

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY Lucban, Quezon

# REQUEST FOR QUOTATION

# **GEOTECHNICAL INVESTIGATION (PDO)**

Purchase Request No. 2024-09-2017
Approved Budget for the Contract: \$\to 350,000.00\$

The Southern Luzon State University through the Bids and Awards Committee invites interested firms/supplier to submit quotation for the procurement of <u>Geotechnical Investigation (PDO)</u> to apply the sum of <u>Three Hundred Fifty Thousand Pesos Only (#2 350,000.00)</u> inclusive of VAT, being the <u>Approved Budget for the Contract (ABC)</u>, details as follows:

Qty.	Unit	ITEM/S DESCRIPTION
1	lot	Geotechnical Investigation for Lot 1247 Proposed Location of College of Allied Medicine Annex (1 borehole)
1	lot	Geotechnical Investigation for Lot 1239 (1 borehole)
1	lot	Geotechnical Investigation for SLSU Main Annex (Piis) Lot (2 boreholes)
1	lot	Geotechnical Investigation for Lot C at SLSU Ayuti Campus (1 borehole)
1	lot	Geotechnical Investigation for SLSU Tayabas Lot (1 borehole)
1	lot	Geotechnical Investigation for SLSU Tiaong Lot (1 borehole)
		*see attached document for specifications

 The quotation must be submitted (can also be send thru email at the contact details listed below) or to the Office of the Procurement Office/Bids and Awards Committee, Southern Luzon State University, 2<sup>nd</sup> Flr. Hermano Puli Building, and shall be received by the Committee.

E-mail: slsuprocurement@slsu.edu.ph

2. The SLSU reserves the right to reject any or all quotations and/or proposals and waive any formalities/ informalities therein and to accept such bids it may consider as most advantageous to the agency and to the government. Southern Luzon State University SLSU neither assumes any obligation for whatsoever losses that may be incurred in the preparation of bids, nor does it guarantee that an award will be made.

MARIDEL C. ZABELLA Head, Procurement Office Southern Luzon State University Lucban, Quezon Tel. No.: (042)540-6519



# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY Lucban, Quezon

# REQUEST FOR QUOTATION

Office/End-User		Planning and Development Office		Date:	
COMPANY NA	ME:			PR No.:	2024-09-2017
ADDRESS					
TEL. NO./FAX	NO. :			TIN No.:	
Please later than		west price on the item(s) listed below, subject to the Terms & Conditions of in the return envelope attached herewith to	stated below and submit your quothe Procurement office.	otation duly signe	l by your representative not
2. Delivery period Administratitive p delivery without v 3. Warranty shall (1) one year for Ec 4. Price validity sl 5. Suppliers requi Certificate of Tax, Procurement Offic 6. Bidders shall st 7. Please indicate 8. The Approved	t be typewrit within enalties to St. alid reason. be for a min. puipment froi hall be for a p red to submin Mayor's Pern re upon subm. bemit comple t the brand fo budget celling	ten or legibility written. upon conforme of the approved Purchase Order (P.O). ec. 69 of the Revised IRR-RA 1984 shall be imposed for non- imum of three (3) months for Supplies & Materials; m date of acceptance by the end-user. seriod of sixty (60) colendar days. t updated documents yearly such as G-EPS Resgistration, nit, DTI, Bank Name/Account and Branch for evaluation of the hission of the quatation. ete specifications showing products certification, if applicable. or each items being offered. g for this procurement isPHP 350,000.00		EL C. ZABEL rocurement C	
Item# Qty.	Unit	ITEM/S DESCRIPTION		Unit Pric	Total Cost
1	lot	Geotechnical Investigation for Lot 1247 Proposed L Allied Medicine Annex (1 borehole)	ocation of College of		
1	lot	Geotechnical Investigation for Lot 1239 (1 borehole	:)		
1	lot	Geotechnical Investigation for SLSU Main Annex (Piis) Lo			
1	lot	Geotechnical Investigation for Lot C at SLSU Ayuti Camp			
1	lot	Geotechnical Investigation for SLSU Tayabas Lot (1 bore			
1	lot	Geotechnical Investigation for SLSU Tiaong Lot (1 boreh	ole)		
		*see attached document for specifications			
		PRE STF  ed your Genaral Conditions, We quote you on the Item(s) at prices nate above.  Conditions specified by SLSU Procurement Office.		Warranty: Price Validity: very Period, Warra	nty & Price Validity are left blank,
AFA-PRC-1.02 F2,	REV A		Printed Name/S	Signature/Date	1

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY

Planning and Development Office Lucban , Quezon

PROJECT TITLE: GEOTECHNICAL INVESTIGATION FOR LOT 1247 PROPOSED LOCATION OF COLLEGE OF ALLIED

MEDICINE ANNEX (1 BOREHOLE)

PROJECT LOCATION: SLSU MAIN CAMPUS, LUCBAN, QUEZON

**OWNER: Southern Luzon State University** 

ABC:

