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**ENGINEERING SERVICES FOR RURAL ROADS  
REHABILITATION (ES3R)  
CONTRACT NO: EDH-I-00-08-00023  
MONTHLY PROGRESS REPORT – APRIL 2014**

10 MAY 2014

# ENGINEERING SERVICES FOR RURAL ROAD REHABILITATION (ES3R) CONTRACT NO. EDH-I-00-08-00023

## MONTHLY PROGRESS REPORT

### APRIL 2014

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10 May 2014

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government. This report was prepared for the U.S. Agency for International Development. It was prepared by CDM International, Engineering Services Rural Roads Rehabilitation (ES3R)

# Acronyms

A & E	Architect and Engineer
BoQ	Bills of Quantity
COP	Chief of Party
COR	Contracting Officer Representative
EA	Environmental Assessment
EMMP	Environmental Mitigation and Monitoring Plan
ES	Environmental Specialist
ESMMP	Environmental & Social Mitigation & Monitoring Plan
ES3R	Engineering Services for Rural Roads Rehabilitation
ETL	Engineering Team Leader
FED	Food and Enterprise Development
FTF	Feed the Future
FTL	Field Team Leader
F2M	Farm to Market
F2MRR	Farm to Market Road Rehabilitation
GIS	Geographic Information System
GOL	Government of Liberia
LESSP	Liberia Energy Sector Support Project
LMWP	Liberia Municipal Water Project
MOF	Ministry of Finance
MPEA	Ministry of Planning and Economic Affairs
MPW	Ministry of Public Works
OCA	Organizational Capacity Assessment
PEA	Programmatic Environmental Assessment
PIRS	Performance Indicator Results Sheet
RE	Resident Engineer
SI	Site Inspector
USAID	United States Agency for International Development

# ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

## MONTHLY PROGRESS REPORT APRIL 2014

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# 1. SUMMARY PROJECT DESCRIPTION

## 1.1 Introduction

The U. S. Agency for International Development's (USAID) 'Engineering Services for Rural Roads Rehabilitation (ES3R)' was awarded to Camp Dresser McKee International (CDM) under the following USAID contract number: EDH-I-00-08-00023 and task order AID-669-TO-13-00002 which records the period of performance as 8 October 2013 to 20 October 2015.

Liberia's Farm to Market Rural Roads (F2MRR) activity is allied to the objectives of the Feed the Future (FTF) initiative, which is a U.S. government initiative, which aims to address the root causes of global hunger by sustainably increasing agricultural productivity. F2MRR will provide infrastructure investment in the rehabilitation of rural farm-to-market roads to support the following:

- USAID /Liberia FTF program Food and Enterprise Development (FED),
- Capacity development for routine maintenance systems within the Government of Liberia (GOL),
- Capacity development of Ministry of Public Works (MPW) rural roads engineers and local A & E firms,
- Development of alternative low volume road pavement pilot projects, standards and design specifications.

## **1.2 Objectives**

Within F2MRR, ES3R will be an implementing mechanism which will undertake the following objectives:

### **Objective 1:**

Provide construction oversight for three (3) local contracts for the rehabilitation of a total of 83.5 kilometers farm-to-market roads in Bong, Lofa, and Nimba counties from 2013 to 2015.

### **Objective 2:**

Produce engineering designs and construction documents for the 450 kilometers farm-to-market roads in Bong, Lofa, Nimba, and Grand Bassa counties to be rehabilitated in 2015 to 2018.

### **Objective 3:**

Training and pre-qualification of five (5) local architect-engineer firms capable of providing oversight for road rehabilitation activities by 2015.

This monthly progress report presented in respect of the project, covers the period from 1 April 2014 to 1 May 2014, that being a slightly extended 'cut off' date which coincides with the completion of the field trip to the three counties. In addition, the report details the status and approach to project challenges and presents a work schedule for the forthcoming month.

## 2. APRIL 2014 OVERVIEW

### Preamble

During April 2014, the majority of logistical work was completed however the Monrovia office is still experiencing problems which are related to IT installations. In addition accommodation is still being finalized and fitted out at county locations.

### 2.1 April Highlights Summary

The table included hereafter provides a summary of the project highlights:

