



## Linking Heritage and Mobility: A Conceptual Skywalk to Connect People, Places, and Public Life in Medan

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### ABSTRACT

This study proposes a conceptual design of a cultural skywalk to connect historical, civic, and recreational landmarks in Medan's government district. Using qualitative design research, the study applies concepts of contextual juxtaposition, walkability, public sphere theory, and connectivity. Data were gathered through spatial analysis, functional mapping, and precedent studies between January and March 2024. The proposed skywalk links key nodes such as the Old Mayor's Building, DPRD, Merdeka Field, and Benteng Field through an elevated pedestrian corridor. The design emphasizes safety, heritage visibility, and civic integration. Results suggest that elevated infrastructure can serve as a cultural and spatial strategy for revitalizing disconnected urban cores. The study offers recommendations for implementation through participatory planning and interdisciplinary collaboration.

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## INTRODUCTION

Urban environments in the 21st century are increasingly challenged by the twin imperatives of modernization and historical preservation. In cities with rich architectural legacies such as Medan – the capital of North Sumatra, Indonesia – these imperatives frequently converge in tension, especially in government and civic centers where heritage buildings, public services, and commercial activities coexist. Medan’s historical government district exemplifies this challenge: it hosts iconic Dutch colonial structures alongside modern administrative facilities, yet suffers from severe traffic congestion, inadequate pedestrian infrastructure, and disconnected public spaces. As the city continues to grow economically and demographically, ensuring accessibility, spatial cohesion, and identity preservation within this vital district becomes increasingly urgent (Siregar, Yusuf, & Simatupang, 2021).

Symbolically and geographically, the district is anchored by two major civic spaces: Lapangan Benteng (2) and Lapangan Merdeka (10) as shown in the Figure 1.

1. Santika Hotel
2. Lapangan Benteng
3. Wisma Benteng Restaurant
4. Paladium Mall & Aryaduta Hotel
5. House of Representative (DPRD)
6. Mayor Office
7. Grand City Hotel
8. Bank Indonesia
9. City Hall
10. Lapangan Merdeka

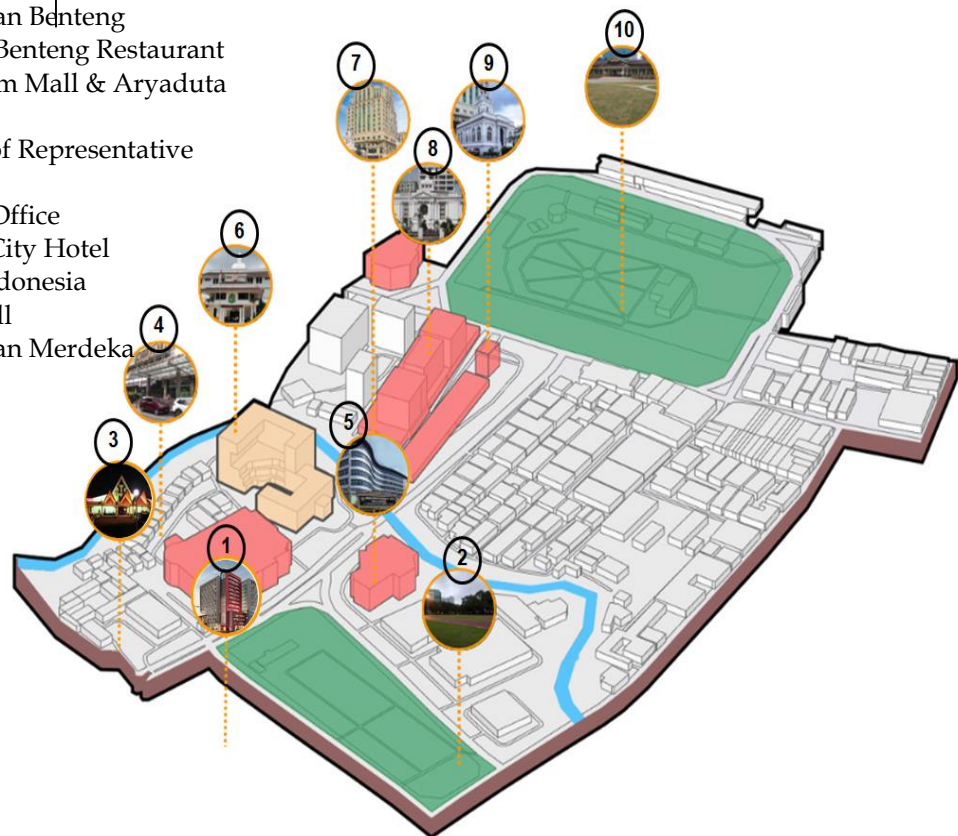


Figure 1. The Lanscape between the Two Major Fields; Lapangan Benteng (2) And Lapangan Merdeka (10)

These are surrounded by important civic, business, and cultural landmarks such as the Old Mayor’s Office, Cityhall Hotel, Bank Indonesia, and the House of Representatives (DPRD). However, pedestrian mobility between these key sites is seriously impeded by high traffic volumes, insufficient crossing infrastructure,

and limited walkable pathways. Walking from one landmark to another often involves navigating dangerous intersections or narrow sidewalks—when available—or resorting to motorized transport. These obstacles diminish the intended social, recreational, and civic functions of these spaces (Muzayanah, Widyawati, & Suparman, 2022).



