



Applying Placemaking Principles to the Design of a Shopping Center in Bacolod City

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Abstract:

Amidst the evolving urban landscape of Bacolod City, the dormant expanse of the former Bacolod City Domestic Airport offers a unique opportunity for transformative development. This study reimagines the underutilized site by integrating placemaking design principles to conceptualize a shopping center that transcends traditional retail spaces. Using a descriptive research approach, comprehensive site analyses were conducted alongside engagements with key stakeholders—residents, architects, and mall operations professionals—and extensive literature reviews. The goal was to develop design solutions aligned with community aspirations and sustainable urban innovation. Findings reveal a strong community desire for a multifunctional hub that seamlessly blends commerce, culture, and nature. Residents envision a dynamic space adorned with green landscapes, reflective of Bacolod's rich heritage, equipped with modern amenities that promote inclusivity, social interaction, and well-being. The proposed design leverages the site's strategic location and historical significance, transforming it into a landmark destination that revitalizes the city's social fabric and stimulates economic growth. This research presents a novel approach within the Philippine context, demonstrating how placemaking can transform underutilized urban areas into vibrant, people-centric environments. By intertwining sustainability, cultural authenticity, and active community engagement, the project sets a new standard for future urban developments aiming to balance commercial success with social responsibility. The recommendations provide a roadmap for stakeholders to collaboratively create visited and cherished spaces—a true embodiment of placemaking excellence.

Keywords: Placemaking, Shopping Center Design, Sustainable Development, Bacolod City, Philippines

Introduction:

Shopping centers, also known as shopping malls or plazas, are modern equivalents of historical marketplaces. These hubs, consisting of independent retail stores, restaurants, banks, theaters, offices, and other facilities, serve as essential spaces for commerce, recreation, and social interaction (Anderson, 2022; Abbas, 2020; Sheikh, 2020). As urbanization continues to grow globally, these centers have evolved beyond mere commercial spaces, becoming vibrant places where individuals connect with communities. In the Philippines, shopping centers have a rich history dating back to 1932 with the Crystal Arcade in Manila, which marked the beginning of a culture that integrates leisure and commerce. Over time, the term "mall" has become ingrained in the national lexicon, underscoring the significance of malls as cultural and social epicenters (De Ville, 2014).

For Bacolod City, such developments carry unique potential. The city's old airport site, left underdeveloped since 2008, presents an opportunity for revitalization as an economic and cultural hub, aligned with the city's development agenda (Adiong, 2022). This study proposes the application of the placemaking design approach in the development of a shopping center at the old airport site in Brgy. Singang, Bacolod City. Placemaking emphasizes creating vibrant, community-focused spaces, offering a unique opportunity to address evolving urban needs. This research seeks to propose an architectural design concept that would transform this underutilized area into a hub that connects people to places while fostering economic and social development.

Review of Related Literature:

The concept of placemaking, as presented in the City of Boroondara's (2019) framework, emphasizes fostering vibrant, inclusive local spaces. It has been widely discussed in urban and architectural studies as a strategy to



enhance community interaction and improve urban life quality (Maldonado Gil & Psarra, 2021; Sheikh, 2020). In retail, placemaking transforms shopping centers into experiential destinations, blending diverse uses to meet contemporary consumer demands (Thumtrongkitkul, 2018). Shopping centers in the Philippines are often perceived as "one-stop destinations" that support social connectivity, a core value of Filipino culture. Their unique ability to integrate commerce, leisure, and community underscores their importance in urban spaces (Castillo, 2018; Reyes, 2019).

While global examples illustrate successful integration of placemaking principles in retail, their application in the Philippine context remains underexplored, creating a knowledge gap that this study seeks to address. The revitalization of the old airport site aligns with broader trends in placemaking, which prioritize sustainable development and community engagement. This transformation can foster local pride, economic opportunities, and enriched urban experiences (City of Boroondara, 2019; Ackaouy, 2018; Wyckoff et al., 2015).

