

# Guide for Geodetic Engineering Services Fees



**GEODETIC ENGINEERS OF THE  
PHILIPPINES, INC.**

Prepared by:

**COMMITTEE ON PROFESSIONAL  
STANDARDS AND PRACTICE**

Ratified by:

**NATIONAL BOARD OF GOVERNORS**



## GEODETIC ENGINEERS OF THE PHILIPPINES, INC.

The Guide for Geodetic Engineering Services Fees may be varied from time to time by direction of the National Board of Governors.

Any queries regarding this Guide should be made to the Committee on Professional Standard and Practice, Geodetic of the Philippines, Inc.

Contact details below.

**The Committee Chairperson**  
Committee on Professional Standard and Practice

**Geodetic of the Philippines, Inc (GEPI)**  
43 Mariveles, Sta Teresita Sta Mesa Heights,  
Lungsod Quezon, 1114 Kalakhang Maynila, Philippines

Phone: +63 2 8353 6549

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## PART A – GENERAL

### Section 1: Introduction

This Guide shall provide proper interpretation and use of the professional fees referred as Geodetic Engineering Services Fees (GES Fees) for the services rendered by a geodetic engineer in private practice.

Republic Act 9184 (Government Procurement Reform Act) identified the services rendered by a Geodetic Engineer under the scope of Consulting Services. Types of services are indicated/listed in the IRR-A Annex "B" of RA 9184 which are one of the references used in formulating this Guide.

This Guide is designed to provide a fair and reasonable remuneration for the professional services rendered by geodetic engineers in private practice at applicable rates.

Determination of a proper fee does however require an individual assessment in each case, having regard to the degree of skill required, the urgency of work and the responsibility accepted by the geodetic engineer. Fees charged in all cases should not be less than a charge at hourly rates.

It is important to recognise that work should be undertaken at the appropriate staff level having due regard to the responsibility required for the purpose of each particular part of projects undertaken. There is an overall obligation to ensure that charges are in keeping with class and value of work performed.

The schedules included in this Guide are based on standard minimum requirements to satisfy the applicable scope.

### Section 2: Objectives

The main objective of this Guide is to provide an objective interpretation and proper use of the GES Fees. Specifically, the Guide aims to:

- a. Explain the use of the GES Fees;
- b. Provide a pre-computed reference rates for various Geodetic Engineering Services; and
- c. Be the basis of government and private institutions in budgeting, hiring and paying the Services of a Geodetic Engineer;

### Section 3: References and Legal Bases

The manual shall have the following references and legal bases:

- a. Republic Act 8560 as amended by Republic Act 9200 or the Philippine Geodetic Engineering Act of 1998 and its Implementing Rules and Regulations;
- b. GEP-NCR Board of Directors Resolution No. 12 series of 2015 – Resolution for the Creation of GEP-NCR Geodetic Engineering Services (GES) Rates for CY 2015-2016 and Prescribing the Corresponding Policy Manual and Guidelines of its Implementation (includes Annex A - Summary of GEP-NCR Geodetic Engineering Services Rates CY 2015-2016 & Annex B - Policy Manual and Guidelines on the use of the Rates of Professional Fees in Respect of Services Rendered by a Geodetic Engineer in Private Practice) dated 11 April 2015;
- c. DENR Memorandum Circular 2010-13 - Manual on Land Survey Procedures;
- d. Handbook on Philippine Government Procurement 8th Edition;
- e. GPPB Generic Procurement Manual Volume 4 - Procurement of Consulting Services;
- f. National Budget Circular No. 575 – Implementation of the Fourth Tranche Compensation Adjustment for Civilian Personnel in the National Government dated 25 March 2019;
- g. SB 200 – An Act Modifying the Salary for Civilian Government Personnel;
- h. Department of Budget and Management's Budget Circular No. 2018-4 – Index of Occupational Services, Occupational Groups, Classes and Salary Grades (IOS) dated 16 October 2018
- i. DBM Budget Circular 2007-1 or Guidelines on the Grant of Honoraria to Lecturers, Resource Persons, Coordinators and Facilitators

### Section 4: Professional Ethics

The professional attitude of a Geodetic Engineer to clients, fellow consultants, the public interest and to all aspects of work shall be in accordance with the Codes of Ethics and Practice and shall be compatible with the standards of integrity and independence of the profession.

## Section 5: Scope of Work and Contract of Service

It is recommended that a clear definition of the scope of work to be undertaken, including deliverables output, and the Contract of Service, including payment terms, be established for all projects prior to commencement.

## Section 6: Partial Services

Where a Geodetic Engineer (GE) is engaged for a partial service only, or the GE's services are terminated or the project is abandoned or deferred, it is suggested that the charge for that portion of the work completed be at a pro-rata rate of the appropriate schedule, or on a time basis.

## Section 7: Settlement of Disputes

Should a dispute arise between a Geodetic Engineer and a client, it may be referred by one or both parties to the GEP Committee on Ethics and Grievances of GEP and/or the PRC Professional Regulatory Board of Geodetic Engineers.

## PART B – CHARGING OF FEES

### Section 8: Definition

The terms used in Part B shall be defined as follows:

- a. **Job Level** – are used by many organizations to help managers manage the compensation of new employees and establish appropriate pay increases for existing employees while maintaining equity among the jobs in the company (source: <https://www.speedeeo.com/Library/BasicsofSalaryGrades.pdf>). It also refers to the pay scale or compensation package as indicated in Executive Order No. 76 of the Philippine Government and implemented by National Budget Circular No. 575 of the Department of Budget and Management (DBM)
- b. **Level/Position** – refers to the employment title base on the appropriated salary grade and responsibility/term of reference. (i.e. Entry to Management levels and Administrative to Professional Positions)
- c. **Monthly Rate** – refers to the base salary or amount of compensation on a monthly or 28 days basis. This does not include SSS, Philhealth, PAGIBIG, Paid Vacation Leaves/Sick Leaves, Overtime pay, and other Benefits allowed by law.
- d. **NEDA Multiplier or Billing Factor** – refers to the sum total of the basic salary, overhead, social charges and management fee as percentage of basic salary as defined by Section 6.4.2 of the Implementing Rules and Regulations on the Procurement of Consulting Services for Government Projects approved by the NEDA Board on 07 October 1998 which further states that "... The multiplier normally ranges from 2.0 to 3.0 for the technical personnel, and shall not exceed 1.8 for the administrative personnel directly hired for the project".
- e. **Billing Rate (Daily Rate)** – refers to the Monthly Rate divided 28 days, multiplied by the assigned NEDA Multiplier. Used for Field or Project based Personnel.
- f. **Hourly Rate Billing** – refers to the hourly charge for services rendered by a Field or Project based Personnel. To compute *divide the Billing Rate by 8 hours*.
- g. **Overtime or Out of Hours Work** – refers to the number of hours work rendered outside the normal work hours of 8. This includes public holidays and rest days such as Saturdays & Sundays.
- h. **Allowance** – refers to daily remuneration on top of Billing Rate or Project Allowance.

- i. Survey Party** – refers to a team compose of a Geodetic Engineer/ Instrument man, two (2) Survey Aides and/or Laborer/s
- j. Travel Cost** – refers to actual expenses or cost of travel in either land, air or water
- k. Survey Party Billing Rate** – refers to Total Billing Rate of a Geodetic Engineer, an Instrument man, two (2) Survey Aides and/or Laborer/s.
- l. Labor Cost** – refers to a Total Cost of all Field Personnel within the project duration (Summation of the Total Billing Rates of each Personnel multiplied by their respective project duration)
- m. Project Cost** – refers to the sum of Labor Cost, Equipment Rental Costs, Mobilization/Demobilization Costs, Vehicle Rental Costs, Field Office and Quarters Rental Costs and Miscellaneous Expenses
- n. Total Project Cost** – refers to sum of the Project Cost and Cost of Supplies
- o. Contingency** – refers to the amount not exceeding five percent (5%) of the amount of the contract to cover items of additional work within the general scope of services or costs that would exceed the estimates set forth
- p. Establishment Fee/ Acceptance Fee** – A one-time fee that covers the cost of time and materials associated with taking instructions, discussion with the clients about performance of the work and any special requirements which the client may have, opening new files and initial planning of the approach to execution of the job.
- q. Contract Price** – refers to Net Total Project Cost or the Total Project Cost plus Project's Contingency plus Project's Profit plus Project's Hazard Pay (Optional for Areas with Peace and Order Problems) plus Government Taxes

## Section 9: Office Based Salary/Wage

The Monthly Salary of Administrative and Technical Personnel especially licensed Geodetic Engineers are indicated by Job Level (JL).

- The corresponding amount per JL was based from the Senate Bill (SB) No. 200 entitled "An Act Modifying the Salary for Civilian Government Personnel"
- Although base on DBM's Manual of Positions and Compensations, the monthly rates or Job Levels used here are adjusted higher than what is normally stated in the Manual since this will be used by private practitioners.

### For Professional Geodetic Engineers

Job Level	Level/Position* (Professional Geodetic Engineer)	Monthly Rates (PHP)
27	Geodetic Engineer Project Director (GE-PD) Principal / Partner / Business Manager	143,239.00
26	Sr. Geodetic Engineer Project Manager (SGE-PM)	125,333.00
25	Geodetic Engineer Project Manager (GE-PM)	109,666.00
24	Geodetic Engineer V (Survey Party Chief)	94,909.00
22	Geodetic Engineer IV (Senior Supervising Geodetic Engineer)	72,665.00
20	Geodetic Engineer III (Supervising Geodetic Engineer)	55,633.00
18	Geodetic Engineer II (Project Geodetic Engineer)	43,360.00
15	Geodetic Engineer I	32,131.00

\*Above Salary for Geodetic Engineers are applicable to Large Survey Corporation or Project Management Office.

### For Non-Licensed Geodetic Engineer and Personnel

Job Level	Level/Position (Non-Licensed Geodetic Engineer)	Monthly Rates (PHP)
15	Sr. Survey Cartographer	32,131.00
13	Assistant Geodetic Engineer	26,283.00
11	Sr. Survey CAD/GIS Operator	21,345.00
11	Geodetic Engineering Technician/ Instrument Man	21,345.00
10	Survey CAD/GIS Operator	19,762.00
10	Survey Researcher	19,762.00
8	Geodetic Engineering Trainee	17,248.00
8	Geodetic Engineering Aide (Chainmen, Rodmen)	17,248.00
7	Driver (Field Based)	16,236.00
7	Laborer (local hired) **	16,236.00

\*\*may vary depending on local minimum wage rate in project site

- a. Educational Background/ Work Experience Requirement. Minimum educational background or requirements are indicated per Position and Level.

**For Professional Geodetic Engineers**

Level/Position (Professional Geodetic Engineer)	Educational Background/ Work Experience
<b>Geodetic Engineer Project Director (GE-PD)</b> <b>Principal/ Business Owner</b>	At least Ten (10) years' relevant work experience; and can properly manage Multiple Survey Projects at a given time
<b>Sr. Geodetic Engineer Project Manager (SGE-PM)</b>	At least Ten (10) years' relevant work experience
<b>Geodetic Engineer Project Manager (GE-PM)</b>	At least Seven (7) years' relevant work experience
<b>Geodetic Engineer V</b> (Survey Chief of Party)	At least seven (7) years' relevant work experience and can handle a survey team or group of survey teams
<b>Geodetic Engineer V</b> (Senior Supervising Geodetic Engineer)	At least Five (5) years' relevant work experience and can handle a survey team or group of survey teams
<b>Geodetic Engineer III</b> (Supervising Geodetic Engineer)	At least Five (5) years' relevant work experience
<b>Geodetic Engineer II</b> (Project Geodetic Engineer)	At least three (3) years' relevant work experience
<b>Geodetic Engineer I</b> (Entry Level)	Newly Board Passer or less than one (1) year relevant work experience

**For Non-Licensed Geodetic Engineer and Personnel**

Level/Position (Non-Licensed Geodetic Engineer)	Educational Background/ Work Experience
<b>Sr. Survey Cartographer</b>	Engineering Graduate or with appropriate certification/training and experience
<b>Assistant Geodetic Engineer</b>	Geodetic Engineering Graduate or Non-Board Passer
<b>Sr. Survey CAD/GIS Operator</b>	Engineering Graduate or with appropriate certification/Training
<b>Geodetic Engineering Technician/ Instrument Man</b>	Engineering Graduate or with appropriate certification/ Training
<b>Survey CAD/GIS Operator</b>	4yrs College Graduate or with CAD/GIS Training Certification
<b>Survey Researcher</b>	4yrs College Graduate
<b>Geodetic Engineering Trainee</b>	4th- 5th year Geodetic Engineering Student/ On-the-Job Trainees (OJT/Interns)
<b>Geodetic Engineering Aide</b> (Chainmen, Rodmen)	At least High School Graduate/ Vocational
<b>Driver (Field Based)</b>	At least High School Graduate/ Vocational and with appropriate Driver's License and Clean Record in LTO
<b>Laborer (local hired)</b>	At least High School Graduate/ Vocational

## Section 10: Field/Project Based Salary/Wage

The Salary of Administrative and Technical Personnel especially licensed Geodetic Engineers assigned in Field Offices or Project Sites are indicated by Billing Rate plus Project Allowance

The Total Amount is computed by dividing the Monthly Rate or JL by 28 days to get the Daily Rate then multiplied by the assigned NEDA Multiplier (i.e. 2.0 to 3.0 for technical staff; and 1.0 to 1.8 for administrative staff) to get the Billing Rate plus Project Allowance (amount is by discretion of the company)

### For Professional Geodetic Engineers

Job Level	Level/Position	Monthly Rates/ (PHP)	Field/Project Rates				
			Daily Rates (PHP) (1 month = 28 days)	NEDA Multiplier	Billing Rate (PHP)	Allowance (PHP)	Total Amount (PHP)
27	Geodetic Engineering Project Director/Principal/Business Owner	143,239	5,116	3.0	15,347	3,000	18,347
26	Sr. Geodetic Engineering Project Manager	125,333	4,476	2.8	12,533	2,500	15,033
25	Geodetic Engineering Project Manager	109,666	3,917	2.8	10,967	2,500	13,467
24	Geodetic Engineer V (Survey Party Chief)	94,909	3,390	2.7	9,152	2,000	11,152
22	Geodetic Engineer IV (Senior Supervising Geodetic Engineer)	72,665	2,595	2.6	6,747	2,000	8,747
20	Geodetic Engineer III (Supervising Geodetic Engineer)	55,633	1,987	2.6	5,166	1,500	6,666
18	Geodetic Engineer II (Project Geodetic Engineer)	43,360	1,549	2.5	3,871	1,500	5,371
15	Geodetic Engineer I (Entry Level/Newly Board Passer)	32,131	1,148	2.5	2,869	1,000	3,869

\*Above Rates for Geodetic Engineers are applicable to Large Survey Corporation or Project Management Office.