Figure 2. The High Traffic Volumes, Insufficient Crossing Infrastructure, and Limited Walkable Pathways in the Area

This urban fragmentation disrupts not only physical movement but also the broader narrative of the city—a narrative told through the juxtaposition of colonial heritage and contemporary life. Medan’s civic core, as currently configured, marginalizes the pedestrian experience and overlooks the importance of walkability in cultivating community interaction, tourism, and informal civic engagement. Urban planning research consistently shows that livable cities are those that prioritize pedestrian movement and enrich the public realm through safety, identity, and inclusivity (Gehl, 2011; Speck, 2018).



Figure 3. Pedestrian conditions are characterized by narrow, damaged sidewalks and hazardous crossing points."

The primary problem this paper addresses is the spatial disconnection between public, civic, and cultural spaces in Medan's core, which hinders both pedestrian access and symbolic integration across heritage zones, government institutions, and recreational fields. This issue is exacerbated by the absence of vertical infrastructure, such as elevated pedestrian walkways or skywalks – tools that other global cities have used to reduce congestion, enhance safety, and redefine civic mobility. To date, Medan has yet to explore this possibility.

International precedents offer compelling inspiration. New York City's High Line, once an abandoned elevated railway, was transformed into a linear public park and cultural spine that has revitalized surrounding neighborhoods and drawn global recognition (Lindner & Rosa, 2017). Similarly, Seoul's Seoulo 7017, a pedestrian park constructed atop a former overpass, improved urban connectivity by linking transportation hubs and heritage districts into a continuous and vibrant public realm (Lee & Lee, 2019). These projects illustrate that elevated pedestrian infrastructure can transcend utilitarian needs to become symbols of civic identity and regeneration.

Building on these examples, this study proposes a conceptual skywalk design for Medan, stretching from the intersection of Jl. Kapten Maulana Lubis and Jl. Pengadilan to Lapangan Merdeka, connecting strategic civic and commercial landmarks including Santika Premiere Dyandra Hotel, Benteng Field, Palladium and Aryaduta Hotel, Old Mayor's Building, DPRD, Cityhall Hotel, and Merdeka Field. This elevated structure is envisioned not merely as a transport corridor, but as a multi-dimensional connector – uniting history and modernity, formality and informality, and public and private functions in a single civic gesture.

