



*Bids and Awards Committee for Infrastructure*

March 04, 2022

**BID BULLETIN NO. 1**

This Bid Bulletin No. 1 is issued to modify or amend items in the Bid Document with Solicitation No.: 22-02-012 for the **Completion of Academic Building for Senior High Program**.

In the Pre-Bid Conference conducted last March 02, 2022 for the above-mentioned project, the following revisions in the bidding documents were effected:

1) Amendments to Section III – BID DATA SHEET

<i><b>ITB Clause</b></i>	<i><b>Before</b></i>	<i><b>Revised</b></i>
5.2	<p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:</p> <p>a) <i>Construction of Multi-storey Academic Building with multi-purpose area (minimum of 5 floors).</i></p> <p>b) <i>Completed within five (5) years prior to the deadline for the submission and receipt of bids.</i></p>	<p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:</p> <p>a) <i>Construction of Multi-storey <b>Academic</b> Building with multi-purpose area (minimum of 5 floors).</i></p> <p>b) <i>Completed within five (5) years prior to the deadline for the submission and receipt of bids.</i></p>
10.4	<p>The key personnel must meet the required minimum years of experience set below:</p> <p>The minimum work experience requirements for key personnel are described in Annex D1. Personnel Requirements.</p> <p>Please follow the format in Annex D2. Curriculum Vitae Format for Key Construction Personnel.</p> <p>Key Personnel</p> <p>A. Project Manager B. Structural Engineer C. Project Architect D. Materials Engineer E. Construction Safety Engineer F. Quality Control/Quality Assurance Officer</p>	<p>The key personnel must meet the required minimum years of experience set below:</p> <p>The minimum work experience requirements for key personnel are described in Annex D1. Personnel Requirements.</p> <p>Please follow the format in Annex D2. Curriculum Vitae Format for Key Construction Personnel.</p> <p>Key Personnel</p> <p>A. Project Manager B. Structural Engineer C. Project Architect D. Materials Engineer <b>E. Construction Safety Officer</b> F. Quality Control/Quality Assurance Officer</p>

2) Amendments to Section VI – SPECIFICATIONS

<i>Page No.</i>	<i>Before</i>	<i>Revised</i>
33	<p><b>VI. Similar Contract</b> A contract shall be considered “similar” to the contract to be bid if it involves construction of a multi-storey academic building with multi-purpose area (3 floors minimum).</p>	<p><b>VI. Similar Contract</b> A contract shall be considered “similar” to the contract to be bid if it involves construction of a multi-storey <del>academic</del> building with multi-purpose area (5 floors minimum).</p>
41-42	<p><b>V. ELIGIBILITY REQUIREMENTS</b> A. Basic</p> <ol style="list-style-type: none"> <li>1. The eligibility requirement for shall comply with all provisions of Sections 23 of IRR of RA 9184.</li> <li>2. A modified set of requirements integrating eligibility documents and criteria for infrastructure projects shall be adopted in accordance with Annex “E” <b>CONTRACT IMPLEMENTATION GUIDELINES FOR THE PROCUREMENT OF INFRASTRUCUTURE PROJECTS</b> from RIRR of R.A. 9184.</li> <li>3. The Contractor mush have completed a similar project in the amount of at least fifty percent (50%) of the ABC within the last 5 years.</li> <li>4. The contract similar to the Project refers to contracts which have the same major categories of works, which shall be Construction of Multi-storey Academic Building with minimum of 5 floors.</li> </ol>	<p><b>V. ELIGIBILITY REQUIREMENTS</b> A. Basic</p> <ol style="list-style-type: none"> <li>1. The eligibility requirement for shall comply with all provisions of Sections 23 of IRR of RA 9184.</li> <li>2. A modified set of requirements integrating eligibility documents and criteria for infrastructure projects shall be adopted in accordance with Annex “E” <b>CONTRACT IMPLEMENTATION GUIDELINES FOR THE PROCUREMENT OF INFRASTRUCUTURE PROJECTS</b> from RIRR of R.A. 9184.</li> <li>3. The Contractor mush have completed a similar project in the amount of at least fifty percent (50%) of the ABC within the last 5 years.</li> <li>4. The contract similar to the Project refers to contracts which have the same major categories of works, which shall be Construction of Multi-storey <del>Academic</del> Building with multi-purpose area (minimum of 5 floors)</li> </ol>
42	<p><b>B. Key Personnel for the Project</b> 1. The Contractor shall provide the following key personnel during the construction phase, the Bidder must assign the project professionals as shown below:</p> <ol style="list-style-type: none"> <li>1.1. Project Manager (1) <ol style="list-style-type: none"> <li>i. Licensed Engineer or Architect</li> <li>ii. At least 7 years of experience in construction management</li> <li>iii. Good oral and written communication skills</li> </ol> </li> </ol>	<p><b>B. Key Personnel for the Project</b> 1. The Contractor shall provide the following key personnel during the construction phase, the Bidder must assign the project professionals as shown below:</p> <ol style="list-style-type: none"> <li>1.1. Project Manager (1) <ol style="list-style-type: none"> <li>i. Licensed Engineer or Architect</li> <li>ii. At least 7 years of experience in construction management</li> <li>iii. Good oral and written communication skills</li> </ol> </li> </ol>