**For Non-Licensed Geodetic Engineer and Personnel**

Job Level	Level/Position (Non-Licensed Geodetic Engineer)	Monthly Rates (PHP)	Field/Project Rates				
			Daily Rates (PHP) (1 month = 28 days)	NEDA Multiplier	Billing Rate (PHP)	Allowance (PHP)	Total Amount (PHP)
15	<b>Sr. Survey Cartographer</b> (Engineering Graduate or with appropriate training and experience)	32,131	1,071	2.5	2,678	500	3,178
13	<b>Assistant Geodetic Engineer</b> (Geodetic Engineering Graduate)	26,283	876	2.2	1,927	500	2,427
11	<b>Sr. Survey CAD/GIS Operator</b> (Engineering Graduate or with appropriate training and experience)	21,345	712	2.2	1,565	500	2,065
11	<b>Geodetic Engineering Technician/ Instrument Man</b> (Engineering Graduate with appropriate training and experience)	21,345	712	2.2	1,565	500	2,065
10	<b>CAD/GIS Operator</b> (4yrs College Graduate/ TESDA certified only)	19,762	659	2	1,317	300	1,617
10	<b>Survey Researcher</b> (4yrs College Graduate)	19,762	659	2	1,317	300	1,617
8	<b>Geodetic Engineering Trainee</b> (4 <sup>th</sup> - 5 <sup>th</sup> year Geodetic Engineering Students/ OJTs)	17,248	575	1.8	1,035	300	1,335
8	<b>Geodetic Engineering Aide</b> (Chainmen, Rodmen)	17,248	575	1.8	1,035	300	1,335
7	<b>Driver (Field Based)</b>	16,236	541	1.5	812	300	1,112
7	<b>Laborer (local hired)*</b>	16,236	541	1.5	812	300	1,112

\*may vary depending on local minimum wage rate in project site

## Section 11: Hourly Rate Billing

- a. Fees for all professional services may be charged at Hourly Rates and it is recommended as the preferred approach. That is fee/fees may be based upon the sum of hours worked by all staff multiplied by their appropriate hourly rate or time/cost
- b. The time-based charges are particularly appropriate for commissions which by their nature must be entirely Time/Cost based. These might include:

- |                    |                                 |
|--------------------|---------------------------------|
| 1. Inspections;    | 10. Special Studies or Surveys; |
| 2. Interviews;     | 11. Budgeting;                  |
| 3. Minor surveys;  | 12. Preparation of Brief;       |
| 4. Conferences;    | 13. Court Appearance;           |
| 5. Compiled plans; | 14. Complex/Specialist Surveys; |
| 6. Travelling;     | 15. RPA Surveys;                |
| 7. Planning;       | 16. Environmental Studies;      |
| 8. Research;       | 17. Control Surveys; etc.       |
| 9. Administration; |                                 |

- c. The Hourly Rate is computed as follows:

$$\text{Billing Rate} \div 8 \text{ hours}$$

It is suggested that the hourly charge rate be as follows:

### For Professional Geodetic Engineers

Job Level	Level/Position	Billing Rate (PHP)	Hourly Rate (Time/Cost) (PHP)
27	Geodetic Engineer Project Director (GE-PD) Principal / Partner / Business Manager	15,347	1,918
26	Sr. Geodetic Engineer Project Manager (SGE-PM)	12,533	1,567
25	Geodetic Engineer Project Manager (GE-PM)	10,967	1,371
24	Geodetic Engineer V (Survey Party Chief)	9,152	1,144
22	Geodetic Engineer IV (Senior Supervising Geodetic Engineer)	6,747	843
20	Geodetic Engineer III (Supervising Geodetic Engineer)	5,166	646
18	Geodetic Engineer II (Project Geodetic Engineer)	3,871	484
15	Geodetic Engineer I	2,869	359

**For Non-Licensed Geodetic Engineer and Personnel**

Job Level	Level/Position	Billing Rate (PHP)	Hourly Rate (Time/Cost) (PHP)
15	Sr. Survey Cartographer	2,678	335
13	Assistant Geodetic Engineer	1,927	241
11	Sr. Survey CAD/GIS Operator	1,565	196
11	Geodetic Engineering Technician/ Instrument Man	1,565	196
10	Survey CAD/GIS Operator	1,317	165
10	Survey Researcher	1,317	165
8	Geodetic Engineering Trainee	1,035	129
8	Geodetic Engineering Aide (Chainmen, Rodmen)	1,035	129
7	Driver (Field Based)	812	101
7	Laborer (local hired)**	812	101

- d. **Overtime.** Work may be performed beyond eight (8) hours a day provided that the employee is paid for the overtime work.
- For every hour in excess of 8 hours during ordinary days (Mondays to Fridays), it is suggested that the above (Hourly) rates be increased by a minimum of 30%.
  - For number of hours work during public holidays and rest days (like Sundays), it is suggested that the above (Hourly) rates be doubled or increased by 100%.

**Section 12: Recommended Rates**

The proposed rates may not be suitable to all Geodetic Engineers. The following are hereby suggested for the salary/wage of office and field personnel

- For Start-ups or Small-Scale Proprietors/ One Person Corporation (OPC)** with at least one (1) survey team composed of the Geodetic Engineer, Survey Technician, Two (2) Survey Aides. The Job Level (JL) 18 may be an ideal rate to be used in computing the Total Billing Rate for licensed Geodetic Engineers acting as Party Chief in a field survey project; the "minimum wage" requirement can be adopted for administrative personnel and JL 8 -10 may be used for technical but non-Geodetic Engineers.
- For Big Scale Proprietors or Corporations** with more than three (3) survey teams, it is recommended to adopt the above rates as a Minimum or Base Rate for all administrative and technical staff in field/project.
- For Government Offices** – it is recommended to adopt the above rates as a Minimum or Base Rate in estimating costs for survey projects that requires the procurement of Geodetic Engineering Services of a Private Geodetic Engineer.

## Section 13: Equipment Rentals/Costs

Aside from the Wages, a Geodetic Engineer should include in its budgeting the Costs of Equipment to cover maintenance and replacement expenses (if needed). Below are commonly used survey equipment and its corresponding Total Billing Rates.

### Equipment

Equipment	Daily Rates (PHP) (1 month = 28 days)	NEDA Multiplier	Total Amount (PHP)	Hourly Rate (Time/ Cost)
<b>Total Station w/ Accessories</b> (standard package)				
• Extra prism/range pole with spirit level	4,000	1.0	4,000	500
• Extra Battery (Instrument/Radios)				
• Mini prism and mini range pole				
<b>GPS – Single Frequency Pair</b>	12,500	1.0	12,500	1,563
<b>GPS – Dual Frequency Pair</b>	18,000	1.0	18,000	2,250
<b>Echo Sounder</b>	12,500	1.0	12,500	1,563
<b>Precise Level/ Rotating Level – Digital or Analog</b>	3,000	1.0	3,000	375
<b>Automatic Level – Digital or Analog</b>	1,500	1.0	1,500	188

### Specialized Equipment

Advanced Equipment**	Details of Costs (PHP)	NEDA Multiplier	Total Amount (PHP)
<b>Unmanned Aerial Vehicle (UAV)</b>	100,000/ flight	1.0	100,000/ flight
<b>Drone (vertical takeoff)</b>	5,000/flight	1.0	5,000/flight
<b>Terrestrial Laser Scanner (TLS)</b>	20,000/ station	1.0	20,000/ station
<b>Mobile Mapping Scanner / LiDAR</b>	10,000/km	1.0	10,000/km
<b>Ground Penetrating Radar (GPR)</b>	150,000/day	1.0	150,000/day

\*\* covers acquisition of data only

## Section 14: Other Project Costs and Rentals

Aside from the Equipment Rental Costs, a Geodetic Engineer should include in its budgeting and/or Quotations the following expenses:

Items	Rates/Costs/Computations
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<b>Establishment Fee</b>	One-time payment of at least Php 1,000 per new Project or 1% of Project cost, whichever is higher
<b>Survey Car Rental/Cost</b>	Php3,500.00 / day
<b>Boat Rental/Cost</b>	Php7,500.00 / day
<b>Project Office Rental/Cost</b>	Php40,000.00/ month
<b>Field Office/ Staff Quarters Rental/Cost</b>	Php35,000.00/ month
<b>Living Expenses</b>	Actual cost of Accommodation and living expenses / Board & Lodging plus 20%
<b>Mobilization/ Demobilization Cost</b>	Travel Cost (Sea, Land & plane) x days of travel plus Survey Party/s' Billing Rates (or Hourly Rates) plus 20% or 10% of the Project Cost or whichever is higher
<b>Disbursements</b> (amount paid by GE on behalf of client)	Actual amount paid plus 20%
<b>Travel Expenses</b> (airfare, bus and other mode)	Actual cost plus 20%
<b>Supplies</b> (Monuments, Stakes etc.)	10% of Project Cost or actual costs plus 20% whichever is higher
<b>Miscellaneous Expenses/ Clearing Cost</b>	5% of Labor Cost
<b>Sub-Consultant Services (Sub-Con)</b>	Sub-consultant fees at cost plus 20%
<b>Contingency</b>	5% of Total Project Cost
<b>Taxes</b>	12% VAT and other government taxes
<b>Profit</b>	20% of Total Project Cost
<b>Area with Peace and Order Problems</b>	10% of Total Project Cost (Hazard Pay) & additional 10% of Contract Price (Security Pay)

## PART C - GEODETIC ENGINEERING SERVICES RATES

### Section 15: Practice of Geodetic Engineering





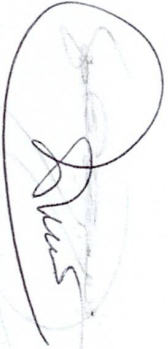


Republic Act No. 9200 – “An Act Amending Republic Act Numbered Eighty-Five Hundred and Sixty (R.A. No. 8560) Otherwise Known as The Philippine Geodetic Engineering Act Of 1998, and for Other Purposes” defines:

- a. The practice of Geodetic Engineering is a professional and organized act of gathering physical data on the surface of the earth with the use of precision instruments. It is also the scientific and methodical processing of these data and presenting them on graphs, plans, maps, charts or documents.

- b. Professional Geodetic Engineering Services is considered part of the practice of Geodetic Engineering. Professional services that make use of surveying and mapping equipment such as graduated rods, measuring tapes, transits, levels, theodolites, fathometers/echosounders, electronic distance meters, global positioning systems, stereo plotters and other instruments that are used to determine metes and bounds of lands positions of points on the surface of the earth, water depths, underwater configuration, ground elevation, gravity, isostasy, crustal movements and the size and shape of the earth, and other instruments used for construction survey, and those instruments used to guide the installation of large industrial equipment and machineries.

