November 23, 2023

### **MEMORANDUM**

**FOR** 

The OIC, Regional Executive Director

MIMAROPA Region

ATTENTION:

The Chief, Licenses, Patents and Deeds Division

**FROM** 

The OIC-PENR Officer

SUBJECT

AREA CLEARANCE APPLICATION OF THE PHILIPPINE OF THE PHILIPPINE PORTS AUTHORITY (PPA) – PORT MANAGEMENT OFFICE (PMO) OF MINDORO FOR THE PUERTO GALERA PORT EXPANSION PROJECT AT THE PORT OF PUERTO GALERA LOCATED AT BARANGAY BALATERO, PUERTO GALERA, ORIENTAL MINDORO

Forwarded herewith is the application for Area Clearance of the PPA-PMO Oriental Mindoro for the reclamation project at Port of Puerto Galera located at Barangay Balatero, Oriental Mindoro duly endorsed by CENRO Socorro as per Memorandum dated November 03, 2023, together with the project description and other requirements, to wit:

- 1. Sketch Plan
- 2. Site Development Plan
- 3. Valid Sources of Fill Materials Carirayan River, Dulangan II, Baco, Oriental Mindoro
   Barangay Dulangan II, Baco, Oriental Mindoro
- 4. Project Cost (Php 149,509,773.48)
- 5. Proposed Funding / Financing of the Project PPA Corporate Fund
- 6. Proposed Project Timetable 480 calendar days
- 7. Prevailing Market Land Values
- 8. CENRO Certification
- 9. Geotagged photos
- 10. Board Resolution No. 3198
- 11. Geohazard Identification Report (GIR)

Please see attached Completed Staff Work (CSW) submitted by CENRO Socorro recommending for the evaluation of the submitted documents and determination of the qualification of the applicant for the issuance of corresponding Area Clearance.

This Office concurs to the recommendation of CENRO Socorro leading to issuance of Area Clearance to the proponent.

For consideration.

Tracking No. <u>2310000960</u>

ALAN LAVALLE

TSD/RPS

November 03, 2023

DENR-MIMAROPA REGION

CIAL ENVIRONMENT AN

### **MEMORANDUM**

**FOR** 

The Regional Executive Director

MIMAROPA Region

THRU

The OIC-PENR Officer

PENRO Oriental Mindoro

**FROM** 

The CENR Officer

CENRO Socorro, Oriental Mindoro

SUBJECT

AREA CLEARANCE APPLICATION OF THE PHILIPPINE PORTS AUTHORITY (PPA) - PORT MANAGEMENT OFFICE (PMO) OF MINDORO FOR THE PUERTO GALERA PORT EXPANSION PROJECT AT THE PORT OF PUERTO GALERA LOCATED AT BARANGAY BALATERO, PUERTO GALERA,

**ORIENTAL MINDORO** 

This pertains to the Area Clearance application of the PPA-PMO of Mindoro for their reclamation project at the Port of Puerto Galera situated in Barangay Balatero, Puerto Galera, Oriental Mindoro.

Relative thereto, the undersigned kindly forwarding the cited Area Clearance application of the PPA-PMO of Mindoro, along with the Project Description and other relevant documents, as outlined below:

- a. Sketch Plan that shows the conceptual representation of the project.
- b. Site Development Plan showing the detailed and specific technical information about the project.
- c. Valid Sources of Fill Materials

The fill materials are from the following sites:

- 1. Carirayan River, Dulangan II, Baco, Oriental Mindoro
- 2. Barangay Dulangan II, Baco, Oriental Mindoro
- d. **Project Cost** (Php 149,509,773.48)
- e. Proposed Funding/Financing of the Project

The source of fund for the project will come from PPA Corporate Fund.

### f. Proposed Project Timetable

The project duration is 480 calendar days.

### g. Prevailing Market Land Values

Based on the attached certification from the Office of the Municipal Assessor of Puerto Galera, Oriental Mindoro, the residential lot (rural) in Barangay Balatero, Puerto Galera, Oriental Mindoro, has a market value of Four Hundred Pesos (PhP 400.00) per square meter, in accordance with the approved schedule of fair market value for GRA 2015 under Provincial Ordinance No. 35-2014.

### h. CENRO Certification

It is certified that the adjacent lands/areas of Puerto Galera Port have been verified to be within the Agricultural (Alienable and Disposable) area/zone under Block No. 1, Project No. 11 of Land Classification (LC) Map No. 1184 as certified by the then Director of Forestry on September 7, 1935.

i. Geo-tagged photos showing the panoramic and aerial view of the project.

### j. Board Resolution No. 3198

The Board authorized the PP General Manager and/or his duly authorized representative to apply for an Area Clearance and other permits for reclamation projects with the DENR and/or other agencies concerned, with full power and authority to sign any and all documents and/or submissions necessary for the purpose.

- k. Geohazard Identification Report (GIR) that states the following conclusions and recommendations:
  - 1. The Baletero Port Expansion project has reclaimed approximately 3,200 square meters of land adjacent to the existing port. While the original port is already vulnerable to coastal flooding, the addition of the reclaimed port expansion is not expected to amplify the vulnerability of the port and its surrounding area to flooding;
  - 2. The port expansion project is susceptible to seismic hazards, specifically liquefaction and tsunamis. Adequate mitigation measures for liquefaction can be implemented if the land reclamation process adheres to proper standards capable of withstanding an earthquake with an Mw of 6.6;

- 3. The construction of future permanent structures in the port expansion would introduce an element of vulnerability to seismic hazards;
- 4. The port expansion project has not amplified the existing hazard scenario faced by the residents of Barangay Balatero, Puerto Galera.

The Description of the Reclamation Site and the Reclamation Methodology, which are also requirements stated in Section 8 of DAO 2018-14 were also included and discussed in the attached Project Description.

Attached herewith is the copy of the Completed Staff Work (CSW) relative to the above-cited subject.

For information and reference.

### **COMPLETED STAFF WORK**

Subject AREA CLEARANCE APPLICATION OF THE PHILIPPINE

> PORTS AUTHORITY (PPA) - PORT MANAGEMENT OFFICE (PMO) OF MINDORO FOR THE PUERTO GALERA PORT EXPANSION PROJECT AT THE PORT OF PUERTO GALERA LOCATED AT BARANGAY BALATERO, PUERTO GALERA.

**ORIENTAL MINDORO** 

References: Area Clearance application of PPA-PMO of Mindoro;

> DENR Administrative Order (DAO) 2018-14, "Guidelines on the issuance Area Clearance for reclamation projects

Proclamation/Special Patents over reclaimed lands"; and

DAO 2022-11, "Amending Section 9.6 of DAO No. 2018-14 or the Guidelines on the issuance of Area Clearance for reclamation projects

and Proclamation/Special Patents over reclaimed lands"

Date October 31, 2023

### FACTUAL BACKGROUND

On July 19, 2022, this Office initiated a dialogue with the personnel of the PPA-PMO of Mindoro to clarify the Area Clearance for their reclamation projects. It was determined that the PPA had not yet obtained Area Clearance for their reclamation projects in Calapan City and Puerto Galera. Consequently, they were advised to obtain the mentioned clearance for these projects in accordance with DAO 2018-14 (Guidelines on the issuance of Area Clearance for reclamation projects and Proclamation/Special Patents over reclaimed lands), which stipulates that the ECC is a prerequisite for Area Clearance issuance. Additionally, DAO 2022-11 (Amending Section 9.6 of DAO No. 2018-14 or the Guidelines on the issuance of Area Clearance for reclamation projects and Proclamation/Special Patents over reclaimed lands) emphasizes the simultaneous submission of the project description for scoping and a copy of the duly received application for Area Clearance.

A letter of request from the PPA-PMO of Mindoro was received by this Office on May 22, 2023. The requesting party is seeking for the issuance of the status and land classification for the adjacent lots of the port. Consequently, our Office conducted a verification in the area, led by Forester Mackaley Martinez, the Land Classification Status Verifier. As a result, it was determined that the adjacent lands/areas of the Puerto Galera Port fall within the Agricultural Area/Zone (Alienable and Disposable), as indicated in Block No. 1, Project No. 11 of Land Classification (LC) Map No. 1184. This information is substantiated by the attached certification dated May 26, 2023,

which was received by the Regulation and Permitting Section (RPS) of this Office on June 26, 2023.

This Office provided the PPA-PMO of Mindoro with the mentioned certification, as evidenced by the enclosed duplicate copy of the letter to the PPA-PMO of Mindoro dated July 17, 2023. Simultaneously, they were informed with the necessary documents for their Area Clearance application, in accordance with the provisions outlined in DAO No. 2018-14.

On October 26, 2023, this Office received the Area Clearance application from the PPA-PMO of Mindoro for the Puerto Galera Port Expansion Project at the Port of Puerto Galera, located in Barangay Balatero, Puerto Galera, Oriental Mindoro.

### **DOCUMENTS SUBMITTED**

The Project Description and the following pertinent documents for the Area Clearance application of the PPA- Port Management Office of Mindoro were submitted to this Office on October 26, 2023, for the Puerto Galera Port Expansion Project:

- a. **Sketch Plan** that shows the conceptual representation of the project.
- b. Site Development Plan showing the detailed and specific technical information about the project.
- c. **Description of the Reclamation Site** as indicated in the attached Project Description

The reclamation site, situated at the eastern portion of the Port of Puerto Galera in Barangay Balatero, Puerto Galera, Oriental Mindoro, covers an area of 2,599.2513 square meters. According to the submitted project description, the site falls within the Port Zone Delineation of the mentioned port.

As outlined in the project description, upon completion of the area, it will be integrated into the marshalling/operational zone, designed to facilitate the handling of diverse types of rolling cargoes for loading onto vessels. The project entails the construction and installation of concrete surfaces, drainage systems, lighting systems, and a perimeter fence.

Additionally, all construction materials will be sourced locally with the standards specifications to be approved by the concerned agencies.

### d. Valid Sources of Fill Materials

The fill materials are from the following sites:

- 1. Carirayan River, Dulangan II, Baco, Oriental Mindoro
- 2. Barangay Dulangan II, Baco, Oriental Mindoro

### e. Reclamation Methodology as indicated in the attached Project Description

The rocks shall be placed in accordance with the typical sections and elevation. Placing of rocks will be done using Crawler Crane with Clamshell or Bucket. A Payloader or Backhoe will be used in hauling the core/armour rocks from the stockpile of source to the rock bulkhead. Mount core materials shall be placed in a manner that will prevent segregation of rock sizes and shall be bumped as uniformly as possible using a backhoe.

After armour rock has been laid, geotextile fabric shall be laid/installed and sand and gravel fill hauled, spread and compacted followed by aggregate subbase course, aggregate base course. CHB fence shall be constructed as prescribed in the plan.

Portland Cement concrete pavement shall be spread as per elevation indicated in the plan. Before pouring of concrete, taking into consideration that foundation/electrical conduits for electrical floodlight and drainage system/manhole is already constructed. Installation of lighting fixtures including accessories shall then be completed.

### f. Project Cost

The project cost amounts to Php 149,509,773.48, and it is broken down as follows as described in the attached Project Description:

General Expenses	PhP	4,822,169.08
Demolition, Excavation & Removal Works		481,575.13
Port Operational Area		59,669,887.03
RC Pier and RORO Ramp		84,134,647.18
Reimbursable Items		401,495.06

### g. Proposed Funding/Financing of the Project

The source of fund for the project will come from PPA Corporate Fund

### h. Proposed Project Timetable

The project duration is 480 calendar days.

### i. Prevailing Market Land Values

Based on the attached certification from the Office of the Municipal Assessor of Puerto Galera, Oriental Mindoro, the residential lot (rural) in Barangay Balatero, Puerto Galera, Oriental Mindoro, has a market value of Four Hundred Pesos (PhP 400.00) per square meter, in accordance with the approved schedule of fair market value for GRA 2015 under Provincial Ordinance No. 35-2014.

### i. CENRO Certification

It is certified that the adjacent lands/areas of Puerto Galera Port have been verified to be within the Agricultural (Alienable and Disposable) area/zone under Block No. 1, Project No. 11 of LC Map No. 1184 as certified by the then Director of Forestry on September 7, 1935.

k. Geo-tagged photos showing the panoramic and aerial view of the project.

### 1. Board Resolution No. 3198

The Board authorized the PP General Manager and/or his duly authorized representative to apply for an Area Clearance and other permits for reclamation projects with the DENR and/or other agencies concerned, with full power and authority to sign any and all documents and/or submissions necessary for the purpose.

- m. Geohazard Identification Report (GIR) that states the following conclusions and recommendations:
  - 1. The Baletero Port Expansion project has reclaimed approximately 3,200 square meters of land adjacent to the existing port. While the original port is already vulnerable to coastal flooding, the addition of the reclaimed port expansion is not expected to amplify the vulnerability of the port and its surrounding area to flooding;
  - 2. The port expansion project is susceptible to seismic hazards, specifically liquefaction and tsunamis. Adequate mitigation measures for liquefaction can be implemented if the land reclamation process adheres to proper standards capable of withstanding an earthquake with an Mw of 6.6;
  - 3. The construction of future permanent structures in the port expansion would introduce an element of vulnerability to seismic hazards;
  - 4. The port expansion project has not amplified the existing hazard scenario faced by the residents of Barangay Balatero, Puerto Galera.

### RECOMMENDATION

With reference to the aforementioned findings, the undersigned hereby recommend that the Area Clearance application of the PPA be forwarded to the DENR MIMAROPA for the preliminary evaluation of the said application to determine the completeness of the supporting documents and the qualification of the applicant.

For information, reference and consideration.

Prepared by:

WALTER L. TOLENTINO Land Management Officer II

Reviewed by:

maria alva renelyn a. Culla-umali

Land Management Officer III/RPS Chief

Noted by:

Tracking No. (RPS) 2310000960





October 18, 2023

MR. RODEL M. BOYLES
CENRO
CENRO Socorro
Pasi II, Socorro, Oriental Mindoro
Email: cenrosocorro@denr.gov.ph

Dear Sir:

We are respectfully submitting the Area Clearance Application of Philippine Ports Authority, Port Management Office of Mindoro for the Puerto Galera Port Expansion Project at Port of Puerto Galera, Brgy. Balatero, Puerto Galera, Oriental Mindoro. Attached are the pertinent documents relative to the said application.

This is in pursuant to DENR Administrative Order No. 2018-14. Hope you find everything in order.

