



Department of Agriculture

PHILIPPINE RURAL DEVELOPMENT PROJECT Mindanao Project Support Office

REQUEST FOR EXPRESSIONS OF INTEREST

Hiring of Resource Person/Short Term Individual Consultant for the Conduct of Training on Topographic Survey & Autocad Civil 3D Training

1. Introduction and Rationale

The Philippine Rural Development Project is a six (6) year project, jointly funded by the World Bank, the Department of Agriculture and the Local Government Units. The Project aims to establish a government platform for a modern, climate-smart, market oriented agri-fishery sector. Externally, it will focus on expanding market access and improving competitiveness. Internally, it aims to introduce reforms within the Department's bureaucracy.

The Project has four components – I-SUPPORT, I-PLAN, I-BUILD and I-REAP. The focus of this training is for the I-BUILD component in order to capacitate Engineers particularly on the design of roads, irrigation projects and other agri-infrastructure which is deemed essential for the Project.

The proposal on the Topographic Survey & Autocad Civil 3D Training is really a demand especially for the NPCO, PSO and RPCO Engineers involved in assuring the accuracy of documents during planning and design preparation of proposed subprojects. Civil 3D is an engineering software application used by engineers and other professionals to plan, design, and manage civil engineering projects. These projects fall under the three main categories of land development, water, and transportation projects; and can include construction area development, road engineering, river development, port construction, canals, dams, embankments, and many others.

Civil 3D is used to create three-dimensional (3D) models of land, water, or transportation features while maintaining dynamic relationships to source data such as grading objects, breaklines, contours, and corridors.

As an industry-leading building information modeling (BIM) solution, Civil 3D is well known in the civil engineering community and widely used on a variety of infrastructure projects both large and small.

The resource speaker for this activity will be sourced out since it requires highly trained Geodetic or Civil Engineer to lecture and present the concepts, procedures and techniques of using the Civil 3D software.

2. Objectives

The six - day activity aims to enhance knowledge and skills of participants in the preparation of plans and designs for PRDP subprojects using the Autocad Civil 3D software tool.

3. Expected Outputs

At the end of the training, the participants are expected to:

- a. Interpret raw data downloaded from Total Station and perform downloading of raw data to a computer to be used in the preparation of plans using the Autocad Civil 3D software;

- b. Create points, surfaces (with contours), alignments and cross-section using the Autocad Civil 3D software;
- c. Perform the setting of design criteria (design speed), super elevation and generate elements of curves;
- d. Compute cut or fill area and generate report of volume quantities; and
- e. Perform design of roads using the Autocad Civil 3D software.

4. Methodology

A. Interactive Lecture Discussion

This methodology is basically conducted to elicit discussion with the participants as it allows them to participate in discussions, clarify understanding, and raise questions. It also allows the participants to unload, eliminate or diminish anxieties about the topic being discussed. On the part of the resource speaker, it also allows him/her to assess if there is a “getting across” of the topic discussed.

B. Workshop/Plenary

This methodology allows the participants to harness the capabilities and experiences of the workgroup to complete a specified output. It also encourages open communication and induces team effort from the members of the group.

C. AV Materials/AV Aids

This method allows the topic presentations to be more interesting and easy to remember. For this training, the resource speakers will be using videos and power point presentations.

5. Indicative Program of Activities

(For 6 days on August 28-September 2, 2016, Day 1 is for Billeting)

Day 1(August 28, 2016) – PM

Billeting of Participants

Day 2(August 29, 2016) – AM-PM

1. Opening Preliminaries

- Invocation, Philippine National Anthem, DA Hymn
- Welcome Remarks and Introduction of Speaker

2. Topographic Survey

- Introduction
- Total station format/coding for topographic survey
- Hands-on/actual sample of topographic survey (NOTE: bring your total station equipment)
- Downloading Total station raw data to PC.
- Saving data in delimited format (.csv &.txt)

Day 3(August 30, 2016) – AM-PM

1. Familiarize Civil 3D user interface (ribbons, tabs and menu)

2. POINTS

- Importing total station raw data
- Editing
- Grouping points

3. SURFACE

- Create surface
- Add using point group
- Editing contours
- Annotation contour elevation

4. ALIGNMENT

- Create alignment
- Add alignment label
- Set design criteria (Design Speed)
- Compute Super elevation
- Add Offset/widening
- Create elements of curve

Day 4(August 31, 2016) – AM-PM

1. PROFILE

- Create profile view
- Designing

2. ASSEMBLY (*TYPICAL SECTION*)

- Create assembly

3. CORRIDOR

- Create corridor
- Setting corridor parameters

4. SAMPLE LINES

- Create sample lines

5. CROSS SECTION

- Create cross section
- Compute cut/fill area table
- Generate volume table report

Day 5(September 1, 2016) – AM-PM

1. WORKSHOP

- Application of Civil 3D in creating sample project from raw data given

2. OPEN FORUM

Day 6(September 2, 2016) – AM

1. CLOSING REMARKS

2. DEPARTURE OF PARTICIPANTS

6. Logistics and Administrative Requirements

The Resource Person/Short Term Individual Consultant shall provide his/her own computer unit, supplies and materials he/she will need/require for the duration of the engagement. He or she will also provide the PRDP an electronic copy of his presentation materials as ready reference of the participants while PRDP shall shoulder the ff:

- Food and accommodation of the support staff, participants and Resource Person/Short Term Individual Consultant

7. Skills and Educational Qualification Requirements

The Resource Person/Short Term Consultant's qualifications will be the following:

- A Licensed Geodetic or Civil Engineer, with at least 5 years of work experience in a Planning and Design Division Unit/Division;
- Has related experience in working with the LGUs, DA-RFUs, and other government agencies;
- Has in depth knowledge of Topographic Survey and Road Design;
- Has conducted Training on the Preparation of Detailed Engineering Design using Autocad Civil 3D software;
- Has attended various trainings or seminars in the preparation of Detailed Engineering Design for Roads using computer softwares such as Autocad Civil 3D;
- Must be computer literate particularly in word processing, spreadsheets and power point;
- Proficient in writing, editing and communication skills.

8. Duration of Engagement

The Resource Person/Short Term Consultant will be given 5 days to provide the above designed sessions/program of activities during the training from August 29 to September 2, 2016.

9. Resource Person/Short Term Consultant's Procurement and Costs

Procurement of the Resource Person/Short Term Consultant shall be in accordance to the WB Procurement Guidelines harmonized with RA 9184.

The cost of Php **150,000.00** includes honorarium, management and course development presentation fees, materials and consumables, overtime and other incidental expenses incurred for the duration of the engagement shall be paid to the selected Resource Person/short Term Consultant.

Only applications received on or before August 11, 2016 at 10:00 AM will be considered.

Please submit Letter of intent, Comprehensive CV, Relevant certificates and credentials to the address below or email to prdp.psomin@gmail.com. Kindly indicate the position that you are applying for as the subject.

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