

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES KAGAWARAN NG KAPALIGIRAN AT LIKAS NA YAMAN MIMAROPA REGION

COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE



July 30, 2024

MEMORANDUM

FOR

The OIC, Regional Executive Director

Tower 2, PITX No. 1 Kennedy Road, Barangay Tambo, Parañaque City

THRU

: The OIC, PENRO, Oriental Mindoro

Suqui, Calapan City, Oriental Mindoro

FROM

The CENR Officer

Pasi I, Socorro, Oriental Mindoro

SUBJECT

INVESTIGATION REPORT CONCERNING THE FACEBOOK

POST OF MS. MARILYN M. ALCANICES DATED JULY 29,

2024

This pertains to the Facebook post of Ms. Marilyn M. Alcanices calling out the DENR and ENRO of Calapan City to attend to the on-going construction of Neo-Calapan Development Realty Corporation (NDRC) for the Calapan Hills Subdivision Project.

Relative thereto, through coordination with the NDRC designated Focal Person Mr. MJ Dela Cruz, this office has conducted an investigation/ocular inspection of the site on the same date as the subject FB post. It is worthy to note of the following facts:

- 1) The area mentioned was inside the titled property of Neo-Calapan Development Realty Corporation (NCDC) covered by TCT Nos. 064-2013005187, 064-2013005188, 064-2013005189, 064-2013005191, and 064-2022003197 and is developed for its Calapan Hills Subdivision Project;
- 2) The project was correspondingly issued with ECC-OL-R4B-2021-0082 dated July 13, 2021 which was amended to ECC-OLR4B-2023-0159 dated September 15, 2023 by the Environmental Management Bureau (EMB)-MIMAROPA.
- 3) Subsequently, the NDRC has applied for a cutting permit for trees which shall be affected by the project dated February 16, 2022 and eventually issued with a Special Private Land Timber Permit (SPLTP) No. DENR MIMAROPA Region 2022-023 signed by RED Lormelyn F. Claudio dated May 12, 2022;
- 4) Attendant to the conditions stipulated in the said permits:
 - NDRC has planted 11,000 Narra seedlings in a graduated National Greening Program (NGP) site in Barangay Banuton, Municipality of Naujan with site ID 18-175214-0135-0050 as part of the reforestation requirement under ECC to mitigate greenhouse gases (GHG) emissions of

Pasi, Socorro, Oriental Mindoro Email: <u>cenrosocorro@gmail.com</u>



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES KAGAWARAN NG KAPALIGIRAN AT LIKAS NA YAMAN MIMAROPA REGION

MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE



the project in line with the DENR's thrust for GHG emissions reduction programs.

A corresponding Memorandum of Agreement (MOA) for the Enrichment Planting of Twenty (20.0) Hectares within the portion of NGP 2018 signed by the NDRC was endorsed to RED dated June 6, 2023.

- 2) They also provided 50,000 Narra seedlings and 1,500 assorted seedlings as replacement for the trees that were cut consistent with Memorandum Order No. 2012-02 in support to the National Greening Program (NGP) and Climate Change initiatives of the Government.
- 5) In the ocular inspection conducted by the Investigating Team, they noticed that there is an on-going earthmoving activity such as grading and scraping for access road and excavating for network of drainage canal leading towards a siltation pond (confinement) in order to address the possible run-off during incessant rains. The siltation pond level is regularly monitored and desilted. Further, the were informed by Mr. Dela Cruz, that their site engineers and personnel, roam around the project site's entire area and perimeter thrice daily to assess the area to ensure the safety of residents in the adjacent low-lying areas within the Barangays of Guinobatan and Bulusan. He added that there is no development operations done during rainy day/s and all the heavy equipment assets are on stand-by in case of necessity/emergency.

The project site has an elevation of 83-85 meters above sea level and is classified as moderately susceptible to landslides. It is also classified as suitable for dwelling and development provided that appropriate engineering intervention measures are implemented in case there is a major alteration of topography during land grading to prevent mass movements or landslides, as stated in the Geohazard Identification Report (GIR) of Mines and Geo-Sciences Bureau (MGB) MIMAROPA.

All told, the Investigation Team has not recorded landslide and even indices of soil erosion/run-off in the site which implies that NDRC is complying with the required mitigating measure or engineering intervention to prevent such hazards from occurring.

However these findings, this office shall still continue to conduct monitoring of the NDRC compliance hereafter. We hope that this swift action from our office provides comfort to the apprehension of the concerned Facebook User.

Attached are photos and copy of supporting documents as part of the usual documentation.

For information, record and/or further instruction(s).

RODEL M. BOYLES

Pasi, Socorro, Oriental Mindoro Email: <u>cenrosocorro@gmail.com</u>



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES KAGAWARAN NG KAPALIGIRAN AT LIKAS NA YAMAN MIMAROPA REGION

COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE



Geo-tagged photos during the conduct of field investigation









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

PENRO Compound, Brgy. Suqui, Calapan City, Oriental Mindoro Regional Satellite Office: 6th Floor DENR by the Bay Bldg., 1515 Roxas Blvd., Ermita, Manila Office of the Regional Director: (02) 8536 9786; Clearance and Permitting Division: (02) 8633 2587

Records Management Unit: (02) 8633 8900; B-mail Address: embmimaropa@emb.gov.ph Website: www.mimaropa.emb.gov.ph

September 15, 2023

ECC-OL-R4B-2023-0159

(Amending ECC No.: ECC-OL-R4B-2021-0082)

Mr. HOLDEN YU KO
General Manager
NEO-CALAPAN REALTY CORPORATION
3rd Floor, RGV Building II, Sto. Nino, Calapan City, Oriental Mindoro

Subject:

ENVIRONMENTAL COMPLIANCE CERTIFICATE

Dear Mr. Ko;

This refers to the Environmental Compliance Certificate (ECC) application for the proposed CALAPAN HILLS SUBDIVISION PROJECT to be located at Barangays Guinobatan and Bulusan, Calapan City, Oriental Mindoro.

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 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.

Very truly yours,

JOE AMIL M. SALI Regional Director



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region

Community Environment and Natural Resources Office Socorro, Oriental Mindoro

June 6, 2023

MEMORANDUM

FOR

The Regional Executive Director

THRU

The OIC, PENR Officer

FROM

The CENR Officer

SUBJECT

MEMORANDUM OF AGREEMENT BETWEEN DENR-

MIMAROPA AND NEO CALAPAN REALTY CORPORATION

This pertains to the request for assistance of Neo Calapan Realty Corporation relative to their compliance to ECC condition number 3 that the proponent shall "establish a reforestation and carbon sink program using endemic/indigenous species to mitigate greenhouse gas (GHG) emissions of the project in line with DENR's thrust for GHG emissions reduction programs and National Greening Program". Relative thereto, this office has identified an area located in the upland of Brgy. Banuton, Naujan, Oriental Mindoro, as an allocated site for tree plantation and maintenance. The area measuring 20.0 hectares is portion of graduated NGP 2018 site which has low survival.

To formalize the commitment of the proponent with our office, a Memorandum of Agreement (MOA) was prepared specifically laying out the duties and responsibilities attendant to the objetives of the desired activity.

Thus, we are submitting the subject MOA for your perusal. Should the PENRO find the document in order, we then request for his signature and subsequent endorsement to the Regional Executive Director for approval.

For information and consideration.