P

50,000.00

MODE OF IMPLEMENTATION: by Contract PROJECT DURATION: 45 Calendar Days

SHIMMARY

ITEM	QTY.	UNIT	DESCRIPTION UNIT COST			TOTAL	
1	1	lot	Mobilization/Demobil	lization			
11	1	lot	Drilling	Drilling			
ffi	T	lot	Laboratory Testing	aboratory Testing			
IV	1	lot	Geotechnical Evalua	ation			
٧	1	lot	Report Preparation				
_				TOTAL ESTIMATED	DIRECT COST	P	
				OVERHEAD, CONT	INGENCIES & MISC.(OCM)	P	
			INDIRECT COST	CONTRACTOR'S PROFIT		P	
			Control of the Contro	VALUE ADDED TAX	VALUE ADDED TAX ( VAT )		
				TOTAL PROJECT C	OST	P	

TAL PROJECT COST IN WO	ORDS:		
NITRACTOR / DIDDER :			

mother

PROJECT TITLE: Geotechnical Investigation for Lot 1247 Proposed Location of College of Allied Medicine

Annex (1 borehole)

PROJECT LOCATION: SLSU Main Campus, Lucban, Quezon

**OWNER:** Southern Luzon State University

PROJECT DURATION: 45 CD

### SCOPE OF WORKS

The Consultant shall provide all the labor, instrument/ equipment materials and supplies, vehicles, bunkhouses, etc., necessary to perform satisfactorily the sub-surface exploration herein required, viz:

- A. Field Works
- B. Laboratory Testing
- C. Soil Investigation and Preparation of Report

The Consultant shall be held solely responsible for the result of this boring/drilling exploration and other activities under this Terms of Reference.

#### DETAILED EXPLORATION REQUIREMENTS/SPECIFICATIONS

# A. FIELD WORKS

Drilling shall be performed utilizing the Standard Penetration Test (SPT) through ordinary soil encountered using an Auto-trip Hammer to the depths specified above. Standard penetration test shall be performed using 5.0 cm. (2.0 in.) outside diameter split spoon sampler, driven by a 63.6 kg. (140 lbs.) Hammer freely falling at 76.0 cm. (30 in.). The sampling interval shall be at 1.0 meters for the first 6.0m and 1.5m thereafter or as specified by the Client. Undisturbed soil samples, if permissible using a 6.35 cm. (2.50 in) I.D. thin wall tube sampler shall be obtained encountered in all cohesive materials. The undisturbed soil samples shall be taken such that a minimum amount of disturbance in the natural condition of the samples has been caused through drilling, sampling, preserving, storing, and transporting the samples. These undisturbed samples will be brought to the laboratory for special testing or as specified by the Client. Core diameter shall not be less than 45 mm in diameter. An "NMLC" geotechnical core barrel shall be used for core sampling. All measurements, observations, and field test results shall be recorded in appropriate boring logs including a groundwater table if any.

#### **B. LABORATORY TESTING**

- a. Standard penetration test (SPT) at maximum interval of 1.5 m at every change in soil stratum
- b. Laboratory Tests

1	Visual Identification of Soil
2	Index Properties
2.1	Moisture Content
2.2	Specific Gravity
2.3	Sieve Analysis
2.4	Hydrometer Analysis
2.5	Atterberg Limits
2.6	Soil Classification
3	Moisture-Density Relation
4	California Bearing Ratio (CBR)
5	Strength Tests
5.1	Triaxial Test
5.2	Direct Shear Test
6	Consolidation Test (if soft soils are encountered)
6.1	One-Dimensional Consolidation
6.2	Swell-Potential of Clays
6.3	Collapse Potential of Soils

The Consultant shall prepare the following reports and deliverables:

### **Final Report**

The Consultant shall prepare the geotechnical report and analysis in three (3) bound copies in a form and substance to be submitted to Southern Luzon State University within Forty-Five (45) calendar days upon receipt of the Notice to Proceed. The final report shall not be limited to the following:

- a. Field Investigation and Methodology
- b. Borehole Drilling and Sampling
- c. Laboratory Testing
- d. Final Boring Logs (BL)
- e. Final Laboratory Tests Results (FLTR)
- f. Borehole Location Plan
- g. Soil Profile along structures showing boring/drilling logs
- h. Soil Liquefaction Investigation Report
- i. Soil Bearing Capacity
- j. Recommendation if called for such as type of measure/structure of work

#### OTHER DATA TO BE SUBMITTED

- 1. Job, boring, hole number, date, time, boring/drilling, foreman, supervisor
- 2. Weather condition
- 3. Depth of boring at start of day
- 4. Water level in casing at start of day
- 5. Method of penetration and flushing system
- 6. Description of soil strata encountered
- 7. Depth of soil boundaries

- 8. Size, type and depth of samples and sample number
- 9. Type and depth of in-situ tests
- 10. Standard Penetration Tests Resistance, "N" Value
- 11. Recovery ratios of samples
- 12. Detailed notes on boring/drilling procedure, casing sizes and resistance to driving, description of wash water or spoil from boring/drilling tools
- 13. Depth of boring at end of day
- 14. Other relevant information such RQD, percent core recovery, angle of friction etc.

