



**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
BIODIVERSITY MANAGEMENT BUREAU**

QUEZON AVE., DILIMAN, QUEZON CITY

Tel. No. (632) 8 924 6031-25 | Fax (632) 8 924 0109, (632) 8 920 4417

Website: [www.bmb.gov.ph](http://www.bmb.gov.ph) | Email: [bmb@bmb.gov.ph](mailto:bmb@bmb.gov.ph)

# **BIDDING DOCUMENTS**

**PROPOSED CONSTRUCTION OF  
PASSAGEWAY BETWEEN ADMIN AND  
FINANCE AND NATIONAL PARKS  
DIVISION**

**ABC: P876,266.56**

**BIDS AND AWARDS  
COMMITTEE**



Republic of the Philippines  
**Department of Environment and Natural Resources**  
**BIODIVERSITY MANAGEMENT BUREAU**  
Ninoy Aquino Parks and Wildlife Center  
Quezon Avenue, Diliman, Quezon City  
Tel. Nos.: (632) 924-6031 to 35 Fax: (632) 924-0109, (632) 920-4417  
Website: <http://www.bmb.gov.ph> E-mail: [bmb@bmb.gov.ph](mailto:bmb@bmb.gov.ph)



**INVITATION TO BID**  
**No. 2020-017**

The Biodiversity Management Bureau (BMB), through the Bids and Awards Committee (BAC) invites contractors to bid for the hereunder project:

Name of Project	<b>PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION</b>
Brief Description	Furnishing of labor, materials and equipment necessary to complete the project located inside the Ninoy Aquino Parks and Wildlife Center, Quezon Avenue, Diliman, Quezon City
Approved Budget for the Contract (ABC)	Eight hundred seventy-six thousand two hundred sixty-six pesos and 56/100 (P876,266.56)
Source of Funding	BMB Funds
Contract Duration	30 calendar days

Prospective bidders should have completed a similar contract with a value of at least 50% of the ABC, and have key personnel and equipment available for the execution of the contract. The BAC will conduct post-qualification of the lowest calculated bid.

The schedule of activities is listed, as follows:

Submission of Letters of Intent and Issuance of Bid Documents	November 27-December 2, 2020
Deadline and Venue for Submission of Bids	<u>December 9, 2020, 5:00 p.m.</u> <u>BAC Secretariat Office, BMB, Ninoy Aquino Parks and Wildlife Center, Quezon City.</u>

Bid Documents will be available only to prospective bidders upon presentation of Letter of Intent and payment of non-refundable amount of **P1,000.00** to the BMB Cashier.

The Biodiversity Management Bureau will assume no responsibility whatsoever to compensate or indemnify bidders for any expenses incurred in the preparation of the bid.

Approved for Posting:

  
**AMELITA D. ORTIZ**  
Assistant Director  
Chairperson, BAC



**Project Title: CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE  
AND FINANCE AND NATIONAL PARKS DIVISION**

**Location : Ninoy Aquino Quezon Ave., Diliman Quezon City**

**Subject : Scope of Works and Technical Specifications**

**Item I. SITE PREPARATION/EXCAVATION**

The works under this item shall include the transportation of needed materials, labor and equipment from legal sources to the project site for the Repair/Improvement of Passageway of Admin Building to NPD Building located at BMB Quezon Ave., Diliman Quezon City and the lay-out of the plans and excavation for the foundation to be laid in the location. Aforesaid activities shall be done carefully and properly as directed. The use of pick-axe, sledgehammer and shovel are recommended for the said excavation on the site. The excavation includes the foundation of the pedestal and the tiebeam. The depth of the excavation of the foundation is strictly required to be greater than or equal to 0.80m from the natural grade line. Mini dump truck will also be needed together with the wheelbarrow for the clearing of the excavated soils. Pouring of gravel(G1) beddings to the foundation before concreting is also highly recommended. For other details, please refer to the approved plans/drawings.

**Item II. STEEL WORKS REBARS**

The works under this item shall include the construction/making of the footing rebars, column rebars and tiebeam rebars. The required rebars that will be used are 16mm for main bars and 10mm for stirrups and lateral ties. In cutting rebars, the use of angle grinder together with the metal cutting disk is recommended. Installation of the rebars for the columns should have supports that will make it steady and not leaning as the concreting process undergoes. Rebars at the foundation should have spacers having a height of 75mm. #16 GI Tie wire will be used as the connector for each rebar. For other details, please refer to the approved plans/drawings.

**Item III. FORMWORKS**

The works under this item shall include the installation of formworks for concreting of the pedestal tiebeam and pedestal column. The use of phenolic board 1/2" and coco lumber is recommended. Spacers of 45mm height should be considered in the installation of formworks for the pedestal column and spacers of 75mm height will be in the formworks of the tiebeam. For other details, please refer to the approved plans/drawings.

#### **Item IV. CONCRETING**

The works under this item shall include the concreting of the pedestal footing, tiebeam and pedestal column. It is recommended that the concrete should be a class A mix. Proper pouring and spreading of the concrete mix to the pedestal footing, tiebeam and pedestal column is required to avoid forming bubbles that can create voids that lowers the compaction strength of the concrete. Before the concreting of the pedestal columns, 6 - 28mm anchor bolts w/ 300mm length and having a 90 degree bend of 100mm length should be placed on top. This will serve as the connector for the installation of the baseplate for the Wide Flanges. For other details, please refer to the approved plans/drawings.

#### **Item V. SCAFFOLDING**

The works under this item shall include the installation of scaffolds that will be used in the installation of Wide Flanges. GI pipes of 2"x6mx2mm will be used as scaffolds together with swivel scaffolding clamps as the connectors. Usage of angle grinder with metal cutting disk is recommended. Phenolic boards of 3/4" thickness will serve as a platform. For other details, please refer to the approved plans/drawings.

#### **Item VI. STRUCTURAL STEEL WORKS**

The works under this item shall include the installation of the Wide Flanges together with the steel platform and steel handrails. Two(2) kinds of Wide Flanges are to be used, W10x49 for the columns and beams connected to the columns, and W8x31 for the frame and bracing of the passageway. The use of full welding is highly recommended. Before the erection of the columns(W10x49), the installation of the base plate 12mm thick is required. The base plate should be anchor bolted at the top of the pedestal column with 6 - 16mm anchor bolts with nuts 300mm length. After the erection of the columns(W10x49), base plates of 12mm thickness will be welded on top of the wide flange columns then the frame and the bracing are next. 12mm thick checkered steel plate is required to be full welded on top of the steel frames and bracings. Production of the handrails and trusses will include the use of angle grinder with metal cutting disk. 2" dia.x2mm Stainless Steel Pipe will be used for the handrails, 15mmx15mm Steel Bars will be used for the bracings of the handrails and 2" dia.x2mm G.I. Pipe will serve as balusters and columns for the trusses. 2"x2"x2mm Tubular Steel will be used for the production of trusses. Full weld installation will be used for the installation of handrails and trusses on the steel passageway. For other details, please refer to the approved plans/drawings.

#### **Item VII. PAINTING WORKS**

The works under this item shall include the painting finish of the pedestal column, steel hand rails, steel beams and columns, steel trusses and the steel passageway. Application of primer

paints before top coats are required in the said activities. For other details, please refer to the approved plans/drawings.

