



NATIONAL POWER CORPORATION

MinGen

PHILIPPINE BIDDING DOCUMENTS
(Procurement of INFRASTRUCTURE PROJECTS)

FOR

CONSTRUCTION OF CDD OFFICE
EXTENSION (PHASE 1)

P.R. No.: MG-PDD22-001

Contracts Management Office
Logistics Division

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Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

Foreign-funded Procurement or Foreign-Assisted Project –Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

GFI – Government Financial Institution.

GOCC –Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid



NATIONAL POWER CORPORATION

MinGen

Invitation to Bid for Construction of CDD Office Extension (Phase 1)

1. The *NATIONAL POWER CORPORATION-MINDANAO GENERATION*, through the approved Corporate Budget of NPC for CY 2022 intends to apply the sum of *Four Million Nine Hundred Ninety Nine Thousand Seven Hundred Twenty One & 73/100 Pesos (PHP4,999,721.73)* being the Approved Budget for the Contract (ABC) to payments under the contract for *Construction of CDD Office Extension (Phase 1) at MinGen Headquarters, Maria Cristina, Iligan City (INFRA2022-CDD-026)*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *NATIONAL POWER CORPORATION-MINDANAO GENERATION* now invites bids for the above Procurement Project. Completion of the Works is required *Ninety Four (94) calendar days*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from *BAC Secretariat, NATIONAL POWER CORPORATION-MINDANAO GENERATION* and inspect the Bidding Documents at the address given below from *8:00 AM – 5:00 PM Monday to Friday*.
5. A complete set of Bidding Documents may be acquired by interested Bidders on *June 16 – July 04, 2022* from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of *Five Thousand Pesos (PHP 5,000.00)*. The Procuring Entity shall allow the bidder to pay online and present its proof of payment for the fees in person, by facsimile, or through electronic means. For those prospective bidders who wish to pay online, below are the details of the account:

LandbankAccount name : NPC GENCO 5 COLLECTIONS FUND
LandbankAccount number : 0321-1689-14

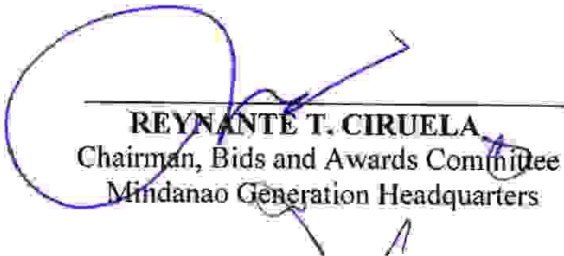
It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) provided that Bidders shall

- pay the applicable fee for the Bidding Documents not later than the submission of their bids.
6. The *NATIONAL POWER CORPORATION–MINDANAO GENERATION* will hold a Pre-Bid Conference on **June 20, 2022 at 9:00 AM** at *Bidding Room, NPC-Mindanao Generation Headquarters, Maria Cristina, Iligan City* and/or through videoconferencing/webcasting via *ZOOM*, which shall be open to prospective bidders. Interested online attendees are required to pre-register one (1) day before the scheduled pre-bidding conference. For pre-registration, contact tel. no. (063)-222-3459 or email logistics_afd_mingen@napocor.gov.ph.
 7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before **July 04, 2022 at 9:30 AM**. Late bids shall not be accepted.
 8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 15.
 9. Bid opening shall be on **July 04, 2022 at 9:30 AM** at the *Bidding Room, NPC-Mindanao Generation Headquarters, Maria Cristina, Iligan City*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
 10. *This project requires submission of at least:*
 - *Certificate of Site Inspection*
 11. The *NATIONAL POWER CORPORATION– MINDANAO GENERATION* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
 12. For further information, please refer to:

BAC Secretariat
Contracts Management Office
Logistics Division
Mindanao Generation Headquarters
National Power Corporation
Maria Cristina, Iligan City
logistics_afd_mingen@napocor.gov.ph
Tel. No.: (063)222-3459
Fax No.: (063)223-8355/(063)223-4604
www.napocor.gov.ph

13. You may visit the following websites:

For downloading of Bidding Documents: <https://www.philgeps.gov.ph/> or
<https://www.napocor.gov.ph/BCSD/bids.php>



REYNANTE T. CIRUELA
Chairman, Bids and Awards Committee
Mindanao Generation Headquarters

Date of PhilGEPS Publication: 16 June 2022

**LIST OF PRIVATE SURETY COMPANIES ACCEPTABLE TO NPC
AS OF 11 NOVEMBER 2018**

	Name of Surety Company	Contact No.
1	ALPHA INSURANCE & SURETY CO., INC. Alpha Insurance Centre 1025 San Marcelino St., Ermita, Manila	525-1301 F - 522-6131
2	COMMONWEALTH INSURANCE COMPANY 10/12F, BDO Plaza, 8737 Paseo de Roxas Makati City	818-7626 loc 1253 813-2685
3	COUNTRY BANKERS INSURANCE CORPORATION Country Bankers Centre, 648 T. M. Kalaw Avenue Ermita, Manila	524-0621 to 23
4	INTRA STRATA ASSURANCE CORP. 8th Floor, 88 Corporate Center Building Sedeño cor. Valero St., Salcedo Vill, Makati City	817-3031 to 34
5	LIBERTY INSURANCE CORPORATION JCS Building, 119 Dela Rosa cor. Carlos Palanca Sts. Legaspi Village, Makati City	819-1961 to 66
6	PACIFIC UNION INSURANCE COMPANY Unit 2401 Antel Corporate Center 121 Valero St. Salcedo Village, Makati City	845-1033 to 37
7	PRUDENTIAL GUARANTEE & ASSURANCE, INC. Coyuito House, 119 Palanca St. Legaspi Village, Makati City	810-4916 to 35
8	STERLING INSURANCE COMPANY, INC. 8F Zeta Annex II Building 191 Salcedo St., Legaspi Village, Makati City	759-3082/759-2930/ 759-2921/ 892-3792
9	THE MERCANTILE INSURANCE CO. LTD. Mercantile Insurance Building Corner General Luna & Beaterio Sts. Intramuros, Manila	527-7701 to 20
10	TRAVELLERS INSURANCE SURETY CORPORATION 10 th Floor, G. E. Antonio Building T.M. Kalaw corner J. Bocobo St., Ermita, Manila	521-3822/400-9327
11	WESTERN GUARANTEE CORPORATION Suite 508 BPI Office Condominium Plaza Cervantes, Binondo, Manila	241-7401/242-1073

Note: Indicate in the performance, advance payment, retention and guarantee bond the following NPC Standard Terms & Conditions:

- 1) The bond is a penal bond, callable on demand and the entire amount thereof shall be forfeited in favor of the Obligee upon default of the Principal without the need to prove or to show grounds or reasons for demand for the sum specified therein;
- 2) The amount claimed by the Obligee under this bond shall be paid in full and shall never be subject to any adjustment by the Surety;
- 3) In case of claim, the Surety shall pay such claim within sixty (60) days from receipt by the Surety of the Obligee's notice of claim/demand letter notwithstanding any objection thereto by the Principal.

4.) The proposed bond is valid until the issuance of NPC of the Cert. of Final Acceptance.

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, **NATIONAL POWER CORPORATION–MINDANAO GENERATION** invites Bids for the **CONSTRUCTION OF CDD OFFICE EXTENSION (PHASE 1) AT MINGEN HEADQUARTER, MARIA CRISTINA, ILIGAN CITY, with Project Identification Number INFRA2022-CDD-026.**

The Procurement Project (referred to herein as “Project”) is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for CY 2022 in the amount of *Five Million Pesos (PHP5,000,000.00)*

2.2. The source of funding is:

- a. GOCC and GFIs, the proposed Corporate Operating Budget.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

- a. Subcontracting is not allowed.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address **and/or through videoconferencing/webcasting** as indicated in paragraph 6 of the **IB**.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX, Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents.**
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 14.2. *Payment of the contract price shall be made in:*
 - a. Philippine Pesos.

15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid until *One Hundred Twenty (120) Calendar Days from the Scheduled Bid Opening*. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause																						
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: <u>Construction of Vertical Projects</u>																					
7.1	Subcontracting is not allowed.																					
10.3	None																					
10.4	The key personnel must meet the required minimum years of experience set below:																					
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Key Personnel</u></th> <th style="text-align: center;"><u>General Expertise</u></th> <th style="text-align: center;"><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1 - Project Engineer</td> <td>Licensed Civil Engineer</td> <td>At least five (5) years experience in related works</td> </tr> <tr> <td style="text-align: center;">1 - Construction Foreman</td> <td>B.S. Civil Engineering Graduate</td> <td>At least three (3) years experience in similar works</td> </tr> <tr> <td></td> <td>Civil Engineering Technology Graduate</td> <td>At least five (5) years experience in similar works</td> </tr> <tr> <td></td> <td>Non-graduate</td> <td>At least five (5) years working experience as Construction Foreman in similar works</td> </tr> <tr> <td style="text-align: center;">1 - Construction Safety and Health Officer (SO2)</td> <td>Construction Safety Officer 2</td> <td>At least forty (40) hours of Construction Safety and Health (COSH) Training from Occupational Safety and Health Center (OSHC) or Safety Training Organizations (STOs) accredited by the Department of Labor and Employment (DOLE). Must be present during the whole duration of the project)</td> </tr> <tr> <td style="text-align: center;">2 - Welder</td> <td>NC II</td> <td>At least three (3) years experience in welding/cutting works</td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Expertise</u>	<u>Relevant Experience</u>	1 - Project Engineer	Licensed Civil Engineer	At least five (5) years experience in related works	1 - Construction Foreman	B.S. Civil Engineering Graduate	At least three (3) years experience in similar works		Civil Engineering Technology Graduate	At least five (5) years experience in similar works		Non-graduate	At least five (5) years working experience as Construction Foreman in similar works	1 - Construction Safety and Health Officer (SO2)	Construction Safety Officer 2	At least forty (40) hours of Construction Safety and Health (COSH) Training from Occupational Safety and Health Center (OSHC) or Safety Training Organizations (STOs) accredited by the Department of Labor and Employment (DOLE). Must be present during the whole duration of the project)	2 - Welder	NC II	At least three (3) years experience in welding/cutting works
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2 - Welder	NC II	At least three (3) years experience in welding/cutting works																				

	<p>1 - Electrician NC II At least three (3) years experience in similar works</p> <p>1 - Plumber NC II At least three (3) years experience in similar works</p> <p>(1) Valid Professional Regulation Commission (PRC) license for professional personnel; (2) Certificate of Training with accreditation from DOLE for the Construction Safety & Health Officer; (3) TESDA Training Certificate (NC II) of Welders or Electrician; and (4) Diploma and/or Service Record/Certificate of Employment of previous and/or current employer for Construction Foreman, Welders, Electrician & Plumber <i>shall be submitted and included as an attachment in the Standard Form NPCMGNSF-INFR-05: List of Key personnel Proposed to be Assigned to the Contract.</i></p> <p>Project Engineer or Foreman and Construction Safety & Health Officer maybe one person, as long as he meets the requirements of the two positions. Provided however, that there is no overlapping of projects undertaken by the same contractor and supervised by the same person.</p> <p>The above key personnel must be either employed by the applicant or contracted by the applicant to be employed for the contract to be bid.</p>																								
10.5	<p>The minimum major equipment requirements are the following:</p> <table border="1" data-bbox="431 1129 1369 1431"> <thead> <tr> <th><u>Equipment</u></th> <th><u>Capacity</u></th> <th><u>Number of Units</u></th> </tr> </thead> <tbody> <tr> <td>Jack Hammer</td> <td>1500 W</td> <td>One (1)</td> </tr> <tr> <td>Dump Truck</td> <td>4.5-6 cu.m.</td> <td>One (1)</td> </tr> <tr> <td>Backhoe</td> <td>0.80 cu.m.</td> <td>One (1)</td> </tr> <tr> <td>Plate Compactor</td> <td>5 HP</td> <td>One (1)</td> </tr> <tr> <td>Concrete Mixer</td> <td>1-Bagger</td> <td>One (1)</td> </tr> <tr> <td>Concrete Vibrator, Pen Type</td> <td>2 HP</td> <td>One (1)</td> </tr> <tr> <td>Welding Machine</td> <td>300 Amp.</td> <td>Two (2)</td> </tr> </tbody> </table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Jack Hammer	1500 W	One (1)	Dump Truck	4.5-6 cu.m.	One (1)	Backhoe	0.80 cu.m.	One (1)	Plate Compactor	5 HP	One (1)	Concrete Mixer	1-Bagger	One (1)	Concrete Vibrator, Pen Type	2 HP	One (1)	Welding Machine	300 Amp.	Two (2)
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12	N/A																								
15.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <p>a. The amount of not less than PHP99,994.43(2% of ABC), if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</p> <p>b. The amount of not less than PHP249,986.09(5% of ABC), if bid security is in Surety Bond.</p>																								
19.2	Partial bids are allowed, as follows:																								

20	<p>Additional documents to be submitted during Post-Qualification:</p> <ol style="list-style-type: none"> 1. Other appropriate licenses and permits required by law and stated in the Bidding documents. <ol style="list-style-type: none"> a. <i>Original Bank Statement year ending prior to bid opening;</i> b. <i>Valid and updated PhilGEPS Registration (Platinum Membership)(all pages);</i> c. <i>Registration Certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;</i> d. <i>Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;</i> e. <i>Valid Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR). Quarterly Income Tax Returns filed and paid through the BIR Electronic Filing and Payment System (eFPS);</i> f. <i>The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission;</i> g. <i>Philippine Contractors Accreditation Board (PCAB) License;</i> h. <i>Board of Accountancy (BOA) Certificate;</i> 2. <i>Contract and/or Notice of Award as supporting documents for NPC MinGen Form No. NPCMGNSF-INFR-01, if applicable;</i> 3. <i>(a) Valid Professional Regulation Commission (PRC) license for professional personnel; (b) Certificate of Training with accreditation from DOLE for the Construction Safety & Health Officer; (c) TESDA Training Certificate (NC II) of Welders or Electrician; and (d) Diploma and/or Service Record/Certificate of Employment of previous and/or current employer for Construction Foreman, Welders, Electrician & Plumber - as supporting documents for NPC MinGen Form No. NPCMGNSF-INFR-05, if applicable.</i> 4. <i>Certificate of Site Inspection issued by Plant/Department Manager or his authorized representative.</i>
21	<p>Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, <u>prior to contract signing</u>, such as:</p> <ol style="list-style-type: none"> a) Approved construction schedule and S-curve b) Approved manpower schedule c) Construction methods d) Approved equipment utilization schedule e) Construction safety and health program approved by the DOLE f) Approved Project Evaluation Review Technique/Critical Path Method

	(PERT/CPM)
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Section IV. General Conditions of Contract

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. Possession of Site

- 4.1. The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC**, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
- 4.2. If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. Performance Security

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the SCC supplemented by any information obtained by the Contractor.

7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the SCC.

8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the SCC, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

- 11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.
- 11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity 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 **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the SCC, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

- 15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the SCC.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the SCC from payments due to the Contractor.

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
2	Sectional completion is not specified.
4.1	The Procuring Entity shall give possession of the Site to the Contractor <i>on the start date</i> .
6	The site investigation reports are: NONE
7.2	Fifteen (15) years
10	Dayworks are not applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative upon contract signing or within three (3) days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is Fifty (50) % of the billed amount. The updating of Program of Work shall be done bi-monthly.
13	The amount of the advance payment is 15% of contract amount and paid in lump sum.
14	No further instruction.
15.1	The date by which operating and maintenance manuals are required is upon completion of the project. The date by which "as built" drawings are required is upon completion of the project.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is one hundred percent (100%) of the final billing.

Section VI. Specifications

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PROJECT HIGHLIGHTS

PH 1.0 GENERAL

The project is funded by NPC Mindanao Generation. This project aims to cater the number employees, Technical Document Center, Conference Room of Community Development Department.

The Contractor shall furnish all labor, materials, equipment, tools and other incidental matters necessary to complete the works in accordance with the contracts and approved detailed engineering activities; and other existing laws, rules and regulations relative thereto.

PH 2.0 PROJECT LOCATION

The project is located at NPC MinGen Headquarter, Maria Cristina, Iligan City.

PH 3.0 SCOPE OF WORK

The works and services to be performed by the Contractor for this undertaking shall essentially consist of, but not limited to the Construction of CDD Office Extension at NPC Mindanao Generation Headquarter, Maria Cristina, Iligan City (Phase 1) with the following scope of works:

- I. MOBILIZATION
- II. OCCUPATIONAL SAFETY & HEALTH PROGRAM
- III. DEMOLITION & DISPOSAL WORKS
- IV. EARTHWORKS
 - A. Structure Excavation
 - B. Embankment from Structure Excavation & Borrow
 - C. Gravel Fill
- V. REINFORCING STEEL (DEFORMED)
- VI. STRUCTURAL CONCRETE
- VII. MASONRY WORKS
- VIII. FRAMING & ROOFING WORKS
- IX. ELECTRICAL WORKS
- X. PLUMBING WORKS
- XI. CLEARING & DEMOBILIZATION

PH 4.0 CONTRACT PERIOD

The contractor shall complete the works as specified in Clause 3 within **Ninety Four (94) calendar days**. The total contract duration is inclusive of six (6) unworkable days considered unfavorable for the execution of work at site. The contract period shall be reckoned from the date of contract effective as specified in the Notice to Proceed.

PH 5.0 CONTRACTOR'S CLASSIFICATION

The Contractor must have a valid Philippine Contractors Accreditation Board (PCAB) license of at least **Category C or D- General Building** with inter-agency registration and classification of **Small B- Building or Industrial Plant**.

The Contractor must have undertaken similar contracts that involve construction/rehabilitation/expansion of commercial, industrial or office building provided that the contract cost shall be at least equivalent to 50% of ABC.

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TECHNICAL SPECIFICATIONS

TS-1.0 GENERAL CONSTRUCTION FACILITIES

Scope

This section covers the construction and/or maintenance of access roads, drainage systems and other appurtenant structures, moving-in of the Contractor's construction equipment, setting up the Contractor's camp facilities and the disposition of the Contractor's various facilities at the end of the Contract.

Moving-in

The Contractor shall bring to the site all his necessary construction equipment and plant and install all stationary construction equipment and plant at location and in the manner approved by NPC. The Contractor shall submit sufficient detailed plans showing the proposed location of such stationary equipment and plant and other pertinent data. No installation of such stationary equipment shall be undertaken unless the corresponding plans have been approved by NPC.

Contractor's Camp Facilities

The Contractor shall construct and maintain the service roads, and related work that may be necessary, to the various work area, and other areas such as access to the camps, stores, plants, disposal areas and other facilities related to the work.

The Contractor shall provide and grade his camp site, construct his camp, employee housing, warehouse, machines and repair shops, fuel storage tanks and provide such related facilities and sanitary conveniences that the Contractor deems necessary for maintaining health, peace and order in the camp and work areas. The areas that may be used by the Contractor within the plant site shall be designated by NPC.

The Contractor shall provide, maintain, and operate, under competent direction, such camps and facilities as are necessary for the housing, feeding and accommodation of his employees.

Water Supply

The Contractor shall, at his own expense, be responsible for the supply, installation, operation and maintenance of a safe and adequate supply of drinking and domestic water. Whenever there is a possibility of contamination of the water supply for drinking and domestic purposes, chlorination or some other approved methods of sterilization shall be carried out. The installation and maintenance of these services shall be subject to the approval NPC.

Sewerage Disposal and Sanitation

The Contractor shall, at his own expense, be responsible for the installation, operation and maintenance of an adequate sewerage disposal and sanitation system and shall provide adequate toilet and wash-up facilities for his employees at his camp and in the areas where work is being carried out. The Contractor shall execute the work with due regard to adequate sanitary provisions and applicable codes and shall take all necessary steps to prevent the pollution of water in any spring, river, or other sources

of water supply. All toilets or wash-up facilities shall be subject to the prior and continuing approval of NPC.

Fire Protection

The Contractor shall observe all necessary precautions against fire shall provide and maintain at his own expense, portable firefighting equipment he may deem necessary, and shall comply with all applicable laws of the Philippines relating thereto.

In the event of an uncontrollable fire occurring in the area of the Contractor's operation, the Contractor shall have to extinguish the fire immediately at his own expense, to the full extent of the manpower and equipment employed under the contract at the time of the fire.

The Contractor shall indemnify NPC against all liabilities, claims, damages and/or lawsuits arising thereto.

Construction Power

The Contractor shall be responsible for providing his own electric power supply required for construction and erection/installation. If power is available from NPC and should the contractor elect to utilize the NPC's power supply, he shall make an arrangement with NPC concerned group as to the billing rates and other requirements needed for direct connection to NPC.

Camp Security

The Contractor shall provide his own security force to the extent that he deems necessary for maintaining peace and order in the camp and work areas and to safeguard materials and equipment. Nothing under the provisions of this paragraph shall relieve the Contractor from full responsibility for the maintenance of peace and order and protection of life and property in all areas where he operates.