Photographs showing the borehole drilling and sampling at each proposed sites shall be taken by the Contractor and incorporated in the report. Photographs shall be taken at each borehole location depicting the following:

- 1. Equipment used
- 2. Core drilling operation
- 3. Water level measurements
- 4. Performance of SPT and Shelby tube sampling
- 5. All cores in the core boxes, SPT and Shelby tube samples

6. Date photographs was taken

Prepared by:

Engr. Princess Camille Rondilla

Asst. Planning Engineer

Approved by:

Engr. Melvin A. Makipagay

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY Planning and Development Office

Planning and Development Office Lucban , Quezon

PROJECT TITLE: GEOTECHNICAL INVESTIGATION FOR LOT 1239 (1 BOREHOLE)

PROJECT LOCATION: SLSU MAIN CAMPUS, LUCBAN, QUEZON

**OWNER: Southern Luzon State University** 

ABC:

P

50,000.00

MODE OF IMPLEMENTATION: by Contract PROJECT DURATION: 45 Calendar Days

# **SUMMARY**

				JOIVIIVIAN			
ITEM	QTY.	UNIT	DESCRIPTION UNIT COST			TOTAL	
1	1	lot	Mobilization/Demobili	zation			
11	1	lot	Drilling	Drilling			
111	1	lot	Laboratory Testing	_aboratory Testing			
IV	1	lot	Geotechnical Evaluat	Geotechnical Evaluation			
٧	1	lot	Report Preparation				
				TOTAL ESTIMATED I	DIRECT COST	P	
				OVERHEAD, CONTIN	GENCIES & MISC.(OCM)	P	
			INDIRECT COST	CONTRACTOR'S PROFIT		P	
				VALUE ADDED TAX ( VAT )		P	
				TOTAL PROJECT COS	ST	P	

OTAL PROJECT COST IN WOR	:DS:		
CONTRACTOR / BIDDER :			



PROJECT TITLE: Geotechnical Investigation for Lot 1239 (1 borehole)

PROJECT LOCATION: SLSU Main Campus, Lucban, Quezon

**OWNER:** Southern Luzon State University

PROJECT DURATION: 45 CD

#### SCOPE OF WORKS

The Consultant shall provide all the labor, instrument/ equipment materials and supplies, vehicles, bunkhouses, etc., necessary to perform satisfactorily the sub-surface exploration herein required, viz:

- A. Field Works
- B. Laboratory Testing
- C. Soil Investigation and Preparation of Report

The Consultant shall be held solely responsible for the result of this boring/drilling exploration and other activities under this Terms of Reference.

# DETAILED EXPLORATION REQUIREMENTS/SPECIFICATIONS

# A. FIELD WORKS

Drilling shall be performed utilizing the Standard Penetration Test (SPT) through ordinary soil encountered using an Auto-trip Hammer to the depths specified above. Standard penetration test shall be performed using 5.0 cm. (2.0 in.) outside diameter split spoon sampler, driven by a 63.6 kg. (140 lbs.) Hammer freely falling at 76.0 cm. (30 in.). The sampling interval shall be at 1.0 meters for the first 6.0m and 1.5m thereafter or as specified by the Client. Undisturbed soil samples, if permissible using a 6.35 cm. (2.50 in) I.D. thin wall tube sampler shall be obtained encountered in all cohesive materials. The undisturbed soil samples shall be taken such that a minimum amount of disturbance in the natural condition of the samples has been caused through drilling, sampling, preserving, storing, and transporting the samples. These undisturbed samples will be brought to the laboratory for special testing or as specified by the Client. Core diameter shall not be less than 45 mm in diameter. An "NMLC" geotechnical core barrel shall be used for core sampling. All measurements, observations, and field test results shall be recorded in appropriate boring logs including a groundwater table if any.

# **B. LABORATORY TESTING**

- a. Standard penetration test (SPT) at maximum interval of 1.5 m at every change in soil stratum
- b. Laboratory Tests
  - 1 Visual Identification of Soil

2	Index Properties
2.1	Moisture Content
2.2	Specific Gravity
2.3	Sieve Analysis
2.4	Hydrometer Analysis
2.5	Atterberg Limits
2.6	Soil Classification
3	Moisture-Density Relation
4	California Bearing Ratio (CBR)
5	Strength Tests
5.1	Triaxial Test
5.2	Direct Shear Test
6	Consolidation Test (if soft soils are encountered)
6.1	One-Dimensional Consolidation
6.2	Swell-Potential of Clays
6.3	Collapse Potential of Soils

The Consultant shall prepare the following reports and deliverables:

# **Final Report**

The Consultant shall prepare the geotechnical report and analysis in three (3) bound copies in a form and substance to be submitted to Southern Luzon State University within Forty-Five (45) calendar days upon receipt of the Notice to Proceed. The final report shall not be limited to the following:

- a. Field Investigation and Methodology
- b. Borehole Drilling and Sampling
- c. Laboratory Testing
- d. Final Boring Logs (BL)
- e. Final Laboratory Tests Results (FLTR)
- f. Borehole Location Plan
- g. Soil Profile along structures showing boring/drilling logs
- h. Soil Liquefaction Investigation Report
- i. Soil Bearing Capacity
- j. Recommendation if called for such as type of measure/structure of work

