TECHNICAL SPECIFICATIONS

Name of Project: **INSTALLATION AND REPLACEMENT OF WINDOWS AT THE COLLEGE OF VETERINARY MEDICINE BUILDING**
Location: **BALILI, BSU LA TRINIDAD CAMPUS, LA TRINIDAD, BENGUET**

ITEM B.7 – OCCUPATIONAL SAFETY AND HEALTH PROGRAM

B.7.1 Description

A Company Safety Policy which shall serve as the general guiding principles in the implementation of safety and health on site duly signed by the highest company official or his duly authorized representative who has the over---all control of project execution and should include the contractor's general policy towards occupational safety, worker's welfare and health, and environment.

A Safety policy, which shall include the commitment that the contractor shall comply with DOLE minimum safety requirements, including reporting requirements of the Occupational Health and Safety Standards (OSHS), and other relevant DOLE issuances. These may include, but are not limited to the following:

Registration (Rule 1020 and DO 18---02)
Report of Safety Committee Organization (Rule 1040)
Notification of Accidents and Occupational Illnesses (Rule 1050)
Annual Work Accident/Illness Exposure Data Report (Rule 1050)
Application for installation of mechanical/electrical equipment for construction of structure for industrial use (Rule 1070 and 1160)

Annual Medical Report (Rule 1960)
1.2 Specific Construction Safety and Health Program shall contain the tendering agency's requirements in addition to the minimum requirements under the appropriate sections of D.O. No. 13 whenever deemed as applicable.

B.7.2 Method of Measurement

Payment shall be made on a proportional basis, calculated by multiplying the percentage rate of physical progress to the total lump sum amount every progress billing.

B.7.3 Basis of Payment

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
B.7	Occupational Safety and Health Program	Lump Sum

ITEM 801 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS

801.1 Description

This item shall consist of the removal wholly or in part, and satisfactory disposal of building structures and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract. It shall also include the salvaging of designated materials, and filling the resulting trenches, holes and pits

801.2 Construction Requirements

This shall conform to the applicable requirements in Subsection 801.2 of ITEM 801 – Removal of Structures and Obstructions (Standard Specifications for Public Works Structures Volume III, Blue Book 2019 or the latest) and specified in this Specifications:

801.2.1 General Requirements

The Contractor shall perform the work described above, within and adjacent to the construction site, on Government land or easement, as shown on the Plans or as directed by the Architect/Engineer in Charge.

All salvable material shall be removed, without unnecessary damage, in sections or pieces which may be readily transported, and shall be stored by the Contractor at specified places on the project or as otherwise shown in the Special Provisions.

Salvaged material which are damaged thru negligence shall be replaced or restored at the Contractor's expense. Waste material may be disposed of by the Contractor in Government-owned sites as shown in the Special Provision or permitted by the Architect/Engineer in Charge. Otherwise, the Contractor shall arrange disposal of waste at no expense to the Government and shall be in accordance with the requirements for disposal site selection and hauling activity stipulated in the Contract.

Perishable material shall be handled as designated in Subsection 800.2.2, Clearing and Grubbing of Item 800, Clearing and Grubbing. Nonperishable material may be disposed of outside the limits of view from the project with written permission of the property owner on whose property the material is placed.

Copies of all agreements with property owners shall be furnished to the Architect/Engineer in Charge. Basements or cavities left by the structure removal shall be filled with acceptable material, approved by the Architect/Engineer in Charge, to the level of the surrounding ground and, if within the prism of construction, shall be compacted to the required density.

There shall be no separate payment for excavating for the removal of structures and obstructions, or filling and compacting the remaining cavity. Structures that are designated to be relocated shall be moved to a new location specified by the Architect/Engineer in Charge and shall be restored to its original condition with all connections properly made, all in accordance with the Contract and Plans.

801.2.2 Removal of Portions of Existing Structure

1. Removal of Portions of Existing Structure Removal of portions of building structures, pavement, sidewalks, curbs, gutters, and similar structures shall be undertaken with sufficient care as to avoid breakage or damage to the portion of the structure designated to remain. The portion of structure shall be removed from an existing joint, cut, or sawed and chipped, to a true line with a vertical face.