Very truly yours,

ELVIS R. MEDALLA Port Manager A

Encl.: As stated

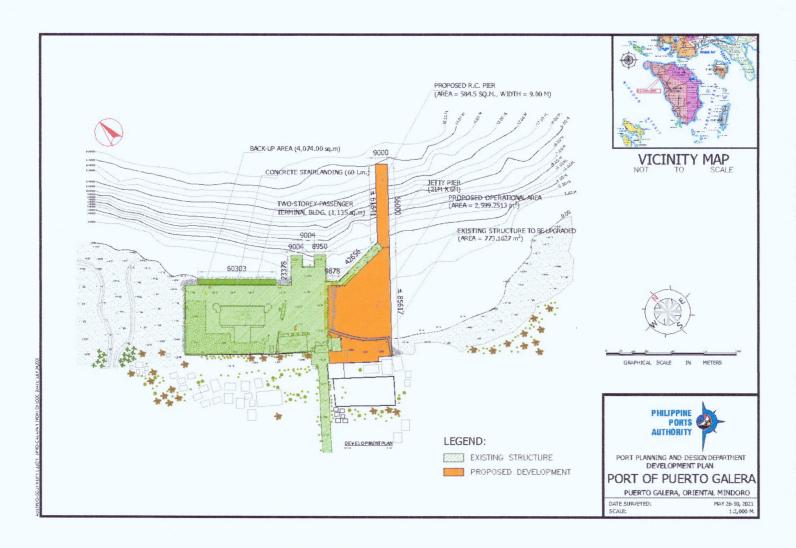
### **Area Clearance Application**

### Introduction

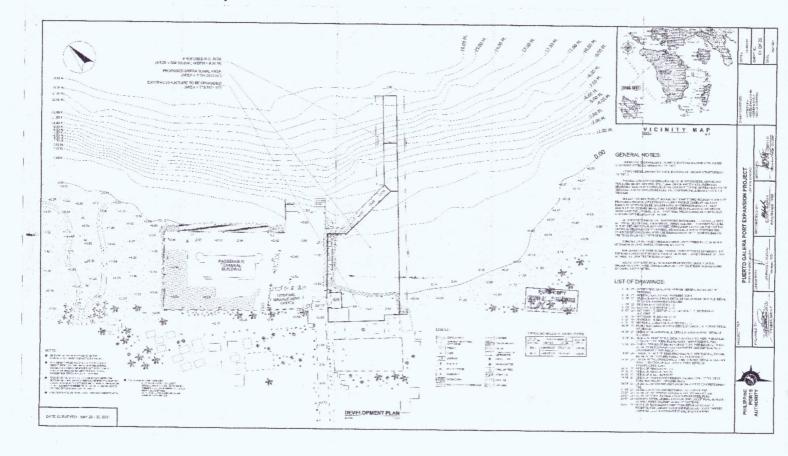
This application for reclamation of the Philippine Ports Authority will form part of a project entitled Puerto Galera Port Expansion Project in the existing Port of Puerto Galera, Oriental Mindoro.

This project, once completed will solve the increasing number of rolling cargoes and passengers that are using the Port of Puerto Galera. It involves the expansion, construction and improvement of port facilities and amenities to serve the demands of RORO port in the Municipality of Puerto Galera including adjoining municipalities. The port has an approved Environmental Compliance Certificate (ECC-R4B-1502-0023) approved on 01 April 2015 and was superseded on 31 May 2022, ECC-OL-R4B-2022-0091 because of major amendment. Minor amendment of ECC was applied and approved on 14 April 2023.

### a. Sketch Plan



### B. Site Development Plan



### C. Description of the Reclamation Site

The Port of Puerto Galera is located at Barangay Balatero, Puerto Galera, Oriental Mindoro. Located at the eastern portion of the port, the **reclamation** has an area of 2,599.2513 sq.m. The area is within the Port Zone Delineation of the port.

The area, once completed, will become part of the marshalling/ operational area intended to accommodate various types of rolling cargoes for embarkation to vessels. Concreting, drainage system, lighting system and perimeter fence will also be constructed and installed. Construction materials will be legally sourced in the locality with the standards specifications to be approved by the concerned agencies.

The port is provided with different facilities to ensure the comfort of passengers and those transacting business at the port. In particular, the following facilities are existing in the port:

- Two Storey Office Building /Passenger Terminal Building
- Passenger Terminal Shed
- RoRo Ramp
- Reinforce Concrete (RC) Pier with RoRo Ramp
- Reinforce Concrete (RC) Platform
- Back-up Area
- Marshalling Area
- Public Comfort Room
- Guard House
- Mooring bollard
- Fenders
- Floodlights and electrical lines

Power requirements in the entire project site are being provided by Oriental Mindoro Electric Cooperative (ORMECO). This will be tapped during the construction of additional port facilities. In case of power shortage, the service of the standby generator set may be tapped to prevent work interruption. Water are being provided by Puerto Galera Waterworks and several telecommunications service provider are present within the area.

### D. Valid Sources of Fill Materials

The following sites are the legal sources of fill materials.

- 1. Carirayan River, Barangay Dulangan II, Baco, Oriental Mindoro
- 2. Barangay Dulangan II, Baco, Oriental Mindoro

Attached are the Environmental Compliance Certificates (ECC) and other pertinent documents relative to the sources of filling materials.

### The estimated volume of fill materials are the following:

- 1. Sand and gravel filler (7,218 cu.m.)
- 2. 3500 psi concrete for retaining wall, anchor wall and portland cement concrete pavement (3,670 cu.m)
- 3. Core rocks & armour rocks (2,129 cu.m.)
- 4. Aggregate base course and sub-base course materials (3,332 cu.m.)

### E. Reclamation Methodology

The rocks shall be placed in accordance with the typical sections and elevation. Placing of rocks will be done using Crawler Crane with Clamshell or Bucket. A payloader or Backhoe will be used in hauling the core/armour rocks from stockpile or source to the rock bulkhead. Mount core materials shall be placed in a manner that will prevent segregation of rock sizes and shall be bumped as uniformly as possible using a backhoe.

After armour rock has been laid, geotextile fabric shall be laid/installed and sand and gravel fill hauled, spread and compacted followed by aggregate subbase course, aggregate base course. CHB fence shall be constructed as prescribed in the plan.

Portland cement concrete pavement shall be spread as per elevation indicated in the plan. Before pouring of concrete, taking into consideration that foundation/electrical conduits for electrical floodlight and drainage system / manhole is already constructed. Installation of lighting fixtures including accessories shall then be completed.

### F. Project Cost, Sources of Funds and Project Duration

The project cost : Php 149,509,773.48, broken down as

Items of Work	Amount in PhP
General Expenses	4,822,169.08
Demolition, Excavation & Removal	481,575.13
Works	
Port Operational Area	59,669,887.03
RC Pier and RORO Ramp	84,134,647.18
Reimbursable Items	401,495.06
GRAND TOTAL	149,509,773.48

### **Minimum Equipment Requirements**

Qty	Unit/s	Type of Equipment
1	Unit/s	Air Compressor (250 cfm, minimum), owned
	Unit/s	Backhoe (0.40 cu.m., 94.30hp, minimum),
1		owned
2	Unit/s	Centrifugal Trash pumps, owned/leased
1	Unit/s	Clamshell, owned
1	Unit/s	Concrete cutter, owned
2	Unit/s	Concrete Mixer (1 bagger, minimum), owned
2	Unit/s	Concrete bucket, owned
2	Unit/s	Concrete Screeder, owned
2	Unit/s	Concrete Vibrator (3.5 hp, minimum), owned
1	Unit/s	Crane Barge (319 GW, minimum) with 60T

		crane, owned
1	Unit/s	Crawler Crane (30T, minimum), owned
1	Unit/s	Pile Hammer (Diesel, 10,500 kg.m.), owned
4	Unit/s	Diving equipment (complete), owned/leased
1	Unit/s	Drop Hammer (2T, minimum), owned
1	Unit/s	Dump Truck (8 cu.m., minimum), owned
2	Unit/s	Bar Bender (electric, 25mm dia min.), owned
2	Unit/s	Bar Cutter (electric, 25mm dia min.), owned
1	Unit/s	Jackhammer, owned
1	Unit/s	Oxy/Acetylene cutting outfit, owned
1	Unit/s	Payloader (80 hp, minimum), owned
1	Unit/s	Plate Compactor (5 hp, minimum), owned
1	Unit/s	Road Grader (125 hp, minimum), owned/leased
	Unit/s	Road Roller (12.05T, vibratory, minimum),
1		owned/leased
	Unit/s	Transit Mixer (5-6 cu.m. cap., minimum),
2		owned/leased
1	Unit/s	Tugboat (500hp, minimum), owned/leased
	Unit/s	Water Truck with pump (1,000 gal., minimum),
1		owned
2	Unit/s	Welding Machine (400 amp., minimum), owned
1	Unit/s	Cargo Truck (5T, minimum), owned
1	Unit/s	Air Compressor (250 cfm, minimum), owned
	Unit/s	Backhoe (0.40 cu.m., 94.30hp, minimum),
1		owned

### **Key Personnel Requirements**

Qty	Type of Personnel
1	Project Manager
1	Project Engineer
1	Materials Engineer
1	Construction Safety and Health Officer
1	Foreman

### G. Proposed Funding/Financing of the Project

The source of fund for the project will come from PPA Corporate Fund.

### H. Proposed Project Timetable

Please refer to the Construction PERT/CPM Schedule below

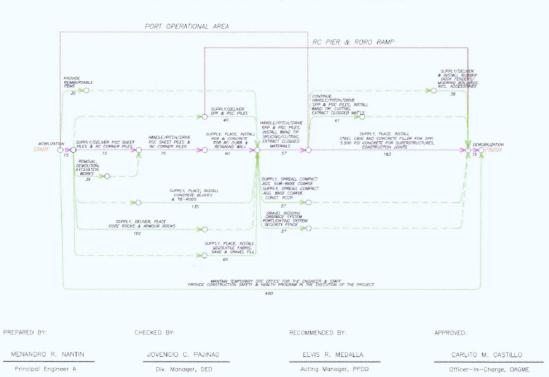
Project Duration:

480 calendar days

CONSTRUCTION PERT/CPM SCHEDULE

PUERTO GALERA PORT EXPANSION PROJECT

Port of Puerto Galera, Oriental Mindoro



### I. Prevailing Market Land Values

The prevailing market land value is generated from available data published by the Bureau of Internal Revenue (BIR) Revenue District Office (RDO) No. 63 through its Department Order No. 043-2022 with the subject Implementation of the Revised Schedules of Zonal Value of Real Properties in Baco, Bansud, Bongabong, Bulalacao, Calapan, Gloria, Mansalay, Naujan, Pinamalayan, Pola, Puerto Galera, Roxas, San Teodoro, Socorro, under the Jurisdiction of Revenue District Office No. 63 under Revenue Region No.9A – CaBaMiRo, for Internal Revenue Tax Purposes.

PROVINCE : ORIENTAL M	INDORO		
CITY/MUNICIPALITY: PUERTO GALI	ERA	D.O. No.	43-2022
BARANGAY : BALATERO		<b>Effectivity Date</b>	11/08/2022
STREET NAME/SUBDIVISION/CONDOMINIUM	VICINITY	CLASSIFICATION	3RD REVISION ZV / SQ.M. Final Revision ZV / SQ.M. (Final Revision)
CALAPAN NORTH ROAD*	ALONG CALAPAN NORTH		
	ROAD (NATIONAL ROAD)**	CR	9,000.00
		RR	6,000.00

		A39 ***	3,500.00
	INTERIOR**	7130	500.00
		CR	8,000.00
		RR	5,000.00
		A39	3,000.00
BARANGAY ROAD	BALATERO ROAD 1**	A50	450.00
Bildilydii Ronb	DALATERO ROAD I	CR	7,000.00
		RR ***	5,000.00
		A4 ***	750.00
		A39 ***	2,500.00
		A47 ***	500.00
		A50 ***	400.00
	BALATERO ROAD 2**	CR	7,000.00
		RR	5,000.00
		A4	750.00
		A39	2,500.00
		A47	500.00
		A50	400.00
	INTERIOR	CR ***	6,000.00
		RR *** A2	4,000.00
		A4	700.00
		A10	600.00
		A39	2,300.00
		A40	5,000.00
		A47 ***	450.00
		A50 ***	350.00
BEACH RESORT/FRONT	ALONG BEACH RESORT/FRONT	CR	7,000.00
		RR	5,000.00

ALL OTHER STREETS****	ALONG ALL OTHER STREETS**	CR	5,000.00
		RR	3,500.00
		A4	500.00
		A10	450.00
		A31	750.00
		A39	2,000.00
		A40	4,800.00
		A47	350.00
		A50	300.00
	INTERIOR**	CR	4,500.00
		RR	3,000.00
		A2	650.00
		A4	400.00
		A10	350.00
		A31	700.00
		A39	1,800.00
		A40	3,000.00
		A47	300.00
		A50	250.00

Meanwhile, the unit value of property located at Brgy. Balatero, Puerto Galera, Orienta Mindoro is P400.00 per square meter as per attached Certification from Puerto Galera Office of Municipal Assessor.