#### OTHER DATA TO BE SUBMITTED

- 1. Job, boring, hole number, date, time, boring/drilling, foreman, supervisor
- 2. Weather condition
- 3. Depth of boring at start of day
- 4. Water level in casing at start of day
- Method of penetration and flushing system
- 6. Description of soil strata encountered
- 7. Depth of soil boundaries
- 8. Size, type and depth of samples and sample number

- 9. Type and depth of in-situ tests
- 10. Standard Penetration Tests Resistance, "N" Value
- 11. Recovery ratios of samples
- 12. Detailed notes on boring/drilling procedure, casing sizes and resistance to driving, description of wash water or spoil from boring/drilling tools
- 13. Depth of boring at end of day
- 14. Other relevant information such RQD, percent core recovery, angle of friction etc.

Photographs showing the borehole drilling and sampling at each proposed sites shall be taken by the Contractor and incorporated in the report. Photographs shall be taken at each borehole location depicting the following:

- 1. Equipment used
- 2. Core drilling operation
- 3. Water level measurements
- 4. Performance of SPT and Shelby tube sampling
- 5. All cores in the core boxes, SPT and Shelby tube samples

6. Date photographs was taken

Prepared by:

Engr. Princess Camille Rondilla

Asst. Planning Engineer

Approved by:

Engr. Melvin Al Wakipagay

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY

Planning and Development Office Lucban , Quezon

PROJECT TITLE: GEOTECHNICAL INVESTIGATION FOR SLSU MAIN ANNEX (PIIS) LOT (2 BOREHOLES)

PROJECT LOCATION: BRGY. PIIS, LUCBAN, QUEZON

**OWNER: Southern Luzon State University** 

ABC:

P

100,000.00

MODE OF IMPLEMENTATION: by Contract PROJECT DURATION: 45 Calendar Days

# SUMMARY

				JOMM MI			
ITEM	QTY.	UNIT	DESCRIPTION UNIT COST			TOTAL	
1	1	lot	Mobilization/Demobil	ization			
н	1	lot	Drilling	Drilling			
111	1	lot	Laboratory Testing	g			
IV	1	lot	Geotechnical Evalua	Geotechnical Evaluation			
٧	1	lot	Report Preparation				
				TOTAL ESTIMAT	ED DIRECT COST	P	
				OVERHEAD, CON	ITINGENCIES & MISC.(OCM)	P	
			INDIRECT COST	CONTRACTOR'S PROFIT		P	
				VALUE ADDED TAX ( VAT )		P	
				TOTAL PROJECT	COST	Р	

OTAL PROJECT COST IN WORD	S:		
CONTRACTOR / BIDDER ·			



PROJECT TITLE: Geotechnical Investigation for SLSU Main Annex (Piis) Lot (2 boreholes)

PROJECT LOCATION: Brgy. Piis, Lucban, Quezon

**OWNER:** Southern Luzon State University

**PROJECT DURATION: 45 CD** 

#### SCOPE OF WORKS

The Consultant shall provide all the labor, instrument/ equipment materials and supplies, vehicles, bunkhouses, etc., necessary to perform satisfactorily the sub-surface exploration herein required, viz:

- A. Field Works
- B. Laboratory Testing
- C. Soil Investigation and Preparation of Report

The Consultant shall be held solely responsible for the result of this boring/drilling exploration and other activities under this Terms of Reference.

# DETAILED EXPLORATION REQUIREMENTS/SPECIFICATIONS

#### A. FIELD WORKS

Drilling shall be performed utilizing the Standard Penetration Test (SPT) through ordinary soil encountered using an Auto-trip Hammer to the depths specified above. Standard penetration test shall be performed using 5.0 cm. (2.0 in.) outside diameter split spoon sampler, driven by a 63.6 kg. (140 lbs.) Hammer freely falling at 76.0 cm. (30 in.). The sampling interval shall be at 1.0 meters for the first 6.0m and 1.5m thereafter or as specified by the Client. Undisturbed soil samples, if permissible using a 6.35 cm. (2.50 in) 1.D. thin wall tube sampler shall be obtained encountered in all cohesive materials. The undisturbed soil samples shall be taken such that a minimum amount of disturbance in the natural condition of the samples has been caused through drilling, sampling, preserving, storing, and transporting the samples. These undisturbed samples will be brought to the laboratory for special testing or as specified by the Client. Core diameter shall not be less than 45 mm in diameter. An "NMLC" geotechnical core barrel shall be used for core sampling. All measurements, observations, and field test results shall be recorded in appropriate boring logs including a groundwater table if any.