ROBEL M. BOYLES

MEMORANDUM OF AGREEMENT

for the Enrichment Planting of Twenty (20.0) Hectares within the portion NGP 2018 at Barangay Banuton, Naujan, Oriental Mindoro

KNOW ALL MEN BY THESE PRESENTS

This MEMORAN	DUM OF	AGREE	MENT	(MOA)	is	made	and	entered	into	in
	, Oriental	Mindoro	this		day	of				
2023 by and between:										

The **NEO CALAPAN REALTY CORPORATION**, with office/business address at M. Roxas Drive, Barangay Sto. Nino, Calapan City, Oriental Mindoro, represented by its General Manager, **HOLDEN YU KO**, hereinafter referred to as the **PROPONENT**;

- and -

The DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES – MIMAROPA Region, with office address at 1515 DENR by the Bay Building, Roxas Boulevard, Ermita Manila, represented by its Regional Executive Director, LORMELYN E. CLAUDIO, CESO IV, hereinafter referred to as the DENR.

- WITNESSETH -

WHEREAS, the proponent seeks advice on their proposed environmental tree planting/ tree growing as its remuneration to the environment thus, requesting for a site to be planted with appropriate species;

WHEREAS, the proponent agreed on the proposal of the DENR to provide planting materials and undertake the tree planting activities within the Twenty (20.0) hectares open forest area within the portion of graduated NGP 2018 area located in the upland of Barangay Banuton, Naujan, Oriental Mindoro:



WHEREAS, the proponent shall enter into a Memorandum of Agreement with the DENR – MIMAROPA Region for the enrichment planting of the 20.0 hectares plantation site;

WHEREAS, the Proponent has formulated and herein attached as "Annex A" its Rehabilitation Plan together with the three-year Work and Financial Plan as guide in the implementation of the said activity.

WHEREAS, upon the completion of the three (3) years of the project, the proponent shall turn-over the said project to Barangay LGU for the sustainability of the project;

WHEREAS, both Parties have agreed on the following commitments and responsibilities for the implementation of the plan:

The PROPONENT (Neo Calapan Realty Corporation) shall:

- a. Provide 11,000 (including 1,000 allowance for mortality) Narra seedlings in year 1 for planting/replanting within an area of Twenty (20.0) hectares located at Barangay Banuton, Naujan, Oriental Mindoro;
- Facilitate in the tree planting activities in coordination with the DENR Oriental Mindoro and IP Community;
- Provide necessary planting materials of Narra for replanting on the second to third year plantation as part of maintenance activities in order to attain higher survival rate of seedlings planted, when mortality occurs;
- d. Participate in the project monitoring activities together (with photo documentation) with the DENR and IP Community;
- e. Prepare and submit periodic accomplishment report/highlights of activities undertaken (with photo documentation) for submission to the DENR-CENRO Socorro and PENRO, Calapan City; and
- f. Allocate fund for the maintenance and protection of the identified area to ensure sustainability and growth of the species planted for at least 3 years.

The DENR MIMAROPA Region thru the PENRO and CENRO Socorro of Oriental Mindoro shall:

- a. Provide technical assistance to the Proponent in the production and / or procurement of planting materials including the preparation of work and financial plan, when necessary;
- b. Provide other necessary technical assistance related to tree planting activities including GIS mapping and geo-tagging of their accomplishment;
- c. Undertake progress monitoring of accomplishments in coordination with the proponent; and
- d. Submit progress report to the Regional Office covering the entire duration of the AGREEMENT.



The Parties hereby agree to undertake the review of the terms and conditions of the Agreement as may be necessary.

Amendments to this MOA may be effected with the written concurrence of both the DENR and the Proponent;

The Agreement shall take effect upon signing by both parties on the date appearing on the first page hereof and shall remain in force within three (3) years.

IN WITNESS WHEREOF, the parties hereto have signed and executed this Agreement effective as of the day and year first above written.

General Manager

Neo Calapan Realty Corporation

LORMELYN E. CLAUDIO, CESO IV

Regional Executive Director MIMAROPA Region

WITNESSESS

PEPITO GITASAN

Bgry. Chairman

Barangay Banuton, Naujan, Oriental Mindoro

ALAN L. VALLE

OIC, PENR Officer

Barangay Suqui, Calapan City

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF) S.S.
CITY/MUNICIPALITY OF)
ACKN	OWLEDGEMENT
	, for and in the City/municipality of,
Philippines, this day of	, personally appeared the parties, known to
me and known to be the person who ex-	ecuted the foregoing instrument, and acknowlwdged
that the same is his/her free and volunta	ry act and deed.
WITNESS MY HAND AND S	EAL this day of,
	NOTARY PUBLIC
Doc: No	
Page No	
Book No. Series of	
- No. 10.0 10.1	

Indicative Reforestation (Rehabilitation) Plan

PENRO : Oriental Mindoro

CENRO : Socorro

Project : Tree Planting activity to include Maintenance and Protection of

Neo Calapan Realty Corporation (Represented by: Mr. Holden

Yu Ko)

Location of NGP Site: Barangay Banuton, Naujan, Oriental Mindoro

Area : 20.0 hectares

Species to be planted: Narra

The Neo Calapan Realty Corporation , seeks advice on their proposed environmental tree planting/ tree growing as its remuneration to the environment thus, requesting for a site to be planted with appropriate species for their reforestation activity. Neo Calapan Realty Corporation shall provide planting materials and undertake the enrichment planting activities within the Twenty (20.0) hectares within the portion of graduated NGP CY 2018 located in the upland of Brgy. Banuton, Naujan, Oriental Mindoro.

Neo Calapan Realty Corporation shall likewise provide 11,000 (including 1,000 allowance for mortality) Narra in year 1 for planting/replanting and facilitate in the tree planting activities in coordination with the DENR Oriental Mindoro and Banuton IP Community. The proponent shall also provide necessary planting materials of Narra for replanting on the second to third year plantation as part of maintenance activities in order to attain higher survival rate of seedlings planted, when mortality occurs.

As a counterpart, CENRO Socorro shall provide technical assistance to Neo Calapan Realty Corporation in the production and/or procurement of planting materials including the preparation of work and financial plan. It shall also provide other necessary technical assistance related to tree planting activities including GIS mapping and geo-tagging of their accomplishment as well as to undertake progress monitoring of accomplishment in coordination with the proponent.

The plantation establishment (Year 1) includes procurement of eleven thousand (11,000) Narra seedlings (including 1,000 seedlings allowance for mortality) to be planted in a 20.0 hectares area with spacing 4 meters x 5 meters. One Narra seedling cost Php 10.00 which accounts for Php 110,000.00 seedling budget. Site preparation and out-planting which include activities such as staking and outplanting amounts to Php 6,500.00 per hectare for all labor expenses.

For year 2 (maintenance and protection), stip brushing/ring weeding and replanting are the activities involved with an allotted budget of Php 5,000.00 (Php 5,000.00 per hectare) for labor expense. The allotted budget for the seedling procurement for replanting which is equivalent to 10% of the total seedlings planted is Php 10,000.00. However, when mortality is higher than 10%, the proponent has to augment the fund for the seedling procurement. Likewise, for Year 3 (maintenance and protection) has the same allotted budget. A total of Php 478,000.00 will be incurred by the proponent.