### **Attachments**

- 1. Sketch plan
- 2. Site Development Plan
- 3. Construction Schedule/PERT CPM
- 4. Certification on the status of the area and land classification of the adjacent land by the CENRO.
- 5. Certification on the unit value of Barangay Balatero, Puerto Galera from Puerto Galera Office of Municipal Assessor

- 6. Geotagged photos showing panoramic view of the land and adjoining areas.
- 7. Board of Director's Resolution
- 8. Valid Sources of Fill materials
- 9. Geohazard Identification Report

Prepared by:

EMERSON D. QUIAMBAO Environmental Specialist A

Checked by:

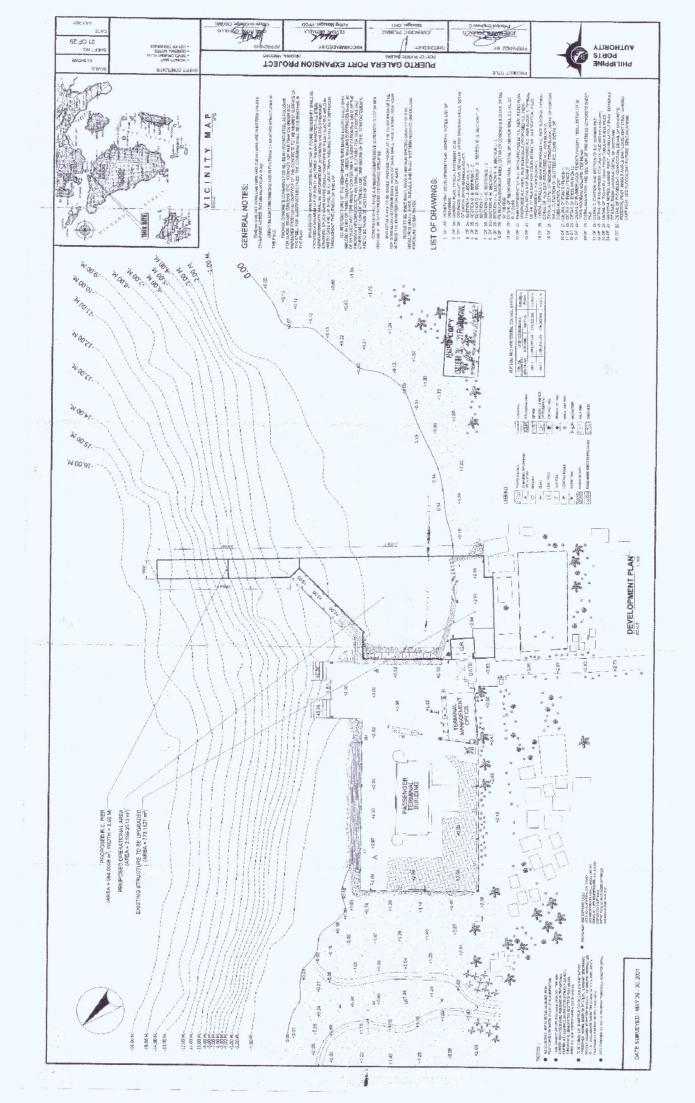
Division Manager A, PSD

Approved:

ELVIS R. MEDALLA Port Manager A

### **SKETCH PLAN**

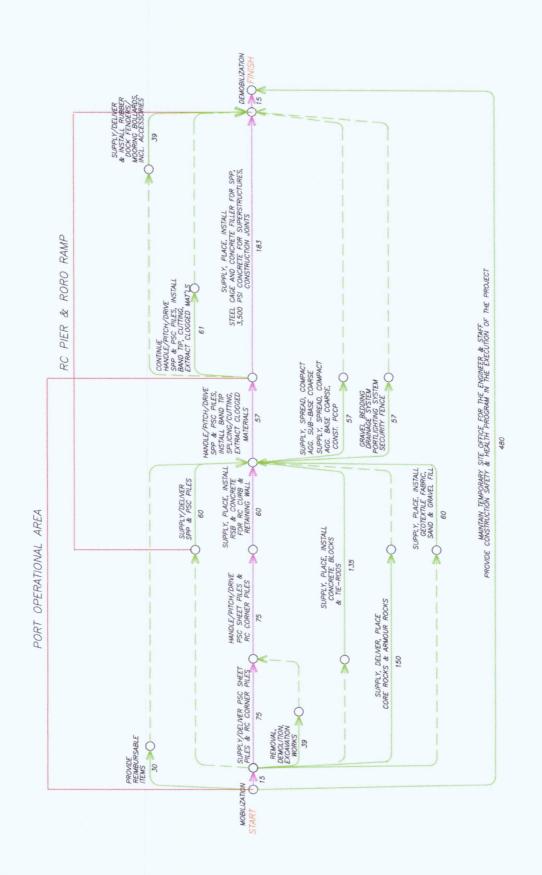
### SITE DEVELOPMENT PLAN



# CONSTRUCTION SCHEDULE / PERT-CPM

# CONSTRUCTION PERT/CPM SCHEDULE

### PORT EXPANSION PROJECT Galera, Oriental Mindoro PUERTO GALERA Port of Puerto



R. MEDALLA ELVIS JOVENCIO C. PAJINAG CHECKED BY: NANTIN MENANDRO R. PREPARED BY:

Div. Manager, DED

Principal Engineer A

Acting Manager, PPDD

CARLITO M. CASTILLO

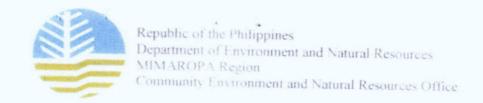
APPROVED:

BY:

RECOMMENDED

Officer-In-Charge, OAGME

## CERTIFICATION FROM CENRO



### CERTIFICATION

This is to certify that the adjacent lands areas of Port of Puerto Galera situated at Barangay Balatero, Puerto Galera, Oriental Mindoro, Philippines, is verified to be within the Agricultural (Alienable and Disposable) area zone under Block No. I, Project No. 11 of Land Classification Map No. 1184 certified by the then Director of Forestry on September 7, 1935.

This Certification is issued as per the request of Philippine Ports Authority (PPA) represented by Officer-In-Charge Leo A. Romeo relative to the area clearance application.

May 26, 2023 - DENR-CENRO Socorro, Oriental Mindoro.

VERIFIED BY

MACKALEY P. MARTINEZ

Forester | Tand Classification Status Verifier

SUBSCRIBED and SWORN to before me on the date and place stated above.

CENR Officer

# CERTIFICATION FROM PUERTO GALERA MUNICIPAL ASSESSOR'S OFFICE



### Republic of the Philippines Province of Oriental Mindoro

### MUNICIPALITY OF PUERTO GALERA

### OFFICE OF THE MUNICIPAL ASSESSOR

### CERTIFICATION

To Whom It May Concern:

This is to certify that according to the records filed in this office, *Residential Lot (Rural)* has a Market Value of **FOUR HUNDRED PESOS (P400.00)** per square meter in Barangay Balatero, Puerto Galera, Oriental Mindoro as per Approved Schedule of Fair Market Value for GRA 2015 with Provincial Ordinance No. 35-2014. However, the valuation being used by this office is for taxation purposes only.

Issued this 26th day of September, 2023 upon request of the Philippine Ports Authority.

MERVIN JOHN O. L.

Municipal Assessor \ 9 24/13









### GEOTAGGED PHOTOS





### BOARD OF DIRECTOR'S RESOLUTION



### SECRETARY'S CERTIFICATE

I, HANES LOUISE M. ALIVIO, duly designated Acting Board Secretary VI of the Philippine Ports Authority (PPA), a government instrumentality attached to the Department of Transportation, created by virtue of Presidential Decree No. 857, as amended, with principal office at the 6<sup>th</sup> Floor PPA Head Office Building, A. Bonifacio Drive, South Harbor, Port Area, Manila, and having custody of the Board records of the PPA, do hereby certify:

That, during the 513<sup>th</sup> Regular Board Meeting of the Board of Directors of the Philippine Ports Authority, held on 25<sup>th</sup> January 2023, at the Board Room, 6<sup>th</sup> Floor, PPA Head Office Bldg., A. Bonifacio Drive, South Harbor, Port Area, Manila, the following Resolution was adopted:

### **BOARD RESOLUTION NO. 3198**

WHEREAS, the Philippine Ports Authority (PPA) is currently implementing port expansion/improvement projects, which include reclamation works;

WHEREAS, PPA needs to apply for an Environmental Compliance Certificate (ECC) with the Department of Environment and Natural Resources (DENR), for all reclamation projects.

WHEREAS, DENR Administrative Order (DAO) No. 2018-14, provides that an Area Clearance from the DENR is required for reclamation projects;

WHEREAS, PPA Management requests for the issuance of authority to apply for an Area Clearance and other permits for reclamation projects from the DENR, and/or other agencies concerned;

### NOW BE IT -

RESOLVED, as it is hereby resolved, that on motion duly made and seconded, the Board hereby authorizes the PPA General Manager and/or his duly authorized representative to apply for an Area Clearance and other permits for reclamation projects with the Department of Environment and Natural Resources (DENR) and/or other agencies concerned, with full power and authority to sign any and all documents and/or submissions necessary for the purpose.

IN WITNESS WHEREOF, I have signed this Secretary's Certificate this 27<sup>th</sup> day of April 2023, at the 6<sup>th</sup> Floor PPA Head Office Building, A. Bonifacio Drive, South Harbor, Port Area, Manila.

HANES LOUISE M. ALIVIO Acting Board Secretary VI

# VALID SOURCES OF FILL MATERIALS

OGT 17 2023





### **MEMORANDUM**

FOR

The Officer-In-Charge, PMO Mindoro

FROM

The Manager, PCMD

SUBJECT

AREA CLEARANCE APPLICATION (DENR)
PUERTO GALERA PORT EXPANSION PROJECT

Port of Puerto Galera, Oriental Mindoro

This is with reference to your memorandum, dated 11 October 2023 requesting documents showing the sources of quarry materials intended for the Area Clearance Application for the above-mentioned project.

In this regard, we are furnishing you a copy of the approved quarry source and other related documents

For your information/reference.

CARLITO M. CASTILLO

PPA Carporate Blda - Bonifacio Drive South Harbor Port Area, Manifa, Philippines 1018



11 October 2023

MEMORANDUM

FOR

The Manager, PCMD

FROM

The Officer-In-Charge, PMO Mindoro

SUBJECT

VALID SOURCES OF FILL MATERIALS FOR AREA CLEARANCE

APPLICATION FOR THE PUERTO GALERA PORT EXPANSION PROJECT

PORT OF PUERTO GALERA, ORIENTAL MINDORO

This refers to our Area Clearance application for the Puerto Galera Port Expansion Project at Port of Puerto Galera

One of the requirements needed in the said application is the valid source of fill materials. Relative to this, we are respectfully requesting your good Office to furnish us the documents showing the sources of aggregates, sand and other fill materials.

Your utmost consideration will be highly appreciated

LEO A. ROMERO

Plan-20261010 - 020



APR 0 4 2022

MR. VICENTE I. CANTOS
Authorized Managing Officer
Great Swiss Metal Builders Corporation
Diversion Road, Brgy. Bolbok
Batangas City

SUBJECT :

PUERTO GALERA PORT EXPANSION PROJECT PORT OF PUERTO GALERA, ORIENTAL MINDORO

#### Dear Engr. Cantos:

This is with reference to your proposed quarry site for the fine and coarse aggregates, sand and gravel fill, 50-100 kgs core rock, 1000 kgs armour rock, and aggragate base / sub-base course requirements of the above-captioned project.

In this regard, we wish to inform you that after review and evaluation of the submitted test results and other supporting documents, this Office hereby confirms the approval to use the said materials taken at Brgy. Dulangan II, Baco, Oriental Mindoro.

Further, the volume to be extracted from the said quarry site should not exceed with the allowable volume indicated in the permit to extract, otherwise, a renewed quarry permit shall be submitted.

Also, please ensure that the above materials to be delivered at site will be taken from the approved quarry and shall pass the test required in the project Bid Document.

Very truly yours,

Port Construction and Maintenance Department

Manager,

A. Bonifacio Drive, South Harbor, Port Area, Manifa 1018 Philippines
 P.O. Box 435 Manifa, Philippines
 Tel. No. (+632) 527-8356 to 83 Fax No. (+532) 527-4955



# Republic of the Philippines Department of Environment and Natural Resource ENVIRONMENTAL MANAGEMENT BUREAU

1515 L and S Building, Roxas Boulevard, Pasay City Telephone No. (02) 400-5960 Fax No. (02) 400-5960 minampa@emb.gov.ph and enth\_minampa@byahoo.com Vita us in high //n www.minampa.gov.ph.gov.ph



# ENVIRONMENTAL COMPLIANCE CERTIFICATE (Issued under Presidential Decree 1586) ECC-OL-R4B-2020-0101

THIS IS TO CERTIFY THAT THE PROPONENT, ISABEL E. DELA CHICA, is granted this Environmental Compliance Certificate (ECC), for the Commercial Sand and Gravel Project located at Carirayan River, Barangay Dulangan II Baco, Oriental Mindoro by the Department of Environment and Natural Resources (DENR), through the Environmental Management Bureau (EMB).

SUBJECT ONLY to the conditions and restrictions set in this ECC and in the attached document labelled as Annexes A and B.

This Certificate is issued with the following details:

This ECC covers the Commercial Sand and Gravel Project having a total land area of 28,562 square meters (2.8562 Hectares), located at Carirayan River, Barangay Dulangan II Baco, Oriental Mindoro, specifically described as follows:

Tie Line: S 29'47' E 536.99 M; from MRE – 3553 (BBM 128) Bangkatan, Baco, Or. Mindoro to Corner Marked "1".

	r saryngki (i	The Street was decided
1-2	S 13" 04" E	21.04 M.
2-3	S 47° 13' E	329.96 M.
· 3-4	N 36' 12' E	108.23 M.
4-5	N 47° 19' W	210.15 M.
5-6	S 31° 01' W	29.29 M.
6-1	N 73° 09' W	137.66 M.

The project shall operate and maintain its facilities and amenities as contained in the submitted Initial Environmental Examination Checklist (IEEC) Report and Environmental Management Plan (EMP).

This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, and in accordance to DENR Administrative Order (D.A.O.) No. 2003-30. Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for the cancellation of this Certificate and/or imposition of a fine in an amount not to exceed Fifty Thousand Peans (F50, 908.80) for every violation thereof without prejudice to imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from re-evaluating and correcting any deficiencies or errors that may be found after issuance of this Certificate.

Issued at EMB-R4B, 1515 L and S Building, Roxas Boulevard, Pasay City this April 16, 2020.

Recommending Approval:

Approved:

Brens Re A. Rioffordo Chief, Clearance & Permitting Division

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Atty. Michael Brake P. Matins Regional Director



Environmental Compilance Certificate ISABEL E. DELA CHICA Commercial Sand and Gravel Project Barangay Dulangan II, Baco, Mindoro Oriental ISABEL E. DELA CHICA



# Republic of the Philippines Department of Environment and Natural Resource ENVIRONMENTAL MANAGEMENT BUREAU

1515 L and S Building, Roxas Boulevard, Pasay City Telephone No. (02) 400-5960 Fax No. (02) 400-5960 mimaropa@emb.gov.ph and emb\_mimaropa@yahoo.com



April 16, 2020

ECC-OL-R4B-2020-0101

Ms. ISABEL E. DELA CHICA Owner Barangay Dulangan II, Baco, Oriental Mindoro

Subject:

**ENVIRONMENTAL COMPLIANCE CERTIFICATE** 

Dear Ms. Dela Chica;

This refers to the Environmental Compliance Certificate (ECC) application for the proposed Commercial Sand and Gravel Project to be located at Carirayan River, Barangay Dulangan II Baco, Oriental Mindore.

After satisfying the requirements of the said application, this Bureau has decided to grant an ECC for the above-mentioned project.