Construction Material Storage

The Contractor is required to put up cement warehouse (s) with capacities sufficient to store construction materials required in the work. The warehouse (s) shall be specifically for this contract notwithstanding his other facilities in the site that may serve the purpose.

Removal of Camp and Construction Facilities

After the completion of the work covered by the contract and prior to acceptance of the completed work, the entire camp facilities of the Contractor, including its water supply systems, electric distribution system, quarters, warehouses, shops, dining halls, commissaries, temporary shed and other facilities therein shall be removed by the Contractor. The site shall be cleared and cleaned as directed by NPC.

Measurement and Payment

No separate measurement and payment will be made for the Contractor's Construction Facilities. The entire cost thereof shall be included in the various pay items in the Bill of Quantities.

TS-2.0 CARE OF WATER DURING CONSTRUCTION

Scope

In accordance with the specifications contained in this section or otherwise directed, the Contractor shall construct and maintain all necessary temporary drainage ditches and other temporary protective works and he shall also furnish, install, maintain and operate necessary pumping equipment and other devices to protect construction operations free from water coming from any source, including rain.

Drainage and Dewatering

The Contractor shall be responsible for dewatering foundations areas so that work can be carried out on a suitably dry condition. The Contractor shall construct drainage ditches, holes, culverts, furnish, maintain and operate at his own expense all necessary pumps and other dewatering devices to keep all work areas free from water.

After the work is completed and before it is accepted by the NPC, the Contractor shall remove all pumping equipment and shall remove, fill or plug all temporary drainage structures as directed, all at his expense.

Measurement and Payment

No separate measurement and payment will be made for the Care of Water during Construction operations. The cost of furnishing, constructing, maintaining, operating and removing of temporary drainage structures, pumping systems and other dewatering devices necessary to keep construction operations free from water, shall be included in the various pay items in the Bill of Quantities for structures where such care of water is required.

TS-3.0 CONSTRUCTION SAFETY AND HEALTH PROGRAM

Scope

This section pertains to the environment and safety provisions, requirements and conditions that shall govern during the execution of all civil works under this project.

General Conditions

The Contractor shall ensure compliance with the applicable environmental and safety regulations, as well as ECC conditions, during installation/construction of this project through the implementation of measures that include, but not limited to the following:

- a. Designate a Safety Officer and a Pollution Control Officer who shall respectively handle all safety and environmental concerns of the project.
- b. Prepare and submit Construction Safety Health Plan (CSHP)
- c. Properly manage debris and various waste generated during installation/construction, such as the following:
 - Dispose of demolition and construction debris in a designated or NPC approved disposal area(s);
 - Stockpile (and cover if possible) or haul to the designated and/or pre developed dump sites that shall be provided with suitable drainage-equipped with sediments traps, stripped top soil, spoils from quarry/borrow sites and excavated materials
 - Segregate solid wastes, such as empty cement sacks, scraps of tin or wood, used wires and other domestic garbage for recycling or storage in NPC-

approved temporary storage areas and further disposal to LGU-designated disposal sites.

- Properly handle, store and dispose off, through DENR-accredited transporter/treater, hazardous waste i.e. used oils, paints, thinner and etc.
- d. Limit construction activities that generate excessive, grading and excavation during dry weather.
- e. As far as practicable, undertake site stripping, grading and excavation during dry weather.
- f. Construction/Installation shall be carried out in a manner where landslides and erosions are minimized.
- g. Avoid unnecessary opening/clearing of areas outside construction sites or destruction of vegetable cover especially cutting of existing trees; and to re-vegetate disturbed areas.
- h. Spray water, whenever and wherever necessary, to minimize dust generation.
- i. Provide PPE's and other safety provisions required by DOLE, for its project/site works.

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bid Price Schedule. Payment shall include all cost in furnishing labor, materials, tool equipment and other incidentals necessary for the satisfactory completion of the project.

TS-4.0 DEMOLITION & DISPOSAL WORKS

General

The work to be executed under this section shall include the furnishing of all labor, equipment, tools and other facilities necessary for the satisfactory performance of all work necessary to complete the works specified in this specifications.

Workmanship

All existing structure that will be affected based on plans and specifications shall be removed by skilled workers in a workmanlike manner. It should be disposed at the disposal area designated by NPC inspector. Other materials that could be re-use as identified by NPC Inspector shall be turn-over to NPC Central Warehouse for safekeeping.

Measurement of Payment

Measurement and payment shall be made at the contract unit price, price of the various applicable items specified in the Bid Price Schedule. Payment shall include all cost in furnishing labor, equipment and other incidentals necessary for the satisfactory completion of the project

TS-5.0 SITE DEVELOPMENT AND EXCAVATION WORKS

General

The work to be executed under this section shall include the furnishing of all labor, tools and other facilities necessary for the satisfactory performance of all work necessary to complete the works specified in this specifications.

This item shall include necessary diverting of live streams, bailing, pumping, draining, sheeting, bracing, and the necessary construction of cribs and cofferdams, and furnishing the materials therefore, and the subsequent removal of cribs and cofferdams and the placing of all necessary backfill.

It shall also include the furnishing and placing of approved foundation fill material to replace unsuitable material encountered below the foundation elevation of structures.

The contractor shall rest stake out batter accurately established the elevation shown on the plan before any excavation is done. The basic batter board and reference mark shall be erected to such places where they will not disturb during excavation and construction of all wall foundation.

Construction Requirements

The Contractor shall notify the Engineer sufficiently in advance of the beginning of any excavation so that cross-sectional elevations and measurements may be taken on the undisturbed ground. The natural ground adjacent to the structure not be disturbed without permission of the Engineer.

Trenches or foundation pits for structures or structure footings shall be excavated to the lines and grades or elevations shown on the Plans or as staked by the Engineer. They shall be of sufficient size to permit the placing of structures or structure footings of the full width and length shown. The elevations of the bottoms of footings, as shown on the Plans, shall be considered as approximate only and the Engineer may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary, to secure a satisfactory foundation.

Boulders, logs, and other objectionable materials encountered in excavation shall be removed.

After each excavation is completed, the Contractor shall notify the Engineer to that effect and no footing, bedding material or pipe culvert shall be placed until the Engineer has approved the depth of excavation and the character of the foundation materials.

After rock or other hard foundation materials shall be cleaned all loose materials, and cut to a firm surface, either level, stepped, or serrated as directed by the Engineer. All seams or crevices shall be removed.

When the footing is to rest on material other than rock, excavation to final grade shall not be made until just before the footing is to be placed. When the foundation material is soft or mucky or otherwise unsuitable, as determined by the Engineer, the Contractor shall remove the unsuitable material and backfill with approved granular material. This foundation fill shall be placed and compacted in 150 mm (6 inches) layers up to the foundation elevation.

Utilization of Excavated Materials

All excavated materials, so far as suitable, shall be utilized as backfill or embankment. The surplus materials shall be disposed off in such manner as not to obstruct the stream or otherwise impair the efficiency or appearance of the structure. No excavated materials shall be deposited at any time so as to endanger the partly finished structure.

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bid Price Schedule. Payment shall include all cost in furnishing labor, materials, tool equipment and other incidentals necessary for the satisfactory completion of the project.

TS – 6.0 BACKFILLING WORKS

General

The work to be executed under this section shall include the furnishing of all, labor, tools, equipment and other facilities necessary for the satisfactory performance of all work necessary to complete the works specified in this specifications.

Material Requirements

Embankment shall be constructed of suitable materials, in consonance with the following definitions:

Suitable Materials – Material which is acceptable in accordance with the Contract and which can be compacted in the manner specified in this Item. It can be common material or rock.

Selected Borrow, for topping – soil of such gradation that all particles will pass a sieve with 75 mm (3 inches) square pass the 0.075 mm (No. 200) sieve, as determined by AASHTO T 11. The material shall have a plasticity index of not more than 6 as determined by ASSHTO T 90 and a liquid limit of not more than 30 as determined by ASSHTO T 89.

Unsuitable Material – Material other than suitable materials such as:

- a) Materials containing detrimental quantities of organic materials, such as grass, roots and sewerage.
- b) Organic soils such as peat and muck.
- c) Soils with liquid limit exceeding 80 and/or plasticity index exceeding 55.
- d) Soils with a natural water content exceeding 100%
- e) Soils with very low natural density, 800 kg/m^3 or lower.
- f) Soils that cannot be properly compacted as determined by the Engineer.

Construction Requirements

General

Prior to backfilling works, all necessary clearing and grubbing in that area shall have been performed.

Backfills shall contain no muck, peat, sod roots or other deleterious matter. Rocks, broken concrete or other solid, bulky materials shall not be placed in embankment areas where piling is to be placed or driven.

Where shown on the Plans or directed by the Engineer, the surface of the existing ground shall be compacted to a depth of 150 mm (6 inches) and to the specified requirements of this Item.

Methods of Construction

Backfill of earth material shall be placed in horizontal layers not exceeding 600 mm (24 inches), loose measurement, and shall be compacted as specified before the next layer is placed. However, thicker layer maybe placed if vibratory roller with high compactive effort is used provided that density requirement is attained and as approved by the Engineer. Trial section to this effect must be conducted and approved by the Engineer. Effective spreading equipment shall be used on each lift to obtain uniform thickness as determined in the trial section prior to compaction. As the compaction of each layer progresses, continuous leveling and manipulating will be required to assure uniform density. Removal of water shall be accomplished through aeration by plowing, blading, discing, or other methods satisfactory to the Engineer.

Compaction

The Contractor shall compact the material placed in all embankment layers and the material scarified to the designated depth until a uniform density of not less than 95 mass percent of the maximum dry density determined by AASHTO T

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bid Price Schedule. Payment shall include all cost in furnishing labor, materials, tools equipment and other incidentals necessary for the satisfactory completion of the project.

TS-7.0 FALSEWORK AND FORMWORK

Scope

The work covers the supply, construction, erection and removal of falsework and formwork. Falsework shall provide the necessary rigidity, support the loads imposed and produced finished structure alignment, dimensions and grades indicated on the Drawings or as ordered by NPC. Formwork shall be of sufficient strength with all necessary bracing, fastener, etc. and in conformity with the specified requirements of applicable building code requirements for concrete formwork, and National Structural Code of the Philippines.

Material Requirement

Timber, lumber and Phenolic Board to be used for falsework and formwork shall be sound and shall comply with the requirements of these specifications. Use forms where a smooth form finish is required. Lumber shall be squared-edged or tongue-and-groove boards, free or raised grain, knotholes and the other surface defects. Steel when used shall conform to the requirements of the ASTM A36. Steel form surfaces shall not contain irregularities, dents, or, sags.

Forms shall be wood, Phenolic Board, or steel. Wood forms for surfaces exposed to view in the finished structure and requiring a smooth form finish, shall be Phenolic Board. For unexposed surfaces, undressed square-edged lumber may be used. Forms for surfaces requiring special finishes shall be Phenolic Board, or shall be lined with plywood, a non-absorptive, hard-pressed fiberboard, absorptive-type lining or other suitable material. Plywood, other than for lining, shall be concrete-form Phenolic Board free of raised grain, torn surfaces, worn edges, patches, or other surface

defects, which would impair the texture of the concrete surface. Surfaces of steel forms shall be free from irregularities, dents, and sags.

Construction Requirements

Falsework and Formwork Construction

The materials used in the falsework shall be of the quantity and quality necessary to withstand the stress imposed. The workmanship used in the falsework shall be of such quality that the falsework will support the loads imposed on it without excessive settlement.

Suitable jacks or wedges shall be used in connection with the falsework to set the forms to their required grade and to take up any excessive settlement in the falsework either before or during the placement of the concrete.

Should unanticipated event occurs, including settlement that deviate more than $\pm 20\text{mm}$, which in the opinion of the contractor would cause non-conformity to the requirements of the specification, the placement of the concrete shall be discontinued until corrective measures satisfactory to the NPC are provided. In the event that corrective measures are not undertaken prior to initial set of the concrete in the affected area, the placing of concrete shall be discontinued at a location determined by NPC and all concrete already poured and placed shall be removed.

Forms shall be mortar and watertight, true to the dimensions, lines and grades of the structure and with the sufficient strength, rigidity, shape and surface smoothness as to leave the finished works true the dimensions shown on the drawings or required by NPC and with the surface finish as specified.

The inside surfaces of forms shall be cleaned of all dirt, mortar and foreign material. Forms, which will subsequently be removed, shall be thoroughly coated with a release agent or coating prior to its use. The release agent shall be commercial quality form oil or other approved coating which will permit the ready release of the forms and will not discolor the concrete.

- Formwork for concrete placed underwater shall be watertight.

Forms shall be constructed so that the form surface of the concrete does not undulate excessively in any direction. Undulations exceeding either 2 mm or 1/270 of the center distance between studs, joints, form stiffeners, form fasteners, or wales will be considered to be excessive. Should any form of the forming system, even though previously approved for the used, produce a concrete surface with excessive undulations, its use shall be discontinued until modifications, satisfactory to NPC's Representative, have been made. Portions of concrete structures with surface undulations in excess of the limits herein stated may be rejected by the NPC.

Form fasteners consisting of form bolts, clamps or other devices shall be used as necessary to prevent spreading of the forms during concrete placement. The use of ties consisting of twisted wire loops to hold the forms in position will not be permitted.

All formworks shall be provided with adequate clean-out openings to permit inspection and easy cleaning after all reinforcement has been placed. Where forms for continuous surfaces are placed in successive units, the forms shall be fitted over the

completed surface to obtain accurate alignment of the surface and to prevent leakage of mortar. Panel forms shall be constructed so that they can be removed without damaging the concrete. All exposed joints, edges, and external corners shall be chamfered a minimum of 20 mm unless specified otherwise herein. Forms for heavy girders and similar members shall be constructed with a proper camber.

- **Coating:**

Before placing the concrete, the contact surface of forms shall be coated with a non-staining mineral oil or suitable non-staining form coating compound or shall be given two coats of nitrocellulose lacquer, except as specified otherwise. Mineral oil shall not be used on forms for surfaces, which are to be painted. For surfaces not exposed to view in the finished structure, sheathing may be wetted thoroughly with clean water. All excess coating shall be removed by wiping with cloths. Reused forms shall have the contact surfaces cleaned thoroughly. Those that have been coated shall be given an additional application of the coating. Plaster wasted molds shall be applied with two coats of the thin shellac or lacquer and coated with soft or thinned non-staining grease.

- **Tolerance and Variations:**

The Contractor shall set and maintain concrete forms to ensure that, after removal of the forms and prior to patching and finishing, no portion of the concrete work will exceed any of the tolerances specified. Variations in floor levels shall be measured before removal of supporting shores. The tolerances specified shall not exceed by any portion of any concrete surfaces; the specified variation for one element of the structure will not be applicable when it will permit another element of the structure to exceed its allowable variations. Except as otherwise specified herein, tolerances shall conform to ACI 347.

Removal of Falsework and Formwork

Unless otherwise shown on the drawings, permitted by NPC, falsework supporting any span of structures shall not be released before fourteen (14) days after the last concrete has been placed on the span and adjacent portions of each adjoining span for the length equal to at least half the length of the span where falsework is to release.

Falsework supporting deck overhangs and deck slabs between girder shall not be released until seven (7) days after the deck concrete has been placed.

In addition to the above requirements, no falsework shall be released until the supported concrete has attained a compressive strength of at least eighty (80%) percent of the required 28-days strength.

Falsework and formwork shall not be removed without the permission of NPC, and such permission shall not relieve the Contractor of the responsibility for the safety of the work. Blocks and bracing shall be removed at the time the forms are removed and in no case shall any portion of the wood forms be left in the concrete.

Falsework removal for continuous structures shall be as directed by NPC or shall be temporarily supported such that the structure is gradually subjected to its working

stresses. False work shall not be released in any span until the strength specified herein.

When concrete strength test are used for removal of forms and supports, such removal shall be used as a minimum.

	Min. Time	Min. % Strength
Centering under girder and beams	14 days	80%
Sides of beams and all vertical surfaces	1 day	70%
Floor Slabs	14 days	80%

All debris and refuse resulting from work shall be removed and the site left in a neat and presentable condition.

Measurement and Payment

No separate measurement for payment will be made for this item. The entire cost thereof shall be included in the Concrete Works pay items in the Bill of Quantities.

TS-8.0 STEEL DECK WEB TYPE

Description

This item shall consist of furnishing and placing of steel deck panel, acting as support and formworks, constructed conformity with the lines, grades and dimensions shown on the plans or established by the NPC Engineer and in accordance with this specification.

Material Requirements

Steel Deck Panel

Structural metal for steel deck panel shall conform to ASTM A611 or ASTM A446 with minimum yield strength (fy) of 40,000 psi (275 MPa). The finished steel deck panel is galvanized coated conforming to ASTM A525 G90 with base metal thickness of 1.20mm as shown in following table:

SECTION PROPERTIES PER METER OF WIDTH

Base Metal Thickness	Weight Per Area	+Ix10 ⁶	-Ix10 ⁶	+S x 10 ³	-S x 10 ³	A
(mm)	Kg/m ²	(mm ⁴)	(mm ⁴)	(mm ³)	(mm ³)	mm ²
1.20	12.114	0.757	0.736	29.843	29.596	1560.90

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+I= positive moment of inertia	+S= section modulus for positive region
-I= negative moment of inertia	-S= section modulus for positive region

Steel deck shall have a unit width of 846mm with triangular ribs formed to a depth of 50mm and a 32mm width on the top.

Construction Requirements

Deck Placement

Place each steel deck unit on supporting structural frame. Adjust to final position with accurately aligned side laps and ends bearing on supporting members by a minimum of 50mm.

Side Lap Joints

Steel deck panels shall be side lapped with the female rib overlapping the male rib of the adjacent panel. Side lap joints should be fastened by a No. 12x20mm self-drilling screw or its equivalent through the center of the side lap joint. Fastening should be as follows:

- For spans up to 1.80m, fasten side lap joints at the ends and at midspan
- For spans greater than 1.80m, fasten at third points of span or at 1.20m spacing whichever is less.

Cutting

Steel deck panels shall be cut using a power saw with a suitable disc. During cutting, the panel should be turned over with the ribs downward. A hole saw or drill shall be used to cut holes for conduits, pipes and fittings. For cut-out of 200-700 mm diameter, adequate bar reinforcements around the perimeter of the opening must be provided prior to concrete pouring.

Installation

Structural Steel Framing

Steel deck panels shall be anchored to structural steel members by either welding or by mechanical fastening. A minimum of one fastener should be located adjacent to each female rib using 12mm puddle welds, 4mm diameter powder actuated drive nail, or 12x20mm self-drilling screws.

Concrete and Masonry Framing

Fastening of steel deck panels could be done by nailing directly to the beam formwork using 4mm diameter powder actuated drive nails or masonry nails.

Shear Studs

In a composite beam assembly, a composite floor slab and a steel beam are joined by shear connectors to create one structural unit which has greater strength than a separate slab and beam. Several types of shear connectors are available, but oftenly used are either studs, joists or channels. Most commonly used is the headed stud with

its body resisting to connect the concrete slab to the beam. Headed studs are readily welded to the metal deck panel and top flange of the beam before concrete is poured.

Measurement and Payment

No separate measurement for payment will be made for this item. The entire cost thereof shall be included in the Concrete Works pay items in the Bill of Quantities.

TS-9.0 REINFORCING STEEL

Description

This work shall consist of furnishing, fabricating, and placing of steel reinforcement of the type, size, shape and grade required in accordance with these specifications and in conformity with requirements shown on the Drawings or as directed by the NPC.

Material Requirement

All material shall conform to the requirement hereinafter given. Certified test reports (mill test or other) shall be submitted to the NPC for all reinforcement steel used. These tests shall show the results of all chemical and physical test made.

Bar Reinforcement

Reinforcement bars for concrete shall be hot-rolled, weld able, deformed billet steel bars conforming to the requirements specified in ASTM A615 and PNS 49 unless shown on the Drawings or as required by the NPC. The use of the cold twisted bars is not permitted. If not otherwise shown on the drawings, the deformed reinforcement steel shall be Grade 60 (minimum yield strength of 410 MPa) for 16 mm ϕ and bigger bars and Grade 40 (minimum yield strength of 275 MPa) for 12 mm ϕ and smaller bars. Bar Reinforcement shall be shipped in standard bundles, tagged and marked in accordance with the Code of Standard Practice of the Concrete Reinforcement Steel Institute.

Sampling

The NPC's Representative will sample reinforcement bars at the source of supply or at the point of distribution, and the Contractor shall notify the NPC in sufficient time advance to permit sampling and testing before shipment is made. Three (3) samples from each size shall be taken at random representing five (5) tons or fraction thereof of each size.

Construction Requirements

Order List for Bent Bars

Before materials are ordered, the Contractor shall furnish all order lists and bending diagrams for the approval of the NPC. The approval of order lists and bending diagrams by the NPC shall in no way relieve the contractor of responsibility for the correctness of such lists and such list and diagrams. Any expenses incident to the revisions of materials furnished in accordance with such lists and diagrams to make them comply with the drawings shall be borne by the Contractor.