Prepared by

General Manager
Neo Calapan Realty Corporation

In Collaboration with/ Conformed by:

RODEL M. BOYLES
CENR Officer

WORK AND FINANCIAL PLAN CY 2023-2025

PENRO. ORIENTAL MINDORO

CENRO SOCORRO
PROJECT Tree Planting activity to include Maintenance and Protection

LOCATION Banuton, Naujan, Oriental Mindoro

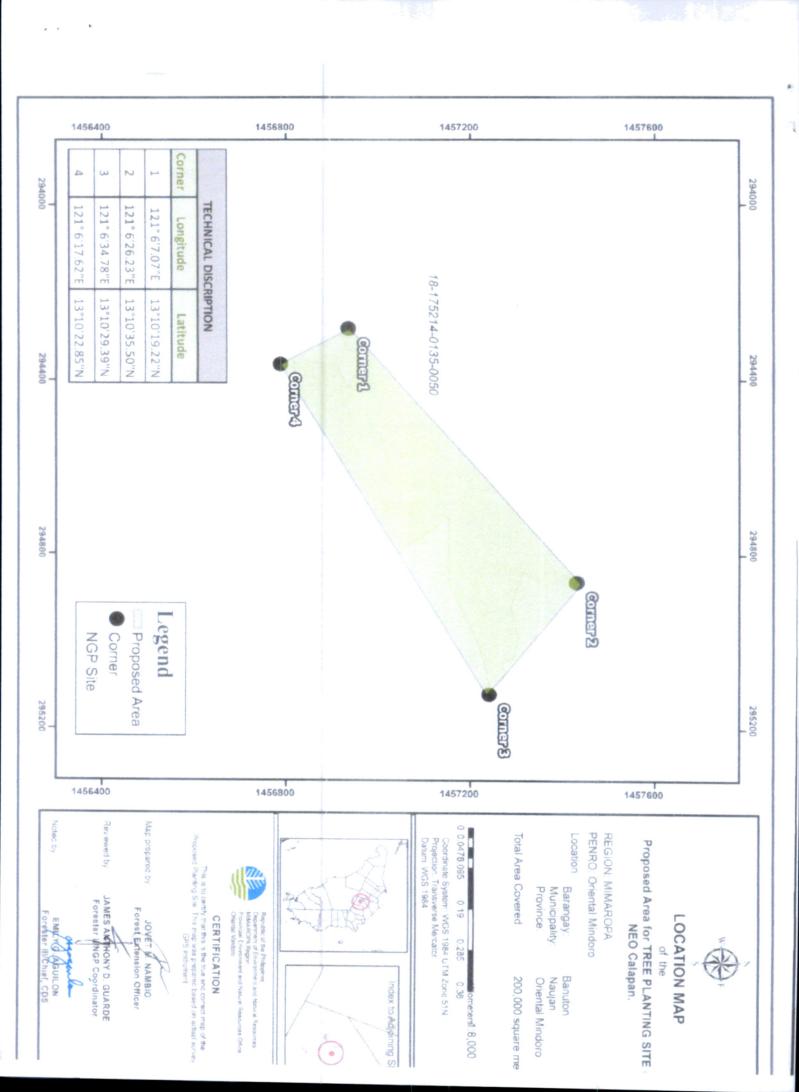
AREAtha). 20.0 hectare

78,000,00	110,000.00 478,000.00	110,000.00	258,000.00							GRAND TOTAL
10,000 00	10,000 00			1,000	1,000			10 00/seedling	no of seedlings replanted	4 1 strip brushing/ring weeding & columning
00,000,00	100,000,001 00,000,001			20.0	200			5,000.00	hectare	4. Maintenance and Protection (Year 3)
10,000 00		10,000.00		1,000		1,000		10 00/secdling	no of seedings replanted	3.1 strip brushing/ring weeding & replanting
00,000,001		100,000.00		20.0		200		5,000 00	hectere	3. Maintenance and Protection (Year 2)
130,000.00			130,000.00	20.0			20 (6500 00/ha	hectare	2.2.1 stip brushing, hole digging, staking & planting
										2.2 Site Preparation and Out-Planting
00.000,011			110,000 00	11,000			11,000	10 00/seedling	number	number of seedlings (500/hectare at 4mx5m spacing)
										2.1 Seedling Procurement
										2. Plantation Establishment (Year 1)
18,000.00			18,000.00	20.0			20	900 00/ha	hectare	1. Survey, Mapping and Planning (SMP)
(Pap)	Year 3	Year 2	Year 1	larget	Year 3	Year 2	Year 1	(Pnp)		
Total Cost		Year 2023-2025	У	Total	25	Year 2023-2025	Ye	UNIT COST	MWU	Project Activities

General Manager
Neo Chapan Realty Corporation General Manager

In collaboration with/conformed by

ALAN L VALLE OIC PENR Officer





OFFICIAL STATEMENT OF NEO-CALAPAN REALTY CORPORATION

Re: Environmental Compliance

July 30, 2024 - Neo-Calapan Realty Corporation (NCRC), a domestic corporation duly organized and existing under the laws of the Philippines, is the developer of the Calapan Hills Subdivision Project in Brgy. Guinobatan and Bulusan, Calapan City, Oriental Mindoro.

NCRC has received information that a Facebook post dated July 29, 2024 (11:00 AM) is circulating online regarding Calapan Hills Subdivision, or more commonly known as Neo-Calapan Subdivision. In the Facebook post of one *Marilyn Alcanices* (*Alcanices*), a picture of the perimeter of Neo-Calapan Subdivision bearing trees was posted along with a caption that reads:

"Sa taas ng Neo Calapan Subdivision. Pls lang protect those trees...to avoid soil erosion....maging lesson na po sa atin kung anong nangyayari in other places (Luzon. Visayas, Mindanao)

Calling DENR. City ENRO kahit po private property eto we have the right to inspect and implement appropriate laws." (Source: Sa taas ng Neo Calapan Subdivision.... - Marilyn M. Alcanices | Facebook)

In a comment to the original post which reads: "Kalbo n kabundukan ntin.:'(", Alcanices replied:

"Maritess Delos Reyes Santiago kita mo road sa Guinobatan to laging [baha] dahil kalbo na ang taas with road pa." (Source: Sa taas ng Neo Calapan Subdivision....

- Marilyn M. Alcanices | Facebook)

In this regard, this Official Statement is a formal announcement to the residents of Neo-Calapan Residential Subdivision and the public that <u>NCRC is fully compliant with environmental laws</u>, rules, and regulations set forth by the Department of



Neo-Calapan Realty Corporation

Environment and Natural Resources and the Environmental Management Bureau - MIMAROPA.

NCRC possesses complete permits and clearances, including an Environmental Compliance Certificate (ECC).

NCRC, after satisfying the requirements of the said application, has been issued ENVIRONMENTAL COMPLIANCE CERTIFICATE to wit:

"THIS IS TO CERTIFY THAT THE PROPONENT, NEO-CALAPAN REALTY CORPORATION, is granted this Environmental Compliance Certificate (ECC), for the proposed CALAPAN HILLS SUBDIVISION PROJECT located at Barangays Guinobatan and Bulusan, Calapan City, Oriental Mindoro by the Department of Environment and Natural Resources (DENR), through the Environment Management Bureau (EMB)."