With the issuance of this ECC, you are expected to implement the measures presented in the Initial Environmental Examination Checklist (IEEC), intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project.

This Certificate does not create any right nor be used as an authorization to implement the project, you may proceed with the implementation only after securing all the necessary and relevant permits from other pertinent Government Agencies. This Office shall be monitoring the project periodically to ensure strict compliance with the stipulations cited in the attached ECC.

Please be guided accordingly.

Atty. Michael Drake P. Matias Regional Director Environmental Management Plan/ Environmental Monitoring -an, the EU shall have the following responsibilities:

- Monitor actual project impacts vis-à-vis the predicted impacts and management measures in the Generic IEE Checklist Report;
- Recommend revisions to the EMP/EMoP, whenever necessary subject to the approval of EMB-4B (MIMAROPA Region);
- 7.3. Ensure that data gathered during monitoring activities are properly documented, assessed, evaluated and reported to EMB-4B (MIMAROPA Region) in accordance with the standard formats;
- 7.4. Ensure that monitoring and submissions of reports to EMB-4B (MIMAROPA Region) are carried out as required;
- 7.5. Regular submission of a semi-annual ECC Compliance Monitoring Report (on or before January 15 and July 15 of each year the project is operational) provided with supporting documents and in accordance with the prescribed format stipulated in the Implementing Rules and Regulations of P.D. 1586;
- Submit a quarterly monitoring report using the prescribed format of the Self-Monitoring Report (SMR) pursuant to DAO 2003-27;
- 7.7. Submit an Abandonment Plan two (2) months prior to the abandonment activities. It shall include rehabilitation measures/clean-up, costs, remediation of areas possibly contaminated with toxic/hazardous substances and presentation of options on proposed alternative projects in the area;
- 8. That health and sanitation practices shall be observed in all phases of the project and safety & personal protection equipment/devices shall always be provided to all employees/workers within the premises of the project site to prevent health and occupational hazards;
- 9. That a billboard containing this message: "Notice to the Public, COMMERCIAL SAND AND GRAVEL PROJECT of ISABEL E. DELA CHICA, has been issued an Environmental Compliance Certificate (ECC-OL-R4B-2020-9101) by the Department of Environment and Natural Resources Environmental Management Bureau MIMAROPA Region on April 16, 2020." shall be installed at all entry and exit points and in the perimeter of the project site facing the road to inform the general public within thirty (30) days from receipt of the ECC;
- 10. That a copy of the ECC shall be posted in a conspicuous location at the field office of the project site clearly visible to the public and shall be adequately framed or otherwise protected against damage and at the barangay bulletin board of the host barangay(s) within thirty (30) days from receipt of the ECC;
- 11. That any authorized DENR-EMB personnel, with proper identification card and travel/mission order, shall be allowed unconditional access to conduct an on-the-spot inspection and monitoring to the project without the need for prior notice to the proponent to oversee compliance to the ECC.



Emvironmental Compliance Certificate
ISABEL E. DELA CHICA Commercial Sand and Gravel Project
Barangay Dulangan II Baco, Mindoro Oriental
ISABEL E. DELA CHICA

#### Appex A

#### I. CONDITIONS

#### **ENVIRONMENTAL MANAGEMENT**

All commitments, mitigating measures and monitoring requirements, contained in the Initial Environmental Examination Checklist Report for the proposed (Commercial Sand and Gravel Project), particularly in the Environmental Management Plan/ Environmental Monitoring Plan, including any modifications and/or additional information as approved by the EMB, shall be instituted to minimize any adverse impact of the project to the environment throughout its implementation, which shall include among others to wit:

- That the proponent shall ensure that the project implementation shall NOT START unless all required/clearances from the concerned government agencies are secured. EMB shall be advised when all the permits/clearances are secured and when will be the actual date of project implementation;
- 2. That the proponent shall conduct an effective Information, Education and Communication (IEC) Program to inform and educate all stakeholders, especially its contractors, workers, and local residents about the mitigating measures embodied in its IEEC, the conditions stipulated in this Certificate and the environmental and human safety features of the project for greater awareness, understanding and sustained acceptance of the project. The program shall be submitted to EMB-4B (MIMAROPA Region) on an annual basis;
- 3. That the proponent shall strictly manage all project related traffic problems, excessive surface runoff, dust, soil erosion, accidental spillage and health hazards identified in the Initial Environmental Examination (IEE) Checklist Report and, in case of emergency episodes, appropriate response activities shall be immediately undertaken for the protection of the workers/ personnel, host and nearby communities and the receiving environment;
- 4. That preservation and easement retention of natural drainage/waterways shall be undertaken and should conform with the provisions of the DENR Administrative Order No. 97-05 (Procedures in the Retention of Areas within certain distances along the Banks of Rivers, Streams, and Shores of Seas, Lakes and Oceans for Environmental Protection). If disturbed, a replacement drainage system shall be constructed within two (2) months from the disturbance;
- That the solid waste management scheme as provided in the Environmental Management Plan (EMP) shall be continuously implemented from the start of the project operation.
- That the quarry site, with respect to the survey plan submitted, shall be delineated with visible permanent markers.

#### **GENERAL CONDITIONS**

Further administrative conditions for the grant of this Certificate shall be strictly complied:

7. That the proponent shall set-up a competent Environmental Unit (EU) with a Pollution Control Officer, within sixty (60) days from issuance of this Certificate and shall be duly accredited by this Office in accordance with DAO No. 02, series of 2014 (Revised Guidelines for Pollution Officer Accreditation). The Environmental Unit (EU) shall competently handle the environment - related aspects of the project. In addition to the monitoring requirements as specified in the



Environmental Compliance Certificate ISABEL E. DELA CHICA Commercial Sand and Gravel Project Barangay Dulangan II, Baco, Mindoro Oriental ISABEL E. DELA CHICA

#### II. RESTRICTIONS

- That no other activities should be undertaken other than what was stipulated in the IEEC Report.
   Should there be an expansion of the project beyond the project description, construction of other structures beyond those stated in the IEEC Report; or any change in the activity or location, shall be made subject to a new Environmental Impact Assessment (EIA) requirements;
- That in case of transfer of ownership/management of this project, these same conditions and restrictions shall apply and the transferee shall be required to notify this Office concerned within fifteen (15) days as regards to the transfer of ownership/management;
- That a limit of extraction shall NOT exceed one (1) meter depth following the slope/gradient and strictly within the approved quarry site; and an extraction rate of 28,562.0 Cubic Meter per annum. Monthly report of extraction shall be incorporated in the quarterly and semi-annual monitoring reports (SMR and CMR); and
- That the proponent (ISABEL E. DELA CHICA) shall be accountable for any misrepresentation and failure to state material information in the submitted documents.



Environmental Compliance Certificate
ISABEL E. DELA CHICA Commercial Sand and Gravel Project
Barangay Dulangan II, Baco, Mindoro Oriental
ISABEL E. DELA CHICA

Annex B

#### PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponent and the Government agencies concerned in the management of the Project and for better coordination in mitigation of the impacts of the Project on its surrounding areas and the environment, and by way of recommendation, forwarding these recommendations to the parties and authorities concerned for appropriate action.

Re	gulatory Conditions	
1.	The proponent shall comply with, but not limited to the following:  1.1 P.D. 856 or the Sanitation Code of the Philippine st	DOH
	1.2 P.D. 442 or the Labor Code of the Philippines including occupational health and safety;	DOLE-Bureau of Working
	1.3 R.A. 6541 or the National Building Code of the	Conditions
	Philippines including adequate storm drainage system and other flood control measures and compliance to the Fire Safety and Emergency Preparedness;	Office/Building
	1.4 P.D. 705 & DAO 97-05;	DENR Sector concerned
2.	That all appropriate construction, operational and resource-use permits/clearances from other national and local government agencies concerned shall be secured pertaining to the implementation of the project.	(i.e. PMRB, PNP, LGUs, DPWH DOH, NWRB, HLURB, MGB.
	Likewise, the proponent shall notify this Office of the reckoning date of project operation.	DA DAR DOLD DIT etal
E	vironmental Planning Recommendations for the Prop	oneat
2.	Close monitoring of the project should be undertaken by the proponent to maintain a high level of safety and efficiency at all phases of the project and to immediately address any environmental hazard that may take place.	

For dissemination and proper action of the parties concerned.

Engr. Bucas Fe A. Rioflerido Chief, Clearance & Permitting Division

Atty. Michael Drake P. Matias Regional Director



Environmental Compliance Certificate
ISABEL E. DELA CHICA Commercial Sand and Gravel Project
Barangay Dulangan II, Baco, Mindoro Oriental
ISABEL E. DELA CHICA



# Republic of the Philippines Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU

1515 L and S Building, Roxas Boulevard, Pasay City Telephone No. (02) 400-5960 Fax No. (02) 400-5960 mimaropa@emb.gov.ph and erub\_mimaropa@yahoo.com Visit us at http://www.mimaropa.emb.gov.ph/

# ENVIRONMENTAL COMPLIANCE CERTIFICATE (Issued under Presidential Decree 1586) ECC-OL-R4B-2020-0051

THIS IS TO CERTIFY THAT THE PROPONENT, Marlon C. Alvarado, is granted this Environmental Compliance Certificate (ECC), for the proposed MC Alvarado Quarry Project located at Barangay Dulangan II, Baco, Mindoro Oriental, by the Department of Environment and Natural Resources (DENR), through the Environmental Management Bureau (EMB).

SUBJECT ONLY to the conditions and restrictions set in this ECC and in the attached document labelled as Annexes A and B.

This Certificate is issued with the following details:

# PROJECT DESCRIPTION

This ECC covers the MC Alvarado Quarry Project having a total land area of 10,000 square meters, located at Barangay Dulangan II, Baco, Mindoro Oriental, specifically described as follows:

Tie Liue: S.29'09'E 551.17 M: From MRE -- 3553 (BBM -- 128), Brgy. Bangkatan, Baco, Oriental Mindoro to Corner "1"

Line	Bearing	Distance
1-2	N 11°47'W.	93.52 M.
2-3	N 44°49'E.	81.77 M.
3-4	S. 72°39°E.	88.27 M
4-1	S. 44°54'W.	173.98 M.

The project shall operate and maintain its facilities and amenities as contained in the submitted Initial Environmental Examination Checklist (IEEC) Report and Environmental Management Plan (EMP).





This certifies that

## JLDC AGGREGATES TRADING

(BARANGAY)

DULANGAN II, BACO ORIENTAL MINDORO - REGION IV-B (MIMAROPA)

is a business name registered in this office pursuant to the provisions of Act 3883, as amended by Act 4147 and Republic Act No. 863, and in compliance with the applicable rules and regulations prescribed by the Department of Trade and Industry.

This certificate issued to

## ISABEL ESCALONA DELA CHICA

is valid from 10 June 2020 to 10 June 2025 subject to continuing compliance with the above-mentioned laws and all applicable laws of the Philippines, unless voluntarily cancelled

In testimony whereof, I hereby sign this

# Certificate of Business Name Registration

and issue the same on 10 June 2020 in the Philippines.

RAMON M (LOPEZ

#### **Business Name No. 1783991**

This certificate is not a license to engage in any kind of business and valid only at the scope indicated herein.



TPIL558511019967

Documentary Stamp Tax Paid Php 30.00

REPUBLIKA NG PILIPINAS
KAGAWARAN NG PANANALAPI
KAWANIHAN NG RENTAS INTERNAS
REVENUE REGION NO. 09A
REVENUE DISTRICT NO. 063

BIR 2303 Revised July 1997 OCN 1RC0001326474

# **CERTIFICATE OF REGISTRATION**

	70-001 DELA CHICA,	ISABEL ESCALONA 06/16/2020
REGISTERED ADDRESS	DULANGAN II BACO ORIENTAL MINDOR	집사 마음 사람들이 가는 사람들이 얼마나 되었다. 그 사람들은 그리고 있는 그리고 있다면 그리고 있다면 그리고 있다.
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JLDC AGGR	EGATES TRADING	1135 SAND AND GRAVEL QUARRYING
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hain by:



Republic of the Philippines
Province of Oriental Mindoro
MUNICIPALITY OF BACO



OFFICE OF THE MUNICIPAL ASSESSORMENRO

# CERTIFICATION

To Whom It May Concern:

THIS IS TO CERTIFY that according to the records filed in this office Tax Declaration No. 2015-010010-00561 declared in the named of Spenses DE LA CHICA, GRACIANO and Isabel Escalora Bela-Chica are located at Dulangan 2, Baco, Oriental Mindoror with an area of TWENTY ONE THOUSAND SIX HUNDRED ELEVEN SQUARE METERS (21,611 sq. meters).

The abovementioned parcel of land are also the mineral land for quarry of Sand and Gravel Commercial Permit Application for renewal as stated in Barangay Resolution No. 46 Series of 2021 dated July 3, 2021 issued by the Office of the Sangguniang Barangay headed by Honorable Barangay Captain Roberto A. De Ocampo of Barangay Dulangan II, Baco, Oriental Mindoro with the Total Land Area of 2.8562 Hectares as surveyed for Quarry/Lease purposes signed by Geodetic Engineer MICHAEL E. CADATAL dated October 4, 2019.

This is to certify further that the exist area of SIX THOUSAND NINE HUNDRED FIFTY ONE SQUARE METERS (6,951 sq. meters) as per mineral land plan is temporary issued for compliance in quarry requirements subject to cancellation pending submission of approved Free Patent application.

Issued this 4th day of October, 2021 at Baco, Oriental Mindoro upon request of interested party for whalever legal purpose it may serve.

NICATORA MANALO, REA MGDH-Municipal Assessor/OIC-MENRO

REYNALDO'A. MARCO Municipa Mayor

kain by



Republic of the Philippines
Province of Oriental Mindoro
MUNICIPALITY OF BACO



OFFICE OF THE MUNICIPAL ASSESSOR/MENRO

### CERTIFICATION

To Whom It May Concern:

THIS IS TO CERTIFY that according to the records filed in this office Tax Declaration No. 2015-010010-00561 declared in the named of Spouses DE LA CHICA, GRACIANO and Isabel Escalona Dela Chica are located at Dulangan 2, Baco, Oriental Mindoror with: an area of TWENTY ONE THOUSAND SIX HUNDRED ELEVEN SQUARE METERS (21,611 sq. meters).

