

## CASE STUDY

# Transforming a Business District into Walkable Space with Private Financing



On weekdays, about 250,000 people use the covered passageways in the Makati central business district in the Philippines. Photo credit: Ayala Land, Inc.

*Development fees placed on buildings were used to improve pedestrian mobility through elevated walkways in the Makati central business district.*

## Overview

As business districts mature, they often have to contend with increasing traffic congestion. Unfortunately, this problem is commonly addressed with heavy infrastructure that degrades the environment and negatively affects pedestrians. The central business district of Makati City in the Philippines faced this situation in the early 1990s but rather than give way to cars, it chose to give more to pedestrians.

The central business district of Makati City has implemented a pedestrian walkway network that has encouraged more people to walk over longer distances. This was achieved through the collaboration between the developer of the business district, Ayala Land, Inc. (ALI), and its estate association, Makati Commercial Estates Association, Inc. (MACEA), using land use controls and development charges to finance and operate the pedestrian walkway network.

*Ayala Land's Salvador Tan talked about the "Development of the Makati City Pedestrian Walkways" during the Urban Transport for Livable Cities Forum held in Manila in October 2019.*

## Project snapshot

<b>Dates</b>	<ul style="list-style-type: none"> <li>• <b>1995:</b> First pedestrian underpass and elevated walk project</li> <li>• <b>2019:</b> New pedestrian underpass and extension of elevated walk ongoing</li> </ul>
<b>Cost</b>	<ul style="list-style-type: none"> <li>• <b>\$20 million</b> : as of 2019</li> </ul>
<b>Institutions and Stakeholders</b>	<p><b>Financing</b></p> <ul style="list-style-type: none"> <li>• Makati Commercial Estates Association, Inc.</li> </ul> <p><b>Planning and design</b></p> <ul style="list-style-type: none"> <li>• Ayala Land, Inc., Roma Design Group and Ove Arup &amp; Partners</li> </ul> <p><b>Construction / Maintenance</b></p> <ul style="list-style-type: none"> <li>• Makati Commercial Estates Association, Inc.</li> </ul> <p><b>Operating agency</b></p> <ul style="list-style-type: none"> <li>• Makati Commercial Estates Association, Inc.</li> </ul>

## Context

Makati City represents less than 5% of the total land area and population of Metro Manila as of 2018. However, it attracts an outsize proportion of traffic and people due to its central business district with a developed floor area of about 7 million square meters. The daytime population on weekdays doubles to about 1.3 million people and more than 300,000 vehicles a day pass through its streets.

In the early 1990s, the already high levels of traffic congestion on its roads and crowding along its sidewalks, aggravated by the poor urban environment, caused the Makati central business district to re-evaluate its competitive position versus other newer emerging business districts. It was feared that the

Makati central business district would go into inexorable urban decay and drastic measures were needed to stop and recover from this situation.

## Challenges

The top-of-mind problem that the public wanted to be solved in the early 1990s was traffic congestion in the Makati central business district. There were calls for the widening of roads and the grade-separation of intersections, or placing the intersecting roads at different levels, so more vehicles could pass through.

Ayala Land, Inc. and Makati Commercial Estates Association, Inc. felt that accommodating more vehicles through its central business district would not improve the urban environment and may in fact worsen it. After a series of studies and master-planning led by Ayala Land and the consultants (Roma Design Group and Ove Arup & Partners) of MACEA, it was decided that the focus will be on improving the environment for pedestrians rather than for cars in the Makati central business district.

## Solution

One of the major findings of the studies was that pedestrians walk over a large network of paths and nodes centered on public transport routes and major intersections. Understanding this informal walking network enabled Ayala Land and Makati Commercial Estates Association to plan a formal network of elevated walks, pedestrian underpasses, covered sidewalks and transit sheds that could be built to better serve the needs of pedestrians.

The question then was how to finance the walkway network. Since the Makati central business district was a privately-owned and operated estate, it could not apply for or rely on public funding for infrastructure improvements. Ayala Land and Makati Commercial Estates Association was able to tap collected fees from its members to fund the walkway network.

The key financing tool used was the development charge which was a special assessment placed on buildings that developed to a higher allowed density than what was originally planned in the Makati central business district. This development charge accumulated over several years and continues up to the present. The current development charge stands at about \$80 per square meter relative to current market values of between \$5,000-7,500 per square meter of office space as of 2019.

## Results

The pedestrian walkway network in the Makati central business district currently consists of about two kilometers of elevated walks, about four kilometers of covered walks, seven pedestrian underpasses with eight under construction, and two pedestrian overpasses. These facilities are used by about 250,000 people per day on weekdays, with an average walking distance of about 700 meters per trip, higher than the 400 meters per trip before the walkway network was implemented.

Sidewalk bulb-outs or curb extensions at minor intersections are currently being implemented within the

central business district to calm traffic and facilitate pedestrian crossings. At the same time, these enhance the landscape and seating in the urban environment. The entry portals into the pedestrian underpasses are being replaced with a more modernist design along with the painting of murals within the underpasses to promote public art in the central business district.

A large city bus terminal is currently under construction beside a major light rail station in the central business district which will be connected to the elevated walk network to create a rail-bus interchange for commuters and pedestrians. Future plans to extend the elevated walk to a planned commuter rail station beside the central business district and addition to organized route transit sheds for public transport stops are currently being considered.

## Lessons

- A careful and objective study of pedestrian behavior is needed as guide for the efficient design and planning of walkway networks.
- Pedestrian walkways should be integrated into and connected with buildings to develop a larger network of nodes and paths for pedestrians.
- Self-financed walkway networks can be implemented, maintained and expanded over time.
- Periodic re-validation and updating of plans is required because pedestrian needs change over time.

## Resources

Ayala Land, Inc. 2015. *Let's Build Sustainable Communities, 2014 Sustainability Report*. pp. 24, 26-27.

Z. Galingan et al. Pedestrian-Friendly Streetscape in a Tropical Business District. *MUHON: A Journal of Architecture, Landscape Architecture and the Designed Environment*. University of the Philippines College of Architecture. Issue No. 3. pp. 9-15.



**Salvador C. Tan**

Architect and Urban Planner, Ayala Land, Inc.

Salvador Tan is an architect and urban planner with Ayala Land, Inc. He was involved in the planning, design and implementation of the pedestrian walkway network in the Makati business district as well as in the master-planning of several business districts, shopping centers, residential buildings, among others. He has certifications from the American Institute of Certified Planners, United Architects of the Philippines, and the Philippine Institute of Environmental Planners.

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