**Item VIII. ROOF INSTALLATION & CLEARING**

The works under this item shall include the installation of roofing for the steel passageway and clearing of the site. Solid Polycarbonate Sheet of 4.5mm thick will be used as roof for the steel passageway. Usage of drilling machine with drill bit of 1/8" is required for the use of #12 Self-drilling Screw 12x45. Silicone Sealant and Rubber Tape will also be required for the installation of Solid Polycarbonate Sheet. This will serve as the connectors of Solid Polycarbonate Sheets. For the installation and use of Self-drilling Screw, please refer to the Roof Framing Plan & Installation. For clearance of the activity, after the roof installation works, cleaning and clearing are required. For other details, please refer to the approved plans/drawings.

**Item IX. INSTALLATION OF GLASS DOORS**

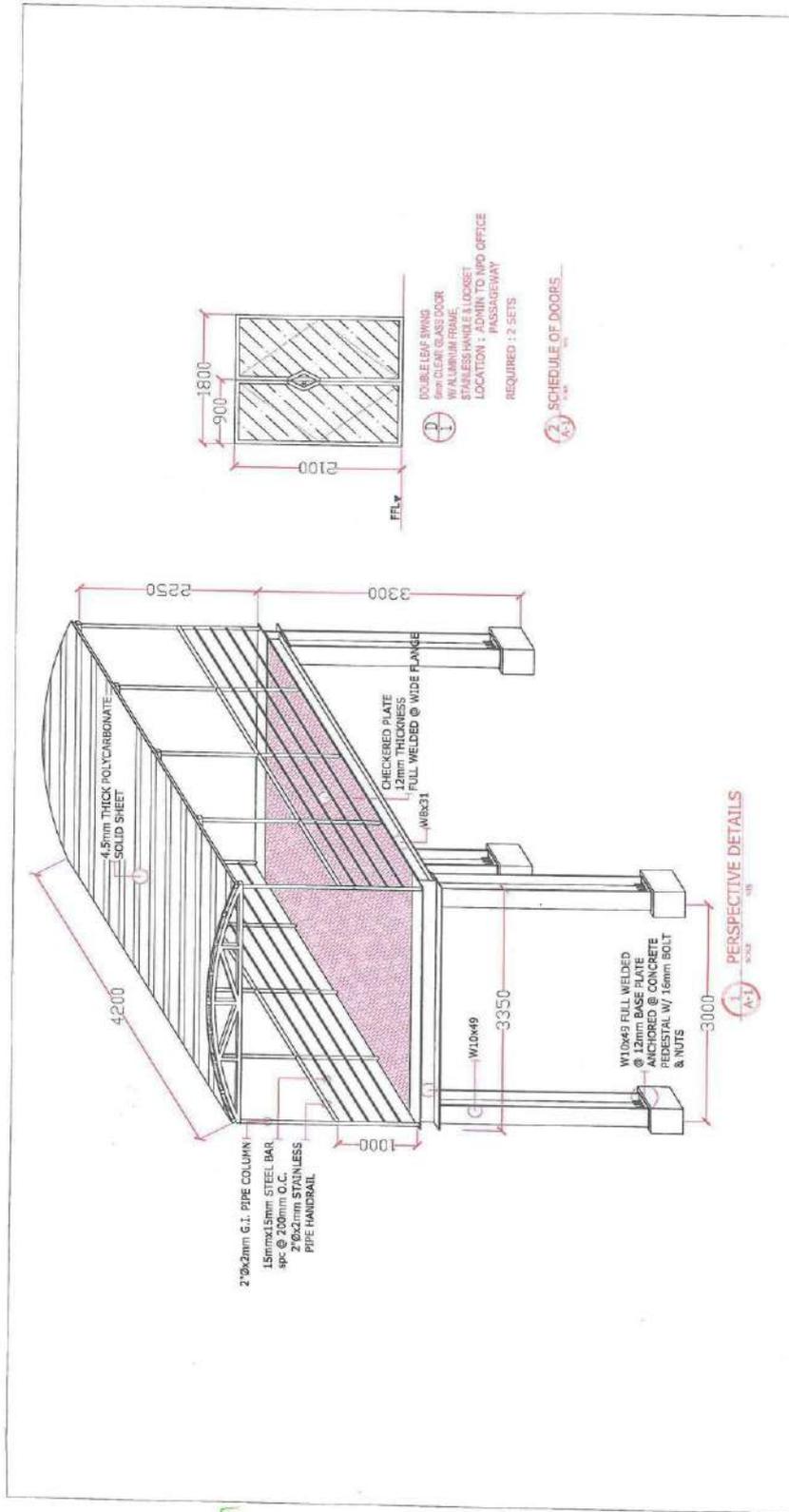
The works under this item shall include the removal of the existing glass wall with aluminum frames on both buildings to be replaced by glass doors for the passageway. The use of hammer, crowbar and chisel will be required for the removal of existing glass walls on both buildings. Installation of glass door 6mm thick clear glass with aluminum frame, stainless steel handle and complete lockset on both buildings should be done for the clearance of this activity. For other details, please refer to the approved plans/drawings.

Prepared by:   
ENGR. DAN ROBINSON R. BUGHAO  
Engineer II

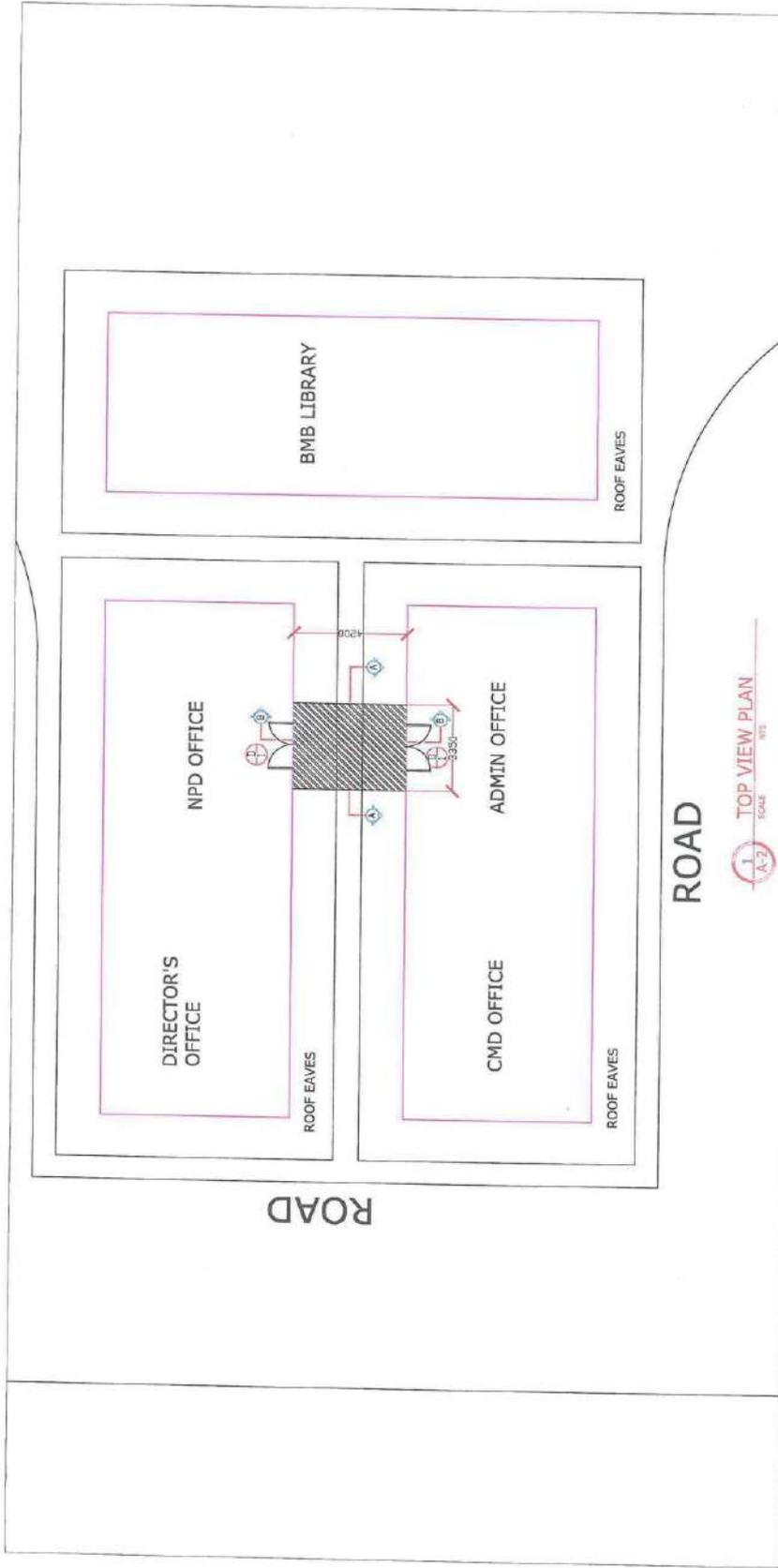
Checked by:   
ENGR. MELCHOR O. BANGAOIL  
BMB Project Engineer