<b>APRIL 2014</b>		
<b>Date</b>	<b>Description</b>	<b>Comment</b>
1 Apr	Meetings with USAID on trip schedule	Meet in Ganta
1 Apr	Visit to Bahn – Payee road with Contractor	ETL & site staff
1 Apr	Site Progress Meeting with Contractor	Meeting on site
2 Apr	ES3R Ground Breaking by American Ambassador	Nimba Road, Payee
2 Apr	Depart for Gbarnga & visit potential office	Gbarnga
3 Apr	Site visit to Gbenquelleh – Janyea road	with Westwood
3 Apr	Site Progress Meeting with Contractor	Meeting on site
3 Apr	Depart for Voinjama	ETL
4 Apr	Site visit to Galamai road	Little work done
4 Apr	Site Progress Meeting with Contractor	Meeting in Voijama
4 Apr	Depart for Gbarnga	ETL
5 Apr	ES3R Meetings internal and with COR	Technical matters
5 Apr	Depart for Monrovia	ETL
7 Apr	Motorcycle source waiver requested	Request to USAID
8 Apr	Country Clearance/Travel request Karen Menczer	Enviro. Specialist
8 Apr	Country Clearance provided for Environmentalist	COR E-mail
9 Apr	Weekly Meeting with USAID	CDM Office
14 Apr	Resubmit motorcycle source waiver	Request by USAID
14 Apr	Commence Visit to Grand Bassa county	Meet with COR

15 Apr	Meeting with FED County Manager, Buchannan.	ETL, COR & FTL
15 Apr	Meeting with Development Superintendent, G B.	ETL, COR & FTL
15 Apr	Onward to Gbarnga via Monrovia	Gbangra overnight
16 Apr	ES3R Meetings internal and with COR	All field staff & COR
16 Apr	Training Program Financial submission (P Macy)	Submit to USAID
17 Apr	Return to Monrovia & county destinations	ETL
18 Apr	Quarterly Progress Report submitted to USAID	Quarterly Y1,Q2
21 Apr	Site Inspectors available for duty	SI's to ES3R office
22 Apr	Weekly Meeting with USAID	CDM Office
23 Apr	K. Menczer Arrival in Monrovia	Environmentalist
24 Apr	Contact with USAID EO / depart for Gbangra	COP & E Specialist
24 Apr	Approval for Motorcycle waiver received	From USAID
25 Apr	Arrive Voinjama, visit all site roads.	Visit site team
26 Apr	Discussion and Site Meeting with SSF	Meet at SSF office
27 Apr	Arrive Gbarnga, visit Tolomai - Palala Road, Bong.	Meet FTL for visit
27 Apr	Travel to Ganta, meet FTL	Internal discussions
28 Apr	COR and AEO meet ES3R team in Ganta	Early am meet
28 Apr	Visit all site roads, MPW RE/USAID & ES3R Team	Site Visits
29 Apr	Site meeting with 21 <sup>st</sup> Century	Meet in Ganta
30 Apr	Depart Ganta to Westwood site Gbenquelleh	ES3R & USAID
30 Apr	Visit two site roads from Gbenquelleh	Team & Westwood
1 May	Site meeting with Westwood	Meet in Gbangra
1 May	Depart Gbarnga, return to Monrovia	COP & E Specialist

In particular, there are specific items worthy of note, being specifically related to the progression of the objectives of the project, namely:

- Ground Breaking Ceremony for ES3R
- Field Visits to Counties Sites
- Project Deliverables and Documentation
- Environmental Specialist visit to Liberia

The aforementioned items will be elaborated in the following section.

## **2.2 Details of Highlights**

### **2.2.1 Ground Breaking Ceremony for ES3R**

The U. S. Ambassador, Deborah Malac, embarked on a visit to USAID projects in Nimba County which included the Groundbreaking Ceremony for Farm to Market Road Rehabilitation project which took place in Payee, Nimba County on 2 April 2014.

Those in attendance at the ceremony included the District Commissioner, Gbor District; Superintendent, Nimba County; Minister of Public Works, USAID Senior Officials, County and District Officials, ES3R contractor and consultant teams, in witness of a highly successful event.

A photograph of the ceremony is included in Annex A herein.

### **2.2.2 Field Visits to Counties Sites**

- **Field Visit 1 – 5 April 2014 (ETL Visit)**

1 April 2014: Nimba

- Discussions with Contractor regarding Ground Breaking,
- Site visit with USAID and Contractor to Payee to Bahn Road,
- Site progress meeting with Contractor at Bahn,
- Meeting with USAID on review of U.S. Ambassador schedule

2 April 2014: Nimba / Bong

- ETL and ES3R site team travel to Payee to Bahn Road,
- Attendance at F2MRR Ground Breaking Ceremony,
- Visit to potential office/accommodation in Gbarnga.

3 April 2014: Bong / Lofa

- Depart Gbarnga to Westwood Camp at Gbenquelleh,
- Site visit with USAID to Gbenquelleh to Janyea Road,
- Site progress meeting with Contractor at Gbenquelleh,

- Travel to Voinjama.

4 April 2014: Lofa /Bong

- Site visit with USAID to Galamai Road – little work done,
- Site progress meeting with SSF in Voinjama,
- Travel to Gbarnga.

5 April 2014: Bong / Monrovia

- ES3R Team meeting of FTL's / COR re: design matters,
- Discussions with COR regarding training program,
- Depart Gbarnga for return to Monrovia.