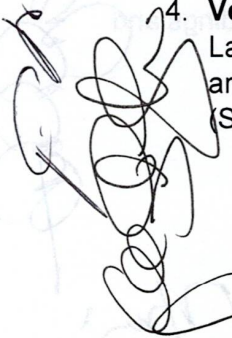


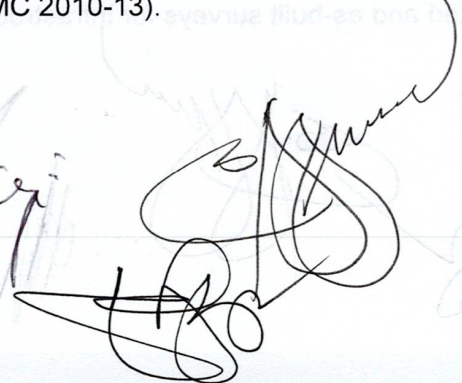


The implementing Rules and Regulations of RA 9200 as prescribed by the Board of Geodetic Engineering Resolution No. 12 series 2003 further enumerated activities embraced by the practice of Geodetic Engineering. These are the following but not limited to:

1. Horizontal and vertical control surveys and political boundary surveys;
2. Land surveys to determine their metes and bounds and prepare the plans thereof for titling and for other purposes;
3. Subdivision, consolidation and/or consolidation-subdivision of titled properties;
4. Submission of survey plans of subdivided, consolidated and/or consolidated subdivision titled properties to the government agencies concerned; using the numbering system and projection prescribed by the government;
5. Preparation and making of sketch, lot and location plans;
6. Conduction of engineering surveys and the technical preparation of engineering survey plans such as topographic, hydrographic, tidal, profile, cross-section, construction and boundary surveys;
7. Parcellary surveys of lands traversed by infrastructure projects; and the preparation of subdivision plans;
8. Conduction of gravimetric and photogrammetric survey and the technical preparation of such survey plans;
9. Survey and mapping works such as the preparation of geographic and/or land information systems;
10. Survey to determine and establish line and grade for the construction of buildings and other structures and its attachments;
11. Construction of as-staked and as-built surveys for infrastructures

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12. Conduction of mineral and mining surveys;
13. Installation of machineries requiring the use of precision instruments;
14. Engagement in the transfer of the knowledge and technology of geodetic engineering in any institution of learning;
15. Provision of consultancy services in geodetic engineering;
16. Geomatics activities;
17. Program/project planning and design, monitoring and evaluation;
18. Policy formulation, monitoring and evaluation
19. Reasearch and development and extension; and
20. Feasibility studies and preparation of concept papers/proposals

## SCHEDULE 1: ISOLATED LAND SURVEYS

### A. Definition of Terms

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1. **Original survey** refers for the survey of land for the purpose of public land application for Homestead, Free Patent, Sales, and other modes of disposition under CA 141, as amended, otherwise known as the Public Land Act (section 129 of DMC 2010-13);
2. **Relocation Surveys** refers to the relocation of corners or re-setting of boundary lines of approved surveys shall be made using the bearings, distances, and the area stated in the approved survey or written in the lease contract, if any, or Torrens Title (section 157 of DMC 2010-13);
3. **Re-Surveys** are surveys made on approved survey for purposes of establishing the technical description of approved survey which is missing as certified by LMB and LMS office concerned (section 158 of DMC 2010-13); and
4. **Verification Surveys** are surveys ordered by The Regional Technical Director for Lands whenever any approved survey is reported to be erroneous, or when titled lands are reported to overlap or where occupancy is reported to encroach another property (Section 146 of DMC 2010-13).

## B. Scope of Services

The general scope of services and deliverables are as follows:

1. Receiving instructions/Acceptance/Establishment of Job
2. Research current survey information
3. Field survey including marking of boundaries
4. Preparation of Report and Plan of Survey showing lot boundaries, dimensions, marks placed (where appropriate), easements and relationship to appurtenant occupation/fencing
5. Supply of documentation (hard and soft copies)
6. Application for Approval at the Land Management Services (LMS)

This schedule does not include:

1. Details not relevant to identification of title boundaries
2. Additional items as outlined in other schedules

## C. Recommended Rates

The proposed rates for an Original, Relocation and Re-Survey project is as follows:

### Relocation Survey Per Lot/ Title

For in	Areas in hectares	0	10	20	30	40	50	60	area
	< 0.5	25,000							
	0.5-1.0	30,000	128,500	212,000	282,000	344,500	403,000	466,500	
	2	40,000	137,000	219,000	289,000	351,000	409,500	471,500	
	3	50,000	145,500	226,000	296,000	357,500	416,000	476,500	
	4	60,000	154,000	233,000	303,000	364,000	422,500	481,500	
	5	70,000	162,500	240,000	303,000	364,000	429,000	486,500	
	6	80,000	171,000	247,000	310,000	370,500	435,500	491,500	
	7	90,000	179,500	254,000	317,000	377,000	442,000	496,500	
	8	100,000	188,000	261,000	324,000	383,500	448,500	501,500	
	9	110,000	196,500	268,000	331,000	390,000	455,000	506,500	
	10	120,000	205,000	275,000	338,000	396,500	461,500	511,500	

excess of 70 hectares, add Php5,000.00/hectare.

**Original Survey Per Lot/ Re-Survey Per Lot/ Title**

Areas in hectares	0	10	20	30	40	50	60
< 0.5	45,000						
0.5-1.0	60,000	257,000	424,000	564,000	689,000	806,000	933,000
2	80,000	274,000	438,000	578,000	702,000	819,000	943,000
3	100,000	291,000	452,000	592,000	715,000	832,000	953,000
4	120,000	308,000	466,000	606,000	728,000	845,000	963,000
5	140,000	325,000	480,000	606,000	728,000	858,000	973,000
6	160,000	342,000	494,000	620,000	741,000	871,000	983,000
7	180,000	359,000	508,000	634,000	754,000	884,000	993,000
8	200,000	376,000	522,000	648,000	767,000	897,000	1,003,000
9	220,000	393,000	536,000	662,000	780,000	910,000	1,013,000
10	240,000	410,000	550,000	676,000	793,000	923,000	1,023,000

For area in excess of 70 hectares, add Php10,000.00/hectare.

**Verification Survey Per Lot/ Title**

Areas in hectares	0	10	20	30	40	50	60
< 0.5	55,000						
0.5-1.0	75,000	321,250	530,000	705,000	861,250	1,007,500	1,166,250
2	100,000	342,500	547,500	722,500	877,500	1,023,750	1,178,750
3	125,000	363,750	565,000	740,000	893,750	1,040,000	1,191,250
4	150,000	385,000	582,500	757,500	910,000	1,056,250	1,203,750
5	175,000	406,250	600,000	757,500	910,000	1,072,500	1,216,250
6	200,000	427,500	617,500	775,000	926,250	1,088,750	1,228,750
7	225,000	448,750	635,000	792,500	942,500	1,105,000	1,241,250
8	250,000	470,000	652,500	810,000	958,750	1,121,250	1,253,750
9	275,000	491,250	670,000	827,500	975,000	1,137,500	1,266,250
10	300,000	512,500	687,500	845,000	991,250	1,153,750	1,278,750

area in excess of 70 hectares, add Php8,000.00/hectare.

**D. Land Use Factor**

The following rates shall be use in addition to the above survey costs base on the land use of the property being surveyed:

Item No.	Land Use	Rate	Remarks
1.	<b>Residential</b>	Add 50% to the above costs	
2.	<b>Commercial</b>	Add 150% to the above costs	
3.	<b>Industrial</b>	Add 120% to the above costs	
4.	<b>Agricultural</b>	Same as above costs	Including fishponds
5.	<b>Institutional</b>	Same as above costs	Including educational, charitable institutions
6.	<b>Government Reservations</b>	Same as above costs	Including military & mineral reservations, national and natural parks
7.	<b>Foreshore Lands</b>	Add 50% to the above costs	
8.	<b>Forestlands</b>	Add 50% to the above costs	Including mangrove areas, marshlands & watershed
9.	<b>Protected Areas</b>	Add 50% to the above costs	
10.	<b>Ancestral Lands</b>	Add 50% to the above costs	
11.	<b>Mixed Use</b>	Add 150% to the above costs	

#### E. Government Fees

This price guide does not include verification and approval fees from DENR Land Management Services and subject to government taxes such as 12% VAT.

#### F. Court Appearances

Court Appearance by a Geodetic Engineer for Verification Surveys shall have a costing of at least Php5,000.00 per appearance or the Hourly Rate whichever is higher

#### G. Extra Costs/ Adjustments and Increases

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Vegetation cover and difficult terrain - where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
5. PRS92 coordinate datum connection
6. Risk (consideration should be given to the overall value of the development)

#### H. Additional Fees.

The following should be added:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation can be reasonably charge to the client

### HOW TO USE THE TABLES

#### Example 1:

A 24-hectare agricultural property subject for original titling requires a survey of its boundaries.

#### Computation of Cost for Example 1:

- a. Since the land is subject for original survey since there is no title yet, we will use the Table for "ORIGINAL SURVEY PER LOT/ RE-SURVEY PER LOT/ TITLE"
- b. From the table we select the cost for 24 hectares by choosing the column "20" and row "4". The intersection of the column and row will be the cost.

Areas in hectares	0	10	20	30	40
< 0.5	45,000				
0.5-1.0	60,000	257,000	424,000	564,000	689,000
2	80,000	274,000	438,000	578,000	702,000
3	100,000	291,000	452,000	592,000	715,000
4	120,000	308,000	466,000	606,000	728,000
5	140,000	325,000	480,000	606,000	728,000
6	160,000	342,000	494,000	620,000	741,000

- c. The property is said to be agricultural. As per land use table, we use the same cost as per "ORIGINAL SURVEY PER LOT/ RE-SURVEY PER LOT/ TITLE"

Item No.	Land Use	Rate	Remarks
1.	Residential	Add 50% to the above costs	
2.	Commercial	Add 150% to the above costs	
3.	Industrial	Add 120% to the above costs	
4.	Agricultural	Same as above costs	Including fishponds
5.	Institutional	Same as above costs	Including educational, charitable institutions

d. Finally, the cost for the 24-hectare agricultural property subject for original titling is Php466,000.

e. The cost does not include verification and approval fees from DENR Land Management Services.

f. Cost is subject to government taxes such as 12% VAT

**Example 2:**

A 35.5-hectare commercial property subject for requires a survey of its boundaries base on its TCT.

**Computation of Cost for Example 2:**

a. Since the land is subject for survey base on a title / TCT, we will use the Table for "RELOCATION SURVEY PER LOT/ TITLE"

b. From the table we select the cost for 35.5 hectares. First, we round it to the nearest whole number which is "36". We choose the intersection of column "30" and row "6".

Areas in hectares	0	10	20	30	40
< 0.5	25,000				
0.5-1.0	30,000	128,500	212,000	282,000	582,000
2	40,000	137,000	219,000	289,000	592,000
3	50,000	145,500	226,000	296,000	602,000
4	60,000	154,000	233,000	303,000	612,000
5	70,000	162,500	240,000	303,000	612,000
6	80,000	171,000	247,000	310,000	622,000

c. The property is said to be commercial. As per land use table, we add to the cost as per table "RELOCATION SURVEY PER LOT/ TITLE", the 150% of Php 524,000.00, which is equal to Php786,000.00.

Item No.	Land Use	Rate	Remarks
1.	Residential	Add 50% to the above costs	
2.	Commercial	Add 150% to the above costs	
3.	Industrial	Add 120% to the above costs	
4.	Agricultural	Same as above costs	Including fishponds
5.	Institutional	Same as above costs	Including educational, charitable institutions

d. Finally, the cost for the 35.5-hectare commercial property subject for Relocation is  $\text{Php}310,000.00 + \text{Php}465,000.00 = \text{Php } 775,000.00$

- e. The cost does not include verification and approval fees from DENR Land Management Services.
- f. Cost is subject to government taxes such as 12% VAT

## SCHEDULE 2: SUBDIVISION SURVEYS

### A. Definition

Subdivision Surveys are private land surveys shall either be a simple or complex subdivision survey which shall be conducted in consonance with the provisions of Section 18 of DAO No. 2007-29. (Section 136 of DMC 2010-13).

This schedule applies to:

1. **Simple Subdivision** - Subdivisions of land of area less than one hectare; where roads are not required to be delineated, not necessarily to be developed and open spaces are optional.
2. **Complex Subdivisions** - subdivision of a registered land pursuant to BP-220 and PD-957, as amended. Land development is required for land with area greater than one (1) hectare which includes roads, passageways and open spaces such as parks.
3. **Agricultural Land Subdivisions** – A simple subdivisions of mostly large tract of public and/or private land (more than one hectare) for the purpose of farming and other agricultural purposes.
4. **Institutional Subdivision Projects** – Complex Subdivision of land for education, government housing and other institutional uses or purposes.

### B. Scope of Services

The general scope of services and deliverables are as follows:

1. Receiving instructions/Acceptance/Establishment of Job
2. Research current survey information
3. Title surround survey
4. Preparation of formal Plan of Subdivision (showing if required: - lot boundaries, dimensions, easements, cross sections and restrictions) for submission to authorities and registration
5. Supply of Digital Information
6. Marking of title and lot boundaries
7. Liaison with authorities to achieve necessary approvals
8. Preparation and delivery of survey documents including:

- A. Certified Plan of Subdivision – with compliance
- B. Geodetic Engineer's Report
- C. Lot Data Computations and fieldnotes, if required

Additional (non-standard) items include:

1. Alterations at the request of client
2. Amendments creating new versions of the Plan of Subdivision
3. Connection to PRS92 coordinate datum
4. Preparation of ePlans

This schedule does not include

1. Relocation/Verification Surveys (refer to Schedule 1)
2. As built and/or Structural survey, if necessary
3. Additional items as outlined in other schedules
4. Land Titling

### C. Recommended Rates

The proposed rates are as follows:

#### Residential Subdivision Survey Projects

NO. OF LOTS	FEES			
2 to 4	PHP 38,000	plus	PHP 12,000/lot	In excess of 2 lots
5 to 9	PHP 62,000	plus	PHP 11,500/lot	In excess of 5 lots
10 to 19	PHP 108,000	plus	PHP 11,000/lot	In excess of 10 lots
20 to 29	PHP 207,000	plus	PHP 10,500/lot	In excess of 20 lots
30 to 39	PHP 301,500	plus	PHP 10,000/lot	In excess of 30 lots
40 to 49	PHP 391,500	plus	PHP 9,500/lot	In excess of 40 lots
50 to 99	PHP 477,000	plus	PHP 9,000/lot	In excess of 50 lots
100 to 199	PHP 558,000	plus	PHP 6,500/lot	In excess of 100 lots
200 to 299	PHP 1,201,500	plus	PHP 5,000/lot	In excess of 200 lots
300 to 399	PHP 1,696,500	plus	PHP 4,000/lot	In excess of 300 lots
400 to 499	PHP 2,092,500	plus	PHP 3,000/lot	In excess of 400 lots
500 to 999	PHP 2,389,500	plus	PHP 2,000/lot	In excess of 500 lots
1000 & up	PHP 3,387,500	plus	PHP 1,000/lot	In excess of 1000 lots

**For Commercial/Industrial Lots, consider the Land Use factor at Schedule 1**

### Agricultural Subdivision Survey Projects

NO. OF LOTS*	FEES		
1 to 4	PHP 25,000	plus	Php6,500 in excess of 2 lots
5 to 9	PHP 38,000	plus	Php6,000 in excess of 5 lots
10 to 19	PHP 64,000	plus	Php5,500 in excess of 10 lots
20 to 29	PHP 122,500	plus	Php5,000 in excess of 20 lots
30 to 39	PHP 181,000	plus	Php4,500 in excess of 30 lots
40 to 49	PHP 239,500	plus	Php4,000 in excess of 40 lots
50 to 99	PHP 298,000	plus	Php3,500 in excess of 50 lots
100 & up	PHP 616,500	plus	Php2,500 in excess of 100 lots

\*One Agricultural Lot is about one-hectare size plat (plot of land)

### Institutional Subdivision Projects

NO. OF LOTS	FEES		
1 to 4	PHP 30,000	plus	Php6,500 in excess of 2 lots
5 to 9	PHP 43,000	plus	Php6,000 in excess of 5 lots
10 to 19	PHP 69,000	plus	Php5,500 in excess of 10 lots
20 to 29	PHP 127,500	plus	Php5,000 in excess of 20 lots
30 to 39	PHP 186,000	plus	Php4,500 in excess of 30 lots
40 to 49	PHP 244,500	plus	Php4,000 in excess of 40 lots
50 to 99	PHP 303,000	plus	Php3,500 in excess of 50 lots
100 & up	PHP 621,500	plus	Php2,500 in excess of 100 lots



#### **D. Government Fees**

This price guide does not include verification and approval fees from DENR Land Management Services and subject to government taxes such as 12% VAT.