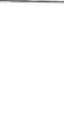
Recommended by:   
MANUEL D. ROJAS  
Action Officer, Administrative and Finance

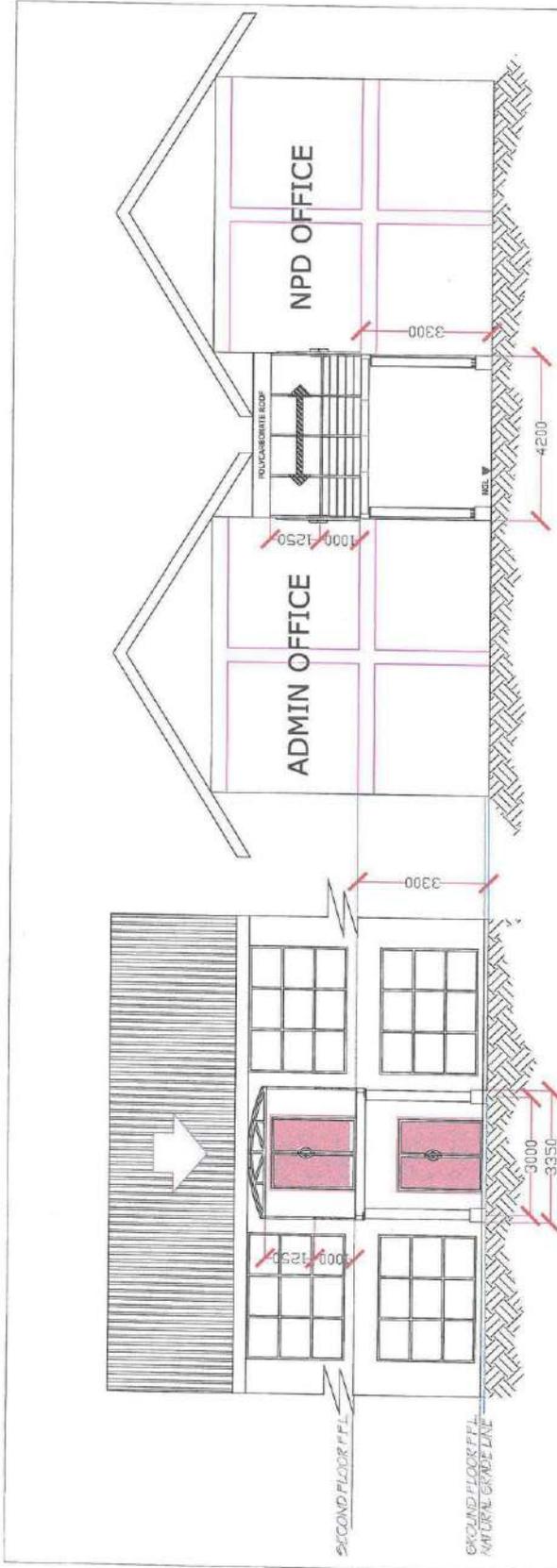
Approved by:   
RICARDO L. CALDERON, CESO III  
Assistant Secretary for Climate Change  
and Director, In concurrent capacity



<p><b>PROJECT TITLE:</b> PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION</p> <p><b>PROJECT LOCATION:</b> NINYO AQUINO PARKS AND WILDLIFE CENTER, QUEZON AVENUE, DILIMAN, QUEZON CITY</p>	<p><b>SHEET CONTENT:</b> BRIDGE PASSAGEWAY PERSPECTIVE DETAILS &amp; SCHEDULE OF DOORS</p> <p><b>DESIGN AND DRAWN BY:</b> <i>Dan Robinson R. Bughao</i> DAN ROBINSON R. BUGHAO Engineer II</p>	<p><b>RECOMMENDING, APPROVAL:</b> <i>Manuel B. Rojas</i> Manuel B. ROJAS Action Officer, Administrative and Finance</p> <p><b>REVIEWED BY:</b> <i>Melchor Q. Bangoail</i> MELCHOR Q. BANGAOIL BMB Project Engineer</p>	<p><b>APPROVED BY:</b> <i>Ricardo L. Calderon</i> RICARDO L. CALDERON, CESO III Assistant Secretary for Climate Change and Director, in concurrent capacity</p>	<p><b>SHEET NO.:</b> <b>A1</b></p>
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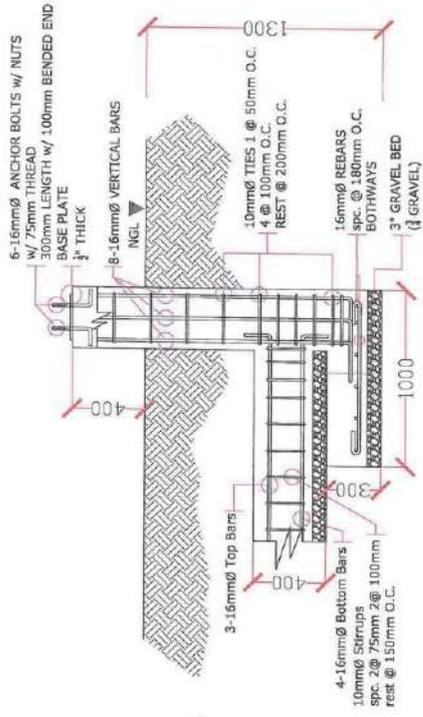
PROJECT TITLE:	PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION			PROJECT LOCATION: NINOY AQUINO PARKS AND WILDLIFE CENTER, QUEZON AVENUE, DILIMAN, QUEZON CITY
SHEET CONTENT:	TOP VIEW PLAN			DESIGN AND DRAWN BY: <i>[Signature]</i> DAN ROBINSON R. BUGHAO Engineer II
RECOMMENDING APPROVAL:	 <b>MANUEL B. ROJAS</b> Action Officer, Administrative and Finance			REVIEWED BY: <i>[Signature]</i> MELCHOR BANGAOLIL BMB Project Engineer
APPROVED BY:	 <b>RICARDO L. CALDERON, CESO III</b> Assistant Secretary for Climate Change and Director, Inherent capacity			SHEET NO.: <b>A2</b>



