Technical Assistance to the Smallholder Development Project

Rural Road Component

ADB Loan No 1949 Lao (SF)

FINAL REPORT

International Labour Organization

February 2009

Content

The Report

The final report describes progress, activities and outputs of the ILO Technical Assistance provided to the rural road component of Smallholder Development Project in Champasack Province.

The main tasks was to assist the Department of Public Works and Transport of Champasack Province and the Project Office in survey and design, quantity calculations, cost estimates, preparing bidding documents for road, bridge and market construction works, carrying out the bidding process, organizing training courses for government staff and private contractors and providing on-the-job training during work implementation. The report covers the period from September 2005 to January 2009.

I- Background

The Smallholder Development Project seeks to promote commercial smallholder agriculture and associated agribusiness, with the overall objectives of achieving sustained increase in rural income and long-term reductions in rural poverty. Specific objectives are to (i) achieve increased production and marketing of diversified, non- rice dry-season cash crops, livestock, and fisheries; (ii) improve smallholder access to domestic and international markets and market information; and (iii) increase investment in value-adding agribusiness. To achieve these objectives, the Project has four components: (i) farmer support services to improve farmers' technical knowledge of integrated farming systems, and access to market information and inputs; (ii) agribusiness and marketing to stimulate investment in agribusinesses;(iii) rural infrastructure to improve physical access to markets and reduce marketing costs; and (iv) project management.

The project will help to improve the living standards of rural populations in selected districts of Savannakhet, Champasack, Kammouane, and Vientiane Provinces by reinforcing recent gains from increased rice production and promoting commercial agricultural growth. In line with the decentralization strategy of the Government Provincial and District administrations are used in implementation of the Project.

SERVICES

According to the Letter of Agreement between the ILO and the Government of Lao PDR dated 05 May 2005, ILO provides technical assistance to the rural road component of the Project only in Champasack Province.

The technical assistance provided by the ILO assisted the project in the design, planning, work supervision, contract management and implementation of the rural road works component.

ROAD

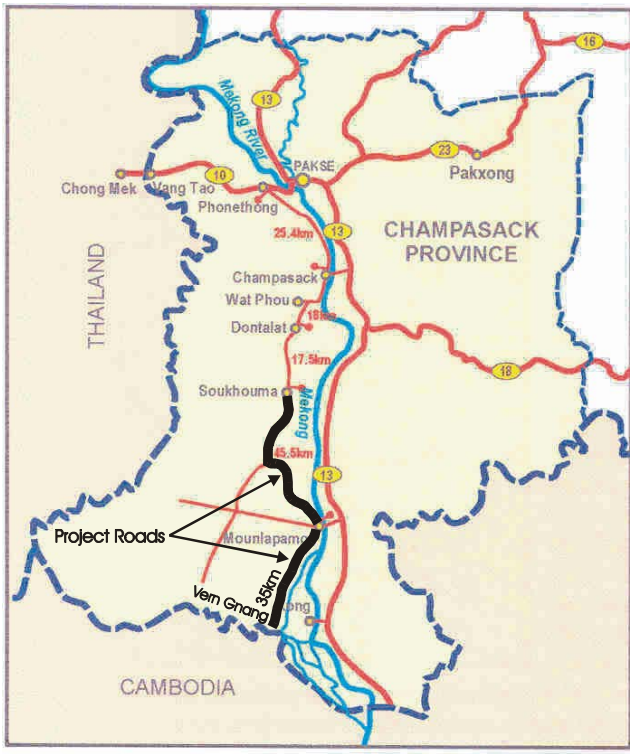
The topography of road locations is slightly rolling and flat. Information about the flooding and cross drainage was obtained from the local residents during the field survey. The predominant direction of water flow is from west to east, meaning that the water flow perpendicular to the road alignment.

Preference has been given to construct embankments in the flat areas and provide adequate structures for the water flow so that water crossing can be insured without causing damages to the road.

The road works described in the original project documents[1] were changed due to a commitment from the Government to finance the construction of some of the identified road sections.

In the original project documents, three road sections (total length 106.4km) and three bridges (total length 196m) were proposed in Champasack province under this project.

No	Road Section	Length, km	Remark
1	Phonethong – Champasack	25.40	JICA
2	Champasack – Soukhuma	35.50	JICA
3	Soukhuma – Mounlapamok	45.50	Smallholder Development Project



Two road sections (total length 60.9km) were taken over by JICA.

As a result, only one remaining road (total length 45.5km) and one major bridge, length 112m, was to be constructed under this Project.

Due to this, the Government of Lao PDR submitted the Proposal No 0156, dated 23 December 2004, to the ADB to request an additional road section from Mounlapamok to Ban Verngnang (total length 34.5km).

This new road section is the continuation of the Soukhuma – Mounlapamok Road to the south and ends at Ban Vern Gnang Village close to Cambodian border.

[1] Feasibility Study by ILO ASIST-AP, February 2002 and ADB / RRP: LAO 31351, November 2002.

There are 8 bridges with a total length of 329m under construction on Mounlapamok to Ban Verngnang Road.

No	Bridge's Name	Road Name	Km	Width, m	Designed Length, m
1	Houy Khamouane	Soukhuma – Mounlapamok	4+400	3.5	112
2	Houy Kadien	Mounlapamok – B Verngnang	1+190	3.5	34
3	Houy Hin	Mounlapamok – B Verngnang	7+255	3.5	26
4	Houy Ton	Mounlapamok – B Verngnang	10+685	3.5	17
5	Houy Yang	Mounlapamok – B Verngnang	15+845	3.5	26
6	Houy Kanloeung	Mounlapamok – B Verngnang	14+420	3.5	17
7	Houy Haed	Mounlapamok – B Verngnang	21+790	3.5	26
8	Houy Tapai	Mounlapamok – B Verngnang	28+750	3.5	17
9	Houy Lar Ox	Mounlapamok – B Verngnang	31+790	3.5	54
Total Length					**329**

II- Design of Roads

Several discussions on design of these two roads were carried out with Pisit Tusanasorn/ Senior Rural Road Specialist, Chief and Deputy Chief of Road and Bridge Section of DPWT in Champasack Province based on the Letter of Agreement between ILO and the Government of Lao PDR dated, 5 May 2005.

II-1- Review Existing Drawings

A survey and design of these roads was completed by the State Enterprise for Road Construction No 20 (consultant) employed by the Government and approved by the Road and Bridge Division of Ministry of Public Works and Transport in 2003 for the construction. During the review it was found that the design width was wider than the width mentioned in the project documents and the road profile was also not properly designed.

The intention of reviewing these drawings was to implement the works according to the project documents and limit the quantity of works, especially embankment fill.

II-2- New Design Dimensions

Finally, all parties including DPWT, SHD Project and ILO TA agreed with road dimensions indicated in the project documents.

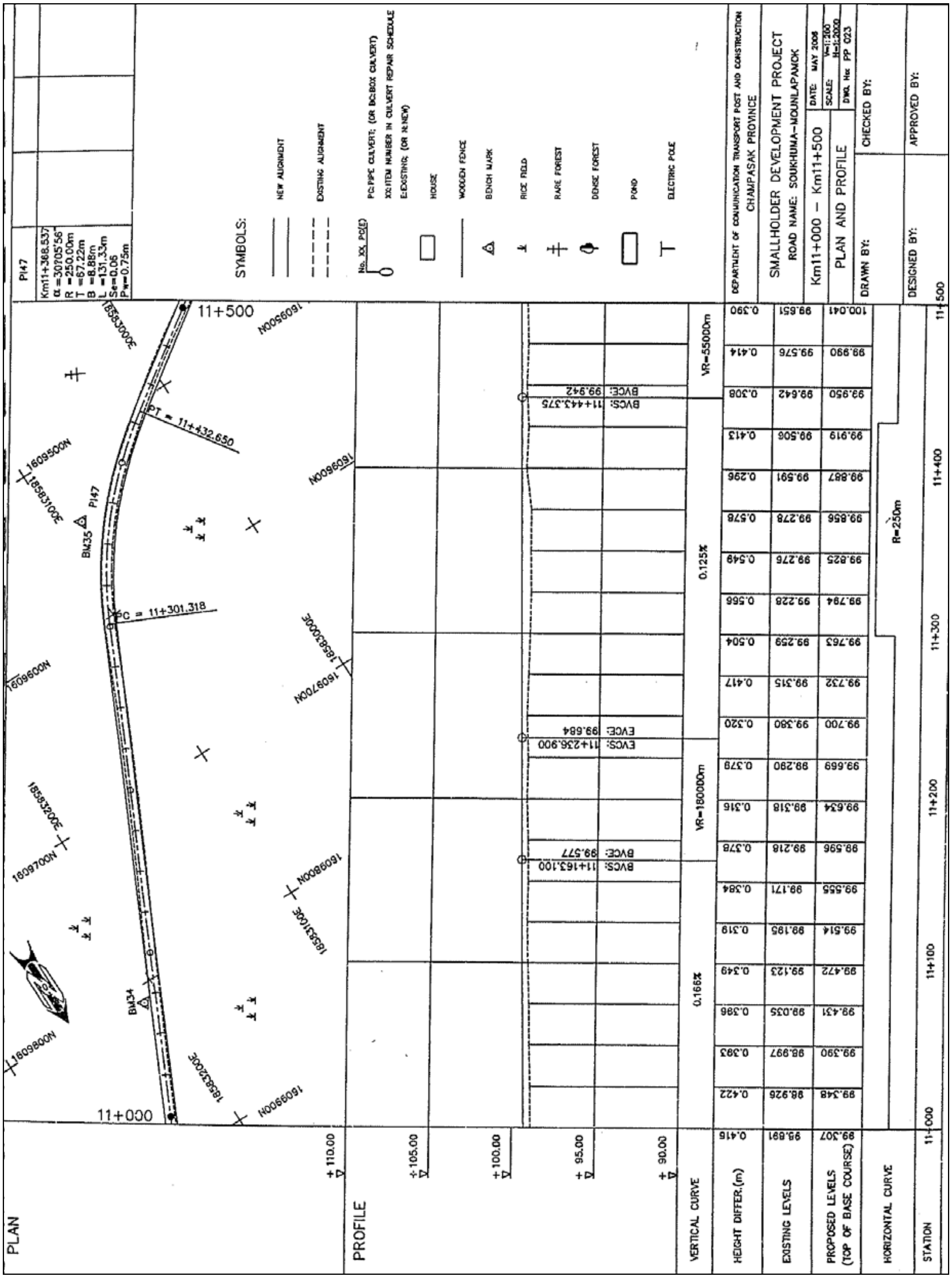
The dimensions are shown in the table below:

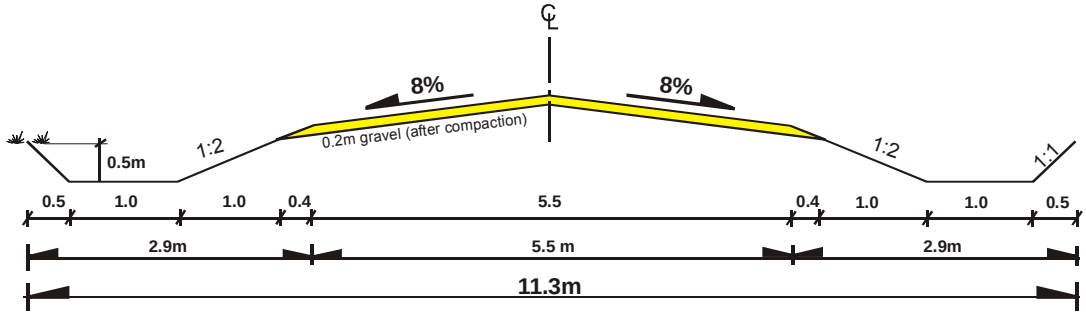
Carriageway width	- 5.5 m
Surfacing: - material - thickness for clay section - thickness for sand section	 - gravel (laterite) - 20 cm after compaction - 2 x 20cm after compaction

Camber slope	- 8% after compaction
Side drains: - bottom width - depth - front slope - back slope	 - 1.0 m - 0.5 m - 1:2 - 1:1
Embankment: - height of shoulder break point - side slopes	 - HFL[2] + 50cm - 1:2
Cross drainage structures - RCC pipe culverts - RCC box culverts	 - dia. 60, 80 and 100cm - size : vary
Erosion protection	plant grass on embankment slope

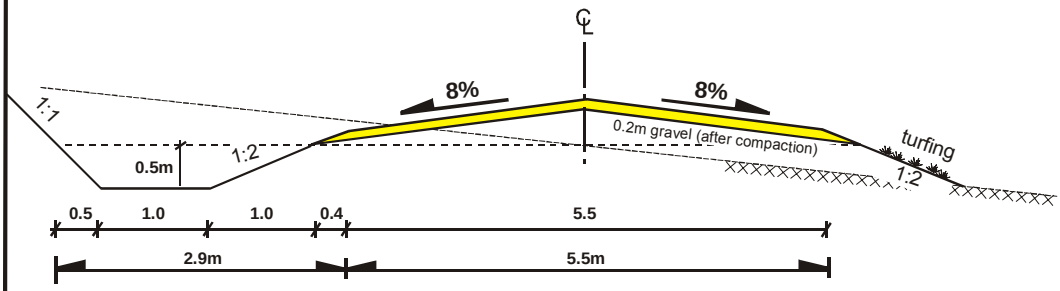
Note: The original design of these roads was done by the Department of Public Works and Transport of Champasack Province in 2003 and the carriageway width for the section "Soukhuma to Mounlapamok" was 7m.

