



ASTI-FM 03-11
REV 1/13 January 2020

DOST-ASTI Bids and Awards Committee
Invitation to Bid (Public Bidding)

ITB No:	21-09-3564	Date:	September-30-2021
PR No:	GAA-21-09-12061	Date:	September-09-2021
Source of Funds:			
Total ABC:		Php 4,000,000.00	
Time, Date & Venue of Pre-bid Conference:		October 08, 2021, 10:00 AM at Via videoconferencing	
Time and Date of Submission of Bids:		October 20, 2021, 10:00 AM	
Time, Date & Venue of Opening Bids:		October 20, 2021, 10:30 AM at DOST-ASTI and Videoconferencing	
Date of availability of Complete Set of Documents:		September 30, 2021	
Deadline of Potential Bidder's Clarifications:		October 10, 2021	
Deadline of ASTI's Supplemental Bid Bulletin:		October 13, 2021	
Delivery Schedule:		December 31, 2021	

The Advanced Science and Technology Institute (ASTI), through its Bids and Awards Committee (BAC), hereby invites all interested bidders to submit their bids for the item(s) listed below. Guidelines regarding the format, eligibility, technical and financial documents needed are described in the Instruction to Bidders of the Philippine Bidding Documents

Bidding will be conducted through open competitive bidding procedures using a non discretionary "pass/fail" criterion as specified in the 2016 R-IRR of RA 9184.

A complete set of Bidding Documents may be purchased by interested bidders upon payment of a fee for the Bidding Documents. It is also downloadable for free of charge at DOST-ASTI's website - www.asti.dost.gov.ph

For further inquiries, contact ASTI's BAC Secretariat via email at bac-sec@asti.dost.gov.ph. Interested bidders may also call the number - (632)-426-7423 and look for ASTI's BAC Secretariat.

Respectfully,

Digitally signed by Guba
Gerwin Policarpio
Date: 2021.09.30 17:36:28
+08'00'

GERWIN P. GUBA

BAC Chairman

Digitally signed by
Katherine Sabano Ramos
Date: 2021.09.30 17:28:32
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NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p>Waterproofing of ASTI's Roof Deck Supply, Delivery and Installation of Waterproofing at DOST-ASTI Roof Deck</p> <p>1. BACKGROUND and OBJECTIVES 1.1. The Advanced Science and Technology Institute is seeking qualified and competent bidders for the supply, delivery and installation of waterproofing at DOST-ASTI Roof Deck. 1.2. The objective of this project is to protect the DOST-ASTI Building from rainwater leaks at roof deck area. Work shall include supervision, supply, delivery, installation and services necessary to properly conduct and implement the work and produce the desired output/result. 1.3. The technical specifications indicated herein are</p>	1	lot	4000000.00	4,000,000.00

minimum requirements, unless otherwise specified.

2. APPROVED BUDGET FOR THE CONTRACT

2.1 For and in consideration of the performance and accomplishment of the Waterproofing, DOST-ASTI shall pay the Contractor the total amount of FOUR MILLION PESOS (Php4,000,000.00) for the contract price. Subject to pertinent laws on government contracts and auditing procedures.

2.2 The contract price is inclusive of all duties and taxes.

2.3. No changes shall be made on the Contract Price by reason of escalation in currency. Any adjustment in Contract Price shall be done in accordance with guidelines provided by law.

2.4. The payment of escalation costs shall be subject to the unilateral and written approval of DOST-ASTI and to availability of funds.

3. PROJECT DURATION

3.1. The project duration covering the waterproofing works of roof deck in DOST-ASTI is until 31 December 2021.

3.2. The Contractor's proposed Work Plan shown in Gantt Chart, which is a mandatory part of the Technical Proposal, should provide a more detailed schedule of activities.

3.3. The liquidated damages shall be imposed for the inability of the Contractor to comply with the Approved Construction Schedule, unless a written request for time extension has been approved in writing by DOST-ASTI.