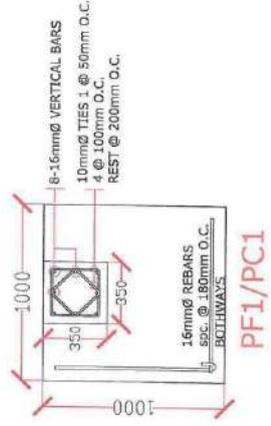
1 SECTION THRU A-A  
SCALE A-3 NTS

2 SECTION THRU B-B  
SCALE A-3 NTS

PROJECT TITLE: PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION	SHEET CONTENT: SECTION DETAILS	RECOMMENDING APPROVAL: <i>Manuel D. Rojas</i> Manuel D. ROJAS Action Officer, Administrative and Finance	APPROVED BY: <i>Ricardo Calderon</i> RICARDO CALDERON, CESO III Assistant Secretary for Climate Change and Director, In concurrent capacity	SHEET NO.: <b>A3</b>
PROJECT LOCATION: NINYO AQUINO PARKS AND WILDLIFE CENTER, QUEZON AVENUE, DILIMAN, QUEZON CITY	DESIGN AND DRAWN BY: <i>Dan Robinson R. Bughao</i> DAN ROBINSON R. BUGHAO Engineer II	REVIEWED BY: <i>Melchor C. Banguoil</i> MELCHOR C. BANGAOIL BMB Project Engineer		