The abovementioned parcel of land are also the mineral land for quarry of Sand and Gravel Commercial Permit Application for renewal as stated in Barangay Resolution No. 46 Series of 2021 dated July 3, 2021 issued by the Office of the Sanggumang Barangay headed by Honorable Barangay Captain Roberto A. De Ocampo of Barangay Bulangan II, Baco, Oriental Mindoro with the Total Land Area of 2.8562 Hectares as surveyed for Quarry/Lease purposes signed by Geodetic Engineer MICHAEL & GADATAL dated October 4, 2019.

This is to certify further that the exist area of SIX THOUSAND NINE HUNDRED FIFTY ONE SQUARE METERS (6,951 sq. meters) as per mineral land plan is temporary issued for compliance in quarry requirements subject to cancellation pending submission of approved Free Patent application.

Issued this 4th day of October, 2021 at Baco, Oriental Mindoro upon request of interested party for whalever legal purpose it may serve.

REYNALDO'A. MARCO Municipal Mayor NICAMORA MANALO, REA MGDH-Municipal Assessor/OIC-MENRO



Republika ng Pilipinas alawigan ng Oriental Mindoro Bayan ag BACO Barangay DULANGAN II

SINIPI MULA SA KATITIKAN NG KARANIWANG PAGPUPULONG NG SANGGUNIANG ARANGAY NA GINANAP SA BULWAGANG PULUNGAN NOONG IKA-3 NG HULYO , 2021

Mga Damalo

Kgg. Roberto A. De Ocampo Kgg. Ronald M. Atlenza Kgg. Renato G.Pastrana Kgg. William D. Calabati Kgg. Marnelle B. Lalong-isip Kgg. Violeta B. Abordo Kgg. Kristoffer R. Aguilar Kgg. Jimmy G. Escalona Kgg. Sheila May L. Lalong-laip

Punong Barangay

Sk Chairwoman

Hindi Dumalo:

Wals

Resolusyon Big. 2021-46

KAPASYAHANG NAGBIBIGAY NG PAHINTULOT KAY Gug. ISABEL ESCALONA DELA CHICA NA MABIGYAN NG PERMISO SA QUARRY SA BARANGAY DULANGAN II, BACO, ORIENTAL MINDORO.

SAPAGKAT, kailangang maisaayos ang daanan ng tubig sa ilog ;

SAPAGKAT, ang kapasiyahang nakapangalan kay Gag. ISABEL ESCALONA DELA CHICA ay hindi timututulan ang pagpapanibago ng permiso sa kanyang quarry para sa Sand and Gravel Commercial;

SAPAGKAT, pinagkasunduan ng mga kumukuha ng buhangin at ng Sangguniang Barangay na ang mangangasiwa ng opisyal na resibo sa tuwing may paghahakot ng buhangin ay ang mga Opisyales ng

DAHIL DITO, nagpasiya ang lahat ng bumubuo ng Sangguniang Barangay Dulangan II maiparating ang kapasiyahang sa Punumbayan ng Baco Kgg. REYNALDO A. MARCO at mapadalhan din ng sipi ang Tanggapan ng ENRO.

LD M. ATTENZA

KGG, WI ITAHALA

KGG. VIOLETA B. ABORDO AGUILAR

KGG. JIMMY G. BSCALONA

LONG-ISIP KGG. MARN

> KGG OFFER R.

KAGAWAD

KGG. SHEILA MAY L. LALONG-ISIP SK CHAIRWOMAN

PINAGPASIYAHAN: Ika-03 ng Hulyo , 2021. Pinatutunayan ko ang katumpakan ng nabanggit na resolusyon na pinagpasiyahan ng Sangguniang Barangay sa pulang na ginanap noong ika-03 ng Hulyo 2021.

> MICHELLE P. ABANADOR Kalihim ng Sangguniang Barangay

Pinatutunayang wasto at Ganap na pinagtibay:

Kgg. ROBERTO A. DE OCAMPO Pundng Barangay



# Republic of the Philippines PROVINCIAL MINING REGULATORY BOARD Province of Oriental Mindoro City of Calapan

#### **COMMERCIAL SAND AND GRAVEL PERMIT**

Commercial Permit No.: CP-ORM-301 Date Approved: NOV 2 2 2021

Permit Holder: ISABEL E. DELA CHICA Address: Broy. Dulengen II. Baco, Oriental Mindoro

An application for Commercial Sand and Gravel Permit to extract and dispose <u>28.562</u> Cubic Meters of quarry resources situated in <u>Brov. Dulangan II. Municipality of Baco.</u>

<u>Province of Oriental Mindoro.</u> Philippines, and more or less described and bounded as follows to wit:

(Project Description)
Tie Line: S.29°47'E., 530.99 M.; From MRE-3553 (BBM-128), Bengkatan, Baco, Or.
Mindoro to Comer Marked \*1":

LINE	BEARING	DISTANCE
1-2	S.13*04'E.	21.04 M.
2-3	S.47°13′E.	329.96 M.
3-4	N.36°12'E.	108.23 M.
4-5	N.47°19W.	210.15 M.
5-6	S.31°01'W.	29.29 M.
6-1	N.73°09'W.	137,86 M.

Containing an area of <u>2.8862</u> hectares and more specifically described in the *Querry Resources Survey Plan and Technical Description* thereof attached to and made as an integral part of this Permit, having been filed in the Province of Oriental Mindoro by <u>ISABEL E. DELA CHICA</u> on <u>11 August 2021</u> pursuant to the Philippine Mining Act of 1995 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder, this Commercial Sand and Gravel Permit CP-ORM-301 is hereby granted to <u>ISABEL E. DELA CHICA</u>, subject to the terms and conditions herein:

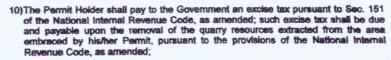
- 1) This Permit is for a period of one (1) year from NNINE (2) (2) to NI) tense (1) year from NNINE (2) (2) (2) to renewal shall be filed sixty (60) days before the expiry date thereof, and that the Permit Holder has complied with the provisions of the Philippine Mining Act of 1995 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder, and the terms and conditions of this Permit;
- 2) The Permit shall be for the exclusive use and benefit of the Permit Holder and not, directly or indirectly, for the benefit of any other person whether natural or juridical, and that the area covered by this Permit shall be used for the purpose only of extracting and disposing the materials herein authorized;
- The Permit cannot be assigned, transferred or conveyed, in whole or in part, without prior approval of the Provincial Governor/City Mayor concerned;
- 4) The extraction or removal of materials shall not be allowed within the distance of one (1) kilometer from the boundaries of reservoirs established for public water supply, archeological and historical sites, or of any public or private works or structures,





structures, unless with prior clearance of the agency or owner concerned is obtained. No extraction, removal and/or disposition of materials shall likewise be allowed in offshore areas within five hundred (500) meters distance from the coast and two hundred (200) meters from the mean low tide level along the beach;

- 5) The Permit Holder shall, before the issuance of this Permit, execute a bond in the form and amount prescribed by the regulations, and with a surety or sureties satisfactory to the Provincial Governor/City Mayor to guarantee the performance of the Permit Holder's obligations and faithful compliance with the provisions of Republic Act 7942 and the Revised implementing Rules and Regulatione (IRR) promulgated thereunder. The bond in the applicable amount shall be maintained throughout the corresponding term of this Permit and until the Government shall order its cancellation:
- 6) The Permit Holder shall, within ten (10) days after the end of each quarter, submit to the Provincial Governor/City Mayor personally/representative or by registered mail quarterly production reports in the prescribed form stating the quantity of materials extracted, removed and/or disposed under the Permit and the amounts of fees paid therefor, copy of which shall be furnished the MGB Regional Director and Municipal Treasurers where the Permit area is situated and under operation. At the end of the term, the Permit Holder shall submit to the concerned Regional Office and Provincial/City Mining Regulatory Board a final report with the detailed list of activities and the corresponding expenditures;
- 7) The Provincial Governor/City Mayor or his/her duly authorized representative/s may, at any time during the effectivity of this Permit, inspect the operations and the books of accounts and other relevant data of the Permit Holder in which shall be entered the quantity of materials removed or disposed of, the amount of fees paid, the selling price, and the names and addresses of the persons to whom the same were sold:
- 8) The extraction and removal of quarry resources under this Permit shall be confined within the area specified herein, the boundaries of which according to the application have been well established according to survey rules and regulations. This Permit shall exclude areas closed to mining location as provided in Sec. 19 of the Act;
- 9) The Permit Holder or his/her representative shall keep the Permit/Permit Area, available at all times for inspection and examination by the duty authorized representative/s of the Provincial/City Mining Regulatory Board concerned or the MGB Regional Office;



11) This Permit may be revoked or canceled at any time by the Provincial Governor/City Mayor concerned when in his/her opinion public interest so requires, or upon failure of the Permit Holder to comply with the provisions of the Philippine Mining Act of 1995 and the Revised Implementing Rules and Regulations promulgated thereunder, as well as with the terms and conditions specified herein; Provided, that if the Permit is canceled, or otherwise terminated, the Permit Holder shall be liable for all unpaid fees and taxes due up to the time of the termination or cancellation of the Permit.



2



- 12) The Permit Holder shall assume full responsibility and be liable for damages to private and/or public property(les) that may be occasioned by its operations under the Permit;
- 13) The Permit Holder shall manage its operations in a technically and environmentally responsible manner to achieve a safe, non-polluting and self-sustaining post disturbance landform;
- 14) The Permit Holder shall not discriminate on the basis of gender and that the Permit Holder shall respect the right of women workers to participate in policy and decision-making processes affecting their rights and benefits;
- 15) The Permit Holder shall conform to laws, rules and regulations regarding, among others, labor, safety and health standards;
- 16) The Permit Holder shall not interfere with the rights of other Permit Holders/operators/Contractors;
- 17) The Permit Holder shall recognize and respect the rights, customs and traditions of local communities, particularly Indigenous Cultural Communities;
- 18) The Permit Holder shall immediately stop digging and extracting materials the moment man-made articles or artifacts are found. It shall notify the Director of the National Museum of such findings, in which case, the digging shall be under the supervision of the National Museum until said artifacts are recovered;
- 19) The Permit Holder shall not, by virtue of the Permit, acquire any title over the permit area, without prejudice to its acquisition of the land/surface rights through any mode of acquisition provided by law;
- 20) The Permit Holder shall pay fees, taxes and other obligations in accordance with existing laws, rules and regulations;
- 21) The Permit Holder shall comply with its obligations under its ECC, Environmental Protection and Enhancement Program (EPEP) and Annual EPEP, including the allocation of the prescribed annual environmental expense pursuant to Section 171 of the Revised Implementing Rules and Regulations;
- 22) The statements made in the application or those made later in support thereof, shall be considered as condition and essential parts of this Permit, and any misrepresentation therein stated shall be a cause for the cancellation of this Permit; and
- 23) The Permit Holder further binds itself to comply with the provisions of RA No. 7942 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder, and such other terms and conditions not inconsistent with the Constitution, the Act and the Revised Implementing Rules and Regulations, as well as those which the concerned Provincial Governor/City Mayor may deem to be for the national interest and public welfare.





RECOMMENDED BY:

Issued at Calapan City, Oriental Mindoro, Philippines this DEC 9 2 2021

Arch. EMELYN V. RIVERA

entative of Small Scale Mining Operator

Dr. JAMESY I. REYES

Member NGO Representative

Atty. EARL LIGORIO R. TURANO II

Governor's Representative

MS. MARY JUNE F. MAYPA Chairperson
Provincial Mining Regulatory Board

I hereby accept the terms and conditions of this Commercial Sand and Gravel Permit as above-stated.

ISABEL E. DELA CHICA Permit Holder

WITNESSES

MAXIMINO A. JUMIG, JR. PGDH PG ENRO

WILLARD ARIEL A. ATIENZA, MBA Head, PMRB Secretariat



# ACKNOWLEDGEMENT

Republic of the Philippines )
Province of Oriental Mindoro ) s.s.
Municipality/City of Calapen)

WHEREFORE, I have hereunto set my hand and affixed my notarial seal on DEC 0 2 2021 at STY OF FAMELS.

ATT SA ELLEN C. ABAS Notary Public First Jusicial Diabrict, Oriental Mindoro

Uniff Platines Ampropaga, 01474
PTerme. Operator Vaccoccase
City of Calaban, Or Monterer

Page No. Page No. Series of 2021.

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# Republic of the Philippines Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU

1515 L and S Building, Roxas Boulevard, Passy City Telephone No. (02) 400-5960 Fax No. (02) 400-5960 mimarops@emb.gov.ph and emb\_mimaropa@yahoo.com Visit us at http://www.mimaropa.emb.gov.ph/

March 3, 2020

ECC-OL-R4B-2020-0051

Mr. Marion C. Alvarado

Barangay Dulangan II, Baco, Oriental Mindoro

Subject:

ENVIRONMENTAL COMPLIANCE CERTIFICATE

Dear Mr. Alvarado;

This refers to the Environmental Compliance Certificate (ECC) application for the proposed MC Alvarado Quarry Project to be located at Barangay Dulangan II, Baco, Mindoro Oriental.

After satisfying the requirements of the said application, this Bureau has decided to grant an ECC for the above-mentioned project.

With the issuance of this ECC, you are expected to implement the measures presented in the Initial Environmental Examination Checklist (IEEC), intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project.

This Certificate does not create any right nor be used as an authorization to implement the project, you may proceed with the implementation only after securing all the necessary and relevant permits from other pertinent Government Agencies. This Office shall be monitoring the project periodically to ensure strict compliance with the stipulations cited in the attached ECC.

Please be guided accordingly.

Atty. Michael Drake P. Matias Regional Director



This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, and in accordance to DENR Administrative Order (D.A.O.) No. 2003-30. Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for the cancellation of this Certificate and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (P50, 000.00) for every violation thereof without prejudice to imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from re-evaluating and correcting any deficiencies or errors that may be found after issuance of this Certificate.

Issued at EMB-R4B, 1515 L and S Building, Roxas Boulevard, Pasay City this March 3, 2020.

Recommending Approval:

Engr/Buens-Fe A. Rioflorido
Chief, Clearance & Permitting Division

Approved:

Atty. Michael Lrake P. Matias Regional Director



# SWORN ACCOUNTABILITY STATEM. I

I, Mr. Marlon C. Alvarado, Owner, with office address located at Barangay Dulangan II, Baco, Oriental Mindoro takes full responsibility in complying with all conditions in this Environmental Compliance Certificate (ECC).