#### **E. Extra Costs/ Adjustments and Increases**

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title

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5. Risk (consideration should be given to the overall value of the development)
  6. Lot Size and repetition of lots
  7. More recent survey information to be considered
  8. Updated statutory survey requirements being altered since previous survey
  9. Determination of title boundaries for additional titles or altered title boundaries

#### **F. Additional Fees**

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

#### **G. Computation of Costs**



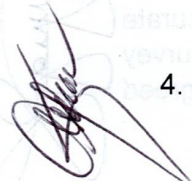
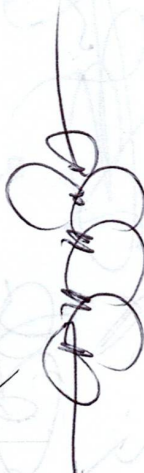
The costing of subdivision survey projects is computed as follows:

1. Cost of the following required activities
    - Technical Research
    - Relocation/Verification Survey (please refer to tables on Schedule 1C)
    - Structural Survey, if necessary
    - As-built Survey, if necessary

Plus (+)
  2. Cost of the Subdivision Survey Projects base as per Rate Tables

Plus (+)
  3. Costs of inspection, verification and approval fees from the DENR land Managements Services

Plus (+)
  4. Government Taxes such as 12% VAT and other Expenses

Equals to (=)
  5. Total Project Costs
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### **SCHEDULE 3 - ENGINEERING SURVEYS**

#### **A. Definition**

Engineering Survey refers to investigating land, using measurement tools and geographic knowledge, to work out the best position to build bridges, tunnels and roads etc. It uses both conventional (on the ground) and photogrammetric methods to gather data for use by planners and engineers. (source: <http://www.tcd.ie/civileng/Staff/Brian.Caulfield/3A1/3A1%20Lecture%201.pdf>)

This schedule applies to:

1. **Topographic Surveys** which aims to gather survey data about the natural and man-made features of the land, as well as its elevations. From this information, a three-dimensional map may be prepared. (source: [http://engineeringtraining.tpub.com/14069/css/14069\\_357.htm](http://engineeringtraining.tpub.com/14069/css/14069_357.htm))
2. **Structural/Facilities/Utilities Surveys** refers to the survey man-made features and structures such as buildings, utilities and facilities in a particular site or parcel of land.
3. **Route Surveys** refers to the survey for establishment of roads; identification of lots affected by road constructions and/or other horizontal developments; and as well as conduct of profile and cross sections surveys.
4. **Hydrographic Surveys** refers to the survey, measurement and description of features which affect maritime navigation, marine construction, dredging, offshore oil exploration/drilling and related activities. Strong emphasis is placed on soundings, shorelines, tides, currents, sea floor and submerged obstructions that relate to the previously mentioned activities.
5. **Establishment of Geodetic and Project Control Points** refers to the survey activity that aims to establish a fixed in a position on the surface of the earth by monuments of permanent nature. As per Sections 4 and 28, DAO No. 2007-29, the control surveys are defined and classified into geodetic and project control surveys.
6. **Vertical Control/Differential Levelling** refers an inexpensive, simple and accurate method for measuring heights, and it is widely used in construction sites. A survey method of measuring the heights of points above or below the ground using an agreed datum.

## B. Scope of Services

1. Topographic Surveys/Structural/Facilities/Utilities Surveys, Route and Hydrographic Surveys

The general scope of services and deliverables for all engineering surveys are as follows:

- a. Receiving instructions/Acceptance/Establishment of Job
- b. Research current survey information/ Preliminary Investigations

- c. Field survey - includes Location of structures (footprint only, floor level), paths, driveways, visible services, site levels, significant vegetation, street features for site frontage, fences type and height
- d. Connection to Height Datum
- e. Preparation of Digital Terrain Model
- f. Preparation of formal Plan of Survey

Additional (non-standard) items include:

- a. Additional field observations and plan preparation to accommodate site analysis requirements
- b. Adjoining property information/features
- c. Remote Height Datum connection
- d. Connection to PRS92 datum
- e. Re-establishment or marking of boundaries
- f. Location of underground services
- g. Depth and heighting of services

This schedule does not include:

- i. Additional items as outlined in other schedules such as Geo tagging
- ii. Identification of vegetation species

## 2. Establishment of Geodetic and Project Control Points

The general scope of services and deliverables for all engineering surveys are as follows:

- a. Receiving instructions/Acceptance/Establishment of Job
- b. Research current survey information/ Preliminary Investigations
- c. Field survey
- d. Placement of marks
- e. Computations and adjustment
- f. Presentation of results

Additional (non-standard) items include:

- i. Connection to Active Geodetic Network
- ii. Placement of high stability marks

This schedule does not include:

- a. Feature surveys to assist in establishing location of marks
- b. Additional items as outlined in other schedules

## 3. Vertical Control/Differential Levelling

The general scope of services and deliverables for all engineering surveys are as follows:

- a. Receiving instructions/Acceptance/Establishment of Job
- b. Research current survey information/ Preliminary Investigations
- c. Field survey

- d. Placement of Temporary Benchmarks (TBMs)
- e. Supply of documentation (plans or report and noting relative datum - either AHD or arbitrary datum)

Additional (non-standard) items include:

- a. Connection to Height Datum
- b. Placement of high stability marks

This schedule does not include:

- i. Location of features other than to indicate the location of levels as surveyed.
- ii. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed rates are as follows:

#### Topographic Surveys

Contour Interval	Cost per Hectare			
	First 1 hectare or less	Succeeding up to 10 hectares	Succeeding up to 20 hectares	In excess to 20 hectares
0.5 meter	Php50,000	Php30,000	Php20,000	Php15,000
1.0 meter	Php45,000	Php25,000	Php15,000	Php10,000
2.0 meter	Php40,000	Php20,000	Php10,000	Php8,000
5.0 meter	Php35,000	Php15,000	Php8,000	Php6,000

Slope over 18%, add 50% of the Total Cost.

#### Structural/Facilities/Utilities Surveys

Structures/ Facilities/ Utilities	Details of Costing
1. For Residential, Commercial & Industrial Above Ground Facilities	<b>Php2,000 per structure (footprint only)</b> regardless of dimension for a minimum of 20 structures; <b>plus Php1,500 per structure</b> regardless of dimension in excess of 20 structures.
2. For Residential, Commercial & Industrial Below Ground Utilities	<b>Php500,000 per hectare</b> using Ground Penetrating Radar (GPR).
3. Trees including information	<b>Php500 per tree</b> including information on diameter and other details.

4. Bore Hole/ Test Pit	<b>Php3,000</b> per bore hole/ test pit for a minimum of 5 points; <b>plus the cost of</b> verification of boundaries and of the mobilization/demobilization.
5. Pier Locations	<b>Php5,000</b> per pier location; <b>plus the cost of</b> project control establishment and of the mobilization/demobilization.

#### Route Surveys

**\*see separate pages**

#### Hydrographic Surveys

Depth-Curve Interval	Cost per Hectare				
	First One (1) hectare or less	Succeeding up to 10 hectares	Succeeding up to 20 hectares	Succeeding up to 50 hectares	In excess to 20 hectares
<b>1.0 meter</b>	Php50,000	Php45,000	Php40,000	Php35,000	Php30,000

#### Establishment of Geodetic and Project Control Points

Activity	Details of Costing
<b>Establishment of Geodetic Control Points</b>	<b>Php20,000</b> per point inclusive of monument placement as per NAMRIA Standards
<b>Establishment of Project Control Points</b>	<b>Php15,000</b> per point inclusive of monument placement

#### Vertical Control/Deferential Leveling

Activity	Details of Costing
<b>Vertical Control/ Deferential Levelling</b>	<b>Php10,000.00 per kilometer.</b> This is subject to government taxes such as 12% VAT


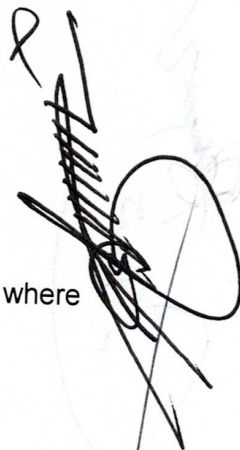

#### **D. Government Fees**

This price guide does not include verification and approval fees from DENR Land Management Services and subject to government taxes such as 12% VAT.

#### **E. Extra Costs/ Adjustments and Increases.**


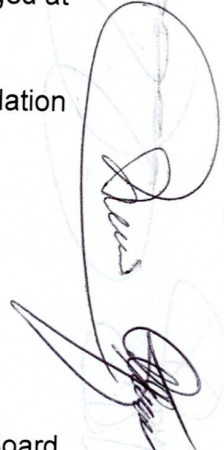

The following complexities should be considered and charges on an hourly rate plus 20% basis

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)

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4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
  5. Risk (consideration should be given to the overall value of the development)
  6. Lot Size and repetition of lots
  7. More recent survey information to be considered
  8. Updated statutory survey requirements being altered since previous survey
  9. Determination of title boundaries for additional titles or altered title boundaries

#### **F. Additional Fees.**

The following should be included:


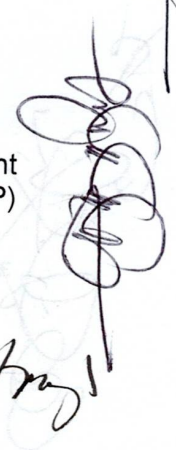
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1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
  2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

### **PART D – OTHER GEODETIC ENGINEERING SERVICES**

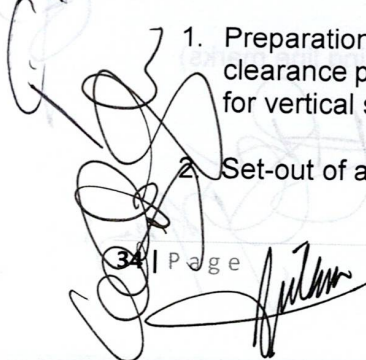
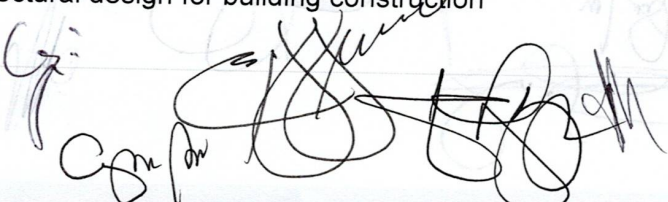

#### **Section 16: Other Geodetic Engineering Services**


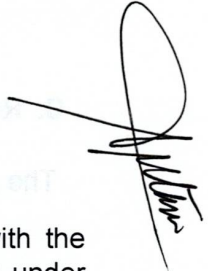
Reviewing the implementing Rules and Regulations of RA 9200 as prescribed by the Board of Geodetic Engineering Resolution No. 12 series 2003 which further discussed other services embraced by the practice of Geodetic Engineering.