# **B. LABORATORY TESTING**

- a. Standard penetration test (SPT) at maximum interval of 1.5 m at every change in soil stratum
- b. Laboratory Tests
  - 1 Visual Identification of Soil

2	Index Properties
2.1	Moisture Content
2.2	Specific Gravity
2.3	Sieve Analysis
2.4	Hydrometer Analysis
2.5	Atterberg Limits
2.6	Soil Classification
3	Moisture-Density Relation
4	California Bearing Ratio (CBR)
5	Strength Tests
5.1	Triaxial Test
5.2	Direct Shear Test
6	Consolidation Test (if soft soils are encountered)
6.1	One-Dimensional Consolidation
6.2	Swell-Potential of Clays
6.3	Collapse Potential of Soils

The Consultant shall prepare the following reports and deliverables:

# **Final Report**

The Consultant shall prepare the geotechnical report and analysis in three (3) bound copies in a form and substance to be submitted to Southern Luzon State University within Forty-Five (45) calendar days upon receipt of the Notice to Proceed. The final report shall not be limited to the following:

- a. Field Investigation and Methodology
- b. Borehole Drilling and Sampling
- c. Laboratory Testing
- d. Final Boring Logs (BL)
- e. Final Laboratory Tests Results (FLTR)
- f. Borehole Location Plan
- g. Soil Profile along structures showing boring/drilling logs
- h. Soil Liquefaction Investigation Report
- i. Soil Bearing Capacity
- j. Recommendation if called for such as type of measure/structure of work

# OTHER DATA TO BE SUBMITTED

- 1. Job, boring, hole number, date, time, boring/drilling, foreman, supervisor
- 2. Weather condition
- 3. Depth of boring at start of day
- 4. Water level in casing at start of day
- 5. Method of penetration and flushing system
- 6. Description of soil strata encountered
- 7. Depth of soil boundaries
- 8. Size, type and depth of samples and sample number

- 9. Type and depth of in-situ tests
- 10. Standard Penetration Tests Resistance, "N" Value
- 11. Recovery ratios of samples
- 12. Detailed notes on boring/drilling procedure, casing sizes and resistance to driving, description of wash water or spoil from boring/drilling tools
- 13. Depth of boring at end of day
- 14. Other relevant information such RQD, percent core recovery, angle of friction etc.

Photographs showing the borehole drilling and sampling at each proposed sites shall be taken by the Contractor and incorporated in the report. Photographs shall be taken at each borehole location depicting the following:

- 1. Equipment used
- 2. Core drilling operation
- 3. Water level measurements
- 4. Performance of SPT and Shelby tube sampling
- 5. All cores in the core boxes, SPT and Shelby tube samples

6. Date photographs was taken

Prepared by:

Engr. Princess Carville Rondilla

Asst. Planning Engineer

Approved by:

Engr. Melvin A. Makipaga

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY

Planning and Development Office Lucban , Quezon

PROJECT TITLE: GEOTECHNICAL INVESTIGATION FOR LOT C AT SLSU AYUTI CAMPUS (1 BOREHOLE)

PROJECT LOCATION: SLSU AYUTI CAMPUS, LUCBAN, QUEZON

**OWNER: Southern Luzon State University** 

ABC:

P

50,000.00

MODE OF IMPLEMENTATION: by Contract PROJECT DURATION: 45 Calendar Days

# SUMMARY

ITEM	QTY.	UNIT	DESCRIPTION UNIT COST			TOTAL	
1	1	lot	Mobilization/Demobili	Mobilization/Demobilization			
H	1	lot	Drilling	Drilling			
Ш	1	lot	Laboratory Testing	Laboratory Testing			
IV	1	lot	Geotechnical Evaluation				
٧	1	lot	Report Preparation				
				TOTAL ESTIMAT	ED DIRECT COST	P	
				OVERHEAD, CON	OVERHEAD, CONTINGENCIES & MISC.(OCM)		
			INDIRECT COST	CONTRACTOR'S PROFIT		P	
				VALUE ADDED TAX ( VAT )		P	
				TOTAL PROJECT	COST	P	

TOTAL PROJECT COST IN W	ORDS:		
	-	 	
CONTRACTOR / BIDDER .			

Men

PROJECT TITLE: Geotechnical Investigation for Lot C at SLSU Ayuti Campus (1 borehole)

PROJECT LOCATION: SLSU Ayuti Campus, Brgy. Ayuti, Lucban, Quezon

**OWNER:** Southern Luzon State University

**PROJECT DURATION: 45 CD** 

#### SCOPE OF WORKS

The Consultant shall provide all the labor, instrument/ equipment materials and supplies, vehicles, bunkhouses, etc., necessary to perform satisfactorily the sub-surface exploration herein required, viz:

- A. Field Works
- B. Laboratory Testing
- C. Soil Investigation and Preparation of Report

The Consultant shall be held solely responsible for the result of this boring/drilling exploration and other activities under this Terms of Reference.

# **DETAILED EXPLORATION REQUIREMENTS/SPECIFICATIONS**

# A. FIELD WORKS

Drilling shall be performed utilizing the Standard Penetration Test (SPT) through ordinary soil encountered using an Auto-trip Hammer to the depths specified above. Standard penetration test shall be performed using 5.0 cm. (2.0 in.) outside diameter split spoon sampler, driven by a 63.6 kg. (140 lbs.) Hammer freely falling at 76.0 cm. (30 in.). The sampling interval shall be at 1.0 meters for the first 6.0m and 1.5m thereafter or as specified by the Client. Undisturbed soil samples, if permissible using a 6.35 cm. (2.50 in) I.D. thin wall tube sampler shall be obtained encountered in all cohesive materials. The undisturbed soil samples shall be taken such that a minimum amount of disturbance in the natural condition of the samples has been caused through drilling, sampling, preserving, storing, and transporting the samples. These undisturbed samples will be brought to the laboratory for special testing or as specified by the Client. Core diameter shall not be less than 45 mm in diameter. An "NMLC" geotechnical core barrel shall be used for core sampling. All measurements, observations, and field test results shall be recorded in appropriate boring logs including a groundwater table if any.