Mr. Marion C. Alvarado

Signature

TIN No. 421-883-911

Subscribed and sworn before me this	, the above-named affiant taking oath
presenting	issued on

Notary Public

ATTY, RAY MOND JOEL I. GRALL FINE OF AT LOWETS IN ... 1992 IN 109 LET INSE IN ... 9 NOTE PAT THE IN ANDA, ST LANGUAGE PART OF A MATERIAL STREET, ARREAD CALAST MATERIAL STREET, ARREAD CALAST MATERIAL STREET, ARREAD CALAST

Page No. U5
Book No. S7
Series of WW



Management Plan/ Environmental Monitoring Plan, the EU shall have the following responsibilities:

- 8.1 Monitor actual project impacts vis-à-vis the predicted impacts and management measures in the Generic IEE Checklist Report;
- 8.2 Recommend revisions to the EMP/EMoP, whenever necessary subject to the approval of EMB-4B (MIMAROPA Region);
- 8.3 Ensure that data gathered during monitoring activities are properly documented, assessed, evaluated and reported to EMB-4B (MIMAROPA Region) in accordance with the standard formats:
- 8.4 Ensure that monitoring and submissions of reports to EMB-4B (MIMAROPA Region) are carried out as required;
- 8.5 Regular submission of a semi-annual ECC Compliance Monitoring Report (on or before January 15 and July 15 of each year the project is operational) provided with supporting documents and in accordance with the prescribed format stipulated in the Implementing Rules and Regulations of P.D. 1586;
- 8.6 Submit a quarterly monitoring report using the prescribed format of the Self-Monitoring Report (SMR) pursuant to DAO 2003-27;
- 8.7 Submit an Abandonment Plan two (2) months prior to the abandonment activities. It shall include rehabilitation measures/clean-up, costs, remediation of areas possibly contaminated with toxic/hazardous substances and presentation of options on proposed alternative projects in the area;
- That the proponent shall allocate ample budget for the implementation of the proposed mitigating/enhancement measures during the operation and abandonment phases of the project;
- 10. That health and sanitation practices shall be observed in all phases of the project and safety & personal protection equipment/devices shall always be provided to all employees/workers within the premises of the project site to prevent health and occupational hazards;
- 11. That a billboard containing this message: "Notice to the Public, THIS PROPOSED MC ALVARADO QUARRY PROJECT has been issued an Environmental Compliance Certificate (ECC-OL-R4B-2020-0051) by the Department of Environment and Natural Resources Environmental Management Bureau MIMAROPA Region on March 3, 2020." shall be installed at all entry and exit points and in the perimeter of the project site facing the road to inform the general public within thirty (30) days from receipt of the ECC;
- 12. That a copy of the ECC shall be posted in a conspicuous location at the field office of the project size clearly visible to the public and shall be adequately framed or otherwise protected against damage and at the barangay bulletin board of the host barangay(s) within thirty (30) days from receipt of the ECC;
- 13. That any authorized DENR-EMB personnel, with proper identification card and travel/mission order, shall be allowed unconditional access to conduct an on-the-spot inspection and monitoring to the project without the need for prior notice to the proponent to oversee compliance to the ECC.

#### IL RESTRICTIONS

That no other activities should be undertaken other than what was stipulated in the IEEC Report.
Should there be an expansion of the project beyond the project description, construction of other
structures beyond those stated in the IEEC Report; or any change in the activity or location, shall



#### VIRONMENTAL MANAGEMENT

All commitments, mitigating measures and monitoring requirements, contained in the Initial Environmental Examination Checklist Report for the proposed MC Alvarado Quarry Project in the Environmental Management Plan/ Environmental Monitoring Plan, including any modifications and/or additional information as approved by the EMB, shall be instituted to minimize any adverse impact of the project to the environment throughout its implementation, which shall include among others to wit:

- That the proponent shall ensure that the project implementation shall NOT COMMENCE
  unless all required/clearances from the concerned government agencies are secured. EMB shall
  be advised when all the permits/clearances are secured and when will be the actual date of
  project implementation;
- 2. That the proponent shall conduct an effective Information, Education and Communication (IEC) Campaign to inform and educate all stakeholders, especially its contractors, workers, and local residents about the mitigating measures embodied in its IEBC, the conditions stipulated in this Certificate and the environmental and human safety features of the project for greater awareness, understanding and sustained acceptance of the project. The program shall be submitted to EMB-4B (MIMAROPA Region) on an annual basis;
- That the proponent shall implement a Comprehensive Social Development Program (SDP) and submit a separate report together with the Compliance Monitoring Report (CMR) to the EMB-4B (MIMAROPA Region) on a semi-annual basis;
- 4. That the proponent shall strictly manage all project related traffic problems, excessive surface runoff, dust, soil erosion, accidental spillage and health hazards identified in the Initial Environmental Examination (IEE) Checklist Report and, in case of emergency episodes, appropriate response activities shall be immediately undertaken for the protection of the workers/personnel, host and nearby communities and the receiving environment;
- 5. That preservation and easement retention of natural drainage/waterways shall be undertaken and should conform with the provisions of the DENR Administrative Order No. 97-05 (Procedures in the Retention of Areas within certain distances along the Banks of Rivers, Streams, and Shores of Seas, Lakes and Oceans for Environmental Protection). If disturbed, a replacement drainage system shall be constructed within two (2) months from the disturbance;
- That the solid waste management scheme as provided in the Environmental Management Plan (EMP) shall be continuously implemented from the start of the project operation.
- That the quarry site, with respect to the survey plan submitted, shall be delineated with visible permanent markers.

#### **GENERAL CONDITIONS**

Further administrative conditions for the grant of this Certificate shall be strictly complied:

8. That the proponent shall set-up a competent Environmental Unit (EU) with a Pollution Control Officer, within sixty (60) days from issuance of this Certificate and shall be duly accredited by this Office in accordance with DAO No. 02, Series of 2014 (Revised Guidelines for Pollution Officer Accreditation). The Environmental Unit (EU) shall competently handle the environment-related aspects of the project. In addition to the monitoring requirements as specified in the Environmental



be made subject to a new Environmental Impact Assessment (EIA) requirements;

- 2. That in case of transfer of ownership/management of this project, these same conditions and restrictions shall apply and the transferee shall be required to notify this office within fifteen (15) days as regards to the transfer of ownership/management;
- That a limit of extraction shall not exceed one (1) meter equivalent to 10,000 m<sup>3</sup>, following the slope/gradient and strictly within the approved quarry site. Monthly report of extraction shall be submitted to this office;
- That the proponent (Marlon C. Alvarado) shall be accountable for any misrepresentation and failure to state material information in the submitted documents.

The conditions stipulated in this Certificate shall be deemed final within fifteen (15) days from receipt hereof and all conditions and restrictions set forth above shall be complied with by the herein grantee. This ECC is deemed expired if not implemented within five (5) years from the date of issuance and the proponent shall have to apply for a new ECC if it intends to pursue the project.

Non-compliance with any of the provisions of this certificate shall be a sufficient cause for the cancellation or suspension of this certificate and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (PhP50,000.00) for every violation thereof.



Annex B

# PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponent and the Government agencies concerned in the management For the assistant and for better coordination in mitigation of the impacts of the Project on its surrounding or the Project on its surrounding areas and the environment, and by way of recommendation, forwarding these recommendations to the parties and authorities concerned for appropriate action.

gulatory Conditions	
The proponent shall comply with, but not limited to the following:  1.1 P.D. 856 or the Sanitation Code of the Philippines; 1.2 P.D. 442 or the Labor Code of the Philippines including occupational health and safety; 1.3 R.A. 6541 or the National Building Code of the Philippines including adequate storm drainage system and other flood control measures and compliance to the Fire Safety and Emergency Preparedness; 1.4 P.D. 705 & DAO 97-05; 1.5 R.A. 7942 or the Philippine Mining Act of 1995  2. That all appropriate construction, operational and resource-use permits/clearances from other national and local government agencies concerned shall be secured pertaining to the implementation of the project Likewise, the proponent shall notify this Office of the reckoning date of project operation.	DOH  DOLE-Bureau of Working Conditions Municipal Planning & Dev't. Office/Building Official/BFP/LGU Concerned DENR Sector concerned MGB/LGU Concerned  (i.e. PMRB, PNP, LGUs, DPWH DOH, NWRB, HLURB, MGB,
Environmental Planning Recommendations for the Proponent	Proponent
3. Close monitoring of the project should be undertaken by the proponent to maintain a high level of safety and efficiency at all phases of the project and to immediately address any environmental hazard that may take place.	Ргородем

For dissemination and proper action of the parties concerned.

Chief, Clearance & Permitting Division

Atty. Michael Drake P. Matias Regional Director





This certifies that

# **ALVARADO QUARRY OPERATIONS**

(BARANGAY)

DULANGAN II, BACO ORIENTAL MINDORO - REGION IV-8 (MIMAROPA)

is a business name registered in this office pursuant to the provisions of Act 3883, as amended by Act 4147 and Republic Act No. 863, and in compliance with the applicable rules and regulations prescribed by the Department of Trade and Industry.

This certificate issued to

# MARLON CASTRO ALVARADO

is valid from 09 June 2020 to 09 June 2025 subject to continuing compliance with the above-mentioned laws and all applicable laws of the Philippines, unless voluntarily cancelled

In testimony whereof, I hereby sign this

# Certificate of Business Name Registration

and issue the same on 09 June 2020 in the Philippines.

RAMON M LOPEZ

#### Business Name No. 1780824

This certificate is not a license to engage in any kind of business and valid only at the scope indicated herein.



SORR562011015999

REPUBLIKA NG PILIPINAS
KAGAWARAN NG PANANALAPI
KAWANIHAN NG RENTAS INTERNAS
REVENUE REGION NO. 09A
REVENUE DISTRICT NO. 063

BIR 2303 Revised July 1997

OCN 1RC000132534C

CERTIFICATE OF REGISTRATION REGISTRATION DATEUN 0 9 2021 TIN REGISTRATION DATE 20/2019 921-883-911-000 NAME ALVARADO, MARLON CASTRO REGISTERED ADDRESS DULANGAN II BACO ORIENTAL MINDORO 5201 REGISTERED ACTIVITY(IES) 12. . . . SE INCOME ITY PERCENTAGE TAX - QUARTERLY REGISTRAT, TEF TRADE NAME LINE OF BUSINESS / INDUSTRY ALVARADO QUARRY OPERATIONS 1135 SAND AND GRAVEL QUARRYING REMINDERS: FILE and PAY TAX TYPE: IT/RF/PT Single Proprietor I HEREBY CERTIFY THAT THE ABOVE NAMED PERSON IS REGISTERED AS INDICATED ABOVED, UNDER THE PROVISIONS OF THE NATIONAL INTERNAL REVENUE CODE, AS AMENDED.

OLIVER P. CAINGAT
ASSL. Revenue District Officer ATTY. EMELITA R. ABO REVENUE DISTRICT OFFICER (signature over printed pame)



Republic of the Philippines
Province of Oriental Mindoro
MUNICIPALITY OF BACO



OFFICE OF THE MUNICIPAL ENVIRONMENT AND NATURAL RESOURCES OFFICER

## CERTIFICATION

To Whom It May Concern:

REYNALDO & MARCO Municipal Mayor

THIS IS TO CERTIFY that this office interposes no objection to the propose permit for the application of Mr. Marton Advarado for quarry of gravel and and as stated in Barangay Resolution No. 47 Series of 2021 dated James 3, 2021 issued by the Office of the Sangginiang Barangay headed by Honorable Barangay Captain Roberto A. De Ocampo of Barangay Dulangan II, Baco, Oriental Mindoro.

Provided however, that above named person shall secure the other necessary papers required by pertinent laws and regulations.

This certificate has been issued upon acquest of the above partied person for the purpose of securing permit from the Provincial Minning Regulatory Board (PMRB).

Issued this 13th day of July, 2021 at Baco, Orientia Municoro upon request of interested party for whatever legal purpose it may serve.

NICANON MANALO, REA MGDH-Municipal Assessor/OIC-MENRO

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Republika ng Pilipinas lawigan ng Oriental Mindoro Bayan ng BACO Barangay DULANGAN II

#### SINIPI MULA SA KATITIKAN NG KARANIWANG PAGPUPULONG NG SANGGUNIANG BARANGAY NA GINANAP SA BULWAGANG PULUNGAN NOONG IKA-3 NG HULYO , 2021

Mea Dumaio

Kgg. Roberto A. De Ocampo Kgg. Ronald M. Atienza Kgg. Renato G.Pastrana Kgg. William D. Calahati Kgg. Marnelle B. Lalong-isip Kgg. Violeta B. Abordo Keg. Kristoffer R. Aguilar Kgg. Jimmy G. Escalona Kgg. Sheila May L. Lalong-ini **Punong Barangay** Kagawad Kagawad Kagawad Kagawad Kagawad Kagawad Kagawad Sk Chairwoman

Hindi Dumalo:

Wala

Resolusyon Big. 2021-47

KAPASYAHANG NAGBIBIGAY NG PAHINTULOT KAY G. MARLON ALVARADO NA MABIGYAN NG PERMISO SA QUARRY SA BARANGAY DULANGAN IL BACO, ORIENTAL MINDORO.

SAPAGKAT, kailangang maisaayos ang daanan ng tubig sa ilog;

SAPAGKAT, ang kapasiyahang nakapangalan kay G. MARLON ALVARADO ay hindi tinututulan ang pegpapanibago ng permiso sa kanyang quarry para sa Sand and Gravel Commercial;

SAPAGKAT, pinagkasunduan ng mga kumukuha ng buhangin at ng Sangguniang Barangay na ang mangangasiwa ng opisyal na resibo sa tuwing may paghahakot ng buhangin ay ang mga Opisyales ng Barangay.

DAHIL DITO, nagpasiya ang lahat ng bumubuo ng Sangguniang Barangay Dulangan II maiparating ang kapasiyahang sa Punumbayan ng Baco Kgg. REYNALDO A. MARCO at mapadalhan din ng sipi ang Tanggapan ng ENRO.

ONALD M. ATIENZA GALVAD

EDIAM D. CALAHATI

KGG. VIOLETA B. ABORDO

KGG. JIMMY G. ESCALONA

KAGAWAD

KAGAWAD

KGG. SHEILA MAY L. LALONG-ISIP SK CHAIRWOMAN

PINAGPASIYAHAN: Ika-03 ng Hulyo , 2021. Pinatutunayan ko ang katumpakan ng nabanggit na resolusyon na pinagpaslyahan ng Sanggunlang Barangay sa pulong na ginanap noong ika-03 ng Hulyo 2021.