4. QUALIFICATION OF THE CONTRACTOR

4.1. The Contractor must be competent and experience in the field of waterproofing works with a minimum of five (5) years prior experience on similar projects and should have a valid and current Philippine Contractors Accreditation Board (PCAB) License, Category "C" or "D", with a classification General Engineering (GE-1) or Specialty – Waterproofing Work (SP-WP).

4.2. The Contractor is required to submit a company profile, list of present and previous clientele for the past five (5) years.

4.3. The Project-in-Charge who will administer the Waterproofing Works must be well trained and experienced waterproof applicator with at least three (3) years' experience.

5. GENERAL REQUIREMENTS

5.1. The Contractor will provide technical supervision, skilled manpower, tools, equipment and suitable highest quality materials within the specified period to complete the project.

5.2. As-built Drawings is to be done and submitted by Contractor.

5.3. Provide coordination and collaborative works with DOST-ASTI to complete respective works in accordance with approved drawings, specifications and method of installation.

5.4. Provide all materials necessary to complete the

works although not specifically mentioned in the specifications, working drawings or in other contract documents without extra cost the DOST-ASTI.

5.5. Comply with all applicable Environmental, Health and Safety regulations required by law.

5.6 Secure and submit all necessary bonds, permits and insurances required in the contract.

5.7. Submit on time, the required work schedule, delivery schedule, table of organization, manpower schedule, samples product data, safety plan, methodology and other requirements deemed necessary.

5.8. Ensure the quality of materials and workmanship needed to complete and render ready for acceptance by DOST-ASTI.

5.9. Responsible for the safety requirements (safety shoes, vest, hard hat, safety harness, lifeline) and provision of fire extinguishers and all other fire protection provisions in working areas.

5.10. Compliance to provisions of safety provisions for warehousing/storage of their materials and equipment.

5.11. Hauling and disposal of garbage inside the building perimeter.

5.12. Protect and maintain in the required acceptable conditions of all waterproofing works and accessories during construction until hand over.

5.13. Ensure that the performance, appearance and proper functioning of the works are not affected by any movements, settlement or deflection in the building structure. Also take into account the construction accuracy of works by others to which the waterproofing works are attached.

5.14. Coverage of the waterproofing works is approximately 1,140 sq. m.

6. SCOPE OF WORKS

6.1 General Requirements

6.1.1 Mobilization and demobilization, hauling and disposal, staging of temporary facilities, utilities, protective covers/ fencing, billboard/signage, bonds, fees etc.

6.2 Waterproofing Works

6.2.1 Surface Preparation

6.2.1.1 Removal of existing waterproofing

6.2.1.2 Removal of existing concrete floor topping

6.2.1.3 Surface treatment via grinding and degreasing prior to application of waterproofing

6.2.2 Roof Deck Cracks Repair & other work

6.2.2.1 Application of injectible epoxy on cracks

6.2.2.2 Application of grout for large concrete cracks and crevices

6.2.2.3 Temporary removal & reinstallation of accessories that shall be affected by the waterproofing – pipes, pressure tanks, etc.

6.2.3 Waterproofing Installation

6.2.3.1 Primer – compatible with waterproofing to be used

6.2.3.2 Cold applied Polyurethane waterproofing with fiber mesh reinforcement – application procedure, no. of coats and thickness should follow manufacturer's specification

6.2.3.3 Supply and application of Elastomeric waterproofing on roof deck parapet and penthouse wall-same level with parapet (2 coats)

6.2.3.4 48 hr. flood testing for all waterproofed areas

6.3 Restoration/other work

6.3.1 2" thk. Concrete topping with 4" x 4"-Ga#10 welded wire mesh reinforcement – provide 10mm expansion joints with elastomer filler @ every 3 meter square

6.3.2 Replace existing drain covers with brass

6.3.3 Hauling and disposal of debris

6.4 Safety and Health Programs

6.4.1 Standard industry Health & Safety Program
Construction Industry COVID-19 Response Protocol (DPWH DO 39) – Isolation Room

6.4.2 Disinfectants and other consumables, Additional COVID-19 PPE (Consumables), other items (logbook materials and safety signages, etc.)