Methodology:

This study employs a descriptive research approach to explain individuals, activities, or circumstances as they occur in nature (Ionic, 2021). Descriptive research addresses current challenges or problems by employing data collection strategies that provide a more comprehensive understanding of the situation (Aggarwal & Ranganathan, 2019). This method was utilized to collect sufficient data and information from related journals and studies about the integration of placemaking principles in shopping center design, aiming to meet the research objectives and discover potential solutions leading to the proposed facility: applying placemaking principles to the design of a shopping center in Bacolod City.

The data sources collected and investigated in this study comprised primary and secondary data. Primary data are information gathered from first hand sources, while secondary data are obtained from sources not directly collected by the researcher but available for review.

Primary data involved identifying existing site conditions through site analysis and interviewing key informants. Evaluating the site's existing visual and physical characteristics included assessing its surroundings, traffic and parking conditions, climate and vegetation, opportunities and restrictions for incorporating natural processes into the construction and improvement of open spaces, street conditions, building conditions, and typology, including potential correlations (Washington Faculty, 2017). These conditions were the basis for design planning and considerations for site development, building configuration, orientation, and spatial planning.

Key informants were identified based on specific criteria relevant to the needed characteristics for each role. A mall architect—a registered and licensed architect with experience designing shopping centers—was interviewed to gather data regarding the architectural design process, requirements, conditions, and recommendations for designing a shopping center at the old airport site. A mall operations officer, a professional who handles shopping center operations and possesses extensive knowledge of mall culture in Bacolod City from direct observation and experience, was interviewed to gather personal experiences on mall operations. This was essential for planning the circulation within the shopping center and gathering data on strategies and innovations implemented to enhance user experience and maintain relevance despite the rise of online shopping.

Residents from barangays within a five-kilometer radius of the Bacolod Old Airport Site, who are frequent mall-goers or mall employees, were also interviewed. These individuals provided insights into their experiences, intentions, and the amenities they would desire in a shopping center established at the old airport site. The researcher included representatives from the student sector and senior citizens and employed individuals to understand and view the project from different community perspectives.

Secondary data were collected through document review, encompassing various documents necessary for the study obtained from online and library research. These included books, articles, journals, case studies, documentation, websites, news articles, thesis studies, and similar sources (Centers for Disease Control and Prevention [CDC], 2018). These documents were utilized to cross-reference data from findings, conclusions, and recommendations and incorporate the principles outlined in the framework into the project. These documents were utilized for cross-referencing data from findings, conclusions, and recommendations and for integrating the principles outlined in the framework into the project. These documents were utilized for cross-referencing data from findings, conclusions, and recommendations and for integrating the principles outlined in the framework into the project. Due to the limited timeframe of the study, not all supporting information could be gathered.

Data collection techniques employed in this study included direct observation, documentation, and interviews. Direct observation involved collecting data from the actual environment where the study was conducted, allowing for observation of site conditions, physical qualities of the site, existing structures, activities conducted in or near the site, and the residents' lifestyles nearby (CDC, 2018). This method aided in understanding the connection between people and their environment, assessing activities in existing shopping centers, and determining peak usage times.



The data obtained from this technique were used to address the first objective of gathering relevant information for the architectural design solutions for the proposed shopping center at the old airport site in Barangay Singcang, Bacolod City.

Due to ethical considerations and time constraints, primary documentation of existing shopping centers' maintenance facilities and administrative spaces, as well as the conditions of the chosen site, was not conducted. However, secondary documentation supported the investigation of site conditions and usage after its relocation until it was made inaccessible to the public.

Documentation as a data collection technique involves collecting data through photographs, audio and video recordings, note-taking, and other related methods. This technique provided evidence of ocular visits and observations conducted at existing shopping centers in the city. The data obtained were used to address objectives related to ascertaining existing site conditions, understanding resident behavior, and examining existing spaces in shopping centers as a basis for integrating and establishing the principles of the placemaking design approach in the architectural design solutions.