# **B. LABORATORY TESTING**

- a. Standard penetration test (SPT) at maximum interval of 1.5 m at every change in soil stratum
- b. Laboratory Tests
  - 1 Visual Identification of Soil

2	Index Properties
2.1	Moisture Content
2.2	Specific Gravity
2.3	Sieve Analysis
2.4	Hydrometer Analysis
2.5	Atterberg Limits
2.6	Soil Classification
3	Moisture-Density Relation
4	California Bearing Ratio (CBR)
5	Strength Tests
5.1	Triaxial Test
5.2	Direct Shear Test
6	Consolidation Test (if soft soils are encountered)
6.1	One-Dimensional Consolidation
6.2	Swell-Potential of Clays
6.3	Collapse Potential of Soils

The Consultant shall prepare the following reports and deliverables:

# **Final Report**

The Consultant shall prepare the geotechnical report and analysis in three (3) bound copies in a form and substance to be submitted to Southern Luzon State University within Forty-Five (45) calendar days upon receipt of the Notice to Proceed. The final report shall not be limited to the following:

- a. Field Investigation and Methodology
- b. Borehole Drilling and Sampling
- c. Laboratory Testing
- d. Final Boring Logs (BL)
- e. Final Laboratory Tests Results (FLTR)
- f. Borehole Location Plan
- g. Soil Profile along structures showing boring/drilling logs
- h. Soil Liquefaction Investigation Report
- i. Soil Bearing Capacity
- j. Recommendation if called for such as type of measure/structure of work

# OTHER DATA TO BE SUBMITTED

- 1. Job, boring, hole number, date, time, boring/drilling, foreman, supervisor
- 2. Weather condition
- 3. Depth of boring at start of day
- 4. Water level in casing at start of day
- 5. Method of penetration and flushing system
- 6. Description of soil strata encountered
- 7. Depth of soil boundaries
- 8. Size, type and depth of samples and sample number

- 9. Type and depth of in-situ tests
- 10. Standard Penetration Tests Resistance, "N" Value
- 11. Recovery ratios of samples
- 12. Detailed notes on boring/drilling procedure, casing sizes and resistance to driving, description of wash water or spoil from boring/drilling tools
- 13. Depth of boring at end of day
- 14. Other relevant information such RQD, percent core recovery, angle of friction etc.

Photographs showing the borehole drilling and sampling at each proposed sites shall be taken by the Contractor and incorporated in the report. Photographs shall be taken at each borehole location depicting the following:

- 1. Equipment used
- 2. Core drilling operation
- 3. Water level measurements
- 4. Performance of SPT and Shelby tube sampling
- 5. All cores in the core boxes, SPT and Shelby tube samples

6. Date photographs was taken

Prepared by:

Engr. Princess Camille Rondilla

Asst. Planning Engineer

Approved by:

Engr Melvin A Makipagay

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY

Planning and Development Office Lucban , Quezon

PROJECT TITLE: GEOTECHNICAL INVESTIGATION FOR SLSU TAYABAS LOT (1 BOREHOLE)

PROJECT LOCATION: SLSU TAYABAS CAMPUS, TAYABAS, QUEZON

**OWNER: Southern Luzon State University** 

ABC :

P

50,000.00

MODE OF IMPLEMENTATION: by Contract PROJECT DURATION: 45 Calendar Days

# SUMMARY

				SOMME			
ITEM	QTY.	UNIT	DESCR	IPTION	UNIT COST		TOTAL
1	1	lot	Mobilization/Demobilization				
Ш	1	lot	Drilling	Drilling			
101	1	lot	Laboratory Testing				
IV	1	lot	Geotechnical Evaluation				
V	1	lot	Report Preparation				
				TOTAL ESTIMA	TED DIRECT COST	Р	
				OVERHEAD, CO	NTINGENCIES & MISC.(OCM)	P	
			INDIRECT COST	CONTRACTOR'S PROFIT		P	
				VALUE ADDED	TAX (VAT)	P	
				TOTAL PROJECT	COST	Р	

TOTAL PROJECT COST IN WO	RDS:		
		2	
CONTRACTOR / BIDDER :			

PROJECT TITLE: Geotechnical Investigation for SLSU Tayabas Lot (1 borehole)

PROJECT LOCATION: SLSU Tayabas Campus, Tayabas, Quezon

**OWNER:** Southern Luzon State University

PROJECT DURATION: 45 CD

#### SCOPE OF WORKS

The Consultant shall provide all the labor, instrument/ equipment materials and supplies, vehicles, bunkhouses, etc., necessary to perform satisfactorily the sub-surface exploration herein required, viz:

- A. Field Works
- B. Laboratory Testing
- C. Soil Investigation and Preparation of Report

The Consultant shall be held solely responsible for the result of this boring/drilling exploration and other activities under this Terms of Reference.