In ECC, it is noted that NCRC obtained a perfect rating and performance of mitigating measures in relation to applicable laws and standards such as the following:

Potential siltation of nearby bodies of water due to	100% compliance with RA 9275
soil erosion	
Degradation of water quality due to contamination	100% conformance to DENR standards and
from domestic wastewater	compliance with RA 9275
Generation of dust from site preparation/	100% no dust generation
construction site or the transport of	
construction/excavated materials by delivery	100% compliance with RA 8749
trucks	
Noise pollution from delivery trucks	100% noise within the standard (NPCC MC 002
	Series of 1980)
Generation of noise from heavy equipment	100% noise within standards (NPCC MC 002
	Series of 1980)
Generation of spoils such as excess fill materials	100% of excess spoils collected/hauled
from grading and excavation activities	
Generation of construction debris and other solid	100% compliance with RA 9003
wastes	
Generation of used oil, paint, batteries, and other	100% compliance with RA 6969
hazardous materials	



Neo-Calapan Realty Corporation

Contamination of soil and groundwater due to hazardous wastes (HW) generation, leakage of oil % grease from vehicles and heavy equipment operation	
Generation of domestic wastewater	100% conformance with effluent standards 100% conformance to DENR standards and compliance with RA 9275
Degradation of air quality due to use of generator set (if any)	100% compliance with RA 8749
Generation of domestic wastes	100% compliance with RA 9003
Generation of hazardous wastes	100% compliance with RA 6969
Generation of effluents due to wastewater generation	100% compliance with DENR effluent standards (RA 9275; (i.e. DAO 2016-08 and DAO 2021-19)

(Source: Annex A, ECC)

NCRC is likewise entirely compliant with documentary reports, conditions and restrictions under the ECC. Prior to the construction stage of the Calapan Hills Subdivision, NCRC has complied with the restriction to establish a reforestation and carbon sink program using endemic/indigenous species to mitigate greenhouse gas.

In a similar manner, the company facilitated the planting of 11,000 Narra seedlings as part of the reforestation requirement set by the Department of Environment and Natural Resources (DENR) and in lieu of the trees cut for the project, bearing the necessary permits from the DENR. Additionally, the company provided 50,000 Narra seedlings and 1,500 assorted seedlings as replacements for the trees that were cut.

Moreover, NCRC strictly observes an Environmental Management Plan, fully complies with Environmental Examination Checklist Reports, and seasonably files its Quarterly and Semi-Annual Reports before the DENR-EMB.

More importantly, NCRC conducts site monitoring in the entire project site, where its monitoring team roves the site's area and perimeter at least three (3) times a day, and even more during the rainy season to monitor and assess the area and ensure everyone's safety. The company's first priority is the safety of all stakeholders and the protection of the environment.



Therefore, any and all suggestions that NCRC is not compliant with any environmental permits and clearances must be dismissed as MISLEADING, UTTERLY FALSE AND UNFOUNDED. In addition, the public is advised to be cautious and vigilant in reading and fact-checking Facebook posts, especially when such posts are unverified and unsubstantiated with evidence.

Calapan City, Oriental Mindoro, July 30, 2024.

NEO-CALAPAN REALTY CORPORATION (NCRC)





Q

Posts

Photos



Marilyn M. Alcanices is feeling sad with Amor Delas Alas - Asi at Neo Calapan Subdivision.

1h · 🔞

Sa taas ng Neo Calapan Subdivision. Pls lang protect those trees...to avoid soil erosion....maging lesson na po sa atin kung anong nangyayari in other places (Luzon. Visayas, Mindanao)
Calling DENR. City ENRO kahit po private property eto we have the right to inspect and implement appropriate laws.







SPECIAL PRIVATE LAND TIMBER PERMIT NO. DENR MIMAROPA REGION-2022-

Pursuant to P.D. 705, as amended, and existing forestry laws, rules and regulations, a Special Private Land Timber Permit is hereby granted to:

NEO-CALAPAN REALTY CORPORATION MS. ADELINA L. CHEN - PRESIDENT BARANGAY GUINOBATAN, CALAPAN CITY, ORIENTAL MINDORO

subject to the following conditions

Only four hundred eighty-six (486) naturally grown trees of various species inspected/verified by technical personnel of CENRO Socorro, Oriental Mindoro to be within TCT Nos. 064-2013005187, 064-2013005188, 064-2013005189 and 064-2013005191 shall be authorized to be cut, as specified below,

SPECIES	NO. OF TREE/S INVENTORIED	GROSS VOLUME (cu.m.)	NET VOLUME (cu.m.)
Premium			
Narra	4	11.57	8.10
Teak	1	7.56	5.29
Sub-total	5	19.13	13.39
Non-premium			
Antipolo	210	167.34	117.13
Taluto	268	187.98	131.59
Dita	1	4.00	2.80
Mangga	1	0.94	0.66
Tibig	1	2.13	1.49
Sub-total	481	362.39	253.67
TOTAL	486	381.52	267.06

- Issues that will arise from the tree cutting should be addressed directly by the permittee.
- The trees requested to be cut and parts thereof shall belong to the applicant subject to payment of forest charges. In case of the need to transport these, necessary transport documents shall be secured from the local DENR Office,
- Prior to tree cutting operations, a placard or signboard measuring 4' x 8' shall be installed in a conspicuous place within the cutting area to inform the public that the tree cutting operation is authorized by the DENR. Such notice of particulars shall include the name of permittee, purpose of the activity and the number of trees to be cut,
- Consistent with Memorandum Order No. 2012-02 dated 05 November 2012 known as "Uniform Replacement Ratio for Cut or Relocated Trees," the permittee is required to replace the tree to be cut with one hundred (100) seedlings, strictly of indigenous species with at least one (1) meter in height to be donated by the permittee to CENRO concerned in support to the National Greening Program (NGP) and Climate Change initiatives of the Government;
- The tree cutting operations shall, at all times, be under the direct supervision of the PENRO Oriental Mindoro or her duly authorized representative(s);
- The permittee shall be required to undertake measures during and after tree cutting operations to mitigate the possible impacts of the said activity to the locality and the environment; and
- Violation of any of the terms and conditions of the permit shall be sufficient ground for the termination/cancellation of this permit, subject to due process without prejudice to the imposition of appropriate penalties pursuant to existing regulations, and one strike policy to concerned DENR official(s) and/or personnel(s).

This permit is effective upon receipt of the CENRO/Implementing PENRO and shall expire after six (6) months or as soon as the authorized number of tree/s is/are harvested and disposed of, whichever comes first.

MAY 1 2 2022, at DENR MIMAROPA Region, Roxas Boulevard, Ermita, Manila

By the Authority of the Secretary

LORMELYN E, CLAUDIO, CESO IV Regional Executive Director

Date eccived by CENRO/Implementing PENRO



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

PENRO Compound, Brgy. Suqui, Calapan City, Oriental Mindoro Regional Satellite Office: 6th Floor DENR by the Bay Bldg., 1515 Roxas Blvd., Ermita, Manila

Office of the Regional Director: (02) 8536 9786; Clearance and Permitting Division: (02) 8633 2587
Records Management Unit: (02) 8633 8900;

E-mail Address: embmimaropa@emb.gov.ph
Website: www.mimaropa.emb.gov.ph

ENVIRONMENTAL COMPLIANCE CERTIFICATE

(Issued under Presidential Decree 1586)

ECC-OL-R4B-2023-0159

(Amending ECC No.: ECC-OL-R4B-2021-0082)

THIS IS TO CERTIFY THAT THE PROPONENT, NEO-CALAPAN REALTY CORPORATION, represented by its General Manager, HOLDEN YU KO, is granted this Environmental Compliance Certificate (ECC), for the proposed CALAPAN HILLS SUBDIVISION PROJECT located at Barangays Guinobatan and Bulusan, Calapan City, 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 the attached document labelled as Annexes A and B.