[2] HFL – Heighest Flood Level in the past 10 years

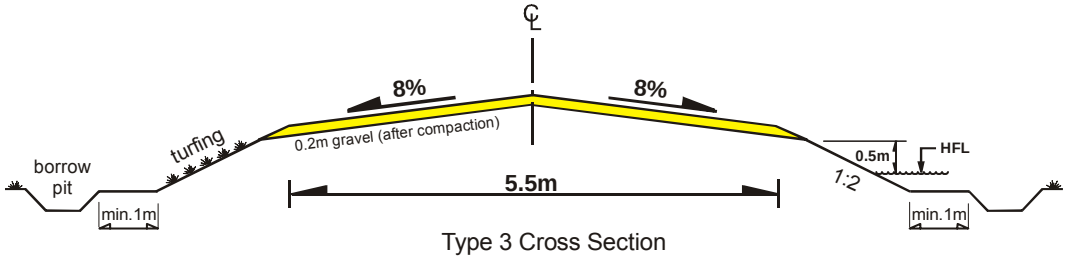

PI47
Km11+368.537
α =30°05'56"
R =250.00m
T =67.22m
B =8.88m
L =131.33m
Se=0.06
Pw=0.75m
SYMBOLS:
NEW ALIGNMENT
EXISTING ALIGNMENT
No. XX PC(E)
PC:PIPE CULVERT; (OR BC:BOX CULVERT)
XX:ITEM NUMBER IN CULVERT REPAIR SCHEDULE
E:EXISTING; (OR N:NEW)
HOUSE
WOODEN FENCE
BENCH MARK
RICE FIELD
RARE FOREST
DENSE FOREST
POND
ELECTRIC POLE
DEPARTMENT OF COMMUNICATION TRANSPORT POST AND CONSTRUCTION
CHAMPASAK PROVINCE
SMALLHOLDER DEVELOPMENT PROJECT
ROAD NAME: SOUKHUMA-MOUNLAPAMOK
Km11+000 – Km11+500
PLAN AND PROFILE
DATE: MAY 2006
SCALE: V=1:200 H=1:2000
DWG. No: PP 023
DRAWN BY:
CHECKED BY:
DESIGNED BY:
APPROVED BY:
PLAN
11+000
11+500
PT = 11+432.650
PC = 11+301.318
BM34
BM35
PI47
1609500N
1609600N
1609700N
1609800N
1609900N
1858300E
1858310E
1858320E
PROFILE
+110.00
+105.00
+100.00
+95.00
+90.00
BVCS: 11+443.375
BVCE: 99.942
EVCS: 11+236.900
EVCE: 99.684
BVCS: 11+163.100
BVCE: 99.577
VERTICAL CURVE
0.166%
VR=180000m
0.125%
VR=55000m
HEIGHT DIFFER.(m)
EXISTING LEVELS
PROPOSED LEVELS (TOP OF BASE COURSE)
HORIZONTAL CURVE
R=250m
STATION
11+000
11+100
11+200
11+300
11+400
11+500



Type 1 Cross Section



Type 2 Cross Section



Type 3 Cross Section

TYPICAL CROSS SECTION

Smallholder Development Project
ADB Loan No 1949 Lao (SF)
Champasack Province, Lao PDR

29 October 2005

Not to scale

II-3- Prepare New Drawings and Quantity Calculation

New drawings of road plans, profiles, cross sections and cross drainage structures were carried out by two Engineers from the Department of Public Works and Transport of Champasack Province with assistance provided by ILO TA based on the data collected during the field surveys in October 2005 and the original drawings. This works including the redrafting of the original drawings prepared by the consultant in 2003.

After the drawings were completed, the quantities of each activity involved in the road construction works were calculated. The volume of earthworks and gravel surface material tables were also modified for easy understanding and implementation.

The quantities were calculated based on revised cross sections (sub-grade width - 6.3m and gravel width - 5.5m) prepared for each road. Main activity of this road work was the embankment construction. The comparison of the quantity of earthworks involved in the construction of the embankment of current designs with the previous designs was as follows:

No	Road Name	Unit	Quantity of soil required for embankment construction		
			Original design	New calculated quantities	Reduction
1	Soukhuma-Mounlapamok	m^3	233,305	104,534	128,771 (55%)
2	Mounlapamok-Ban Verngnang	m^3	380,743	207,521	173,222 (45%)

II-4- Cross Drainage Structures

Cross drainage structures consisting of concrete pipe culverts with diameter 60 cm, 80cm and 100cm single and double rows and box culvert sizes 2m x 1.5m and 3m x 2.5m single and double spans were designed according to the size of existing drains. The head walls, wing walls, aprons and toe walls of each structure will be constructed of reinforced concrete. Some additional locations for pipe culverts were added during this review stage.

Type of Drainage	Soukhuma – Mounlapamok		Mounlapamok – Ban Verngnang	
	Length	Location	Length	Location
Pipe Culvert				
Dia. 60cm	175	25	21	2
Dia. 80cm	128	16	151	17
Dia. 80cm – 2rows			49	5
Dia. 100cm	145	17	99	8
Dia. 100cm – 2rows	23	3	19	2
Box Culvert				
2m x 1.5m	16	2	10	1
2m x 1.5m double spans	16	2		
3m x 2.5m double spans			60	6
Total		**65**		**41**

II-5- Identification of the Source of Construction Materials

Several natural sources of construction materials were identified during this preparatory stage.

Aggregate

Two aggregate quarries located along national road number 13 were selected for the construction of cross drainage structures on these road works.

The quarry Lak Saoha was selected as the main aggregate source for this project supplied to construct the cross drainage structures for all the roads.

For the transport of aggregate from this quarry to the road sites, the trucks crossed the Mekong River by using the existing ferry crossings in Champasack and Mounlapamok Districts.

Sand

Based on the experience in the area, sand from the Mekong River is classified as good quality material for the infrastructure works. There are many quarries available along the river. During the construction, appropriate quarries are being selected which meets the quality standards described in the technical specifications.

Gravel (Laterite)

Gravel for surfacing of the roads is available in the project area. Samples from several quarries along the road alignments were sent to laboratories for testing. After receiving the testing results, numerous quarries have already been accepted for these works.

No	Soukhuma – Mounlapamok Road	Mounlapamok – Ban Verngnang Road
1	Km: 2+525 (CBR – 52%)	Km: 3+050 (CBR - 30%)
2	Km: 6+300 (CBR – 50%)	Km: 10+300 (CBR - 30%)
3	Km: 13+100 (CBR – 45%)	Km: 12+900 (CBR - 29%)
4	Km: 32+250 (CBR – 37%)	
5	Km: 40+950 (CBR – 41%)	

Note: Minimum requirement of CBR for gravel running course is 30%.

II-6- Prepare Unit Rates and Cost Estimates

Unit rates of each activity for this specific road project applying labour based methods were prepared. Two different rates were established for the construction of pipe and box culverts adapted to the actual ground conditions for these two specific roads.

As compared with the rates applied in this province for similar works, the new rates were lower and accepted by the DPWT of Champasack Province.

No	Activity	Unit	Rate, US$ Soukhuma to Mounlapa.	Rate, US$ Mounla to Verngnang
1	Clearing including topsoil 10cm and trees < 30cm girt	m^2	0.12	
2	Removal of trees including Stumps > 30cm	no	3	
3	Common excavation	m^3	1.5	
4	Unsuitable material excavation	m^3	1.5	
5	Levelling and camber construction from excavated materials	m^3	2	
6	Levelling and camber construction from borrow materials	m^3	2	
7	Embankment construction	m^3	2	
8	Gravel running course	m^3	3.5	
9	Box culvert: (w x h) 2 x 1.5 m 2 x 1.5 m – double spans 3 x 2.5 m – double spans	 m m m	 493 854 -	 472 - 1,223
10	Pipe culvert: Dia. 60 cm Dia. 80 cm Dia. 80 cm – double rows Dia. 100 cm Dia. 100 cm – double rows	 m m m m m	 64 87 - 117 270	 59 77 131 105 228
11	Inlet and outlet structure – RCC	m^3	150	
12	Plant grass	m^2	0.13	

Cost Estimate

Road Name: Soukhuma to Mounlapamok Length: 43.953 km

Formation width: 6.3m and gravelling width: 5.5m

No	Activity	Unit	Quantity	Unit Price, US$	Amount, US$	Remarks
2.02	Site Clearance on Earthwork Sites					
	2.02-1 Clearing Including Topsoil					
	10cm and Tree < 30cm girt	M^2	428,540.073	0.12	51,424.81	
	2.02-2 Removal of Trees Including					
	Stumps > 30cm girt	no	2,998.000	3	8,994.00	
2.11	Roadway Excavation					
	2.11-1 Common Excavation	M^3	54,531.413	1.5	81,797.12	
	2.11-3 Unsuitable Material Excavation	M^3	1,706.000	1.5	2,559.00	
	2.11-5 Levelling and Camber Construction From Excavated Materials	M^3	20,458.463	2	40,916.93	
	2.11-6 Levelling and Camber Construction From Borrow Materials	M^3	5,993.014	2	11,986.03	
2.21	Embankment Construction	M^3	78,082.818	2	156,165.64	

3.21	Gravel Running Course	M^3	65,464.228	3.5	229,124.80	
5.11	Box Culvert					
	2 x 1.5 m	M	16.000	493	7,888.00	
	2 x 1.5 m - double spans	M	16.000	854	13,664.00	
	Inlet and Oulet Structure – RC	M^3	30.546	150	4,581.90	
5.13	Pipe Culverts					
	Dia. 60cm – 1row	M	200.000	64	12,800.00	
	Dia. 80cm – 1row	M	128.000	87	11,136.00	
	Dia. 100cm - 1row	M	145.000	117	16,965.00	
	Dia. 100cm - 2rows	M	26.000	270	7,020.00	
	Inlet and Outlet Structure – RC	M^3	129.997	150	19,499.55	
6.1	Plant Grass	M^2	58,331.532	0.13	7,583.10	
	TOTAL				684,105.87	
	Contingency	%	10		68,410.59	
	TAX	%	10		68,410.59	
	GRAND TOTAL				**820,927.04**	

Road Name: Mounlapamok to Ban Verngnang Length: 34.046 km

Formtion width: 6.3m and gravelling width: 5.5m

No	Activity	Unit	Quantity	Unit Price, US$	Amount, US$	Remarks
2.02	Site Clearance on Earthwork Sites					
	2.02-1 Clearing Including Topsoil 10cm and Tree < 30cm girt	m^2	316,386.350	0.12	37,966.36	
	2.02-2 Removal of Trees Including Stumps > 30cm girt	no	1,087.000	3	3,261.00	
2.11	Roadway Excavation					
	2.11-1 Common Excavation	m^3	4,357.430	1.5	6,536.15	
	2.11-3 Unsuitable Material Excavation	m^3	984.000	1.5	1,476.00	
	2.11-5 Levelling and Camber Construction From Excavated Materials	m^3	6,032.560	2	12,065.12	
	2.11-6 Levelling and Camber Construction From Borrow Materials	m^3	5,050.540	2	10,101.08	
2.21	Embankment Construction	m^3	196,439.140	2	392,878.28	
3.21	Gravel Running Course	m^3	40,178.230	3.5	140,623.81	

5.11	Box Culvert					
	2 x 1.5 m	m	10.000	472	4,720.00	
	3 x 2.5 m - double spans	m	60.000	1,223	73,380.00	
	Inlet and Oulet Structure – RC	m^3	113.186	150	16,977.90	
5.13	Pipe Culverts					
	Dia. 60cm - 1row	m	21.000	59	1,239.00	
	Dia. 80cm - 1row	m	151.000	77	11,627.00	
	Dia. 80cm - 2rows	m	49.000	131	6,419.00	
	Dia. 100cm - 1row	m	99.000	105	10,395.00	
	Dia. 100cm - 2rows	m	19.000	228	4,332.00	
	Inlet and Outlet Structure – RC	m^3	80.410	150	12,061.50	
6.1	Plant Grass	m^2	68,031.580	0.13	8,844.11	
	TOTAL				754,903.30	
	Contingency	%	10		75,490.33	
	TAX	%	10		75,490.33	
	GRAND TOTAL				**905,883.96**	

Cost of each road

No	ROAD NAME	Total Cost, US$	Cost per Kilometre, US$
1	Soukhuma to Mounlapamok – 43.953km	820,927.04	18,677.38
2	Mounlapamok to Ban Verngnang – 34.046km	905,883.96	26,607.65

II-7- Contract Packages

These two roads were planned to be completed within two construction seasons starting in November 2006 and ending in June 2008. For this reason, the road works in Champasack Province were divided into four (4) contract packages (two contracts for each road).

The table below shows the locations and cost estimates of each contract:

Items	Soukhuma to Mounalapamok		Mounlapamok to Ban Verngnang	
	Contract No 01	Contract No 02	Contract No 03	Contract No 04
Length, km	19.30	24.653	16.547	17.50
Chainage	0+000 – 19+300	19+300 - 43+953	0+000 - 16+547	16+547 - 34+047
Cost Estimate	US$403,541.59	US$417,385.45	US$452,644.67	US$453,239.29

III- Bid Documents

According to the project documents, the road works were to be constructed by local contractors and the selection of contractors was carried out in accordance with the ADB procurement guidelines through National Competitive Bidding.

III-1- Prepare Bidding Documents

The bidding documents for these road works were prepared and accepted by Pisit Tusanasorn/Senior Rural Road Specialist (SRRS) and it was submitted to the Senior Rural Infrastructure Management Specialist (SRIMS) of ASIST-AP in Bangkok for review before final submission to the Project and the ADB.

Unfortunately, during the review of these documents, new Standard Bidding Document for Procurement of Works for Small Contracts had been developed by ADB. After thoroughly reviewing these, it was decided that the Project should follow the new Bidding Documents.

With the introduction the new bidding documents, the Project and DPWT agreed to follow the recommendation of ASIST-AP. Few days later, the Project also received the instruction from the ADB to follow the new standard bidding documents.

III-2- Bidding Process

The project received the approval of bidding documents from ADB on 05 July 2006 for four contract packages of road works in Chamapasack Province.

Detailed plans for the bidding process were prepared. This plan was accepted by DPWT in Champasack Province and the National Project Director of the Smallholder Development Project in Vientiane.

PLAN FOR BIDDING PROCESS

Activity	2006																										Action	Day
	May				June				July				August				September				October				November			
Re-prepare and review Bid Document and Bill of Quan-ty																											ILO, DCTPC	39
Send Bid Document to ADB, Manila																											SHDP	7
Review and approve Bid Documents																											ADB	21
Prepare and distribute the Bid Document to Contractors																											SHDP, DCTPC	7
Announcement of Bids																											SHDP, DCTPC	21
Site visit																											SHDP, DCTPC, Contractors	3
Pre-Bid Meeting																											SHDP, DCTPC, ILO,Contractors	1
Deadline for Submission of Bids and Bid Opening																											SHDP, DCTPC	0.5
Check arithmetic errors																											DCTPC	6
Evaluation of Bids																											Evaluation Committee	3
Submit the evaluation report to SHDP in Vientiane																											SHDP, DCTPC	11
Submit the evaluation report to ADB, Manila																											SHDP	8
Review and approve the selected Contractors																											ADB	14
Award the Contracts, Letter of Acceptances																											SHDP, DCTPC	1
Training on LBES and mobilisation of Contractors																											SHDP, DCTPC, ILO, TCTI, Contractor	14
Training on Contract Management																											SHDP, DCTPC, ILO, TCTI, Contractor	3
Training on Work Organisation and Supervision																											SHDP, DCTPC, ILO, TCTI, Contractor	28
START CONSTRUCTION																												

Bid Announcement

The Invitation for Bids was prepared and the period of the announcement of bids was four weeks commencing from 17 July to 14 August 2006. This announcement was posted in the Vientiane Times for three days (on 19, 20 and 21 July 2006).