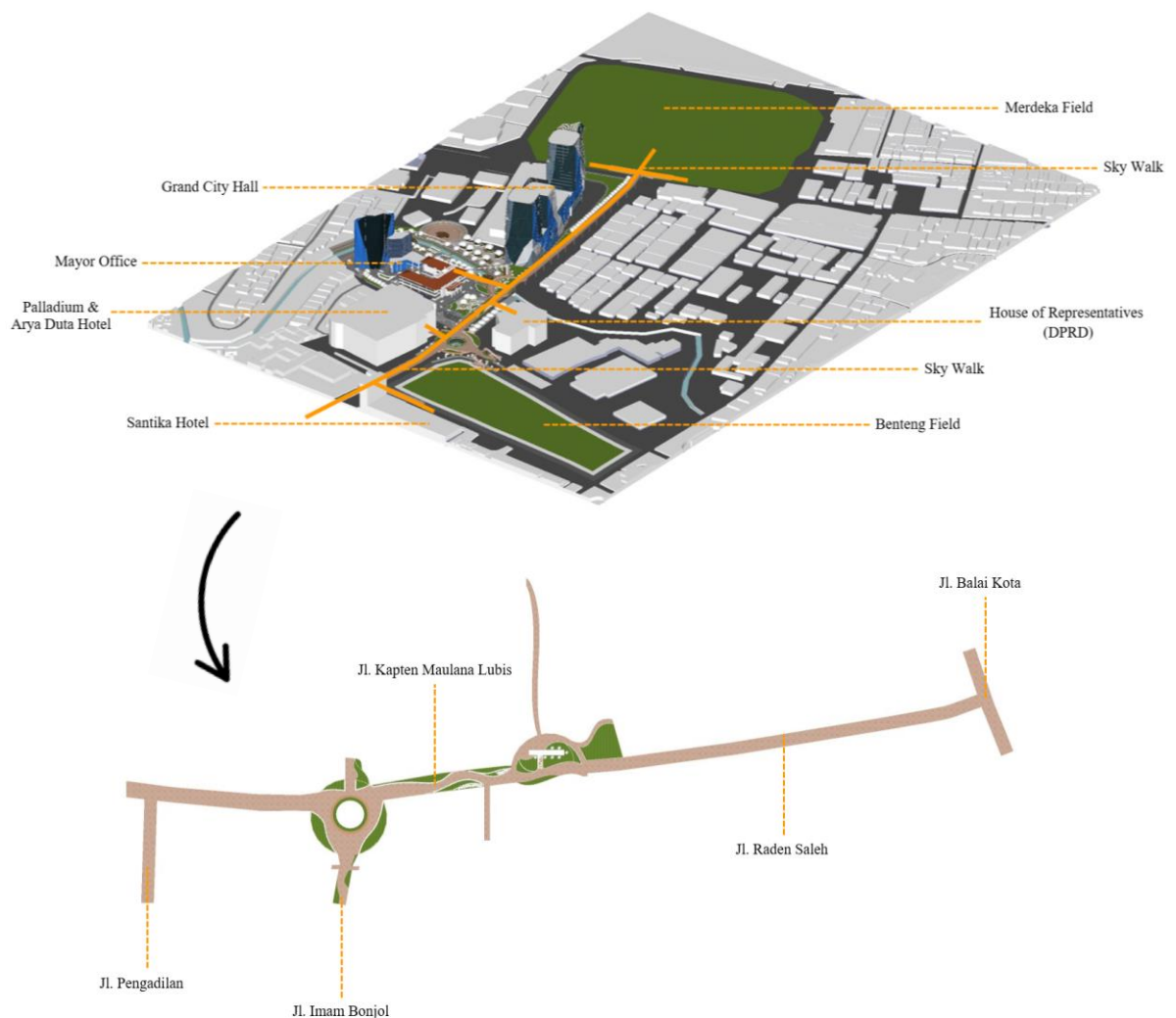


Figure 4. Conceptual design of Medan's elevated skywalk juxtaposes contemporary structure with colonial heritage, linking history, movement, and urban identity

Crucially, the skywalk bridges Medan's two most iconic public fields – Benteng Field, known for daily leisure and sports, and Merdeka Field, the historic venue of civic events. The design provides an elevated, safe passage between them, transforming the route into a "public sphere in the sky" – a space for movement, rest, social interaction, and cultural storytelling. It draws on the

architectural principle of contextual juxtaposition, wherein contemporary structures are purposefully placed in dialogue with historical ones—not to replicate or erase the past, but to complement and elevate its visibility (Tiesdell, Oc, & Heath, 1996). As Rogers (2000) emphasizes, successful urban design emerges from contrast, not uniformity—highlighting the layered temporal character of a city.

The skywalk is also a tool for spatial democratization, reclaiming the pedestrian's place in a car-dominated city. By prioritizing walkability, safety, and cultural connectivity, it redefines how citizens move through and interact with their city (Gehl, 2011). Ultimately, the skywalk concept represents a spatial vision—an architectural narrative that reimagines Medan's fragmented government district as a cohesive, elevated civic corridor where heritage, mobility, and public life converge harmoniously.

This study aims to contribute to urban design discourse by proposing a conceptual model that reconnects architectural heritage, civic institutions, commercial activities, and public recreation within a walkable and culturally expressive structure. Through qualitative design research and precedent analysis, the study explores how such an infrastructure could enhance safety, visibility, and public engagement within Medan's civic core. To guide this exploration, the study addresses two central research questions. First, it asks: How can a cultural skywalk improve mobility, connectivity, and public life in Medan's civic core? Second, it considers: What architectural and spatial design principles are necessary to ensure cultural sensitivity, functional efficiency, and aesthetic harmony in the integration of heritage and mobility?

These questions frame the conceptual inquiry, positioning the skywalk as both a spatial intervention and a civic instrument that addresses multiple urban challenges through thoughtful, inclusive design.

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### **Contextual Juxtaposition in Architecture**

The integration of modern infrastructure within historically rich city centers demands theoretical sensitivity to both continuity and contrast. One relevant lens is contextual juxtaposition, which refers to the deliberate placement of contemporary architecture alongside heritage elements to enhance their visual and cultural value. According to Tiesdell, Oc, and Heath (1996), this approach is essential in revitalizing historic urban quarters. Rather than imitating the past, juxtaposition allows historical buildings to stand out through contrast, contributing to civic pride, place identity, and sustainable renewal. Pendlebury (2013) further emphasizes that such contrast helps retain the legibility and meaning of heritage sites.

In Medan's civic landscape—defined by colonial-era buildings like the Old Mayor's Office and Cityhall Hotel—a skywalk designed through the principle of juxtaposition does more than connect buildings: it frames architectural history, elevating it as part of a modern civic experience. It links eras and uses, acting as both a structural and symbolic bridge between the city's past and future.

This proposal also draws from public sphere theory, rooted in Habermas's (1989) conception of public life as a space for open dialogue and civic participation. In urban design, this has been adapted by scholars like Madanipour (2003) and Carmona et al. (2010), who frame the public sphere as a spatial condition where inclusion, access, and interaction are shaped through design. In this context, the skywalk is not merely an elevated path—it is an extension of the public realm, allowing visibility, gathering, and encounter across civic, cultural, and recreational zones. It becomes a space for both movement and meaning.

Additionally, the proposal engages with current literature on urban mobility and walkability. Gehl (2011) and Speck (2018) assert that walkable cities improve health, reduce environmental impact, and enhance public life. Gehl emphasizes “human-scale” environments that foster social interaction, while Speck promotes connectivity and comfort as the foundations of successful walkable infrastructure. In Medan, where pedestrian infrastructure is often secondary to motor vehicle circulation, elevated pedestrian routes can reclaim space for walkers, reduce street-level conflict, and restore focus on people-oriented design.

Though not traditional examples of adaptive reuse, skywalks align with this concept by repurposing underutilized airspace to activate overlooked heritage zones. Douglas (2006) notes that adaptive reuse revitalizes areas while preserving historical integrity. Meanwhile, elevated design strategies—explored by Benevolo (2016)—offer both functional and symbolic value. Vertically integrated infrastructure provides new views of the city while alleviating pressure on congested ground networks.