7. QUALITY ASSURANCE

7.1. Installer Qualifications: A firm that is approved or licensed by waterproofing manufacturer for installation of waterproofing required for this Project.

7.2. Source Limitations: Obtain waterproofing materials from single source from single manufacturer.

7.3. Mockups: Before beginning installation, install waterproofing to 9.3 sq.m. to demonstrate surface preparation, crack and joint treatment, thickness, texture, and execution quality.

7.3.1. If Architect determines mockups do not comply with requirements, reapply waterproofing until mockups are approved.

7.3.2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

7.3.3. Approved mockups may become part of the completed work if undisturbed at time of Substantial Completion.

7.4. Preinstallation Conference: Conduct conference at Project site.

7.4.1. Review waterproofing requirements including surface preparation, substrate condition and pretreatment, minimum curing period, forecasted weather conditions, special details and flashings, installation procedures, testing and inspection procedures, and protection and repairs.

8. DELIVERY, STORAGE, AND HANDLING

8.1. Deliver liquid materials to Project site in original containers with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, shelf life, and directions for storing and mixing with other components.

8.2. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by waterproofing manufacturer.

8.3. Remove and replace liquid materials that cannot be applied within their stated shelf life.

8.4. Protect stored materials from direct sunlight.

9. PROJECT CONDITIONS

9.1. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate, when relative humidity exceeds 85 percent, or when temperatures are less than 3 deg C above dew point.

9.1.1. Do not apply waterproofing in rain, fog or mist, or when such weather conditions are imminent during application and curing period.

9.2. Maintain adequate ventilation during application and curing waterproofing materials.

10. WARRANTY

10.1. Special Manufacturer's Warranty: Manufacturer's standard form in which waterproofing manufacturer and installer agree to repair or replace waterproofing that does not comply with requirements or that fails to remain watertight within specified warranty period.

10.1.1. Warranty does not include failure of waterproofing due to failure of substrate prepared and treated according to requirements or formation of new joints and cracks in substrate that exceed 1.6mm in width

10.1.2. Warranty period of ten (10) years from date of Substantial Completion

10.2. Special Installer's Warranty: Specified from signed by installer, covering Work of this Section, for warranty period of two years.

10.2.1. Warranty includes removing and reinstalling protection board, drainage panels, insulation, pedestals, and pavers on plaza decks.

11. PRODUCTS

11.1. POLYURETHANE WATERPROOFING

11.1.1. Polyurethane Waterproofing: Comply with ASTM D 412 with manufacturer's written physical requirements. High performance, seamless, elastomeric single component moisture curing polyurethane. Application of fiber mesh shall be according to manufacturer's recommendation

11.1.2. Products: Subject to compliance with requirements, available products that may be incorporated into the work include, but are not limited to, the following:

11.1.3. Neogard – Perma-Gard, Pioneer or approved equivalent

11.2. Auxiliary Materials

11.2.1. General: Provide auxiliary materials recommended by manufacturer to be compatible with one another and with waterproofing, as demonstrated by waterproofing manufacturer, based on testing and field experience.

12. EXECUTION

12.1. EXAMINATION

12.1.1. Examine substrates, areas, and conditions, with installer present, for compliance with requirements and other conditions affecting performance

12.1.1.1. Verify that concrete has cured and aged for minimum time period recommended by waterproofing manufacturer.

12.1.1.2. Verify that substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263

12.1.1.3. Proceed with installation only after unsatisfactory conditions have been corrected.

12.2. SURFACE PREPARATION

12.2.1. Clean and prepare substrate according to manufacturer's written recommendations, dust-free, and dry substrate for waterproofing application.