This Certificate is issued with the following details:

PROJECT DESCRIPTION

This Certificate shall cover the construction, operation, and maintenance of the Subdivision/Housing Project with a total land area of 200,947.02 m² (20.0947 Hectares) covered by a Transfer Certificate Titles Numbers 064-2013005187, 064-2013005188, 064-2013005189, 064-2013005191, and 064-2022003197) located at Barangays Guinobatan and Bulusan, Calapan City, Oriental Mindoro.

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

This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, and in accordance with 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 the imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from reevaluating and correcting any deficiencies or errors that may be found after the issuance of this Certificate.

Issued at EMB-R4B, 1515 L and S Building, Roxas Boulevard, Manila this September 15, 2023.

Recommending Approval:

Approved:

ENGR. BUENA FE A. RIOFLORIDO

Chief, Clearance and Permitting Division

JOE AMIL M. SALINO

Regional Director



Environmental Compliance Certificate
CALAPAN HILLS SUBDIVISION
Barangay Guinobatan Calapan, Mindoro Oriental
HOLDEN YU KO

I. ENVIRONMENTAL MANAGEMENT

ILAGAY ANG PORTION NA RE: COMMUNITY FACILITY (IF MAG ENCROACH)

All commitments, mitigating measures and monitoring requirements, contained in the Initial Environmental Examination Checklist Report for the proposed CALAPAN HILLS SUBDIVISION 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:

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMANCE OF MITIGATING MEASURES
A. Construction Phase		
A.1 Site Development including Materials, and Construction of Institutional Area, Water Supp	ng excavation (Clearing and Grubbing), De Roads and Drainage systems, Housing United By System	livery of Construction its/ Commercial Area/
Potential siltation of nearby bodies of water due to soil erosion	 Provision of sediment/silt control measures such as sediment/silt traps, slope stabilization, etc. Stockpile areas shall be positioned away from drainage and runoff routes Temporary silt traps/ponds shall be set-up around soil piles and a drainage canal shall be provided to divert the runoff water from soil piles and for possible siltation of the existing drainage routes, adjacent agricultural areas and nearby water bodies. Preservation of natural drainage shall be undertaken and shall not be condemned or if disturbed shall be automatically replaced by constructing or incorporating it in the design of the drainage facility of the subdivision; 	100% compliance with RA 9275
Degradation of water quality due to contamination from domestic wastewater	Provision of (indicate number) portalets for construction workers Note: at least one (1) portalet for 60 workers where the number of male workers exceeds 500 (as per IRR- Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991) Note: at least one (1) portalet for 25 workers where the number of male workers exceeds 100 (as per IRR-	100% conformance to DENR standards and compliance with RA 9275



Environmental Compliance Certificate
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	 Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991) Siphoning and collection of sewage from portalets shall be done twice a week. Provision of a hygienic septic tank or wastewater collection system for workers Hauling of wastewater from portalets by a third-party service provider shall be covered by a license/permit from LGU and with a valid Discharge Permit for a wastewater treatment facility 	
Generation of dust from site preparation/construction site or the transport of construction/excavated materials by delivery trucks	 Maintain wet access roads by water sprinkling along haul roads and active construction areas at least twice a day at a rate of 5 liters per square meter of unpaved road, especially during the dry season Set project vehicle speed limit to 30kph Trucks used for transporting construction materials should be fully covered and shall be thoroughly washed before leaving the project site to avoid the transfer of mud/dirt into the road 	100% no dus generation 100% compliance with RA 8749
Noise pollution from delivery trucks	Use of mufflers and exhaust silencers	100% Noise within the standard (NPCO MC 002 Series of 1980)
Generation of noise from heavy equipment	 Use of mufflers and exhaust silencers for construction equipment Provision of appropriate noise mitigating measures (such as the construction of fences, enclosure of stationary work areas and equipment, maintenance of equipment, etc.) whenever applicable Limit operation of noise-generating equipment/construction activities during peak hours 	100% Noise within standards (NPCC MC 002 Series of 1980)
Generation of spoils such as excess fill materials from grading and excavation activities	 Use of spoils as fill materials in lower areas within the project premises 	100% of excess spoils collected/hauled



	 Unused spoils shall be hauled by a third-party hauler with an approved permit/clearance from LGU 	
Generation of construction debris and other solid wastes	 Segregation of wastes and provision of temporary waste storage facility/area in compliance with RA 9003 before disposal and hauling by 3rd party accredited/recognized by LGU 	100% compliance with RA 9003
Generation of used oil, paint, batteries, and other hazardous materials Contamination of soil and groundwater due to hazardous wastes (HW) generation, leakage of oil & grease from vehicles and heavy equipment operation	 Proper segregation and containment of HW in safe, secured & well-ventilated storage areas with proper labelling/placards in accordance with prescribed labels/symbols per HW material classification under DENR AO 2004-36 Collection of hazardous wastes by DENR-accredited 3rd party service provider Preventive maintenance of vehicles and heavy equipment with proper handling of fuels, oils & lubricants to prevent oil spills 	100% compliance with RA 6969
B. Operation of commercial a	rea, institutional area, and occupied housin	a unita
Generation of domestic	Provision of adequate Wastewater	g units 100% conformance
wastewater	Treatment Facility (Sewage Treatment Plant) to treat the collected wastewater, whichever is applicable: We Hygienic septic tank (for 212 occupants or less – DILG MC 2019-62) with regular desludging by a third-party contractor (the contractor must have a valid discharge permit for its treatment facility) Wastewater treatment facility (for more than 212 occupants – DILG MC 2019-62) Note: For 98L per person per day water consumption; 80% will become wastewater – hence for 300 persons; at least 23.52 cubic meters per day WTF capacity shall be installed and operated	to effluent standards 100% conformance to DENR standards and compliance with RA 9275
Degradation of air quality due to use of generator set (if any)	Regular maintenance of pollution control equipment	100% compliance with RA 8749



Generation of domestic wastes		 Construction of a centralized Material Recovery Facility (MRF) provided with properly-labelled waste receptacles Hauling of domestic solid waste by LGU or third-party hauler with permit/clearance from LGU for proper disposal 	100% compliance with RA 9003
Generation of hazardous wastes	•	Proper segregation and containment of HW in safe, secured & well-ventilated storage areas with proper labelling/placards in accordance with prescribed labels/symbols Collection of hazardous wastes by DENR-accredited 3rd party service provider	100% compliance with RA 6969
Generation of effluents due to wastewater generation	•	Monitoring of the following significant effluent quality parameters (based on PSIC Code 681): ☑ BOD ☑ Fecal Coliform ☑ Ammonia ☑ Nitrate ☑ Phosphate ☑ Oil and Grease ☑ Surfactants	100% compliance with DENR effluent standards (RA 9275); (i.e. DAO 2016-08 and DAO 2021-19)