Taken together, these theoretical frameworks support a vision of the skywalk as a multi-dimensional intervention—physically connecting fragmented districts, symbolically linking past and present, and socially reactivating the public realm.

### **Relevant Precedents**

One of the most frequently cited examples of elevated infrastructure being transformed into a vibrant public space is the High Line in New York City. Originally constructed as an elevated freight railway, the structure was reimagined in 2009 as a linear park emphasizing ecology, contemporary art, and community participation. Lindner and Rosa (2017) describe the High Line as a hallmark of “postindustrial urbanism,” wherein obsolete infrastructure is repurposed into a symbol of civic renewal and place identity. The project not only revitalized underused urban space but also stimulated economic development, tourism, and residential growth in the surrounding neighborhoods. Its success has inspired similar elevated projects around the world.

A notable counterpart in Asia is Seoulo 7017 in Seoul, South Korea. This elevated pedestrian park was converted from a decommissioned highway overpass and now connects various nodes such as traditional markets, transport terminals, and cultural landmarks. Lee and Lee (2019) characterize Seoulo 7017 as a “walkable spine” that not only alleviates pedestrian congestion but also

fosters tourism and enhances urban sociability. The project distinguishes itself through its integration of native plants, cultural programming, and user-friendly features, transforming a former barrier into a multifunctional public amenity.

Another instructive case is Clarke Quay in Singapore, where pedestrian connectivity has been leveraged to improve commercial, cultural, and recreational activity. What was once an industrial riverside zone has been transformed into a thriving nightlife and tourism district. According to Tan and Heng (2020), the area's shaded pedestrian corridors, climate-responsive cooling systems, and human-scaled urban furniture contribute to both comfort and character. The design maintains the visual and structural integrity of heritage warehouses while layering in adaptive reuse strategies, strategic lighting, and wayfinding elements that support walkability and commercial engagement.

Closer to Indonesia, the Pasar Senen Skywalk in Jakarta offers a more modest but contextually relevant example. Designed to link public transport users with nearby commercial zones and civic institutions, this elevated corridor improves pedestrian safety and reduces conflicts with motorized traffic. As noted by Santoso, Utami, and Prihatmaji (2021), the project demonstrates effective integration of intermodal functions within a high-density setting. Although less architecturally iconic than its global counterparts, Pasar Senen provides practical insights into zoning, comfort, and pedestrian infrastructure that are especially applicable to cities like Medan, where public space remains fragmented and heavily vehicle-oriented.

## **METHODOLOGY**

### **Research Approach**

This study adopts a qualitative design research approach grounded in urban theory, spatial analysis, and conceptual architectural design. Such methods are appropriate for exploratory, context-sensitive inquiries aimed at generating visionary but grounded spatial interventions, rather than testing hypotheses or collecting large-scale numerical data (Groat & Wang, 2013). In architecture, design research emphasizes interpretive reasoning, visual communication, and theoretical synthesis – tools essential for engaging heritage-rich environments (Dovey, 2010).

The proposed skywalk is conceptual, intended to provoke new thinking about mobility, public space, and heritage integration in Medan's civic core. The methodology draws on design-based inquiry, which supports the development of spatial narratives informed by local context and global precedent (Till, 2009). The process includes site observation, architectural data synthesis, and theoretical review to propose a culturally responsive and cohesive design strategy.

### **Data Sources**

Primary data were obtained through direct observation, Google Maps, and Google Earth Pro, which provided spatial layouts, elevation data, and satellite imagery. These tools supported the identification of pedestrian paths, traffic patterns, land uses, and civic landmarks. Virtual walk-throughs and site audits followed best practices in urban morphology and spatial analytics (Batty, 2013). The spatial focus was the corridor between Jl. Kapten Maulana Lubis and Jl.

Raden Saleh, including nodes like Santika Hotel, Benteng Field, Wisma Benteng, the Old Mayor's Office, DPRD, Grand Cityhall Hotel, and Merdeka Field.

To assess architectural context, data from open-source databases, municipal reports, and documents from the Medan City Planning Agency (Dinas Tata Ruang) provided insights into building functions, floor plans, and zoning. These were essential for evaluating horizontal and vertical integration, particularly the planned connection to the third floor of the new Mayor's Office.

The literature review supported spatial findings, with precedents such as the High Line (New York), Seoulo 7017 (Seoul), and Pasar Senen Skywalk (Jakarta) analyzed for design strategies, user experience, and flexibility. Sources included peer-reviewed journals (e.g., *Journal of Urban Design*, *International Journal of Heritage Studies*) and architectural monographs.

Key theoretical references framed the evaluation, including contextual juxtaposition (Tiesdell et al., 1996), the public sphere in urban design (Carmona et al., 2010), and walkability frameworks (Gehl, 2011; Speck, 2018). These guided the assessment of the skywalk's potential for spatial cohesion, cultural relevance, and civic integration.

#### **Analytical Tools and Methods**

Several analytical tools informed the conceptual design. Spatial mapping visualized relationships between pedestrian paths, landmarks, roadways, and green spaces. This GIS-style analysis identified barriers (e.g., traffic-heavy junctions) and opportunities for skywalk placement, as well as optimal entry and exit points. To explore movement behavior, user-activity flow diagramming was employed using principles from space syntax theory (Hillier & Hanson, 1984). These diagrams simulated pedestrian circulation, revealing how the skywalk could improve legibility, continuity, and connectivity across Medan's civic and recreational zones.