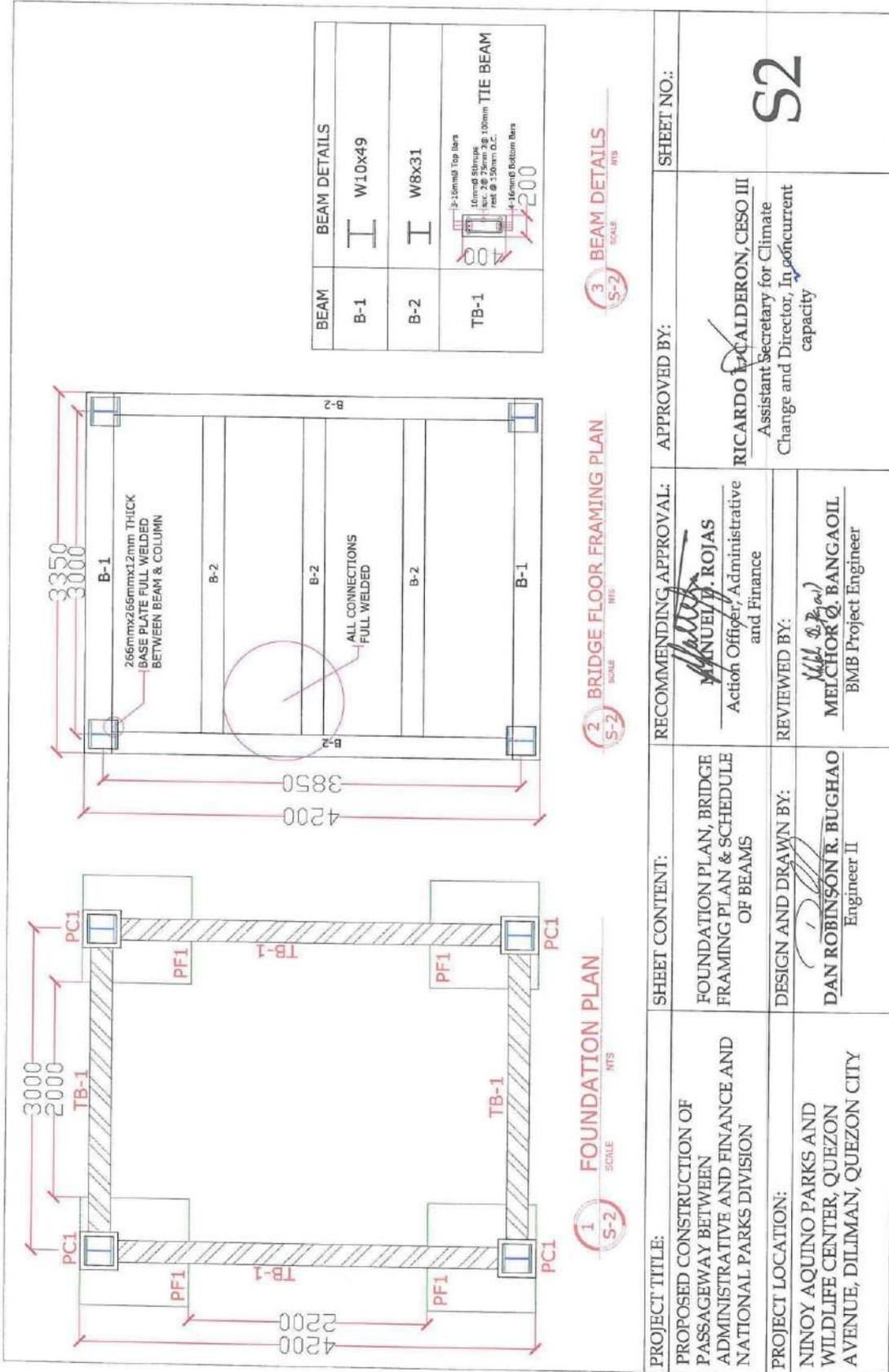


**1**  
**S-1**  
SCALE  
**PEDESTAL COLUMN/FOOTING/TIE BEAM SECTION**  
NTS



**BASE PLATE & I-BEAM DETAILS**

<p><b>PROJECT TITLE:</b> PROPOSED CONSTRUCTION OF PASSAGeway BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION</p> <p><b>PROJECT LOCATION:</b> NINYO AQUINO PARKS AND WILDLIFE CENTER, QUEZON AVENUE, DILIMAN, QUEZON CITY</p>	<p><b>SHEET CONTENT:</b> PEDESTAL FOOTING/COLUMN &amp; TIE BEAM DETAILS</p> <p><b>DESIGN AND DRAWN BY:</b> <i>[Signature]</i> <b>DAN ROBINSON R. BUGHAO</b> Engineer II</p>	<p><b>RECOMMENDING APPROVAL:</b> <i>[Signature]</i> <b>MANUEL D. ROJAS</b> Action Officer, Administrative and Finance</p> <p><b>REVIEWED BY:</b> <i>[Signature]</i> <b>MELCHOR O. SANGAOL</b> BMB Project Engineer</p>	<p><b>APPROVED BY:</b> <i>[Signature]</i> <b>RICARDO CALDERON, CESO III</b> Assistant Secretary for Climate Change and Director, In concurrent capacity</p>	<p><b>SHEET NO.:</b> <b>S1</b></p>
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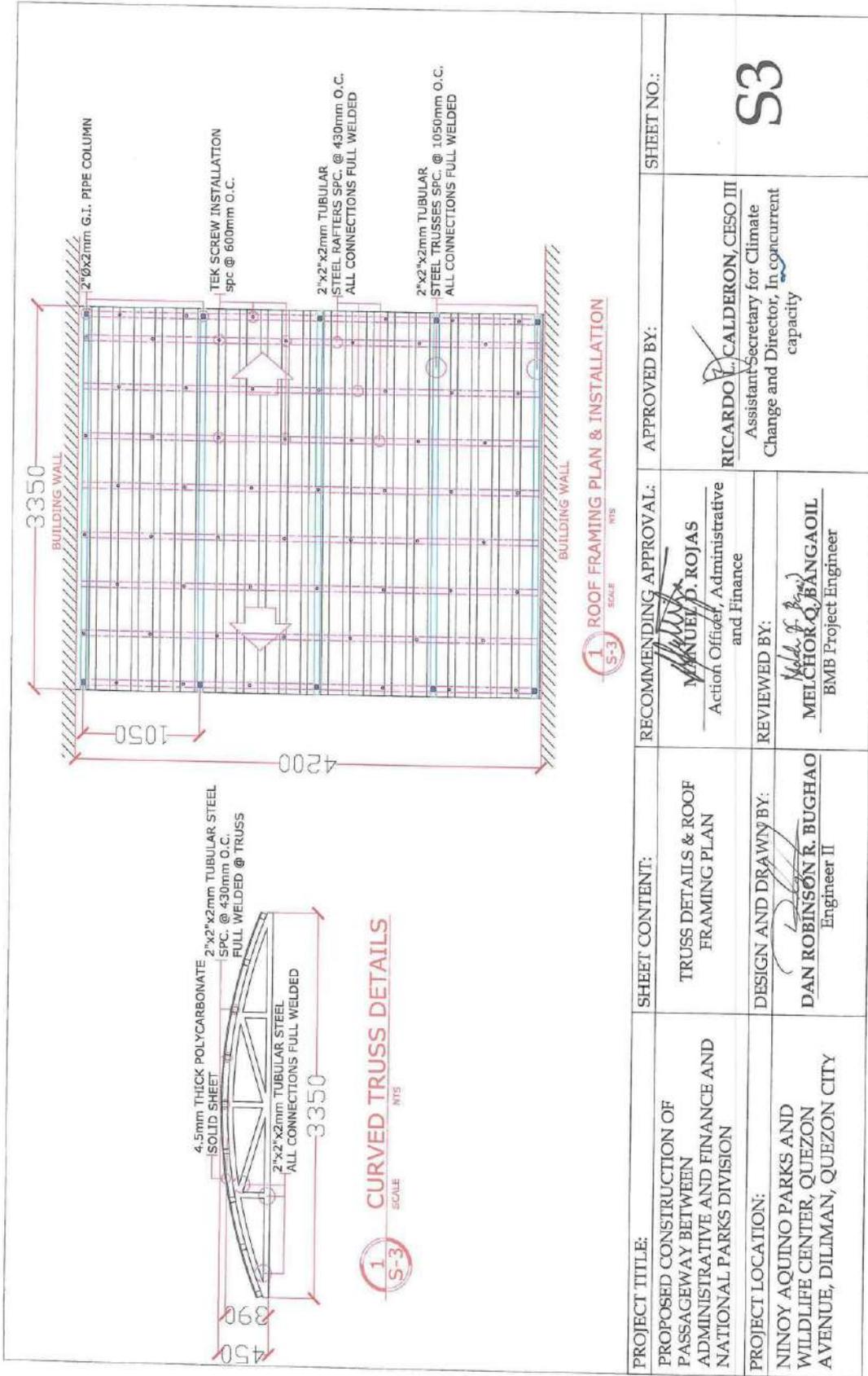


1 FOUNDATION PLAN  
SCALE: S-2  
NTS

2 BRIDGE FLOOR FRAMING PLAN  
SCALE: S-2  
NTS

3 BEAM DETAILS  
SCALE: S-2  
NTS

PROJECT TITLE: PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION	SHEET CONTENT: FOUNDATION PLAN, BRIDGE FRAMING PLAN & SCHEDULE OF BEAMS	RECOMMENDING APPROVAL: <i>Manuel P. Rojas</i> MANUEL P. ROJAS Action Officer, Administrative and Finance	APPROVED BY: <i>Ricardo P. Alderon</i> RICARDO P. ALDERON, CESO III Assistant Secretary for Climate Change and Director, Inconcurrent capacity	SHEET NO.: <b>S2</b>
PROJECT LOCATION: NINOY AQUINO PARKS AND WILDLIFE CENTER, QUEZON AVENUE, DILIMAN, QUEZON CITY	DESIGN AND DRAWN BY: <i>Dan Robinson R. Bughao</i> DAN ROBINSON R. BUGHAO Engineer II	REVIEWED BY: <i>Melchor Q. Bangaoil</i> MELCHOR Q. BANGAOIL BMB Project Engineer		



**1** ROOF FRAMING PLAN & INSTALLATION  
SCALE: 1/3 NTS

PROJECT TITLE: PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION	SHEET CONTENT: TRUSS DETAILS & ROOF FRAMING PLAN	RECOMMENDING APPROVAL: <i>Manuel D. Rojas</i> <b>MANUEL D. ROJAS</b> Action Officer, Administrative and Finance	APPROVED BY: <i>Ricardo Calderon, CESO III</i> <b>RICARDO CALDERON, CESO III</b> Assistant-Secretary for Climate Change and Director, In concurrent capacity	SHEET NO.: <b>S3</b>
PROJECT LOCATION: NINYO AQUINO PARKS AND WILDLIFE CENTER, QUEZON AVENUE, DILIMAN, QUEZON CITY	DESIGN AND DRAWN BY: <i>Dan Robinson R. Bughao</i> <b>DAN ROBINSON R. BUGHAO</b> Engineer II	REVIEWED BY: <i>Melchor Q. Bangoail</i> <b>MELCHOR Q. BANGAAIL</b> BMB Project Engineer		

## CHECKLIST OF REQUIRED DOCUMENTS FOR SUBMISSION

Name of Project	<b>PROPOSED CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION</b>
Approved Budget for the Contract (ABC)	Eight hundred seventy-six thousand two hundred sixty-six pesos and 56/100 (P876,266.56)
Source of Funding	BMB Funds
Contract Duration	30 calendar days
Location	BMB Office, Ninoy Aquino Parks and Wildlife Center Compound, Quezon Avenue, Diliman, Quezon City

### A. Legal Documents

- PHILGEPS Platinum Certificate of Registration with Annex "A";
- Valid Registration Certificate (SEC, DTI or CDA);
- Y2020 Mayor's/Business Permit; and
- Tax Clearance per EO 398, S.2005

### B. Technical Documents

- Statement of all On-going Private and Government Contracts, including contracts awarded but not yet started, if any:
- Statement of Single Largest Completed Contract (SLCC) which is similar in nature, within five (5) years from the date of submission and receipt of bids supported by the End-user's Acceptance or Official Receipt or Sales Invoice; and
- Valid PCAB license and registration for the type and cost of the contract for this Project

### C. Financial Documents

- Summary of Cost Estimates;
- Detailed Cost Estimates
- Bill of Quantities
- Net Financial Contracting Capacity (NFCC); and
- Y2019 Audited Financial Statement

All pages of the documents should be signed by the authorized signatory and submitted in one (1) sealed envelope with label and markings.