II. GENERAL CONDITIONS

- 1. 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 establish a reforestation and carbon sink program using endemic/indigenous species to mitigate greenhouse gas (GHG) emissions of the project in line with the DENR's thrust for GHG emissions reduction programs. The program shall be submitted to EMB-4B (MIMAROPA Region) six (6) months prior to the project implementation;
- 3. 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 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;
- 4. That the proponent shall strictly manage all external, 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;
- The proponent shall ensure that discharges/effluents always comply with the DENR standards and with all the provisions of RA 9275, the Philippine Clean Water Act of 2004 and its Implementing Rules and Regulations;
- 7. The proponent shall install and maintain air pollution control devices to minimize dust and gas emissions from different sources. Likewise, the proponent shall ensure that emissions always comply with the DENR standards and with all the provisions of RA 8749, the Philippine Clean Air Act of 1999 and its Implementing Rules and Regulations;
- 8. The proponent shall install, operate, and maintain collection, handling, treatment, storage and disposal facilities or any system serving different sources of hazardous waste. The system shall be properly operated to ensure compliance with all the provisions of RA 6969, the Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 and its Implementing Rules and Regulations;
- 9. The proponent Install, operate, and maintain collection, handling, treatment, storage and disposal facilities or any system serving different sources of solid waste. The system shall be properly operated to ensure compliance with all the provisions of RA 9003, the Ecological Solid Waste Management Act of 2000 and its Implementing Rules and Regulations;
- 10. That the proponent shall plant an equivalent area of the project with appropriate tree species and shall coordinate with PENRO/CENRO concerned for area identification within thirty (30) days prior to project implementation. And the status of compliance shall be included in the semi-annual submission of CMR;
- 11. That the proponent shall set up a competent Environmental Unit (EU) with a Pollution Control Officer, within sixty (60) days from the 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 Management Plan/ Environmental Monitoring Plan, the EU shall have the following responsibilities:
 - 11.1 Monitor actual project impacts vis-à-vis the predicted impacts and management measures in the Generic IEE Checklist Report;
 - 11.2 Recommend revisions to the EMP/EMoP, whenever necessary subject to the approval of EMB-4B (MIMAROPA Region);
 - 11.3 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;
 - 11.4 Ensure that monitoring and submissions of reports to EMB-4B (MIMAROPA Region) are carried out as required;
 - 11.5 Regular submission of the following reports:



- 11.5.1 A semi-annual *ECC Compliance Monitoring Report* within fifteen (15) days at the end of each semi-annual reporting period. The CMR must be provided with supporting documents and in accordance with the prescribed format stipulated in the Implementing Rules and Regulations of P.D. 1586;
- 11.5.2 Submit a *Quarterly Self-Monitoring Report* within fifteen (15) days at the end of each quarter. The SMR must be in accordance with the prescribed format of the *Self-Monitoring Report (SMR)* pursuant to DAO 2003-27;
- 12. 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;
- 13. 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;
- 14. 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;
- 15. That a billboard containing this message: "Notice to the Public, This CALAPAN HILLS SUBDIVISION PROJECT of NEO-CALAPAN REALTY CORPORATION has been issued an Environmental Compliance Certificate (ECC-OL-R4B-2023-0159) by the Department of Environment and Natural Resources Environmental Management Bureau MIMAROPA Region on September 15, 2023." 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;
- 16. 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;
- 17. That any authorized DENR-EMB personnel, with a proper identification card and travel/mission order, shall be allowed unconditional access to conduct an on-the-spot inspection and monitoring of the project without the need for prior notice to the proponent to oversee compliance with the ECC.

III. RESTRICTIONS

- 18. 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;
- 19. That all appropriate construction, operational, and resource-use permits/clearances from other national and local government agencies concerned (i.e. PMRB, PNP, LGUs, DPWH, DOH, NWRB, HLURB, MGB, DA, DAR, DOLE, DTI, etc.) shall be secured pertaining to the implementation of the project. Likewise, the proponent shall notify this Office of the reckoning date of project operation;



- 20. That no trees shall be affected in all phases of the project, or if there are any, necessary documents such as "Tree Cutting Permit", "Balling Permit" and other permits/clearances, shall be secured from the concerned DENR sector pertaining to the implementation of the project;
- 21. That no activities shall be undertaken within easement zones established under existing laws, rules and regulations;
- 22. That all sand and gravel/quarry materials to be used in the project shall be from legitimate sources with issued Environmental Compliance Certificate (ECC) and permits from the Provincial Government of Oriental Mindoro and MGB MIMAROPA;
- 23. 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 the transfer of ownership/management;
- 24. That all recommendations cited in the submitted *Geohazard Identification Report (GIR)* shall be incorporated in the construction of the facilities;
- 25. That the project shall adhere to the HLURB Guidelines of **Presidential Decree No. 957 and Batas Pambansa Bilang 220** for the Open Space requirements. Accordingly, the project proponent shall execute a notarized undertaking that open spaces shall be inalienable and non-buildable:
- 26. That City Engineering Approved plans and designs, including Septic Tanks or Sewage Treatment Plant (STP), shall be submitted to this office prior to project implementation; and
- 27. That the proponent (NEO-CALAPAN REALTY CORPORATION) 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. Moreover, this ECC will automatically **EXPIRE IF NOT IMPLEMENTED WITHIN FIVE (5) YEARS** from the date of issuance and the proponent must apply for a new ECC if it intends to proceed with the project.



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.

Environmental Planning Recommendations and Regulatory Requirements for the Proponent

Local Government Unit (LGU)

- 1. The proponent shall give priority employment to qualified local residents. Adequate public information for jobs available to local residents in the affected areas shall be provided;
- 2. The proponent shall coordinate with the concerned LGU for the implementation of Solid Waste Management Plan;
- 3. The proponent shall comply with the Building Code and Sanitation Code of the Philippines;
- The proponent shall provide and maintain drainage ways to allow run-off water to flow freely in such a way that it will not overflow or impede during heavy rains;
- 5. The proponent shall maintain the drainage ways along with the road grading;
- The proponent shall implement adequate and appropriately-designed drainage system, soil
 erosion protection structures and other structural measure to avoid erosion and flooding of
 adjoining properties.

DENR- Mines and Geosciences Bureau (MGB)

7. The proponent shall implement the recommendation/s in the Geohazard Identification Report (GIR) and proper mitigating measures on the identified possible geologic hazards in the project area.

DENR-Forest Management Bureau (FMB)/PENRO/CENRO

- The proponent shall secure tree cutting permit and permit/clearance for the removal of endangered or prohibited species and seedling replacement and shall institute measures in accordance with the amended PD 705 Revised Forestry Code (if necessary)
- 9. The proponent shall establish appropriate measures and maintain a buffer zone along the periphery site with appropriate species/dense vegetation cover to mitigate the adverse effect of its operation on the existing vibration, and dust buffers.

Department of Labor and Employment (DOLE) - Bureau of Working Condition

- 10. The proponent shall comply with the Labor Code of the Philippines.
- 11. Provision of appropriate Personal Protective Equipment (PPE) to all workers, if necessary.

Department of Human Settlements and Urban Development (DHSUD)

12. The proponent shall allocate for Open Spaces in no case to be alienated nor build upon thereon any structure. The said open space shall be titled separately and distinct from the lots for sale, pursuant to Section 31 of PD 1216



13. Compliance with standards and technical requirements for the development of Socialized Housing Projects, if applicable.

National Water Resources Board (NWRB)

14. The proponent shall register with NWRB for the use of water for domestic purposes (not more than 250-L/capita/day by single-household) pursuant to the amended IRR of the Water Code of the Philippines.

Bureau of Fire Protection (BFP)

15. The proponent shall comply with the fire safety protection requirements of the Fire Code of the Philippines

Other concerned Government Agencies

16. 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 the project operation

Proponent

17. 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 the dissemination and proper action of the parties concerned.

