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From Metropolitan POPS to Medium City Social Spaces: Adapting Public-Private Collaboration for Urban Development

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1 ABSTRACT

Privately owned public spaces (POPS) have emerged as an incentive-based tool for creating and managing public spaces in high-density cities through private developments, facing both criticism regarding their inclusivity and recent adaptations in European cities. This paper examines the translation of public-private collaboration principles for space development and management to medium-sized cities, where traditional density-based incentives and agreements are not applicable. Unlike metropolitan areas where POPS emerged from high land values, shortage of public land for new public spaces, and established regulatory systems, medium-sized cities present a fundamentally different context: higher availability of undeveloped land at lower market values but limited resources. This contextual shift requires a systematic transformation of public-private collaboration approaches in the provision and management of public spaces and amenities, particularly in ensuring these spaces remain truly public, accessible, and inclusive for all user groups despite private involvement.

Through a comparative analysis of public-private collaboration models, this study evaluates the current practices in the Netherlands and their adaptation potential for medium-sized cities, focusing specifically on mechanisms ensuring public accessibility and social inclusion. The paper advances public space governance discourse by examining implementation phases from planning to management and analysing varying scales of private involvement from temporary to permanent arrangements, maintaining public access and social equity. It develops conceptual frameworks for governance model based on different POPSs governance models that align with medium-sized cities' governance capacities while prioritizing inclusive design and management practices. We identify valuable lessons from Dutch experiences that can inform similar practices in other contexts. This research contributes to urban planning and governance in several ways; it proposes context-sensitive approaches that balance public benefit with private interests in private developments. Second, it provides strategies to ensure the creation of inclusive and accessible social spaces that serve diverse community needs in medium-sized urban developments.

Keywords: urban governance, public space management, public-private collaboration, Privately Owned Public Spaces (POPS), social inclusion

2 INTRODUCTION

The provision of public spaces through private sector involvement has emerged as a significant urban development strategy over the past half-century, currently manifesting itself in the global trend of private sector-led urban development (Heurkens, 2012). Privately Owned Public Spaces (POPS) represent a specific model of this involvement, emerging initially in high-density metropolitan areas as an incentive-based tool for creating and managing public spaces through private developments and investment. While POPS have faced both criticism and acclaim regarding their effectiveness and inclusivity in metropolitan contexts, their potential adaptation for medium-sized cities remains largely unexplored. This paper examines how the principles of POPS might be translated for medium-sized cities, where traditional density-based incentives and metropolitan-scale agreements are not applicable. The research addresses a crucial gap in urban development literature and practice. Unlike metropolitan areas where POPS emerged from high land values, shortage of public land, and established regulatory systems, medium-sized cities present a fundamentally different context: higher availability of undeveloped land at lower market values but limited resources for public space development and maintenance. This contextual shift requires a systematic transformation in how we conceptualize private sector involvement in public space provision.

The conceptualization of medium-sized cities has evolved beyond simple population metrics to encompass functional characteristics and regional roles. While population thresholds vary across contexts, with ranges from 50,000 to 500,000 inhabitants commonly cited (Bell & Jayne, 2009; ESPON, 2014), the defining

characteristics of these cities extend far beyond size alone. As Kunzmann (2010) articulates, medium-sized cities are distinguished by their distinct economic, social, and cultural functions within regional urban systems, typically serving as crucial intermediaries between metropolitan regions and rural hinterlands. Several key perspectives enrich the theoretical understanding of private sector involvement in public space provision. Webster's (2007) property rights theory helps explain why traditional POPS incentives that work in metropolitan areas may fail in medium-sized cities. The lower land values and different market dynamics mean that density bonuses alone may not provide sufficient motivation for private sector involvement. Furthermore, Mitchell (2003) and Harvey's (2008) work on spatial justice becomes particularly relevant when considering how to ensure POPS in medium-sized cities remain truly public and accessible.

Servillo et al. (2017) observe that medium-sized cities face what they term a "governance gap" – they lack both the market conditions that make metropolitan POPS models effective and the resources to maintain purely public solutions. This paradox has led to increasing interest in alternative models for public space provision that could work in medium-sized urban contexts. The concept of "territorial capital," introduced by Kunzmann (2010), provides valuable insights into how medium-sized cities might approach public space provision differently. These cities possess distinct advantages in terms of social capital, local networks, and community cohesion that could inform new approaches to private sector involvement in public space provision. As Bell and Jayne (2009) note, medium-sized cities maintain stronger connections to local traditions and community values than their larger metropolitan counterparts. Medium-sized cities face several distinct challenges and opportunities in public space provision:

- **Resource Constraints:** As Burayidi (2001) notes, while these cities possess "determination and spirit," they often lack systematic approaches and resources for development planning. Kunzmann (2010) further emphasizes how these cities operate with more limited institutional capacity and fewer specialized departments than their metropolitan counterparts.
- **Market Dynamics:** Kayden's (2000) analysis demonstrates how POPS emerged in response to high land values in dense urban environments. However, as Servillo et al. (2017) observe, medium-sized cities lack these market conditions, making traditional density bonus incentives less effective as tools for generating public spaces through private development.
- **Governance Capacity:** Bell and Jayne (2009) identify what they term a "significant blind spot" in understanding how governance mechanisms function at different urban scales, with medium-sized cities requiring distinct approaches that match their institutional capabilities.