> MICHELLE P. ABANADOR Kalihim ng Sangguniang Barangay

Pinatutunayang wasto at Ganap na pinagtibay:

Kgg. ROBERTO A. DE OCAMPO



#### Republic of the Philippines PROVINCIAL MINING REGULATORY BOARD Province of Oriental Mindoro City of Calapan

#### COMMERCIAL SAND AND GRAVEL PERMIT

Commercial Permit No.: CP-ORM- 296 Commercial Permit Application No.: 1681

Date Approved: 001 2 5 7021
Permit Holder: MARLON C. ALVARADO
Address: Brgy. Dulangan 2, Baco, Oriental Mindoro

An application for Commercial Sand and Gravel Permit to extract and dispose 10,000 Cubic Meters of quarry resources situated in Brgy. Dulangan 2, Municipality of Baco. Province of Oriental Mindoro, Philippines, and more or less described and bounded as follows to wit:

> (Project Description) Tie Line: S.29°09'E., 551.17 M.; From MRE-3553 (BBM-128), BANGKATAN, BACO, OR. MINDORO to Corner Marked "1":

LINE	BEARING	DISTANCE
1-2	N.11*47*W.	93.52 M.
2-3	N.44°49'E.	81.77 M.
3-4	S.72°39'E.	88.27 M.
4-1	S.44°54'W.	173.98 M.

Containing an area of 1.0000 hectares and more specifically described in the Quarry Resources Survey Plan and Technical Description thereof attached to and made as an integral part of this Permit, having been filed in the Province of Oriental Mindoro by MARLON C. ALVARADO on 23 August 2021 pursuant to the Philippine Mining Act of 1995 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder, this Commercial Sand and Gravel Permit CP-ORM-296 is hereby granted to MARLON C. ALVARADO, subject to the terms and conditions herein:

- 1) This Permit is for a period of one (1) year from \_\_\_\_\_\_0CT 2.5 2022 \_\_\_\_\_\_ renewable for a like period, provide renewable for a like period, provided, that the application for renewal shall be filed sixty (60) days before the expiry date thereof, and that the Permit Holder has complied with the provisions of the Philippine Mining Act of 1995 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder, and the terms and conditions of this Permit;
- 2) The Permit shall be for the exclusive use and benefit of the Permit Holder and not. directly or indirectly, for the benefit of any other person whether natural or juridical, and that the area covered by this Permit shall be used for the purpose only of extracting and disposing the materials herein authorized;
- 3) The Permit cannot be assigned, transferred or conveyed, in whole or in part, without prior approval of the Provincial Governor/City Mayor concerned;
- 4) The extraction or removal of materials shall not be allowed within the distance of one (1) kilometer from the boundaries of reservoirs established for public water supply, archeological and historical sites, or of any public or private works or structures, unless with prior clearance of the agency or owner concerned is

Busine to MGB Form No. 08-4A

obtained. No extraction, removal and/or disposition of materials shall likewise be allowed in offshore areas within five hundred (500) meters distance from the coast and two hundred (200) meters from the mean low tide level along the beach;

- 5) The Permit Holder shall, before the issuance of this Permit, execute a bond in the form and amount prescribed by the regulations, and with a surety or sureties satisfactory to the Provincial Governor/City Mayor to guarantee the performance of the Permit Holder's obligations and faithful compliance with the provisions of Republic Act 7942 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder. The bond in the applicable amount shall be maintained throughout the corresponding term of this Permit and until the Government shall order its cancellation;
- 6) The Permit Holder shall, within ten (10) days after the end of each quarter, submit to the Provincial Governor/City Mayor personally/representative or by registered mail quarterly production reports in the prescribed form stating the quantity of materials extracted, removed and/or disposed under the Permit and the amounts of fees paid therefor, copy of which shall be furnished the MGB Regional Director and Municipal Treasurers where the Permit area is situated and under operation. At the end of the term, the Permit Holder shall submit to the concerned Regional Office and Provincial/City Mining Regulatory Board a final report with the detailed list of activities and the corresponding expenditures;
  - 7) The Provincial Governor/City Mayor or his/her duly authorized representative/s may, at any time during the effectivity of this Permit, inspect the operations and the books of accounts and other relevant data of the Permit Holder in which shall be entered the quantity of materials removed or disposed of, the amount of fees paid, the selling price, and the names and addresses of the persons to whom the same were sold:
  - 8) The extraction and removal of quarry resources under this Permit shall be confined within the area specified herein, the boundaries of which according to the application have been well established according to survey rules and regulations. This Permit shall exclude areas closed to mining location as provided in Sec. 19 of the Act;
  - 9) The Permit Holder or his/her representative shall keep the Permit/Permit Area, available at all times for inspection and examination by the duly authorized representative/s of the Provincial/City Mining Regulatory Board concerned or the MGB Regional Office;
  - 10) The Permit Holder shall pay to the Government an excise tax pursuant to Sec. 151 of the National Internal Revenue Code, as amended; such excise tax shall be due and payable upon the removal of the quarry resources extracted from the area embraced by his/her Permit, pursuant to the provisions of the National Internal Revenue Code, as amended;
  - 11) This Permit may be revoked or canceled at any time by the Provincial Governor/City Mayor concerned when in his/her opinion public interest so requires, or upon failure of the Permit Holder to comply with the provisions of the Philippine Mining Act of 1995 and the Revised Implementing Rules and Regulations promulgated thereunder, as well as with the terms and conditions specified herein; Provided, that if the Permit is canceled, or otherwise terminated, the Permit Holder shall be liable for all unpaid fees and taxes due up to the time of the termination or cancellation of the Permit;

ent to MGB Form No. 08-4A

- 12) The Permit Holder shall assume full responsibility and be liable for damages to private and/or public property(ies) that may be occasioned by its operations under the Permit.
- 13) The Permit Holder shall manage its operations in a technically and environmentally responsible manner to achieve a safe, non-polluting and self-sustaining post disturbance landform;
- 14) The Permit Holder shall not discriminate on the basis of gender and that the Permit Holder shall respect the right of women workers to participate in policy and decision-making processes affecting their rights and benefits;
- 15) The Permit Holder shall conform to laws, rules and regulations regarding, among others, labor, safety and health standards;
- 16) The Permit Holder shall not interfere with the rights of other Permit Holders/operators/Contractors;
- The Permit Holder shall recognize and respect the rights, customs and traditions of local communities, particularly Indigenous Cultural Communities;
- 18) The Permit Holder shall immediately stop digging and extracting materials the moment man-made articles or artifacts are found. It shall notify the Director of the National Museum of such findings, in which case, the digging shall be under the supervision of the National Museum until said artifacts are recovered;
- 19) The Permit Holder shall not, by virtue of the Permit, acquire any title over the permit area, without prejudice to its acquisition of the land/surface rights through any mode of acquisition provided by law;
- 20) The Permit Holder shall pay fees, taxes and other obligations in accordance with existing laws, rules and regulations;
- 21) The Permit Holder shall comply with its obligations under its ECC, Environmental Protection and Enhancement Program (EPEP) and Annual EPEP, including the allocation of the prescribed annual environmental expense pursuant to Section 171 of the Revised Implementing Rules and Regulations;
- 22) The statements made in the application or those made later in support thereof, shall be considered as condition and essential parts of this Permit, and any misrepresentation therein stated shall be a cause for the cancellation of this Permit; and
- 23) The Permit Holder further binds itself to comply with the provisions of RA No. 7942 and the Revised Implementing Rules and Regulations (IRR) promulgated thereunder, and such other terms and conditions not inconsistent with the Constitution, the Act and the Revised Implementing Rules and Regulations, as well as those which the concerned Provincial Governor/City Mayor may deem to be for the national interest and public welfare.

Issued at Calapan City, Oriental Mindoro, Philippines this \_\_\_\_\_\_ 001 2 5 2021

MGB Form No. 08-4)

# ACKNOWLEDGEMENT

Republic of the Philippines Province of Oriental Mindoro ) s.s. Municipality/City of Calapan)

Before me appeared MARLON C. ALVARADO, exhibiting to me his/her Tax identification No. 921-883-911-000 issued on UCT 2 2021 his/her Tax at known to me and to me known to be the same person who executed the foregoing document, and acknowledged that same is his/her free and voluntary act, and deed as Permit Holder, and for the purposes therein specified. The said instrument, consisting of 5 pages, including this acknowledgment page, is a Commercial Sand and Gravel Permit to extract and dispose of minerals therein specified for commercial purposes from the area therein mentioned.

WHEREFORE, I have hereunto set my hand and affixed my notarial seal on at 007 2 5 2021 CMP(In)

5

Doc. No. Page No.

Book No. Series of NOTARY PUBLIC

Until Dec. 31, 2021 PTR No.

ATTY. EDGARDO M. RADILLA **Notary Public** 

PTR NO. DL9904)
MCLE NO. VII - JMCTCloc1869

MGB Form No. 08-

RECOMMENDED BY:

NGO Representative

MARY JUNE F. MAYPA Chairperson

vincial Mining Regulatory Board

APPROVED BY:

I hereby accept the terms and conditions of this Commercial Sand and Gravel Permit as above-stated.

Permit Holder

WITNESSES

LUMIG, JR. MAXIMINO

PGDH PG-ENRO

WILLARD ARIEL A. ATIENZA, MBA

Head, PMRB Secretariat

# GEOHAZARD IDENTIFICATION REPORT



Republic of the Philippines

## Department of Environment and Natural Resources MINES AND GEOSCIENCES BUREAU MIMAROPA Region

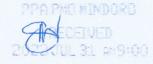
7/F DENR Building, 1516 Roxas Boulevard, Ermita, Manila Telefax No. (+632) 535-0215 / (+632) 310-1369 Email: region4b@mgb gov.ph



26 July 2023

MR. ELVIS R. MEDALLA

Port Manager
Port Management Office – Mindoro
Philippine Ports Authority
Calapan City, Oriental Mindoro



Dear Mr. Medalla:

In connection with the Geohazard Identification Survey (GIS) conducted by this Office at the site of Port Balatero expansion project in Puerto Galera, Oriental Mindoro, we are pleased to furnish you herewith a copy of the "Geohazard Identification Report (GIR) for the Site of Balatero Port Expansion Project in Brgy. Balatero, Puerto Galera, Occ. Mindoro", prepared by Ms. Marie Louise C. Binwag, Science Research Specialist II of this Office.

This report describes the degree of susceptibility of the project site to various geologic hazards and provides recommendations to address the possible adverse impacts of these hazards.

Should you have any further queries regarding the above-mentioned report, please feel free to reach us at the address indicated above.

Thank you and best regards.

Very truly yours,

By Authority of the Regional Director:

EDWIN M. MOJARES, Ph.D.
Chief, Geosciences Division
OIC, Office of the Regional Director



"MINING SHALL BE PRO-PEOPLE AND PRO-ENVIRONMENT IN SUSTAINING WEALTH CREATION AND IMPROVED QUALITY OF LIFE."



#### Republic of the Philippines

# Department of Environment and Natural Resources MINES AND GEOSCIENCES BUREAU MIMAROPA Region

7.F DENR Building, 1515 Roxas Boulevard, Ermita, Manila Telefax No. (+632) 536-0215 / (+632) 310-1369 Email: region4b@mgb.gov.ph



17 July 2023

#### MEMORANDUM

FOR

The Regional Director

This Office

THRU

The Chief

Geoscience Division

FROM

Marie Louise C. Binwag

Science Research Specilaist II

Jethro C. Guinto

Science Research Specialist I

SUBJECT

GEOHAZARD IDENTIFICATION REPORT (GIR) FOR

THE SITE OF BALATERO PORT EXPANSION PROJECT LOCATED IN BARANGAY BALATERO, PUERTO

GALERA, ORIENTAL MINDORO

#### I. INTRODUCTION

A Geohazard Identification Survey (GIS) was conducted at the site of Puerto Galera Port to assess geologic hazards that may affect the port and its vicinity as a result of the ongoing port expansion project of the Philippine Ports Authority (PPA). This survey was conducted upon the request of Mr. Elvis Medalla, Port Manager of Mindoro, in compliance to the Department of Environment and Natural Resources (DENR) requirement for Area Clearance application.

The main objective of the field survey is to identify potential geologic hazards in the newly reclaimed port expansion area in Balatero, Puerto Galera, taking into consideration various factors such as geology, environmental setting, coastal features, meteorology, etc. The survey was undertaken on 20 June 2023 focusing mainly on coastal hazards and assessment of geotechnical engineering measures applied, as the project has been partially started at the time of the survey. The on – site assessment involved identifying the specific geohazards present and providing recommendations to mitigate these hazards. The field data collected during the inspection were supplemented with pertinent geological information obtained from available records and research studies.

## II. PURPOSE AND OBJECTIVE

The request for this assessment was made by the Philippine Ports Authority as part of their Area Clearance application stipulated under the Department of Environment and Natural Resources (DENR) Administrative Order No. 2018-14.

The objective of this clearance is to ensure rational procedures and requirements over the proposed reclamation project without compromising the interests of environmental protection and biodiversity conservation, consistent with the principle of sustainable development.

The GIS, on the other hand, specifically aims the following:

- a.) study the effects of geologic hazards on the reclamation project;
- b.) Identify possible flooding or damming effects of the reclamation project, specifically the outflow of water;
- c.) Investigate possible disturbances the reclamation will cause along the coastal area;
- d.) Identify the geotechnical measures applied in the reclaimed land.

#### III. LOCATION AND ACCESSIBILITY

The assessed site is situated in Barangay Balatero, Puerto Galera, Oriental Mindoro, with geographic coordinates 120.93352° East Longitude and 13.506333° North Latitude (Map 1).

Puerto Galera is the north-western most municipality in the province of Oriental Mindoro. It is located at the south-western end of the Isla Verde passage, about 130 kilometers south of Manila and about 25 kilometers from Batangas City. The municipality is accessible from Manila through a two-hour bus ride to Batangas Port, followed by a two-hour ferry ride to Puerto Galera Port.

The assessed site comprises an approximate expansion area of 3,200 square meters at the current port location in Barangay Balatero.

## IV. TOPOGRAPHY AND DRAINAGE

In general, Puerto Galera has a varied topography due to its hilly terrain and coastal features. Specifically, Barangay Balatero, from which the port is situated, exhibits mostly flat terrain to gently undulating topography with an immediate westward topography that includes deep waters that is ideal for bigger cargo ships that regularly travel to the area (Map 2).

In terms of drainage, Barangay Balatero does not have any significant river or stream flowing through it. The drainage within the barangay is primarily limited to small creeks.

