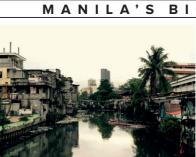
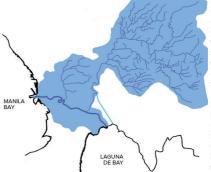


As part of considering cosmopolitan growth in the urban infrastructure and architecture of a 21st-century ASEAN city, a redefinition of what it means to grow as a nation that integrates both social and environmental awareness in design must be rudimentarily established, developed, and accomplished.





SITE AREA 9261.18 square meters



EXTERIOR PERSPECT FROM P. CASAL STRE rld Map The location was chosen as a means to demonstrate the

current situation of the Pasic River and the informal settlers capital of the Philippines, where urban growth, along with the major issue of land scarcity, is most tangible.

The goal of the project is to be able to make this development a template for all esteros, leading to a cleaner and more habitable Manila.



VISION

## FILTER FOR ILOG PASIG

Foremost in the regeneration of urban Metro Manila is to assess and create solutions to sustain and conserve its environmental surroundings, thus the immediate need for an integrated hyrdrological system through architectural design to rehabilitate and filter the Pasig River, especially as further urbanization is in tow.

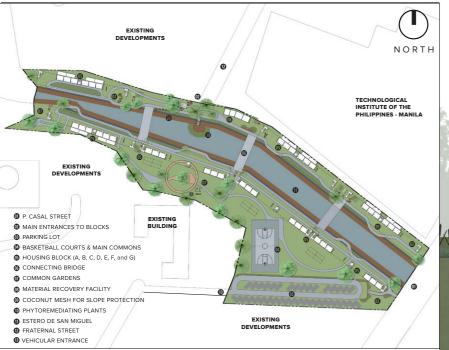
## **BETTER HOUSING, BETTER CITIZENS**

Informal settlers living along the esteros of Pasig River have cultural behaviors, which are detrimental to the community and the environment (illegal obtainment of electricity and water from nearby buildings, defecating and throwing waste into the estero), it is tantamount for an amelioriative housing both for their livelihood and their quality of living.

### **FUTURE TROPICAL LOW-COST HOUSING**

In filtering the river and cultivating responible citizens, Manila is more poised to regenerate itself as an urban oasis, a city of the future that is conscious of the essence of environmental protection, sustainable low-cost housina, and innovation as a means to instiil areat change within the social, urban, and political fabric of the capital, inspiring other parts of the country, even the world, as well.

## SITE DEVELOPMENT PLAN

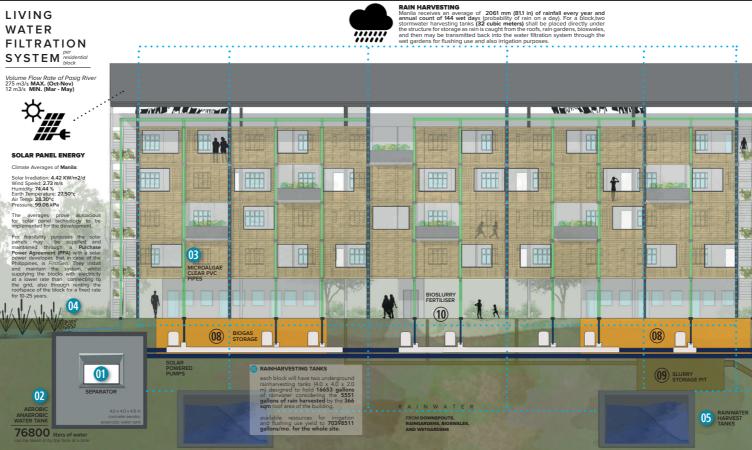


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# SITE ANALYSIS



# INTEGRATED SUSTAINABLE SYSTEMS



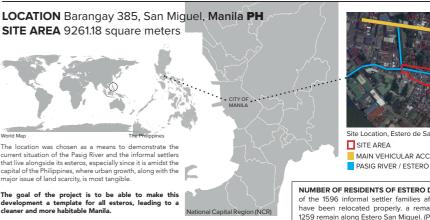
# MANILA'S BIGGEST CHALLENGES

growing cities, there remains the stigma of urban poverty which prevails at every corner of the city. The Philippines' capital is the 11th most populous city in the world, and according to an Asian Development Bank 2010 report, 35% of which are comprised of informal settler households. As much as the government has attempted to relocate and provide them with housing, the people return to their informal homes as the housing provided to them are far from their workplace, which is the main purpose of their arrival and stay in the city, and the substandard quality of their new abodes. Not too far from the informal settler issue is the Pasig River, the main waterline of Metro Manila that was once described as crystal clear, today is biologically dead. It spans 27 km long with an average depth of 1.3 meters, bisecting 5 major cities (Taguig, Pasig, Makati, Mandaluyong, and Manila) of Metro Manila, and runs from Manila Bay to Laguna de Bay. Most of its pollution began in the 1930s as the industrial age reached the Philippines and has continued to be battered after administrative negligence and the citizens' reckless ignorance, moreover degraded by the lack of proper waste management and sanitation infrastructure especially for the informal settlers who have chosen to live along the 43 minor tributaries / esteros little estuaries that branch out from the main riverline like canal streets) that are mainly located in Manila. Basically, the esteros became the slums' main sewer and trash can, leading to and keeping the Pasig River in its vilest state.

Although Metro Manila has been hailed one of South-East Asia's fastest

Efforts by the Pasig River Rehabilitation Commission (PRRC), a Private-Public Partnership (PPP) entity established in 1999 that seeks to clean the river and revive the city with it, to relocate these settlers and build linear parks are slow and remain ineffective as the informal settlers lapse and return to the esteros (in the last 17 years of PRRC's programs, only 9 of 43 esteros have been successfully rehabilitated), thus the immediate need for a firmer and more sustainable solution, and this time through architecture.

## SITE INFORMATION





NUMBER OF RESIDENTS OF ESTERO DE SAN MIGUEL of the 1596 informal settler families affected, only 337 ave been relocated properly, a remaining balance of 1259 remain along Estero San Miguel. (PRRC, 2014)



a simply designe A fiber bin is located within the se waste catchment that could be ea taken out by residents for transfer segregation in the **MRF**.

#### 0 AEROBIC / ANAEROBIC TANK

eparation of water from the so exposure to microorganisr lecompose and break down th

#### (B) MICROALGAE CLEAR PIPES

vith the solar powered pu h by gravi CONSTRUCTED WETGARDENS

# are

3000 06 MIXING PIT

(07)

BIODIGESTER

possible building Hollow Eco-Block PRODUCTION where biomass waste, human hyacinths) are n

#### 

gases

#### 08 BIOGAS USE

after the digester, a bo directs the biogas to gas s from which each bouse (9) SLURRY STORAGE PIT

the digested slurry, a bypro methanization process car as fertiliser, shall be stored

#### (10) DRIP IRRIGATION



BIOGAS

hen SYSTEN

110 cubic mete





## BUILDING FEATURES



## METHOD OF CONSTRUCTION



PLATINUM RATING