	<p>1.2. Structural Engineer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Structural and Civil Engineer</li> <li>ii. At least 5 years (Structural) and 3 years (Civil) of experience in construction management</li> </ul> <p>1.3. Project Architect (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Architect</li> <li>ii. At least 3 years of experience in construction management</li> <li>iii. With experience in actual construction</li> </ul> <p>1.4. Materials Engineer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Engineer</li> <li>ii. DPWH Accredited Material Engineer II or I</li> <li>iii. With experience in actual construction</li> </ul> <p>1.5. Construction Safety Engineer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Engineer/Architect</li> <li>ii. DOLE accredited/trained</li> </ul> <p>1.6. Quality Control/Quality Assurance Officer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Architect/Engineer with experience as QA/QC</li> <li>ii. With experience in construction</li> </ul>	<p>1.2. Structural Engineer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Structural and Civil Engineer</li> <li>ii. At least 5 years (Structural) and 3 years (Civil) of experience in construction management</li> </ul> <p>1.3. Project Architect (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Architect</li> <li>ii. At least 3 years of experience in construction management</li> <li>iii. With experience in actual construction</li> </ul> <p>1.4. Materials Engineer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Engineer</li> <li>ii. DPWH Accredited Material Engineer II or I</li> <li>iii. With experience in actual construction</li> </ul> <p>1.5. Construction Safety <b>Officer</b> (1)</p> <ul style="list-style-type: none"> <li>i. <b>Must have undergone the prescribed 40-hour Construction Safety and Health Training (COSH) by the Occupational Safety and Health Center, BOSH certified or any accredited training institution</b></li> </ul> <p>1.6. Quality Control/Quality Assurance Officer (1)</p> <ul style="list-style-type: none"> <li>i. Licensed Architect/Engineer with experience as QA/QC</li> <li>ii. With experience in construction</li> </ul>
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- 3) Amendments to Section VIII – BILL OF QUANTITIES
- See attached updated BOQ

- 4) Amendments to Section IX – CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENTS

**Checklist of Technical and Financial Documents**

**I. TECHNICAL COMPONENT ENVELOPE**

*Class “A” Documents*

Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) **in accordance with Section 8.5.2 of the IRR;**

Technical Documents

- (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- (d) Philippine Contractors Accreditation Board (PCAB) License at least Category B;  
**or**  
Special PCAB License in case of Joint Ventures;  
**and** registration for the type and cost of the contract to be bid; **and**
- (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- (f) Project Requirements, which shall include the following:
  - a. Organizational chart for the contract to be bid;
  - b. List of contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
  - c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- (g) Original duly signed Omnibus Sworn Statement (OSS);  
**and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (h) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

**Class "B" Documents**

- (i) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;  
**or**  
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Additional documentary requirement/s by the Procuring Entity

- (j) Supplemental Bid Bulletin/s; **and**
- (k) Certificate of Site Inspection.

**II. FINANCIAL COMPONENT ENVELOPE**

- (l) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

- (m) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- (n) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- (o) Cash Flow by Quarter.

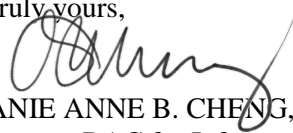
5) Amendments to Annex D1 – PERSONNEL REQUIREMENTS

<i>Before</i>	<i>Revised</i>
1.5. Construction Safety Engineer (1) <ul style="list-style-type: none"> <li>i. Licensed Engineer/Architect</li> <li>ii. DOLE accredited/trained</li> </ul>	1.5. Construction Safety <b>Officer</b> (1) <ul style="list-style-type: none"> <li>i. <b>Must have undergone the prescribed 40-hour Construction Safety and Health Training (COSH) by the Occupational Safety and Health Center, BOSH certified or any accredited training institution</b></li> </ul>

This Supplemental Bid Bulletin No. 1 shall form part of the Bidding Documents. Any provision in the Bidding Documents inconsistent herewith is hereby amended, modified and superseded accordingly.