12.2.2. Mask off adjoining surfaces not receiving waterproofing to prevent spillage or overspray affecting other construction.

12.2.3. Close off deck drains and other deck penetrations to prevent spillage and migration of waterproofing fluids.

12.2.4. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, acid residues, and other penetrating contaminants or firm-forming coatings from concrete.

12.2.4.1. Abrasive blast clean concrete surfaces uniformly to expose top surface of fine aggregate according to ASTM D 4259 with self-contained, recirculating, blast –cleaning apparatus. Remove material to provide a sound surface free of laitance, glaze, efflorescence, curing compounds, concrete hardeners, or form-release agents. Remove remaining loose material and clean surfaces according to ASTM D 4258.

12.2.5. Remove fins, ridges, and other projections and fill honeycomb, aggregate pockets, and other voids.

12.3. PREPARATION AT TERMINATIONS AND PENETRATIONS

12.3.1. Prepare vertical and horizontal surfaces at terminations and penetrations through waterproofing and at expansion joints, drains, and sleeves according to ASTM C 898 and manufacturer's written instructions.

12.3.2. Prime substrate unless otherwise instructed by waterproofing manufacturer.

12.3.3. Apply waterproofing in two separate applications, and embed a joint reinforcing strip in the first preparation coat when recommended by waterproofing manufacturer.

12.3.3.1. Provide sealant cants around penetrations and at inside corners of deck-to-wall butt joints when recommended by waterproofing manufacturer.

12.3.4. JOINT AND CRACK TREATMENT

12.3.4.1. Prepare, treat, rout, and fill joints and cracks in substrate according to ASTM C 898 ASTM C 1471 and waterproofing manufacturer's written instructions. Remove dust and dirt from joints and cracks, complying with ASTM D 4258, before coating surfaces.

12.3.4.1.1. Comply with ASTM C 1193 for joint-sealant installation.

12.3.4.1.2. Apply bond breaker between sealant and preparation strip.

12.3.4.1.3. Prime substrate and apply a single thickness of preparation strip extending a minimum of 75mm along each side of joint. Apply waterproofing in two separate applications and embed a joint reinforcing strip in the first preparation coat.

12.3.4.2. Install sheet flashing and bond to deck and wall substrates where indicated or required according to waterproofing manufacturer's written instructions.

12.3.4.2.1. Extend sheet flashings onto perpendicular surfaces and other work penetrating substrate according to ASTM C 898.

12.3.5. WATERPROOFING APPLICATION

12.3.5.1. Apply waterproofing according to ASTM C 898 ASTM C 1471 and manufacturer's written instructions.

12.3.5.2. Start installing waterproofing in presence of manufacturer's technical representative.

12.3.5.3. Follow manufacturer's written instructions on application of fiber mesh.

12.3.5.4. Apply primer over prepared substrate.

12.3.5.5 Unreinforced Waterproofing Applications: Mix materials and apply waterproofing by spray, roller, notched squeegee, trowel, or other application method suitable to slope of substrate.

12.3.5.5.1. Apply one or more coats of waterproofing to obtain seamless membrane free of entrapped gases, with an average dry film thickness of 1.5mm and a minimum dry film thickness of 1.3mm at any point.

12.3.5.5.2. Apply waterproofing to be prepared wall terminations and vertical surfaces,

12.3.5.5.3. Verify wet film thickness of waterproofing every 9.3 sq.m.

12.3.6. FIELD QUALITY CONTROL

12.3.6.1. Engage a full time site representative qualified by the waterproofing membrane manufacturer to inspect, substrate conditions, surface preparation, and application of the membrane, flashings, protection, and drainage components; and to furnish daily reports to Architect.

12.3.6.2. Flood Testing: Flood test each deck area for leaks, according to recommendations in ASTM D 5957, after completing waterproofing but before overlaying construction is placed. Install temporary containment assemblies, plug or dam drains, and flood with potable water.