Shop Drawings for Reinforcing Steel (ACI 315): Indicate bending diagrams, assembly diagrams, splicing and laps of bars, shapes, dimensions and details of bar Reinforcing, accessories and concrete cover. Do not scale dimensions from structural drawings to determine length of Reinforcing steel.

Fabrication

Bent bar Reinforcement shall be cold bent as shown on the drawings or as required by the NPC. Bars shall be bent round circular pin having the following diameters (D) in relation to the diameter of the bar (d):

Bars 6mmϕ inclusive. $D=6d$

Bars 25mmϕ and 28mmϕ. $D=8d$

Bars 32mmϕ and greater. $D=10d$

Protection of Material

Steel Reinforcement shall be protected at all times from injury. When placed in the work, it shall be free from dirt, detrimental scale, paint, oil or other foreign matter. However, when steel has on its surface easily removable and detrimental rust, loose scale or dust, it shall be cleaned by a satisfactory method, approved by the NPC.

Store reinforcement of the different sizes in racks raised above the ground with accurate identification. Protect reinforcing steel from contaminants such as grease, oil and dirt.

Placing and Fastening Reinforcement & Miscellaneous Material (ACI 310)

All Reinforcement bars, stirrups, hanger bars, wire fabric, spirals and other reinforcing materials shall be there provided as indicated in the drawing or required by the specification, together with all necessary wire tie, chairs, screws, supports, and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from rust, scale, oil, grease, clay, and other coatings, and foreign substances to that would reduce or destroy the bond. Rusting of Reinforcement shall not reduce the effective cross sectional area of the Reinforcement to the extent that the strength is reduced beyond specified values. Heavy, thick rust or loose, flashy rust burlap or other approved method, prior to placing. Reinforcement that has bends not shown on the project drawings or on approved shop drawings, or is reduced in section by rusting such that its weight is not within permissible ASTM tolerances shall not be used. All reinforcement shall be supported and wired together to prevent displacement by construction loads or by the placing of concrete. Unless directed otherwise by the NPC, reinforcement shall not be bent after being partially embedded in hardened concrete. Detailing if reinforcing shall conform to ACI 315. Where cover over reinforcing steel is not specified or indicated, it shall be in accordance with ACI 318.

All steel reinforcement shall be accurately placed in position shown on the drawings or as required by the NPC and firmly held there during the placing and setting of the concrete. Bars shall be tied at all intersections except where spacing is less than 30 mm in each direction, when alternate intersections shall be tied. Ties shall fasten on the inside.

Distance from the forms shall be maintained by means of stays, blocks, hangers or other approved supports. Blocks for holding reinforcement from contact with the forms shall be pre-cast mortar blocks of approved and dimensions or approved chairs. Layers of bars shall be separated by pre-cast mortar blocks or by other equally suitable devices. The use of pebbles, pieces of broken stone or brick, metal pipe and wooden blocks or metal chairs shall not be permitted. Unless otherwise

shown on the Drawings or required by the NPC, the minimum distance between bars shall be 40mm. Reinforcement in any member shall be placed and then inspected and approved by the NPC before the placing of concrete commences. Bundled bars shall be tied together at not more than 1.80 meters intervals.

Reinforcement shall be paced accurately and secured. It shall be supported by suitable chairs and spaces or by metal hangers. On the ground, and where otherwise subject to corrosion, concrete or other suitable non-corrodible material shall be used for supporting reinforcement. Where the concrete surface will be exposed to the weather in the finished structure or where rust would impair the appearance or finish of the structure, all reinforcement supports, within specified concrete cover, shall be galvanized or made of a suitable non-corrodible material.

All placement or movement of reinforcing steel after placement, to position other than indicated or specified, shall be subject to the approval of the NPC.

Concrete protection for reinforcement shall be as indicated, or if not indicated, in accordance with ACI 318.

The minimum concrete cover for reinforcement specified in the bid documents shall take precedence over all permissible reinforcement placement variations; nothing in the variations listed below is to be constructed as permitting violation or compromise thereof:

a. Height of bottom bars	±6mm above form
b. Lengthwise positioning	±50mm of bars
c. Spacing bars in walls & solid slabs	±25mm
d. Spacing bars in beams and footings	±6mm
e. Height of top bars	±6mm
f. Stirrup spacing	
i. For any one stirrup	±25mm
ii. For over-all group	±25mm of stirrup

Anchors and bolts; including but not limited to those for the machine and equipment bases: frames or edging, hangers and inserts, door bucks, pipe supports, pipe sleeves, pipe passing through walls, metal ties, conduits, flashing reflects, drains and all other materials in connection with the concrete construction shall, where practicable be placed and secured in position when the concrete is placed. Anchor bolts for machines shall be set to templates, shall be plumbed carefully and checked for location and elevation with an instrument, and shall be held in position rigidly to prevent displacement while concrete is being placed.

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Splicing

Splicing or reinforcement shall be in accordance with ACI 318, except as indicated otherwise or modified herein. Where splices in addition to those indicated on the drawings are necessary, they shall be approved by the NPC prior to their use. Splices shall not be made in beams, girders, and slabs, at points of maximum stress. Butt Splicing shall be preferably be used over lapping for bar sizes larger than 32 mmΦ. Splices to be welded shall conform to AWS D1.4; certification of weld ability of the reinforcement by the manufacturer shall be submitted to the NPC. If the Contractor elects to use butt splicing of reinforcing, he shall submit complete details of the process to be used by the NPC. If the butt splices are used the Contractor shall ensure that the splice meets the requirements specified herein by performing at least three splices which shall be submitted for tests to a testing laboratory that has been approved for such testing by the NPC. The cost of these shall be borne by the Contractor.

All reinforcement shall be furnished in the full lengths indicated on the Drawings Splicing of bars, except where shown on the Drawings will not be permitted without the written approval of the NPC. Splices shall be staggered as far as possible and with a minimum separation of not less than 40 bar diameters. Not more than one-third of the bars may be spliced in the same cross section, except where shown on the Drawings.

Unless otherwise shown on the Drawings, bar shall be lapped a minimum distance of:

Splice Type	Grade 40 Min. Lap	But Not Less Than
Tension	24d	300mm
Compression	20d	300mm

Where d is the diameter of the bar. In lapped splices, the bars shall be placed in contact and wired together. Lapped splices will not be permitted at locations where the concrete section is insufficient to provide a minimum clear distance of one and one-third the maximum size of coarse aggregate between the splice and the nearest adjacent bar. Welding of reinforcing steel shall only be done if detailed on the Drawings or if authorize by the NPC in writing. Spiral reinforcement shall be spliced by lapping at least one and half (1 ½) turns or by butt-welding unless otherwise shown on the drawings.

Measurement And Payment

The quantity to be paid for shall be calculated theoretical number of kilograms of reinforcement steel bars as determined from the net length of the steel shown on the drawings, incorporated in the concrete and accepted.

The weight of deformed bars will be computed from the theoretical weight of the same nominal size as shown in the following tabulation:

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Designation	Size (mm)	Weight (kg/m)
#2	6	0.222
#3	10	0.616
#4	12	0.888
#5	16	1.579
#6	20	2.468
#8	25	3.854
#9	28	4.833
#10	32	6.313
#11	36	7.991

Clips, ties, separators and other and related materials used for positioning and fastening the reinforcement in places as required by the NPC shall not be included in the weight-calculated payment under this item. If bars are substituted upon the Contractor's request and as result, more steel is used than specified; only the amount specified shall be included.

When laps are made for splices, other than those shown on the drawings or required by the NPC and for the convenience of the Contractor, the extra steel shall not be measured nor paid for.

The accepted quantity shall be paid at the corresponding unit price for the item, Reinforcing Steel as shown in the Bill of Quantities which price and payment shall be made in full compensation for furnishing materials, labor, equipment and incidentals necessary to complete this item.

TS -10.0 CONCRETE WORKS

Scope

In accordance with the specifications contained in this section, the Contractor shall furnish all materials, labor, equipment and tools and perform all concreting works in accordance with the drawings, or as otherwise directed.

Class of Concrete

Class of concrete or strength shall be as indicated on the drawings. Unless specified, the comprehensive strength of concrete shall conform to the requirement indicated on the provision of NSCP for Concrete and/or shall be less than 20.7 MPa.

Materials

Cement

Cement for concrete works shall be furnished by the Contractor and shall conform to the requirement of the latest edition of the Standard Specifications for Portland Cement (ASTM C150).

Unless otherwise specified, concrete shall be ordinary Portland Cement. Type I for general construction which concrete is not in contact with soils or ground water and Type II for concrete in contact with soil or ground water.

Changing of brand or type of cement within the same structure will not be permitted unless with prior permission and approval obtained from the NPC.

Water

Water for use in concrete shall be subject to the approval of the NPC. It shall not be salty and shall be reasonably clear and free from oil, acid, injurious alkali or vegetable matter.

Fine Aggregates

Fine aggregates shall conform to the requirements of the latest edition of ASTM C33 and shall consist of hard, tough, durable and uncoated particles. Fine aggregates shall generally be rounded or cubical and reasonably free from flat or elongated particles. A thin, flat and elongated particle is defined as a particle having a maximum dimension greater than 5 times its maximum dimension.

Fine aggregate shall be well graded from coarse to fine, and gradation shall conform to the following requirements:

Sieve Designation U.S	Percentage by (Standard Square Mesh)	
	Weight Passing	
9.5 mm (3/8")	100	
4.76 mm (No. 4)	95-100	
1.19 mm (No. 16)	50-85	
0.297 (No. 50)	10-30	
0.149 mm (No. 100)	2-10	

Coarse Aggregates

Coarse aggregates shall conform to the requirements of the latest edition of ASTM C33 and shall consist of hard, tough, durable and clean, uncoated particles. All foreign materials and dust shall be removed by processing. Coarse aggregates shall generally be rounded and reasonably free from thin, flat and elongated particles (as Defined in CW-4.3.4 above) in all sizes.

Coarse aggregates shall be well graded from coarse to fine and gradation shall conform to the following requirements:

Size Group	Percentage by Weight Passing		
	19.1 mm	38.1 mm	76.2 mm
Sieve Designation			
U.S Std. Square Mesh	(3/4") max.	(1-1/2") max.	(3") max.

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88.9 mm (3-1/2")	-	-	100
76.2 mm (3")	-	-	90-100
50.8 mm (2")	-	100	20-55
38.1 mm (1-1/2")	-	90-100	0-15
25.4 mm (1")	100	20-55	0-5
19.1 mm (3/4")	90-100	0-15	-
9.5 mm (3/8")	20-55	0-5	-
4.76 mm (No. 4)	0-15	-	-
2.38 mm (No. 8)	0-5	-	-

General Use Minimum General Aggregate Diameter

Massive Concrete	76.2 mm (3")
Heavy walls and slabs (0.75 m thick or more)	76.2 mm (3")
Walls, slabs, beams (0.30 m to 0.75 m thick)	38.1 mm (1 1/2")
Thin walls, slabs, beam (Less than 0.30 m thickness)	19.1 mm (3/4")

Mixing Concrete

Mixing of concrete shall conform to the requirements of ACI Code for Concrete Construction.

Placing Concrete

Concrete shall be conveyed from mixers to the forms or to the place of deposit as rapidly as possible and by methods that will prevent segregation or loss of ingredients. These shall be no vertical drop greater than 1.5 meters except where suitable equipment like metal be pipe or tremie is used. The pipe or tremie shall be kept full of concrete and its end shall be kept buried in the newly placed concrete. Chutes through which concrete is delivered to the structure in a thin, continuously exposed flow will not be permitted except for every limited or isolated sections of the work.

Earth surface, upon which concrete shall be placed, shall be cleaned, dry and thoroughly compacted before placing the concrete.

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Rock surfaces, upon which concrete shall be placed, shall be thoroughly cleaned of loose or semi-detached or unsound rock particles. Before placing concrete, all surfaces shall be wetted thoroughly to keep them in a completely moist condition, after which leveling mortar of the same cement ratio as the concrete mix complete contact between concrete and the leveled surface.

Finishing Concrete

After the concrete has been deposited, distributed and vibrated, the concrete shall be struck off and screened by mechanical means approved by the NPC. The finishing machine shall be of the screening and troweling type designed and operated both to strike off and to consolidate. Hand finishing may be employed when suitable finishing machines are not available. Finishing of concrete shall be done, as directed, to the satisfaction of the NPC.

All finished surfaces shall be tested with 3 meters straight edge and any variation of the surface from the desired crown or cross section shall be properly corrected.

Removal of Forms

Forms shall be removed as soon as practicable in order to avoid delay in curing and to make possible earliest practicable repair of surface imperfections, but in no case shall they be removed without approval. Any needed repair or treatment shall be performed at once and shall be followed immediately by the specified curing. Forms shall be removed with care so as to avoid injury to the concrete and any concrete so damaged shall be repaired as directed.

Curing and Protection

Concrete shall be cured for a period of not less than fourteen (14) consecutive days by keeping the surfaces of concrete continuously (not periodically) wet. Where tongue and groove forms were used and left in place of curing, they shall be kept wet at all times prevent opening at the joints and drying out of the concrete.

Sampling and Testing of Concrete

No concrete work on the project will be permitted to be done until NPC signifies in writing that, following the performance of the necessary tests, he gives his approval to the use of all materials involve in making the concrete.

As work progresses, test cylinder shall be fabricated from the concrete samples and tested in accordance with ASTM C31 and ASTM C39. At least one set of four (4) cylinders shall be made from each 75 cu.m of the concrete placed of each class. Also at least one set shall be made per day for each class of concrete placed each day.

Two (2) cylinders shall be tested at 28 days for specification compliance and one shall be tested at 7 and 14 days respectively for information. The acceptance test result shall be the average of the strength of the two cylinders tested at 28 days.

The compressive strength of the concrete shall be deemed acceptable if the averages of the three consecutive strength test results is equal to or exceeds the specified strength and no individual test falls below the specified strength by more than 3.50 MPa.

Concrete deemed to be not acceptable using the above criteria maybe rejected unless the Contractor can provide evidence, by means of core tests, that the quality of concrete represented by the failed test result is acceptable in place. Three (3) cores shall be taken in accordance with ASTM C42 and soaked for 24 hours prior to testing. Concrete in the area represented by the cores will be deemed acceptable if the average strength of the cores is equal to at least 85% of and no single core is less than 75% of the specified strength.

Tolerances and Repair for Concrete Construction

Concrete structure shall be constructed to the lines shown on the drawings or where so required to suit actual field requirements. Any structure that does not conform to such lines shall be repaired or removed and made a new by the Contractor at no additional cost to NPC.

Repairs shall be made at surface imperfection due to faulty placing of concrete and cuts on the structures due to the removal of excess concrete on the lines shown on the drawings. Such repairs shall be made immediately after early stripping of the forms, after the imperfections have been identified and the methods or repair appropriately established.

Measurement And Payment

Measurement for payment for Concrete (except concrete which shall not be measurement for separate payment) will be based on the volume of concrete placed and accepted within the neat lines of the manner of measurement set forth in the various sections of the Technical Provisions. No deduction will be made for rounded or beveled edges or space occupied by the metal items 10 sq. cm. or less in cross section, embedded in concrete.

Payment will be made at the corresponding contract unit price for the various items of concrete shown in the Bill of Quantities. Payment shall cover all costs for furnishing all labor, materials, including equipment and tools required for concreting work. Payment shall also include care of water.

TS -11.0 MASONRY/ PLASTER WORKS

General

Concrete masonry construction shall include the furnishing of all labor, material, and equipment, and performing all operations necessary to execute all concrete masonry construction, as specified.

Contractor shall make all preparations and do all work necessary to receive and adjoin other work.

Contractor shall specify the position of all dowels required for masonry on other construction, including foundations.

Materials:

Concrete Hollow Blocks

All property wall shall be 150mm thick x 200mm x 40mm non-bearing concrete hollow blocks shall be used from wall footing to NGL and the rest shall be 100mm thick x 200mm x 40mm non-bearing concrete hollow blocks.

Mortar/Grout

Cement mortar proportions for laying the Concrete Hollow Blocks shall consist of one (1) part Portland cement (Portland cement of approved brand conforming to ASTM specifications C150, Type I), and three (3) parts fine sand. Only sufficient water to make a workable mix will be permitted.

Reinforcing Steel

Reinforcing steel shall be 10mm diameter, Grade 40, horizontal bar installed every 2 files of CHB and vertical bar spaced at 600mm on-center. Reinforcement shall be secure with a Ga. 16 tie wire.

Masonry Construction

Blocks shall be cut accurately to fit all plumbing ducts, openings, electrical work, and all voids slushed full. Where walls are to receive plaster, the joints should be struck flush. Where certain joints are to be concealed underpaint, these joints shall be filled flush and then sacked to produce a dense surface without sheen.

Vertical head joints shall be buttered well for a thickness equal to the face shell of the block and these joints shall be shoved tightly so that the mortar bonds well to both blocks. Joints shall be solidly filled from the face of the block to the depth of the face shell.

Grouting

Reinforcing steel shall be in place and inspected before grouting starts. Vertical cells to be filled with mortar shall have vertical alignment to maintain a continuous unobstructed cell area. Cells containing reinforcement shall be solidify filled with grout.

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bill of Quantities. Payment shall include all cost in furnishing labor, materials, tools, equipment and other incidentals necessary for the satisfactory completion of the project.

TS-12.0 ROOF FRAMING

General

The work included under this section shall include the furnishing, fabrication, erection and/or installation of all steel roof framing, steel girts and other work indicated in the Plans and specifications.

Materials

- a) Angle bars for top, bottom & web member of all trusses shall have a thickness of 6mm.
- b) All C-Purlins must be 50mmx10mmx1.5mm thickness.
- c) The flat bar for fascia frame shall have a thickness of 2.5mm.
- d) All steel and deformed bars shall be painted with Epoxy Gray.
- e) All arc-welding electrodes shall conform to the requirements of the American Welding Society "SPECIFICATIONS FOR IRON AND STEEL ARC_WELDING ELECTRODES" latest edition.

Connections

Shop connections shall be welded unless otherwise indicated in the Plans. All connections shall develop full strength of members.

Workmanship and Fabrication

- 1. Workmanship and fabrication shall be in accordance with AISC "Specification for Fabrication and Erection of Structural Steel for Buildings" and with the following outline:
 - Bearing surfaces shall be planed to true beds. Abutting surfaces shall be closely fitted.
 - All columns and bearing stiffeners shall be milled to give full bearing over the cross section. It shall not be necessary to plane bottom surfaces of plate on grout beds.
 - Assembled parts shall be brought into close contact, and drift pin shall be used only for bringing members into position, not to enlarge or distort holes.

Welding

- a) Welding in shop and field shall be done by qualified welders. Equipment shall be of type, which produce current so that operator may produce satisfactory welds. The welding machine shall be of 300 amperes, 200-240 volts capacity.
- b) Unless otherwise shown on Plans, the following low hydrogen electrodes shall be used and shall be suitable for positions and other conditions of intended use in accordance with the instruction with each container.

Welding	Electrode	Submerged Arc Process
A-7 to A-7	E- 60 Series	Grade SAW-2
A-7 to A-36	E- 60 Series	Grade SAW-2
A-36 to A-36	E- 60 Series	Grade SAW-2

- c) The appearance and quality of welds made, and the methods of correcting defective work shall conform to the American Welding Society code for Arc Welding. Surfaces to be welded shall be free from loose scale, rust, grease, paint and other foreign material except that mill scale, which withstands vigorous wire brushing, may remain.
- d) Finish members shall be true to line and free from twists, bends and open joints.

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bill of Quantities. Payment shall include all cost in furnishing labor, materials, tools, equipment and other incidentals necessary for the satisfactory completion of the project.

TS-13.0 ROOFING WORKS AND SIDING SHEETS

Description

This item shall consist of furnishing all pre-painted metal sheet materials, tools and equipment, plant including labor required in undertaking the proper installation complete as shown on the Plans and in accordance with this Specification.

Material Requirements

All pre-painted metal sheet and roofing accessories shall be oven baked painted true to profiles indicated on the Plans as per approval of the NPC Engineer.

Pre-painted Roofing and Siding Sheets

Pre-painted roofing sheets shall be fabricated from cold rolled galvanized iron sheets specially tempered steel for extra strength and durability. It shall conform to the material requirements defined in *PNS 67:2014 Hot-dip Metallic-Coated Steel Sheets for Roofing Specification*. Profile section in identifying the architectural moulded rib to be used is as follows: Regular corrugated, Quad-rib, Tri-wave, Rib-wide, Twin-rib, and others. Desired color shall be subject to the approval of the NPC Engineer.