Some services that Geodetic Engineers provides are as follows:

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1. Delivery of mineral and mining surveys
  2. Provision of consultancy services in geodetic engineering
  3. Subdivision of specialized land such as memorial lots
  4. Property registration or land titling services

Moreover, other services include:

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1. Preparation of Geodetic Engineer's Certification for the height limitation and height clearance permit applications in the Civil Aviation Authority of the Philippines (CAAP) for vertical structures within the vicinity of an airport.
  2. Set-out of architectural design for building construction

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3. Construction of as-staked and as-built surveys for infrastructures

## SCHEDULE 4: MINERAL LAND SURVEYS

### A. Definition

1. **Mineral Land Surveys** refers to the surveys that shall be in accordance with the procedures and standards set by the Mines and Geosciences Bureau (MGB) under DAO No. 96-40 (Chapter XXV Survey of Permit/Contract/Mining Areas) pursuant to the pertinent provisions of RA No. 7942, otherwise known as the Philippine Mining Act of 1995.
2. **One (1) Meridional block** is equivalent to approximately 81 hectares

### B. Scope of Services






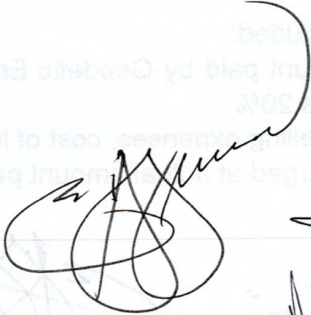


The general scope of services and deliverables are as follows:

1. Receiving instructions/Acceptance/Establishment of Job
2. Research current survey information
3. Title surround survey
4. Preparation of formal Plan for submission to authorities and registration
5. Supply of Digital Information
6. Marking of title and lot boundaries
7. Liaison with authorities to achieve necessary approvals
8. Preparation and delivery of survey documents including:
  - i. Certified Plan of Subdivision – with compliance
  - ii. Geodetic Engineer's Report
  - iii. Lot Data Computations and fieldnotes, if required

Additional (non-standard) items include:

1. Alterations at the request of client
2. Amendments creating new versions of the Plan of Subdivision
3. Connection to PRS92 coordinate datum
4. Preparation of ePlans

This schedule does not include

1. Relocation/Verification Surveys (refer to Schedule 1)
  2. As built and/or Structural survey, if necessary
  3. Additional items as outlined in other schedules
  4. Land Titling
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### C. Recommended Rates

The proposed rates are as follows:

Activity	Details of Costing
General Mineral land Survey	Php200,000 per Meridional block up to 5 Blocks; plus Php150,000 per Meridional block for succeeding blocks
Mineral land Survey for Coal	Php300,000 per Meridional block

### D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

### E. MGEI approved rates

For other mining survey fees, the MGEI approved rates shall apply.

### F. Extra Costs/ Adjustments and Increases.

The following complexities should be considered and charges on an **hourly rate plus 20%** basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
5. Risk (consideration should be given to the overall value of the development)
6. Lot Size and repetition of lots
7. More recent survey information to be considered
8. Updated statutory survey requirements being altered since previous survey
9. Determination of title boundaries for additional titles or altered title boundaries

### G. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## SCHEDULE 5: MEMORIAL PARK SURVEYS

### A. Definition

**Memorial Park Survey** refers to survey of lots in a memorial park or cemetery.

### B. Scope of Services

The general scope of services and deliverables are as follows:

1. Receiving instructions/Acceptance/Establishment of Job
2. Research current survey information
3. Title surround survey
4. Preparation of formal Plan for submission to authorities and registration
5. Supply of Digital Information
6. Marking of title and lot boundaries
7. Liaison with authorities to achieve necessary approvals
8. Preparation and delivery of survey documents including:
  - i. Certified Plan of Subdivision – with compliance
  - ii. Geodetic Engineer's Report
  - iii. Lot Data Computations and fieldnotes, if required

Additional (non-standard) items include:

1. Alterations at the request of client
2. Amendments creating new versions of the Plan of Subdivision
3. Connection to PRS92 coordinate datum
4. Preparation of ePlans

This schedule does not include

1. Relocation/Verification Surveys (refer to Schedule 1)
2. As built and/or Structural survey, if necessary

### C. Recommended Rates

The proposed rates are as follows:

**Php360.00 per lot or 1% of the selling cost**, whichever is higher. This is subject to government taxes such as 12% VAT.

### D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

### E. Extra Costs/ Adjustments and Increases

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
5. Risk (consideration should be given to the overall value of the development)
6. Lot Size and repetition of lots
7. More recent survey information to be considered
8. Updated statutory survey requirements being altered since previous survey
9. Determination of title boundaries for additional titles or altered title boundaries

### F. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## SCHEDULE 6: CONSULTING SERVICES

### A. Definition

**Consulting Services** refers to a special service of a Geodetic Engineer which includes legal or court related issues, professional advice, and retainer services.

### B. Scope of Services

Scope of services included:

1. Receiving instructions
2. Briefings
3. Research and preparation of report
4. Preparation of plans
5. Attendance in court including:
  - i. Travelling to and from
  - ii. Time in waiting

This schedule does not include:

1. Undertaking surveys
2. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed rates are as follows:

	Type of Service	Costing
<b>Legal</b>	<b>Court Appearance</b>	Php5,000 per court appearance; plus transportation expenses or <b>Hourly rates</b> plus 20%
	<b>Joint Survey as Client Observer</b> (For third party Surveys/ DENR Survey)	Php5,000 per day of Survey or <b>Hourly rates</b> plus 20%; plus transportation expenses
	<b>Joint Survey with Own Survey Team</b> (A Survey Team = Instrument man & two (2) Survey Aides)	Php20,000 per day of Survey or <b>Hourly rates</b> plus 20% of each team members inclusive of mobilization/ demobilization costs

	Type of Service	Costing
<b>Regular</b>	<b>Consultation Fee</b> (per meeting)	Php1,000 per hour (office based) Minimum of four (4) hours  If outside office, add transportation & representation expenses
	<b>Retainer for a Survey Team</b> (Survey Team = Instrument man & two (2) Survey Aides)	<b>Refer to Section 10 to Section 13</b>

### D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

### E. Extra Costs/ Adjustments and Increases.

All work that requires more than half a day's work, an additional charge equivalent to an hourly rate plus 20% can be requested

### F. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## SCHEDULE 7: PROPERTY REGISTRATION SERVICE

### A. Definition

**Property Registration Service** or Land Titling refers the additional service provided by a Geodetic Engineer for the purpose of registering the ownership of a land subject by a land survey to the Register of Deeds in the form of a torrents title.

### B. Scope of Services

Scope of services included:

1. Receiving instructions
2. Briefings and meetings
3. Preparation of plans and titling documents
4. Submission to Registry of Deeds and Follow up until release of title

This schedule does not include:

1. Undertaking surveys
2. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed rates are as follows:

1. **For 1 to 4 Lots**, the approximate Titling / Property Registration Service Fee is Php25,000.00 or Hourly Rates plus 20%
2. **For 5 or more Lots**, the approximate fee is 50% of the total subdivision cost

#### D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

#### E. Extra Costs/ Adjustments and Increases

All work that requires more than half a day's work, an additional charge equivalent to an hourly rate plus 20% can be requested

#### F. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

### SCHEDULE 8: CAAP CERTIFICATION

#### A. Definition

**Certification of Geodetic Engineer for CAAP Applications** refers to the major requirement for the height limitation and height clearance permit applications in the Civil Aviation Authority of the Philippines (CAAP) for vertical structures within the vicinity of an airport.

#### B. Scope of Services

The general scope of services and deliverables are as follows:

1. Receiving instructions/Acceptance/Establishment of Job
2. Research current survey information
3. Title surround survey
4. Preparation of formal Plan for submission to authorities and registration
5. Supply of Digital Information
6. Marking of title and lot boundaries
7. Liaison with authorities to achieve necessary approval
8. Preparation and delivery of survey documents including:

a. **For Application for Height Limitation**, the Certification of Geodetic Engineer and the following are required:

- i. Geodetic Coordinates (WGS-84 Datum) and True Ground Elevation in meters above mean sea level / Orthometric Height of the site (point/s of the proposed structure nearest to the runway). If the data is from the GPS, the height will be referred with the application of the EGM2008 geoid model.

- ii. Copy of Reference Elevation - AMSL / Orthometric Height from known control station of Bureau of Coast and Geodetic Survey (BCGS) / National Mapping and Resource Information Authority (NAMRIA).
  - iii. Copy of Horizontal Control Reference using WGS-84 Coordinates - Latitude/Longitude from known control station of BCGS/NAMRIA.
  - iv. Location Plan with Vicinity Map, indicating the Geodetic Position and Elevation of the proposed site, signed and sealed by a Geodetic Engineer.
  - v. Copy of the original field notes, traverse computations and GPS processing notes including raw data (total station data should be in ASCII format and RINEX format in GPS), signed and sealed by a Geodetic Engineer.
  - vi. In addition, if the proposed site is within the two (2)-km radius of the nearest runway end, indicate the true ground elevation at the nearest point of the runway and the distances
- b. **For Application of Height Clearance Permit**, the Certification of Geodetic Engineer and the following are required:
- i. Elevation Plan of the Proposed Structure (Note: If in case, the proposed structure is to be installed/constructed atop of an existing structure, include the height of the existing structure).
  - ii. All requirements for Application for Height Limitation

Additional (non-standard) items include:

1. Alterations at the request of client
2. Amendments creating new versions of the Plan/reports

This schedule does not include

1. Relocation/Verification Surveys (refer to Schedule 1)
2. As built and/or Structural survey, if necessary

### C. Recommended Rates

The proposed rates are as follows:

Structure	Details of Costing
Buildings	<p>Php30,000 per corner minimum of four (4) points/corners of a building</p> <p>plus Php25,000 per succeeding corner</p>

<b>Fence</b>	<b>Php 25,000 per corner</b> minimum of four (4) corners
<b>Tower Antenna</b> (self-supported or not)	<b>Php120,000 per center</b> of the antenna
<b>Series of Electrical Post/Pylons</b>	<b>Php25,000 per Posts/Pylons</b> minimum of five (5) posts/pylons

#### **OBSTACLE LIMITATION SURFACE SURVEY (OLS) – Php400,000.00 PER SITE**

#### **D. Government Fees**

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

#### **E. Extra Costs/ Adjustments and Increases**

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
5. PRS92 coordinate datum connection
6. Risk (consideration should be given to the overall value of the development)
7. More recent survey information to be considered
8. Updated statutory survey requirements being altered since previous survey
9. Determination of title boundaries for additional titles or altered title boundaries

#### **F. Additional Fees**

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## SCHEDULE 9: CONSTRUCTION SET-OUT SURVEYS

### A. Definition

**Construction Set out** survey refers to the setting out of points denoting the position of construction gridlines; structural columns, walls and alike; and other points of the building/structure that may require precise marking.

### B. Scope of Services

Scope of services included:

1. Receiving instructions
2. Briefings and meetings
3. Preparation of set-out files for installation in Total Station
4. Field set-out

This schedule does not include:

1. Relocation/Verification Surveys (refer to Schedule 1)
2. As built and/or Structural survey, if necessary
3. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed rates are as follows:

Services	Approximate Costing
<b>Survey Team Visitation Fee</b> (Survey Team = Instrument man & two (2) Survey Aides)	<b>Php10,000</b> per site visit or <b>Team Hourly rates plus 20% x 3 hours</b> whichever is higher
<b>Plus - Cost per point placed/marked</b>	<b>Php1,000</b> per points placed or marked


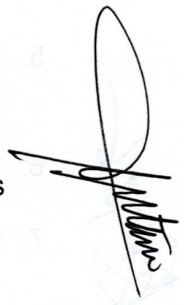
### D. Government Fees

This price guide is subject to government taxes such as 12% VAT.

### E. Extra Costs/ Adjustments and Increases


The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries

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3. Additional boundary marks in excess of 4 for each new lot (including line marks)
  4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
  5. PRS92 coordinate datum connection
  6. Risk (consideration should be given to the overall value of the development)
  7. More recent survey information to be considered
  8. Updated statutory survey requirements being altered since previous survey
  9. Determination of title boundaries for additional titles or altered title boundaries

#### F. Additional Fees

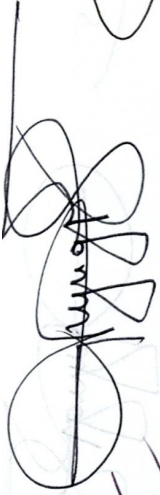
The following should be included:

- 
1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
  2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

### PART E – MAPPING AND SPATIAL INFORMATION SERVICES


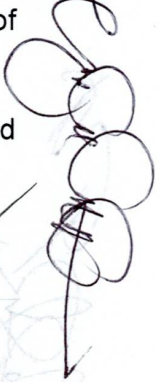




#### Section 17: Mapping and Spatial Information Services



Reviewing the implementing Rules and Regulations of RA 9200 as prescribed by the Board of Geodetic Engineering Resolution No. 12 series 2003 which further discussed other services embraced by the practice of Geodetic Engineering.