**FINANCIAL BID FORM/SUMMARY OF COST ESTIMATE**

Project Name: **CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND**

**NATIONAL PARKS DIVISION**

Location: **NAPWC/BMB, QUEZON AVENUE, DILIMAN, QUEZON CITY**

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	AMOUNT
I.	SITE PREPARATION	sqm.	16.8		
II.	EXCAVATION	cu.m.	7.66		
III.	GRAVEL BEDDING	cu.m.	0.49		
IV.	PEDESTAL FOOTING STEEL WORKS	kg	75.76		
V.	PEDESTAL COLUMN STEEL WORKS	kg	181.87		
VI.	PEDESTAL FOOTING CONCRETING	cu.m.	1.2		
VII.	TIE BEAM STEEL WORKS	kg	234.55		
VIII.	TIE BEAM FORMWORKS	sqm.	3.12		
IX.	PEDESTAL COLUMN FORMWORKS	sqm.	7.84		
X.	TIE BEAM CONCRETING	cu.m.	0.98		
XI.	PEDESTAL COLUMN CONCRETING	cu.m.	0.69		
XII.	SCAFFOLDING	sqm.	23.31		
XIII.	STRUCTURAL STEEL	kg	3461.2		
XIV.	STEEL HANDRAIL & TRUSSES	kg	415.2		
XV.	PAINTING WORKS	sqm.	71.24		
XVI.	ROOF INSTALLATION	sqm.	14.07		
XVII.	REMOVAL OF GLASS WALL	sqm.	15.08		
XIX.	INSTALLATION OF GLASS DOOR	sqm.	15.08		

TOTAL COST (DIRECT COST+INDIRECT COST)= \_\_\_\_\_

AMOUNT IN WORDS: \_\_\_\_\_

CONTRACTOR'S NAME WITH SIGNATURE ABOVE: \_\_\_\_\_

DATE: \_\_\_\_\_

**DETAILED UNIT COST COMPUTATION FOR: CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION**

Item #	Item Description	QTY	Unit
1.0	SITE PREPARATION	16.80	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	2"x3"x10 Coco Lumber	10.00	pcs		
	CWN 2"	1.00	kg		
	CWN 3"	1.00	kg		
	Claw Hammer	1.00	pcs		
	Hand Saw	2.00	pcs		
	Nylon String	1.00	roll		
	<b>Sub Total, Materials</b>				
<i>Cost per sqm.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	<b>Sub Total, Labor</b>				
<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	<b>Sub Total, Equipment</b>				
<i>Cost per sqm.</i>					

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST(TDC + TIC)**

*Unit Cost*

Item #	Item Description	QTY	Unit
2.0	EXCAVATION	7.66	cu.m.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Sledge Hammer 12lbs	1.00	pcs		
	Pickaxe Mattock	1.00	pcs		
	Shovel	1.00	pcs		
	Wheel Barrow	1.00	pcs		
	<b>Sub Total, Materials</b>				
<i>Cost per cu.m.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	<b>Sub Total, Labor</b>				
<i>Cost per cu.m.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Mini Dump Truck	1.00			
	<b>Sub Total, Equipment</b>				

*Cost per cu.m.*

<b>TOTAL DIRECT COST (A+B+C)</b>		
INDIRECT COST (OCM)	10%	_____
INDIRECT COST (PROFIT)	10%	_____
INDIRECT COST (VAT)	12%	_____
<b>TOTAL INDIRECT COST</b>		
<b>TOTAL COST(TDC + TIC)</b>		
<i>Unit Cost</i>		

Item #	Item Description	QTY	Unit
3.0	GRAVEL BEDDING	0.49	cu.m.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Gravel, G1	0.49	cu.m.		
	<b>Sub Total, Materials</b>				

*Cost per cu.m.*

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	<b>Sub Total, Labor</b>				

*Cost per cu.m.*

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	N/A				
	<b>Sub Total, Equipment</b>				

*Cost per cu.m.*

<b>TOTAL DIRECT COST (A+B+C)</b>		
INDIRECT COST (OCM)	10%	_____
INDIRECT COST (PROFIT)	10%	_____
INDIRECT COST (VAT)	12%	_____
<b>TOTAL INDIRECT COST</b>		
<b>TOTAL COST(TDC + TIC)</b>		
<i>Unit Cost</i>		

Item #	Item Description	QTY	Unit
4.0	PEDESTAL FOOTING STEEL WORKS	75.76	kg

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	16mm dia. Rebars	8.00	pcs		
	#16 GI Tie Wire	0.82	kg		
	Metal Cutting Disc	6.00	pcs		
	Sub Total, Materials Cost per kg				

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor Cost per kg				

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Angle Grinder	1.00			
	Sub Total, Equipment Cost per kg				

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST (TDC + TIC)**

Unit Cost

Item #	Item Description	QTY	Unit
5.0	PEDESTAL COLUMN STEEL WORKS	181.87	kg

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	16mm dia. Rebars	11.00	pcs		
	10mm dia. Rebars	21.00	pcs		
	#16 GI Tie Wire	3.00	kg		
	Metal Cutting Disc	6.00	pcs		
Sub Total, Materials Cost per kg					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor Cost per kg				

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Angle Grinder	1.00			
<b>Sub Total, Equipment</b>					
<i>Cost per kg</i>					

<b>TOTAL DIRECT COST (A+B+C)</b>	
INDIRECT COST (OCM)	10%
INDIRECT COST (PROFIT)	10%
INDIRECT COST (VAT)	12%
<b>TOTAL INDIRECT COST</b>	
<b>TOTAL COST(TDC + TIC)</b>	
<i>Unit Cost</i>	

Item #	Item Description	QTY	Unit
6.0	PEDESTAL FOOTING CONCRETING	1.20	cu.m.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Portland Cement	11.00	bags		
	White Sand	0.60	cu.m.		
	Gravel 3/4"	1.20	cu.m.		
	Small GI Pails	2.00	pcs		
<b>Sub Total, Materials</b>					
<i>Cost per cu.m.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
<b>Sub Total, Labor</b>					
<i>Cost per cu.m.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	One Bagger Concrete Mixer	1.00			
<b>Sub Total, Equipment</b>					
<i>Cost per cu.m.</i>					

<b>TOTAL DIRECT COST (A+B+C)</b>	
INDIRECT COST (OCM)	10%
INDIRECT COST (PROFIT)	10%
INDIRECT COST (VAT)	12%
<b>TOTAL INDIRECT COST</b>	
<b>TOTAL COST(TDC + TIC)</b>	
<i>Unit Cost</i>	

Item #	Item Description	QTY	Unit		
7.0	TIE BEAM STEEL WORKS	234.55	kg		
Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	16mm dia. Rebars	15.00	pcs		
	10mm dia. Rebars	25.00	pcs		
	#16 GI Tie Wire	4.87	kg		
	Metal Cutting Disk	6.00	pcs		
<b>Sub Total, Materials</b>					
<i>Cost per kg</i>					
Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
<b>Sub Total, Labor</b>					
<i>Cost per kg</i>					
Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Angle Grinder	1.00			
<b>Sub Total, Equipment</b>					
<i>Cost per kg</i>					
<b>TOTAL DIRECT COST (A+B+C)</b>					
INDIRECT COST (OCM)				10%	
INDIRECT COST (PROFIT)				10%	
INDIRECT COST (VAT)				12%	
<b>TOTAL INDIRECT COST</b>					
<b>TOTAL COST (TDC + TIC)</b>					
<i>Unit Cost</i>					