13. RESPONSIBILITIES OF THE CONTRACTOR

13.1. The principal features of the work do not in any way limit the responsibilities of the Contractor to the general description of his/her scope of work. He/she shall perform all the work fully and make operational to the intent of the project.

13.2 The Contractor shall be responsible for the proper execution and coordination of his/her work. He/she shall schedule and program all necessary work activities according to the specified completion period.

13.3. The Contractor shall observe the required standards of safety and procedures and that its contract and workers shall be properly insured against

all risks.

13.4. The Contractor is not allowed to erect quarters for workers within the DOST-ASTI premises; sleeping is also not allowed. Contractor's workers are limited to the designated working area only. Loitering around and inside the premises is not allowed.

13.5. The Contractor shall be responsible for clearing and cleaning of the designated project site of unused materials, left over and other debris at the site and disposal of the same outside the premises. A daily inspection of the work area shall be conducted by DOST-ASTI's authorized representative to ensure that the working area and storage area assigned to the Contractor is clean and in order at all times.

13.6. The Contractor shall protect adjacent area against any damage by his/her employees, or by his/her materials, equipment and tools during the execution of the work. Any damage done by him/her employees shall be repaired at his own expense, without additional compensation beyond the contract.

13.7. Permits, Laws, Ordinances and Standards – the installation provided for and specified herein shall comply with laws and regulations of the local government unit and any government agency having jurisdiction. All necessary permits and other requirements shall be secured and for the account of the Contractor. Said requirements shall be turned-over to DOST-ASTI upon project completion.

13.8. The Contractor shall assign full time Engineer/Architect as Project-In-Charge (PIC) for the project to supervise the works mentioned herein. The PIC shall be a certified registered Civil Engineer or Architect designated for the project by the Contractor.

13.9. All other items of work not specifically mentioned but are necessary to complete the works in accordance with the plans and specifications and other related documents shall be provided by the Contractor at no additional cost to the DOST-ASTI.

14. SUBMITTALS

14.1. Before commencing any work or providing any materials at the jobsite for this project, the Contractor shall submit samples and project Bar Chart/S-Curve for DOST-ASTI's approval within five (5) calendar days upon issuance of Notice to Proceed.

14.2. The Contractor's All-Risk Insurance (CARI) shall be submitted to DOST-ASTI within ten (10) calendar days upon receipt of Notice of Award (NOA) to be issued by the BAC Secretariat.

14.3. Prior to issuance of the Certificate of Completion (COC), the following shall be submitted to DOST-ASTI. DOST-ASTI reserves the right not to issue a Certificate of Satisfactory Performance on the basis of non-submission of any of the items below:

14.3.1. Test results/Report for leak test/s.

14.3.2. Original Copy of "Record Drawing/Plan" complete with legend, technical specifications and measurements.

14.3.3. Final Project Report including photo documentations before, during and after implementation works. Each photo-documentation

should have the date and time stamps in jpg-format.

14.3.4. As-built Plans. The Contractor shall submit shop drawings as required by DOST-ASTI. A complete set of As-Built Drawings printed form (20" x 30") and/or A3 and an electronic copy in AutoCAD.

14.3.5. Warranty Certificate of at least ten (10) years against poor workmanship and defects traceable to materials.

15. EARLY WARNING

15.1. The Contractor shall warn DOST-ASTI's Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of work, increase the Contract Price, or delay the execution of the works. DOST-ASTI's Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance of the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

15.2. The Contractor shall cooperate with DOST-ASTI's Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of DOST-ASTI's Representative.

16. IDENTIFYING DEFECTS

16.1. DOST-ASTI's Representative shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. DOST-ASTI's Representative may instruct the Contractor to search uncover defects and test any work that DOST-ASTI's Representative considers below standards and defective.

17. COST OF REPAIR

17.1. Loss or damage to the works or materials to be incorporated in the works between the Start Date and the end of the Defects Liability Period shall be remedied by the Contractor at the Contractor's Cost if the loss or damages arises from the Contractor's acts or omissions.