Some services that Geodetic Engineers provides are as follows:

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1. Preparation and making of sketch, lot and location plans;
  2. Conduction of engineering surveys and the technical preparation of engineering survey plans such as topographic, hydrographic, tidal, profile, cross-section, construction and boundary surveys;
  3. Conduction of gravimetric and photogrammetric survey and the technical preparation of such survey plans;
  4. Survey and mapping works such as the preparation of geographic and/or land information systems;

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5. Survey to determine and establish line and grade for the construction of buildings and other structures and its attachments;
  6. Installation of machineries requiring the use of precision instruments;
  7. Geomatics activities;

## SCHEDULE 10: CARTOGRAPHY/ MAPPING SERVICES

### A. Definitions

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1. **Cartography/ Mapping Services** refers the services that deals with the conception, production, dissemination and study of maps/survey plans.
  2. **UAV Mapping Services** refers to mapping services that make use of an unmanned Aerial Vehicle (UAV) system. UAV has the ability to quickly and inexpensively collect highly detailed data of smaller areas. Once data collection is complete, fast and automatic data processing allows for speedy end product deliveries.
  3. **Mobile and Static Laser Mapping Services** refers to mapping services that make use of terrestrial laser scanners or ground Lidar systems for gathering detailed point cloud data, which we can use to provide maps, models, drawings or plans.
  4. **Location Plan with Vicinity Map** refers to maps or drawing of lots as per torrents title for the purpose of submission to banks for loans and to LGUs for permits. This shall not be use for titling.
  5. **Digitized Map/Raster Data** refers to the gathering of attributes/data of a map/ image (raster) and converting it to digital form that can be used in CAD or GIS applications. Output Formats can be: DWG, DXF (AutoCAD), DGN (InterGraph), GEN (ArcInfo), MDB (ArcGIS), SHP (ArcView), MIF (MapInfo), TOP (Credo), CSV.
  6. **Specialty Maps** refers to the creation of customized maps base on the client's requirements. It could include custom labeling, data manipulation, analytical, etc.
  7. **Tax Mapping Services** refers to mapping services conducted for the City/ Municipal/Provincial Assessor for the updating of their tax maps or documents showing the location, dimensions, and other information pertaining to a parcel of land subject to property taxes. Tax maps are generally bound into books and kept as public records. ([http://www.investorwords.com/13928/tax\\_map.html](http://www.investorwords.com/13928/tax_map.html))
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## B. Scope of Services

### 1. UAV, Mobile and Static Laser Mapping Services

The general scope of services and deliverables for all field mapping services are as follows:

- i. Receiving instructions/Acceptance/Establishment of Job
- ii. Research current survey information/ Preliminary Investigations
- iii. Field survey - includes Location of structures (footprint only, floor level), paths, driveways, visible services, site levels, significant vegetation, street features for site frontage, fences type and height
- iv. Connection to Height Datum
- v. Preparation of Digital Terrain Model
- vi. Preparation of formal Plan of Survey

Additional (non-standard) items include:

- i. Additional field observations and plan preparation to accommodate site analysis requirements
- ii. Adjoining property information/features
- iii. Remote Height Datum connection
- iv. Connection to PRS92 datum
- v. Re-establishment or marking of boundaries
- vi. Location of underground services
- vii. Depthing and heighting of services

This schedule does not include:

- i. Additional items as outlined in other schedules such as Geo tagging
- ii. Identification of vegetation species

### 2. Location Plan /Digitised Maps/Speciality Maps Preparation

The general scope of services and deliverables for all office mapping services are as follows:

- i. Receiving instructions/Acceptance/Establishment of Job
- ii. Research current survey information/ Preliminary Investigations
- iii. Preparation of maps

Additional (non-standard) items include:

- i. Alterations at the request of client
- ii. Amendments creating new versions of the Plan/Map

This schedule does not include:

- i. Undertaking field surveys
- ii. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed rates are as follows:

#### 1. UAV, Mobile and Static Laser Mapping Services

Activity	Details of Costing
Static Laser Mapping Services	Php100,000 per point, includes processing
Mobile Laser Mapping Services	Php50,000 per kilometer, includes processing
UAV Mapping Services	Php 3,000 per hectare minimum of 100 hectares includes processing

#### 2. Location Plan with Vicinity Map

Type of Plan	Costing
Residential	Php5,000.00 per plan/sheet
Agricultural	Php7,500.00 per plan/sheet
Industrial/ Commercial	Php10,000.00 per plan/sheet

#### 3. Digitized Map/Raster Data

Type of Map	Approximate Costing
Low Density	Php70,000.00 per Map sheet/Raster
Moderately Density	Php150,000 per Map sheet/Raster
Highly Density	Php250,000.00 per Map sheet/Raster

#### 4. Tax Mapping Services

Services	Approximate Costing
<b>Survey Team for Tax Mapping</b> (A Survey Team = Geodetic Engineer/ Instrument man & two (2) Survey Aides)	<b>Php 3,500</b> per visit (one hour) per site/property/lot Add 2,500 per extra hour stayed in one site/property/lot

## 5. Specialty Maps

Maps	Approximate Costing
<b>Standard Maps</b> <i>(Map of a particular area at any scale and standard labeling. Satellite image can be used for additional cost)</i>	<ul style="list-style-type: none"> <li>A4 Size/ 8.5" x 11" = <b>Php 1,000.00</b> with Satellite Image Add Php100.00</li> <li>A3 Size or 11" x 17" = <b>Php 1,500.00</b> with Satellite Image Add Php200.00</li> <li>A0 Size or 36" x 48" = <b>Php 3,000.00</b> with Satellite Image Add Php 500.00</li> <li>Custom Size = Price is based on size.</li> </ul>
<b>Customize Maps</b> <i>(it may include data manipulation and analytical data)</i>	Cost of Standard Maps plus Hourly Rate plus 20%
<b>Electronic Maps</b> <i>(for e-mail only)</i>	<b>½ cost of the Standard/Customized Maps.</b> Available file formats are GIF, JPG, PDF, or TIF.

## D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

## E. Extra Costs/ Adjustments and Increases.

The following complexities should be considered and charges on an **hourly rate plus 20%** basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
5. PRS92 coordinate datum connection
6. Risk (consideration should be given to the overall value of the development)
7. Lot Size and repetition of lots
8. More recent survey information to be considered
9. Updated statutory survey requirements being altered since previous survey
10. Determination of title boundaries for additional titles or altered title boundaries

## F. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## SCHEDULE 11: SIS AND IMPLEMENTATION SERVICES

### A. Definition

**Spatial Information System (SIS) and Implementation Services** refers to services for the development and implementation of tailored/customized spatial/geographic information system thus making it easier to share and distribute spatial data between people and between systems.

### B. Scope of Services

Scope of services included:

1. Receiving instructions
2. Mission planning and assessment and compliance with statutory obligations.
3. Field survey/Base Mapping Activities:
  - i. Establishment of Site Control
  - ii. Relocation/Verification Survey
  - iii. As-Built Survey
  - iv. Structural Survey
  - v. Collection of scanned data and/or imagery
4. Processing of imagery and raster data
5. Preparation of plans and reports

Additional (non-standard) items include:

1. Connection to PRS92 datum

This schedule does not include:

1. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed computation of Total Cost:

*Total Cost of Base Mapping Activities*

*plus Total Cost of SIS Activities*

*plus Total of Extra Costs like Software Acquisition and alike*

SIS Development and Implementation activities and costing are as follows:


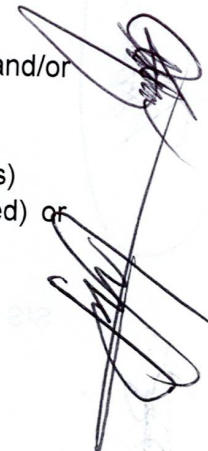

SIS Process	Approximate Costing
<b>System Development</b> (includes planning, technical research and development of GIS platform base on client's requirement)	<b>Php 500,000.00 per Information System or Purpose</b> (ex. Disaster Risk Assessment, Tax Mapping System, Real Property Assessment System, Crime Detection System)
<b>System Implementation and Customization</b> (includes system trial and troubleshooting)	<b>30% of the Total SIS Cost</b> [or (Cost of System Development / 0.60) x 0.30]
<b>System Deployment and Operations</b> (includes implementation of final system)	<b>10% of the Total SIS Cost</b> [or (Cost of System Development / 0.60) x 0.10]
<b>Technology Transfer and Support</b> (includes users' trainings with manual and aftersales support)	<b>Hourly Rates</b> of Geodetic Engineers/ GIS Operators plus 20% <ul style="list-style-type: none"><li>For training - minimum of 40hours (or five (5) days)</li><li>For Support - minimum of two (2) hours per Assistance</li></ul>

#### D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

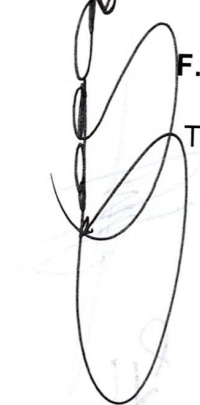
#### E. Extra Costs/ Adjustments and Increases

The following complexities should be considered and charges on an hourly rate plus 20% basis.

- 
- 
- 
1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
  2. Obstructed, irregular or complex boundaries
  3. Additional boundary marks in excess of 4 for each new lot (including line marks)
  4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
  5. PRS92 coordinate datum connection
  6. Risk (consideration should be given to the overall value of the development)
  7. Lot Size and repetition of lots
  8. More recent survey information to be considered
  9. Updated statutory survey requirements being altered since previous survey
  10. Determination of title boundaries for additional titles or altered title boundaries
  11. Acquisition of Software/ Trainings
  12. Condition and load of the data,
  13. Processing and system requirements.

#### F. Additional Fees

The following should be included:



- 
1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
  2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

### SCHEDULE 12: PHOTOGRAMMETRY AND REMOTE SENSING SERVICES

#### A. Definition



**Photogrammetry and Remote Sensing Services** are surveying services which are consist of the process of gathering geometric and spatial data about objects and landscapes from photographs and satellite images.

- 
- 
1. **Aerial Photography and Photo Processing** makes use of GPS-equipped planes, digital cameras and powerful computers, allowing to perform rapid surveys over large land areas with accuracy down to 5cm.
  2. **Satellite Image Processing** refers to the creation of useful images from the raw satellite data for analysis and to support Geographic Information Systems (GIS) and other mapping and research applications

## B. Scope of Services

Scope of services included:

### 1. Aerial Photography and Photo Processing

The general scope of services and deliverables are as follows:

- a. Receiving instructions
- b. Mission planning and assessment and compliance with statutory obligations
- c. Field survey/Base Mapping
  - i. Establishment of Site Control
  - ii. Relocation/Verification Survey
  - iii. Flight planning and GCP Surveys
- d. Aerial photo maps development and printing
- e. Scanning
- f. Aero-triangulation and Planimetric mapping
- g. Digital elevation and terrain modelling (DEM/DTM)
- h. Map editing and Digital orthophoto mosaics

Additional (non-standard) items include:

- a. Connection to PRS92 datum

This schedule does not include:

- a. Additional items as outlined in other schedules

### 2. Satellite Image Processing

The general scope of services and deliverables are as follows:

- a. Receiving instructions
- b. Processing of satellite imagery and raster data
- c. Extraction of Information
- d. Preparation of plans and reports

This schedule does not include:

- a. Acquisition of Satellite Image from GeoEye, DigitalGlobe, Spot Image, RapidEye, ImageSat International or Meteosat
- b. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed cost of Aerial Surveys:

Type of Map	Approximate Costing
Aerial Digital Camera	Php 3,000 per hectare minimum of 100 hectares, includes processing and printing of Photos. Subject to government taxes such as 12% VAT
LiDAR	Php 4,000 per hectare minimum of 100 hectares includes, processing and printing of Photos. Subject to government taxes such as 12% VAT

proposed cost of Aerial and Satellite Image Processing:

Process	Approximate Costing
Image Rectification and Restoration	Php100,000.00 per Aerial/Satellite Image
Image Enhancement and Specialized analysis	Php150,000.00 per Aerial/Satellite Image
Information Extraction	Refer to Schedule 8C, item no. 3 - Digitized Map/Raster Data

### D. Government Fees

This price guide does not include verification and approval fees from DENR and subject to government taxes such as 12% VAT.

### E. Extra Costs/ Adjustments and Increases

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Vegetation cover and difficult terrain where land is not clear/heavily vegetated and/or slopes exceeds 2-3 degrees,
2. Obstructed, irregular or complex boundaries
3. Additional boundary marks in excess of 4 for each new lot (including line marks)
4. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
5. PRS92 coordinate datum connection
6. Risk (consideration should be given to the overall value of the development)
7. Lot Size and repetition of lots
8. More recent survey information to be considered
9. Updated statutory survey requirements being altered since previous survey
10. Determination of title boundaries for additional titles or altered title boundaries
11. Acquisition of Software/ Trainings
12. Condition and load of the data,

13. Processing and system requirements.

#### F. Additional Fees

The following should be included:

1. Cost of acquisition of satellite images from GeoEye, DigitalGlobe, Spot Image, RapidEye, ImageSat International and Meteosat at actual cost plus 20%
2. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
3. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## PART F – OTHER PROPERTY SURVEY SERVICES

### Section 18: Other Property Survey Services

Property Surveying is not only limited to land. It also includes fixtures or structures upon the land such buildings. However, present legislation does not include geodetic engineering services for the preparation of Condominium Certificate of Title (CCT) and for Lease Area Agreements of Real properties.


This section will provide definition and propose recommended costing for services covering:

1. Strata subdivision / condominium surveys
2. Lease Area surveys

### SCHEDULE 13: STRATA SUBDIVISION / CONDOMINIUM SURVEYS

#### A. Definition

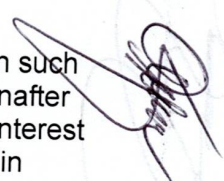
1. **Strata subdivision** entails acquiring a Strata Plan, which allows for the subdivision of buildings and structures on a single allotment of land into multiple Strata lots and shared Common Property. Once the Strata Plan is created, an Owners Corporation is formed

- 
- a. **Unit Subdivisions** - Subdivisions of low rise, residential, commercial and industrial developments where the walls of existing buildings will be created as boundaries.
- b. **Building (Multi-level) Subdivisions** - Subdivisions of multi-level buildings where the walls of existing buildings will be created as boundaries.

(source: <https://surveyplus.com.au/surveying-services/strata-subdivision/>)



2. **Condominium** is an interest in real property consisting of separate interest in a unit in a residential, industrial or commercial building and an undivided interest in common, directly or indirectly, in the land on which it is located and in other common areas of the building. A condominium may include, in addition, a separate interest in other portions of such real property.