Gutters, Valleys, Flashings Hip and Ridge roll shall be fabricated from Gauge 26(0.50mm)-rolled plain galvanized iron sheets specially tempered steel. Profile section shall be as indicated on the Plans. Fastening hardware shall be of galvanized iron straps, rivets or J-bolts. G.I. Straps are of 0.500 mm thick x 16 mm wide x 267 mm long (gauge 26 x 5/8" x 10-1/2") and standard rivets.

Base metal thickness shall correspond to the following gauge designation available locally as follows:

1. Base Metal Thickness	Designated Gauge
0.40 mm thick	Gauge 28
0.50 mm thick	Gauge 26
0.60 mm thick	Gauge 24

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0.80 mm thick	Gauge 22
2. Protective Coatings	Thickness
Zinc (minimum)	14 microns (100 gm/m ²)
Paint coatings:	
Top Coat	15.20 microns
Bottom Coat	6.8 microns
3. Base Metal Thickness	Overall thickness with protective coats
0.40mm	0.427-0.451 mm
0.50mm	0.532-0.551 mm
0.60mm	0.638-0.651mm
4. Length of roofing sheets- available in cut to length long span length up to 18.29 meters	

Construction Requirements

Before any installation work is commenced, the top face of the purlins should be checked for proper alignment. Correct the alignment as necessary in order to have the top faces of the purlins on an even plane.

Processing of Prepainted Metal Sheets

Fabricated metal sheets is cleaned and pretreated in preparation for painting. Surface contaminants are removed using a suitable alkaline cleaner. The sheet is then pretreated with a chromate pretreatment. The pretreatment is a uniform, continuous deposit applied in a manner to provide excellent paint adhesion and corrosion resistance. A minimum of two coats of paint are applied to both the face side and back side of the sheet. A corrosion inhibitive primer and a top coat shall be used on the sheet. The primer is a uniform continuous film, compatible with the subsequently applied top coat. It is applied to each surface at a thickness specified by the paint manufacturer with a minimum of 0.2 mm thick. Top coat thickness varies depending on paint type and end use. The face side top coat has excellent long-term outdoor weathering characteristics.

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Handling/Lifting/Positioning of Sheets

Sheets shall be handled carefully to prevent damage to the paint coating. Lift all sheets or sheet packs on to the roof frame with the overlapping down-turned edge facing towards the side of the roof where installation will commence, otherwise sheets will have to be turned end-to-end during installation.

Installation Procedure

The laying of the roofing panels should begin on the end of the building away from the prevailing wind so that the side-lap seams face away from the prevailing wind-driven rain thus providing additional security against water penetration. Start roofing installation by placing the first sheet in position with the downturned edge in line with other building elements and fastened to supports as recommended. Fasteners should have corrosion resistance at least equivalent to the expected life of the base material. Place the downturned edge of the next sheet over the edge of the first sheet, to provide side lap and hold the side lap firmly in place. Continue the same procedure for subsequent sheets until the whole roofing area is covered and/or (Adopt installation procedure provided in the instruction manual for each type of Architectural molded rib profile section). Pre-painted metal sheet should not come in direct contact with wet concrete. Concrete's high alkalinity attacks the aluminum, causing the coating to peel. It shall also not be placed in contact with copper, lead, or the water run-off. Electrochemical reaction between these elements and the aluminum-zinc alloy coating will lead to premature corrosion of the coating. For walling applications follow the procedure for roofing and allow a minimum end lap of 100 mm for vertical walling. For panel lapping, requirements depend on the product installation guide of a specific type of pre-painted metal sheet as per approval of the Engineer. Provide sealant, butyl tape or caulking along the lap edge to prevent any leaking. Specifications of the sealant and butyl tape shall be as per manufacturer's recommendation per NPC Engineers approval.

Fascia Board

Fascia board shall be fastened where indicated on the Plans by self-tapping screws or galvanized iron straps and rivets. Always begin flashing installation from bottom and work up, so that flashings are lapped on top of the lower flashings. This will prevent moisture from leaking under the flashings and into the structure.

End Laps

In case handling or transport consideration requires to use two (2) or more end tapped sheets to provide full length coverage for the roof run, install each line of sheets from bottom to top or from eave line to apex of roof framing. Provide 150 mm minimum end lap.

Anchorage/Fastening

Pre-painted steel roofing sheets shall be fastened to the wood purlins with standard length G.I. Straps, rivets or bolts. For steel frame up to 4.5 mm thick use self-drilling screw No. 12 by 35 mm long hexagonal head with neoprene washer. For steel support up to 5 mm thick or more use thread cutting screw No. 12 by 40 mm long hexagonal head with neoprene washer. Side lap fastener use self-drilling screw No. 10 by 16 mm long hexagonal head with neoprene washer. Valley fastened to lumber and for walling use self-drilling wood screw No. 12 by 25 mm long hexagonal head with neoprene

washer. Valleys fastened to steel supports use self-drilling screws hexagonal head with neoprene washer. Drill size is 5 mm diameter.

Cutting of Sheets

In cutting prepainted steel roofing sheets and accessories, place the exposed color side down. Cutting shall be carried out on the ground and not over the top of other painted roofing product. Power cutting or drilling to be done or carried out on prepainted products already installed or laid in position, the area around holes or cuts shall be masked to shield the paint from hot fillings.

Storage and Protection

Prepainted steel roofing, walling products and accessories should be delivered to the jobsite in strapped bundles. Sheets and/or bundles shall be neatly stacked in the ground dry and if left in the open it shall be protected by covering the stack materials with loose tarpauline. Bundles should be stored above ground at a slight angle, to prevent water or condensation build up between adjacent sheets. Removing installation debris and metal fines due to drilling and cutting from the sheet surface and avoiding exposure of insulation to the weather shall be practice at all times.

Payment and Measurement

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bill of Quantities. Payment shall include all cost in furnishing labor, materials, tools, equipment and other incidentals necessary for the satisfactory completion of the project.

TS-14.0 ELECTRICAL WORKS

GENERAL

All work under these specifications shall consist of furnishing and/or installing all labor, materials, tools and all services necessary unless otherwise indicated to complete and make ready for operation, the electrical power, lighting and other utility system described herein and/or indicated in the Electrical Plans except for end-user equipment and fixtures for the proposed building. In accordance with the electrical plans and these specifications.

- Furnish and install low voltage service entrance including accessories.
- Furnish and install feeder distribution layout.
- Furnish and install lighting and power system.
- Furnish and install panel boards, circuit breakers, and disconnect switches.
- Furnish and install outlets, switches and plates.

WORK NOT INCLUDED

The lighting fixtures & appliances shall be included in the Phase II of this project.

CODE REGULATIONS

All materials and equipment to be used in the electrical installations and construction shall be in accordance with the latest edition of the Philippine Electrical Code and the pertinent ordinances of the City Government.

All work shall comply with the rules and regulations of the local power company in so far as they are concerned in providing their respective permanent services to the building.

With respect to the local power company, it shall be the electrical contractor's sole responsibility to verify the point of service entrances and other requirements necessary for service connection of both abilities.

DRAWINGS AND SPECIFICATIONS

The electrical plans and these specifications are meant to be complementary to each other, and what is called for in one shall be as binding as if called for by both.

Any apparent conflict between the electrical plans and these specifications and any unclear points of controversial matters in either shall be referred to the owner's assigned representative for final decision.

Upon final completion of the work herein described, the electrical contractor shall furnish the Owner two (2) copies of the "As-built" plans for future reference and maintenance purposes.

The electrical plans indicate the general layout of the complete electrical system. Arrangement of feeders, circuit outlets, switches, controls, panel boards, service equipment and other work. Field verification of the scale dimensions on plane must be made, since actual locations, distances and levels will be governed by actual field conditions.

The Electrical Contractor shall check architectural, structural and plumbing plans be necessary to resolve such conflicts, the Electrical Contractor shall notify the Architect and secure approval and agreement on necessary adjustments before installation is started.

MATERIALS AND WORKMANSHIP

All materials to be installed shall be brand new, unused and shall in every case to be the best where such standard have been established for the particular type of materials used.

Only skilled workmen using proper tools and equipment shall be employed during the entire course of the installation work. All workmanship shall be of the best quality, all work to be done in accordance with the best engineering practice of the trade involved.

WIRING METHOD

Branch circuit installation for lighting and power layout shall be done polyvinyl chloride pipes (PVC) exposed, inside drop ceiling, wooden and concrete partitions, using NELTEX, ATLANTA EMERALD or approved equal.

All auxiliary layout shall be in uPVC pipes using NELTEX or ATLANTA, EMERALD or approved equal.

Branch circuit layout run underground or embedded in concrete slab shall also be in PVC pipes.

Low voltage service entrance and all feeders shall be in Rigid Steel Conduit (RSC) using PUSAN, KSP of approved equal.

Use flexible metal pipe for connection between junction boxes inside ceiling and lighting fixtures and ceiling fans with standard fittings.

All conduits shall be standard mild steel; hot galvanized or sherardized with an interior coating. Conduits shall be 15mm minimum nominal diameter or otherwise as indicated in the Drawings.

All conduits shall be laid during the construction and shall be concealed in ceiling.

All boxes, cabinets and other equipment shall be installed flush-mounted unless specified otherwise. All underground conduits shall be encased in concrete with minimum thickness of 10mm around conduit, and when outside the building, be reinforced sufficiently with steel bars.

All boxes for lighting outlets, convenience outlets, tumbler switches and other devices shall be galvanized and approved products of reputable manufacturers. Outlet boxes shall be 1.5mm thick (Gauge 16). Ceiling and wall outlet boxes shall be 10mm octagonal. Boxes for wall, 50mm x 100mm x 55mm deep, locally made. Cut ends of conduits shall be reamed and cleaned to remove burr and sharp edges. Threads cut on conduits shall be the same thread dimensions as factory cut conduit threads. Conduit joints shall be made straight and true. Elbows and offsets and changes in direction of runs and shall be uniform. Bends shall be made without chinking or destroying the cross-sectional contours of the conduits. Conduit terminals shall be provided at outlet boxes and cabinets with locknuts and bushing. Conduits shall be continuous from outlet and from outlet to pull boxes and cabinets in the manner that the conduit system shall be electrically continuous.

Where conduit runs are exposed, they shall be supported at an interval of 1.52m maximum with proper clamps and bolts or expansion shields or other means of support.

Wires shall be manufactured by PHELP DODGE PHILS., AMERICAN WIRE AND CABLE or approved equivalent. Use one brand only.

All splices taps, junction in wires larger than 8.0 sq.mm. shall be done with solderless connectors or suitable sizes properly insulated with rubber tapes and protected by friction tapes, so that the insulation strength shall at least be equal to the insulation of the conductors they join.

Smallest size of wire to be used for lighting and power unless otherwise indicated shall be 3.5sq.mm.

FEEDERS

Feeders shall be laid out in accordance with the riser diagram shown in the electrical plans.

Unless otherwise specified type THW wires shall be used for feeder lines. The wires and conduits sizes shown in the electrical plans shall be the minimum sizes to be used.

WALL SWITCHES AND RECEPTACLES

Suitable single pole tumbler switches and three way switches of the flush type shall be NATIONAL brand. Japanese brand or approved equal, to be furnished and installed by the electrical contractor as indicated in the electrical plans.

Wall switches intended to control more than 500 watts load shall be rated Amperes, 300 volts.

Ordinary convenience outlets shall be duplex flush type, 2 wires, 15 Amperes, 250 volts; NATIONAL brand. Japan made or approved equal. Heavy duty convenience outlets shall be rated 250 volts, 2 wires, 20 Amperes.

All wall plates for switches, receptacles, telephone outlets and blank cover shall be National brand, practidesign or approved equal.

Wall tumbler switches shall be installed 1.40m above finish floor level.

Wall convenience outlets shall be installed 0.30m above finish floor or above the baseboard where there are baseboards.

MAIN SWITCHES AND PANEL BOARDS

The Electrical Contractor shall furnish and install main distribution panel, lighting panel boards as shown in the drawings.

The cabinets for the above must be of standard sizes and gauge. Locally assembled by FUJI HAYA ELECTRIC CORP., WESTINGHOUSE or approved equal.

Main circuit breakers for power and lighting panel boards shall be 250 volts, AC and shall be quick break, FUJI brand, Japan made WESTINGHOUSE or approved equal.

Safety disconnect switches shall be fusible type as manufactured by EVER, or approved equal.

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bill of Quantities. Payment shall include all cost in furnishing labor, materials, tools, equipment and other incidentals necessary for the satisfactory completion of the project.

TS-15.0 PLUMBING WORKS

GENERAL

The Contractor shall complete the plumbing and drainage system as shown on the Plans and as specified herein in accordance with the National Plumbing Code of the Philippines and all other applicable local codes.

The Contractor shall execute his branch of work completely, even though some requirements are not contained the specification or indicated on the Plan.

The Contractor shall furnish and perform all skilled and unskilled labor, as well as all materials, piping, fittings, valves, fixtures and appliances necessary and required in doing and completing the entire plumbing and drainage installation. All excess

materials, refuse, etc., are to be removed from the premises by him upon completion of his contract.

WORK NOT INCLUDED

The plumbing fixtures, appliances, and other pantry/CR accessories shall be included in the Phase II of this project .

MATERIALS

All material, piping, fittings, valves, fixtures and appliances hereinafter specified and shown on the Plans and those which are essential and have not been specified shall be new and of the highest grade and quality, free from defects, such as breaks, flaws, or other imperfections.

STORM DRAIN

The storm drain is to be constructed of concrete pipe and fittings as indicated in the plans and extended from the connection in the street on the base of all catch basins as shown on the Plan. The joints are to be made of cement mortar consisting of a 50%-50% cement and sand mix.

DRAINAGE PIPES

Plain concrete drain pipe and fittings, T & G for 10-20 centimeters (4" to 8") diameter conforming to ASTM C-1458; and reinforced concrete drain pipes and fittings for 10 and larger, centrifugal cast of vibrated, T & G conforming to ASTM C-76-59.

JOINTING MATERIAL

Use the part cement to two (2) parts sand in proportion, with yarning.

DOWNSPOUT, FITTINGS AND CONNECTIONS

PVC pipes as indicated in Plans.

ROOF DRAINS

Cast iron body, with removable lock type mushroom dome strainer clamping collar with Integral gravel guard, corrosion resistant clamping bolts, bronze expansion joint with graphite asbestos packing. Inside caulk connections, similar or equal to "Josam" Series No. 480, "Zum" Model No. Z-125-6 or equal size as indicated on the drawings.

AREA DRAIN - CATCH BASIN

Load-bearing concrete hollow blocks (CHB) Jackbilt or equal, or reinforce concrete with R.C. grating covers as shown on the drawings.

MANHOLES

Manholes for the drainage lines outside the building shall be precast R.C. sections with galvanized steel ladder rings and cast-iron frame and cover.

BUILDING STORM DRAIN CONNECT TO MAINS

Use concrete wye branch and cleanout, T & G or by the use of junction boxes.

SOIL-WASTE-VENT LINE

All soil stacks are to be constructed of Waste Vent 4" (100mm), unless otherwise indicated on the Plans. Unplasticized Polyvinyl chloride (PVC) pipe and fittings shall be well supported and extended through the roof with at least 150mm from the roof surface. All waste pipes are to be constructed of PVC manufactured by Neltex, Moldex or approved equals.

The soil, waste, and vent must be provided with cleanouts to make them accessible, and when completed be subjected to a water test in the presence of a local authority and the Construction Officer.

All drains installed in connection with waterproofed roofs shall be equipped with a clamping device.

When drains are installed in connection with membrane waterproofing, a sheet of 454 grams (16 oz.) copper sheet 30 centimeters square (1 square foot) shall be placed between the layers in an approved manner with hot asphalt, bonded to the membrane.

SEWER PIPE

Plain concrete sewer pipes and fittings, B & S for 100 to 200 millimeters (4" to 8") diameter conforming to ASTM C-1459 and reinforced concrete sewer pipes and fittings for 300mm (12") and larger, B & S centrifugal cast or vibrated conforming to ASTM C-76-59T.

JARNING MATERIALS

Use Oakum for B & S joint with cement mortar filling the remaining annular space.

SEWER JUNCTION BOX

Reinforced concrete with precast concrete cover as shown on the drawings.

SOIL AND WASTE PIPES

Use uPVC pipes as called for in the Plans.

VENT PIPES

Cast iron soil pipes service weight or uPVC as indicated on the Plans.

WATER DISTRIBUTION SYSTEM

The building service is to be extended from the city main with Polyvinyl Chloride (PVC) pipe of extra strong quality and laid on a shelf in the trench of the storm drainage. It is to be equipped with a corporation stop, a curb stop with stop box extended flush with the grade and a meter stop.

SERVICE PIPE FROM EXISTING WATER MAIN

Either galvanized iron pipe ASTM schedule 40 with tar coating or approved equivalent as indicated on the Plan.

PIPES FOR COLD WATER LINE AND TOILET ROUGHING-IN

Galvanized iron (G.I.) pipes Schedule 40 and/or PVC as indicated on the Plans.

UNIONS

Unions on ferrous pipes shall be malleable iron and shall conform to the requirements of U.S. Federal Specifications WW-U0-531, Type B zinc-coated.

PLUMBING AND FIXTURE TRIM

Plumbing and fixture trim shall be provided complete with fittings. Exposed traps and supply pipes for all fixtures and equipment shall be connected to the rough piping systems at the wall unless otherwise indicated. Floor plates, wall plates and escutcheons shall be as required by the fixtures specified. Straps shall be provided at each fixtures. Plumbing fixture compound shall be fixed for fixture connections between earthen ware fixtures and flanges on soil pipe. Closet bolts shall be not less than 8m. The exposed piping, fittings and trimmings shall be chromium-plated or nickel-plated brass with polished bright surfaces.

DRAINS

Use Zurn, Josam, Jay R. Smith, Wade, Metma or approved equivalent.

G.I. PIPES AND FITTINGS

Use Bethlehem Steel, U.S. Steel, Youngstown, Super Industrial Corporation, Goodyear or approved equivalent.

PVC PIPES AND FITTINGS

Use Neltex, Emerald, Atlanta, Moldex or approved equivalent.

WORKMANSHIP

All materials installed are to be concealed in building partitions wherever possible.

All piping must be substantially supported to overcome sagging and be so arranged that it may be easily drained.

INSTALLATION

STORM DRAINAGE SYSTEM

Provide a complete system of storm drainage piping for all roofs, set-back areas, parking areas and canopies. Connect to the house drainage system at the building wall. Provide all drains required to conduct rain water from the building surfaces to the storm drainage system, including all of the scheduled drains and any special drains indicated on the Architectural and/or Plumbing Drawings.

Take special care in roof drains to assure that they are set at an elevation which will practice the formation of puddles.

Install connectors to roof drains in conjunction with the roofing specified under specification of another trace and at all times as designated by the General Contractor so that the building is adequately protected from damage by storm water during construction. Storm drainage pipes, underdrains, open canals of trenches shall have slopes of not less than 0.005.

Make all branch connections to drainage system "wye" and long "tee-wye" fittings. Do not use short ¼bends, common offsets and double hubs. Use short "tee-wye" fittings, in vertical piping only, and only where space conditions will not permit the use of long turn fittings. Use only fittings that conform to code requirements.

SOIL WASTE AND VENT SYSTEM

HOUSE SEWER SYSTEM

Provide house sewers to conduct the sanitary drainage from the building to the main sewer system, including all piping, trenching, shoring, manholes and/or pumping as

required, backfilling, final connection to the main sewers, street openings and repaving as required to make the system complete.

Make the connection to main sewers, open the street and repave in accordance with the requirements of the authorities.

Commence the sewer pipe installation at the connection to the main sewer with all spigot and pointing to the direction of flow. Lay all pipes with ends abutting and in a true line carefully centered from a sewer with uniform inverts.

DRAINAGE VENT

Provide ventilating pipes from the various sanitary plumbing fixtures and other equipment which drainage connections are made. Connect ventilating pipes to the discharge of each trap and carry individually to a point above the rim of the fixture before connecting with any other pipe. In general, this will be approximately 1.067 meters (3 feet, 6 inches) above the finish floor. Pitch branch vents back to the fixtures.

Collect individual vent pipes together in branch vent lines and connect to vent stacks, paralleling soil and waste stacks. Whenever possible, vent stack offsets shall be made with 45 degree fittings. Vent stacks shall be connected to adjacent soil stacks at the base of the stacks.

Extend the tops of ventilating stacks independently through the roof or collect together and run through the roof in series of larger pipes, as shown on the drawings. Provide roof couplings at a level 45 millimeters (18 inches) above the finished roof to receive flashings.

COLD WATER SYSTEM

Provide a complete cold water distribution system to supply water to all fixtures, water consuming equipment and valve outlets for the use of other Trades.

The system shall include the required meters and meter accessories.

The water supply system shall be complete with all pipe fittings, valves, meters, trenching, shoring, backfilling, mains, risers, branches, air chambers, controls, hangers, anchors, protective painting, insulation, tests, and the like, all as shown on the drawings, as hereinafter specified and in accordance with the regulations of authorities having jurisdiction.

