



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
CENTRAL OFFICE
Manila

097.13 DPWH

06-06-2023

JUN 05 2023

DEPARTMENT ORDER)
NO. 56)
Series of 2023)


At 6/6/2023

**SUBJECT : Revised Guidelines for the
Registration, Calibration, and
Monitoring of Engineering Survey
Equipment of DPWH Implementing
Offices and Accreditation of
Authorized Service Centers**

To further improve and ensure the reliability and accuracy of data from the engineering survey equipment used in all DPWH Infrastructure projects, the following provisions are hereby prescribed to ensure strict compliance of all Implementing Offices in securing the calibration and registration certificate of all surveying equipment in their respective offices, to wit:

1. Only engineering survey equipment with a valid Calibration Certificate shall be used in DPWH projects.
2. Registration, calibration, and monitoring shall follow the guidelines, including the accreditation of the authorized service centers set in "**Annex A**", Guidelines for the Registration, Calibration, and Monitoring of Engineering Survey Equipment for DPWH Infrastructure Projects and Accreditation of Authorized Service Centers, for the schedule of specific equipment.
3. Consultants and contractors involved in the engineering surveys of DPWH infrastructure projects shall also ensure that all engineering survey equipment mentioned in Annex A Part II.2 and used in the project are duly calibrated and registered with the Department of Environment and Natural Resources-Land Management Bureau (DENR-LMB).
4. Regional and District Engineering Offices shall submit an annual inventory of survey equipment to the Bureau of Design before the end of every year using the format in "**Annex B**". Failure to submit or submitting incomplete/inaccurate reports will result in one (1) year penalty of non-approval of Purchase Request of surveying equipment.

This Order shall supersede D.O. 12, Series of 2020, and shall take effect immediately.


MANUEL M. BONOAN
Secretary

Encl: As-stated

4.1 DLB/RPBG/MLC

Department of Public Works and Highways
Office of the Secretary



WIN3R01595

"ANNEX A"

**GUIDELINES FOR THE REGISTRATION, CALIBRATION, AND MONITORING OF
ENGINEERING SURVEY EQUIPMENT FOR DPWH INFRASTRUCTURE PROJECTS
AND ACCREDITATION OF AUTHORIZED SERVICE CENTERS**

Definition of Terms

Engineering Survey Equipment	All equipment used for engineering survey works such as Total Station, Digital Level, Auto-level, Global Navigation Satellite System (GNSS) Equipment, 3D Laser Scanner, Mobile scanner, and the likes
Authorized Service Center (ASC)	The Bureau of Design (BOD) duly accredited Service Center that conducts repairs and calibration of engineering survey equipment

PART A – REGISTRATION, CALIBRATION, AND MONITORING

I. Registration

1. Instruments utilized for land surveys shall be examined, tested/calibrated, standardized, and registered according to the Department of Environment and Natural Resources (DENR) Administrative Order (DAO) No. 2007-29, "Revised Regulation on Land Surveys," or its latest issuances.
2. The following survey equipment shall be registered with the DENR-Land Management Bureau (LMB):
 - a. Electronic Total Station (ETS)
 - b. Levelling Instrument (Digital and Automatic)
 - c. Electronic Distance Meter (EDM) @ meas. range of 1000m Min.
 - d. GNSS Receivers
 - e. Unmanned Aerial Vehicle/System (UAV/UAS)/Survey Drone
3. Unmanned Aerial Vehicle/System (UAV/UAS) or Remotely Piloted Aircraft (RPA) for surveying, inspection, monitoring and documentation purposes shall also be registered with the BOD for inventory and monitoring purposes. A Certificate of Registration shall be issued which bears the "Department's Registration tag" (see **"Annex A.1"**).
4. Newly procured Engineering Survey Equipment shall be initially registered and have a Certificate of Instrument Registration (CIR) issued by the DENR-LMB before delivery.
5. Existing Engineering Survey Equipment of Implementing Offices (IOs) with no CIR shall be registered upon the availability of funds.