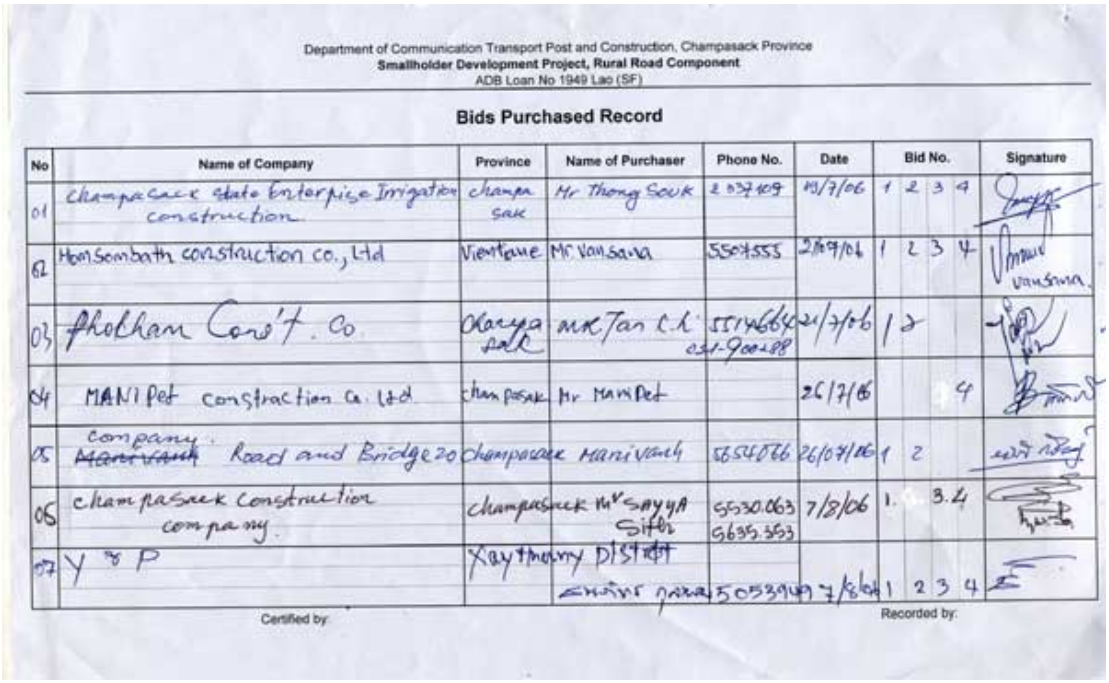
The Invitation for Bids was sent to all registered companies in Champasack Province.

The Invitation for Bids clearly stated that the site visit will be carried out on 24 and 25 July 2006, the Pre-bid Meeting will be held in the meeting room of DPWT on 26 July 2006 and the training on Bid Preparation and Labour-based Technology from 27 to 30 July 2006.

Purchasing of Bidding Documents

Bidding Document were prepared for distribution from the date of announcement on 17 July 2006 and made available until the deadline for bids submission on 14 August 2006 at 14:00 hours.

Against the 4 road works contracts there were a total of 20 bid documents purchased by seven companies. The first company purchased the Bidding Documents on 19 July 2006 while the last company on 08 August 2006.



Department of Communication Transport Post and Construction, Champasack Province
Smallholder Development Project, Rural Road Component
ADB Loan No 1949 Lao (SF)

Bids Purchased Record

No	Name of Company	Province	Name of Purchaser	Phone No.	Date	Bid No.	Signature
01	Champasack state Enterpise Irrigation construction	champa sak	Mr Thong Souk	2037409	19/7/06	1 2 3 4	
02	Homsombath construction co., Ltd	Vientiane	Mr Vansava	5501555	2/8/06	1 2 3 4	Vansava
03	Phokham Const. Co	champa sak	Mr Tan C.L	031-900188	21/7/06	1 2	
04	MANIPet construction Co. Ltd	champasak	Mr ManiPet		26/7/06	4	
05	Company Road and Bridge 20	champasak	Manivanh	5654066	26/07/06	1 2	
06	champasack construction company	champasack	Mr Sayya Sitha	5530.063 5695.353	7/8/06	1. 3.4	
07	Y & P	Xaythany District		5053947	7/8/06	1 2 3 4	

Certified by:
Recorded by:

Site Visit

The site visit was arranged as scheduled and representatives from Phokham Construction, Irrigation Construction, Homsombath Construction, Maniphet Construction and Road Construction No 20 companies accompanied by DPWT Engineers visited the sites from Soukhuma to Mounlapamok and Mounlapamok to Ban Verngnang.

Pre-bid Meeting

The pre-bid meeting was held on 26 July 2006 as scheduled in the meeting room of DPWT.

Mr. Saveng Phoun Savath, Deputy Director of DPWT opened the meeting. There were a total of 33 participants attending this meeting from DPWT, DAF, SHDP Project, Local Road Division of MPWT, Provincial Governor Office,

Provincial Bid Evaluation Committee, Mounlapamok and Soukhuma Districts and six private contractors.

After opening, the National Project Director (NPD) presented the project and after that the ILO Advisor presented Labour-Based Technology and briefly-reviewed the Bidding Documents with translation to Lao by Sisomphone from TCTI [3].

There were many interesting questions related to the labour-based work methods and the bidding documents. All questions were answered by NPD and the ILO Advisor.

The table below shows some of the questions from the contractor's representatives and answers provided by the client.

Questions	Answers
Can the Project deduct the re-payment of advance at the end of the project?	No. Re-payment of advance will be deducted according to GCC Clause 51.4.
We worry that we can not recruit 200	We will assist all contractors in this matter,

[3] TCTI: Tele-Communication Training Institute of Lao PDR. TCTI was engaged by the Project to conduct the Training on Bids Preparation and Labour-based Technology in collaboration with ILO TA.

workers to carry out the works.	but the payment on time method must be applied for payment of workers.
The Project Director said that the payment of Contractors will need minimum 6 weeks, but in the Contract advised that the payment should be made within 28 days.	This matter will be sorted out by the Project, ILO, ADB and the Concerned Government Ministries before the implementation starts.
How to recruit and manage 200 workers?	This matter will be explained in details during the coming 4-days training course.
Can we submit only one Bank Guarantee of Bid Security for 4 Bidding Documents? (we purchased 4 documents).	No. Bank Guarantee for Bid Security should be submitted separately for each Bidding Document.
Unit of the Activities 2-11-5 and 2-11.6 in the BoQ are in square metre?	No. There are in cubic metre.
Is it possible to use equipment instead of labor for carry out the work, if lacking of laborers?	Based on the assessment, labour is available for this works. The Employer will solve all the problems encountered during implementation.
How many percent of interest will be paid by the client, if the payment is delayed?	Rate of interest for late payment is made at the prevailing rate of interest for commercial borrowing for particular currency. GCC Clause 43.1.

Submission of Bids

Deadline for bid submission was 14 August 2006 at 14:00 hours. According to the bid submission record, there were only 4 contractors submitted the bids before deadline few minutes only.

Department of Communication Transport Post and Construction, Champasack Province
Smallholder Development Project, Rural Road Component - ADB Loan No 1949 Lao (SF)

RECEIVING OF BIDDING DOCUMENTS

Deadline for bid submission is on 14 August 2006 at 14:00 hours.
Contract Numbers: CS 0607 R14A - No 01, 02, 03 and 04.
Contract Name: The Construction of Soukhuma - Mounlapamok and Mounlapamok - Ban Vemgnang Roads.

No	Name of Company	Contract Number				Date	Time	Name	Signature
01	Phokham construction company Limited	1	2	—	—	14/08/06	1:30 PM	Mr. Yankh.	
02	Homsombath Construction Co., Ltd.	1	2	3	4	14/08/06	1:35 PM	Mr. Ngeun	
03	Champasack State Enterprise Irrigation construction.	1	2	3	4	14/08/06	1:39 PM	Mr. Thong Souk	
04	State Enterprise for Road Construction No. 20.	1	2	—	—	14/08/06	1:40 PM	Mr. Manivanh Kangavong	

Date: 14. 08. 2006
Reveived by:

Van Sana

Bid Opening

Bid opening was held in the presence of the Bid Opening and Evaluation Committee, representatives from DPWT, SHDP, DAF and private contractors.

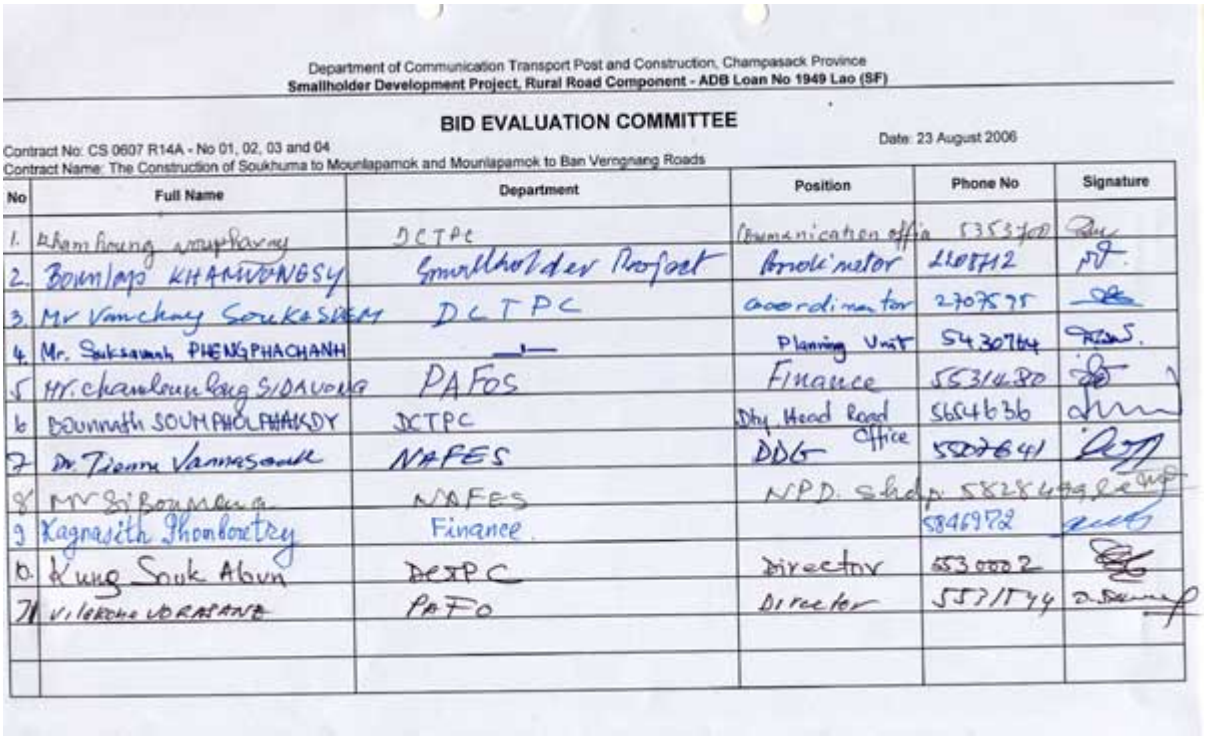
Prices offered by contractors were recorded and the bid evaluation committee's members signed it as a witness.

Review of tenders was carried out thoroughly by the DPWT engineers with the assistance provided by ILO TA. Many forms were developed for this purpose such as (i) bid opening checklists, (ii) arithmetical errors and unconditional discounts, (iii) preliminary examinations, (iv) comparison of general items, (v) comparison of unit rates of construction activities, (vi) cost comparison, (vii) current capacity of contractors, and (viii) evaluation and qualification criteria stated in the bidding documents.

All information provided by the bidders in their bids was recorded in the forms for using during the bid evaluation by the committee members.

Bid Evaluation Committee

No	Full Name	Department	Position
1	Dr. Kung Souk Aloun	DPWT	Director
2	Mr. Vilakone Vorasanh	PAFO	Director
3	Mr. Siboun Eua Vathanakhamphanh	SHDP	NP Director
4	Dr. Tienne Vannasouk	NAFES	Deputy General Director
5	Mr. Khamhoung Nouphaxay	DPWT	Chief of Road & Bridge
6	Mr. Kagnasith Thomboretry	Finance	Representative
7	Mr. Bounnath Sounpholphakdy	DPWT	Deputy of Road & Bridge
8	Mr. Bounlap Khamvongsy	SHDP/PPO	Coordinator
9	Mr. Vanchay Soukaseum	DPWT/SHDP	Coordinator
10	Mr. Souksavan Phengphachanh	DPWT	Engineer
11	Mr. Chaloeunlong Sidavong	PAFO	Financial Officer



Department of Communication Transport Post and Construction, Champasack Province
Smallholder Development Project, Rural Road Component - ADB Loan No 1949 Lao (SF)

BID EVALUATION COMMITTEE

Contract No: CS 0607 R14A - No 01, 02, 03 and 04
Contract Name: The Construction of Soukhuma to Mounlapamok and Mounlapamok to Ban Vernonang Roads

Date: 23 August 2006

No	Full Name	Department	Position	Phone No	Signature
1.	Khamfoung Vongphavong	DCTPC	Communication offic	535300	
2.	Bounlap KHAMVONGSY	Smallholder Project	Coordinator	220812	
3.	Mr Vanchay SOUKSISAM	DCTPC	coordinator	2707575	
4.	Mr. Souksavanh PHENGPHACHANH	—"—	Planning Unit	543074	
5	Mr. Chanlounlang SIDAVONG	PAFOS	Finance	553140	
6	Bounnath SOUMPHOLPHAKDY	DCTPC	Dty. Head Road Office	5654636	
7	Dr Tiem Vannasouk	NAFES	DDG	5207641	
8	Mr Sibounheuang	NAFES	NPD. Shelp	5825469	
9	Kagnasith Phomboutry	Finance		5846972	
10.	Khung Souk Alun	DCTPC	Director	553002	
11	Mr. Lokeo UDRASANA	PAFO	Director	553144	

The bid evaluation was held on 23 August 2006 after the bidding documents submitted by contractors had been reviewed and all the forms were prepared for the committee.