ENP. NICOME YURI V. DORADO

Chief, Environmental Impact Assessment Section Chief, Clearance and Permitting Division

ENGR BUENA FE A. RIOFLORIDO Chief, Clearance and Permitting Division

JOE AMIL M. SALINO Regional Director





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

24 July 2023

MEMORANDUM

FOR

The Regional Director

This Office

THRU

The Chief

Geosciences Division

FROM

Marie Louise C. Binwag

Science Research Specilaist II

SUBJECT

GEOHAZARD IDENTIFICATION REPORT (GIR) FOR

THE PROPOSED SUBDIVISION PROJECT OF NEO-CALAPAN REALTY CORPORATION LOCATED IN BARANGAY GUINOBATAN, CALAPAN CITY.

ORIENTAL MINDORO

I. INTRODUCTION

In response to the request of Mr. Holden Y. Ko, General Manager of Neo-Calapan Realty Corporation, the undersigned technical personnel conducted a Geohazard Identification Survey (GIS) at the proposed project site of Neo-Calapan Residential Subdivision Project II in Barangay Guinobatan, Calapan City, Oriental Mindoro on 23 June 2023.

This undertaking is in compliance with DENR Administrative Order 2000-28, which includes geohazard assessment as a requirement for the issuance of Environmental Compliance Certificate (ECC).

The primary objective of the field study is to assess the potential geologic hazards in the area, considering various factors such as geology, geomorphological features, tectonic setting, and prevailing geoenvironmental conditions at the proposed project site.

The survey methodology involves a rapid examination of the project site's geo-environmental conditions and a comprehensive review of existing geological and geohazard data from MGB, along with relevant thematic maps sourced from various government organizations like PHIVOLCS. Desktop analyses were also carried out utilizing Geographic Information System (GIS) software, Google EarthTM satellite data, and

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

Digital Elevation Model (DEM) produced from Interferometric Synthetic Aperture Radar (IFSAR).

II. PROJECT DESCRIPTION

As per the submitted brief project description, Neo-Calapan Residential Subdivision Project II is planned as a residential subdivision designed to offer housing options for low-income Filipino families. The proposed project will occupy a total land area of 193,123 square meters, specifically encompassing TCT Nos. 064-2013005189, 064-2013005188, 064-2013005191, and 064-2013005187. Furthermore, during the site visit, it was mentioned that the project would be executed in phases or batches.

III. LOCATION AND ACCESSIBILITY

The proposed Neo-Calapan Residential Subdivision Project II is located in Barangay Guinobatan, Calapan City, Oriental Mindoro. The project site is approximately 2.3 km northeast of Calapan City Hall, with geographical coordinates of 13° 23' 50.17" North Latitude and 121° 11' 20.75" East Longitude (Map 1).

Calapan City is accessible from Manila through a two-hour bus ride to Batangas Port, followed by a two- to three-hour ferry ride to Calapan Port. The proposed project site can be accessed by any type of land vehicle from Calapan Port via Roxas Drive, which leads to Barangay Sto. Nino. From there, the site is accessible via one-kilometer drive along a concrete road, followed by a shorter unpaved road adjacent to Neo-Calapan Residential Subdivision Project I.

IV. TOPOGRAPHY AND DRAINAGE

In general, the topography of Calapan City exhibits a diverse landscape, ranging from relatively flat to gently undulating terrain characterized by coastal plains and expansive floodplains on the eastern side. In contrast, the western part is marked by rugged, rolling mountains. The terrain in the southern region of the city generally covers a wide alluvial plain extending to the boundary of the Municipality of Naujan, while the city's broad plains on the west extend towards the boundary of the Municipality of Baco. The highest point near the vicinity of the proposed project area is Bulusan Hill, with an elevation of approximately 187 meters above sea level.

According to the Mines and Geosciences Bureau (MGB) – MIMAROPA generated Slope Map of the proposed site (Map 2), the central northwestern portion of the project site exhibits rolling to steep terrain, while the central southeastern part features undulating to rolling terrain. Additionally, the IFSAR DEM data indicates that the site's elevation varies from 20 to 80 meters above mean sea level.

During the site visit, no notable bodies of water, such as rivers and creeks were observed in close proximity to the site. The general condition of the site is dry but surface runoff may flow after periods of continuous rainfall. Moreover, to address potential water pooling during rainy season, a temporary drainage canal with a length of approximately 50 meters has been constructed in the area.

V. BRIEF GEOLOGY

According to the published Geologic Map of Mindoro Island (JICA-MMAJ, 1984) the project site is underlain by Quaternary Alluvium and Socorro Group rock formations.

Quaternary Alluvium refers to an alluvial deposit primarily composed of unconsolidated silt, sand, and gravel that was deposited throughout the Pleistocene and Holocene epochs. On the other hand, the Socorro Group is characterized by volcanic rocks and sedimentary rocks, which were formed during the Late Pliocene to Pleistocene periods. This group is mainly composed of terrace deposits, tuffaceous mudstone, tuff, reef limestone, basalt lava, and andesite lava.

The rock exposures observed at the site (Photo 1 and 2) are mainly tuff outcrops belonging to the Socorro Group of JICA-MMAJ (1984).

VI. GEOLOGIC HAZARDS

Below are the discussions on the degree of susceptibility of the site to various geologic hazards. Geologic hazards pertain to natural disasters from natural phenomena such as earthquakes, volcanic eruptions, mass wasting, etc.

1. Seismic/Earthquake Hazard

The likelihood of seismic-related hazards is greatly influenced by the distance from potential earthquake-generating sources, such as faults, subduction zones, and collision zones, as well as the subsurface lithology.

The island of Mindoro is seismologically active with recurring earthquakes. Among the earthquake generators that traverse the island are the Central Mindoro Fault, the Aglubang River Fault, and the Southern Mindoro Fault. Additionally, the region is also influenced by other seismic sources, such as the offshore Lubang Fault and traces of the Manila Trench.

The Aglubang River Fault, located roughly 5.9 aerial kilometers northeast of the proposed project site, is identified as the closest active fault trace (Map 4). This proximity makes the site susceptible to seismic or earthquake hazards, including both strong and weak ground shaking. An example of major seismic activity in the area occurred on November 15, 1994, when Mindoro Island experienced a magnitude 7.8 earthquake with its epicenter near Verde Island. This earthquake was attributed to the displacement of the Aglubang River Fault, which brought many casualties on the island's north coast because of tsunami and caused severe damage of the properties due to ground shaking.

Ground shaking is the primary cause of earthquake-related structural damage. The extent of the damage varies based on factors such as the amount of energy released during the earthquake, the physical properties of the soil and rocks through which seismic waves travel, and the characteristics of the geological structure.

According to the Ground Shaking Hazard Map of Calapan City, Oriental Mindoro (Map 5) generated by DOST-PHIVOLCS, the city is expected to encounter intense ground shaking ranging from very destructive to devastating, with an intensity level of VII or higher, in the event of an earthquake.

2. Mass Movement/Landslide Hazard

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 – MIMAROPA Region – generated Landslide Susceptibility Map of Calapan City (Map 6), the sloping area on the western part of the project site has been classified as moderately susceptible to landslides. However, the flat terrain in

the vicinity shows low to no susceptibility to landslides and other forms of mass movement.

3. Hydrologic/Flooding Hazard

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

According to the Flood Susceptibility Map of Calapan City generated by MGB – MIMAROPA Region (Map 7), the project site is deemed not prone to any flooding hazards due to its favorable topography and elevation. Moreover, there are no active streams that could directly impact the site and its immediate vicinity, confirming the site's low flood susceptibility rating.