- **Field Visit 14 – 17 April 2014 (ETL visit)**

14 April 2014: Grand Bassa

- Visit to Buchannan, Grand Bassa – meet up with COR,
- Meeting with FED county manager,
- Meeting with Development Superintendent, Grand Bassa.
- It is identified that GB has more water crossings and the likelihood to encounter large bridges (> 10M clear span) on the F2M roads.

15 April 2014: Grand Bassa /Bong

- ETL travel to Gbarnga via Monrovia
- ES3R team inspects GB road link revealing 4 x 16M span bridges on a 20km stretch of road.

16 April 2014: Bong

- Meeting ES3R field staff with USAID COR,
- Preparation of resource list for detailed design stage,
- Review and report on progress of GIS training,
- Inventory and rapid condition surveys to be progressed as soon as practical,
- ES3R field team meeting – options discussed on possible achievement of 150Km of detail design in year 1.

- **Field Visit 24 April - 1 May 2014:** [COP & Enviro. Specialist (ES)]

24 April 2014: Bong

- Visit to Gbarnga en route to Lofa – meet Bong ES3R staff.

25 April 2014: Bong / Lofa

- Visit to Voinjama, initial discussions with FTL & RE,
- Site visits to all three F2M site roads with Contractor and ES3R field staff.

26 April 2014: Lofa

- Meeting with FTL & SSF reveals that only environmental meeting was expected by SSF and prepared – this was not acceptable and site meeting will proceed as scheduled,
- Site meeting with SSF at Voinjama office,
- Meeting and discussions with FTL and RE.

27 April 2014: Lofa / Bong / Nimba

- Return visit to Gbarnga and meet with FTL,
- Visit to Tolomai – Leleh – Palala Road particularly for identification of environmental related matters,
- Travel to Ganta – meet up with FTL.

28 April 2014: Nimba

- Meet up with USAID COR and AEO on arrival in Ganta,
- Site visit to all three F2M roads and Contractor's site camp with USAID, MPW RE, 21<sup>st</sup> Century CE and EO, ES3R staff,
- Numerous discussions on-site regarding workmanship and environmental related issues.

29 April 2014: Nimba

- Site meeting with 21<sup>st</sup> Century held in ES3R office, Ganta,
- Meet with FTL for ES3R internal discussions

30 April 2014: Nimba / Bong

- Travel to Gbenquelleh to meet ES3R & Westwood staff
- Site visits to roads from Gbenquelleh to both Janyea and to Duita – Molly’s Town.
- Numerous discussions on-site regarding workmanship and environmental related issues.

1 May 2014: Bong / Monrovia

- Site meeting with Westwood Contractors held in Gbarnga.
- COR, ES3R and Westwood finalize F2M road interventions.
- COP & ES return to Monrovia.

Field trip reports of all site visits are included in Annex B herein.

### **2.2.3 Project Deliverables and Documentation**

- **Motorcycle Source Waiver requested of USAID.**

The request was issued on 7 April 2014, to which a resubmittal was requested which was subsequently issued to USAID on 14 April. The approval was received by receipt of waiver from USAID on 24 April 2014.

- **Country Clearance /Travel Request for Environmental Specialist**

This clearance was requested by ES3R letter of 8 April 2014 and was provided by return e-mail of the same date by USAID COR.

- **Proposed USAID / ES3R Modification 2**

A letter in the subject of ‘Supporting Narrative and Summary Budget for Contract Modification due to enhanced A & E Capacity Building’ was issued by letter of Peter Macy, Vice President, CDM International Inc. on 16 April 2014. The letter was submitted in

support of the Pre-Qualification Report (draft) narrative which was issued to USAID on 31 March 2014.

- **Quarterly Progress Report**

The Quarterly Progress Report for Year 1, Quarter 2, was submitted to USAID on 18 April 2014.

- **Progress Meetings with USAID**

Progress meetings have been continued with USAID COR in Monrovia as and when appropriate, since it is often the case that meetings are scheduled in the field when the parties are involved in site visits.

Meetings were held at ES3R offices on 9 April and 23 April 2014.

#### **2.2.4 Environmental Specialist Visit to Liberia**

The nominated Environmental Specialist for the ES3R project, Karen Menczer, arrived in Monrovia on 23 April 2014 for the first scheduled visit to the project sites.

##### **Objectives**

During the period from 24 April to 1 May 2014, site visits to Lofa, Bong, and Nimba Counties were conducted in order to carry out the following objectives:

- Evaluate the environmental situation along each road segment,
- Conduct a rapid environmental assessment (EA), using the Programmatic Environmental Assessment (PEA) checklist, of proposed and ongoing road rehabilitation,
- Identify mitigation measures to minimize potential social and environmental impacts of road rehabilitation,

- Develop Environmental & Social Mitigation & Monitoring Plans (ESMMP) for each engineering contractor, for each set of road rehabilitation projects,
- Conduct environmental and social impact monitoring on road segments where work has begun, and,
- Meet with engineering contractors, in particular, the Environmental Managers, to discuss the ESMMP, monitoring outcomes, and proposed requirements for future monitoring and reporting (i.e., implementation of the ESMMPs).