Provide all metering devices, strainers, test connectors, etc., as required by the authorities and shall obtain approval of the installation without additional cost to the Owner.

Use materials as scheduled.

All equipment used in this system shall have capacities as scheduled.

Adjust all fixtures stops so that flush valves, faucets, etc., function quietly and efficiently before final acceptance by the Owner.

Provide tapping valves, curb valves, boxes and signs where required by the authorities having jurisdiction.

Provide all pipes, fittings, valves, street openings, excavation, backfill, repaving and the like, required to make the system complete.

TEST

STORM DRAINAGE SYSTEM TEST

The entire drainage and venting system shall have all the necessary openings which can be plugged to permit the entire system to be filled with water to the level of the highest stack vent and/or vent stack above the roof.

The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than 100 millimeters (4 inches). If and when the owner decides that an additional test is needed, such as an air or smoke test on the drainage system, the Contractor shall perform such tests without additional cost to the NPC.

WATER SYSTEM TEST

Upon completion of the roughing-in and before setting fixtures, the entire cold water piping system shall be tested at hydrostatic pressure one and a half (1½) times the expected working pressure in the system when in operation, and proved tight at this pressure. Where a portion of the water-piping system is to be concealed before completion, this portion shall be tested separately in a manner similar to that described for the entire system, and in the presence of the Construction Officer.

DISINFECTING

The entire water system shall be thoroughly flushed and disinfected with chlorine before it is placed in operation.

Chlorination materials shall be liquid chlorine or hypochlorite, as specified, shall be introduced into the water lines in a manner approved by the Construction Officer.

The chlorine dosage shall be such as to provide no less than fifty parts per million (50ppm) of the available chlorine.

Following a contact period of not less than sixteen (16) hours the heavily chlorinated water shall be flushed from the system with clean water until the residual chlorine content is not greater than two-tenths (2/10) ppm.

All valves in water lines being sterilized shall be opened and closed several times during the 16-hour chlorinating period.

Measurement and Payment

Measurement and payment shall be made at the contract unit price or lot price as specified in the Bill of Quantities. Payment shall include all cost in furnishing labor, materials, tools, equipment and other incidentals necessary for the satisfactory completion of the project

TS-17.0 CLEARING AND DEMOBILIZATION

General Scope

This item shall consist of the disposition of entire Contractor's camp facilities, clearing and cleaning at the work site.

Workmanship

Before moving out, the contractor shall restore the orderly state of worksite by clearing all temporary structures. Remove all excess/waste materials and store in designated areas.

Before the Contractor will demobilize its construction equipment/tools, materials and crew, he shall secure approval from NPC and a joint inspection with the NPC inspector and Contractor will be conducted to make sure that all his accomplishment/work that needs remedial attention or correction shall be done prior to the issuance of the Certificate of Completion.

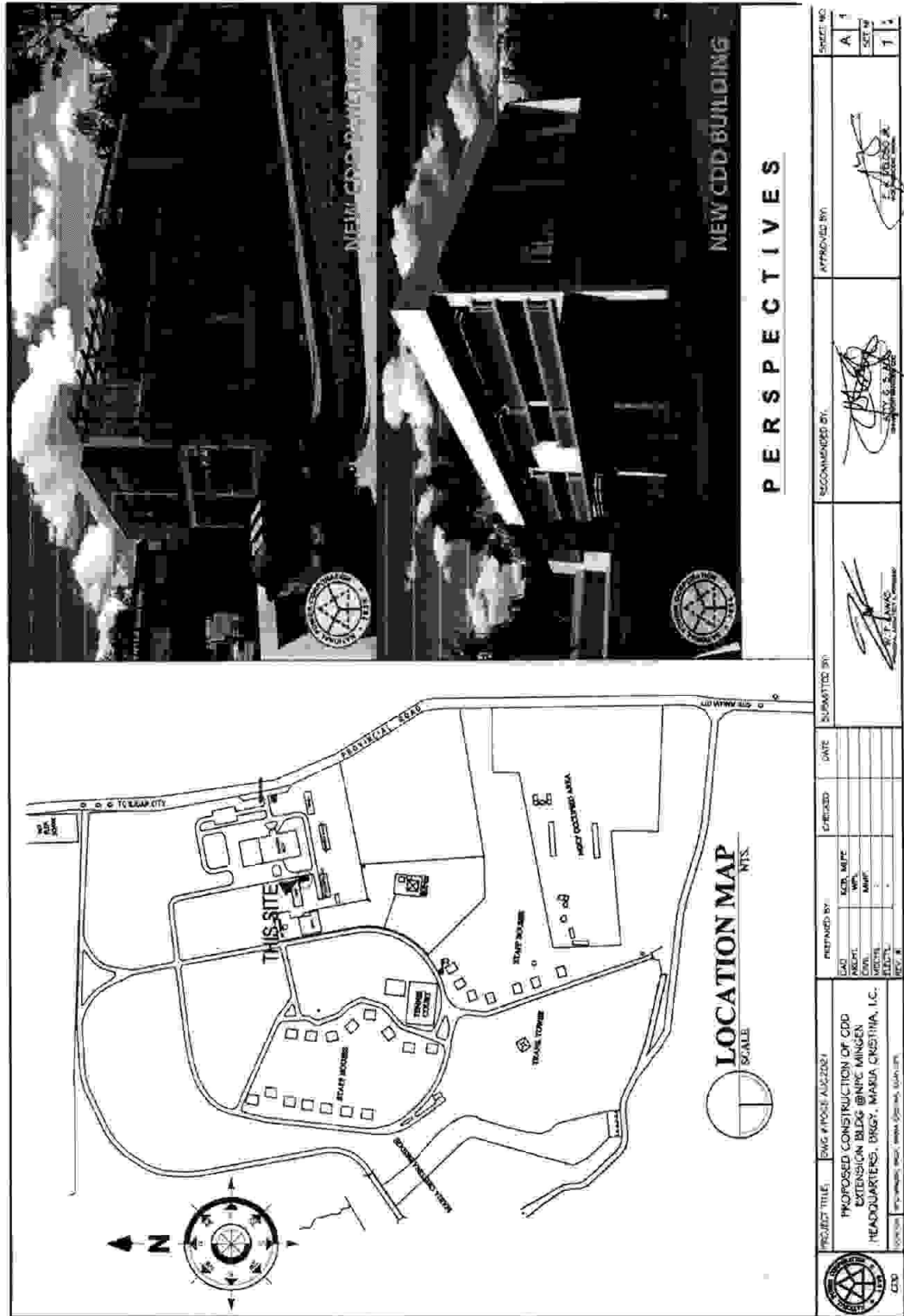
Measurement and Payment

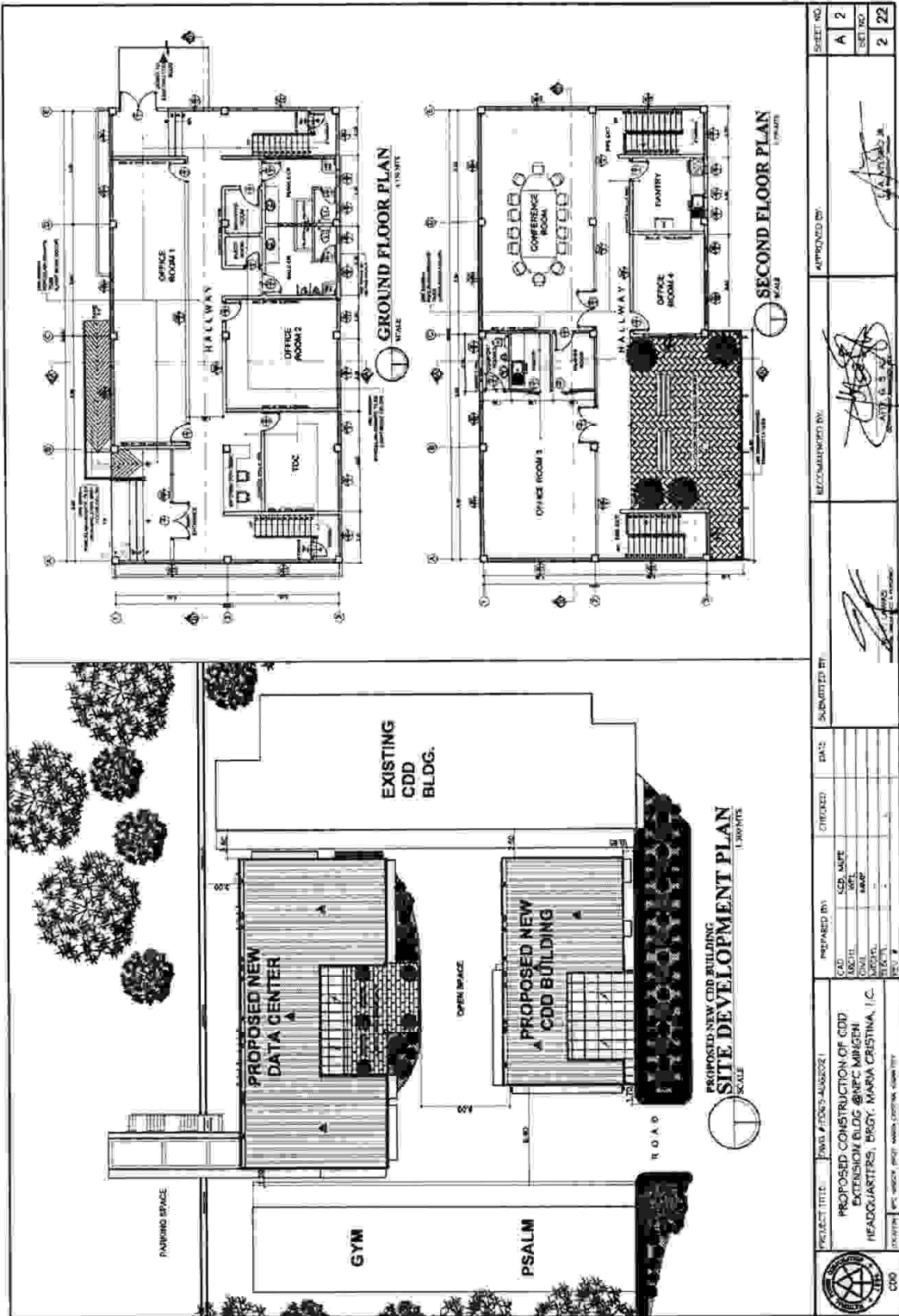
Work prescribed herein shall not be measured and paid separately; same shall be deemed to be included in pay items for other items for work.

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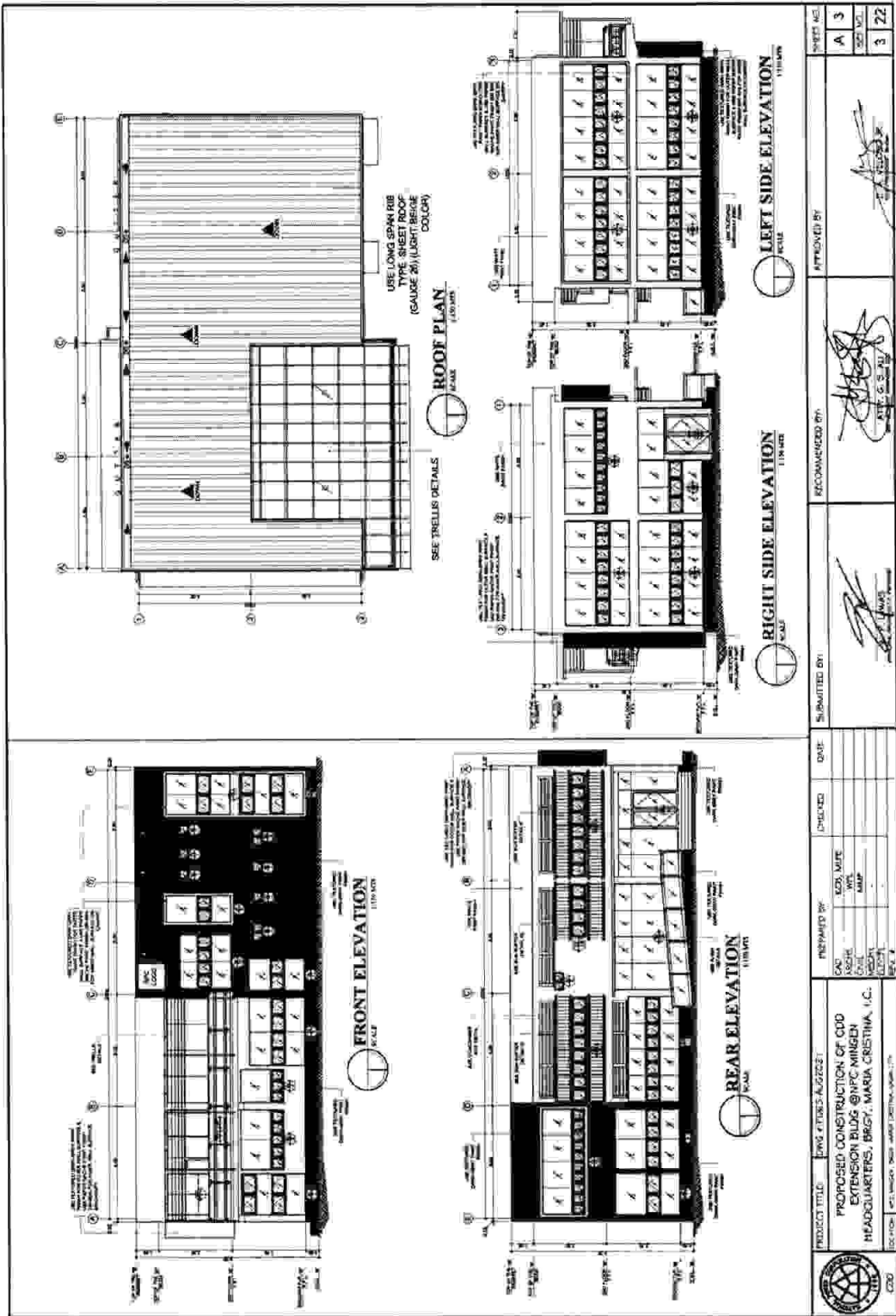
Section VII. Drawings

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<i>Sheet No. 14/22</i>	<i>(S3)</i>	<i>- TYPICAL ONE WAY & TWO WAY SLAB DETAILS</i>
<i>Sheet No. 15/22</i>	<i>(P1)</i>	<i>- GROUND & SECOND FLOOR WATER DISTRIBUTION & SANITARY DRAINAGE LAYOUTS</i>
<i>Sheet No. 16/22</i>	<i>(P2)</i>	<i>- GROUND & SECOND FLOOR WATER LAYOUT ISOMETRIC DRAWING</i>
<i>Sheet No. 17/22</i>	<i>(P3)</i>	<i>- GROUND & SECOND FLOOR SANITARY LAYOUT ISOMETRIC DRAWING</i>
<i>Sheet No. 18/22</i>	<i>(P4)</i>	<i>- STANDARD SOIL PIPES CONNECTIONS, CATCH BASIN DETAILS & SEPTIC TANK PLAN & DETAILS</i>
<i>Sheet No. 19/22</i>	<i>(E1)</i>	<i>- GROUND & SECOND FLOOR LIGHTING & POWER LAYOUTS</i>
<i>Sheet No. 20/22</i>	<i>(E2)</i>	<i>- SCHEDULE OF LOADS & COMPUTATION (PBI) & SINGLE LINE DIAGRAM</i>
<i>Sheet No. 21/22</i>	<i>(M1)</i>	<i>- GROUND & SECOND FLOOR AIRCONDITION & FIRE SUPPRESION LAYOUTS</i>
<i>Sheet No. 22/22</i>	<i>(M2)</i>	<i>- AIRCONDITION, FIRE EXTINGUISHER & HANGING DRY POWDER FIRE EXTINGUISHER DETAILS</i>

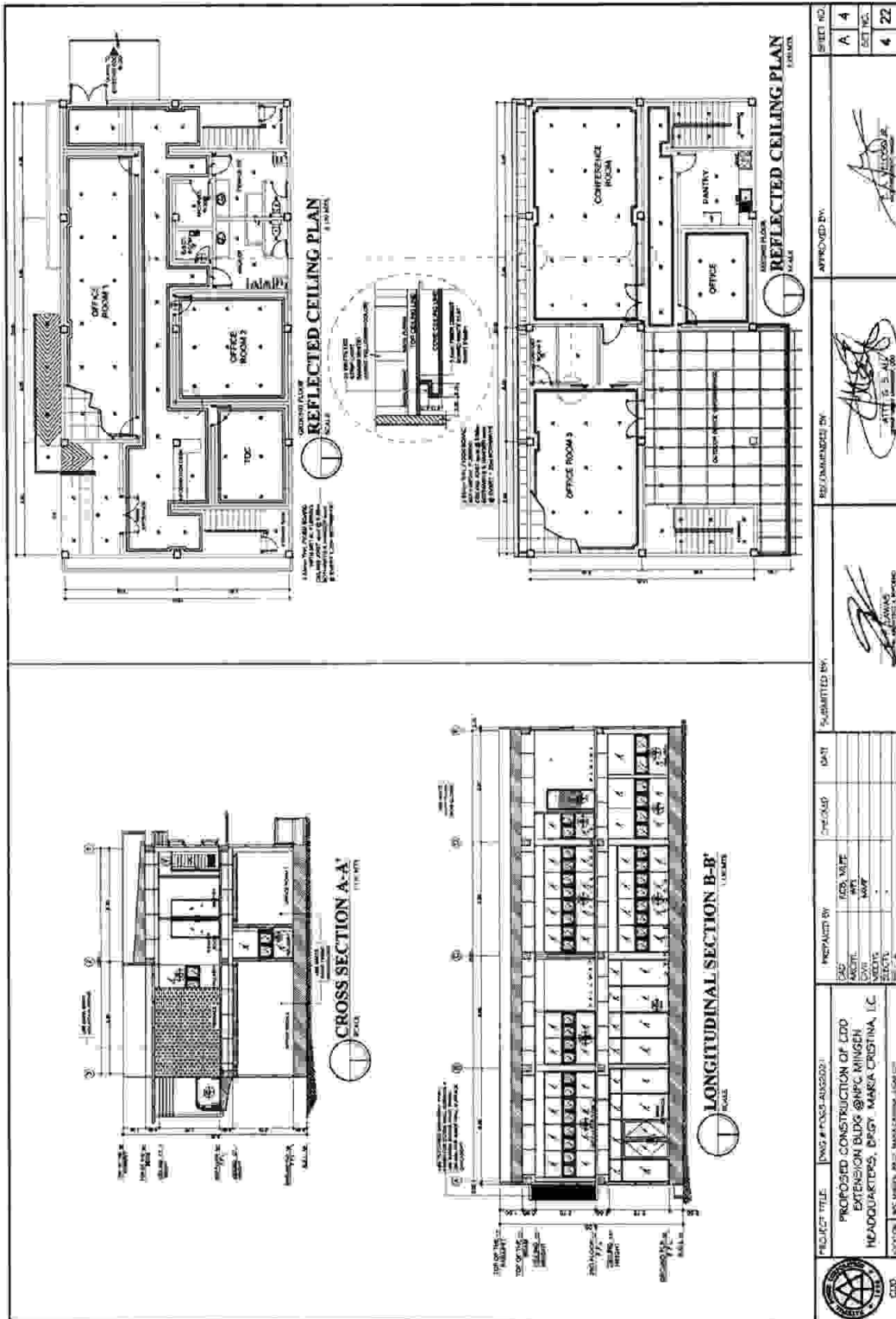


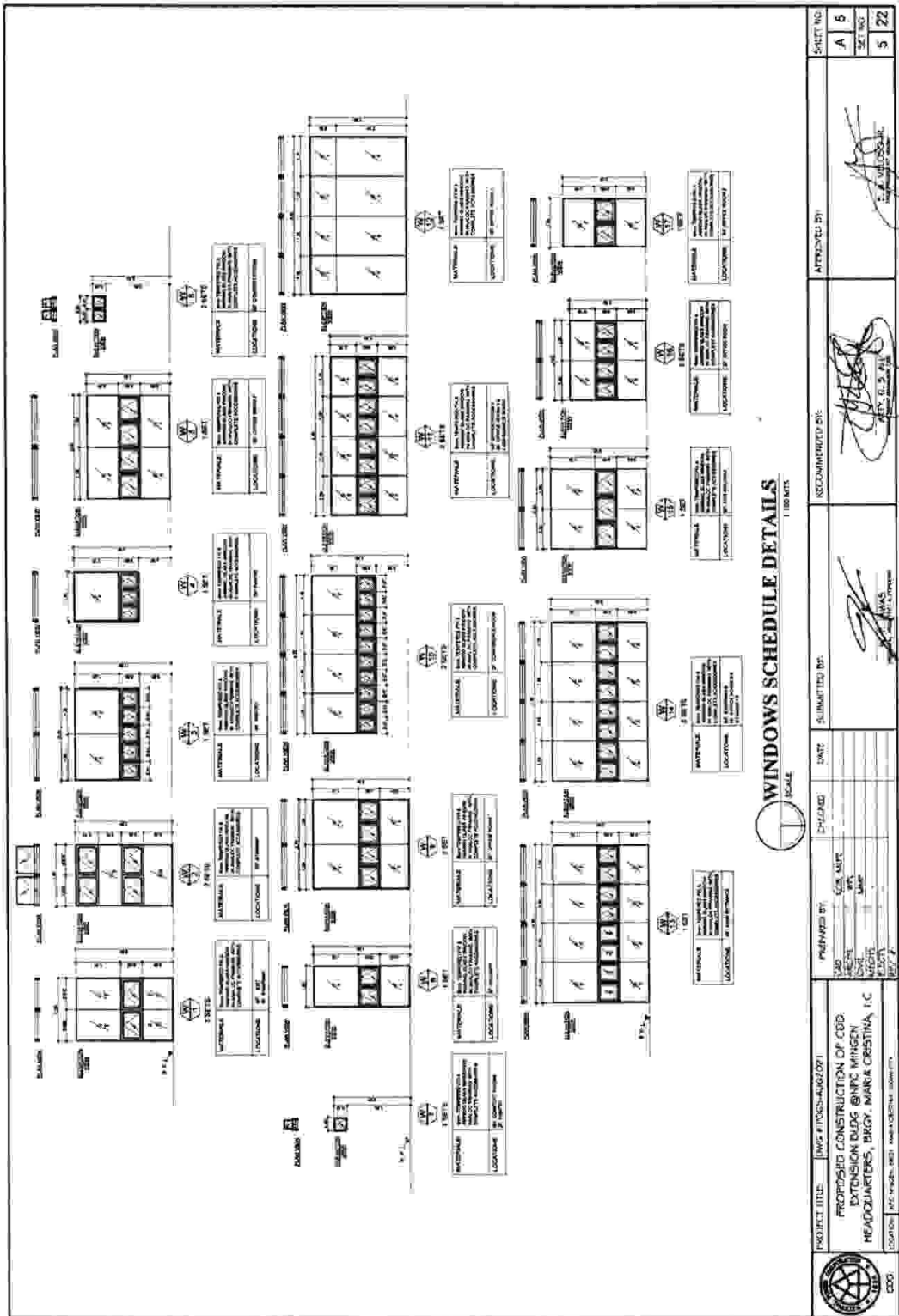


	PROJECT TITLE : INFRA # 2022-001-026 PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @ RFC MBGEN HEADQUARTERS, PROJ. MARIA CRISTINA, I.C.	PREPARED BY : CDD : ARCHITECT : CIVIL : ELECTRICAL : MECHANICAL : STRUCTURAL : SITE :	CHECKED BY : DATE :	SUBMITTED BY : 	RECOMMENDED BY : 	APPROVED BY : 	SHEET NO : A 2 SET NO : 2 22
	CDD	PROJECT # :	DATE :	SCALE :	DRAWING NO :	DRAWING DATE :	DRAWING SCALE :