Interviews were conducted to gather data addressing objectives related to determining site conditions and identifying amenities needed by residents living near the proposed site in terms of retail, leisure, entertainment, business, and livelihood. Key informant interviews are qualitative, in-depth discussions conducted to gather data from individuals knowledgeable about the local community, such as local leaders, professionals, or residents (Akhter, 2022). These local experts provided insights into the nature of problems and offered recommendations for solutions based on their specific experience and understanding. Due to post-pandemic protocols and hybrid setups, these interviews were conducted either online—allowing respondents to answer the questionnaire at their convenience—or face-to-face, based on recommendations from mentors or available data online.

In conducting the interviews, the researcher identified key informants through recommendations and online research. A letter of request, along with a consent form and set of questionnaires requesting an interview at their most convenient schedule and venue, was submitted. This included a brief description of the nature and purpose of the study and informed them of their right to withdraw from the interview without risks or consequences, as participation was voluntary. They were also informed that the interview would be audio-recorded and transcribed.

In cases where respondents needed to provide the necessary information, possibly due to withholding information of their own accord, the information shared was excluded from the study. Respondents had the right to withhold and decline the publication of the full interview transcript, respecting the signed consent form and upholding confidentiality and integrity as provided in the informed consent.

To ensure confidentiality and anonymity, key informants were cited using assigned labels (e.g., K1 for the mall architect and K2 for the mall operations officer). This practice aligns with ethical considerations to protect participants' identities.

A document review was utilized to gather further information regarding integrating placemaking design principles into the proposed facility. The researcher used data from online and physical documents, such as newspapers, articles, case studies, theses, reports, journals, building codes and laws, architectural books, websites, and government legal documents. This approach was necessary for cross-checking data and integrating findings and results into the study's framework.

Data analysis involves the systematic application of logical approaches to describe, demonstrate, summarize, assess, and analyze information, offering a mechanism for drawing inductive inferences from the data and identifying patterns in observations used in field studies, ethnographic content analysis, oral history, biography, and unobtrusive research (Faculty Development and Instructional Design Center, 2005). Document analysis was a systematic procedure for reviewing or evaluating written and electronic documents. It required studying and interpreting data to elicit meaning, gain insight, and provide empirical knowledge, similar to other analytical techniques in qualitative research (Bowen, 2009). Researchers relied on the description and interpretation of data rather than raw data as the basis for analysis, often analyzing prior literature and incorporating that knowledge into their reports.

The analysis considered categories and concepts, where a concept is an idea or notion that allows for understanding a particular feature of the environment, and a category describes a class or collection of items grouped according to some standard or guideline (Van Mechelen et al., 1993). Conceptual theories suggest that individuals either learn a concise summary of the entire category or specific examples from the category, highlighting the distinction between concepts and categories (Murphy, 2023).

Ethical considerations were strictly observed throughout the study. Key Informant Interviewees were granted voluntary participation and the right to withdraw at any stage, as stated in the consent form (Fleming & Zegwaard,



2018). They could discontinue participation at any time without obligation and withdraw without justifying. Participants also had the right to withhold information during the interview and upon publication.

Following Republic Act No. 10173, known as the Data Privacy Act of 2012, all participants were assured complete confidentiality regarding their information and data, regardless of form or nature (National Privacy Commission, 2011). All participants remained anonymous, and the study did not include any information that could identify them. Objectivity and honesty were maintained by upholding intellectual honesty, fairness, and impartiality, ensuring that personal preferences, conflicts of interest, or external pressure did not interfere with the research process (International Federation of Accountants Ethics Committee, 2004). The researcher honestly reported all data and procedures without the intention to deceive through fabrication, falsification, or misrepresentation.

Respect for persons and beneficence were also integral to the study. Key informants were treated ethically by prioritizing their well-being, respecting their decisions, and ensuring their safety through acts of kindness that exceeded strict obligations (Office for Human Research Protections, 2018). This approach ensured the research was conducted with integrity and respect for all involved parties.

Results

The study aimed to determine the existing site conditions of the proposed shopping center location in Barangay Singcang-Airport, Bacolod City; integrate the elements and principles of the placemaking design approach in the areas of site planning, building function, building aesthetics and materials, and building technology; and produce architectural design solutions as a practical application of the study.