### **Background**

Each contractor had submitted a draft Environmental Mitigation & Monitoring Plan (EMMP) to USAID as part of tender documents; each EMMP used a different format and none had been prepared in compliance with PEA requirements. Therefore, based on the rapid EA, the draft EMMPs, and the PEA requirements and PEA toolbox, the EMMPs were revised into ESMMPs and submitted to ES3R Field Team Leaders and the COP for review. Each ES3R FTL will then provide the ESMMP to the engineering contractor for review, and with any revisions, the engineering contractors will submit them to the USAID COR for review and approval.

### **Site Visits Undertaken & Outcomes**

#### **Lofa County Roads**

The three road segments were viewed. Work has begun along each (clearing, culvert installation), thus, along with conducting the rapid EA and developing an ESMMP, the first environmental & social monitoring exercise was conducted using the proposed ESMMP. The main environmental issues (see the Environmental & Social Mitigation & Monitoring Report -ESMMR- for details) are that

erosion control is not being used in areas where siltation into watercourses and wetlands are a concern; excavation material and material from site clearing have been placed in wetlands and watercourses; and an excavation pit where a box culvert will be installed has collected water and needs to be drained. Along the roads, several areas of ponding and inadequate drainage are noted in the ESMMR.

The SSF Environmental Manager was with the team during site visits at which all issues were discussed. In addition, the ESMMMP and ESMMR were further addressed during a follow-up site meeting.

### **Nimba County Roads**

Work has begun along all three road segments (clearing and culvert construction), thus as above, the first ESMMR was prepared based on the proposed ESMMMP. The main issues are an area of ponding/lack of alternative drainage provided during culvert installation; and that measures will need to be put in place to minimize environmental and social impacts at the newly constructed worker camp.

Also, we saw many piles of lumber along the roads. While timber harvesting has been taking place long before road rehabilitation began (according to those interviewed), it may increase since access to the area will be improved. Assessment and consideration of mitigation —if possible mitigation exists— should have been identified at the time of site selection; this is included as part of ES3R's current site selection process.

The 21<sup>st</sup> Century Environmental & Safety Manager was with the team during the site visits, and after the visits, the ES3R team and 21<sup>st</sup> Century (and USAID COR and assistant MEO) met to discuss findings.

## **Bong County Roads**

No work has begun yet on the Palala road. The other two roads have mostly been cleared and culvert installation has begun. The main issues are that material from site clearing and culvert installation has been placed in wetlands and watercourses. Many piles of wood were also seen along the roadsides of the two Gbenequelleh road segments. Westwood workers rent houses or rooms in villages along the roads, and at these, toilets and potable water may not be available. The engineering contractor will need to provide these for their workers.

### 3. PROJECT OBJECTIVES PROGRESS

#### 3.1 Objective 1 – Construction Oversight

The ES3R field staff in each of the counties has been almost totally engaged in construction overview related duties for the majority of the reporting month. This work has included the following:

- Quality assurance of the physical works
- Mentorship of the contractors
- Review of reporting submitted by contractors
- Review of incremental designs
- Verification of quantities of work undertaken
- Monitoring of HSE matters

Site visits which are detailed in Section 2.2.2 herein have been carried out during the month, at which progress has been monitored. The latest of these was during the last week of April 2014, from which the following progress statements are based.

Progress photographs are included in Annex A of this report

#### **Bong:**

Overall assessed percentage completion: 8%

General Progress Statements: (all roads total 49.1km)

#### **Gbenquelleh – Janyea Road: (10km)**

Clearing of Bush	100%
Earthworks	nominal
Culverts	Pipe installation & haunch near complete
	Inlet/outlet structures progress >50%

#### **Gbenquelleh – Molly Town Road: (9.2km)**

Clearing of Bush	>80%
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Earthworks	Cut to spoil undertaken
Culverts	Trench excavation & base in progress No pipe installation

**Tolomai – Palala Road:** (29.9km) Work has not yet commenced.

**QAC Observations:**

- Clearing operation is incomplete with much unacceptable dumping on roadside,
- Concrete quality particularly near structure bases needs improvement – evidence of honeycombing,
- Compaction of fill at culvert structures needs to be done in suitable layers with appropriate equipment,
- Some adjustment required to two culverts,
- Although work on Tolomai – Palala road has not commenced, Contractor responsible for maintaining to road, which should be inspected regularly – some log bridges are vulnerable.