For guidance and information of all concerned.

Very truly yours,



MELANIE ANNE B. CHENG, Ph.D.  
Chairperson, BAC for Infrastructure

**BILL OF QUANTITIES**

Project : **COMPLETION OF PSHS ACADEMIC BUILDING**  
 Location : Agham Road, Diliman Quezon City  
 Owner : Philippine Science High School Main Campus  
 Date : February 18, 2022



Item No.	Description	Unit	Qty	Materials		Labor		Direct Cost	Mark Ups			Indirect Cost	Unit Cost	Total Cost
				Unit cost	Amount	Unit cost	Amount		OCM	Profit	VAT			
<b>DIV. 1</b>	<b>GENERAL REQUIREMENTS</b>								12%	8%	5%			
1.1	Complete Support Utilities (Field Office for the General Contractor; Storage and Fabrication Sheds; Dewatering Facilities and Drains; Temporary Enclosure; Temporary Stairs, Lifts, and Hoists; Temporary Exterior Lighting; Collection and Disposal of Waste and Oearing ; Temporary Environmental Controls; and Temporary Barracks for On-Site Laborers/Man Power	lot	1.00											
1.2	Complete Supply of Health, Safety and Security (Rrst Ald Facilities; Health and Safety Officer; Security Guards for Site and Agency; Temporary Are Protection; Barricades, Warning Signs and Lights; Environmental Protection and Traffic Ways	lot	1.00											
1.3	Supply and Installation of Project Signs Complete	lot	1.00											
1.4	Demobilization	lot	1.00											
	<b>SUB- TOTAL OF GENERAL REQUIREMENTS</b>													
<b>DIV. 3</b>	<b>CONCRETE</b>													
<b>3.1</b>	<b>Complete Supply and Installation of Reinforcing Bars Grade 40 as per Plans, Drawing Details and Specifications</b>													
3.1.1	Column	kgs.	2,496.48											
3.1.2	Beams	kgs.	1,401.51											
3.1.3	Slabs	kgs.	1,454.69											
3.1.4	Fire Exit Stairs	kgs.	2,182.47											
3.1.5	Main Stairs & Observatory Stair	kgs.	2,981.25											
3.1.6	Bleacher	kgs.	11,417.03											
3.1.7	Others (Specify): G.I. Tie wires	kgs.	772.06											
<b>3.2</b>	<b>Complete Supply and Installation of Formworks as per specifications</b>													
3.2.1	Column	sq.m.	52.68											
3.2.2	Beams	sq.m.	42.04											
3.2.3	Slabs	sq.m.	81.19											
3.2.4	Fire Exit Stairs	sq.m.	81.50											
3.2.5	Main Stairs & Observatory Stair	sq.m.	115.58											
3.2.6	Corbel Trusses	sq.m.	84.79											
3.2.7	Bleacher	sq.m.	71.67											
<b>3.3</b>	<b>Complete Supply and Installation of concrete as per Plans, Drawing Details and Specifications</b>													
3.3.1	Column	cu.m.	22.21											
3.3.2	Beams	cu.m.	8.70											
3.3.3	Slabs	cu.m.	13.63											
3.3.4	Fire Exit Stairs	cu.m.	9.85											
3.3.5	Main Stairs & Observatory Stair	cu.m.	30.43											
3.3.6	Corbel Trusses	cu.m.	15.98											
3.3.7	Bleacher	cu.m.	73.07											
3.4	Pre-Cast	sq.m.	530.96											
	<b>SUB- TOTAL OF CONCRETE</b>													
<b>DIV.4</b>	<b>MASONRY</b>													
<b>4.1</b>	<b>Complete Supply and Installation of Hollow Blocks (CHB) as per Plan, Drawing Details and Specifications</b>													
4.1.1	150mm \ 5"Thk. CHB, Including Steel Reinforcement, Mortar and Tie Wires, Complete	sq.m.	1,894.07											
<b>4.2</b>	<b>Complete Supply and Installation of Concrete Zocallo as per Plan, Drawing Details and Specifications</b>													
4.2.1	150mm Thk. Zocallo	l.m.	313.41											
<b>4.3</b>	<b>Complete Supply and Installation of Lintel Beam as per Plan, Drawing Details and Specifications</b>													
4.3.1	150mm Thk. Lintel Beam	l.m.	237.07											
<b>4.4</b>	<b>Complete Supply and Installation of Stiffener Column as per Plan, Drawing Details and Specifications</b>													
4.4.1	150mm Thk. Stiffener Column	l.m.	409.85											