II. Calibration

1. IOs shall ensure that all utilized survey equipment have a valid Certificate of Calibration before using it in any infrastructure projects.
2. Calibration shall be regularly conducted as indicated in the Certificate of Calibration of the Engineering Survey Equipment from any ASC.
3. Utilized equipment without a valid Certificate of Calibration nullifies or voids gathered data from the survey.
4. IOs shall ensure that budget for equipment calibration is funded regularly.
5. If the equipment was not calibrated, an Office Order shall be issued informing that the equipment shall not be used in the project, and the equipment shall be marked with a sticker as shown in "**Annex A.2.1**".
6. Calibrated Engineering Survey Equipment shall be stamped/tagged with a calibration sticker indicating the unique identification number, date of calibration and expiration, and other relevant information. The standard format for the sticker is shown in "**Annex A.2.2**". The ASC shall stamp the sticker with a controlled number monitored by the BOD.

III. Monitoring

1. IOs shall designate a Focal Person (FP) to monitor the status and schedule of calibration of the engineering survey equipment.
2. The BOD, through the Surveys and Investigation Division, shall designate a focal person to coordinate with the FPs from the Regional Offices (ROs) and Bureaus/Services with Engineering Survey Equipment to consolidate the status, schedule of calibration, and other relevant/required information of the equipment.
3. BOD shall establish an engineering survey equipment database that contains the information of all relevant engineering survey equipment of the Department.
4. The RO FP, in coordination with the District Engineering Office FP, shall consolidate the status of the Engineering Survey Equipment and submit to the BOD on the 15th of January of every year. The FPs shall ensure that all information are complete before submission.
5. The Engineering Survey Equipment and Calibration Monitoring Schedule form is presented as "**Annex A.3**".

PART B – ACCREDITATION OF AUTHORIZED SERVICE CENTERS

I. Scope and Application

This document prescribed the rules and regulations governing the accreditation of ASC for engineering survey equipment that can perform the calibration of engineering survey equipment for the Department of Public Works and Highways.

II. Responsibility of Bureau of Design (BOD) in Accreditation

1. Grant accreditation certificate to applicant Service Centers capable of conducting services and calibration of engineering survey equipment based on these guidelines.
2. Assess the applicant Service Centers as to their compliance with the guidelines.
3. The BOD, at any period, reserves the right to:
 - a. Revise the requirements of the accreditation of Service Centers
 - b. Reconsider, after due notice, the status of accreditation of Service Centers due to changes/additions in the requirements of personnel, equipment, or systems.
4. Prepare the directory ASCs, for the information of all DPWH Implementing offices.
5. Notify ASC of any intended changes/adjustments to its procedures.
6. Collect accreditation fees per the rules and regulations on fees.

III. Application for the Certification for Accreditation

1. The application for accreditation of Service Centers shall be accomplished on a prescribed form set by the BOD, with a non-refundable fee of Php 1,000.00. Said accreditation shall be filed with the BOD.
2. The applicant Service Center's duly authorized representative shall make available to the BOD, all the data and information as may be required in connection with the processing of the application for accreditation or its assessment of its competence during the renewal.
3. Once a certificate of Accreditation is issued, it shall be valid for two (2) years and renewable every other year upon application.

IV. Grounds for Denied Application or Cancellation of Registration

Any certificate granted under the provisions of these guidelines shall be revoked or canceled, upon due notice, on the following grounds:

1. The certificate holder fails to comply with the terms and conditions provided in these guidelines.
2. Non-renewal of required legal documents.
3. Submitted misrepresentation or fake/tampered legal documents to the accreditation office.
4. Non-submission of the required documents to the accreditation office.