	PROJECT TITLE: PHASE 1 INFRA-A-22021 PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @INFC MINGEN HEADQUARTERS, BRGY. MARIA CRISTINA, I.C.	PREPARED BY: CAD: [Signature] CHECK: [Signature] DATE: [Date]	CHECKED BY: [Signature]	DATE:	SUBMITTED BY: [Signature]	RECOMMENDED BY: [Signature]	APPROVED BY: [Signature]	SHEETS NO. A 3 OF NO. 3 22
	PROJECT NO.: [Number] CDD	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]





DOORS SCHEDULE DETAILS

SCALE: 1/16"=1'-0"

STEEL RAILING SCHEDULE DETAILS

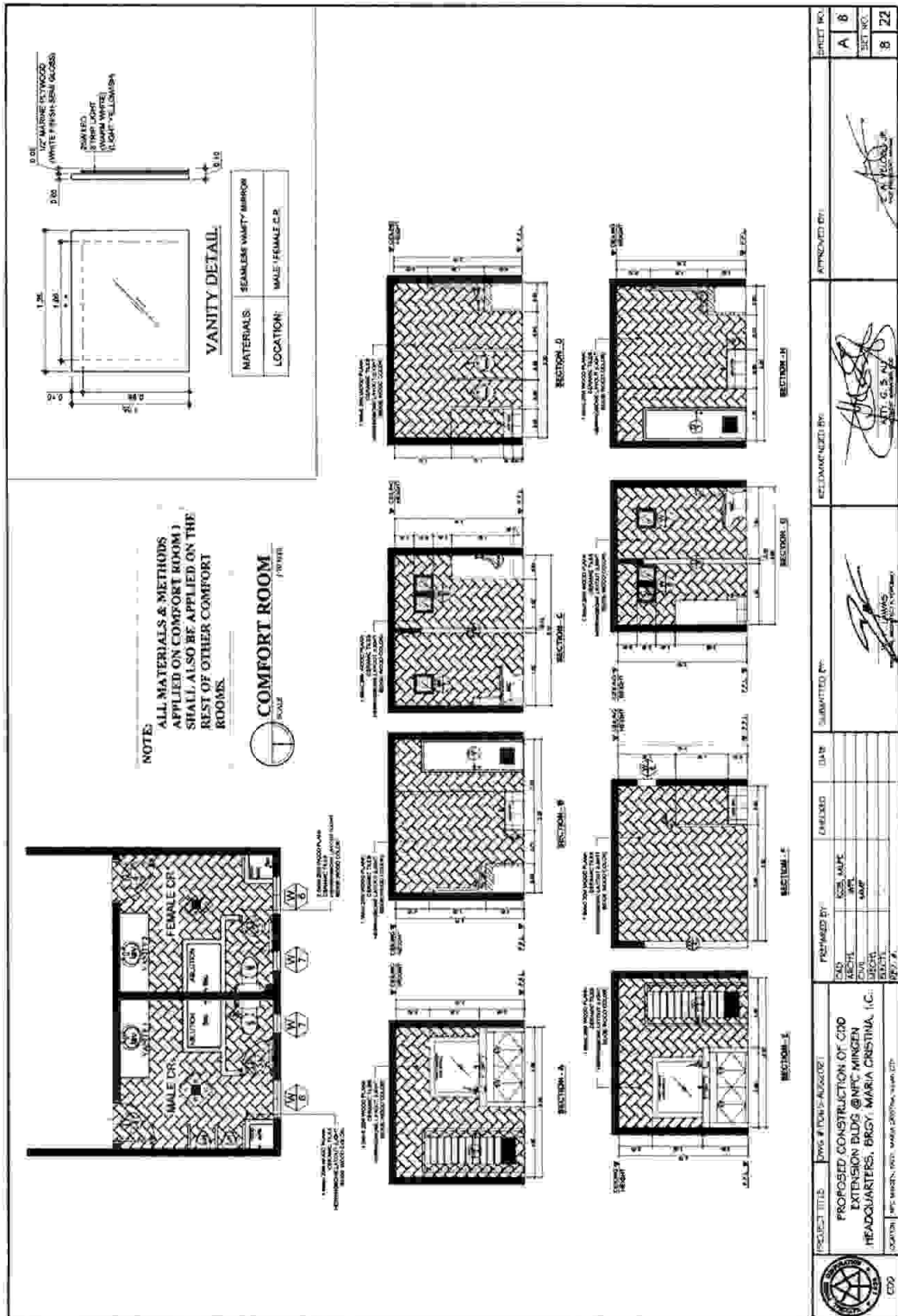
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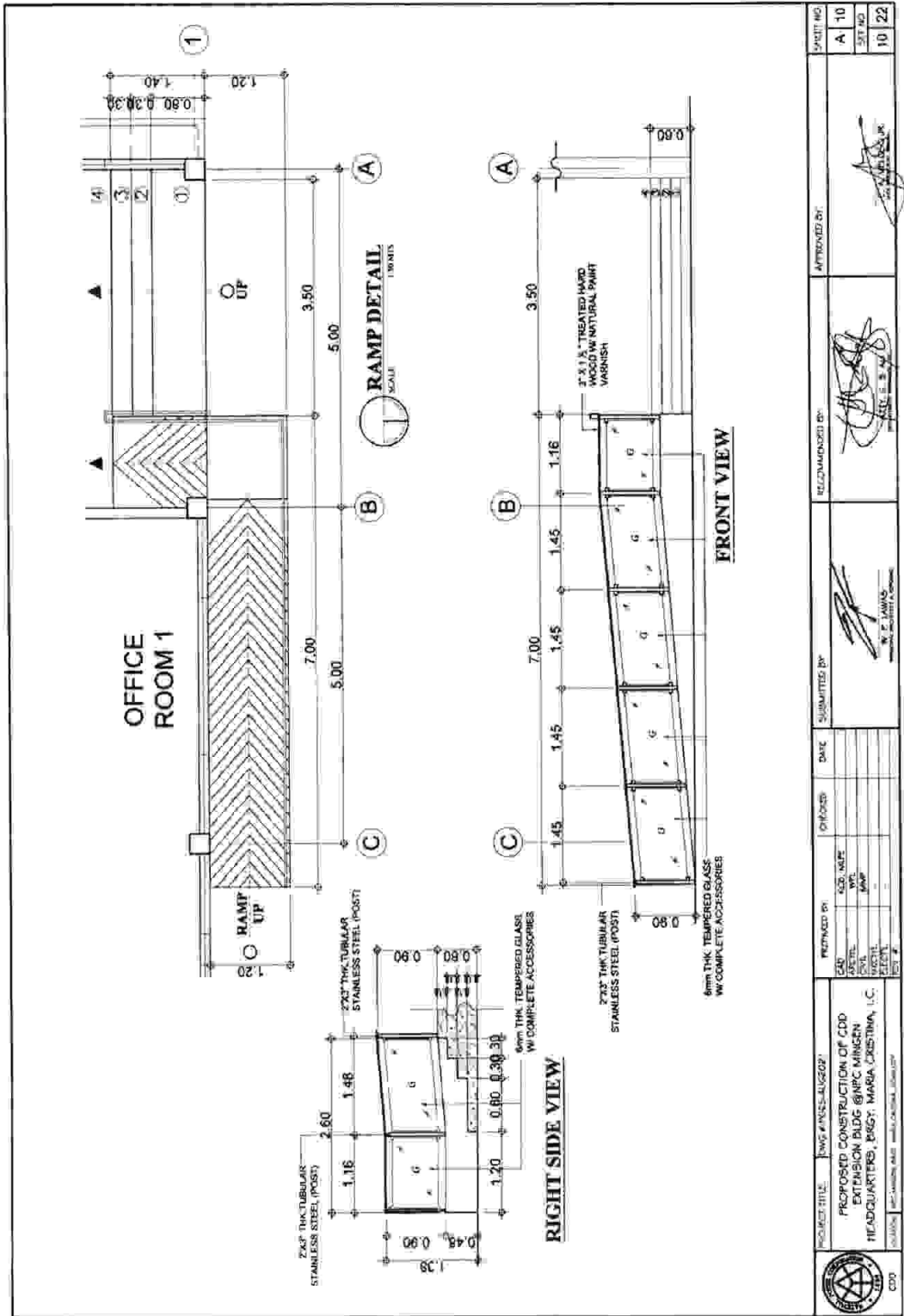
NOTE: ALL WELD JOINTS SHALL BE FULL PENETRATION

GLASS RAILING SCHEDULE DETAILS

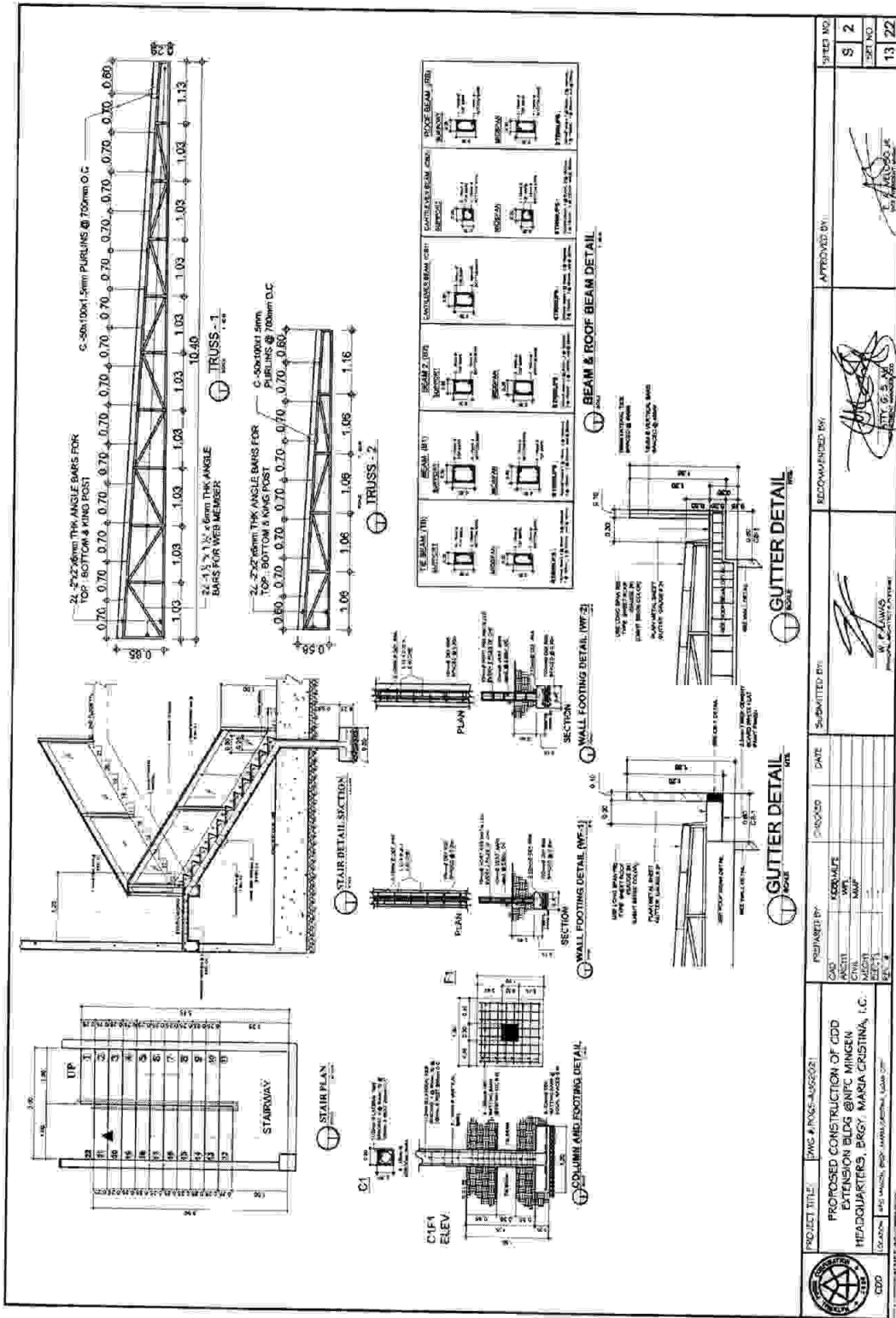
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PROJECT TITLE DWG # PDD22-001-001	PREPARED BY CAD: [Blank] SCALE: [Blank] DATE: [Blank] REV: # [Blank]	CHECKED BY E.C.A. M.F.F. M.F.F. [Blank]	DATE [Blank]
PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @BPC MANSION HEADQUARTERS, BRGY. MARIA CRISTINA, I.C.		SUBMITTED BY [Signature]	
APPROVED BY [Signature]		APPROVED BY [Signature]	
SHEET NO. A 7		SHEET NO. 7 22	



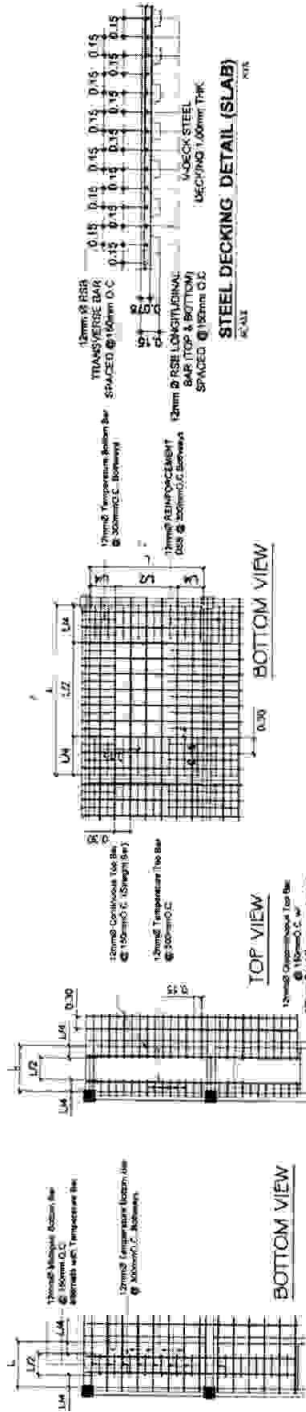


PROJECT TITLE: PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @AFC MANGEN HEADQUARTERS, KAGO, MARIA CRISTINA, I.C.	REVISIONS AND COMMENTS: CDD	DATE: 2022.05.25	DATE: 2022.05.25	SUBMITTED BY: E. P. JAMES S. J. JAMES	APPROVED BY: E. P. JAMES S. J. JAMES	SHEET NO: 10/22
	NO. NAME DATE SCALE		DATE		DATE	



	PROJECT TITLE: PING #1036-AUG2021 PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @NITC MINGEN HEADQUARTERS, BRGY. MARIA CRISTINA, I.C. (Location: BRGY. MARINA, BRGY. MARINA CRISTINA, LAGUNA CITY)	PREPARED BY: CIVIL ENGINEER W. P. JAVIERO	CHECKED BY: CIVIL ENGINEER W. P. JAVIERO	DATE: 13/22	SUBMITTED BY: 	RECOMMENDED BY: 	APPROVED BY: 	SHEET NO: S 2 SET NO: 13/22
	PROJECT TITLE: PING #1036-AUG2021 PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @NITC MINGEN HEADQUARTERS, BRGY. MARIA CRISTINA, I.C. (Location: BRGY. MARINA, BRGY. MARINA CRISTINA, LAGUNA CITY)							

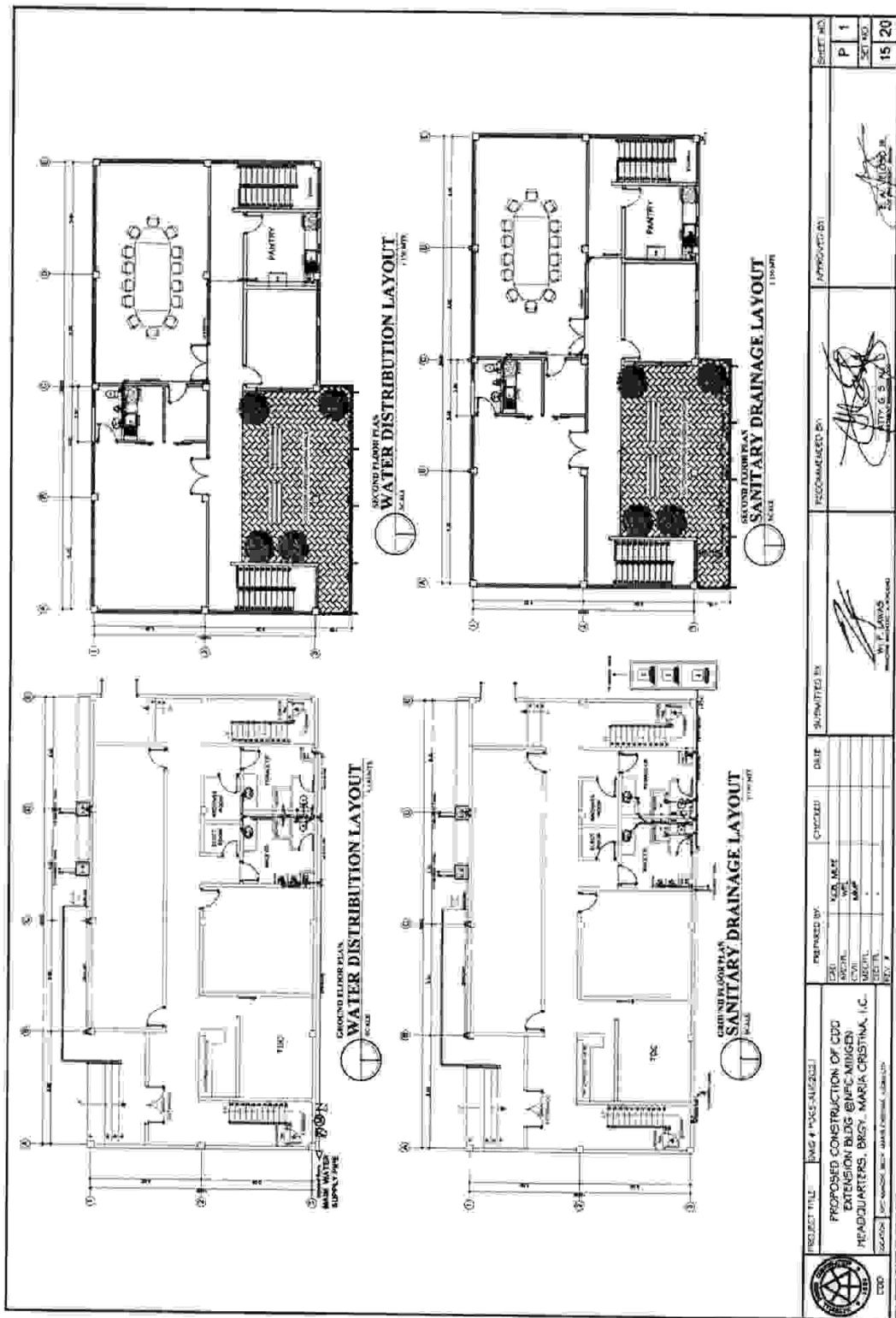
SLAB SCHEDULE				REMARKS	
SLAB	THICKNESS (mm)	MAIN REBAR	TEMPERATURE REBAR		
S1	100mm	ALONG SHORT DIRECTION	ALONG LONG DIRECTION	ONE WAY SLAB	
		MIDSPAN CONTINUOUS	12mm \varnothing Rebar @ 150mm \varnothing C. BOTTOM BAR 12mm \varnothing Rebar @ 150mm \varnothing C. TOP BAR		12mm \varnothing Rebar @ 300mm \varnothing C.
		DISCONTINUOUS	12mm \varnothing Rebar @ 150mm \varnothing C. TOP BAR		
S2	100mm	MIDSPAN DISCONTINUOUS	12mm \varnothing Rebar @ 150mm \varnothing C. BOTTOM BAR 12mm \varnothing Rebar @ 150mm \varnothing C. TOP BAR	TWO WAY SLAB	
		CONTINUOUS	12mm \varnothing Rebar @ 150mm \varnothing C. TOP BAR		
		DISCONTINUOUS	12mm \varnothing Rebar @ 150mm \varnothing C. TOP BAR		12mm \varnothing Rebar @ 300mm \varnothing C.