The proposed site is located in Barangay Singcang-Airport, one of Bacolod City's most extensive urban barangays, approximately 2.7 kilometers from the city center (Bacolod City Government, 2022c). Historically, the site served as the Bacolod City Domestic Airport from 1936 until its relocation in 2008 to Silay City (Cucueco III, 2021). The site covers approximately 40 hectares and is bounded by the Magsungay River to the northeast, Araneta Avenue to the southeast, Singcang-Airport Subdivision to the southwest, and adjacent land to the Guimaras Strait to the south.

Due to access restrictions and lack of response from the landowners—the Philippine National Bank and the Civil Aviation Authority of the Philippines—the researcher relied on secondary data sources for site information. The site has remained underdeveloped since its closure, with occasional use for recreational activities such as kite flying, biking, sports, and leisure events, including the 2012 aerobic dance workout and the 2022 Masskara Festival exhibitions (Samillano, 2012).

According to the General Land Use Plan, the site was previously designated as a significant transport zone. Proposals have been made to transform it into a special economic zone or commercial area, aligning with the city's revised zoning regulations under City Ordinance No. 993 (Adiong, 2022; PD 1096, 2015). The City Planning and Development Office supports the proposed development, categorizing it under Commercial Two or Medium Commercial (C-2) zoning.

Topographically, the site is relatively flat, with a slope of 0–3 meters, facilitating ease of development (Bacolod City Statistics Division, 2017). The soil type is hydrosol, which is unsuitable for traditional agriculture due to frequent submergence in seawater (Victoria, 2017). This presents an opportunity for urban gardening or farming initiatives as part of the development.

The site analysis indicated that building orientation should maximize natural light and ventilation, considering the northeastern cold winds (Amihan) and the southwest monsoon (Habagat) (Malano, 2021). The SWOT analysis identified several strengths: the site's recognized location, accessibility via Araneta Avenue, flat terrain, and availability of electricity and water. Weaknesses include its underdeveloped state, existing structures like the Philippine Airlines office requiring relocation, high flood susceptibility, and the presence of the old runway needing removal.

Opportunities involve utilizing the site for community recreation and providing a terminal for safer and more accessible travel. The area falls under the commercial zone, which suits the proposed development and may attract potential business opportunities. Threats include traffic congestion due to increased vehicle volume, adjacent residential dump sites posing health hazards, and potential vandalism or deterioration if not properly maintained. Climate data show distinct wet and dry seasons, with the rainy season from May to January and the heaviest rainfall in August and September. The average high temperature is 88.5°F, and the average low is 74.8°F (Bacolod City Statistics Division, 2017). The site's proximity to the Guimaras Strait and Magsungay River places it in a high flood susceptibility area, necessitating considerations for flood regulation strategies, sanitary sewer systems, and rainwater harvesting technologies.



Significant road networks, including Araneta Avenue and Alijis Road, and various transportation modes, such as public utility jeepneys, taxis, buses, bicycles, motorcycles, tricycles, and pedicabs, enhance accessibility. Utilities provided by the Central Negros Electric Cooperative, Inc. (CENECO) and the Bacolod City Water District (BACIWA) are available, along with existing sewage systems and telecommunications infrastructure.

Nearby facilities within a five-kilometer radius include educational institutions like Carlos Hilado Memorial State University-Alijis and VMA Global Colleges Foundation; religious establishments such as St. Thaddeus Church; commercial centers like Gaisano City Bacolod; and medical facilities like Bacolod Adventist Medical Center. Views from the site include adjacent residential areas, some used as garbage dumps, and potential vistas of the Guimaras Strait.

Key informants emphasized the importance of accessibility, proximity to residential areas, educational and institutional facilities, and parks in attracting people to the area (K1; K2). Residents expressed desires for parks with lagoons, safety, convenience, and inclusivity, especially for the elderly and persons with disabilities (K4; K5; K6; K7; K8). The cluster site planning technique was identified as suitable, allowing for recreational and open spaces alongside retail areas (Meck, 2007). This aligns with the "Power of 10+" and triangulation principles, encouraging diverse activities and interactions within the space (Project for Public Spaces, 2020).