# DETAILED EXPLORATION REQUIREMENTS/SPECIFICATIONS

# A. FIELD WORKS

Drilling shall be performed utilizing the Standard Penetration Test (SPT) through ordinary soil encountered using an Auto-trip Hammer to the depths specified above. Standard penetration test shall be performed using 5.0 cm. (2.0 in.) outside diameter split spoon sampler, driven by a 63.6 kg. (140 lbs.) Hammer freely falling at 76.0 cm. (30 in.). The sampling interval shall be at 1.0 meters for the first 6.0m and 1.5m thereafter or as specified by the Client. Undisturbed soil samples, if permissible using a 6.35 cm. (2.50 in) I.D. thin wall tube sampler shall be obtained encountered in all cohesive materials. The undisturbed soil samples shall be taken such that a minimum amount of disturbance in the natural condition of the samples has been caused through drilling, sampling, preserving, storing, and transporting the samples. These undisturbed samples will be brought to the laboratory for special testing or as specified by the Client. Core diameter shall not be less than 45 mm in diameter. An "NMLC" geotechnical core barrel shall be used for core sampling. All measurements, observations, and field test results shall be recorded in appropriate boring logs including a groundwater table if any.

# **B. LABORATORY TESTING**

- a. Standard penetration test (SPT) at maximum interval of 1.5 m at every change in soil stratum
- b. Laboratory Tests
  - 1 Visual Identification of Soil

2	Index Properties
2.1	Moisture Content
2.2	Specific Gravity
2.3	Sieve Analysis
2.4	Hydrometer Analysis
2.5	Atterberg Limits
2.6	Soil Classification
3	Moisture-Density Relation
4	California Bearing Ratio (CBR)
5	Strength Tests
5.1	Triaxial Test
5.2	Direct Shear Test
6	Consolidation Test (if soft soils are encountered)
6.1	One-Dimensional Consolidation
6.2	Swell-Potential of Clays
6.3	Collapse Potential of Soils

The Consultant shall prepare the following reports and deliverables:

# **Final Report**

The Consultant shall prepare the geotechnical report and analysis in three (3) bound copies in a form and substance to be submitted to Southern Luzon State University within Forty-Five (45) calendar days upon receipt of the Notice to Proceed. The final report shall not be limited to the following:

- a. Field Investigation and Methodology
- b. Borehole Drilling and Sampling
- c. Laboratory Testing
- d. Final Boring Logs (BL)
- e. Final Laboratory Tests Results (FLTR)
- f. Borehole Location Plan
- g. Soil Profile along structures showing boring/drilling logs
- h. Soil Liquefaction Investigation Report
- i. Soil Bearing Capacity
- j. Recommendation if called for such as type of measure/structure of work

# OTHER DATA TO BE SUBMITTED

- 1. Job, boring, hole number, date, time, boring/drilling, foreman, supervisor
- 2. Weather condition
- 3. Depth of boring at start of day
- 4. Water level in casing at start of day
- 5. Method of penetration and flushing system
- 6. Description of soil strata encountered
- 7. Depth of soil boundaries
- 8. Size, type and depth of samples and sample number

- 9. Type and depth of in-situ tests
- 10. Standard Penetration Tests Resistance, "N" Value
- 11. Recovery ratios of samples
- 12. Detailed notes on boring/drilling procedure, casing sizes and resistance to driving, description of wash water or spoil from boring/drilling tools
- 13. Depth of boring at end of day
- 14. Other relevant information such RQD, percent core recovery, angle of friction etc.

Photographs showing the borehole drilling and sampling at each proposed sites shall be taken by the Contractor and incorporated in the report. Photographs shall be taken at each borehole location depicting the following:

- 1. Equipment used
- 2. Core drilling operation
- 3. Water level measurements
- 4. Performance of SPT and Shelby tube sampling
- 5. All cores in the core boxes, SPT and Shelby tube samples

6. Date photographs was taken

Prepared by:

Engr. Princess Camille Rondilla

Asst. Rlanning Engineer

Approved by:

Engr. Melvin A. Makipaga

# Republic of the Philippines SOUTHERN LUZON STATE UNIVERSITY Planning and Development Office

Lucban, Quezon

PROJECT TITLE: GEOTECHNICAL INVESTIGATION FOR SLSU TIAONG LOT (1 BOREHOLE)

PROJECT LOCATION: SLSU TIAONG CAMPUS, TIAONG, QUEZON

**OWNER: Southern Luzon State University** 

ABC:

50,000.00

MODE OF IMPLEMENTATION: by Contract PROJECT DURATION: 45 Calendar Days

SUMMARY

				SOMMAN			
ITEM	QTY.	UNIT	DESCRIPTION UNIT COST			TOTAL	
1	1	lot	Mobilization/Demobilization				
11	1	lot	Drilling	Drilling			
111	1	lot	Laboratory Testing				
IV	1	lot	Geotechnical Evaluation				
V	1	lot	Report Preparation				
				TOTAL ESTIMATE	DIRECT COST	P	
				OVERHEAD, CONT	INGENCIES & MISC.(OCM)	P	
			INDIRECT COST	CONTRACTOR'S PROFIT		P	
				VALUE ADDED TAX ( VAT )		P	
				TOTAL PROJECT C	OST	P	