After discussion the committee decided as follows:

1- Contractact No CS 0607 R14A – No 01 for the Contraction of Soukhuma to Mounlapamok Road from Chainage 0+000 to 19+300 was awarded to the first lowest evaluated and substantially responsive bidder:

HOMSOMBATH CONSTRUCTION COMPANY CO., LTD

No	Company	Actual Prices, kip
1	**HOMSOMBATH CONSTRUCTION**	**3,933,987,287.00**
2	PHOKHAM CONSTRUCTION	3,956,233,407.00
3	ROAD CONSTRUCTION No 20	3,964,670,797.36
4	IRRIGATION CONSTRUCTION	4,165,453,599.00

2- Contract No CS 0607 R14A – N0 02 for the Construction of Soukhuma to Mounlapamok Road from Chainage 19+300 to 43+953 was awarded to the first lowest evaluated and substantially responsive bidder:

PHOKHAM CONSTRUCTION CO., LTD

No	Company	Actual Prices, kip
1	**PHOKHAM CONSTRUCTION**	**4,064,313,556.00**
2	HOMSOMBATH CONSTRUCTION	4,079,866,738.00
3	ROAD CONSTRUCTION No 20	4,273,490,712.00
4	IRRIGATION CONSTRUCTION	4,301,703,132.00

3- Contract No CS 0607 R14A – No 03 for the Construction of Mounlapamok to Ban Verngnang Road from Chainage 0+000 to 16+547 was awarded to the first lowest evaluated and substantially responsive bidder:

HOMSOMBATH CONSTRUCTION COMPANY CO., LTD

No	Company	Actual Prices, kip
1	**HOMSOMBATH CONSTRUCTION**	**4,494,798,980.00**
2	IRRIGATION CONSTRUCTION	4,912,683,104.00

4- Contract No CS 0607 R14A – No 04 for the Construction of Mounlapamok to Ban Verngnang Road from Chainange 16+547 to 34+047 was awarded to the second lowest evaluated and substantially responsive bidder:

STATE ENTERPRISE IRRIGATION CONSTRUCTION

No	Company	Actual Prices, kip
1	HOMSOMBATH CONSTRUCTION	4,453,098,998.00
2	**IRRIGATION CONSTRUCTION**	**4,948,953,254.00**

Based on the above table, the Homsombath Construction Company Co., Ltd was the lowest price Bidder for Contract No CS R14A – No 04. This was the third contract package that this company had offered the lowest price.

During the evaluation, the Bid Evaluation Committee found that the capacity of this company was insufficient to implement the works covered by this contract package because the company submitted the same number and name of staff and number and type of equipment for all (four) contract packages. The number of staff and equipment of this company was sufficient to carry out the works covered by two contract packages only.

Note: *The Bid Evaluation Committee has proposed to award the Contract No: CS 0607 R14A – 01 and CS 0607 R14A – 03 to this company already.*

Based on the reason described above the Homsombath Construction Company Co., Ltd was eliminated.

The Report of Bid Evaluation and Proposal for Award of Contracts was prepared by the ILO TA following the decision of contract awards made by the bid evaluation committee. On the request of the National Project Director of SHDP, this report was submitted to ILO ASIST-AP in Bangkok for review before submission to the ADB in Manila for final approval.

III-3- Letters of Acceptance and Contract Agreements

The project obtained the approval of selection of contractors from the ADB on 1 November 2006 for four contract packages of road works in Chamapasack Province.

Selected Companies
Three companies were selected to carry out the road construction activities in Champasack Province.

Package Number	Package Name	Contractor	Contract Prices
CS 0607 R14A-01	Constr. of Soukhuma to Mounlapamok Rd 0+000-19+300	Homsombath Constr. Company	Kip **3,933,987,287**
CS 0607 R14A-02	Constr. of Soukhuma to Mounlapamok Rd, 19+300-43+953	Phokham Constr. Company	Kip **4,064,313,556**
CS 0607 R14A-03	Constr. of Mounlapamok to Ban Verngnang Rd, 0+000-16+547	Homsombath Constr. Company	Kip **4,494,798,980**
CS 0607 R14A-04	Constr. of Mounlapamok to Ban Verngnang Rd, 16+547-34+047	Champasack Irrigation Construct.	Kip **4,948,953,254**

Letter of Acceptance
Letter of Acceptances were prepared immediately after receiving the official approval letter from the ADB. These letters were signed by the Director of Department of Agriculture and Forestry of Champasack Province and sent to all selected contractors.

Contract Agreement
Contract Agreements were prepared and officially signed by all parties on 6 November 2006. Mr. Vilakone Vorasan / Director of DAF signed these agreements on behalf of the employer and Mr. May / Deputy Director of DPWT of Champasack Province signed as a witness.

Performance Security
The Performance Security for all contract packages was also submitted by the contractors according to the conditions of contract. These securities were valid until 30 June 2008.

Bank Guarantee for Advance Payment
As stated in the Particular Conditions and General Conditions of Contract Clause 51.1, contractors are entitled to receive 10% of total contract prices as advance payment.

All contractors submitted the bank guarantees for advance payments to the project office as scheduled. The payments of these advances were made directly from the ADB in Manila to the contractor's accounts.

IV- Training

Five separate training courses were organized after the project received the no objection on the bidding documents.

According to the project documents, these training courses were provided to the staff of DPWT and private contractors in Champasack Province. During the discussion on the training in the office of SHDP in Vientiane, the National Project Director suggested that the staff of DPWT and Contractors from Savannakhet Province[4] should come to attend these training courses as well.

IV-1- Training on Bid Preparation

The objective of this training course was to provide the basic knowledge of bidding documents, its preparation and submission, calculation of unit rates and labour-based technology to the technical staff from both Government and Contractors.

There were seven participants from DPWT of Champasak Province, four from OPWTs of Soukhouma and Mounlapamok districts, one from Local Road Division of DPWT, one from Department of Agriculture and Forestry and fourteen from six Private Companies, giving a total of twenty-seven participants.

The training commenced on 27 and ended on 30 July 2006. It was conducted by co-trainers from TCTI and ILO TA at the meeting room of Department of Agriculture and Forestry of Champasack Province.

The Technical Manual for Labour-based Road Construction prepared by Bjorn Johannessen in Lao version (translation made by TCTI) was used as main document for this training.

[4] Savannakhet Province is one of the four SHDP Project Provinces.

Training Documents, Bid Documents and Bid Evaluation Guideline of MPWT for road works in Lao version prepared by TCTI were also used during this course.

The handouts for labour-based road works, Bidding Documents prepared for this specific project and unit rate calculations prepared by ILO ASIST-AP were demonstrated in details by ILO TA with translation by the TCTI Trainer.

All the documents were compiled in one file and distributed to all participants.

The ILO VCD Training Modules were presented with occasional explanation by the trainers. This substantially enhanced the theoretical knowledge of the participants during the course.

The participants were very much interested in copying the whole ILO VCD Training Modules. These VCD are in Thai version and the participants could watch these material any time at their home.

The training was successfully completed and satisfactory to the participants. Their knowledge of Bids Preparation and Labour-based Technology was improved.

IV-2- Training on Labour-Based Technology

First Training on Labor-based Equipment Supported Methods for the Engineers from both DPWT and the private companies was carried out in the Rice Research Center in Pakse from 13 to 17 November 2006. There were a total of 26 participants from DPWT and 6 private companies of Champasack and Savannakhet Provinces.

Second Training on Labor-based Equipment Supported Methods for Road Supervisors from private companies was carried out in the same compound from 20 to 24 November 2006. There were a total of 17 trainees from four companies in Champasack Province only.

These training courses on LBT for the Engineers and supervisors were completed with very good results.

- All participants actively participated in all sessions including field exercises,
- Regularly participated and showed interest in this technology,
- Most participants have around 10 years of experience in civil works,

IV-3- Training on Contract Management

Training on Contract Management was organized for the Engineers and Managers from both Government and private contractors from 20 to 22 November 2006 in the Teacher Training Center in Pakse. There were a total of 24 participants from PPO, DCTPCs, and private companies of Champasack and Savannakhet Provinces. This training was conducted by Mr. Thongkhan and completed with acceptable results.

IV-4- Training on Work Organisation

Training on Work Organisation started on 5 December and continued until 29 December 2006. This course was carried out directly at the construction sites for all technical staff from DPWT and private contractors.

- Participants have varying levels of education and experience (from high school up to bachelor degree and from no experience up to more than 10 years of experience),
- Difficult for the trainers to readjust the training programme to suit most participants,

Training Schedule

Description	13-18 Nov 06	20-25 Nov 06	27 Nov-02 Dec 06	4-9 Dec 06	11-16 Dec 06	18-23 Dec 06
Training on LBT for Engineer, (*DPWT & Contractors)*						
Training on LBT for Supervisor, *(Contractors' staff)*						
Training on Contract Management *(Project, DPWT, PAF, PPO and Contractors)*		20-22				
(START CONSTRUCTION WORKS) Training on Work Organisation *(All site staff in the fields)*						

V- Work Implementation

V-1- Management System

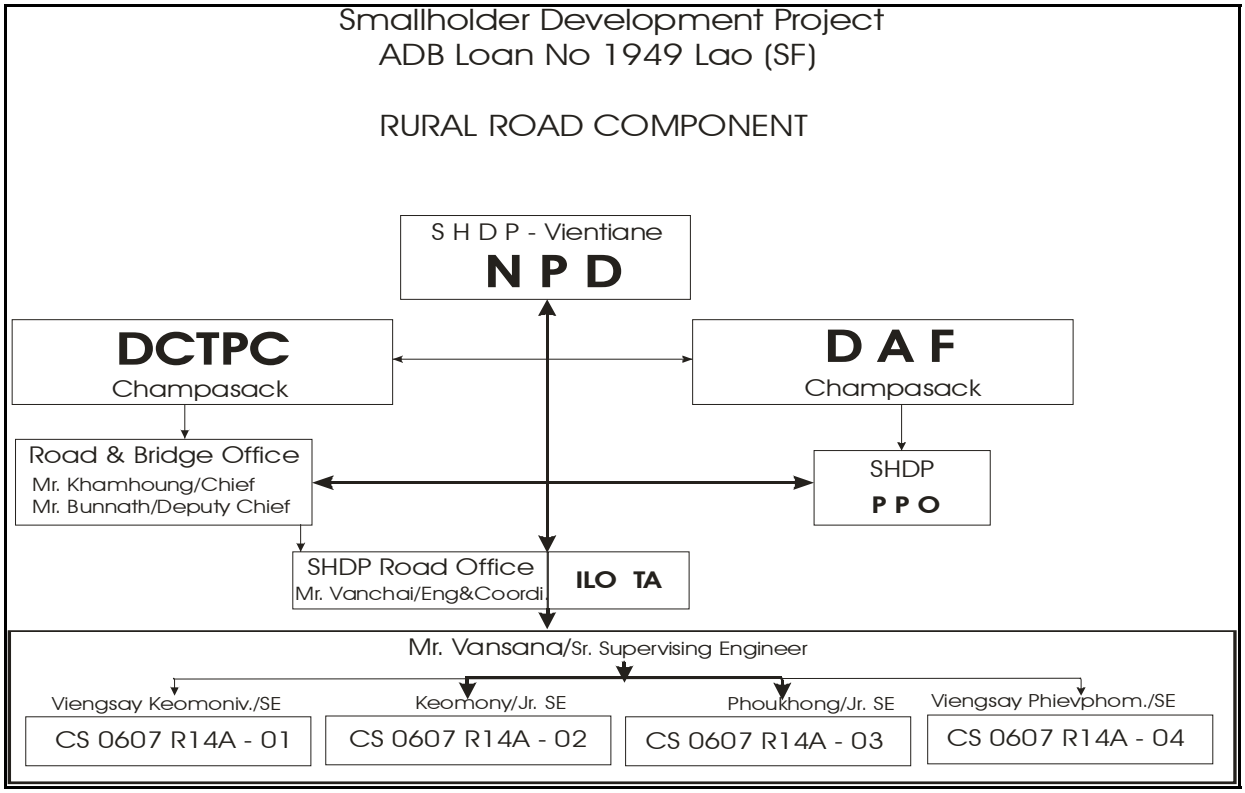
A meeting was held on 5 December 2006 in the room of Chief of Road and Bridge of DCTPC of Champasack Province. The objective of the meeting was to set a proper system of management and information flow for the implementation of the road works.

The participants were from the Roads and Bridges Office of DPWT, PPO, TCTI Trainers and all Managers and Engineers of selected private companies. The meeting was opened at 8:45 hours and closed at 11:45 hours by the Chief of Roads and Bridges.

The result of the meeting was as follows:

- All concerned parties accepted the organization chart of the road work component.

- All concerned parties accepted the duties and responsibilities of the DPWT/SHDP Road Project Coordinator and Supervising Engineers prepared by ILO ASIST-AP.
- All letters submitted by contractors should be addressed to the "Chief of Roads and Bridges" of DPWT.
- Contractors should submit the monthly progress report to the Chief of Roads and Bridges with the covering letter in Lao language and attach the original daily site reports and weekly reports.
- Contractors should submit the request for work inspection for payment to the Chief of Roads and Bridges of DPWT. After the quantities and quality of works has been accepted by the Supervising Engineers, the contractors should submit again the payment request with the covering letter addressed to the Director of Department of Agriculture and Forestry of Champasack Province.
- The completed works should be inspected by DPWT Supervising Engineers before issuing payment certificates.
- Mr. Vansana / Sr. Supervising Engineer is responsible for the contract packages No 02 and 03 and train the 2 Jr. Supervising Engineers in the first 6 months of the construction works.
- Contractors should prepare a first trial section, about 100m, for quality of compaction testing demonstration.
- The Road and Bridge office of DPWT should produce a standard covering letter in Lao language for submitting monthly reports and requests for work inspection and distribute it to all contractors.
- PPO should produce standard covering letter in Lao language for submitting payment requests to the Department of Agriculture and Forestry and distribute it to all contractors and submit it to the Chief of Road and Bridge Office of DPWT.
- PPO should seek advice from Project Headquarters in Vientiane regarding the number of copies of payment requests submitted by contractors.
- Bedding of trenches for pipe and box culverts construction should be inspected and certified by the Supervising Engineer before placing lean concrete.
- Form works and steel bars should be inspected and approved by the Supervising Engineer before pouring concrete.
- Concrete should be poured in the presence of the Supervising Engineer.
- Pouring concrete on Official and Public Holidays is prohibited.
- Curing of concrete should be carried out continuously during the first 7 days.