Adequate parking provisions were highlighted, with a recommended ratio of one parking space per 100 square meters, considering the local preference for private vehicles (K1). The design should ensure accessibility and inclusivity, avoiding segregation in space planning (K1). Spaces for workshops, outdoor art, dining nooks, and pop-up events were suggested to foster community engagement and provide diverse experiences (City of Boroondara, 2019).

Residents preferred a calming, peaceful, and casual ambiance with contemporary design elements incorporating cultural or Bacolodnon aspects (K3). Incorporating nature-inspired environments with trees and greenery was essential for relaxation and well-being (K5; K6; K7; K8). Using locally sourced, natural materials like wood and stone was suggested to achieve sustainable placemaking design (Browning, Ryan, & Clancy, 2014).

Sustainable placemaking methods were considered, such as incorporating street furniture that is both functional and artistic (Building Futures, 2018). Innovative technology and green infrastructure, including 5G connectivity and environmental monitoring systems, were proposed to enhance user experience and operational efficiency. Integration of HVAC systems was recommended to ensure thermal comfort and maintain acceptable indoor air quality, balancing initial costs with long-term benefits (United States Environmental Protection Agency, 2022).

The researcher plans to collaborate with local stakeholders to prioritize community goals and develop a shared vision for the area. A place plan will outline the objectives and strategies for improvement, guiding the transformation of the vision into conceptual architectural designs. This process involves incorporating placemaking principles into the streetscape and infrastructure, ensuring that the shopping center meets the community's needs and aspirations.

Analysis and Discussion:

The findings underscore the potential of the proposed site in Barangay Singcang-Airport for developing a shopping center that embodies placemaking principles. The site's historical context as the former Bacolod City Domestic Airport offers a unique opportunity to create a landmark that resonates with the city's identity and heritage. Leveraging this history can enhance the shopping center's appeal and foster a sense of pride among residents.

Accessibility and connectivity emerged as critical factors, supported by the site's location along a major thoroughfare and its proximity to various community facilities. The emphasis on inclusivity and safety reflects contemporary urban design priorities, aligning with principles of creating people-centered spaces that foster social interaction (City of Boroondara, 2019). By ensuring the site is easily navigable and accessible through various transportation modes, the development can cater to a diverse user base.

The integration of recreational spaces within the shopping center aligns with trends in retail development, where shopping centers evolve into multifunctional destinations offering experiences beyond traditional retail (Thumrongkitkul, 2018). The cluster site planning approach facilitates this multifunctionality, accommodating diverse activities catering to different population segments. This approach enhances user experience and encourages longer visitation times, potentially boosting economic activity.

Residents' preferences for nature-inspired aesthetics and incorporating local cultural elements highlight the importance of creating a sense of place and belonging. This aligns with placemaking strategies focusing on the physical, cultural, and social identities that define a place (Long, 2017; Sheikh, 2020). Utilizing locally sourced materials supports sustainability and strengthens the connection to local craftsmanship and traditions. Incorporating green spaces and natural elements can contribute to visitors' well-being, offering restorative environments within an urban setting (Kellert, 2022).



Considering sustainable building technologies and intelligent infrastructure reflects a commitment to environmental responsibility and future-proofing development. Incorporating advanced HVAC systems and green technologies enhances operational efficiency and contributes to the well-being of users (United States Environmental Protection Agency, 2022). These technologies can also reduce the development's environmental footprint, aligning with global sustainability goals.

Challenges identified in the SWOT analysis, such as flood susceptibility and adjacent waste disposal sites, require strategic planning and design interventions. Implementing flood mitigation measures, such as elevated structures and effective drainage systems, is essential to address environmental concerns and ensure the project's resilience. Addressing waste management through proper facilities and community engagement can mitigate health hazards and improve the site's overall appeal.