**Nimba:**

Overall assessed percentage completion: 22%

General Progress Statements (all roads total 21km):

**Bahn – Kpayee – Zuolor – Payee Road (14.4km)**

**Dwonwea - Zuo Lapa Road (4.1km)**

**Duanpea Road (2.5km)**

Clearing of Bush	13 km
Grade and Shape	11.6 km
Culverts	17 lines in progress (32 total)
Borrow sources opened	3 No

**QAC Observations:**

- Attention required with quality control on concrete,
- Reinstatement of borrow sources needs to be planned,
- Contractor wishes to progress more drainage works,
- Rain has disrupted progress of works during month,
- Trees and debris needs clearing for completion.

**Lofa:**

Overall assessed percentage completion: 14%

General Progress Statements: (all roads total 13.6km)

**Galamai Road: (1.7km)**

Clearing of Bush	complete
Grade and Shape	nominal
Culverts	Excavation of 3 lines Pipe installation 4 lines Inlet / Outlets pending

**Bitijama Road: (3.6km)**

Clearing of Bush	complete
Grade and Shape	0.8 km
Culverts	Excavation of double cell box Pipe installation 4 lines Inlet / Outlets pending

**Barkedu – Jamulor – Moibadu Road: (8.3km)**

Clearing of Bush	7.3 km
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**QAC Observations:**

- General progress good in April compared to March,
- There is much natural insitu gravel material,
- An existing borrow source is open on Bitijama road which has not been touched by SSF,
- Attention needed for water diversion at culvert locations.

**3.2 Objective 2 – Design and Contract Documents**

ES3R field staff has devoted such time as practical to progress the process of road prioritization which has included the following general input for each of the three teams commencing in the latter half of the reporting month:

- Consultative meetings with county stakeholders,
- Identification of county development priorities,
- Meetings and discussions with FED county managers,
- Software installations as appropriate (QGIS etc.),
- Training on use of GIS equipment,
- Field visits to candidate road links,
- Rapid assessment and mapping road link identification.

The GIS data collection which is being advanced at present as a result of the above progress will provide a broader comprehension of the characteristics associated with road selection.

### **3.3 Objective 3 – Training (of A & E Firms) and Mentoring**

The revised Pre-Qualification Report (Draft) narrative which included more robust training and mentoring proposals as requested by USAID was submitted to USAID/Liberia at the end of March 2014.

The financial costs related to the revised proposals were submitted to USAID by CDM International Inc. by letter of 16 April 2014. These costs are presently under consideration by USAID/Liberia, from which advice has been received that the contract modification as requested by CDM International Inc. will require to be evaluated by USAID in Washington. Further advice regarding the status of the modification is awaited accordingly.

During the first half of April 2014 the ES3R field staff was involved in the mentoring of contractors' staff generally as follows:

- Detailed road surveys,
- Preparation of incremental designs,
- Setting out of the physical works,
- Applications of construction best practices.

The Field Team Leaders were involved in the mentoring of ES3R Resident Engineers, regarding the abovementioned subjects and in addition, the following items were generally covered:

- Field data collection from candidate roads,
- Analysis of field data,
- Cross drainage structures design,
- Exercising GIS applications,
- Environmental monitoring

## 4. PROJECT CHALLENGES

The following items have been encountered recently which are continuing and pose challenges to the ES3R team and project:

Challenge / Issue	Mitigation / Resolution
Recognition that 30% design has underestimated the cost of providing 'Basic Access'.	Contracts to be assessed as to any requirement for contract modification raising the contract price.
Client requests that contractors provide detailed design for all three road links in each contract at the earliest opportunity mainly due to CO leaving country in May 2014.	This is not a contract requirement and incremental design for road links to be constructed after the 2014 rains need to reflect any deterioration to roads as a result of the rainy season
ES3R field staff to continue with large input in mentoring / support of contractors.	Mentoring input has been reduced to reasonable level in order that progress on ES3R road survey and design component is not compromised.
On the basis that FTL's can limit mentoring time AND SI's are deployed on site, then more senior field team input will be available for survey, design and documentation.	FTL's will assess the mentoring position on site following deployment of SI's who have not been deployed on site as of the end of April 2014. Arrangements for SI site mobilization are underway.
Ebola outbreak in Liberia, particularly in Lofa County but also reported in the two other counties where ES3R staff are engaged.	Circulation of regular updates and recommendations of health agencies and firms. Ensure personal hygiene at all times and act on firm instructions of official authority.
The procurement of motorcycles has been somewhat protracted because of administrative issues in terms of payment and ownership.	The motorcycles are to be paid by sub contractor under his budget however, CDM is the duty free holder and has custodial ownership. Matter to be resolved in liaison with USAID.

## 5. OUTLINE SCHEDULE

### 5.1 Staff Availability

Each of the field teams is presently comprised of a FTL, RE and driver; the arrival on site of SI's being awaited as of the beginning of May 2014. It is administrative matters which have delayed the deployment of SI's to site which was expected to be undertaken during the reporting month. Contracts have been signed by the SI's and arrangements are in hand that they be mobilized to their respective sites as soon as possible during May 2014. This will complete the nucleus of the ES3R field teams which are expected to be joined by trainees from selected A & E firms as and when selection of the firms has been finalized by USAID.