- a. Title to the common areas, including the land, or the appurtenant interests in such areas, may be held by a corporation specially formed for the purpose (hereinafter known as the "condominium corporation") in which the holders of separate interest shall automatically be members or shareholders, to the exclusion of others, in proportion to the appurtenant interest of their respective units in the common areas.
- b. The real right in condominium may be ownership or any other interest in real property recognized by law, on property in the Civil Code and other pertinent laws.
- 

(source: Republic Act No. 4726 June 18, 1966)

3. **Condominium surveys** are a specialized class of boundary surveys and are governed by the "Condominium Property Act" specific to the state and locale where the condominium building is situated. The plat requirements require actual field measurements. The measurements cannot be taken or transcribed from plans or other informational materials. The exterior boundaries of a condominium parcel are monumented. Notes on the condominium plat must indicate whether the interior measurements shown are referring to finished or unfinished surfaces or planes and what data was used for any elevations depicted on the plat.

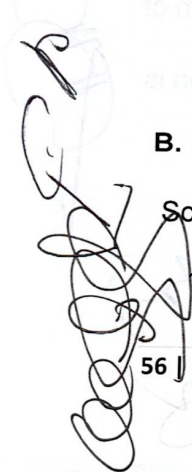
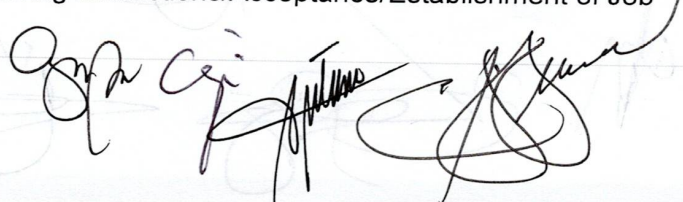
(source: <http://www.landmark80.com/condominium-survey.html>)



- a. **A condominium conversion survey** is a survey that establishes individual condominium units and is used when converting an apartment building with leased apartments into condominiums with private unit ownership. The survey typically will indicate unit identification, commonly shared spaces and parking lot location

## B. Scope of Services

Scope of services included:

1. Receiving instructions/Acceptance/Establishment of Job
- 
- 
- 

2. Research current survey information/ Preliminary Investigations
3. Preparation of preliminary/draft plans
4. Field survey - includes measurement of internal walls of each unit
5. Preparation of formal Plan of Subdivision (showing lot boundaries, dimensions, easements and Owners Corporation Schedule) for registration
6. Delivery of survey documents to client's representative for lodgement at authorised government agency including:
  - a. Plan of Subdivision
  - b. Geodetic Engineer's Report
  - c. Other required documents

This schedule does not include:

1. Relocation/Verification Surveys (refer to Schedule 1)
2. Construction/Setout Surveys
3. As built and/or Structural survey, if necessary
4. Additional items as outlined in other schedules

### C. Recommended Rates

The proposed cost of Strata Surveys:

Type of Service	Approximate Costing
1. Draft/ Preliminary Plans	Php 5,000 base fee (good for two (2) Units (Part Lots)) and Php2,500 per succeeding Units (Part Lots)
2. Final Strata/ Condominium plan (new developments)	Php 40,000 base fee (good for two (2) Units (Part Lots)) and Php5,000 per succeeding corner Units (Part Lots)
3. Final Strata/ Condominium plan (existing buildings)	Same rates as per new developments (item C.2.) Plus Hourly rates for all time spent on additional survey to obtain necessary detail of the plan and also additional drafting works

For Commercial/Industrial Lots, consider the Land Use factor at Schedule 1

### D. Government Fees

This price guide does not include verification and approval fees from DENR, LRA and/or HLURB and subject to government taxes such as 12% VAT.

### E. Extra Costs/ Adjustments and Increases

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Obstructed, irregular or complex boundaries
2. Additional boundary marks in excess of 4 for each new lot (including line marks)

3. Additional cadastral datum required (where more than one datum is required) or where significant additional survey is required to re-establish title
4. PRS92 coordinate datum connection
5. Risk (consideration should be given to the overall value of the development)
6. Lot Size and repetition of lots
7. More recent survey information to be considered
8. Updated statutory survey requirements being altered since previous survey
9. Determination of title boundaries for additional titles or altered title boundaries

#### F. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

### SCHEDULE 14: LEASE SURVEYS

#### A. Definition

1. **Lease Area Surveys** (or **Lettable Area Surveys**) are performed to calculate the floor space as part of lease negotiations or as part of due diligence for commercial property sales. Lease Area Surveys are needed when entering into, renewing or negotiating a lease of a property for your business
2. **Net Lettable Area (NLA)** is a measurement of the total occupiable floor **space** taken from the inside surfaces of the exterior walls and/or the mid-line of any shared walls and excludes **areas** such as common stair wells, toilets, lift lobbies and vertical service ducts. **NLA** is used in office buildings and office and business parks.
3. **Gross Lettable Area – Retail (GLAR)** is the total floor space measuring from the internal finished surface of external walls or from the centre line of inter-tenancy walls, whichever is deemed appropriate. GLAR is used for measuring floor area of retail tenancies in shopping centres, commercial buildings and strip and free-standing shops.
4. **Gross Lettable Area (GLA)** also known as gross leasable area is the amount of floor space which is available for rent in a commercial property. Basically it is the actual square-unit of a building that may be leased or rented to tenants and is the area used to compute the lease or rental payments. GLA includes any basements, mezzanines, or upper floors and usually excludes common areas, elevator shafts,

stairways, and space devoted to cooling, heating, or other equipment. GLA is used for tenancy areas in warehouses, industrial buildings, free standing supermarkets and showrooms.

## B. Scope of Services

Scope of services included:

1. Receiving instructions/Acceptance/Establishment of Job
2. Research current survey information/ Preliminary Investigations
3. Preparation of preliminary/draft plans
4. Field survey - includes measurement of internal walls of each unit
5. Preparation and delivery of documents to client's representative for lodgement at authorised government agency including:
  - a. Lease Area Survey (NLA, GLAR, GLA) Plan
  - b. Geodetic Engineer's Report
  - c. Other required documents

This schedule does not include:

1. Relocation/Verification Surveys (refer to Schedule 1)
2. Construction/Setout Surveys
3. As built and/or Structural survey, if necessary
4. Additional items as outlined in other schedules

## C. Recommended Rates

1. For a single Tenancy NLA or GRA (One Shop/Unit in one visit only)

AREA (m <sup>2</sup> )	FEES per SHOP/UNIT
< 200	Php15,000
200 < 400	Php20,500
400 < 600	Php26,000
600 < 800	Php31,500
800 < 1,000	Php38,000
1000 < 1,500	Php51,750
1,500 < 2,000	Php65,500
Over 2,000	Negotiate

2. For a two or more Tenancy NLA or GRA in one visit

AREA (m <sup>2</sup> )	FEES per SHOP/UNIT
< 200	Php10,000
200 < 400	Php15,000
400 < 600	Php20,000
600 < 800	Php25,000
800 < 1,000	Php30,000
1000 < 1,500	Php42,500
1,500 < 2,000	Php55,000
Over 2,000	Negotiate

3. For surveys in areas of high rental values like in Metro Manila or any Metro City, the above fees should be increased by 30%
4. In negotiating, the proposed fees of the survey should not be less than the **Hourly Rates** of the Team/Geodetic Engineers involved plus 20%

#### D. Government Fees

This price guide does not include verification and approval fees from appropriate government agencies and subject to government taxes such as 12% VAT.

#### E. Extra Costs/ Adjustments and Increases

The following complexities should be considered and charges on an hourly rate plus 20% basis.

1. Occupied units/shops
2. High value shops/space being leased
3. Obstructed, irregular or complex boundaries
4. Additional boundary marks in excess of 4 for each new lot (including line marks)
5. Risk (consideration should be given to the overall value of the development)
6. Lot Size and repetition of lots
7. More recent survey information to be considered
8. Updated statutory survey requirements being altered since previous survey
9. Determination of title boundaries for additional titles or altered title boundaries

## F. Additional Fees

The following should be included:

1. Disbursements or amount paid by Geodetic Engineer on behalf of client. Charged at actual amount paid plus 20%
2. Expenses such as travelling expenses, cost of living allowances, accommodation cost, subcon facilitation. Charged at actual amount paid plus 20%

## PART G – OTHER CONSULTATIVE SERVICES

### Section 19: Knowledge/Skills Sharing Services

As a professional, we are sometimes invited to share knowledge through seminars and conferences as lecturers, resource persons, coordinators and facilitators.

This section will provide definition and propose recommended costing for the above services.

### SCHEDULE 14: HONORARIA TO LECTURERS, RESOURCE PERSONS, COORDINATORS AND FACILITATORS

#### A. Definition

1. **Honorarium** is a form of compensation given as a token of appreciation or reward for gratuitous services on account of one's broad and superior knowledge or expertise in a specific field for which going by custom, tradition or propriety. No fixed price is set.
2. **Lecturer** is any person who by as an instructional method in seminars, workshops, conferences, symposia, training programs and other similar activities.
3. **Resource person** is any person who, by virtue of his/her expertise in a specific subject area. Serve as speaker in seminars, conferences, symposia training program and similar activities.
4. **Coordinator** is any person who acts as lead person in the conduct of seminars, training program. and other similar activities He/she directs, supervises and/or participates in the organization, coordination and conduct of such activities: develop training designs, modules and curricula of identified courses in response to training needs; may serve as lecturer, resource person or facilitator.

5. **Facilitator** is any person who is a subject expert in neutrally managing group processes and dynamics sessions such that he/she intervenes for greater group understanding thus enabling the participants to full participation, to mutual understanding, and to shared responsibilities in the achievement of group objectives and/or in making quality decisions.

(source: <https://www.dbm.gov.ph/wp-content/uploads/2012/03/BC-2007-1.pdf>)

## B. Criteria and Formula

The individual rates of honoraria for lecturers, resource persons and facilitators shall be determined based on the following criteria:

1. Difficulty and complexity of the subject matter
2. Professional qualifications of the lecturers, resource persons, coordinators and facilitators
3. Position levels of participants

### Formula:

For fifty (50) seminar/workshop/conference/ training participants:

<b>Total Minimum Honorarium (TH<sub>Min</sub>)</b>	$(0.023) \times (\text{MSR}_{\text{min}} = \text{Monthly Salary Rates}) \times (T = \text{actual lecture/training hours})$
<b>Total Maximum Honorarium (TH<sub>Max</sub>)</b>	$(0.023) \times (\text{MSR}_{\text{max}} = \text{JL29} = \text{PHP187,076}) \times (T = \text{actual lecture/training hours})$

For excess of fifty (50) seminar/workshop/conference/ training participants:

**Total Honoraria may be proportionately increased depending on the number of participants**

## C. Recommended Minimum Rates

The recommended Total Minimum Honorarium per hour of lecture for fifty (50) seminar/workshop/conference/ training participants shall be as follows:

**For Professional Geodetic Engineers**

Job Level	Level/Position	Monthly Rate (PHP)	TH <sub>Min</sub> / hour (PHP)
27	Geodetic Engineer Project Director (GE-PD) Principal / Partner / Business Manager	143,239.00	3,294
26	Sr. Geodetic Engineer Project Manager (SGE-PM)	125,333.00	2,883
25	Geodetic Engineer Project Manager (GE-PM)	109,666.00	2,522
24	Geodetic Engineer V (Survey Party Chief)	94,909.00	2,183
22	Geodetic Engineer IV (Senior Supervising Geodetic Engineer)	72,665.00	1,671
20	Geodetic Engineer III (Supervising Geodetic Engineer)	55,633.00	1,280
18	Geodetic Engineer II (Project Geodetic Engineer)	43,360.00	997
15	Geodetic Engineer I	32,131.00	739

**For Non-Licensed Geodetic Engineer and Personnel**

Job Level	Level/Position	Monthly Rate (PHP)	TH <sub>Min</sub> / hour (PHP)
15	Sr. Survey Cartographer	32,131.00	739
13	Assistant Geodetic Engineer	26,283.00	605
11	Sr. Survey CAD/GIS Operator	21,345.00	491
11	Geodetic Engineering Technician/ Instrument Man	21,345.00	491
10	Survey CAD/GIS Operator	19,762.00	455
10	Survey Researcher	19,762.00	455

**D. Additional fees and Taxes**

- Travel and other incidental expenses** - Lecturers, resource persons, and facilitators may be entitled during out-of-town capacity development activities
- Bureau of Internal Revenue (BIR) taxes** shall be withheld from the honoraria given to the recipients thereof.

## PART H - VALIDITY AND REVISIONS

### Section 19: Frequency of Review and Revision

The Committee on Professional Standards and Practice shall review the Geodetic Engineering Services Rates and its Guidelines annually and if deemed necessary amend the survey rates annually.

- a. It's the Committee's responsibility to convene selected Geodetic Engineering practitioners to help amend or revise the Geodetic Engineering Services Rates.
- b. The amended Survey Rates are subject to the approval of the GEP National Assembly thru the National Board of Governors.

### Section 20: Validity of Survey Rates

The Geodetic Engineering Services Rates, if not amended annually, shall have a validity of three (3) years.

## PART I – CHARGING BELOW THE RATES

### Section 21: Reference and Discretion

The Geodetic Engineering Services Rates indicated in this Guide and "Schedules" serve as reference to Practicing Geodetic Engineers.

A geodetic engineer has its own discretion to charge for his services using the GEPI Geodetic Engineering Services Rates or to charge above or below the prescribed tariff.