VII. CONCLUSIONS AND RECOMMENDATIONS

The identified geologic hazards at the proposed project site are seismic-related ground shaking and landslide hazards.

During the construction phase of the proposed housing project, it is imperative to use robust materials for every unit, including the roof, posts and walls, ensuring their ability to withstand at least low to moderate earthquakes and ground shaking. It is essential to strictly adhere to engineering standards as outlined in the National Structural Code for Buildings in the Philippines.

With regards to the sloping area on the western part of the project site which has been classified as moderately susceptible to landslides, the site may be suitable for dwellings and development provided that appropriate engineering intervention measures are implemented in case there is a major alteration of topography during land grading to prevent mass movements or landslides. A subsurface geotechnical study must be undertaken if more than 2-story housing structures will be constructed to determine the bearing capacity of the underlying soil and rock materials.

In conclusion, the Neo-Calapan Realty Corporation may proceed with the proposed housing project as planned. However, it is crucial for the proponent to implement precautionary measures to address seismic or earthquake, ground shaking, and landslide hazards, which have been identified as potential geological hazards at the project site. Additionally, it is imperative to establish an effective drainage system within the project site to mitigate localized flooding or water pooling, particularly during prolonged and intense rainfall events.

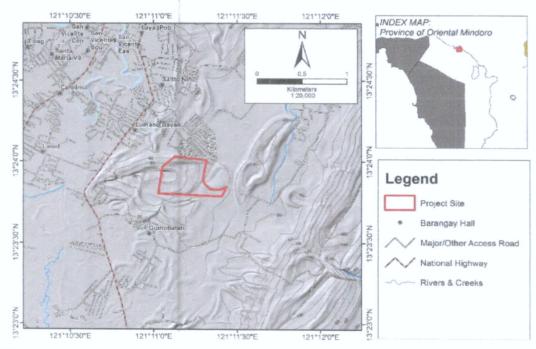
Prepared by:

Marie Louise C. Binwag

Science Research Specialist II

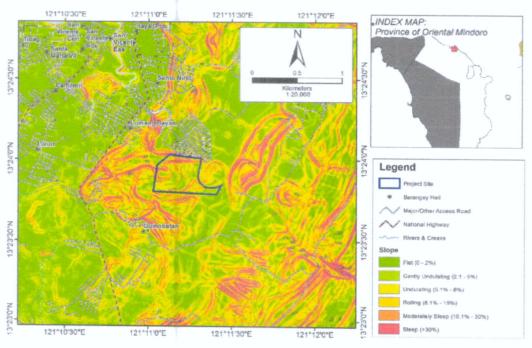
MAPS

LOCATION MAP OF THE PROPOSED SITE



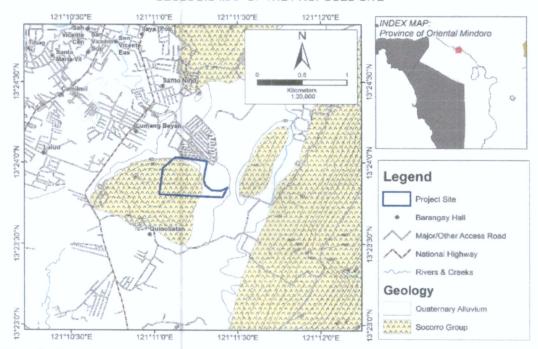
Map 1. Location Map of the proposed Neo-Calapan Residential Subdivision Project II.

SLOPE MAP OF THE PROPOSED SITE

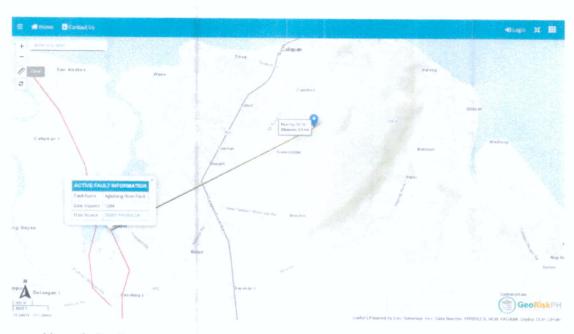


Map 2. Slope Map of partion of Calapan City showing the proposed Neo-Calapan Residential Subdivision Project II.

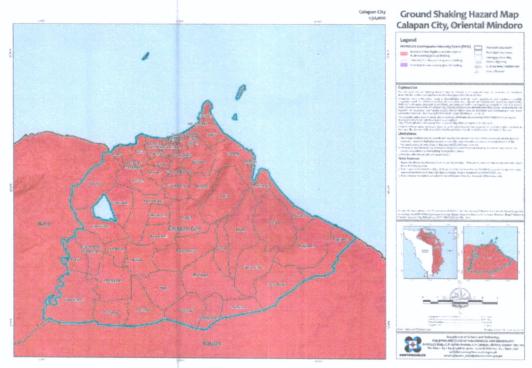
GEOLOGIC MAP OF THE PROPOSED SITE



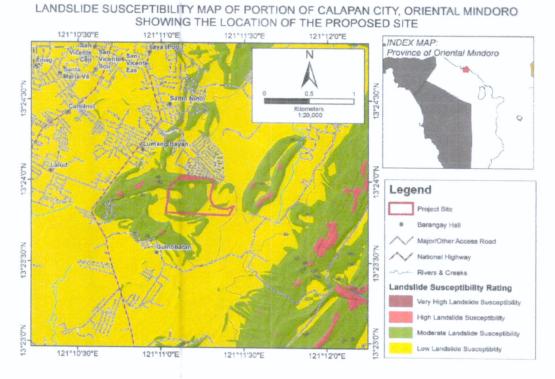
Map 3. Geologic Map of portion of Calapan City showing the proposed Neo-Calapan Residential Subdivision Project II.



Map 4. Earthquake generator in close proximity to the proposed Neo-Calapan Residential Subdivision Project II.

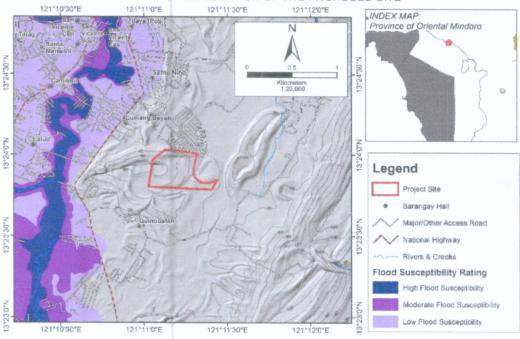


Map 5. Ground Shaking Hazard Map of Calapan City, Oriental Mindoro encompassing all the barangays of the city.



Map 6. Landslide Susceptibility Map of portion of Calapan City showing the proposed Neo-Calapan Residential Subdivision Project II.

FLOOD SUSCEPTIBILITY MAP OF PORTION OF CALAPAN CITY, ORIENTAL MINDORO SHOWING THE LOCATION OF THE PROPOSED SITE



Map 7. Flood Susceptibility Map of portion of Calapan City showing the proposed Neo-Calapan Residential Subdivision Project II.

PHOTOS



Photo 1. The rock exposure observed at the site has been identified as tuff.



Photo 2. Panoramic view of the proposed Neo-Calapan Residential Subdivision Project II.



Photo 3. Temporary drainage canal with a length of approximately 50 meters that has been constructed at the proposed project area.



Photo 4. Meeting with Mr. Mark Joseph Dela Cruz (Liason Officer).