Collaboration with local stakeholders in the design process is crucial for aligning the project with community needs and fostering a sense of ownership. This participatory approach is a cornerstone of effective placemaking, ensuring that developments are responsive to the people they serve (Project for Public Spaces, 2020). Engaging residents, local businesses, and government entities can facilitate the integration of diverse perspectives, enhancing the project's social and economic impact.

Integrating placemaking principles in the design of the proposed shopping center offers a pathway to creating a vibrant, inclusive, and sustainable urban space. By addressing the site's unique conditions and the community's aspirations, the project has the potential to contribute significantly to the economic development and social fabric of Bacolod City. The development can serve as a model for future urban projects prioritizing community engagement, sustainability, and cultural relevance.

Conclusion:

This study explored the integration of placemaking principles into the architectural conceptualization of a shopping center at the former Bacolod City Domestic Airport site in Barangay Singang-Airport, Bacolod City, Philippines. Through an in-depth analysis of existing site conditions, community engagement, and a review of relevant literature, the research aimed to develop design solutions that balance commercial objectives with cultural identity, environmental sustainability, and community well-being.

The findings affirm the significant potential of the proposed site for redevelopment into a vibrant commercial and community hub. The site's rich historical legacy as the former Bacolod City Domestic Airport (Cucueco III, 2021) offers an opportunity to create a landmark that celebrates the city's heritage and fosters community pride. Integrating historical elements into the design narrative can resonate with residents and enhance its cultural relevance, aligning with placemaking strategies that emphasize cultural authenticity and local character (Silberberg et al., 2013; Wyckoff et al., 2015).

Strategically located along Araneta Avenue, a major thoroughfare, the site is highly accessible, with proximity to residential neighborhoods, educational institutions, healthcare facilities, and recreational spaces (Bacolod City Statistics Division, 2017). This accessibility aligns with placemaking principles that prioritize people-centered, connected environments fostering economic vitality and social cohesion (Project for Public Spaces, 2016). The proposed use of cluster site planning facilitates multifunctional spaces that blend retail, recreation, and cultural activities, catering to diverse community needs and encouraging longer visitation times (Meck, 2007; Project for Public Spaces, 2020).

Environmental challenges, including flood susceptibility and adjacent waste disposal sites (Victoria, 2017; Malano, 2021), require thoughtful mitigation strategies. Incorporating elevated structures, effective drainage systems, and sustainable waste management facilities will ensure the site's resilience and appeal. Green technologies such as rainwater harvesting and advanced HVAC systems address environmental concerns while improving operational efficiency and user comfort (United States Environmental Protection Agency, 2022). These approaches align with global sustainability goals and future-proof the development (Alberti et al., 2017; Lamond et al., 2019).

Community preferences for green spaces and nature-inspired aesthetics underscore the importance of creating a calming, inclusive environment that promotes relaxation and well-being (K5; K6; K7; K8). Incorporating trees, greenery, and locally sourced materials will support sustainability and strengthen the connection to Bacolod City's cultural heritage and craftsmanship (Browning, Ryan, & Clancy, 2014). These design choices not only foster a sense of place but also enhance visitors' mental health and social cohesion, consistent with evidence of green spaces reducing stress and fostering community connections (Hartig et al., 2014; Jennings & Bamkole, 2019).

Collaboration with local stakeholders, including residents, businesses, and government agencies, is critical to aligning the project with community aspirations (Project for Public Spaces, 2020). Participatory planning ensures that the



development reflects the needs and desires of its users, fostering a sense of ownership and social capital. This approach reinforces the placemaking framework, which prioritizes inclusivity, cultural authenticity, and community engagement (Lydon & Garcia, 2015; Manzo & Perkins, 2006).

Future research should focus on detailed architectural designs, economic feasibility analyses, and exploring participatory planning models in similar urban contexts. Establishing community-based monitoring systems and long-term evaluation mechanisms will be essential for assessing the project's impact and adapting to evolving needs.