### Section 22: No Violation

Unless ruled by the Board, charging below the Geodetic Engineering Services Rates may not be a violation of laws on professional practice provided that the Geodetic Engineer satisfactorily delivered the services required by the client

## Section 23: Compensation to Geodetic Engineers and Personnel

a. **For Start-ups or Small-Scale Proprietors**, Job Level 18 is recommended as an ideal rate for a licensed Geodetic Engineers acting as Party Chief.

1. Entry Level Geodetic Engineers should not be given a base pay below Php 25,000.00.
2. the "minimum wage" requirement can be adopted for administrative personnel such as laborer, clerk, drivers and alike.
3. Salary Grades 8 -10 may be used for technical but non-Geodetic Engineers; and

b. **For Large Scale Proprietors, Survey Corporations, Project Management Offices and Government Agencies** are required to observe the Geodetic Engineering Services Rates.

## PART J – TRANSITORY PROVISIONS

### Section 24: Separability Clause

If any clause, provision, paragraph or part hereof shall be declared unconstitutional or invalid, such judgment shall not affect, invalidate or impair any other part hereof, but such judgment shall be merely confined to the clause, provision, paragraph or part directly involved in the controversy in which such judgment has been rendered.

### Section 25: Repealing Clause.

All policies, resolutions, rules and regulations, and covenants or parts thereof contrary and inconsistent with this Policy Manual and such extant laws of the Republic of the Philippines are hereby repealed or modified accordingly.

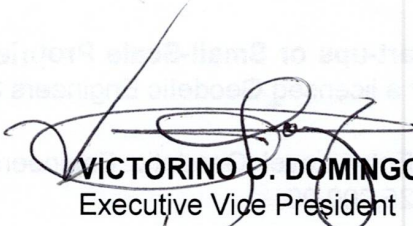
### Section 26: Adoption Clause

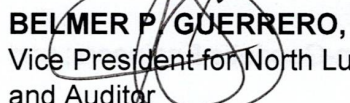
This Guide was adopted and signed by the majority of all the GEP Board of Governors and approve by the Directorate during the 47<sup>th</sup> Annual Directorate Meeting and Convention last June 4, 2022 at Baguio Convention Center, Baguio City.

### Section 27: Effectivity

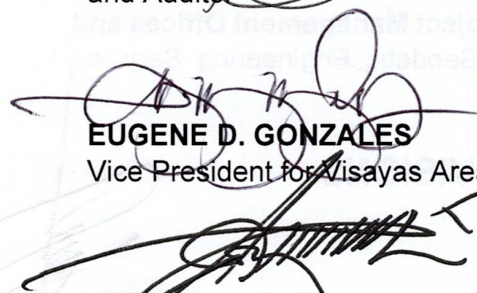
This Guide and the corresponding Geodetic Engineering Services Rates shall be effective immediately upon adoption, unless another effective date is specifically determined by the GEP Board of Governors, upon adoption of such amendment.

  
**MARIO JOSE O. SILVINO**  
National President

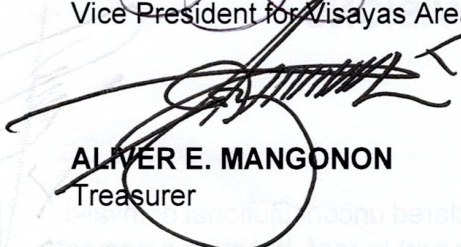
  
**VICTORINO D. DOMINGO**  
Executive Vice President

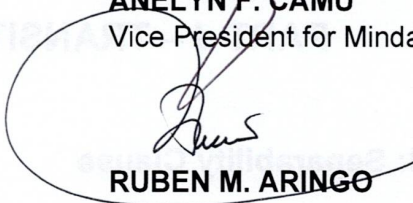
  
**BELMER P. GUERRERO, SR.**  
Vice President for North Luzon Area  
and Auditor

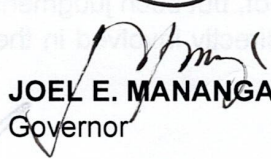
  
**QUIRINO P. CLEMENO, JR.**  
Vice President for South Luzon Area  
and Executive Secretary

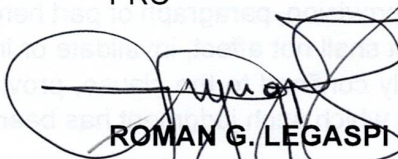
  
**EUGENE D. GONZALES**  
Vice President for Visayas Area

  
**ANELYN F. CAMU**  
Vice President for Mindanao Area

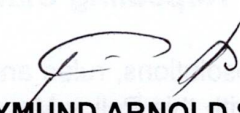
  
**ALIVER E. MANGONON**  
Treasurer

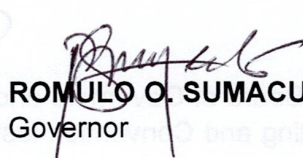
  
**RUBEN M. ARINGO**  
PRO

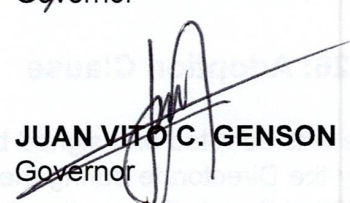
  
**JOEL E. MANANGAN**  
Governor

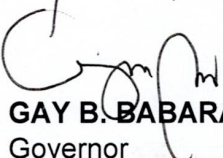
  
**ROMAN G. LEGASPI**  
Governor

  
**ALLAN F. FLORIN**  
Governor

  
**RAYMUND ARNOLD S. ALBERTO**  
Governor

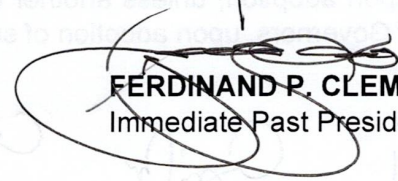
  
**ROMULO O. SUMACULUB**  
Governor

  
**JUAN VITO C. GENSON**  
Governor

  
**GAY B. BABARAN**  
Governor

  
**ANICETO A. BRETAÑA**  
Governor

  
**VIRGILIO P. SOLIMAN, JR.**  
Governor

  
**FERDINAND P. CLEMENO**  
Immediate Past President



# GEODETIC ENGINEERS OF THE PHILIPPINES, INC.

PRC Certificate of Accreditation No. AIPO-013

No. 43 Mariveles Street, Sta. Mesa Heights, Quezon City

Tel. No. 353-6549 – email address: nationalgep.1975@gmail.com

## PARCELLARY SURVEY OF THE LOTS AFFECTED BY THE ROAD RIGHT-OF-WAY OF GOVERNMENT INFRASTRUCTURE PROJECTS

### SURVEY COST PER KILOMETER

#### 1. RURAL AREAS

- a) Assume 200 meters frontage of each lot traverse by the road

No. of lots affected by the road  
= 1,000 m. / 200 m. per lot  
= 5 lots in one side of the road or a total  
of 10 lots on both sides

- b) Relocation Survey Cost of 10 lots.  
Assume 2 has. per lot and based on the GEP Survey Rates 2021, the Cost for two (2) hectare is Php 38,000.00 per lot. Includes as-built survey within the road right-of-way

Relocation Survey Cost  
= 10 lots x Php 38,000.00 per lot  
= Php 380,000.00

- c) Subdivision Survey Cost of 10 lots.  
Assume two (2) resulting lots per affected mother lot. Survey Cost per GEP Survey Rates is Php 20,000.00 plus approval fees, GEP fees, etc or about Php 22,000.00 per mother lot with approval by the DENR

Subdivision Survey cost  
= 10 lots x Php 22,000.00  
= Php 222,000.00

- d) Parcellary and Right-of-Way  
Plan preparation per  
kilometer

Cost of the Parcellary and right-of-way plan  
preparation per km.  
= Php 100,000.00 per kilometer

Total Survey cost per kilometer

Total survey cost per kilometer  
= Relocation survey Cost +  
Subdivision Survey cost +  
Parcellary and right-of-way  
plan preparation + 12 %  
VAT  
= Php 380,000.00 + Php  
222,000.00 + Php 100,000.00 +  
Php 84,240.00 (VAT)  
= Php 786,240.00  
say Php 800,000.00/km.

#### 2. URBAN AREAS

- f) Assume 20 meters frontage of each lot traverse by the road

No. of lots affected by the road  
= 1,000 m. / 20 m. per lot  
= 50 lots, in one side of the road or a total of

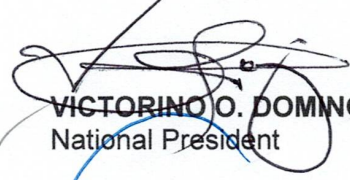
<p>Relocation Survey Cost of 100 lots. Assume less that a hectare per lot and based on the GEP Survey Rates 2021, the Cost for less than a hectare is Php 20,000.00 per lot. Includes as-built survey within the road right-of-way</p>	<p>100 lots on both sides</p> <p>Relocation Survey Cost = 100 lots x Php 20,000.00 per lot = Php 2,000,000.00</p>
<p>g) Subdivision Survey Cost of 100 lots. Assume two (2) resulting lots per affected mother lot. Survey Cost per GEP Survey Rates is Php 20,000.00 plus approval fees, GEP fees, etc or about Php 22,000.00 per mother lot with approval by the DENR</p>	<p>Subdivision Survey cost = 100 lots x Php 22,000.00 = Php 2,200,000.00</p>
<p>h) Parcellary and Right-of-Way Plan preparation per kilometer</p>	<p>Cost of the Parcellary and right-of-way plan preparation per km. = Php 180,000.00 per kilometer Total survey cost per kilometer</p>
<p>i) total Survey cost per kilometer</p>	<p>= Relocation survey Cost + Subdivision Survey cost + Parcellary and right-of-way plan preparation + 12 % VAT = Php 2,000,000.00 + Php 2,200,000.00 + Php 180,000.00 + Php 525,600.00 (VAT) = Php 4,905,600.00 say Php 4,900,000.00/km.</p>

#### SCOPE OF WORKS:


1. Secure certified tax declaration from the Assessor's Office.
2. Secure certified true-copy of Transfer Certificate of title from the Register of Deeds.
3. Secure technical data from the DENR and Land Registration Authority such as approved plans, projection maps cadastral maps, lot data computations, lot descriptions, etc.
4. Request for Survey Order from the DENR Concerned for all untitled lots.
5. Request for certification from the CENRO/PENRO, DENR whether the lots are within alienable and disposable land or not.
6. Individual relocation survey of the lot
7. As-built survey of all existing structures within the road right-of-way
8. Preparation of the parcellary and right-of-way plans with the approval of the Government Agency concerned or of the procuring entity
9. Preparation of the individual subdivision plan of the affected lot with the approval of the DENR concerned

## Adoption Clause

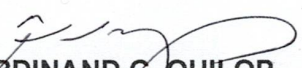
This Guide was adopted and signed by the majority of all the GEP Board of Governors and approve by the Directorate during the 48th Annual Directorate Meeting and Convention last June 24, 2023 at SMX Lanang Premier, J. P. Laurel Avenue, Lanang, Davao City.



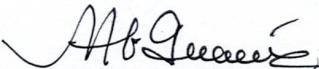
**VICTORINO O. DOMINGO**  
National President



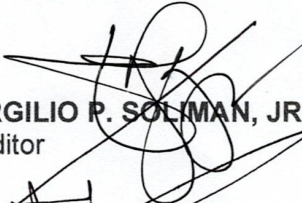
**DELINO G. CUBACUB**  
Vice President for North Luzon Area



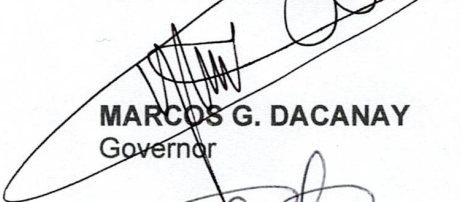
**FERDINAND G. QUILOP**  
Vice President for Visayas Area



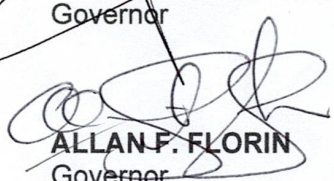
**MARY ANN B. GALANG-REYES**  
Executive Secretary




**VIRGILIO P. SOLIMAN, JR.**  
Auditor



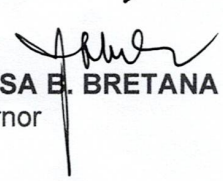
**MARCOS G. DACANAY**  
Governor




**ALLAN F. FLORIN**  
Governor



**ARTHUR C. ARCUINO**  
Governor



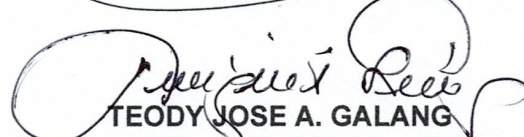
**TERESA B. BRETANA**  
Governor



**QUIRINO P. CLEMENO, JR.**  
Executive Vice President




**RUBEN M. ARINGO**  
Vice President for South Luzon Area




**TEODY JOSE A. GALANG**  
Vice President for Mindanao Area



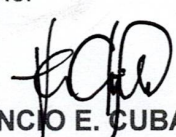
**RAYMUND ARNOLD S. ALBERTO**  
Treasurer




**ROMEO R. VERZOSA**  
PRO



**ELVIS D. DOMILOD**  
Governor



**VENANCIO E. CUBA, II**  
Governor



**FERNANDO B. GURREA**  
Governor



**MARIO JOSE O. SILVINO**  
Immediate Past President