Smallholder Development Project
ADB Loan No 1949 Lao (SF)
RURAL ROAD COMPONENT
S H D P - Vientiane
N P D
DCTPC
Champasack
D A F
Champasack
Road & Bridge Office
Mr. Khamhoung/Chief
Mr. Bunnath/Deputy Chief
SHDP
P P O
SHDP Road Office
Mr. Vanchai/Eng&Coordi
ILO TA
Mr. Vansana/Sr. Supervising Engineer
Viengsay Keomoniv./SE
CS 0607 R14A - 01
Keomony/Jr. SE
CS 0607 R14A - 02
Phoukhong/Jr. SE
CS 0607 R14A - 03
Viengsay Phievphom./SE
CS 0607 R14A - 04

V-2- Planning and Reporting

Several forms for planning and reporting were developed for this project and prepared separately for each contract. These plans guided the contractors and the supervising engineers to implement the works activities stated in the BoQs according to the time and its locations and updated monthly as the reports.

The planning and reporting forms were used for monitoring the progress of the works of each contract compared with the plans for all management levels.

V-3- Supervising Engineers

The Department of Public Works and Transport of Champsack Province assigned one Project Engineer, one Senior Supervising and 5 Supervising Engineers to road works.

These Engineers received field allowances from the project based on Government rates while they worked at the road construction sites.

Duties and Responsibilities of Supervising Engineer

- Review and certify the Daily Site Planning prepared by the Contractors,
- Day-to-day supervise the practical work on site performed by the Contractors with regards to standard specifications and drawings,
- Issue site instructions to the Contractors,
- Monitor Daily Site Plan and Works Achieved,
- Analyse work norms and production rates,
- Ensure that appropriate hand tools are issued to the workers,
- Assist in measurement of completed works and quality control tests,
- Maintain the site records including a site diary that cover daily work, non standard works, and any other occurrence such as heavy rains etc.,
- Participate in daily site briefings with the Contractor and all site progress meetings,
- Report to the DPWT/SHDP Project Coordinator,
- Liaise with local authority and contractor,

Duties and Responsibilities of DPWT/SHD Project Engineer

- Review work programmes submitted by Contractors,
- Supervise and monitor contract work in accordance with the conditions and specifications of contracts,
- Carry out daily site inspections,
- Analyse work norms and production rates of each activity,
- Organise quality control and carry out quality control tests,
- Monitor monthly work progress and plan,
- Prepare monthly progress report,
- Carry out measurement of completed work, prepare payment certificates and contract registers, arrange for payments and deal with claims,

- Manage financial issues of the SHDP Rural Road Component,
- Prepare the cost estimate of per-diem for supervising engineers and follow-up,
- Organise site progress meeting with contractors,
- Instruct contractors,
- Monitor and evaluate the effectiveness of work methods, system and procedures, and if necessary propose and introduce changes which further improve the efficiency of the system,
- Report to the Chief of Roads and Bridges of DPWT, PPO and NPD,
- Liaise with all concerned Departments and local authorities,
- Carry out any other administrative or technical works as required.

V-4- Transport for Supervisory Staff

As stated in the contract agreement between ILO and the Government of Lao PDR, one pickup "Ford Ranger" and two motorcycles were purchased for carrying out the work supervision.

Due to the number of the engineers provided by the DPWT to supervise the works more than what described in the agreement, three more motorbikes were provided by the SHDP Office in Vientiane to this road work component for the supervising engineers to perform their duties.

V-5- Contract Management

Work implementation was carried out in accordance with the general and particular conditions of contract and work supervision and quality control were carried out by the DPWT supervising engineers according to technical specifications stated in the contract agreement.

Price Adjustment for Road Work Contracts

All contractors requested for price adjustment due to the escalation of prices on fuel and construction materials in 2008.

Under guidance of the Senior Rural Infrastructure Management Specialist of ASIST, the calculation of actual price increases for all unit rates offered by each company was prepared in detail. These price increases were presented to the Government (DPWT Director, Director of SHDP and Deputy Director of DAF) in a meeting on 19 January 2009. All participants presented in the meeting accepted the recommendations of the ILO on how to address the requests for price increases.

The calculations were carried out based on the price Index of construction materials every month published by the Ministry of Commerce of Thailand and the actual fuel price and labour wages collected from records of the Lao Government.

The table below shows how the price escalation was calculated the main construction activities for the month of April 2008.

Contract No 01 IPC No 02 Payment date: 22.04.2008

No	Activity	%	Gravel			Embankment			Excavation		
			Base price	K	Increa. price	Base price	K	Increa. price	Base price	K	Increa. price
	Unit Price		27,263.00			23,628.00			21,810.00		
1	Depreciation	30	8,178.90		8,178.90	7,088.40		7,088.40	6,543.00		6,543.00
2	Operator	2	545.26		545.26	472.56		472.56	436.20		436.20
3	Maintenance	2	545.26		545.26	472.56		472.56	436.20		436.20
4	Spareparts	11	2,998.93	1.26	3,778.65	2,599.08	1.26	3,274.84	2,399.10	1.26	3,022.87
5	Fuel	13	3,544.19	1.28	4,536.56	3,071.64	1.28	3,931.70	2,835.30	1.28	3,629.18
6	Lubricant	2	545.26	1.28	697.93	472.56	1.28	604.88	436.20	1.28	558.34
7	Soil tax	7	1,908.41		1,908.41	1,653.96		1,653.96	1,526.70		1,526.70
	Sub-Total		18,266.21		20,190.98			17,498.90			16,152.49
8	Overhead	10	2,726.30			2,362.80			2,181.00		
9	Profit	10	2,726.30			2,362.80			2,181.00		
10	Gov. Tax	13	3,544.19			3,071.64			2,835.30		
	TOTAL	100	27,263.00		**30,135.79**	23,628.00		**26,117.76**	21,810.00		**24,108.19**
	% increase				**10.54**			**10.54**			**10.54**
	K Increase				**1.10**			**1.10**			**1.10**

K	Mo	Mn	
1.26	207.1	260.8	Index of equipment in April 2008
1.28	8010	10260	Fuel price in April 2008

No	Activity	%	Box culvert		
			Base price	K	Increase price
	Unit Price		2,453,250		
1	Concrete 25	27	662,377.50	1.05	695,496.38
2	Concrete 10	4	98,130.00	1.05	103,036.50
3	Steel bar	18	441,585.00	1.61	710,951.85
4	Sand	1	24,532.50	1.13	27,721.73
5	Formwork	2	49,065.00	1.13	55,443.45
6	Labour	15	367,987.50	1.00	367,987.50
	Sub-Total				1,960,637.40
8	Overhead	10	245,325.00		
9	Profit	10	245,325.00		
10	Gov. Tax	13	318,922.50		
	TOTAL		**2,453,250**		**2,926,324.48**
	% increase				**19.28**
	K Increase				**1.19**

8-Apr	Mo	K	Mn
Material	244.6	1.14	278.4
Cement	193.1	1.05	203.1
Steel	210.7	1.61	339.9

The price escalation calculations were presented to all contractors by the Government on 22 January 2009, but the contractors refused to accept it. The Director of DPWT instructed the contractors to prepare the price escalation calculations by themselves and submit to the project for approval.

While still negotiation the cost increases, the contractors are continuing works.

V-5-1- Payment Statements

Payment Statements were developed to ensure that the payments to the contractors were made based on actual works completed at sites (activities, locations, quantities and quality). Payment statement consisted of (i) quantity table of earthworks, (ii) list of completed structures and (iii) payment breakdown.

V-5-2- Work Measurement and Inspection

The supervising engineers with observers from the technical and planning offices of DPWT and with the assistance provided by ILO TA used the quantity table and list of structures prepared and submitted by the contractors for carrying out the works inspection at sites before issuing payment certificates.

V-5-3- Payment Certificates

Payment certificates were developed for this project based on the conditions of contract. Three types of certificates (interim, completion and defects liability) were used for payment to the contractors.

The payment certificates were signed by Project Engineer, endorsed by the ILO TA and approved by the Chief of Road and Bridge Office of DPWT.

The payments to the contractors were made based actual on completed works at sites meeting the quality requirements as described in the technical specifications.

The table below shows the updated physical progress of works and payments of each contract as of January 2009.

Contract No.	Length km	Progress of works	Progress of Payments	Repayment of Advance
CS 0607 R14A – No 01	19.30	Earthworks = 84% Gravel = 30%	71.65%	Completed
CS 0607 R14A – No 02*	24.65	Earthworks = 91% Gravel = 72%	98.12%	Completed
CS 0607 R14A – No 03	16.54	Earthworks = 79% Gravel = 12%	65.42%	Remains
CS 0607 R14A – No 04	17.50	Earthworks = 100% Gravel = 70%	74.46%	Remains

Note: * *the quantity of soil for embankment fill and gravel are in creased about 12%. These quantities were already approved by the Director of DPWT.*

V-5-4- On-the-job training

Field visits were carried out by the ILO TA regularly to all road contracts. The purpose of these visits was to provide on-the-job training to the supervising engineers and contractors' engineers on how to solve the problems faced during implementation. These problems were such as technical matters, quantity control, quality of material, site management, etc.

BRIDGES

VI- Survey and Design

VI-1- Selection of Consultant for Survey and Design of Bridges

With assistance of the TA, initiations to bid for survey and design of 9 reinforced concrete bridges to be constructed on the project roads were sent to five qualified consulting firms on 7 March 2007.

Four consulting firms submitted their quotations on 27 March 2007 as scheduled and were opened in the presence of the project bid evaluation committee. The committee decided to award this works to the Bomasis Consulting Co., Ltd at a total cost of USD50,010.00.[5]

VI-2- Prepare Contract Agreement for Consultant Services

On the request of the National Project Director, the Contract for Consulting Services for survey and design of bridges was prepared by the TA. The Contract was prepared based on the Standard Consultant Services Contract of the Asian Development Bank *(Lump Sum Contract Revised February 05)*. The draft contract was submitted to SHDP National Project Director, DCTPC of Champasack Province and ASIST-AP.

Finally, this contract was signed on 9 May 2007 by Mr. Velakone Vorasanh / Director of Department of Agriculture and Forestry of Champasack Province and Mr. Vannavong Soysouvanh / Managing Director of Bomasis Company Ltd.,

VII- Bidding Documents for Bridge Works

VII-1- Prepare Bid Documents

The National Project Director requested ILO technical assistance to assist in preparing the bidding documents for the bridge works. The ILO TA prepared these bidding documents in parallel with the survey and design works which was carried out by the Bomasis Engineering Company.

[5] Budget allocated for this purpose is USD54,000.00

VII-2- Bidding Process

The bidding process for the bridge works took place from May to October 2007. Detailed work schedules were accepted by the National Project Director, DPWT.

The bid announcement started from 6 December 2006 and the deadline for bid submissions was 7 January 2007. Site visits were carried out on 17 and 18 December 2007 while the pre-bid meeting was held in the meeting room of DPWT on 21 December 2007. This bid announcement was posted in Vientiane Times and Pasason News Papers.

VII-3- Bid Evaluation

Bid opening for bridge construction works was carried out on 7 January as scheduled in the presence of Provincial Bid Opening and Evaluation Committee and the bidders' representatives.

Seven eligible companies [6] submitted the bids before 14:00 hours.

After completing the bid opening, the Bid Opening and Evaluation Committee requested the TLO TA to assist the DPWT staff in reviewing all bid documents submitted by Bidders.

Review of bids including checking for arithmetical errors was carried out from 8 to 15 January 2008 with assistance provided by ILO TA. Many forms were developed to record the information provided by the Bidders in their bids. The forms are as follows:

- bid opening check lists,
- arithmetical errors and unconditional discount,
- unit rates comparison,
- general provision items comparison,
- capacity of each contractor,
- selection criteria (follow section 3 of bidding documents),
- price comparison,
- preliminary examination,
- ranking based on prices.

These forms were prepared for all three contracts separately as a brief report for the Bid Evaluation Committee.

The Evaluation of the bids was carried out by the Bid Evaluation Committee without participation of the ILO TA and the Bid Evaluation Report and Proposal for Award of Contracts was prepared by the DPWT and the Project.

[6] 16 companies purchased the bidding documents from the Project Office in Vientiane and Department of Public Works and Transport in Champasack Province.

VII-4- Letters of Acceptance and Agreements

The letters of acceptance and contract agreements were prepared by the ILO TA and signed by all parties after receiving the no objection from ADB for the recruitment of the contractors.

VIII- Selection of Consultant for Bridge Construction Supervision

Due to lack of experienced bridge engineers in DPWT of Champasack Province, the Project requested the budget for hiring a local consultant to carry out the bridge construction supervision during the ADB Mid-Term Review Mission held in Vientiane from 15 – 25 October 2007.

According to the ADB Mission's Aid Memoire dated 20 November 2007, the ADB approved a budget (USD140,000) for the bridge construction supervision consultant.

The Invitation to bid for the bridge construction supervision and Term of References for the Resident Engineer, Structural Engineer, Surveyor and Lab Technician were prepared as requested by the National Project Director.

VIII-1- Prepare Request for Proposals (RFP)

Requests for Proposal for recruiting the bridge construction consultant was prepared by the ILO TA based on the ADB standard documents using Least Cost Selection Methods (LCS).

VIII-2- Evaluation Technical Proposals

All three short-listed firms submitted the proposals on 7 July 2008 at 11:00 hours and the opening was carried out in the afternoon at 13:30 in the presence of all Consultant Selection Committee (CSC) members in the meeting room of NAFES.

The selection was carried out in accordance with the ADB procedures for Least Cost Selection (LCS) method and was performed according to the (Request for proposal) RFP requirement. The evaluation of the technical proposals was carried out by the CSC which consisted of representatives from Ministry of Finance, Ministry of Public Works and Transport, Ministry of Agriculture and Forestry, Ministry of Commerce and Ministry of Planning.