A functional zoning overlay evaluated how the skywalk could serve adjacent land uses—civic, commercial, hospitality, and recreational. Particular attention was given to vertical integration, including direct linkage to the new Mayor's Office. The analysis also considered alignment with topography, building access, and street networks.

Accessibility followed universal design principles to ensure inclusion of all user groups, including older adults, children, and persons with disabilities (Preiser & Ostroff, 2001). Collectively, these tools positioned the skywalk not just as infrastructure, but as a spatial and civic strategy for enhancing walkability, safety, and symbolic connectivity in Medan.

#### **RESEARCH RESULT**

This study proposes a conceptual skywalk design as an integrative urban infrastructure that connects key civic, cultural, commercial, and recreational nodes within Medan's historic government district. Informed by spatial analysis, urban theory, and global precedents, the proposed route embodies both pragmatic and symbolic strategies to restore cohesion in a fragmented urban core.

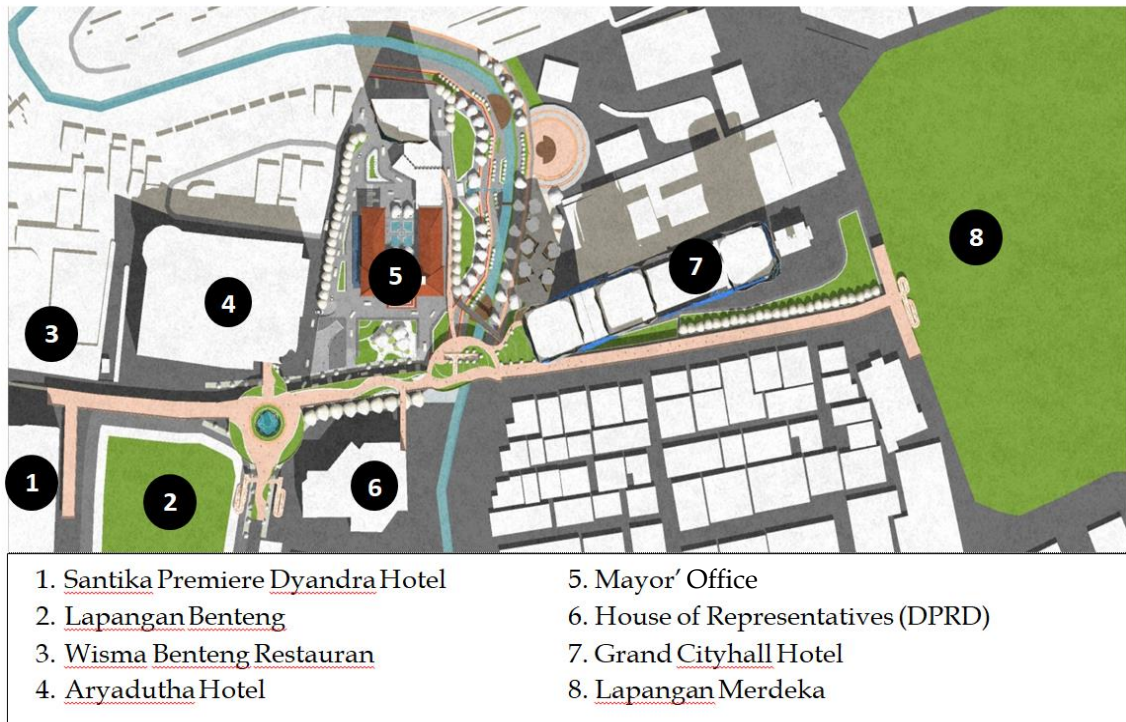


Figure 5. The 2D Skywalk Route

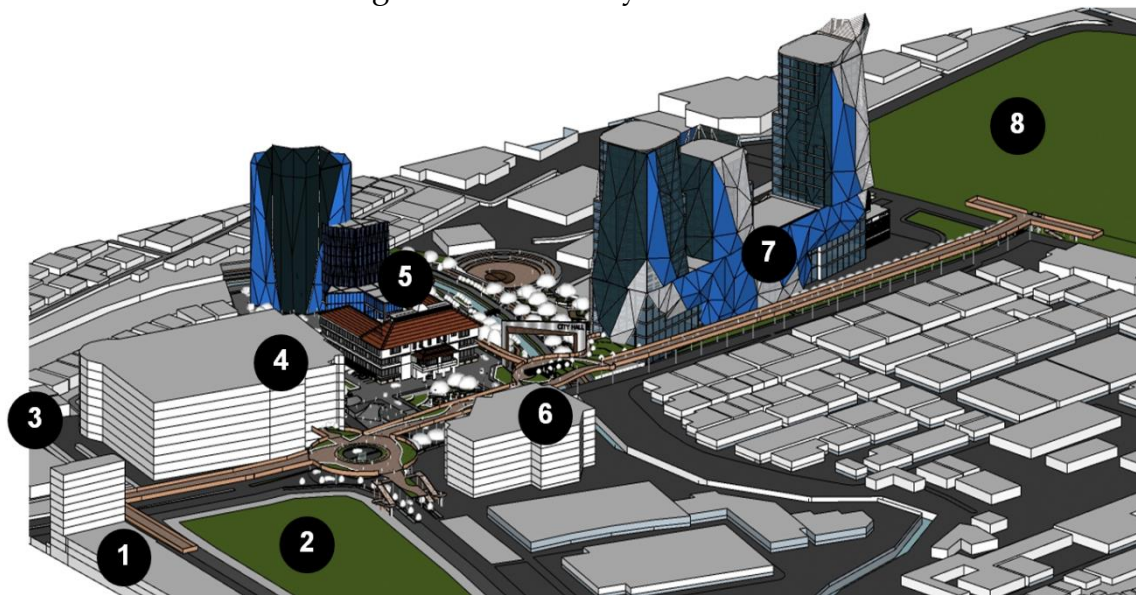


Figure 6. The 3D Skywalk Route

The proposed skywalk begins at the T-junction of Jalan Kapten Maulana Lubis and Jalan Pengadilan, a strategic, high-activity node adjacent to Santika Premiere Dyandra Hotel and Benteng Field. Chosen for its multimodal accessibility and civic prominence, this starting point links formal and recreational zones. The first connection is to Santika Hotel, integrating hospitality and government-related functions, followed by Benteng Field, a popular green space for exercise and public gatherings. The skywalk enhances safe access, strengthening ties between institutional and recreational landscapes. It then

connects to Wisma Benteng Restaurant, blending culinary activity with heritage value, reinforcing the skywalk's role as a cultural corridor.

Continuing eastward, the path reaches the Old Mayor's Building, where it frames the colonial landmark and supports future adaptive reuse. A T-junction branch extends to the DPRD Building, enabling elevated, secure movement between two major government sites while avoiding traffic congestion. Near the Deli River, the skywalk links to Grand Cityhall Hotel and Bank Mandiri, uniting commercial vitality with colonial heritage. The route culminates at Merdeka Field, Medan's most iconic civic plaza, enhancing public access and spatial visibility, and reactivating its role as a symbolic urban commons.