### 5.2 Work Schedule for May 2014

The work schedule for field staff during May 2014 will follow the general guidelines of the 'Construction Overview Schedule' and the 'Field Design Schedule', both of which were first issued in the Year 1, Quarter 2 Report and which are included in Annex C of this report for ease of reference.

The prioritization tool will be presented to USAID/Liberia, MPW and other key stakeholders during mid-May 2014 for any comments. The weightings of the various items are required to be finalized prior to the final workshops being commenced in the counties which are expected to take place during the last week of May 2014, which will coincide with the proposed schedule of monthly site progress meetings.

The May 2014 design schedules are presented as a list of items which will be carried out on the particular objective during the month.

### **Objective 1 – Construction Oversight**

The items which will be actioned / progressed during May 2014 will be as follows:

- Deployment of SI's to respective sites (early month),
- Quality assurance inspection of physical works,
- Receipt and review of final Inception Reports,
- Receipt and review of incremental designs,
- Measurement of work done,
- Facilitation of monthly progress meeting,
- Monthly reporting.

### **Objective 2 – Design and Contract Documents**

The items which will be actioned / progressed during May 2014 will be as follows:

- Liaison with key stakeholders in counties,
- Candidate roads identification,
- Road inventory surveys,
- Rapid condition surveys,
- Consolidate and process GIS data,
- Preliminary cost estimates,
- Organization of county stakeholders meetings / workshops.

### **Objective 3 – Training (of A & E Firms) & Mentoring**

ES3R has submitted a revised Pre-Qualification Report which includes proposals for the following training components:

- Institutional Capacity Development Program
- Technical Training and Mentoring Program

ES3R will be in a position to proceed with the arrangements for these programs on notification from USAID / Liberia.

In terms of mentoring contractors, this will include the following:

- Finalization of reporting,
- Preparation and finalization of incremental designs,
- Application of construction best practices,
- Environmental monitoring processes.

The mentoring of RE staff will include the following:

- Identifying target F2M roads
- Intervention selection to achieve best results at economic cost,
- Preliminary cost estimates calculations,
- Construction overview – quality assurance,
- Use of automatic (dumpy) level,
- Conducting stakeholder meetings,
- Exercise in use of GIS training.

Similarly, SI's will be engaged in appropriate level of mentoring following site deployment and familiarity with site conditions.

# **ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)**

## **ANNEX A**

### **PROJECT PHOTOGRAPHS**



**F2MRR Ground Breaking Ceremony by U.S. Ambassador and the Hon Minister of Public Works at Payee, Nimba County, Liberia on 2 April 2014**



Bong: Gbenquelleh – Janyea Road: Opening Borrow Source



Bong: Gbenquelleh – Janyea Road: Culvert and Road Clearance



Bong: Gbenquelleh – Janyea Road: Road Clearance showing Boulder



Bong: Gbenquelleh – Molly Town Road: Road Clearance



Bong: Gbenquelleh to Molly Town Road: 'The Tree Stays'



Nimba: Palala – Bahn Road: Road Shape and Grade



Nimba: Duanpea Road: Culvert Construction



Nimba: Kpayee Road Junction: Tree cut, Culvert and Borrow Source in background



Nimba: Zuolor Road: Cleared and Shape in progress



Lofa: Barkedu – Molibadu Road: Clearing in progress



Lofa: Barkedu – Molibadu Road: Clearing in progress



Lofa: Bitijama Road: Cleared, Grade in progress



Lofa: Barkedu – Jamulor Road: Earthworks over short section



Lofa: Bitijama Road: Multiple box culvert set out across road



Lofa: Galamai Road: Culvert Backfill in progress

# **ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)**

## **ANNEX B**

### **TRIP REPORTS**

<b>Trip Report</b>				
<b>Depart</b>	31-Mar-14			
<b>return</b>	5-Apr-14			
		<b>Objectives</b>	<b>Outputs</b>	
<b>Objectives</b>	<b>1</b>	Site Progress Meeting Nimba	completed	
	<b>2</b>	Site progress Meeting Lofa	completed	
	<b>3</b>	Site Progress Meting Bong	completed	
	<b>4</b>	PMP reporting	completed	
	<b>5</b>	detailed design TOR	completed but TOR needs to be formulated	
	<b>6</b>	resources needed for detailed design	FTL requested to submit list	
	<b>7</b>	Prioritization brief	completed	
	<b>8</b>	resources needed for prioritization process	FTL requested to submit list	
	<b>9</b>	Monthly Reports including photographs	limited time to finalise. Res requested to follow up	
	<b>10</b>	3 month programme	ongoing discussions with COR regarding detailed design outputs	
	<b>11</b>	Accommodation/offices for ES3R	accomodtion/office locations identified in all three Counties. Lease discussions ongoing with Landlords	
<b>participants</b>	<b>1</b>	J. Clarke ETL, JC		
	<b>Trip Details</b>			