2. Repair of Remaining Structure
The Contractor shall provide sufficient support (steel plate, expansion bolts and other necessary materials) on the part or portion of the structure to remain. In case of damage to the remaining structure, it shall be repaired or replaced at the Contractor's expense.

801.3 Method of Measurement
Where the Contract stipulates that payment will be made for the removal of specific items on a unit basis, measurement will be made by the unit stipulated in the Contract. Whenever the Bill of Quantities does not contain an item for any aforementioned removals, the work will not be paid for directly, but will be considered as a subsidiary obligation of the Contractor under other Contract Items.

801.4 Basis of Payment
The accepted quantities, measured as prescribed in Section 801.3, Method of Measurement shall be paid for at the Contract Unit Price or lump sum price bid for each of the Pay Items listed below that is included in the Bill of Quantities which price and payment shall be full compensation for removing and disposing of obstructions, including materials, labor, equipment, tools, and incidentals necessary to complete the work prescribed in this Item. The price shall also include backfilling, salvaging of materials removed, their custody, preservation, storage on the right-of-way and disposal as provided herein.

Payment shall be made under:

Pay Item Number	Description	Unit of Measurement
801(1)	REMOVAL OF STRUCTURES AND OBSTRUCTION	LUMP SUM

ITEM 1027(1) – CEMENT PLASTER FINISH

1027(1). 1 Description
This item shall consist of furnishing all cement plaster materials, labor, tools and equipment required in undertaking cement plaster finish as shown on the Plans and in accordance with this specification.

1027(1). 2 Material Requirements
Manufactured materials shall be delivered in the manufacture's original unbroken packages or containers which are labelled plainly with the manufacture's name and trademark.

1027(1). 2.1 Cement
Portland cement shall conform to the requirements as defined in item 700, Hydraulic Cement.

1027(1). 2.2 Hydrated Lime
Hydrated lime shall conform to the requirements as defined in item 701, Hydrated Lime.

1027(1). 2.3 Fine Aggregates
Fine aggregate shall be clean, washed sharp river sand and free from dirt, clay, organic matter or other deleterious substance. Sand derived from crushed gravel or stone may be used with the Engineer's approval but in no case shall such sand be derived from stone unsuitable for use as coarse aggregates.

1027(1). 3 Construction Requirements
1027(1). 3.1 Mixture

a) Mortar mixture for brown coat shall be freshly prepared and uniformly mixed in the proportion by volume of one part Portland Cement, three (3) parts sand and one fourth (1/4) part hydrated lime.

b) Finish coat shall be pure Portland Cement properly graded conforming to the requirements of item 700, Hydraulic Cement and mixed with water to approved consistency and plasticity.

1027(1). 3.2 Surface Preparation

a) After removals of formworks reinforce concrete surfaces shall be roughened to improve adhesion of cement plaster.

b) Surfaces to receive cement plaster shall be cleaned of all projections, dust, loose particles, grease and bond breakers. Before any application of brown coat is commenced all surfaces that are to be plastered shall be wetted thoroughly with clean water to produce a uniformly moist condition.

1027(1). 3.3 Application

a) Brown coat mortar mix shall be applied with sufficient pressure starting from the lower portion of the surface to fill the grooved and to prevent air pockets in the reinforced concrete / masonry work and avoid mortar mix drooping. The brown coat shall be lightly broomed/ or scratch before surface had properly set and allowed to cure.

b) Finish coat shall not be applied until after the brown coat has seasoned for seven days and corrective measures had been done by the contractor on surfaces that are defective. Just before the application of the finish coat, the brown coat surface shall be evenly moistened with potable water. Finish coat shall be floated first to a tue and even surface, then troweled in a manner that will force the mixture to penetrate into the brown coat. Surface applied with finish coat shall then be smooth with paper in circular motion to remove trowel marks, checks and blemishes. All cement plaster finish shall be 10mm thick minimum on vertical concrete and/or masonry walls.

Wherever indicated on the plans to be "Simulated Red Brick Finish", the contractor shall render brick design on plaster surface before brown coat had properly set and then allowed to dry. Cement plaster shall not be applied directly to:

a) Concrete or masonry surface that had been coated with bituminous compound and,

b) Surfaces that had been painted and previously plastered.