V. Organization Requirements of the Accredited Service Centers

1. Be legally identifiable.
2. Have an organizational structure, including a quality system that enables it to maintain the capability to perform the technical functions for which the accreditation is granted.
3. Be able to demonstrate, upon request, from the persons assessing its competence that it is capable of performing the tests of those for which it is seeking accreditation.
4. Be legally organized so as not to subject staff members to undue pressure or inducement that might affect their judgment or work results.
5. Be structurally organized so that each staff member is aware of both the extent and the limitations of his area of responsibility.
6. Have a technical manager who has overall responsibility for the technical operations of the Service Center.
7. Have security rules and measures to protect proprietary rights and confidential information.
8. Quality System
 - a. The Service Center shall have a documented process flow to be submitted to the BOD.
 - b. The quality manual shall contain but is not limited to the following information:
 - i. Business Registration or Certificate of Incorporation
 - ii. Business Permits
 - iii. Business Tax Registration
 - iv. Organization Chart
 - v. List of Equipment for Repair and Calibration
 - vi. Curriculum Vitae of its management and technical staff
 - vii. Calibration Workflow Diagram
 - viii. Photos of the laboratory and its premises
 - ix. Certificate of Accreditation (after accreditation)

9. The Service Center shall operate an internal quality assurance program to the type, range, and volume of work performed. The quality program shall be documented in the quality manual, which is available for use by the Service Center staff. A responsible service center member shall maintain and update the quality manual.

10. Technical Staff

The technical staff shall have the necessary education, training, technical knowledge, and experience for their assigned functions.

11. Environment

The repair and calibration premises shall be protected from excessive temperature, dust, moisture, vibration, electromagnetic disturbance, and interference.

Outdoor areas for calibration checks and measurements shall also be free from magnetic interference, distortion, and disturbances.

12. Records

All testing and calibration reports shall have designated numbers accountable to the Service Center and following the standard format defined by the BOD to the center.

The original calibration certificate shall be issued to the requesting office after completion of its calibration testing. A copy of the said certificate shall be submitted to the BOD thru its online calibration reporting system.

"ANNEX A.1"

SAMPLE


DPWH-QMSP-42-12-Rev00	
 <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> DPWH </div>	BUREAU OF DESIGN <u>CERTIFICATE OF REGISTRATION</u>
CERTIFICATE NO.	: 2020-0024
REGISTERING OFFICE	: Batangas 3rd District Engineering Office
PROPERTY NO.	: 106051140-00-C19TSE007
SERIAL NO.	: 0AXCF220B30718
BRAND AND MODEL	: DJI Drone Camera Phantom 4 Pro
DATE OF REGISTRATION	: October 06, 2020


TABLE GUIDE FORMAT

		DPWH-QMSP-42-12-Rev00		{ Tahoma Size 8 Logo Size 0.5" x 0.5" { Tahoma Size 10, B, <u>U</u> { Tahoma Size 8 Table Border 1 ½ pt width
	DPWH Size 13, B	BUREAU OF DESIGN		
		<u>CERTIFICATE OF REGISTRATION</u>		
CERTIFICATE NO.	:	2020-0024		{
REGISTERING OFFICE	:	Batangas 3rd District Engineering Office		
PROPERTY NO.	:	106051140-00-C19TSE007		
SERIAL NO.	:	0AXCF220B30718		
BRAND AND MODEL	:	DJI Drone Camera Phantom 4 Pro		
DATE OF REGISTRATION	:	October 06, 2020		}

← 1.6" →
← .1" →
← 3" →

"ANNEX A.2"

DPWH-QMSP-42-13-Rev00




NON-CALIBRATED

Equipment Type: _____
Serial Number: _____
Remarks: _____

DO NOT USE

Annex A.2.1

DPWH-QMSP-42-14-Rev00



CALIBRATION

Equipment Type: _____
Serial Number: _____
Calibrated by: _____ Date: _____
Next Due Call: _____

Annex A.2.2

"ANNEX A.3"

DPWH-QMSP-42-15-Rev00

Engineering Survey Equipment Calibration Monitoring Schedule

ARTICLE	DESCRIPTION	Qty.	PROPERTY NUMBER	SERIAL NUMBER	DATE OF DELIVERY	UNIT VALUE	CALIBRATION SERVICE CERTIFICATE		NEXT CALIBRATION SCHEDULE	REMARKS
							DATE OF ISSUANCE	EXPIRATION DATE		

Prepared by:

Checked by:

Approved by:

Engineering Assistant I

Engr. II/Engr. III

Chief, Survey and Investigation Division

INVENTORY OF SURVEYING AND DESIGN EQUIPMENT OF (Implementing Office)

As of December 31, 20xx

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