<b>date</b>	<b>key activities</b>		<b>Output</b>	<b>Action</b>
31-Mar				
	1	depart for Ganta		
	2	arrive Ganta		
Ganta				
1-Apr	1	Meeting with USAID regarding schedule		
	2	Depart for Payee - Gbahn Road		
	3	Discussions with 21st century regarding ambassador visit		
	4	Site visit G -P road	10km cleared and 7 km shaped - limited culvert installation	Minutes to follow
	5	Site Progress Meeting	issues related to payment of first invoice: COR and FTL discuss 'predicted' culvert installation be included in measurement	FTL to undertaken measurement with 21st century before fianlising design and IR
	6	Return to Ganta		
	7	Meeting with USAID on reviewed Ambassador visit schedule		
Night at Ganta				
2-Apr	1	Depart for Paye - Gbahn road		
	2	Ground breaking ceremony	Meeting with Minister of PW needs follow up in Monrovia	Contact Minister
	3	Depart for Gbarnga		
	4	Visit potential accom/office in gbarnga	RO to complete list of restoration works	
Night at Gbarnga				

3-Apr	1	depart for Gbenquelleh - Janyea road			
	2	Site visit G - Y road		10 km cleared but not shaped. Culvert installation is extensive - 20+ in the ground.	
	3	Site Progress Meeting	1	issues related to geometry of end structures on culverts	Minutes to follow
			2	COP agrees to pay for Site Clearance item as per spec not 'side brushing' as per contract BoQ	
	4	Depart for Voinjama			
Night at Voinjama					
4-Apr	1	depart for site visit to Galamai road		very little work undertaken in last month. Limited to clearing.	
	2	Site progress meeting with SSF		agreement that SSF's Bilal N will remain until 'road design' is complete	Minutes to follow
	3	Depart for Gbarnga			
night at Gbarnga					
5-Apr	1	meeting with FTL's from Nimba and Bong		Discussions on detailed Design specifically level of detail required - with COR	Resource list for detailed design to be compiled by each FTL and sent to HQ
	2	Discussion with COR on training Programme		COR indicates satisfaction with narrative	
	3	Depart for Monrovia			

Trip Report					
<b>Depart</b>	14-Apr-14				
<b>return</b>	17-Apr-14				
		<b>Objectives</b>		<b>Outputs</b>	
<b>Objectives</b>	<b>1</b>	Introduction with Grand Bassa County Stakeholders		completed	
	<b>2</b>	Discussion on sharing activities in Grand Bassa		completed	
	<b>3</b>	Coordination meeting with ES3R Fied Staff		completed	
<b>participants</b>	<b>1</b>	J. Clarke ETL, JC			
	<b>Trip Details</b>				
<b>date</b>	<b>key activities</b>			<b>Output</b>	<b>Action</b>
14-Apr					
	1	depart for Buchanan			
	2	arrive Buchanan			
	3	Meeting with FED County Manager			
	4	Meeting with Development Superintendent. Grand Bassa			
	5	Decision to hold coordination meeting Gbarnga		Field teams in Nimba and Bong to share GB workload	

Night at Buchanan	6	Decision to inspect typical road in Grand Bassa		COR requests support estimating unit rate for road improvement in Grand Bassa. GB has more water course crossings and more large bridges (>10m clear span). ES3R will encounter large bridge on roads in GB.	
15-Apr	1	Return to Monrovia			
	2	Pick up passports and allowances for Lofa and Nimba Field Teams		JC returned hotel receipts for Lofa team to Finance. Vincent returned hotel receipts for Nimba team to Finance	Need to formalise Head Office to Field Team money transaction
	3	Depart for Gbarnga			
	4	Arrive Gbarnga			
Night at Gbarnga					
16-Apr		meeting with all ES3R Field staff and COR			
	1	Meeting with FTLs and Res on resources required for Detailed Design		List prepared.	JC to refine and pass to COP
	4	Report on GIS progress from Lofa team		Progress is very impressive. Further training required for Lofa team	Jc to investigate status of GIS consultant contract
				Lofa team to export to Nimba and Bong	Lofa team to take lead role in managing GIS for ES3R
	3	Progress reports from Bong, Lofa and Nimba		Lofa stagnant. Bong stagnant. Inception Reports for 21st Century and Westwood still outstanding	
	4	Discussions with Nimba and Lofa FTL on how to cover Grand Bassa		Nimba and Bong to share GB	FT Bong and FT Nimba to visit GB 5th - 9th May (dates to be confirmed)