TOTAL PROJECT COST IN WORDS:	
CONTRACTOR / BIDDER :	

PROJECT TITLE: Geotechnical Investigation for SLSU Tiaong Lot (1 borehole)

PROJECT LOCATION: SLSU Tiaong Campus, Tiaong, Quezon

**OWNER:** Southern Luzon State University

**PROJECT DURATION: 45 CD** 

#### SCOPE OF WORKS

The Consultant shall provide all the labor, instrument/ equipment materials and supplies, vehicles, bunkhouses, etc., necessary to perform satisfactorily the sub-surface exploration herein required, viz:

- A. Field Works
- B. Laboratory Testing
- C. Soil Investigation and Preparation of Report

The Consultant shall be held solely responsible for the result of this boring/drilling exploration and other activities under this Terms of Reference.

#### DETAILED EXPLORATION REQUIREMENTS/SPECIFICATIONS

# A. FIELD WORKS

Drilling shall be performed utilizing the Standard Penetration Test (SPT) through ordinary soil encountered using an Auto-trip Hammer to the depths specified above. Standard penetration test shall be performed using 5.0 cm. (2.0 in.) outside diameter split spoon sampler, driven by a 63.6 kg. (140 lbs.) Hammer freely falling at 76.0 cm. (30 in.). The sampling interval shall be at 1.0 meters for the first 6.0m and 1.5m thereafter or as specified by the Client. Undisturbed soil samples, if permissible using a 6.35 cm. (2.50 in) 1.D. thin wall tube sampler shall be obtained encountered in all cohesive materials. The undisturbed soil samples shall be taken such that a minimum amount of disturbance in the natural condition of the samples has been caused through drilling, sampling, preserving, storing, and transporting the samples. These undisturbed samples will be brought to the laboratory for special testing or as specified by the Client. Core diameter shall not be less than 45 mm in diameter. An "NMLC" geotechnical core barrel shall be used for core sampling. All measurements, observations, and field test results shall be recorded in appropriate boring logs including a groundwater table if any.

# **B. LABORATORY TESTING**

- a. Standard penetration test (SPT) at maximum interval of 1.5 m at every change in soil stratum
- b. Laboratory Tests
  - 1 Visual Identification of Soil

2	Index Properties
2.1	Moisture Content
2.2	Specific Gravity
2.3	Sieve Analysis
2.4	Hydrometer Analysis
2.5	Atterberg Limits
2.6	Soil Classification
3	Moisture-Density Relation
4	California Bearing Ratio (CBR)
5	Strength Tests
5.1	Triaxial Test
5.2	Direct Shear Test
6	Consolidation Test (if soft soils are encountered)
6.1	One-Dimensional Consolidation
6.2	Swell-Potential of Clays
6.3	Collapse Potential of Soils

The Consultant shall prepare the following reports and deliverables:

# **Final Report**

The Consultant shall prepare the geotechnical report and analysis in three (3) bound copies in a form and substance to be submitted to Southern Luzon State University within Forty-Five (45) calendar days upon receipt of the Notice to Proceed. The final report shall not be limited to the following:

- a. Field Investigation and Methodology
- b. Borehole Drilling and Sampling
- c. Laboratory Testing
- d. Final Boring Logs (BL)
- e. Final Laboratory Tests Results (FLTR)
- f. Borehole Location Plan
- g. Soil Profile along structures showing boring/drilling logs
- h. Soil Liquefaction Investigation Report
- i. Soil Bearing Capacity
- j. Recommendation if called for such as type of measure/structure of work

# OTHER DATA TO BE SUBMITTED

- 1. Job, boring, hole number, date, time, boring/drilling, foreman, supervisor
- 2. Weather condition
- 3. Depth of boring at start of day
- 4. Water level in casing at start of day
- 5. Method of penetration and flushing system
- 6. Description of soil strata encountered
- 7. Depth of soil boundaries
- 8. Size, type and depth of samples and sample number

- 9. Type and depth of in-situ tests
- 10. Standard Penetration Tests Resistance, "N" Value
- 11. Recovery ratios of samples
- 12. Detailed notes on boring/drilling procedure, casing sizes and resistance to driving, description of wash water or spoil from boring/drilling tools
- 13. Depth of boring at end of day
- 14. Other relevant information such RQD, percent core recovery, angle of friction etc.

Photographs showing the borehole drilling and sampling at each proposed sites shall be taken by the Contractor and incorporated in the report. Photographs shall be taken at each borehole location depicting the following:

- 1. Equipment used
- 2. Core drilling operation
- 3. Water level measurements
- 4. Performance of SPT and Shelby tube sampling
- 5. All cores in the core boxes, SPT and Shelby tube samples

6. Date photographs was taken

Prepared by:

Engr./Princess camille Rondilla

Asst. Planning Engineer

Approved by:

Engr. Melvin A Makipaga