Item No.	Description	Unit	Qty	Materials		Labor		Direct Cost	Mark Ups			Indirect Cost	Unit Cost	Total Cost
				Unit cost	Amount	Unit cost	Amount		OCM	Profit	VAT			
	<b>SUB- TOTAL OF MASONRY</b>													
<b>DIV.5</b>	<b>METALS</b>													
<b>5.1</b>	<b>Complete Supply and Installation of Steel Roof Framing System as per Plan, Drawing Details and Specifications</b>													
5.1.1	Steel Trusses	kgs.	36,386.93											
5.1.2	Purlins	kgs.	44,597.54											
5.1.3	Sag Rod & Cross Bracing Support Connection & Accessories	kgs.	1,606.60											
	<b>SUB- TOTAL OF METAL</b>													
<b>DIV.7</b>	<b>THERMAL AND MOISTURE PROTECTION</b>													
<b>7.1</b>	<b>Complete Supply and Installation of Roofing System as per Plan, Drawing Details and Specifications</b>													
7.1.1	Rib-Type, Pre-Insulated Sandwich, Pre-Painted Long Span Roofing Panels	sq.m.	1,450.00											
7.1.2	Roofing Accessories (Gutter, Rashing , Ridge Roll, etc .)	lot	1.00											
<b>7.2</b>	<b>Complete Supply and Installation of Waterproofing System as per Plan, Drawing Details and Specifications</b>													
7.2.1	WP-1 - Polyurethane Membrane Waterproofing (Deck water proofing and Toilets)	sq.m.	632.60											
7.2.2	WP-2 - Acrylic Polymer Cementitious Waterproofing system (Ledges and parapet wall)	sq.m.	835.80											
7.2.4	WP-4 - Nanoblock Waterproofing	sq.m.	14.20											
7.2.5	WP-5 - Nanoblock Waterproofing with Water Tank Lining	sq.m.	713.00											
	<b>SUB- TOTAL OF THERMAL &amp; MOISTURE PROTECTION</b>													
<b>DIV.8</b>	<b>OPENINGS</b>													
<b>8.1</b>	<b>Complete Supply and Installation of Doors complete with door knobs &amp; accessories as per Plan, Drawing Details and Specifications</b>													
8.1.1	D-1a - Swing Type Grille Works (5300 x 2600)	set/s	2.00											
8.1.2	D-1d- Swing Type Grille Works (1600 x 2600)	set/s	1.00											
8.1.3	D-1e- Swing Type Grille Works (1100 x 2600)	set/s	1.00											
<b>8.2</b>	<b>Complete Supply and Installation of Windows complete with accessories as per Plan, Drawing Details and Specifications</b>													
8.2.1	W-1a - Jalousie Window (1900x 2850mm)	set/s	3.00											
8.2.2	W-1b- Jalousie Window (5000 x 2400mm)	set/s	1.00											
8.2.3	W-2a - Jalousie Window (6000 x 2400mm)	set/s	4.00											
8.2.4	W-2b- Jalousie Window (5000 x 2400mm)	set/s	2.00											
8.2.5	W-2c - Jalousie Window (3000 x 2400mm)	set/s	2.00											
8.2.6	W-3 -Jalousie Window (4000 x 1700mm)	set/s	1.00											
8.2.7	W-4 - Jatouslie Window (3000 x 1700mm)	set/s	5.00											
8.2.8	W-5- Jalousie Window (2000 x 1700mm)	set/s	18.00											
8.2.9	W-6a- Jalousie Window (1700 x 1700mm)	set/s	8.00											
8.2.10	W-6b- Jalousie Window (1600 x 1700mm)	set/s	8.00											
8.2.11	W-7- Jalousie Window (1500 x 1700mm)	set/s	42.00											
8.2.12	W-8- Jalousie Window (1400 x 1700mm)	set/s	17.00											
8.2.13	W-9 - Jalousie Window (1300 x 1700mm)	set/s	17.00											
8.2.14	W-10- Jalousie Window (1200 x 1700mm)	set/s	57.00											
8.2.15	W-11 -Jalousie Window (1100 x 1700mm)	set/s	44.00											
8.2.16	W-12 -Jalousie Window (1000 x 1700mm)	set/s	6.00											
8.2.17	W-13 -Jalousie Window (950 x 1700mm)	set/s	16.00											
8.2.18	W-14 -Jalousie Window (850 x 1700mm)	set/s	4.00											
8.2.19	W-15a -Jalousie Window (3000 x 750mm)	set/s	10.00											
8.2.20	W-15b -Jalousie Window (2000 x 750mm)	set/s	2.00											
8.2.21	W-15c -Jalousie Window (1600 x 750mm)	set/s	1.00											
8.2.22	W-15d -Jalousie Window (1500 x 750mm)	set/s	10.00											
8.2.23	W-15e -Jalousie Window (1400 x 750mm)	set/s	5.00											
8.2.24	W-15f -Jalousie Window (1000 x 750mm)	set/s	8.00											
8.2.25	W-16a- Jalousie Window & Aluminum Framed Fixed Glass Panels (6000 x 1700mm)	sets	3.00											
8.2.26	W-16b- Jalousie Window & Aluminum Framed Fixed Glass Panels (5000 x 1700mm)	sets	3.00											
8.2.27	W-16c- Jalousie Window & Aluminum Framed Fixed Glass Panels (4000 x 1700mm)	sets	3.00											
8.2.28	W-16d- Jalousie Window & Aluminum Framed Fixed Glass Panels (3000 x 1700mm)	sets	10.00											
8.2.29	W-16e- Jalousie Window & Aluminum Framed Fixed Glass Panels (2000 x 1700mm)	sets	9.00											