	5	Discussion on ES3R work program for 16 April - 15 May		all teams anticipated completion of within 4 weeks	County level workshops to be organised
	6	Discussion on impact of bridge design on target productivity		Survey on GB road link indentified 4 X 16m span bridges on 20km stretch	Since GB will receive approx 50 km of first 150 km batch we should assume minimum 8 large bridges need to be designed
				All teams concluded that large bridges (>10m clear span) lay outside their professional skill set.	
				All teams concluded that small bridge design and detailing would negatively impact target productivity	Include comment in Q2 report
	7	Discussion on mitigation for delay to Oct 14 deadline for 150km regarding bridges		option 1: roads with large bridges and included in top 150km be delayed until second submission due April 2015. Not favoured by COR	
				Option 2: Roads with large bridges be omitted altogether from prioritized list. This is not possible for GB. Not favoured by COR	
				Conclusion: wait until suvey is completed and review situation then when issue is quantified	Large bridge issue urgently requires resolution.
Night at Gbarnga	8	Date of next meeting		next field coordination meeting to be when JC returns to Liberia i.e. 6 - 9th may	
17-Apr	1	return to Monrovia			

Trip Report					
<b>Depart</b>	24-Apr-14				
<b>return</b>	1-May-14				
		<b>Objectives</b>		<b>Outputs</b>	
<b>Objectives</b>	<b>1</b>	Visit three counties for introduction of environmental specialist to field teams		completed	
	<b>2</b>	Carry out environmental checklist of each road link and assess mitigation procedures		completed	
	<b>3</b>	Attend monthly ES3R site meetings as scheduled with contractors		completed	
	<b>4</b>	Meet USAID COR and asst. environmental officer for liaison and joint visit		completed	
<b>Participants</b>	<b>1</b>	<b>H Shelmerdine; COP</b>			
	<b>2</b>	<b>K Menczer; Enviro specialist</b>			
	<b>Trip Details</b>				
<b>date</b>	<b>key activities</b>		<b>Output</b>		<b>Action</b>
24-Apr	1	Depart Monrovia ca. 12:00			
	2	Arrive Gbangra			
	3	Meet with Bong FTL & RE.		General discussion re: project & enviro.	
25-Apr	1	Drive to Voinjama			

	2	Meet with Lofa ES3R and SSF field team.	Site visits with FTL,RE, SSF PM, CE, & EO.	
	3	Site Visit to Galamai Road	Discuss works and enviro issues	SSF to provide proposals for dealing with enviro issues on site. KM to progress ESMMP.
	4	Site Visit to Bitijama Road	Discuss works and enviro issues	
	5	Site Visit to Barkedu - Jamulor - Moibadu Road	Discuss works and enviro issues	
26-Apr	1	Meeting with FTL	Contractor expects only enviro meeting	This is not acceptable since meeting has been arranged for 10 days. Meeting progressed as scheduled.
	2	Site Meeting with SSF (SSF key staff + FTL, RE, HS&KM)	SFF have not complied with numerous requirements of the contract	
			Liaison with QAC unacceptable	QAC requires work plan information
	3	Discussions with FTL & RE	Various internal	
27-Apr	1	Drive to Gbangra	Meet with FTL (Bong)	
	2	Site visit to Tolomai - Leleh - Palala Road	Enviro related inspection with FTL, KM.	
	3	Drive to Ganta	Meet with FTL (Nimba)	Discuss matters - Vehicle service.
28-Apr	1	Meet up with USAID COR	Schedule for road site visit	
	2	Site visit to Payee - Zuolor - Kpayee - Bahn Road	Site visit with USAID COR & AEO, MPWRE, 21st CE & EO ES3R FTL & RE.	Tipping, spreading, topsoil and other materials in or adjacent to wetlands is unacceptable - to be removed to suitable location.
	3	Site visit to Dwonwee - Zoe Luapa Road	ditto	
	4	Site visit to Duanpea Road	ditto	
	5	Return to Ganta		
29-Apr	1	Site Meeting with 21st Century	Attendees (as per site visit above)	QAC requires work plan information
				Concrete quality to be enhanced
	2	Meet with FTL	Internal matters	

30-Apr	1	Depart Ganta (early am)			
	2	Arrive Gbenquelleh		Meet ES3R staff & Westwood on site	
	3	Site visit to Gbenquelleh to Janyea Road		Site visits with USAID COR & AEO, Westwood & ES3R.	Tipping, spreading, topsoil and other materials in or adjacent to wetlands is unacceptable - to be removed to suitable location.
	4	Site visit to Gbenquelleh to Duita to Mollys Town Road			
	5	Drive to Gbangra			
1-May	1	Site Meeting with Westwood		Meeting held in Gbangra	Considering good plant availability the progress does not match up.
	2	Return to Monrovia		COP & Environmental Specialist	

**ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)**

**ANNEX C**

**WORK SCHEDULES**

**YEAR 1, QUARTER 3 (April – June 2014)**