Item #	Item Description	QTY	Unit		
8.0	TIE BEAM FORM WORKS	3.12	sqm.		
Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Phenolic Board, 1.2x2.4x1/2"	2.00	pcs		
	2"x3"x1/2" Coco lumber	56.00	bd.ft.		
	CWN 2"	2.00	kg		
	CWN 3"	2.00	kg		
<b>Sub Total, Materials</b>					
<i>Cost per sqm.</i>					
Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
<b>Sub Total, Labor</b>					
<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Sub Total, Equipment Cost per sqm.				
<b>TOTAL DIRECT COST (A+B+C)</b>					
INDIRECT COST (OCM)				10%	_____
INDIRECT COST (PROFIT)				10%	_____
INDIRECT COST (VAT)				12%	_____
<b>TOTAL INDIRECT COST</b>					
<b>TOTAL COST (TDC + TIC)</b>					
Unit Cost					

Item #	Item Description	QTY	Unit
9.0	PEDESTAL COLUMN FORMWORKS	7.84	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Phenolic Board, 1.2x2.4x1/2"	3.00	pcs		
	2"x3"x1/2" Coco lumber	92.00	bd.ft.		
	CWN 2"	2.00	kg		
	CWN 3"	2.00	kg		
	Sub Total, Materials Cost per sqm.				

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor Cost per sqm.				

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Sub Total, Equipment Cost per sqm.				

<b>TOTAL DIRECT COST (A+B+C)</b>					
INDIRECT COST (OCM)				10%	_____
INDIRECT COST (PROFIT)				10%	_____
INDIRECT COST (VAT)				12%	_____
<b>TOTAL INDIRECT COST</b>					
<b>TOTAL COST (TDC + TIC)</b>					
Unit Cost					

Item #	Item Description	QTY	Unit
10.0	TIE BEAM CONCRETING	0.98	cu.m.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Portland Cement	9.00	bags		
	White Sand	0.49	cu.m.		
	Gravel, 3/4"	0.98	cu.m.		
	Sub Total, Materials Cost per cu.m.				

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor Cost per cu.m.				

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	One Bagger Concrete Mixer	1.00			
	Sub Total, Equipment Cost per cu.m.				

<b>TOTAL DIRECT COST (A+B+C)</b>	
INDIRECT COST (OCM)	10%
INDIRECT COST (PROFIT)	10%
INDIRECT COST (VAT)	12%
<b>TOTAL INDIRECT COST</b>	
<b>TOTAL COST (TDC + TIC)</b>	
<i>Unit Cost</i>	

Item #	Item Description	QTY	Unit
11.0	PEDESTAL COLUMN CONCRETING	0.69	cu.m.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Portland Cement	7.00	bags		
	White Sand	0.34	cu.m.		
	Gravel, 3/4"	0.69	cu.m.		
	Sub Total, Materials Cost per cu.m.				

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor Cost per cu.m.				

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
		One Bagger Concrete Mixer	1.00		
<b>Sub Total, Equipment</b>					
<i>Cost per cu.m.</i>					

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST(TDC + TIC)**

*Unit Cost*

Item #	Item Description	QTY	Unit
12.0	SCAFFOLDING	23.31	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	2"dia.x2mm G.I. Pipe	28.00	pcs		
	Swivel Scaffolding Clamp 2"	100.00	pcs		
	Phenolic Board 3/4" 4'x8'	9.00	pcs		
	Metal Cutting Disk	12.00	pcs		
	Pulley	3.00	pcs		
	Rope	50.00	m		
	<b>Sub Total, Materials</b>				
<i>Cost per sqm.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	<b>Sub Total, Labor</b>				
<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
		Angle Grinder	1.00		
<b>Sub Total, Equipment</b>					
<i>Cost per sqm.</i>					

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST(TDC + TIC)**

*Unit Cost*

Item #	Item Description	QTY	Unit
13.0	STRUCTURAL STEEL	3,461.20	kg

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	W10x49; 2.622m Span	4.00	pcs		
	W10x49; 3.350m Span	2.00	pcs		
	W8x31; 3.94m Span	2.00	pcs		
	W8x31; 3.14m Span	3.00	pcs		
	Steel Plate 266mmx266mmx12mm	8.00	pcs		
	Ms Plate Checkered Plate 4'x8'x12mm	5.00	pcs		
	16mm dia. Anchor Bolt w/ Nuts 300mm Length	24.00	pcs		
	Welding Rod	3.00	box		
	Metal Cutting Disk	8.00	pcs		
<b>Sub Total, Materials</b>					
<i>Cost per kg</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
<b>Sub Total, Labor</b>					
<i>Cost per kg</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Welding Machine	1.00			
	Angle Grinder	1.00			
<b>Sub Total, Equipment</b>					
<i>Cost per kg</i>					

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST (TDC + TIC)**

*Unit Cost*

Item #	Item Description	QTY	Unit
14.0	STEEL HANDRAILS & TRUSSES	415.20	kg

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	2" dia. x 2mm G.I. Pipe	4.00	pcs		
	2" dia. x 2mm Stainless Steel Pipe	2.00	pcs		
	15mm x 15mm Steel Bar	6.00	pcs		
	2" x 2" x 2mm Tubular Steel	15.00	pcs		
	Welding Rod	2.00	box		
	Metal Cutting Disk	8.00	pcs		
	<b>Sub Total, Materials</b>				
<i>Cost per kg</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor				
<i>Cost per kg</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Welding Machine	1.00			
	Angle Grinder	1.00			
	Sub Total, Equipment				
<i>Cost per kg</i>					

<b>TOTAL DIRECT COST (A+B+C)</b>	
INDIRECT COST (OCM)	10%
INDIRECT COST (PROFIT)	10%
INDIRECT COST (VAT)	12%
<b>TOTAL INDIRECT COST</b>	
<b>TOTAL COST (TDC + TIC)</b>	
<i>Unit Cost</i>	

Item #	Item Description	QTY	Unit
15.0	PAINTING WORKS	71.24	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Acrytex Reducer #1750	1.00	gal.		
	Acrytex Top Coat Gray	1.00	gal.		
	Epoxy Primer Gray	4.00	gal.		
	Epoxy Reducer #55	1.00	gal.		
	Acqua Epoxy Top Coat Gray	4.00	gal.		
	Acqua Epoxy Top Coat Black	2.00	gal.		
	Paint Brush #2	12.00	pcs		
	Cotton Baby Roller	12.00	pcs		
	Sub Total, Materials				
<i>Cost per sqm.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
	Sub Total, Labor				
<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Sub Total, Equipment				
<i>Cost per sqm.</i>					

<b>TOTAL DIRECT COST (A+B+C)</b>	
INDIRECT COST (OCM)	10%
INDIRECT COST (PROFIT)	10%
INDIRECT COST (VAT)	12%
<b>TOTAL INDIRECT COST</b>	
<b>TOTAL COST (TDC + TIC)</b>	
<i>Unit Cost</i>	