## **DISCUSSION**

### **Elevating Urban Safety through Design**

Urban safety is a critical concern in Southeast Asian cities like Medan, where high traffic volumes and fragmented pedestrian networks compromise mobility. Government buildings, landmarks, and public fields are separated by congested roads such as Jalan Pengadilan and Jalan Raden Saleh, making pedestrian navigation hazardous. This study proposes that an elevated skywalk, by removing pedestrians from vehicle-dominated ground levels, can significantly improve safety outcomes. Similar interventions have proven effective. In Jakarta, the Pasar Senen Skywalk has enhanced pedestrian comfort and reduced street-level accidents (Santoso, Utami, & Prihatmaji, 2021). In Seoul, Seoullo 7017, a former overpass turned pedestrian park, prioritizes safety through features such as lighting, railings, and wide walkways—reducing jaywalking and enabling secure nighttime access (Lee & Lee, 2019).

The proposed Medan skywalk follows this logic with transparent guardrails, non-slip flooring, lighting, and directional signage, all aligned with universal design principles (Preiser & Ostroff, 2001). Elevators and ramps accommodate users of all ages and abilities, including the elderly and disabled—addressing inclusivity often overlooked in Indonesian urban design.

It also enhances both actual and perceived safety. As Gehl (2011) explains, the former relates to physical risk, while the latter involves how safe users feel. The design improves both: removing pedestrians from traffic (actual safety) and ensuring visibility and openness (perceived safety). As Jacobs (1961) notes, visual connectivity increases comfort and reduces isolation, especially at night. Beyond daily use, the skywalk strengthens urban resilience. Its structure allows for emergency access, evacuation, and surveillance—an increasingly vital aspect of public space design (UN-Habitat, 2020). The redundancy it provides—safe, alternative routes—is a hallmark of inclusive urbanism (Speck, 2018), especially where sidewalks are narrow, blocked, or inconsistent.

Psychologically, elevated walking transforms the pedestrian experience. Free from traffic and noise, users gain a reflective, empowering perspective on the city—a “space of representation” in Lefebvre's (1991) terms. For Medan, this represents a shift from fragmented, car-centric streets to a cohesive civic experience. The proposed skywalk, in short, enhances urban safety through

thoughtful design, grounded in global best practices and adapted to local challenges. It reframes safety not just as the absence of risk, but as the creation of dignity, access, and confidence for all.

### **Reclaiming Walkability in a Vehicle-Dominated Civic Core**

Medan's civic center suffers from a lack of walkable infrastructure, with wide roads, minimal sidewalks, and fragmented public spaces undermining accessibility and urban livability (Gehl, 2011; Speck, 2018). Despite its historic landmarks, the area remains vehicle-dominated, discouraging walking and civic interaction. Walkability, as defined by Speck (2018), requires usefulness, safety, comfort, and interest – all lacking in Medan's current streetscape. Sidewalks are narrow or obstructed, crossings hazardous, and pedestrian zones marginalized. The proposed skywalk addresses this by creating a continuous, elevated corridor connecting Santika Hotel, Benteng Field, Wisma Benteng, the Old Mayor's Office, DPRD, and Merdeka Field – shifting priority from cars to people.