18. CORRECTION OF DEFECTS

18.1. The Contractor shall correct the notified defect within the length of time specified in the DOST-ASTI's Representative Notice.

18.2. DOST-ASTI shall certify that all defects have been corrected. If DOST-ASTI considers that correction of a defect is not essential, he can request Contractor to submit a quotation for the corresponding reduction in the Contract Price. If DOST-ASTI accepts the quotation, the corresponding change is a Variation.

19. UNCORRECTED DEFECTS

19.1. DOST-ASTI shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a defect. If the Contractor does not

correct the Defect himself within the period, DOST-ASTI may have the Defect corrected by the third party. The cost of correction will be deducted from the Contract Price.

19.2. The use of the third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

20. ADVANCE PAYMENT

20.1. DOST-ASTI shall, upon a written request of the Contractor which shall be submitted as a contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum or at the most two, installments according to a schedule specified in the Contract.

20.2. The advance payment shall be made only upon the submission to and acceptance by DOST-ASTI of an irrevocable standby letter of credit of equivalent value from commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety insurance company duly licensed by the insurance Commission and confirmed by DOST-ASTI.

20.3. The advance payment shall be repaid the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.

21. PROGRESS PAYMENTS

21.1. The Contractor may submit a request for payment of work accomplished. Such request for payment shall be verified and certified by DOST-ASTI's Representative/Project Engineer. Except as otherwise stipulated in the Contract, materials and equipment delivered on site but not completely put in place shall not be included for payment.

21.2. DOST-ASTI shall deduct the following from the certified gross amounts to be paid to the Contractor as progress payment:

21.2.1. Cumulative value of the work previously certified and paid for;

21.2.2. Portion of the advance payment to be recouped for the month;

21.2.3. Retention money in accordance with the condition of the contract;

21.2.4. Amount to cover third party liabilities; and

21.2.5. Amount to cover uncorrected discovered defects in the works.

21.3. Payments shall be adjusted by deducting there from the amounts for advance payments and retention.

DOST-ASTI shall pay the Contractor the amounts certified by DOST-ASTI's Representative within twenty-eight (28) days from the date of each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by DOST-ASTI.

21.4. The first progress payment may be paid by DOST-ASTI to the Contractor provided that at least twenty (20) percent of the work has been accomplished as certified by DOST-ASTI's Representative.

22. PAYMENT CERTIFICATES

22.1. The Contractor shall submit to DOST-ASTI's Representative monthly statements of estimated value of the work executed less the cumulative amount certified previously.

22.2. DOST-ASTI shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

22.3. The value of work executed shall:

22.3.1. Be determined by DOST-ASTI's Representative

22.3.2. Comprise the value of quantities of the items in the Bill of Quantities completed; and

22.3.3. Include the valuations of approved variations (if any).

22.4. DOST-ASTI's Representative may exclude any item certified in a previous certificate or reduce the proportion of any time previously certified in any certificate in the light of later information.

23. RETENTION

23.1. Progress payments are subject to retention of ten percent (10%) referred to as the "retention money". Such retention shall be based on the total amount due to Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by DOST-ASTI are completed. If, after fifty percent (50%) completion, the work is satisfactorily done and on schedule, no additional retention shall be made, otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefore.

23.2. The total retention money shall be due to release upon final acceptance of the Works. The Contractor may however, request the substitution of the retention money for each progress billing with irrevocable standby letter of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for an acceptable to DOST-ASTI, provided that the project is on schedule and is satisfactorily undertaken otherwise, the ten percent (10%) retention shall be made. Then said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or DOST-ASTI and will answer for the purpose for which the ten percent (10%) retention is intended, i.e., to cover uncorrected discovered defects and third party liabilities.

23.3. On completion of the whole Works, the Contractor may substitute retention money with an "on demand" Bank guarantee in a form acceptable to DOST-ASTI.