1027(1). 3.4 Workmanship

Cement plaster finish shall be true to details and plumed. Finish surface shall have no visible junction marks where one (1) day's work adjoins the other. Where directed by the Engineer or as shown on the plans vertical and horizontal groove joints shall be 25 mm wide and 10 mm deep.

1027(1). 4 Method of Measurement

All cement plaster finish shall be measures in square meters or part thereof for work actually completed in the building.

1027(1). 5 Basis of Payment

The work quantified and determined as provided in the Bill of Quantities shall be paid for at the contract unit price which price constitutes full compensation including labor, materials, tools and equipment and incidentals necessary to complete this item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
1027(1)	CEMENT PLASTER FINISH	SQ.M.

ITEM 1008 -ALUMINUM GLASS WINDOWS

1008.1 Description

This item shall consist of furnishing all aluminum glass windows materials, labor, tools and equipment required as shown on the Plans and in accordance with this Specification.

1008.2 Material Requirements

1008.2.1

Frame and panel members shall be lubricated from extruded aluminum section true to details with clean, straight, sharply defined profiles and free from defects impairing strength or durability. Extruded aluminum section shall conform to the specification requirements defined in ASTM B 211.

1008.2.2

Screws, nuts, washers, bolt, rivets and other miscellaneous fastening devices shall be made of non-corrosive materials such as aluminum, stainless steel, etc.

1008.2.3

Hardware for fixing and locking device shall be closely matched to the extruded aluminum section and adaptable to the type and method of opening.

1008.2.4

Weatherstrip shall be first class quality flexible vinyl forming an effective seal and without adverse deformation when installed. 1008.2.5 Glazing shall conform to the requirements specified in Item 1012.

1008.2.6
Pile weatherstrip shall be silicon treated and free from residual wetting agents Made of soft fine hair as on wool, fur, etc.

1008.3 Construction Requirements
For all assembly and fabrication works the cut end shall be true and accurate, free of burrs and rough edges. Cut-outs receses, mortising and grinding operations for hard wares shall be accurately made and properly reinforced.

1008.3.1 Installation Procedure

1008.3.1.1 Main frame shall consist of head, sill and jamb.

1008.3.2 Window sash

1003.1.3
Window panel shall be provided with nylon sheave. Sliding panels shall be suspended with concealed roller overhead tracks with bottom guide pitch outward and slotted for complete drainage. The sliding panels shall be provided with interior handles. That locking device shall be a spring loaded extruded latch that automatically engages special frame hips.

1008.3.5
Casement window type shall be provided with two hinges fabricated from extruded aluminum alloy. They shall open on stay arms having adjustable sliding friction shoes to control window panel operations complete with strike plate.

1006.3.1.6
All joints between metal surface and masonry shall be fully caulked.

1008.3.1.7
Aluminum parts in contact with steel members shall be properly insulated by a coat of zinc chromate, primer/bituminous paint applied to the steel surface.

1008.3.1.8
Weatherstrip shall be furnished on edges at the meeting stiles.

1008.3.2
Shop Finish Exposed aluminum surfaces shall be electrotype hard coats such as anodize, satin, etc.

1008.3.3
Protection All aluminum parts shall be protected adequately to ensure against damage during transit and construction phase.
1008.3.4 Cleaning

1008.3.4.1
The constructor does not only protect all entrance units during the construction phase but shall also be responsible for removal of protective materials and cleaning the aluminum surface including glazing before work is accepted by the Engineer.

1008.3.4.2
Aluminum shall be thoroughly cleaned with kerosene or gasoline diluted with water And then wipe surface using clean cloth rugs.

1008.3.4.3
No abrasive cleaning materials shall be permitted in cleaning surface.

1008.4 Method of Measurement
Aluminum glass window fully equipped with fixing accessories and locking devices shall be measured in square meters actually installed in place and accepted to the satisfaction of the Engineer.

1008.5 Basis of Payment
The area of aluminum glass windows in square meters ready for service as provided in the Bill of Quantities shall be the basis of payment based on the unit bid or contract unit price which price and payment constitute all materials, labor including incidentals.
Payment will be made under:

Pay Item Number	Description	Unit of Measurement
1008(1)	ALUMINUM SLIDING WINDOW	SQ.M.
1008(2)	ALUMINUM CASEMENT WINDOW	SQ.M.