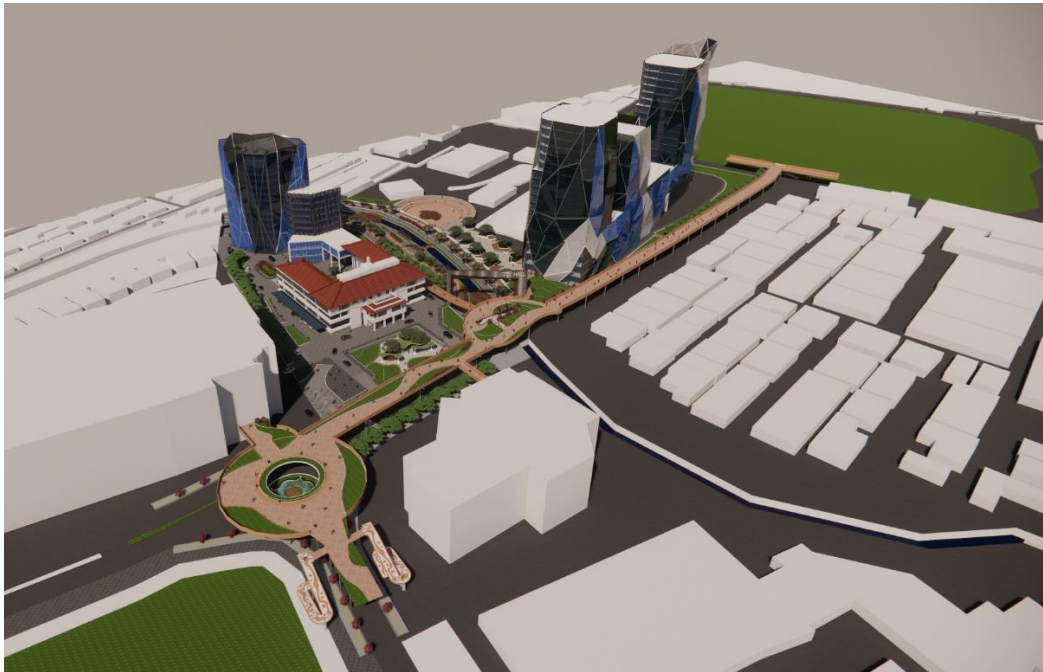


Figure 8. Visual perspective of the skywalk corridor

Beyond continuity, the design includes shaded sections, rest areas, and microclimatic features suited to Medan's hot climate. These encourage walking as a pleasant and meaningful activity, not merely a mode of transit. Elevated views offer new perspectives of heritage buildings and the Deli River, turning movement into experience. As Whyte (1980) observes, successful public spaces engage people visually and socially – goals supported by this design. In Southeast Asia, informal street economies often encroach on sidewalks, creating unsafe conditions (Yatmo, 2008). The skywalk offers a buffered alternative: while ground-level activity continues, pedestrians gain a protected, predictable route. This dual structure allows coexistence, not exclusion, between formal infrastructure and informal commerce.



Figure 9. Visualization of the skywalk ambiance as an elevated public space for movement, rest, and interaction

Comparative projects show how infrastructure can restore walkability. Seoul's Seoulo 7017 transformed a traffic overpass into a pedestrian park, boosting foot traffic and business while reducing crime (Lee & Lee, 2019). New York's High Line similarly reinvented walking as an aesthetic, social act (Lindner & Rosa, 2017). Though Medan differs, the principles apply: walkable environments yield social, environmental, and economic benefits (Frank et al., 2010). Therefore, improving walkability in Medan requires more than sidewalk upgrades—it requires visionary urban design. The skywalk reclaims human scale, connecting public life with place through a safe, continuous, and culturally rich pedestrian experience.

#### **Producing an Elevated Public Sphere**

Architecture tells the story of a city's values and history. In Medan's civic core, colonial landmarks such as the Old Mayor's Office, Grand Cityhall Hotel, and Bank Mandiri reflect the city's administrative and economic past. Yet, these structures are often overlooked amid modern clutter. The proposed skywalk reframes them—literally and symbolically—by turning heritage into an elevated, experiential narrative integrated into daily movement.

The design follows the principle of contextual juxtaposition (Tiesdell, Oc, & Heath, 1996), using modern materials to highlight—not replicate—historic elements. This contrast enhances visual clarity and preserves legibility (Pendlebury, 2013). Elevated views offer rare perspectives—rooftops, ornamentation, and spatial relationships—creating what Dovey (2010) calls an “urban montage” that reveals layered meanings as people move.

Interpretive tools such as signage, digital media, and art reinforce this narrative. Rooted in heritage interpretation (Uzzell & Ballantyne, 2008), these features transform the skywalk from transit space to cultural experience. Users engage with Medan's layered identities—colonial, post-independence, and contemporary—while traversing the structure.

This strategy also addresses urban social memory—shared place-based identity—as described by Hayden (1995). In contexts where colonial heritage can be sensitive, spatial design offers a way to reinterpret rather than erase. The skywalk contextualizes Medan's past within its evolving civic life, neither glorifying nor disregarding it.

Comparable projects reinforce this value. In Singapore, Clarke Quay preserves historic warehouses while integrating pedestrian infrastructure (Tan & Heng, 2020). In Rotterdam, the Luchtsingel bridge reconnects fragmented urban areas while commemorating lost heritage (Lupi & Zardini, 2018). Similarly, Medan's skywalk merges infrastructure, memory, and movement, allowing users to walk alongside their history.