24. VARIATION ORDERS

24.1. Variation Orders may be issued by DOST-ASTI to cover increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or classification of work items that are either due to change of plans, design or alignment

to suit actual field conditions resulting in disparity between the preconstruction plans used for the purposes of bidding and the "as staked plans" or construction drawings prepared after a joint survey by the Contractor and DOST-ASTI after award of the contract, provided that the cumulative amount of Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate positive Variation Order. A Variation Order may either be in form of a Change Order or Extra Work Order.

24.2. A Change Order may be issued by DOST-ASTI to cover any increase/decrease in quantities of the original Work items in the contract.

24.3. An Extra Work Order may be issued by DOST-ASTI to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as where there are subsurface or latent physical conditions at the site differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.

24.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the Head of DOST-ASTI may authorize a positive Variation Order to go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by GPPB. Provided however, that appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed engineering design which failed to consider the Variation Order beyond ten percent (10%).

24.5. In Claiming for any Variation Order, the Contractor shall, within seven (7) days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at the time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of the Variation Orders are as follows:

24.5.1. If DOST-ASTI's Representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with notices submitted by the Contractor, the plans therefore, bid computations as to the quantities of the additional works involved per item, indicating specific stations where such works are needed, the date of the inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such

Change Order or Extra work Order, and shall submit the same to the Head of DOST-ASTI for approval.

24.5.2. The Head of DOST-ASTI or his duly authorized representative, upon receipt of the Change Order or Extra Work Order shall immediately instruct the technical staff of DOST-ASTI to conduct an on the spot investigation to verify the need for the work to be prosecuted. A report of such verification shall be submitted directly to the Head of DOST-ASTI or his authorized representative.

24.5.3. The Head of DOST-ASTI or his authorized representative, after being satisfied that such Change Order or Extra Work Order is justified and necessary, shall review the estimated quantities and prices and forward the proposal with the supporting documentation to the Head of DOST-ASTI for consideration.

24.5.4. If, after review of the plans, quantities and estimated unit cost of the items of work involved, the proper office of DOST-ASTI empowered to review and evaluate the Change Orders or Extra Work Orders and recommends approval thereof, Head of DOST-ASTI or his authorized representative, believing the Change Order or Extra Work Order to be in order, shall approve the same.

24.5.5. The timeframe for the processing of Variation Orders from the preparation up to the approval by Head of DOST-ASTI shall not exceed thirty (30) calendar days.

25. CONTRACT COMPLETION

25.1. Once the project reaches an accomplishment of ninety five percent (95%) of the total contract amount, DOST-ASTI may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works. Work deficiencies for necessary corrections, and other specific duration/time to fully complete the project considering the approved remaining contract time. This however, shall not preclude the claim of DOST-ASTI for liquidated damages.

26. SUSPENSION OF WORK

26.1. DOST-ASTI shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary due to force majeure of any fortuitous events or for failure on the part of Contractor to correct bad conditions which are unsafe for workers or for general public, to carry out valid orders given by DOST-ASTI or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.

27. COMPLETION

27.1. The Contractor shall request DOST-ASTI's Representative to issue a Certificate of Completion of the Works, and DOST-ASTI's Representative will do

so upon deciding that the work is completed.

28. LIQUIDATED DAMAGES

28.1. Failure to comply with the terms and conditions of the contract will result in the payment of corresponding penalties/liquidated damages in the amount to 1/10 of 1% of the cost of the unperformed portion for every day delay. Once the cumulative amount of liquidated damages reaches 10% of the amount of the contract, DOST-ASTI shall rescind the contract, without prejudice to other courses of action and remedies open to it.

TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):

Php 4,000,000.00

RESERVATION CLAUSE

The Advanced Science and Technology Institute reserves the right to accept or reject any proposal, to annul the bidding process, and to reject all proposals at any time prior to contract award, without thereby incurring any liability to the affected proponent or proponents.