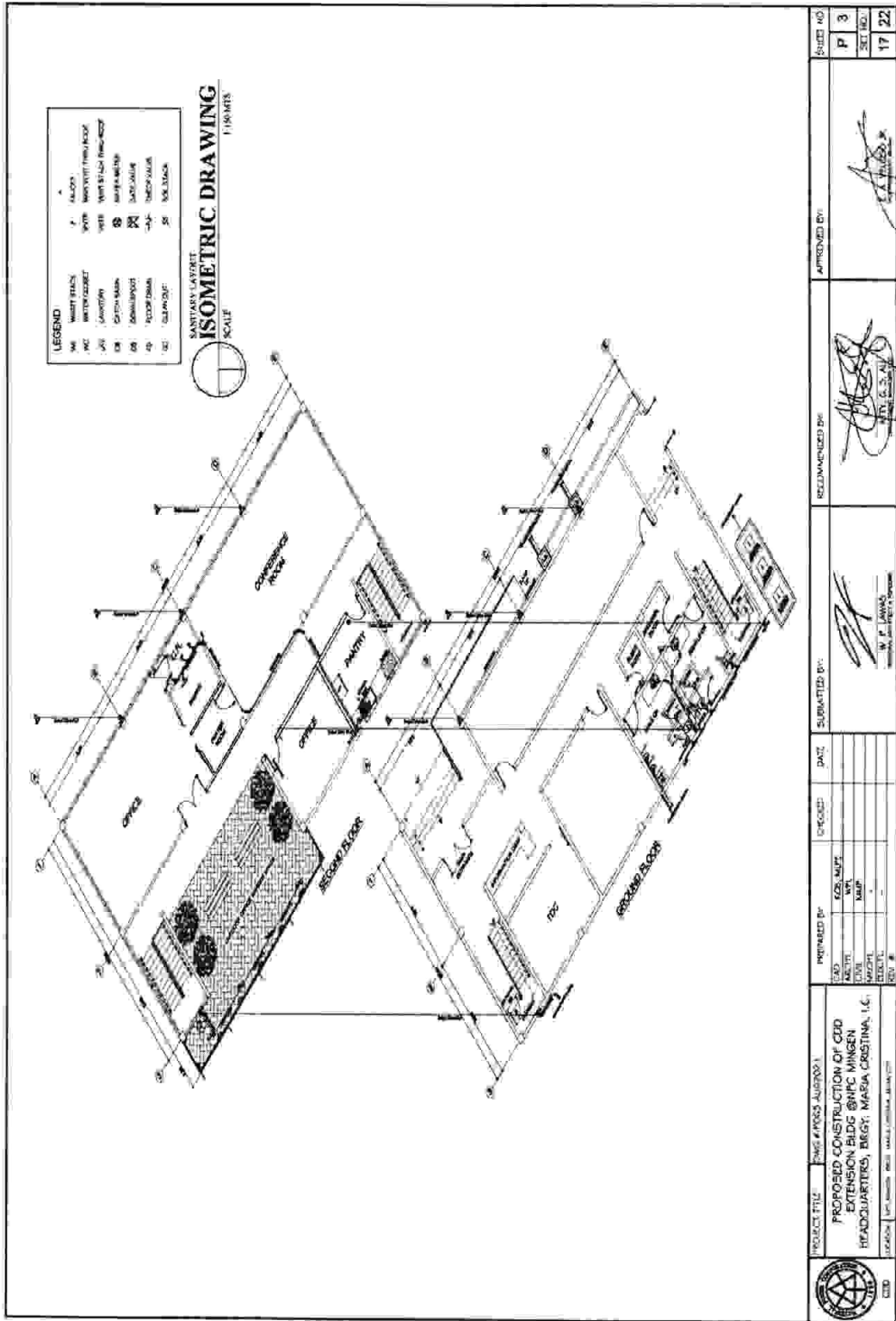
TYPICAL TWO WAY SLAB DETAIL (S2)

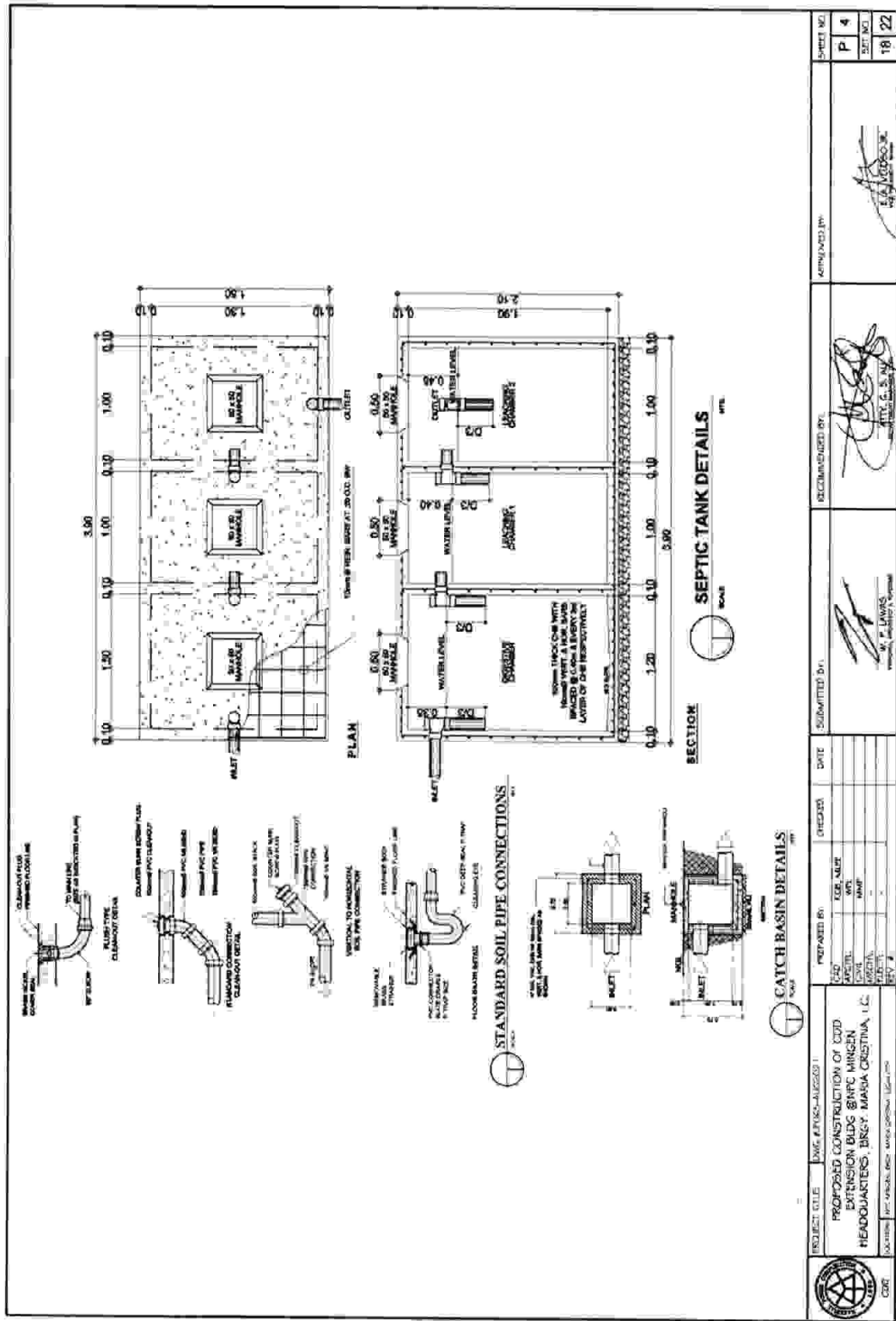
TYPICAL ONE WAY SLAB DETAIL (S1)

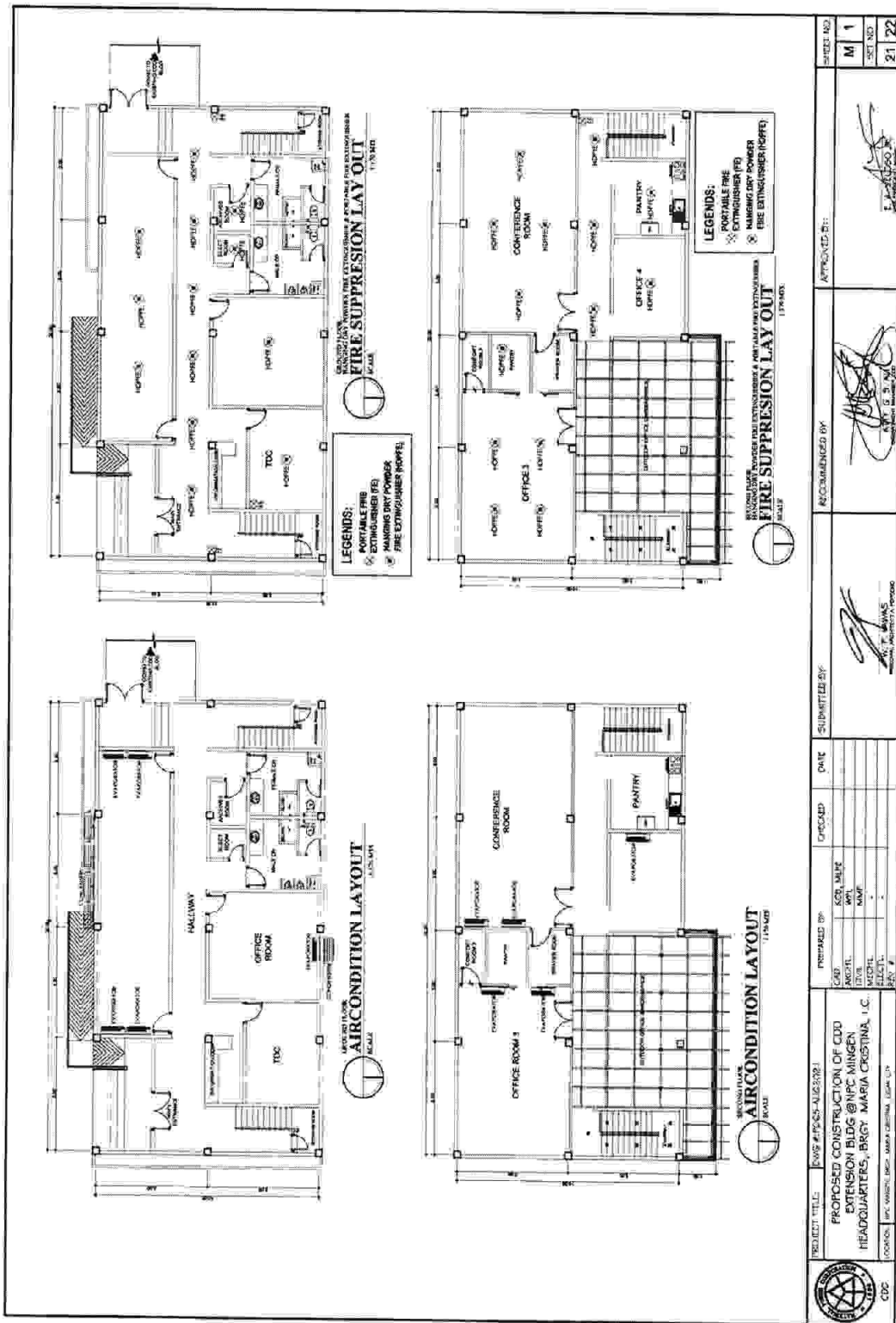
	PROJECT TITLE : MG-PDD22-001/INFRA2022-026	PREPARED BY :	CHECKED :	DATE :	SUBMITTED BY :	RECOMMENDED BY :	APPROVED BY :	SHEET NO :	
	PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @NFC MINZON HEADQUARTERS, BRGY. MARIA CRISTINA, I.C.	CAD : ARCHIT : STRUCT : ELECTR : MECH : ENV. E. :	CONSULTANT : W.P. ENGINEERING						S 3
									SET NO. : 14 22



	PROJECT TITLE	PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG 10A/C MINGEN HEADQUARTERS, BNGY. MARIA CRISTINA, I.C.	DATE		APPROVED BY		SHEET NO.	P 1
	PREPARED BY	ENR: _____ ARCH: _____ CIVIL: _____ ELECTR: _____ MECH: _____	CHECKED BY		RECOMMENDED BY			SET NO.
SUBJECT FILE: BNG 100C-AUG2021					AUTHORIZED BY: _____ DATE: _____	RECOMMENDED BY: _____ DATE: _____		
LOCATION: CDD - MINGEN BLDG 10A/C MINGEN, GUATEMALA					AUTHORIZED BY: _____ DATE: _____	RECOMMENDED BY: _____ DATE: _____		







PROJECT TITLE: [DWS #175205-AUG2021] PROPOSED CONSTRUCTION OF CDD EXTENSION BLDG @NPC MINGEN HEADQUARTERS, BREGY MARIA CRISTINA, I.C.		PREPARED BY: ARCH: MICHEL CIVIL: MICHEL MECH: MICHEL ELECTR: MICHEL SERV: MICHEL	CHECKED BY: ARCH: MICHEL CIVIL: MICHEL MECH: MICHEL ELECTR: MICHEL SERV: MICHEL	DATE:	SUBMITTED BY:	APPROVED BY:	SHEET NO: M 1 SET NO: 21 / 22
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Section VIII. Bill of Quantities

SECTION VIII - BILL OF QUANTITIES

Name of Project: CONSTRUCTION OF CDD OFFICE EXTENSION (PHASE 1) AT NPC MINGEN HEADQUARTER, MARIA CRISTINA, ILIGAN CITY
PR # MG-PDD22-001

BILL OF QUANTITIES

Item No.	Description of Work or Materials	Unit	Estimated Quantity	Unit Price in Pesos (Words and Figures)	Total Amount
I	OCCUPATIONAL SAFETY & HEALTH PROGRAM	lot	1.00	(PHP)	(PHP)
II	DEMOLITION & DISPOSAL WORKS	sq.m.	371.00	(PHP)	(PHP)
III	EARTHWORKS				
A	Structural Excavation	cu.m.	92.74	(PHP)	(PHP)
B	Embankment from Structural Excavation & Borrow	cu.m.	184.84	(PHP)	(PHP)
C	Gravel Fill	cu.m.	28.02	(PHP)	(PHP)
IV	REINFORCING STEEL (DEFORMED)	kgs.	13337.59	(PHP)	(PHP)
V	STRUCTURAL CONCRETE	cu.m.	136.06	(PHP)	(PHP)
VI	MASONRY WORKS	sq.m.	505.25	(PHP)	(PHP)
VII	FRAMING & ROOFING WORKS	sq.m.	172.62	(PHP)	(PHP)
VIII	ELECTRICAL WORKS	lot	1.00	(PHP)	(PHP)
IX	PLUMBING WORKS	lot	1.00	(PHP)	(PHP)
					TOTAL (PHP)

Name of Firm

Name and Signature of Authorized Representative

Designation

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

- I. **TECHNICAL COMPONENT ENVELOPE**[Submit in three (3) copies- one (1) marked Original with the understanding that the Pass/Fail evaluation will be based only on the copy marked "Original"]

Class "A" Documents

Legal Documents

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

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, *using NPC-MinGen Standard Form No. NPCMGNSF-INFR-01*; 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, *using NPC-MinGen Standard Form No. NPCMGNSF-INFR-02* supported with the following documents:
- *Contract and/or Notice to Proceed;*
 - *For project completed within the year, submit Certificate of Completion;*
 - *For project completed after the lapse of one year, submit Owner's Certificate of Final Acceptance issued by the project owner other than the contractor, or a final rating of at least Satisfactory in the Constructor's Performance Evaluation System (CPES);*
 - *In case of contracts with the private sector, an equivalent document (Ex. Official receipt) shall be submitted.*
- and**
- (d) 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, *using NPC-MinGen Standard Form No. NPCMGNSF-INFR-03a*, submit also a certification issued by the Insurance Commission; **or** Original copy of Notarized Bid Securing Declaration using *NPC-MinGen Standard Form No. NPCMGNSF-INFR-03b*; and
- (f) Project Requirements, which shall include the following:
- a. Organizational chart for the contract to be bid *using NPC-MinGen Standard Form No. NPCMGNSF-INFR-04*;
 - 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, using NPC-MinGen Standard Form No. NPCMGNSF-INFR-05, 6a, 6b & 07;
- 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, using NPC-MinGen Standard Form No. NPCMGNSF-INFR-08 and its supporting documents; and
- (g) Original duly signed Omnibus Sworn Statement (OSS), using any of the following NPC-MinGen Standard Forms No.:
NPCMGNSF-INFR-09a – for Sole Proprietorship;
or
NPCMGNSF-INFR-09b – for Partnership/Cooperative/Corporation/
Joint Venture with the following supporting documents:
- 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) using NPC-MinGen Standard Form No. NPCMGNSF-INFR-10.

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, using NPC-MinGen Standard Form No. NPCMGNSF-INFR-11;
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.

II. FINANCIAL COMPONENT ENVELOPE *[Submit in three (3) copies- one (1) marked Original with the understanding that the Pass/Fail evaluation will be based only on the copy marked "Original"]*

- (j) Original of duly signed (each and every page) and accomplished Financial Bid Form, using NPC-MinGen Standard Form No. NPCMGNSF-INFR-12;
and

Other documentary requirements under RA No. 9184

- (k) Original of duly signed (each and every page) Bid Prices in the Bill of Quantities, using given form in Section VIII; and
- (l) Duly signed (each and every page) and accomplished Detailed Estimates Form using NPC-MinGen Standard Form No. NPCMGNSF-INFR-13, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid

- (m) *using NPC form NPCMGNSF-INFR-14; and*
Cash Flow by Quarter or Month, as applicable (duly signed each and every page)

STANDARD BIDDING FORMS

NPC-MINDANAO GENERATION

- NPCMGNSF-INFR-01 - List of all Ongoing Government & Private Construction Contracts Including Contracts Awarded but not yet Started
- NPCMGNSF-INFR-02 - Statement of the Bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid
- NPCMGNSF-INFR-03a - Form of Bid Security : Surety Bond
- NPCMGNSF-INFR-03b - Bid Securing Declaration Form
- NPCMGNSF-INFR-04 - Contractor's Organizational Chart for the Project
- NPCMGNSF-INFR-05 - List of Key Personnel Proposed to be Assigned to the Project
- NPCMGNSF-INFR-6a - Key Personnel's Certificate of Employment (Professional Personnel)
- NPCMGNSF-INFR-6b - Key Personnel's Certificate of Employment (Construction Safety and Health Practitioner)
- NPCMGNSF-INFR-07 - Key Personnel's Bio-Data
- NPCMGNSF-INFR-08 - List of Equipment, Owned or Leased and/or under Purchase Agreement, Pledged to the Proposed Project
- NPCMGNSF-INFR-09a - Omnibus Sworn Statement (Sole Proprietorship)
- NPCMGNSF-INFR-09b - Omnibus Sworn Statement (Partnership/ Cooperative/Corporation//Joint Venture)
- NPCMGNSF-INFR-10 - Computation of Net Financial Contracting Capacity (NFCC)
- NPCMGNSF-INFR-11 - Joint Venture Agreement
- NPCMGNSF-INFR-12 - Bid Form
- NPCMGNSF-INFR-13 - Detailed Cost Estimate Form
- NPCMGNSF-INFR-14 - Summary Sheets of Materials Prices, Labor Rates and Equipment Rental Rates

BID DOCUMENTS

NAME OF PROJECT :: Construction of CDD Office Extension (Phase 1)

SECTION IX- CHECKLIST OF TECHNICAL &

PR.NO./REF. NO., MG-PDD22-001/INFRA2022-CDD-026

FINANCIAL DOCUMENTS

Standard Form Number :: NPCMGNSF-INFR-01

List of All Ongoing Government and Private Construction Contracts Including

Business Name : _____

Business Address : _____

Name of Contract/Location/ Project Cost	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work	Contractor's Role	
			Description	%
<u>Government</u>				
<u>Private</u>				

The bidder shall declare in this form all his on-going government and private contracts including contracts where the bidder (or agreement other than his current joint venture where he is a partner. Non declaration will be a ground for disqualification of bid.