#### V. GENERAL GEOLOGY

Based on the Mines and Geosciences Bureau (MGB) – MIMAROPA generated Geologic Map of Barangay Balatero, Puerto Galera (Map 3), the project site is underlain by the Halcon Metamorphic Complex. However, during the on–site investigation, no rock exposures were observed due to the highly urbanized nature of the area. The project site, being located along the coast, is characterized as an active erosion zone. The coastal lowland surrounding the port expansion area is underlain by Quaternary Alluvium, which consists mainly of unconsolidated silt, sand, and gravel.

## VI. REVIEW OF MGB - MIMAROPA GEOHAZARD MAPS

#### A. Flood

Hydrological hazards refer to catastrophic phenomena involving the presence and distribution of water that occur near the bodies of water. These include riverine and coastal flooding, where the water overflows from waterways and inundates the usually dry area; they typically result from extreme rainfall, high tides, and dam failures.

According to the Flood Susceptibility Map of Puerto Galera generated by the MGB – MIMAROPA Map 4), the project site is in a high flood susceptibility zone, making it vulnerable to flooding hazards, specifically coastal flooding. However, based on the assessment of the area, the expansion of the port is unlikely to increase the susceptibility of the port and its vicinity to flooding. Furthermore, the assigned port project engineer reiterated that storm drains will be established in the area to prevent flooding from rainwater.

## B. Mass wasting/Landslide

Mass wasting refers to the downslope movement of the soil and rock materials, or both, due to gravity (Highland and Bobrwosky, 2008). This is commonly caused by prolonged rains, although it can also be caused by sudden ground shaking. Mass wasting or landslide occurrences are also influenced by steep slopes, severe physical and chemical weathering, and unstable soils.

Based on the MGB MIMROPA – generated Landslide Susceptibility Map of the municipality of Puerto Galera (Map 5), the project site has low to no nil susceptibility to landslides and other forms of mass movement. The reclamation of the port has resulted to a new level ground about a few meters above sea level.

#### VII. POTENTIAL GEOLOGIC HAZARDS

## A. Seismic/Fault – related Hazards

The port area is situated approximately 3.4 kilometers from a branch of a prominent active fault, the Lubang Fault, which has been associated with multiple documented earthquake occurrences (Map 6).

The said fault is associated with the Lubang – Verde Passage Fault System which is a strike – slip fault located offshore between Batangas and Mindoro Island that has the potential to induce tsunamis and other related hazards at the site. The presence of the Lubang Fault indicates that the expansion of the port of Puerto Galera could be impacted by earthquakes, hence, the importance of implementing safety measures for the construction of the port expansion. Analysis of data from Philippine Institute of Volcanology and Seismology (PHIVOLCS), reveals a significant number of recorded earthquakes between Mindoro Island and Batangas, indicating that the Puerto Galera Port lies within a seismically active zone. A notable event occurred in July 2021 when a magnitude 6.6 earthquake was triggered by the Lubang Fault (Map 7). This can serve as a reference event for future reinforcements in the area. In addition, a tsunami or liquefaction may also occur as a result of an earthquake.

#### Liquefaction

Reclaimed areas are well–documented sites for liquefaction throughout the world where major earthquakes nearby have taken place. This is mainly because of the loose sandy nature of the infill being used which is mostly from proximal seabed. Nonetheless, there have been technological improvements and engineering practices that have been tested and applied to improve the subsurface such as vibroflotation, dynamic compaction and stone columns (Maithili, 2017). Solutions and technology may vary depending on the unique situation on the site. However, it's crucial to remember that any precautions for this port expansion project must take into account the following worst–case scenario. Based on studies from the Kobe earthquake of 1995 which has a similar scenario of a Mw 6.9, the reclaimed land that withstood the shock had a Standard Penetrating Test (SPT) value of around 20 to 40 (Cubrinovski et al., 2000).

According to the PPA's presented plan, there are currently no immediate intentions to construct buildings on the reclaimed expansion site. However, if there are future plans for permanent structures like buildings, it is crucial for the PPA to account for the area's ability to withstand ground shaking resulting from an earthquake with a moment magnitude (Mw) of 6.6 occurring within a 10-kilometer radius of the epicenter. Structural considerations should prioritize the safety and resilience of the buildings in response to such seismic activity.

#### Tsunami

Puerto Galera and the rest of the northern municipalities of the province of Oriental Mindoro have already experienced a tsunami from an offshore earthquake in November 1994. Active faults and offshore faults are indicators that recurrence is likely. As a result, safety precautions must be adopted or enforced to prevent or lessen this impending hazard.

The Tsunami Map of Puerto Galera (Map 8) generated by PHIVOLCS shows that simulations indicate that tsunami inundation may reach up to 3 meters of wave height at the coastline.

## B. Hydrometeorologic Hazards

#### Storm Surge

Considering the coastal location of the project, it is important to recognize the potential hazard of storm surges. The combination of abnormal sea level rise and a powerful storm or typhoon can lead to destructive consequences for coastal communities. According to studies conducted by the Department of Science and Technology (DOST) Nationwide Operational Assessment of Hazards (NOAH), the port is vulnerable to storm surge inundation of up to 5 meters in the worst-case scenario (Map 9). The flat coastline of Puerto Galera is prone to storm surge inundation, making it essential to implement coastal protection measures. Strategically placing breakwater structures around the port is strongly advised.

At the time of the assessment, construction of retaining walls was underway to serve as an additional safeguard against the impact of waves and storms.

## VIII. CONCLUSIONS AND RECOMMENDATIONS

- The Balatero Port Expansion project has reclaimed approximately 3,200 square meters of land adjacent to the existing port. While the original port is already vulnerable to coastal flooding, the addition of the reclaimed port expansion is not expected to amplify the vulnerability of the port and its surrounding area to flooding.
- The port expansion project is susceptible to seismic hazards, specifically liquefaction and tsunamis. Adequate mitigation measures for liquefaction can be implemented if the land reclamation process adheres to proper standards capable of withstanding an earthquake with an Mw of 6.6.
- 3. The construction of future permanent structures in the port expansion would introduce an element of vulnerability to seismic hazards.
- 4. The port expansion project has not amplified the existing hazard scenario faced by the residents of Barangay Balatero, Puerto Galera.

Furthermore, the project may have actually reduced the vulnerability of the community near the port to tsunami threats and other coastalrelated hazards by acting as a first-hand protective barrier.

Prepared by:

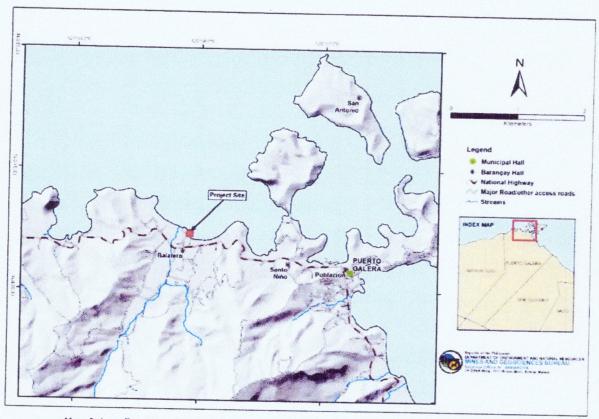
Marie Louise CoBinwag

Science Research Specialist II

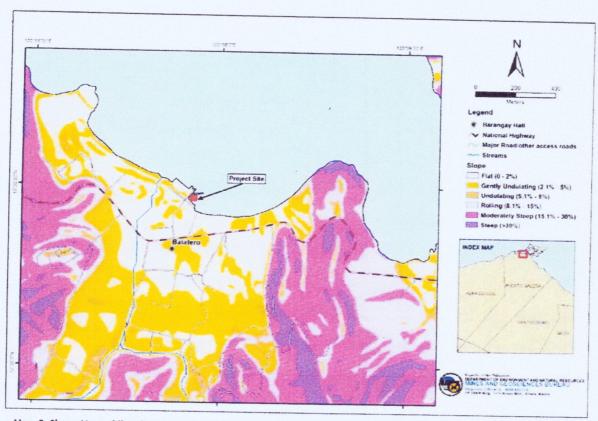
Jethro C. Guinto

Science Research Specialist I

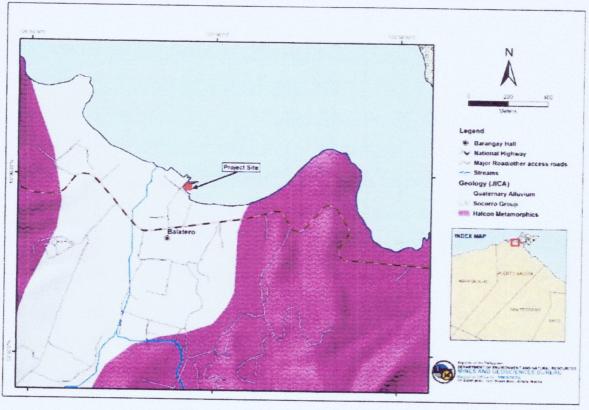
## MAPS



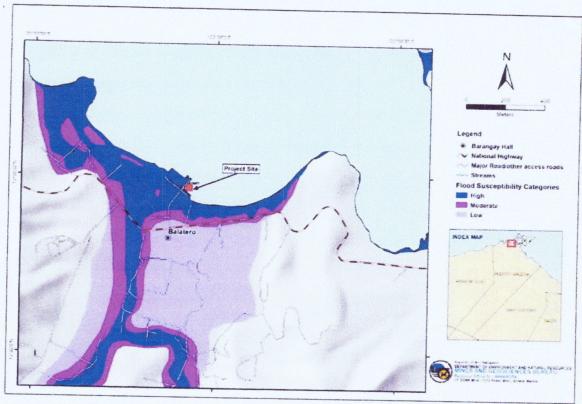
Map 1. Location Map of the Study Area in Barangay Balatero, Puerto Galera, Oriental Mindoro.



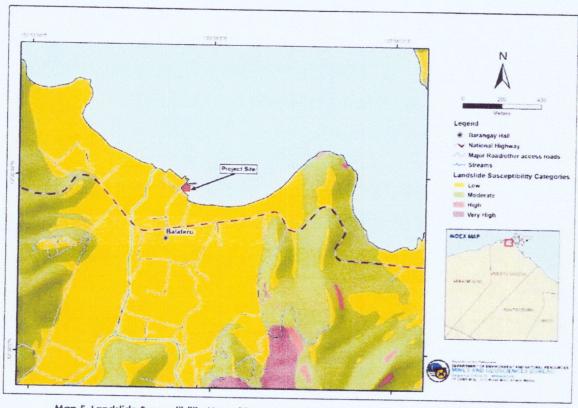
Map 2. Slope Map of the study area and surrounding vicinity in Barangay Balatero, Puerto Galera, Oriental Mindoro.



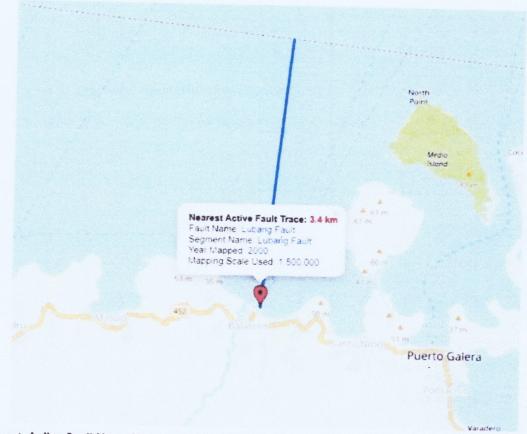
Map 3. Geologic Map of Barangay Balatero, Puerto Galera, Oriental Mindoro.



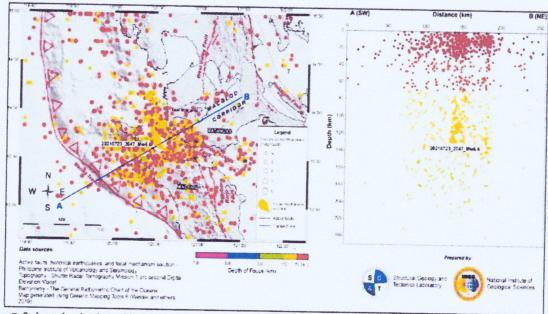
Map 4. Flood Susceptibility Map of Barangay Balatero, Puerto Galera, Oriental Mindoro and its vicinity.



Map 5. Landslide Susceptibility Map of Barangay Balatero, Puerto Galera, Oriental Mindoro.



Map 6. Active Fault Map of the area based on the PHIVOLCS data. The fault line is colored in red – dashed line.



Map 7. Seismotectonics of the July 24, 2021, magnitude-6.6 earthquake of Calatagan, Batangas, Philippines. Among the active strike-slip faults include the west/northwest-striking sinistral Lubang-Verde Passage Fault, and the north/northwest-striking dextral Aglubang River Fault on Mindoro Island. Located to the northeast of the Calatagan earthquake epicenter is the Macolod Corridor, a northeast-trending structural depression that hosts numerous active volcanic centers including Taal Volcano. Credit: Aurelio, Lagmay, Escudero and Catugas.



Map 8. Tsunami Map of Puerto Galera generated by PHIVOLCS.



Map 9. Storm Surge Hazard Map from DOST Project NOAH showing the Puerto Galera Port.

## PHOTO DOCUMENTATION

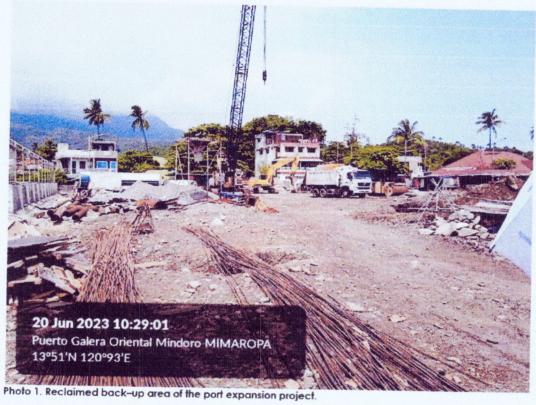




Photo 2. On-going construction of finger pier.



**Photo 3.** The survey was participated by (from left to right), Engr. Mark Guevarra (Admin. Officer V), Ms. Cristina E. Carvajal (Chief Safety Officer, PPA), Engr. Conrado E. Casapao Jr. (Senior Engineer, PPA), Ms. Marie Louise C. Binwag (MGB Technical Personnel), and Jethro C. Guinto (MGB Technical Personnel)