The CSC followed the ADB procedures for evaluation of bio-data technical proposals by using the standard form of personnel evaluation sheets and summary evaluation sheet mentioned in the RFPs approved by ADB, Section 2.2 – Data Sheet. The scores given to personnel from each firm also followed the ADB standard rates.

As requested by the project, the review of (i) scores given by the CSC, (ii) evaluation procedures and (iii) report of the technical proposal evaluation was carried out by the TA.

During the review it was found that, the evaluation had been conducted by using the criteria specified in RFP, scores were given to each personnel and firm by using the personnel evaluation sheet and summary evaluation bio-data technical proposals as mentioned in the RFPs.

VIII-3- Agreement for Consultant Services

The Project received a "no objection" on recruitment of the consultant for supervision of bridge construction works in Champasack Province. According to the minutes of the contract negotiations between the project and Bomasis (selected bridge construction supervision consultant), the consultant supposed to start the works on 20 November 2008. Actually, the consultant started the works on time during the contract negotiation, but the agreement was not prepared and signed yet.

As requested by the Project, the contract agreement for this work was prepared by the TA. The contract agreement was prepared based on the standard agreement in Section 6 of the Request for Proposal for recruitment of consultant which was approved by ADB earlier.

MARKETS

Six markets were proposed to be constructed in the four project provinces. The market construction works was not included in the TOR of the ILO Technical Assistance.

IX- Bidding Documents for Markets

The project engaged Mixay Consulting Company to prepare Bid Documents for the market construction works. But the bid documents prepared by this company were rejected by the ADB.

On the request of the National Project Director, an additional input from the ILO TA was provided to the project to assist in preparing the six bidding documents for the market construction works.

Intermittent inputs of ILO Technical Assistance provided to the SHDP Project:.

Period from …..to…	Description of inputs
7 Sep – 1 Nov 2005	Design of road, quantity calculation, drawings and cost estimates.
22 Nov 2005 – 10 Jan 2006	Design of cross drainage structures, estimate volume of works, list of structures and identification of sources of construction material.
19 Jan – 17 Feb 2006	Review the drawings of rural roads, recalculation of volume of works and preparing three alternative cost estimates for each road based on different type of cross sections and preparation of bidding documents.
9 – 25 May 2006	Review the technical drawings, advise the DPWT and the Project to follow the new ADB Standard Bidding Documents dated April 2006, follow up the tax exemption and plate registration of the ILO/Project vehicle and collect quotations for purchasing of motorbikes from local suppliers in Pakse.
14 – 30 Jun 2006	Arrange for insurance of the ILO/Project vehicle, receive and drive the vehicle to Pakse, secure purchase agreement with the motorcycle supplier in Pakse and necessary tax exemptions, submit bidding documents for the rural road works to the Government.

16Jul – 30 Aug 2006	Prepare bid announcement for the road works, prepare and distribute the bidding documents to the contractors, arrange site visits, organize the pre-bid meeting, organize the training course on bid preparation and labour-based technology, design of appropriate forms for use during bid opening and evaluation, review bidding documents submitted by the contractors, evaluate bids and prepare the evaluation report, introduce labour-based technology to local authority and villagers.
23 Oct – 15 Dec 2006	Prepare the Letter of Acceptances, prepare the Contract Agreements, prepare Contract Documents, organize the training on LBT and Contract Management, start up the rural road works activities, organizing meetings with local authorities in the Soukhuma and Mounlapamok Districts regarding the use of labour-based technology and labour issues.
26 Dec 06 – 26 Jan 07	Start up the rural road works activities, follow-up what they have learned during recent training and provide on-the-job training to the technical staff of the government and private contractors.
18 Feb – 19 May 2007	Follow up the rural road construction works, work supervision, monitoring and quality control, prepare the ToRs for survey and design of bridge works, prepare the consulting services contract for survey and design of bridge works, provide on the-job-training to technical staff, prepare bidding documents for bridge works.
30 May – 28 Jul 2007	Follow up the previous input, review the payment requests submitted by contractors, inspect the works and prepare payment certificates, prepare bidding documents for the construction of 6 markets as requested by Project Director and provide on-the-job training to the technical staff.
20 Nov – 28 Dec 2007	Start up the road construction works after rainy season ends, revise work programmes for this construction season, organize refresher training courses for the supervising engineers on road work supervision and quality control, revise three bid documents for bridge works following the comments provided by the ADB, prepare the announcement of bids for bridge works, arrange the site visits and pre-bid meeting for bridge works, prepare the contract agreement for the consulting services of bridge construction supervision
6 – 25 Jan 2008	Follow-up the input provided in December 2007, organize bid opening for the bridge works, review bid documents of bridge works submitted by 7 companies and prepare the report for the Bid Evaluation Committee, prepare Contract Documents, Contract Agreements for the markets and Letters issued to failed bidders, provide on-the-job training to the Supervising Engineers in road supervision and contract management.

17 Feb – 09 Mar 2008	Follow-up the inputs provided in January 2008, review the payment requests submitted by contractors and inspecting the completed works for payments, revising the Request for Proposal for the recruiting of consultants for supervision of bridge construction, prepare the Letter of Acceptance, Contract Agreements, Contract Documents and notification of contract awards, provide on-the-job training to the Supervising Engineers in site management, work supervision and contract management.
9 Apr – 16 May 2008	Review the payment requests submitted by contractors and inspect the completed works due for payments, revise the work plan for processing of Request for Proposal for recruiting of the consultant for supervision of bridge construction, provide on-the-job training to the Supervising Engineers in site management, work supervision and contract management.
28 Jul – 10 Aug 2008	Prepare the report of the technical proposal evaluation for the selection of consultant for bridge construction supervision, review the payment requests submitted by contractors, inspecting the works and issuing payment certificates, establishing factors for price adjustment, revise the plan for the remaining works in the road works contracts in Champasack Province for the implementation and completion in the next construction season.
8 – 23 Dec 2008	Resume the road construction works, review the payment request submitted by contractor, inspect works, calculate price adjustment factors, prepare contract amendment for the extension of completion time, prepare the contract agreement for consultant services for bridge construction supervision.
15 Jan – 1 Feb 2009	End of assignment. Summary and hand over the works and equipment to the National Agriculture and Forestry Extension Services of Ministry of Agriculture and Forestry of Lao PDR. - one pick-up - Ford-Ranger 4W - two motorcycles - Suzuki - one computer – Dell - one printer - HP1020

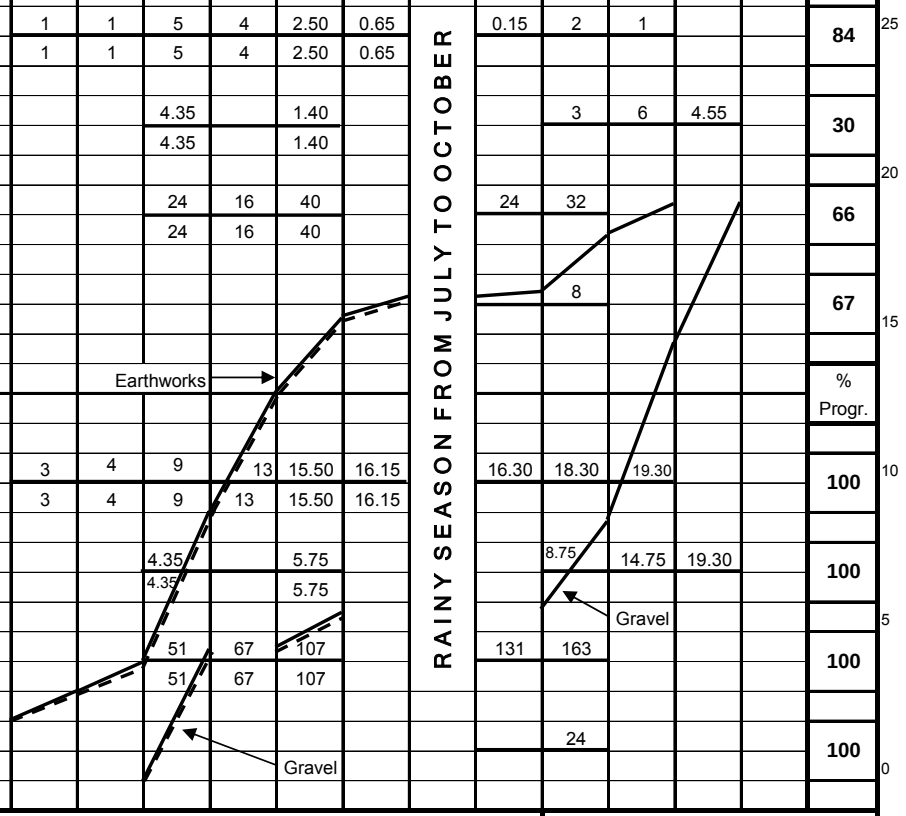
ANNEXES

TRAINING PROGRAMME

	Monday 13.11.06	Tuesday 14.11.06	Wednesday 15.11.06	Thursday 16.11.06	Friday 17.11.06	Saturday 18.11.06
			Morning			
8:00 – 8:45	Introduction to LBT	Setting out cross section	Work Organisation	Reporting	**FIELD PRACTICE**	
8:45 – 9:30	Hand tools for setting out	Field Exercise	Work Organisation:	Monitoring		
9:30 – 10:00 Break					**IN SETTING OUT:**	
10:00–10:45	Setting out straight lines, curves	Field Exercise	Work Organisation: gang size & balancing	Role of the technician supervisor		
10:45-11:30	Field Exercise	Setting out cross section	Construction of embankment and compaction	Site administration, records and fillings		
			Afternoon			
13:30-14:15	Field Exercise	Field Exercise	Incentives: task work and task rates	Recruitment and payment of labour	**FIELD PRACTICE**	
14:15-15:00	Field Exercise	Field Exercise	Organisation of Labour	Information flows		
15:00-15:30 Break						
15:30-16:15	Field Exercise	Cross drainage structures	Planning: long term plan	Other issues		
16:15-17:00	Setting out 90^o & 45^o angles	Construction tools and equipment	Planning: short term plan	Other issues		

Road Name: **Soukhuma to Mounlapamok** Contract No: CS 0607 R14A - **No 01** Chainage: 0+000 - 19+300 Length: 19.30 km Date:

Activity	Unit	Total Quantity Plan	Total Quantity Actual		2007 Feb	2007 Mar	2007 Apr	2007 May		2007 Nov	2007 Dec	2008 Jan	2008 Feb	2008 Mar	2008 Apr	2008 May	2008 Jun		2008 Nov	2008 Dec	2009 Jan	2009 Feb	2009 Mar	% Compl.
Earthwork	km	19.3	16.15	Plan		0.5	0.5	1	RAINY SEASON FROM JUNE TO OCTOBER			1	1	5	4	2.50	0.65	RAINY SEASON FROM JULY TO OCTOBER	0.15	2	1			84
				Actual		0.5	0.5	1				1	1	5	4	2.50	0.65							
Gravel R.C.	km	19.3	5.75	Plan										4.35		1.40				3	6	4.55		30
				Actual										4.35		1.40								
Culverts	m	163	107	Plan		18	9							24	16	40			24	32				66
				Actual		18	9							24	16	40								
Box Culverts	m	24	16	Plan		8	8													8				67
				Actual		8	8																	
Cumulative Up to This Month																								% Progr.
Activity	Unit	Plan	Actual																					
Earthwork	km	16.15	16.15	Plan		0.5	1	2				3	4	9	13	15.50	16.15		16.30	18.30	19.30			100
				Actual		0.5	1	2				3	4	9	13	15.50	16.15							
Gravel R.C.	km	5.75	5.75	Plan										4.35		5.75				8.75	14.75	19.30		100
				Actual										4.35		5.75								
Culverts	m	107	107	Plan		18	27							51	67	107			131	163				100
				Actual		18	27							51	67	107								
Box Culverts	m	16	16	Plan		8	16													24				100
				Actual		8	16																	



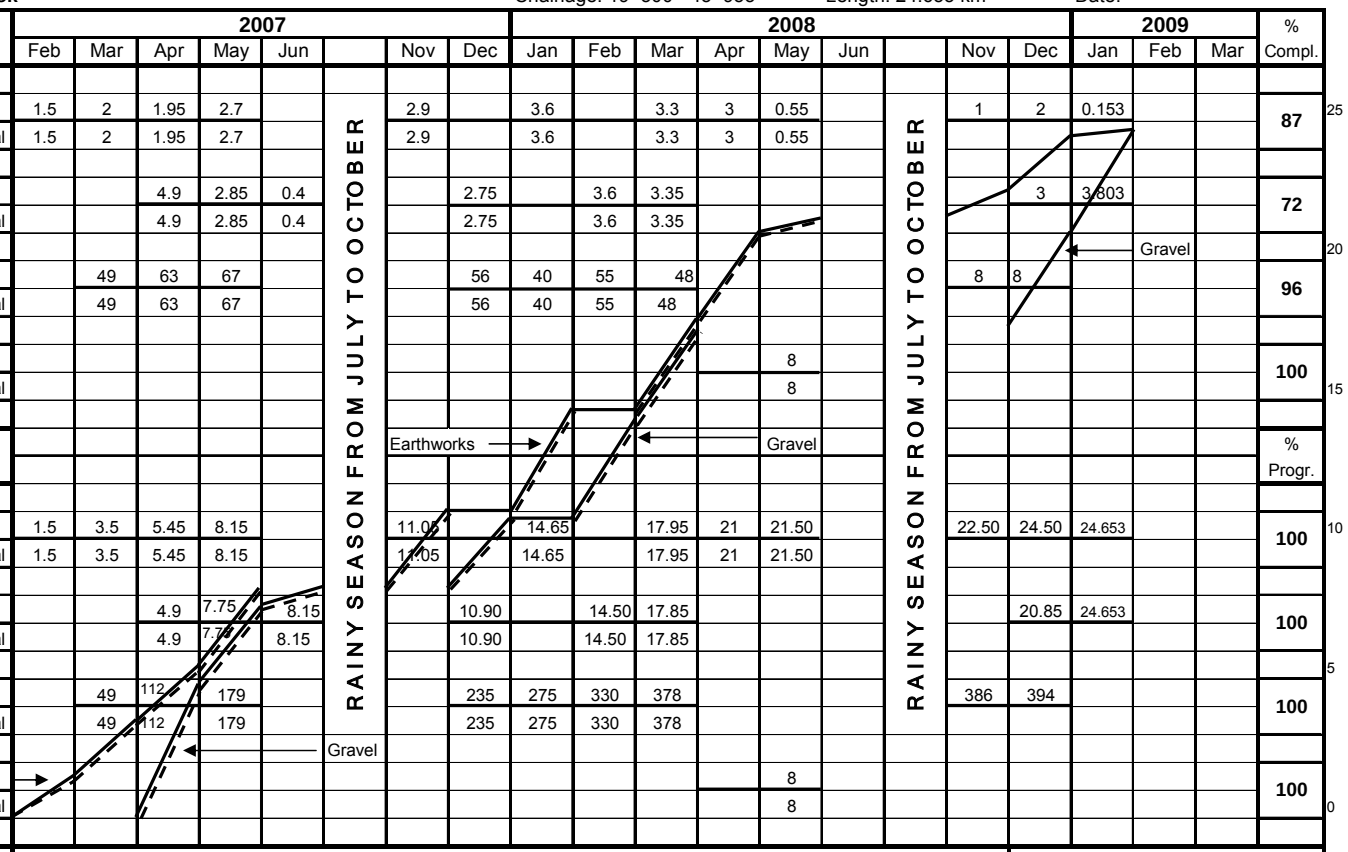
Remark:
Planned:
Actual:

Rural Road Construction

Prepared Date: 26.12.06
2nd Revising Date: 08.08.08

Road Name: **Soukhuma to Mounlapamok** Contract No: CS 0607 R14A - **No 02** Chainage: 19+300 - 43+953 Length: 24.653 km Date:

Activity	Unit	Total Quantity Plan	Total Quantity Actual		2007 Feb	Mar	Apr	May	Jun		Nov	Dec	2008 Jan	Feb	Mar	Apr	May	Jun		Nov	Dec	2009 Jan	Feb	Mar	% Compl.
Earthwork	km	24.653	21.50	Plan	1.5	2	1.95	2.7		RAINY SEASON FROM JULY TO OCTOBER	2.9		3.6		3.3	3	0.55		RAINY SEASON FROM JULY TO OCTOBER	1	2	0.153			**87**
				Actual	1.5	2	1.95	2.7			2.9		3.6		3.3	3	0.55								
Gravel R.C.	km	24.653	17.85	Plan			4.9	2.85	0.4			2.75		3.6	3.35						3	3.803			**72**
				Actual			4.9	2.85	0.4			2.75		3.6	3.35										
Culverts	m	394	378	Plan		49	63	67				56	40	55	48					8	8				**96**
				Actual		49	63	67				56	40	55	48										
Box Culverts	m	8	8	Plan													8								**100**
				Actual													8								
Cumulative Up to This Month											Earthworks →						Gravel								
Activity	Unit	Plan	Actual																						% Progr.
Earthwork	km	21.5	21.5	Plan	1.5	3.5	5.45	8.15			11.05		14.65		17.95	21	21.50			22.50	24.50	24.653			**100**
				Actual	1.5	3.5	5.45	8.15			11.05		14.65		17.95	21	21.50								
Gravel R.C.	km	17.85	17.85	Plan			4.9	7.75	8.15			10.90		14.50	17.85						20.85	24.653			**100**
				Actual			4.9	7.75	8.15			10.90		14.50	17.85										
Culverts	m	378	378	Plan		49	112	179				235	275	330	378					386	394				**100**
				Actual		49	112	179				235	275	330	378										
									Gravel ←																
Box Culverts	m	8	8	Plan	→												8								**100**
				Actual													8								



Remark:
Planned: ——————
Actual: — — — — —

Rural Road Construction
Prepared Date: 26.12.06
2nd Revising Date: 08.08.08

Road Name: **Mounlapamok to Ban Verngnang** Contract No: CS 0607 R14A - **No 03** Chainage: 0+000 - 16+547 Length: 16.547 km Date:

Activity	Unit	Total Quantity Plan	Total Quantity Actual		2007 Feb	2007 Mar	2007 Apr	2007 May		2007 Nov	2007 Dec	2008 Jan	2008 Feb	2008 Mar	2008 Apr	2008 May	2008 Jun		2008 Nov	2008 Dec	2009 Jan	2009 Feb	2009 Mar	% Compl.
Earthwork	km	16.547	13	Plan			1					2.5	3.75	4	1.75				1	2	0.547			**79**
				Actual			1					2.5	3.75	4	1.75									
Gravel R.C.	km	16.547	1.95	Plan										1.95						4	6	4.547		**12**
				Actual										1.95										
Culverts	m	260	210	Plan			24	55				40		61	9	21			24	26				**81**
				Actual			24	55				40		61	9	21								
Box Culverts	m	34.50	18.50	Plan			8.5								10						16			**54**
				Actual			8.5								10									
Cumulative Up to This Month																								
Activity	Unit	Plan	Actual																					% Progr.
Earthwork	km	13	13	Plan			1					3.5	7.25	11.25	13				14	16	16.547			**100**
				Actual			1					3.5	7.25	11.25	13									
Gravel R.C.	km	1.95	1.95	Plan										1.95						5.95	11.95	16.547		**100**
				Actual										1.95										
Culverts	m	210	210	Plan			24	79				119		180	189	210			234	260				**100**
				Actual			24	79				119		180	189	210								
Box Culverts	m	18.5	18.5	Plan			8.5								18.50						34.50			**100**
				Actual			8.5								18.50									

RAINY SEASON FROM JUNE TO OCTOBER

RAINY SEASON FROM JUNE TO OCTOBER

Earthworks

Gravel

Gravel

Earthworks

18 16 14 12 10 8 6 4 2 0

Remark:
Planned:
Actual:

Rural Road Construction

Preparing Date: 26.12.06

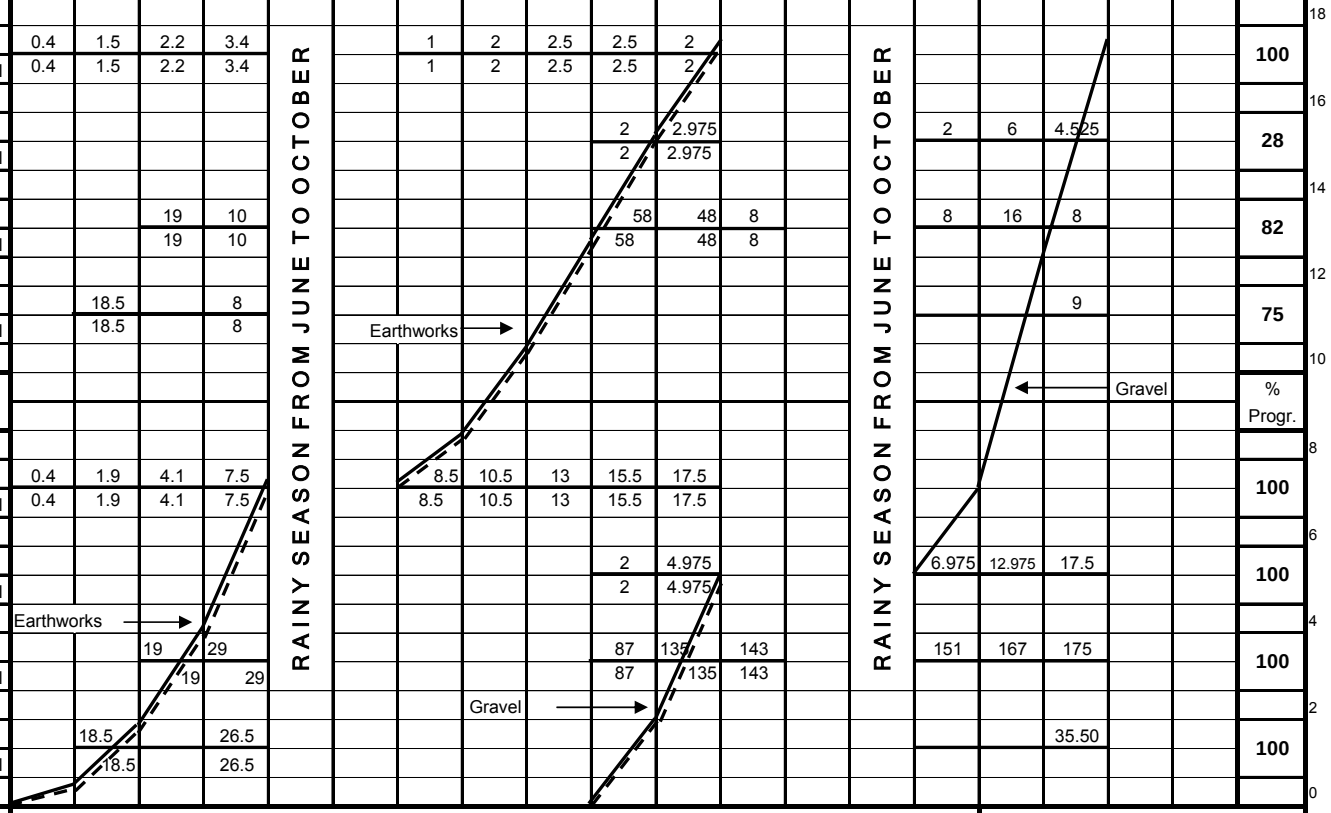
2nd Revising Date: 08.08.08

Road Name: **Mounlapamok to Ban Verngnang** Contract No: CS 0607 R14A - **No 04** Chainage: 16+547 - 34+047 Length:17.50km Date:

Activity	Unit	Total Quantity Plan	Total Quantity Actual		2007 Feb	2007 Mar	2007 Apr	2007 May		2007 Nov	2007 Dec	2008 Jan	2008 Feb	2008 Mar	2008 Apr	2008 May	2008 Jun		2008 Nov	2008 Dec	2009 Jan	2009 Feb	2009 Mar	% Compl.
Earthwork	km	17.50	17.50	Plan	0.4	1.5	2.2	3.4			1	2	2.5	2.5	2									100
				Actual	0.4	1.5	2.2	3.4			1	2	2.5	2.5	2									
Gravel R.C.	km	17.50	4.975	Plan										2	2.975			2	6	4.525			28
				Actual										2	2.975								
Culverts	m	175	143	Plan			19	10						58	48	8		8	16	8			82
				Actual			19	10						58	48	8							
Box Culverts	m	35.50	26.50	Plan		18.5		8												9			75
				Actual		18.5		8															

Cumulative Up to This Month

Activity	Unit	Plan	Actual		2007 Feb	2007 Mar	2007 Apr	2007 May		2007 Nov	2007 Dec	2008 Jan	2008 Feb	2008 Mar	2008 Apr	2008 May	2008 Jun		2008 Nov	2008 Dec	2009 Jan	2009 Feb	2009 Mar	% Progr.
Earthwork	km	17.50	17.50	Plan	0.4	1.9	4.1	7.5			8.5	10.5	13	15.5	17.5									100
				Actual	0.4	1.9	4.1	7.5			8.5	10.5	13	15.5	17.5									
Gravel R.C.	km	4.975	4.975	Plan										2	4.975			6.975	12.975	17.5			100
				Actual										2	4.975								
Culverts	m	143	143	Plan			19	29						87	135	143		151	167	175			100
				Actual			19	29						87	135	143							
Box Culverts	m	26.50	26.50	Plan		18.5		26.5												35.50			100
				Actual		18.5		26.5															



Remark:
Planned:
Actual:

Rural Road Construction
Preparing Date: 26.12.06
2nd Revising Date: 08.08.08

OVERALL / DAILY SITE PLANNING AND ACTUAL RECORD

HOMSOMBATH COMPANY

Road Name : Soukhuma to Mounlapamok Contract No: CS 0607 R14A- 01 Chainage: 0+000 - 19+300 Wheather :

PLANNED							ACTUAL/ACHIEVEMENT							Remark
ACTIVITIES	Unit	Km-Start	Km-End	Quantity	Rate	N° Labour	ACTIVITIES	Unit	Km-Start	Km-End	Quantity	Rate	WD	
1- Earthworks							**1- Earthworks**							
Survey & Setting out	m						Survey & Setting out	m						
A- Clearing+topsoil+tree<30							**A-** Clearing+topsoil+tree<30							
A1- Grass clearing + topsoil	m^2						A1- Grass clearing + topsoil	m^2						
A2- Bush clearing	m^2						A2- Bush clearing	m^2						
A3- Tree cutting, dia. < 30cm	no						A3- Tree cutting, dia. < 30cm	no						
B- Tree cutting, dia. > 30 cm	no						**B-** Tree cutting, dia. > 30 cm	no						
C- Removal of unsuit materi	m^3						**C-** Removal of unsuit materi	m^3						
D1- Levelling (FILL)	m^3						D1- Levelling (FILL)	m^3						
D2- Ditch - right (CUT)	m^3						D2- Ditch - right (CUT)	m^3						
D3- Ditch - left (CUT)	m^3						D3- Ditch - left (CUT)	m^3						
D4- Forming camber (FILL)	m^3						D4- Forming camber (FILL)	m^3						
E- Embankment construct.							**E-** Embankment construct.							
E- Levelling	m^3						E- Levelling	m^3						
E- 1st layer	m^3						E- 1st layer	m^3						
E- 2nd layer	m^3						E- 2nd layer	m^3						
E- 3rd layer	m^3						E- 3rd layer	m^3						
E- 4th layer	m^3						E- 4th layer	m^3						
E- Sloping - right	m^2						E- Sloping - right	m^2						
E- Sloping - left	m^2						E- Sloping - left	m^2						
E- Forming camber	m^3						E- Forming camber	m^3						
F- Plant grass	m^2						**F-** Plant grass	m^2						
G- Watering / Compaction	no						**G-** Watering / Compaction	no						
2 - Gravel Running Course							**2 - Gravel Running Course**							
Survey & Setting out	m						Survey & Setting out	m						
Reforming subgrade	m						Reforming subgrade	m						
Gravel spreading	m^3						Gravel spreading	m^3						
Surface improvement	m						Surface improvement	m						
Watering / Compaction	no						Watering / Compaction	wd						
3 - Gang leader	no						**3 - Gang leader**	wd						
4 - Support	no						**4 - Support**	wd						
TOTAL WORKER							**TOTAL WORKDAYS**							

DAILY SITE ACHIEVEMENT AND ACTUAL WD RECORD

HOMSOMBATH COMPANY

Road Name : Soukhuma to Mounlapamok Contract No: CS 0607 R14A- 01 Chainage: 0+000 - 19+300 Length: 19+300 Wheather :