Ultimately, heritage visibility becomes heritage activation. As users see historic buildings from new perspectives—literally and figuratively—they may develop stronger connections, encouraging tourism, preservation, and more inclusive urban narratives. In line with Pendlebury (2013), this approach embeds heritage in lived experience, not just symbolic preservation.

### **Connectivity as an Urban Healing Mechanism**

In rapidly urbanizing cities like Medan, fragmented development has led to physical and psychological disconnection across civic, commercial, and public spaces. The proposed skywalk addresses this by reweaving key nodes—Santika Hotel, Benteng Field, Wisma Benteng, Old Mayor's Office, DPRD, Grand Cityhall Hotel, Bank Mandiri, and Merdeka Field—into a continuous, elevated pedestrian spine. This spatial intervention functions as both a physical link and symbolic gesture, reducing vehicular dependence and activating dormant relationships between historically significant urban zones.

The design also promotes vertical connectivity, integrating access points like the planned third-floor entry to the new Mayor's Office, enabling seamless indoor-outdoor flow. As Dovey & Pafka (2020) emphasize, effective urban connectivity bridges buildings and public spaces, fostering informal civic interaction.

Well-connected cities, as Batty (2013) notes, demonstrate greater resilience, economic vitality, and civic participation. By reducing travel distances and clarifying navigation, the skywalk enhances mobility and equity. It also fosters cognitive coherence, or legibility, by threading together Medan's landmarks—aligning with Lynch's (1960) notion of mental mapping that reinforces urban identity.

Precedents illustrate the power of such infrastructure. Seoulo 7017 in Seoul reconnects previously severed paths, improving city legibility (Lee & Lee, 2019), while Luchtsingel in Rotterdam blends mobility, art, and memory (Lupi & Zardini, 2018). In Jakarta, the Pasar Senen Skywalk improves pedestrian safety and intermodal access (Santoso et al., 2021). Medan's proposal expands on these

by embracing urban healing, cultural expression, and spatial storytelling. Basically, the skywalk reconnects divided spaces and repositions the pedestrian at the center of urban life. It offers not just passage, but renewed continuity, dignity, and civic belonging—inviting Medan to rediscover itself through walkable, inclusive design.

## **CONCLUSIONS**

This study has proposed a conceptual skywalk design for Medan's historical government district as a visionary response to the city's long-standing issues of pedestrian inaccessibility, civic disconnection, and underutilized heritage. Anchored in principles of contextual juxtaposition, walkability, and public sphere design, the skywalk reimagines infrastructure as a civic and cultural connector that transcends its utilitarian role. It links seven key urban landmarks—Santika Hotel, Benteng Field, Wisma Benteng, Old Mayor's Office, DPRD Building, Grand Cityhall Hotel, and Merdeka Field—into a unified, elevated urban corridor.

At the core of this proposal are six interdependent design values: safety, walkability, public sphere creation, heritage visibility, connectivity, and civic inclusion. Together, these values frame the skywalk not just as a piece of transport infrastructure, but as a platform for re-engaging with the city. By raising the pedestrian realm above congested, unsafe roads, the design prioritizes people over vehicles and encourages healthier, more interactive movement patterns. At the same time, by integrating viewing platforms, rest areas, and interpretive elements, the skywalk enhances the experience of urban history, memory, and identity.

Furthermore, the proposal positions the skywalk as a healing mechanism—a spatial intervention that reconnects not just places, but institutions and communities. It facilitates vertical and horizontal integration across public and private zones, promoting civic cohesion and spatial democratization. Comparative insights from successful elevated pedestrian infrastructures in Seoul (Seoullo 7017), New York (The High Line), and Jakarta (Pasar Senen Skywalk) demonstrate that such projects, when designed holistically, can contribute to social activation, heritage conservation, and urban regeneration.

Overall, this study contributes to the discourse on heritage-sensitive urban design and infrastructure as public realm, offering an interdisciplinary model that combines theory with conceptual design.

## **RECOMMENDATIONS**

To move from concept to implementation, the study recommends conducting technical feasibility studies, including structural and environmental assessments. Community engagement through participatory design is vital to align the project with local needs. The skywalk should be integrated into Medan's urban master plan and coordinated across relevant agencies. Incorporating smart and sustainable technologies, such as solar lighting and green materials, will enhance long-term viability. Pilot segments can be tested near key landmarks to

evaluate public response. As a cultural spine, the skywalk can host public art and events, reinforcing civic identity. Finally, aligning with SDG 11 opens pathways for global support, positioning the skywalk as both infrastructure and a symbol of inclusive urban regeneration.

## **ADVANCED RESEARCH**

### **Limitations of the Current Study**

This study presents a conceptual design without technical validation such as structural analysis or engineering feasibility. It also lacks stakeholder engagement, meaning perspectives from local authorities, communities, and conservationists were not incorporated. Additionally, no empirical data were collected to assess actual user behavior or preferences. Lastly, the design was not accompanied by environmental or heritage impact assessments, which are essential for interventions involving protected sites and sensitive ecosystems.

### **Recommendations for Further Research**

Future research should focus on translating the conceptual skywalk into practical implementation. This includes technical feasibility studies (e.g., structural modeling, safety codes), and stakeholder engagement through participatory design to enhance social legitimacy. Behavioral and spatial usage studies using tools like GIS tracking and surveys are also recommended to refine placement and design. Additionally, analysis of urban policies and legal frameworks is needed to align the project with zoning and heritage regulations.

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