Note: This statement shall be supported with Contract and/or Notice of Award (to be presented by the winning bidder)

Submitted by : _____
(Printed Name & Signature)

Designation : _____

Date : _____

Standard Form Number : NPCMGNSF-INFR-02

The Statement of the Bidder's Single Largest Completed Contract (SLCC)

Business Name : _____
Business Address : _____

Name of Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work	Contractor's Role	
			Description	%

Note: The bidder must state only one (1) Single Largest Completed Contract (SLCC) similar to the contract to be supported with:

1. Contract and Notice to Proceed
2. Certificate of Completion (for project completed within the year), or Owner's Certificate of Final Acceptance from the project owner other than the contractor, or a final rating of at least Satisfactory in the Constructor's Report from the private sector, an equivalent document (Ex. Official Receipt) shall be accepted.

Submitted by : _____
(Printed Name & Signature)

Designation : _____

Date : _____

Standard Form No: NPCMGNSF-INFR-03a

FORM OF BID SECURITY (SURETY BOND)

BOND NO.: _____ DATE BOND EXECUTED: _____

By this bond, We (Name of Bidder) (hereinafter called "the Principal") and (Name of Surety) of (Name of Country of Surety) , authorized to transact business in the Philippines (hereinafter called "the Employer") as Obligee, in the sum of [amount in words & figures as prescribed in the bidding documents] , callable on demand, for the payment of which sum, well and truly to be made, we, the said Principal and Surety bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

SEALED with our seals and dated this _____ day of _____ 20_____

WHEREAS, the Principal has submitted a written Bid to the Employer dated the _____ day of _____ 20_____, for the _____ (hereinafter called "the Bid").

NOW THEREFORE, the conditions of this obligation are:

- 1) If the Bidder withdraws his Bid during the period of bid validity specified in the Bidding Documents; or
- 2) If the Bidder does not accept the correction of arithmetical errors of his bid price in accordance with the Instructions to Bidder; or
- 3) If the Bidder, having determined as the LCB, fails or refuses to submit the required tax clearance, latest income and business tax returns and PhilGEPS registration certificate within the prescribed period; or
- 4) If the bidder having been notified of the acceptance of his bid and award of contract to him by the Entity during the period of bid validity:
 - a) Fails or refuses to execute the Contract; or
 - b) Fails or refuses to submit the required valid JVA, if applicable; or
 - c) Fails or refuses to furnish the Performance Security in accordance with the Instruction to Bidders;

Then this obligation shall remain in full force and effect, otherwise it shall be null and void.

PROVIDED HOWEVER, that the Surety shall not be:

- a) Liable for a greater sum than the specified penalty of this bond, nor
- b) Liable for a greater sum than the difference between the amount of the said Principal's Bid and the amount of the Bid that is accepted by the Employer.

BID DOCUMENTS:
SECTION IX- CHECKLIST OF TECHNICAL &
FINANCIAL DOCUMENTS

NAME OF PROJECT : Construction of CDD Office Extension (Phase 1)
PR.NO./REF. NO. MG-PDD22-001/INFRA2022-CDD-026

Standard Form No: NPCMGNSF-INFR-03a

Page 2 of 2

This Surety executing this instrument hereby agrees that its obligation shall be valid for 120 calendar days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Surety is hereby waived.

PRINCIPAL _____

SURETY _____

SIGNATURE(S) _____

SIGNATURE(S) _____

NAME(S) AND TITLE (S) _____

NAME(S) _____

SEAL _____

SEAL _____

Standard Form No: NPCMGNSF-INFR-03b

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

BID SECURING DECLARATION
Project Identification No.: [Insert number]

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

*[Insert NAME OF BIDDER OR ITS AUTHORIZED
REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant*

Jurat

[Format shall be based on the latest Rules on Notarial Practice]

Standard Form No: NPCMGNSF-INFR-04

CONTRACTOR'S ORGANIZATIONAL CHART FOR THE CONTRACT

Submit Copy of the Organizational Chart that the Contractor intends to use to execute the Contract if awarded to him. Indicate in the chart the names of the Project Manager, Project Engineer, Foreman and other Key Engineering Personnel.

Attach the required Proposed Organizational Chart for the Contract as stated above

NOTES:

1. *This organization chart should represent the "Contractor's Organization" required for the Project, and not the organizational chart of the entire firm.*
2. *Each such nominated engineer/key personnel shall comply with and submit their complete qualification and experience data.*
3. *All these are required to be in the Technical Envelope of the Bidder.*

Standard Form Number : NPCMGNSF-INFR-05

**LIST OF KEY PERSONNEL PROPOSED TO BE ASSIGNED TO THE CONTRACT
(Based on the Minimum Key Personnel Required in the Bidding Documents)**

Business Name : _____

Business : _____

	DESIGNATION				
1. Name					
2. Address					
3. Date of Birth					
4. Employed Since					
5. Experience					
6. Previous Employment					
7. Education					
8. PRC License					

Required Attachments during Postqualification:

1. Valid PRC License of the (professional) personnel
2. Certificate of Training with accreditation from DOLE of the Construction Safety and Health Officer
3. TESDA Training Certificate (NC II) of Welder or Electrician, whichever is applicable
4. Copy of Diploma and/or Service Record/Certificate of Employment of previous and/or current employer of Foreman, Welder, Plumber or Electrician, whichever is applicable shall be submitted during post qualification by the winning bidder.

Submitted by: _____
(Printed name & Signature)

Designation: _____

Date: _____

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (based on the minimum key personnel required in the bidding documents) to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract).

Standard Form No: NPCMGNSF-INFR-06a

**KEY PERSONNEL'S CERTIFICATE OF EMPLOYMENT
(PROFESSIONAL PERSONNEL)**

Issuance Date

THE VICE PRESIDENT
National Power Corporation
Mindanao Generation
Maria Cristina, Iligan City

Dear Sir:

I am (Name of Nominee) a Licensed _____ Engineer with
Professional License No. _____ Issued on _____ at _____
(date of issuance) (place
of issuance)

I hereby certify that (Name of Bidder) Has engaged my services as
(Designation) for the (Name of Project), if awarded to it.

As (Designation), I supervised the following completed projects
Similar to the contract under bidding:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

At present, I am supervising the following projects:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

In case of my separation for any reason whatsoever from the above-mentioned Contractor, I shall notify the National Power Corporation at least twenty one (21) days before the effective date of separation.

As (Designation), I know I will have to stay in the job site all the time to supervise and manage the Contract works to the best of my ability, and aware that I am authorized to handle only one (1) contract at a time.

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz. Project Manager, Project Engineer, Safety & Health Practitioner, Foremen, etc.), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract).

Standard Form No: NPCMGNSF-INFR-06a
Page 2 of 2

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of (Designation) therefore, if the contract is awarded to him since I understand that to do so will be a sufficient ground for my disqualification as (Designation) in any future National Power Corporation bidding or employment with any Contractor doing business with the National Power Corporation.

(Name and Signature)
AFFIANT

REPUBLIC OF THE PHILIPPINES)
City/Municipality of _____)S.S.

SUBSCRIBED AND SWORN TO before me this _____, day of _____ 20____,
affiant exhibiting to me his/her Community Tax Certificate No. _____ issued on
_____ at _____, Philippines.

Notary Public
Until 31 December 20 _____
PTR No. _____
Issued at: _____
Issued on: _____
TIN No. _____

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz. Project Manager, Project Engineer, Safety & Health Practitioner, Foremen, etc.), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract).

Standard Form No: NPCMGNSF-INFR-06b

**KEY PERSONNEL'S CERTIFICATE OF EMPLOYMENT
(CONSTRUCTION SAFETY AND HEALTH PRACTITIONER)**

Issuance Date

THE VICE PRESIDENT
National Power Corporation
Mindanao Generation
Maria Cristina, Iligan City

Dear Sir:

I am _____ (Name of Nominee) a Licensed _____ Engineer with
Professional License No. _____ Issued on _____ at _____
_____ (date of issuance) _____ (place
of issuance)

I hereby certify that _____ (Name of Bidder) Has engaged my services as
(Designation) _____ for the _____ (Name of Project) _____, if awarded to it.

As _____ (Designation) _____, I supervised the following completed projects
Similar to the contract under bidding:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

At present, I am supervising the following projects:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

In case of my separation for any reason whatsoever from the above-mentioned Contractor, I shall notify the National Power Corporation at least twenty one (21) days before the effective date of separation.

As Safety and Health Practitioner, I know I will have to stay in the job site all the time and aware that I am authorized to handle only one (1) contract at a time.

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz. Project Manager, Project Engineer, Safety & Health Practitioner, Foremen, etc.), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract).

Standard Form No: NPCMGNSF-INFR-06b
Page 2 of 2

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of Safety and Health Practitioner, if the contract is awarded to him since I understand that to do so will be a sufficient ground for my disqualification as Safety and Health Practitioner in any future National Power Corporation bidding or employment with any Contractor doing business with the National Power Corporation.

(Name and Signature)
AFFIANT

REPUBLIC OF THE PHILIPPINES)
City/Municipality of _____)S.S.

SUBSCRIBED AND SWORN TO before me this _____, day of ____ 20 __,
affiant exhibiting to me his/her Community Tax Certificate No. _____ issued on
_____ at _____, Philippines.

Notary Public
Until 31 December 20 _____
PTR No. _____
Issued at: _____
Issued on: _____
TIN No. _____

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz. Project Manager, Project Engineer, Safety & Health Practitioner, Foremen, etc.), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract)

Standard Form No: NPCMGNSF-INFR-07

**KEY PERSONNEL
(FORMAT OF BIO-DATA)**

Give the detailed information of the following personnel who are scheduled to be assigned as full-time staff for the project. Fill up a form for each person.

1. Name : _____
 2. Date of Birth : _____
 3. Nationality : _____
 4. Education and Degrees : _____
 5. Specialty : _____
 6. Registration : _____
 7. Length of Service with the Firm : _____
- | | | | |
|------|----------|--------|--|
| Year | | | |
| from | (months) | (year) | |
| To | (months) | (year) | |

8. Years of Experience _____

9. If item 7 is less than the required number of years stated in BDS Section III- ITB Clause 10.4, give name and length of service with previous employers to satisfy the required number of years of experience within the last ten (10) years (attached additional sheet/s), if necessary:

<u>Name and Address of Employer</u>	<u>Length of Service</u>
	Year(s) from _____ to _____
	Year(s) from _____ to _____
	Year(s) from _____ to _____

10. Experience:
This should cover the past ten (10) years of experience. (Attached as many pages as necessary to show involvement of personnel in projects using the format below).

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz. Project Manager, Project Engineer, Safety & Health Practitioner, Foremen, etc.), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract).

1. Name : _____
2. Name and Address of Owner : _____
3. Name and Address of the Owner's Engineer (Consultant) : _____
4. Indicate the Features of Project (particulars of the project components and any other particular interest connected with the project) : _____
5. Contract Amount Expressed in Philippine Currency : _____
6. Position : _____
7. Structures for which the employee was responsible : _____
8. Assignment Period :

from		(months)		(years)
to		(months)		(years)

Name and Signature of Employee

It is hereby certified that the above personnel can be assigned to this project, if the contract is awarded to our company.

(Place and Date)

(The Authorized Representative)

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz. Project Manager, Project Engineer, Safety & Health Practitioner, Foremen, etc.), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel's signed written commitment to work for the project once awarded the contract).

BID DOCUMENTS

NAME OF PROJECT : Construction of CDD Office Extension (Phase 1)

SECTION IX- CHECKLIST OF TECHNICAL &

PR. NO./REF. NO. MG-PDD22-001/INFRA2022-CDD-026

FINANCIAL DOCUMENTS

Standard Form Number : NPCMGNSF-INFR - 08

**LIST OF EQUIPMENT, OWNED OR LEASED AND/OR UNDER PURCHASE AGREEMENTS
(Based on the Minimum Equipment Required in the Bid)**

Business Name : _____
Business : _____

Description	Model/Year	Capacity/ Performance / Size	Plate No.	Motor No. / Body No.
A. Owned				
i.				
ii.				
iii.				
iv.				
B. Leased				
i.				
ii.				
iii.				
iv.				
C. Under Purchased Agreements				
i.				
ii.				
iii.				
iv.				

Submitted by: _____
(Printed name & Signature)

Designation: _____

Date: _____

One of the requirements from the bidder to be included in its Technical Envelope is the list of its equipment units pledged for the contract which are owned (supported by proof/s of ownership), leased, and/or under purchase agreements (with corresponding engine numbers, availability of equipment from the equipment lessor/vendor for the duration of the project.

Standard Form No: NPCMGNSF-INFR-09a

Omnibus Sworn Statement (Revised) (SOLE PROPRIETORSHIP)

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];
2. As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the National Power Corporation-Mindanao Generation, as shown in the attached duly notarized Special Power of Attorney;
3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
6. The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;
7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;

Standard Form No: NPCMGNSF-INFR-09a

Page 2 of 2

- c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

Standard Form No: NPCMGNSF-INFR-09b

Omnibus Sworn Statement (Revised)

PARTNERSHIP/COOP/CORP/JOINT VENTURE

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];
2. I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the National Power Corporation-Mindanao Generation, as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable.)];
3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
6. *[If a partnership or cooperative:]* None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

Standard Form No: NPCMGNSF-INFR-09b

7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

Standard Form No: NPCMGNSF-INFR-10

NET FINANCIAL CONTRACTING CAPACITY (NFCC)

- A. Summary of the Bidder's/Contractor's assets and liabilities on the basis of the income tax return and audited financial statement for the immediately preceding calendar year are:

	Year 20__
1. Total Assets	
2. Current Assets	
3. Total Liabilities	
4. Current Liabilities	
5. Net Worth (1-3)	
6. Net Working Capital (2-4)	

- B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = [(Current assets minus current liabilities) x 15] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

NFCC – P _____

Herewith attached is certified true copy of the audited financial statement, stamped "RECEIVED" by the BIR or BIR authorized collecting agent for the immediately preceding calendar year.

Submitted by:

Name of Bidder/Contractor

Signature of Authorized Representative

Date: _____

Standard Form No. NPCMGNSF-INFR-11

JOINT VENTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

That this JOINT VENTURE AGREEMENT is entered in to by and between:
_____, of legal age, (civil status) _____, authorized representative of
_____ and a resident of _____.

- and -

_____, of legal age, (civil status) _____, authorized representative of
_____ and a resident of _____.

That both parties agree to join together their capital, manpower, equipment, and other resources and efforts to enable the Joint Venture to participate in the Bidding and Undertaking of the hereunder stated Contract of the **National Power Corporation**.

NAME OF FIRM

CAPITAL CONTRIBUTION

That the capital contribution of each member firm:

NAME OF FIRM

CAPITAL CONTRIBUTION

1	DLD
2	PHD

That both parties agree to be jointly and severally liable for their participation in the Bidding and Undertaking of the said contract.

That both parties agree that _____ and/or _____ shall be the Official Representative/s of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Bidding and Undertaking of the said contract, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation.

That this Joint Venture Agreement shall remain in effect only for the above stated Contract until terminated by both parties.

Name & Signature of Authorized
Representative

Official Designation

Name of Firm

Name & Signature of
Authorized Representative

Official Designation

Name of Firm

Witnesses

If the bidder is a joint venture, one of the requirements is the submission of a valid joint venture agreement.

Standard Form No: NPCMGNSF-INFR-11

Page 2 of 2

ACKNOWLEDGEMENT

BEFORE ME, a Notary Public for and in _____, Philippines, this _____ day of _____, 20____, personally appeared _____, authorized representative, of _____ with Community Tax Certificate No. _____, issued at _____, on _____, AND _____ authorized representative, of _____ with Community Tax Certificate No. _____, issued at _____, on _____ known to me to be the same person who executed the foregoing instrument consisting of two (2) pages, including the page whereon the acknowledgements are written, all pages signed by both parties and their instrumental witnesses and they acknowledged before me that the same are their free and voluntary acts and deeds and that of the Corporations they represents.

WITNESS MY HAND AND NOTARIAL SEAL, at the place and on the date first above written.

Notary Public
Until 31 December 20 _____
PTR No. _____
Issued at: _____
Issued on: _____
TIN No. _____

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

If the bidder is a joint venture, one of the requirements is the submission of a valid joint venture agreement.
Standard Form No: NPCMGNSF-INFR-12

Bid Form for the Procurement of Infrastructure Projects

BID FORM

Date : _____

Project Identification No. : _____

To: **The Vice President**
National Power Corporation
Mindanao Generation
Maria Cristina, Iligan City

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: [insert name of contract];
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: [insert information];
- d. The discounts offered and the methodology for their application are: [insert information];
- e. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of [insert percentage amount] percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines¹ for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

Standard Form No: NPCMGNSF-INFRA-12

Page 2 of 2

¹ currently based on GPPB Resolution No. 09-2020

- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the National Power Corporation-Mindanao Generation.

- l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Date: _____

BID DOCUMENTS

SECTION IX- CHECKLIST OF TECHNICAL &
FINANCIAL DOCUMENTS

NAME OF PROJECT : Construction of CDD Office Extension (Phase 1)

PR NO./REF. NO MG-PDD22-001/INFRA2022-CDD-026

Standard Form Number : NPCMGNSF-INFR - 13

DETAILED COST ESTIMATE FORM

Name of Bidder : _____

Item No.	Item Description	Unit of Measure	Direct Cost			Mark-Up	
			Materials	Labor	Equipment	OCM	Pr

Name, Signature of Authorized Representative

Standard Form No: NPCMGNSF-INFR-14

**SUMMARY SHEETS OF MATERIALS PRICES, LABOR RATES AND
EQUIPMENT RENTAL RATES**

Name of Bidder: _____

I. Unit Prices of Materials

Materials Description	Unit	Unit Price
-----------------------	------	------------

II. Manpower Hourly Rates

Designation	Rate/Hr.
-------------	----------

III. Equipment Hourly Rental Rates

Equipment Description	Rental Rate/Hr.
-----------------------	-----------------

Name, Signature of Authorized Representative

Designation

Performance Securing Declaration (Revised)

[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

REPUBLIC OF THE PHILIPPINES)
 CITY OF _____) S.S.

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents]
 To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
2. I/We accept that: I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year for the first offense, or two (2) years **for the second offense**, upon receipt of your Blacklisting Order if I/We have violated my/our obligations under the Contract;
3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - i. Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

*[Insert NAME OF BIDDER OR ITS
 AUTHORIZED REPRESENTATIVE]
 [Insert signatory's legal capacity]
 Affiant*

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the "Entity") and *[name and address of Contractor]* (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called "the Works") and the Entity has accepted the Bid for *[contract price in words and figures in specified currency]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz.*:
 - a. Philippine Bidding Documents (PBDs);
 - i. Drawings/Plans;
 - ii. Specifications;
 - iii. Bill of Quantities;
 - iv. General and Special Conditions of Contract;
 - v. Supplemental or Bid Bulletins, if any;
 - b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- c. Performance Security;
- d. Notice of Award of Contract and the Bidder's conforme thereto; and
- e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**

3. In consideration for the sum of *[total contract price in words and figures]* or such other sums as may be ascertained, *[Named of the bidder]* agrees to *[state the object of the contract]* in accordance with his/her/its Bid.
4. The *[Name of the procuring entity]* agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

[Insert Name and Signature]

[Insert Name and Signature]

[Insert Signatory's Legal Capacity]

[Insert Signatory's Legal Capacity]

for:

for:

[Insert Procuring Entity]

[Insert Name of Supplier]

Acknowledgment

[Format shall be based on the latest Rules on Notarial Practice]