Item #	Item Description	QTY	Unit
16.0	ROOF INSTALLATION	14.07	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	#12 Self-Drilling Screw 12x45	63.00	pcs		
	Solid Polycarbonate Sheet 4.5mm Thick	38.00	ft		
	Rubber Tape 2"x30'	1.00	roll		
	Drill Bit 1/8"	8.00	pcs		
	Silicone Sealant	4.00	pcs		
Sub Total, Materials					
<i>Cost per sqm.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
Sub Total, Labor					
<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Drilling Machine	1.00			
	Angle Grinder	1.00			
Sub Total, Equipment					
<i>Cost per sqm.</i>					

<b>TOTAL DIRECT COST (A+B+C)</b>	
INDIRECT COST (OCM)	10%
INDIRECT COST (PROFIT)	10%
INDIRECT COST (VAT)	12%
<b>TOTAL INDIRECT COST</b>	
<b>TOTAL COST (TDC + TIC)</b>	
<i>Unit Cost</i>	

Item #	Item Description	QTY	Unit
17.0	REMOVAL OF EXISTING GLASS WALL	15.08	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total
	Chisel	2.00	pcs		
	Crowbar	2.00	pcs		
	Claw Hammer	1.00	pcs		
Sub Total, Materials					
<i>Cost per sqm.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total
Sub Total, Labor					
<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total
	Sub Total, Equipment				
<i>Cost per sqm.</i>					

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST(TDC + TIC)**

*Unit Cost*

Item #	Item Description	QTY	Unit
18.0	INSTALLATION OF GLASS DOOR	15.08	sqm.

Materials (A)	Item Description	QTY	Unit	Unit Cost	Total	
	Aluminum frame 6mm clear glass door w/ lockset & stainless handle	4.00	set			
	Sub Total, Materials					
	<i>Cost per sqm.</i>					

Labor (B)	Item Description	QTY	Duration (days)	Rate/day	Total	
	Sub Total, Labor					
	<i>Cost per sqm.</i>					

Equipment (C)	Item Description	QTY	Duration (days)	Unit Cost	Total	
	Sub Total, Equipment					
	<i>Cost per sqm.</i>					

**TOTAL DIRECT COST (A+B+C)**

INDIRECT COST (OCM)

10%

INDIRECT COST (PROFIT)

10%

INDIRECT COST (VAT)

12%

**TOTAL INDIRECT COST**

**TOTAL COST(TDC + TIC)**

*Unit Cost*

## BILL OF QUANTITIES

Project Name: CONSTRUCTION OF PASSAGEWAY BETWEEN ADMINISTRATIVE AND FINANCE AND NATIONAL PARKS DIVISION

Location: NAPWC/BMB, QUEZON AVENUE, DILIMAN, QUEZON CITY

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	AMOUNT
I.	SITE PREPARATION/EXCAVATION/GRAVEL BEDDING				
1.0	2"x3"x10 Coco Lumber	pcs	10.00		
2.0	CWN 2"	kg	1.00		
3.0	CWN 3"	kg	1.00		
4.0	Claw Hammer	pcs	1.00		
5.0	Hand Saw	pcs	2.00		
6.0	Nylon String	roll	1.00		
7.0	Sledge Hammer 12lbs	pcs	1		
8.0	Pickaxe Mattock	pcs	1		
9.0	Shovel	pcs	1		
10.0	Wheel Barrow	pcs	1		
11.0	Gravel, G1	cu.m.	0.49		
12.0	Mini Dump Truck	unit	1		
II.	STEEL WORKS REBARS				
1.0	16mm dia. Rebars	pcs	34		
2.0	10mm dia. Rebars	pcs	49		
3.0	#16 GI Tie Wire	kg	8.69		
4.0	Metal Cutting Disc	pcs	18		
5.0	Angle Grinder	unit	1		
III.	FORMWORKS				
1.0	Phenolic Board, 1.2x2.4x1/2"	pcs	5		
2.0	2"x3"x1/2" Coco lumber	bd.ft.	148		
3.0	CWN 2"	kg	4		
4.0	CWN 3"	kg	4		
IV.	CONCRETING				
1.0	Portland Cement	bags	27		
2.0	White Sand	cu.m.	1.43		
3.0	Gravel 3/4"	cu.m.	2.87		
4.0	Small GI Pails	pcs	2.00		
5.0	One Bagger Concrete Mixer	unit	1.00		
V.	SCAFFOLDING				
1.0	2" dia. x 2mm G.I. Pipe	pcs	28.00		
2.0	Swivel Scaffolding Clamp 2"	pcs	100.00		
3.0	Phenolic Board 3/4" 4'x8'	pcs	9.00		
4.0	Metal Cutting Disk	pcs	12.00		
5.0	Pulley	pcs	3.00		
6.0	Rope	m	50.00		
7.0	Angle Grinder	unit	1		

VI.	STRUCTURAL STEEL COLUMNS/BEAMS/TRUSSES/RAILINGS			
1.0	W10x49; 2.622m Span	pcs	4.00	
2.0	W10x49; 3.350m Span	pcs	2.00	
3.0	W8x31; 3.94m Span	pcs	2.00	
4.0	W8x31; 3.14m Span	pcs	3.00	
5.0	Steel Plate 266mmx266mmx12mm	pcs	8.00	
6.0	Ms Plate Checkered Plate 4'x8'x12mm	pcs	5.00	
7.0	16mm dia. Anchor Bolt w/ Nuts 300mm Length	pcs	24.00	
8.0	Welding Rod	box	5.00	
9.0	Metal Cutting Disk	pcs	16.00	
10.0	2"dia.x2mm G.I. Pipe	pcs	4.00	
11.0	2"dia.x2mm Stainless Steel Pipe	pcs	2.00	
12.0	15mmx15mm Steel Bar	pcs	6.00	
13.0	2"x2"x2mm Tubular Steel	pcs	15.00	
14.0	Welding Machine	unit	1.00	
15.0	Angle Grinder	unit	1	
VII.	PAINTING WORKS			
1.0	Acrytex Reducer #1750	gal.	1.00	
2.0	Acrytex Top Coat Gray	gal.	1.00	
3.0	Epoxy Primer Gray	gal.	4.00	
4.0	Epoxy Reducer #55	gal.	1.00	
5.0	Acqua Epoxy Top Coat Gray	gal.	4.00	
6.0	Acqua Epoxy Top Coat Black	gal.	2.00	
7.0	Paint Brush #2	pcs	12.00	
8.0	Cotton Baby Roller	pcs	12.00	
VIII.	ROOF INSTALLATION			
1.0	#12 Self-Drilling Screw 12x45	pcs	10.00	
2.0	Solid Polycarbonate Sheet 4.5mm Thick	pcs	15.00	
3.0	Rubber Tape 2"x30'	pcs	30.00	
4.0	Drill Bit 1/8"	pcs	25.00	
5.0	Silicone Sealant	pcs	10.00	
6.0	Drilling Machine	unit	1.00	
7.0	Angle Grinder	unit	1.00	
IX.	REMOVAL OF GLASS WALL TO BE REPLACED BY GLASS DOOR			
1.0	Chisel	pcs	2.00	
2.0	Crowbar	pcs	2.00	
3.0	Claw Hammer	pcs	1.00	
4.0	Aluminum frame 6mm clear glass door w/ lockset & stainless handle	set	4.00	