Item No.	Description	Unit	Qty	Materials		Labor		Direct Cost	Mark Ups			Indirect Cost	Unit Cost	Total Cost
				Unit cost	Amount	Unit cost	Amount		OCM	Profit	VAT			
8.2.30	W-16e- Jalousie Window & Aluminum Framed Fixed Glass Panels (1000 x 1700mm)	sets	17.00											
8.2.31	W-17- Aluminum Framed Fixed Glass Panels & Sliding Windows with Jalousie Transom (3000 x 750mm)	set	1.00											
8.2.32	W-18a- Aluminum Framed Fixed Glass Panels Transom (5000 x 750mm)	set	1.00											
8.2.33	W-18b- Aluminum Framed Fixed Glass Panels Transom (3000 x 750mm)	set	1.00											
8.2.34	W-19a- Jalousie Window (6750 x 3850mm)	set	1.00											
8.2.35	W-19b- Aluminum Framed Fixed Glass Panels with Jalousie (6750 x 3850mm)	sets	2.00											
8.2.36	W-19c- Aluminum Framed Fixed Glass Panels with Jalousie (6750 x 2720mm)	set	1.00											
<b>8.3</b>	<b>Complete Supply and Installation of Glass Wall Partition with accessories as per Plan, Drawing Details and Specifications</b>													
8.3.1	GP-1- Glass Wall Partition (5200 x 2600)	sets	6.00											
8.3.2	GP-2- Glass Wall Partition (3725 x 2600)	sets	3.00											
	<b>SUB - TOTAL OF OPENINGS</b>													
<b>DIV.9</b>	<b>FINISHES</b>													
<b>9.2</b>	<b>Complete Supply and Application of Wall Finishes as per Plan, Drawing Details and Specifications</b>													
9.2.1	WF-1a- Exterior CHB Wall (150mm Thick)	sq.m.	2,148.43											
9.2.2	WF-2a- Exterior Concrete Columns	sq.m.	714.89											
9.2.3	WF-3a- Exterior Parepet Walls and Ledges	sq.m.	1,639.60											
9.2.4	WF-4a- Exterior Pre-cast Concrete Wall	sq.m.	2,488.18											
	<b>SUB - TOTAL OF FINISHES</b>													
<b>DIV. 22</b>	<b>PLUMBING</b>													
<b>22.2</b>	<b>Complete Supply and Installation of Sewer, Waste and Vent System as per Plans, Drawing Details and Specifications</b>													
<b>22.2.1</b>	<b>Soil Stacks and Collector</b>													
22.2.1.1	100mmØ PVC Pipe Soil Stacks and Collector	lm	347.85											
22.2.1.2	150mmØ PVC Pipe Soil Stacks and Collector	lm	80.77											
22.2.1.3	200mmØ PVC Pipe Soil Stacks and Collector	lm	238.75											
<b>22.2.2</b>	<b>Horizontal Pipes</b>													
22.2.2.1	50mmØ PVC Horizontal Pipes	lm	543.97											
<b>22.2.7</b>	<b>Vent Stack and Vent Lines</b>													
22.2.7.1	50mmØ PVC Pipe Vent Stacks and Vent Lines	l.m	737.25											
22.2.7.2	75mmØ PVC Pipe Vent Stacks and Vent Lines	l.m	398.12											
22.2.7.3	100mmØ PVC Pipe Vent Stacks and Vent Lines	l.m	334.22											
<b>22.3</b>	<b>Complete Supply and Installation of Storm Drainage system, Downspout, Collector Perforated Perimeter Pipe Including Fittings and Accessories as per Plans, Drawing Details and Specifications</b>													