PIPE CULVERTS		Chainage & Size									
ACTIVITY	Unit										
		Q-ty	wd	Q-ty	wd	Q-ty	wd	Q-ty	wd	Q-ty	wd
Setting out	wd										
Trench excavation	m^3										
Bedding / sand	m^3										
Bedding / concrete	m^3										
Laying of pipes & joint	m										
RCC Head & Wingwalls											
a- Formwork	m^2										
b- Steel works	kg										
c- Concrete works	m^3										
RCC Apron & Cut off walls											
a- Formwork	m^2										
b- Steel works	kg										
c- Concrete works	m^3										
Curring	wd										
Formwork removal	wd										
Backfill & Compaction	m^3										
Cleaning	wd										
TOTAL WD											
GRAND TOTAL WD											

BOX CULVERTS		Chainage & Size			
ACTIVITY	Unit				
		Q-ty	wd	Q-ty	wd
Setting out	wd				
Trench excavation	m^3				
Wingwall excavation	m^3				
A. Bottom Slab					
Bedding / sand	m^3				
Bedding / concrete	m^3				
Formworks	m^2				
Steel works	kg				
Concrete works	m^3				
B. Walls					
Formworks	m^2				
Steel works	kg				
Concrete works	m^3				
C. Top Slab					
Formworks	m^2				
Steel works	kg				
Concrete works	m^3				
D. Aprons					
Bedding / sand	m^3				
Bedding / concrete	m^3				
Formworks	m^2				
Steel works	kg				
Concrete works	m^3				
E. Wingwalls					
Formworks	m^2				
Steel works	kg				
Concrete works	m^3				
F. Curring	wd				
G. Formwork removal	m^2				
H. Backfill & Compact.	m^3				
J. Site cleaning	wd				
TOTAL WD					
GRAND TOTAL WD					

WEEKLY SITE REPORT

Homsombath Company

Road Name: Soukhuma to Mounlapamok Contract No: CS 0607 R14A- 01 Chainage: 0+000 - 19+300 Length: 19.30 km Date:

DATE																CHAINAGE		TOTAL	
ACTIVITY	Unit	qu-ty	wd	qu-ty	wd	qu-ty	wd	qu-ty	wd	qu-ty	wd	qu-ty	wd	qu-ty	wd	Start	End	Quantity	Workdays
ROAD WORKS																			
Surveying & Setting Out	m																		
Site Clearance on Earthwork Sites																			
2.02-1 Clearing Inclu. Topsoil 10cm	m^2																		
2.02-2 Removal of Trees > 30cm	no																		
Roadway Excavation																			
2.11-1 Common Excavation	m^3																		
2.11-3 Unsuitable Materi. Excavation	m^3																		
2.11-5 Levelling+ Camber from CUT	m^3																		
2.11-6 Levelling+ Camber from BORR	m^3																		
Embankment Construction	m^3																		
Gravel Running Course	m^3																		
Plant Grass	m^2																		
Supporting	wd																		

Remarks:	Certifiedby:	Checked by:	Prepared by:	**Total Workdays:**	
				Male:	
	(DCTPC Engineer)	(Contractor's Engineer)		Female:	

MONTHLY PROGRESS REPORT					
ROAD CONSTRUCTION		**MONTH: DECEMBER 2006**			
HOMSOMBATH COMPANY		**Soukhuma - Mounlapamok Road** Contract No: **CS 0607 R14A - 01**			
Chainage and Length		**0+000 - 19+300**		**19.30 km**	
ACTIVITY	**Unit**	**Chainage**		**Quantity**	**WD**
		Start	**End**		
1.ROAD WORKS					
Surveying & Setting Out	m				
Site Clearance on Earthwork Sites					
2.02-1 Clearing Inclu. Topsoil 10cm	m^2				
2.02-2 Removal of Trees > 30cm	no				
Roadway Excavation					
2.11-1 Common Excavation	m^3				
2.11-3 Unsuitable Materi. Excavation	m^3				
2.11-5 Levelling+Camber from CUT	m^3				
2.11-6 Levelling+Camber from BORR	m^3				
Embankment Construction	m^3				
Gravel Running Course	m^3				
Plant Grass	m^2				
Supporting	wd				
Other	wd				
Sub-Total WD					
2.STRUCTURES					
Pipe Culverts					
Dia. 60cm - 1 row	m				
Dia. 80cm - 1 row	m				
Dia. 100cm - 1 row	m				
Dia. 100cm - 2 rows	m				
Inlet and Outlet structure-RC	m^3				
Box Culverts (W_mxH_m)					
2 x 1.5	m				
2 x 1.5 (double spans)	m				
Inlet and Outlet structure-RC	m^3				
Sub-Total WD					
TOTAL WORKDAYS					

Work Inspection Records

Contract No: Chainage: Date: Page:

Chainage	Earthworks					Drains (R/L)		Gravel Running Course				Culverts		Remarks
	Heigth	Width	Camber	Slope (R/L)	Level	Slope	Depth	Width	Thick	Camber	Level	RΦL	Other	

VOLUME OF EARTHWORKS AND GRAVEL RUNNING COURSE

Homsombath Company

Road Name: Soukhuma to Mounlapamok | Contract No: CS 0607 R14A- **01** | Chainage: 0+000 - 19+300 | Length: 19.30 km | Page of

Chainage	Dist.	Levelling and Camber Construction						Embankment Construction (*Borrow Materials*)		Clearing		Tree Cutting dia.>30cm	Removal of Unsuitable Materials		Plant Grass	Gravel Running Course
		Common Excavation (CUT)		Fill Required		Fill from CUT	Fill from BORROW									
	m	Area-m^2	Volu-m^3	Area-m^2	Volu-m^3	Volu-m^3	Volu-m^3	Area-m^2	Volu-m^3	Width-m	Area-m^2	no	Area-m^2	Volu-m^3	Area-m^2	Volu-m^3
Total this page																
Total previous page																
Cumulative total																

LIST OF STRUCTURES

Homsombath Company

Road Name: Soukhuma to Mounlapamok
Contract No: CS 0607 R14A- **01**
Chainage: 0+000 - 19+300
Length: 19.30 km
Page 01 of 01

Chainage	**Pipe Culvert Length - m**						**Box Culvert Length - m**		*** RCC Structure**	**Remarks**
	Dia. 60cm		Dia. 80cm		Dia. 100cm		(size = width, m x height, m			
	1row	2rows	1row	2rows	1row	2rows	2x1.5		m^3	
Total this page										
Total previous page										
Cumulative total										

PAYMENT BREAKDOWN

Company Name:

Road Name: | Contract N° : | Section: | Length: | Date:

		Bill of Quantities				Previous Payments		This Payment	
Item	**Description**	**Unit**	**Quantity**	**Rate,** kip	**Total Amount**	**Quantity**	**Amount,** kip	**Quantity**	**Amount,** kip
	I. GENERAL ITEMS								
1.01	Guarantees and Insurances								
	1.01-1 Performance Bond	sum							
	1.01-2 Insurance of works	sum							
	1.01-3 Insurance of Equipment	sum							
	1.01-4 Third Party Insurance	sum							
1.51	Contractor's Establishment	sum							
	Total General Items								
	II. ROAD WORKS								
2.02	Site Clearance on Earthwork Sites								
	2.02-1 Clearing Inclu. Topsoil 10cm	m^2							
	2.02-2 Removal of Trees > 30cm	no							
2.11	Roadway Excavation								
	2.11-1 Common Excavation	m^3							
	2.11-3 Unsuitable Materi. Excavation	m^3							
	2.11-5 Levelling+Camber from CUT	m^3							
	2.11-6 Levelling+Camber from BORR	m^3							
2.21	Embankment Construction	m^3							
3.21	Gravel Running Course	m^3							
5.11	Box culverts (W_mxH_m)								
	1.5 x 1.5	m							
	2.0 x 1.5	m							
	2.0 x 2	m							
	3.0 x 2	m							
	Inlet and out let structure-RC	m^3							
5.13	Pipe culverts								
	dia. 60 cm	m							
	dia. 80 cm	m							
	dia.100 cm	m							
	Inlet and out let structure-RC	m^3							
6.1	Plant Grass	m^2							
	Total Road Works								
	GRAND TOTAL								

Supervising Engineer's Signature | Contractor's Signature

Lao People's Democratic Republic
Department of Communication Transport Post and Construction of Champasack Province
Smallholder Development Project, Rural Road Component
ADB Loan No 1949 Lao (SF)

INTERIM PAYMENT CERTIFICATE FOR ROAD WORKS

Road Name : **Mounlapamok to Ban Verngnang** Contract N^{o} : **CS 0607 R14A - No 04**

Contractor : **State Enterprise for Irrigation Construction** Certificate N^{o}: **No 03**

Address : Ban Oudomsavanh, Pakse District, Champasack Province. Tel & Fax: 856 - 31 212 159

Commencement Date: Thursday, February 01, 2007 Completion Date: 30 June 2008

This is to certify that the road construction works as detailed in the attached Breakdown of Payments and refered to in the Bill of Quantities of the above mentioned Contract have been completed and accepted to the satisfaction of the Project in accordance with the terms and conditions of the Contract.

		Percentage Complet.	Amount, Kip
1-	Invoice Amount		
	Measured Works: (Same as Grand Total in Payment Breakdown)	11.2%	543,944,187.00
1a.	Less 10% Retention	(1)X0.10, kip	54,394,418.70
1b.	Repayment of Advance	kip	60,513,873.29
1c.	Other None (Specify)	kip	0.00
1d.	Amount Due:	(1)-(1a)-(1b)-(1c), kip	**429,035,895.01**

2- Detail of previous payments

a	b	c	d	e
Cert No	Date	% Complet	Amount, kip	Repayment of Avance, kip
1	04.09.2007	35%	1,423,614,672.29	200,795,096.41
2	10.03.2008	27.50%	1,053,992,076.57	148,661,554.23
3				
4				
5				
6				
Total Previous Payments			2,477,606,748.86	349,456,650.64

3-	Total Contract Value	kip	4,948,953,254.00
4-	Contract Balance	(3)-(1d)-(2d), kip	2,042,310,610.13

Works

Inspected by: _____ Date: _____
DPWT Engineer

Endorsed : _____ Date: _____
ILO TA

Approved : _____ Date: _____
Chief of Road and Bridge Office of DPWT

Lao People's Democratic Repuplic
Department of Communication Transport Post and Construction of Champasack Province
Smallholder Development Project, Rural Road Component
ADB Loan No 1949 Lao (SF)

COMPLETION CERTIFICATE

Road Name: **Mounlapamok to Ban Verngnang** Contract N°: **CS 0607 R14A - No 04**
Contractor: **State Enterprise for Irrigation Construction** Certificate N°: **No**
Address :

This is to certify that the road construction works at the above mentioned road and as specified in the Contract and refered to in detail in the Bill of Quantities have been completed and accepted to the satisfaction of the Project in accordance with the terms and conditions of the contract.
It is hereby advised that payment is made to the Contractor as follows:

			Amount, kip
1-	Remaining Payment of Works:	(Same as Grand Total in Payment Breakdown)	
1a	Less 10% Retention	(1)x0.10, kip	
1b	Less Deductions: (Specify)		
1c	Balance of Remaining Payments:	(1)-(1a)-(1b), kip	

2- Details of previous payments:

Cert N°	Date	% Completion	Total Payments, kip	Total Retention Monies, kip
a	**b**	**c**	**d**	**e**
1				
2				
3				
4				
5				
6				
Total				

3-	Total Retention Monies	(1a)+(2e)	
4-	Return of 5% Retention	(3)/2	
5-	Total Amount Due:	(1c)+(4), kip	
6-	Total Contract Value	kip	
9-	Balance Due after Defects Liability Period	kip	

Works Inspected by: _____ Date: _____
DPWT / SHDP Engineer

Endorsed : _____ Date: _____
DPWT Engineer

Approved : _____ Date: _____
DPWT Chief of Road and Bridge Office

Lao People's Democratic Republic
Department of Communication Transport Post and Construction of Champasack Province
Smallholder Development Project, Rural Road Component
ADB Loan No 1949 Lao (SF)

DEFECTS LIABILITY CERTIFICATE

Road Name: **Mounlapamok to Ban Verngnang** Contract N^{o}: **CS 0607 R14A - No 04**

Contractor : **State Enterprise For Irrigation Construction** Certificate N^{o}: **No**

Address : _____

This is to certify that the construction of road works at the above mentioned road and as specified in the Contract, have been fully completed and accepted to the satisfaction of the Project after inspection following the Defects Liability Period in accordance with the terms and conditons of the Contract.

It is hereby advised that payment is made to the Contractor for the remaining retention monies, comprising 5% of the Contract value, calculated as follows:

1- Remaining Retention Monies Withheld: kip _____

2- Deductions: _____ kip _____
(specify)

3- **Total Amount Due:** _____

4- Date of Practical Completion: _____

5- Date of End of Defects Liability Period: _____

Works
Inspected by: _____ Date: _____
DPWT / SHDP Engineer

Endorsed : _____ Date: _____
DPWT Engineer

Approved : _____ Date: _____
DPWT Chief of Road and Bridge Office

CONTRACT RECORD

Name and Address of Contractor: **State Enterprise for Irrigation Construction**. Ban Oudomsavanh, Pakse District, Champasack Province, Lao PDR. Tel: 856 - 31 212 159

Contract Date: 6 November 2006

Contract Value: kip **4,948,953,254.00**

Contract Reference Number: **CS 0607 R14A - No 04**

Date Started: 1 February 2007

Advance: **kip 440,457,440.00**

Date of Completion: 30 June 2008

Reference		Category	Invoice	Progress Payment, kip				Advances	Retention	Posted to
Date	Cert. No	(including code of civil works)	Amount, kip	Date	Paid by	Amount	Contract Balance	on Payment	on Payment	G/L Y/N
04.09.08	1	Road works	1,804,899,743.00		ADB	1,423,614,672.29	3,525,338,581.71	200,795,096.41	180,489,974.30	
10.03.08	2	Road works	1,336,281,812.00		ADB	1,053,992,076.57	2,471,346,505.14	148,661,554.23	133,628,181.20	
09.08.08	3	Road works	543,944,187.00		ADB	429,035,895.01	2,042,310,610.13	60,513,873.29	54,394,418.70	
TOTAL			3,685,125,742.00			2,906,642,643.87		409,970,523.93	368,512,574.20	