Integrating placemaking principles into the design of the proposed shopping center offers a pathway to sustainable urban redevelopment. By addressing environmental challenges, incorporating cultural and historical identity, and engaging the community, the shopping center can serve as a model for future developments in Bacolod City. This project has the potential to become a landmark that reflects the city's vibrancy, catalyzes economic growth, and enriches the quality of life for its residents.

Recommendations:

Based on the study's findings and discussions, the following recommendations are proposed to guide architects, urban planners, local authorities, and stakeholders in ensuring the successful integration of placemaking principles into the design and development of the shopping center at the former Bacolod City Domestic Airport site. These recommendations focus on creating a vibrant, inclusive, and sustainable urban space that meets the community's needs and aspirations.

Firstly, historical and cultural integration should be central to the shopping center's design. The site's legacy as the former Bacolod City Domestic Airport offers a unique opportunity to create a landmark that celebrates Bacolod City's heritage and fosters community pride (Cucueco III, 2021). Incorporating design elements, installations, or displays that reflect this history can enhance the site's identity and cultural significance (Silberberg et al., 2013; Wyckoff et al., 2015). Collaborating with local historians and cultural institutions will ensure the authentic representation of the city's heritage.

Secondly, continuous community engagement is essential throughout the project. Regular consultations with residents, local businesses, and government agencies will ensure that the development aligns with community needs and fosters a sense of ownership among stakeholders (Sanoff, 2000; Project for Public Spaces, 2020). Participatory planning techniques, such as public workshops and surveys, should be employed to gather diverse perspectives and incorporate them into the design (Healey, 1997).

Thirdly, the shopping center should integrate green spaces and nature-inspired elements to address community preferences for relaxation and well-being (Hartig et al., 2014; Kellert, 2008). Parks, gardens, and open spaces can create restorative environments and enhance the site's environmental quality. Biophilic design strategies, including incorporating trees, greenery, and natural materials, can improve mental health, encourage social interaction, and extend visitation times (Browning, Ryan, & Clancy, 2014).

Fourthly, sustainability and environmental resilience must be core components of the development. Implementing flood-resistant design features, such as elevated structures and effective stormwater management systems, will address the site's high flood susceptibility (Victoria, 2017; Lamond et al., 2019). Green infrastructure, including rainwater harvesting systems and permeable surfaces, can further mitigate environmental risks. Utilizing energy-efficient technologies, renewable energy sources, and sustainable building materials aligns with global sustainability goals and reduces the environmental footprint (United States Green Building Council, 2019).

Fifthly, accessibility and inclusivity should be prioritized to ensure the site caters to diverse users. Enhancing transportation links, including pedestrian-friendly pathways and cycling infrastructure, will improve access for individuals without private vehicles (Gehl, 2010; Litman, 2017). The design should comply with universal design principles, providing barrier-free access for people of all ages and abilities (K4; K6).

Sixthly, technological innovation can enhance operational efficiency and visitor experiences. Intelligent building systems for energy management, security, and maintenance can optimize the shopping center's performance (Anthopoulos, 2017). Offering digital amenities, such as free Wi-Fi, interactive directories, and mobile applications, will cater to modern consumer expectations and improve engagement.

Seventhly, the development should incorporate mixed-use functions to diversify its offerings and create a dynamic environment that supports various activities throughout the day. Including residential units, office spaces, entertainment venues, and community facilities will attract a broader user base and stimulate economic growth (Grant, 2002). Such multifunctionality aligns with contemporary trends in retail and urban development.

Eighthly, public-private partnerships and collaborations should be pursued to leverage resources, expertise, and funding. Partnerships with local businesses, non-profit organizations, and academic institutions can support



sustainability initiatives, community programming, and innovative design solutions (Brinkerhoff & Brinkerhoff, 2011). Collaborative efforts can ensure a holistic approach to development that balances commercial and social objectives.

Finally, a monitoring and evaluation framework should be established to assess the shopping center's impact over time. Key performance indicators related to social, economic, and environmental outcomes should be identified to guide ongoing improvements and ensure responsiveness to evolving community needs (ISO, 2014). Regular feedback mechanisms will allow for adaptive management and continuous enhancement of the project's relevance and success.

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