<b>22.3.1</b>	<b>Inside pipes: Downspout and collector</b>													
22.3.1.1	75mmØ Downspout and Collector	l.m	700.80											
22.3.1.2	100mmØ Downspout and Collector	l.m	127.00											
<b>22.3.2</b>	<b>Outside Drainage Pipes</b>													
22.3.2.1	200mmØ Pvc Drainage Pipe	l.m	10.00											
22.3.2.2	250mmØ Pvc Drainage Pipe	l.m	30.00											
22.3.2.3	300mmØ Pvc Drainage Pipe	l.m	35.00											
22.3.2.4	350mmØ Pvc Drainage Pipe	l.m	20.00											
22.3.2.5	400mmØ Pvc Drainage Pipe	l.m	38.00											
<b>22.3.3</b>	<b>Canopy Drain</b>													
22.3.3.1	75mmØ Canopy Drain	pcs	4.00											
<b>22.3.4</b>	<b>Area Drain/Catch Basin</b>													
22.3.4	Area Drain/Catch Basin	pcs	19.00											
<b>22.3.5</b>	<b>Perforated Pipes</b>													
22.3.5.1	100mmØ Pvc Perforated Pipe	l.m	30.00											
<b>22.3.6</b>	<b>Floor Drains</b>													
22.3.6.1	100mmØ Floor Drain	pcs	14.00											
<b>22.3.7</b>	<b>Roof / Gutter Drains</b>													
22.3.7.1	100mmØ Roof/ Gutter Drain	pcs	14.00											
<b>22.3.8</b>	<b>Condensate Drain Pipes and Fittings w/ Insulation</b>													
22.3.8.1	25mmØ Condensate Drain Pipes and Fittings with Insulation	l.m	216.00											
22.3.8.2	50mmØ Condensate Drain Pipes and Fittings with Insulation	l.m	480.00											
22.3.8.3	100mmØ Condensate Drain Pipes and Fittings with Insulation	l.m	50.00											
22.3.8.4	150mmØ Condensate Drain Pipes and Fittings with Insulation	l.m	30.00											
<b>22.4</b>	<b>Supply and Installation of Equipments, Controller and Accessories as per Plans, Drawing Details and Specifications</b>													



Item No.	Description	Unit	Qty	Materials		Labor		Direct Cost	Mark Ups			Indirect Cost	Unit Cost	Total Cost
				Unit cost	Amount	Unit cost	Amount		OCM	Profit	VAT			
22.4.1	Booster Pump, Cap./Unit = 90 GPM vs 250 FT. TOH, Approx.= 10 HP Each, 2-Duty, 1-Stand By & controller	set/s	1.00											
22.4.2	Hydropneumatic tank (Diaphragm Tank) Cap. = 120 US Gals.	set/s	2.00											
22.4.3	Booster Pump Cap./Unit = 75 GPM vs 262 FT. TOH Approx.= 10 HP Each, 2-Duty, 1-Stand By & controller	set/s	1.00											
<b>SUB-TOTAL OF PLUMBING</b>														
<b>DIV. 26</b>	<b>ELECTRICAL</b>													
26.1	Tapping of Academic Building Power Supply Requirements to the Existing Power Source as per Plan, Drawing Details and Specifications													
26.1.1	Wire, 200mm <sup>2</sup> THHN/THW	l.m	2,790.00											
<b>SUB - TOTAL OF ELECTRICAL</b>														
<b>TOTAL AMOUNT OF CONSTRUCTION</b>														