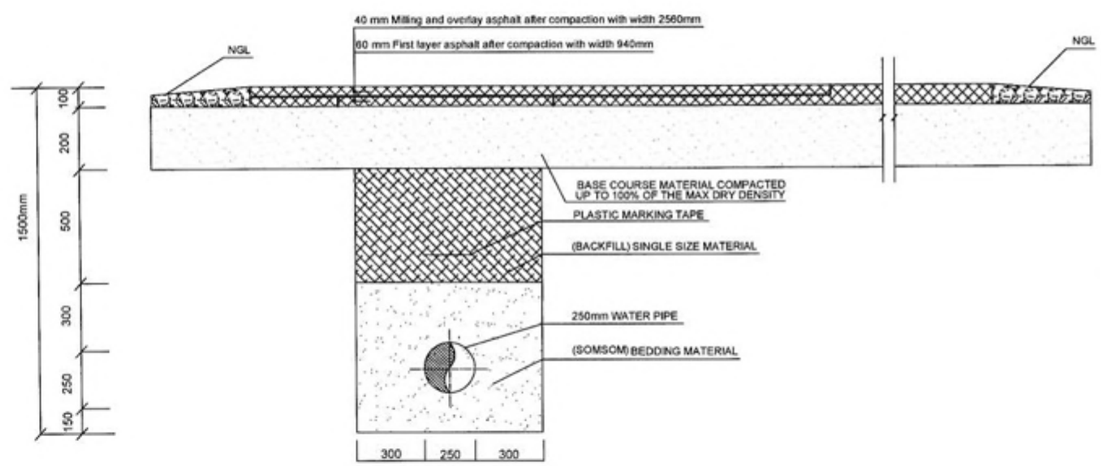


250mm AND 100mm PIPES ALONG AND ACROSS ASPHALTED ROAD
FROM STATION 9+200 TO STATION 9+350

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:			Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	JABA'-NUBA MAIN TRANSMISSION PIPELINE	Prepared By	ENG. M.ABIDO	GMC-39	Sheet : 46 Of : 129
							DRAWING TITLE :	Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
							TRENCH CROSS SECTION VI	Approved By	ENG. R.MUSTAFA		



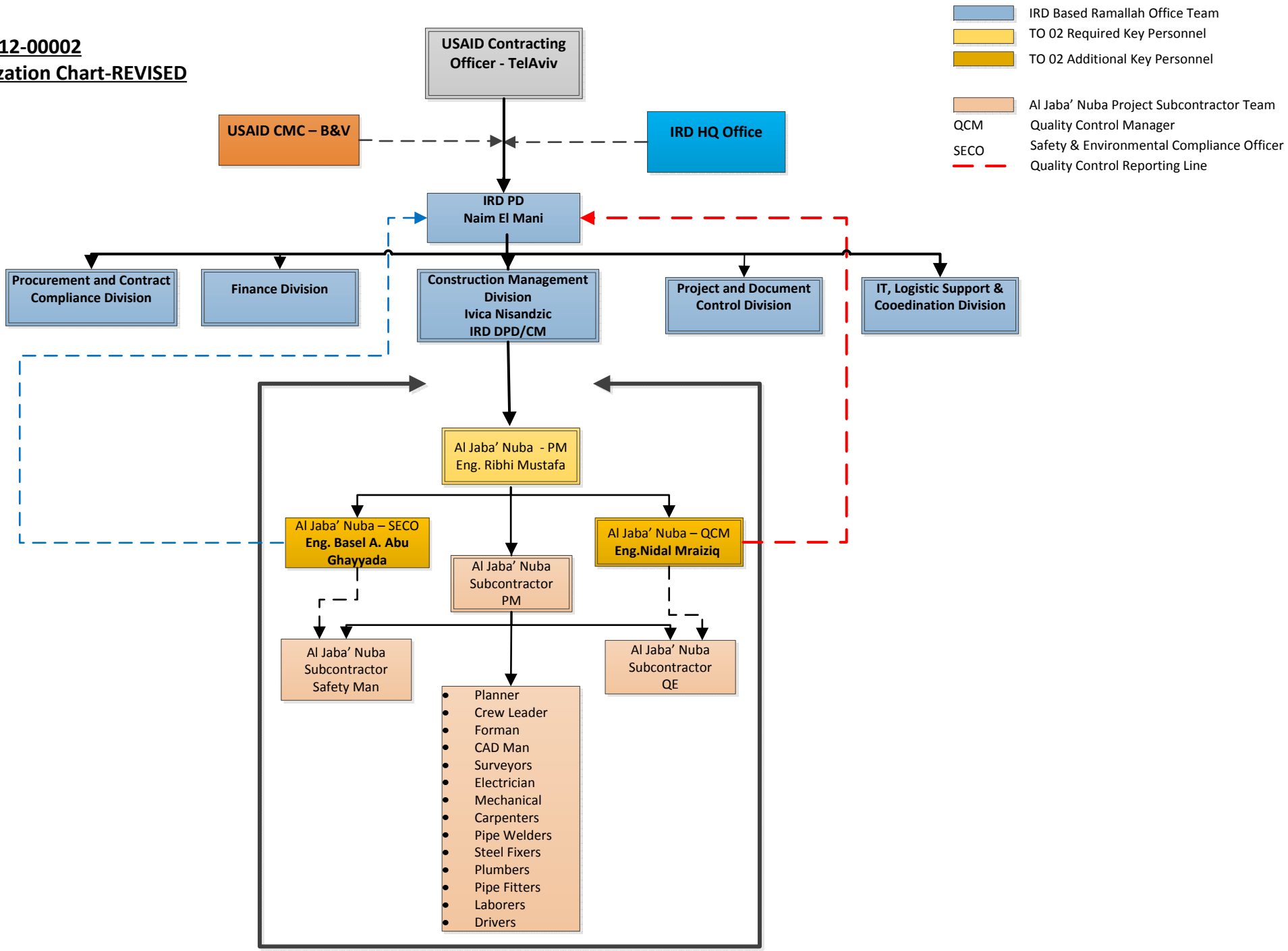
250mm AND 100mm PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE FROM STATION 9+350 TO STATION 10+141.7



250mm AND PIPES ALONG AND ACROSS ASPHALTED ROAD BESIDE CURBE STONE FROM STATION 10+141.7 TO STATION 10+732.73

AS-BUILT	Client	Owner	Engineer	CMC	CONTRACTOR:	SUB CONTRACTOR:	JABA'-NUBA MAIN TRANSMISSION PIPELINE		Name	SHEET	
	USAID من الشعب الأمريكي	سلطة المياه الفلسطينية PALESTINIAN WATER AUTHORITY	MWH	BLACK AND VEATCH	IRD	BROTHERS	DRAWING TITLE : TRENCH CROSS SECTION VII	Prepared By	ENG. M.ABIDO	GMC-40	Sheet : 47 Of : 129
								Drawn By	ENG. M.ABIDO		Date OCTOBER 2013
								Checked By	ENG. N.MRIZEQ		Scale : NTS
								Approved By	ENG. R.MUSTAFA		

AID-294-TO-12-00002
Flow Organization Chart-REVISED



Al Jaba' Nuba Project-Management and Construction Team

For more information, please visit
http:// www.usaid.gov/west-bank-and-gaza

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USAID WEST BANK/GAZA
American Embassy
USAID
71 HaYarkon Street
Tel Aviv, 63903
Israel
www.usaid.gov/west-bank-and-gaza