These cities also present unique opportunities, as identified in the literature:

- **Community Networks:** Kunzmann (2010) emphasizes how medium-sized cities benefit from what he terms "Übersichtlichkeit" – a transparency and legibility that facilitates social interaction and community engagement.
- **Stakeholder Relations:** Robertson (2001) demonstrates how medium-sized cities maintain closer connections between stakeholders, with public spaces that are "closely linked to nearby residential neighbourhoods" and feature more independent rather than corporate presence.
- **Context-Sensitive Solutions:** As Paradis (2000) argues, these cities can maintain what he terms "conceptual small towns" – places where social relationships and community identity are actively maintained through the design and management of public spaces.
- **Adaptive Governance:** Folke et al. (2005) and Healey (2015) suggest that medium-sized cities can develop more flexible management approaches that accommodate limited resources while maintaining public benefit.

The distinct characteristics of medium-sized cities necessitate a systematic reconsideration of how private sector involvement in public space provision might work. This requires moving beyond simple adaptation of metropolitan POPS models to develop context-appropriate frameworks that reflect local conditions, capacities, and needs. To address this need, we propose a comprehensive analytical framework encompassing 15 key dimensions across planning, implementation, management, and supervision phases. This framework, detailed in the following section, provides a systematic approach to understanding and developing POPS models suitable for medium-sized cities.

2.1 Research Objectives and Questions

This research examines how lessons learned from Privately Owned Public Spaces (POPS) in metropolitan areas can be adapted for medium-sized cities, where traditional density-based incentives may not be applicable. The study specifically focuses on understanding the mechanisms of private sector involvement in public space provision and how these might be reconceptualized for different urban contexts. The research is guided by four interconnected research questions that progressively build understanding from existing POPS implementations toward new models for medium-sized cities:

- (1) What motivates and enables private sector involvement in public space provision? This question examines the fundamental drivers behind private sector participation, exploring what unique capabilities private actors bring to public space provision.
- (2) What regulatory powers and development rights do public authorities trade to enable private provision of public spaces? This question investigates the spectrum of public sector assets that can be leveraged for public space provision.
- (3) What challenges and opportunities emerge from these POPS agreements and governance models and opportunities? Building on existing implementations, this question examines both inherent tensions and practical challenges in private provision of public spaces.
- (4) How can effective models be developed for medium-sized cities? The final question focuses on adaptation and innovation, examining how POPS principles can be modified for contexts where traditional density bonus incentives may not be viable.

3 ANALYTICAL FRAMEWORK

The governance of privately owned public spaces necessitates a systematic framework addressing four distinct but interconnected phases that shape their creation and operation. This phased approach emerged from decades of POPS implementation across different urban contexts, reflecting the complex nature of public-private arrangements in urban space provision. The initial policy and planning phase proves fundamental as POPS emerged through specific regulatory mechanisms offering development incentives in exchange for public benefits, first demonstrated in New York's 1961 zoning resolution and later adapted across different cities (Kayden, 2000; Huang and Franck, 2022). The implementation phase became essential as early experiences revealed how translating policy into physical space required careful consideration of design standards and approval processes to ensure meaningful public benefits (Loukaitou-Sideris and Banerjee, 1993; Németh and Schmidt, 2011). The management phase emerged as a critical consideration as studies demonstrated how operational practices significantly impact public accessibility and use patterns, requiring frameworks that balance private control with public access rights (Nemeth, 2009; Leclercq et al., 2020; Manifesty et al., 2022). The supervision phase developed from the recognition that maintaining public benefits over time requires ongoing oversight and accountability, particularly as these spaces evolved from simple plazas to complex urban amenities (Carmona, 2021; Lee and Scholten, 2022). Together, these phases enable comprehensive analysis of how cities structure private sector involvement in public space provision, from initial policy frameworks through long-term operation and oversight. This understanding proves particularly valuable for medium-sized cities seeking to develop context-appropriate approaches to POPS implementation.

Phase A. Planning and Policy Criteria

- (1) Policy objectives: What drives cities to involve the private sector in public space provision? It addresses the fundamental cities' reasons and expected outcomes for private sector involvement. Cities' objectives have evolved from a lack of public spaces to complex goals addressing public realm quality and social inclusion.
- (2) Urban planning context: Which part of cities and developments are POPS implemented and incentivized as a solution? This ranges from high-density commercial districts where POPS emerged as vertical public spaces to mixed-use environments where they form part of broader urban regeneration strategies.
- (3) Planning incentive mechanisms: What encouragements do cities offer to private developers? It represents the core tools for encouraging private sector involvement. While floor area bonuses dominated early POPS development in metropolitan areas, diverse incentive structures have evolved to match different market conditions and development patterns.

(4) Trade-off structures: What rights and responsibilities are exchanged between public and private sectors? It defines the specific agreement structure between public benefits and private rights and responsibilities.

Phase B. Implementation Phase Criteria

(5) Regulatory control mechanisms: How do cities ensure enforcement of POPS agreements? This criterion examines legal tools and compliance frameworks that give public authorities control over private development.

(6) Space type: What types of spaces and amenities must private developers provide? Defines physical requirements for POPS, from outdoor plazas to indoor atriums, and required amenities.

(7) Design and quality standards: What design guidelines and quality benchmarks must POPS meet? It explores specific design criteria and quality standards the city officials provide for public space provision.

(8) Approval process: How are POPS proposals evaluated and approved? It questions the process for reviewing and approving private proposals, from standard applications to case-by-case negotiations.

Phase C. Management Phase Criteria

(9) Management Framework: What are the functional standards and programming obligations for POPS operation? It addresses specific operational duties, programming requirements, and service standards that ensure spaces function effectively for public use.

(10) Access requirements: When and how must POPS be accessible to the public? It defines temporal and physical access conditions, including operating hours, gates, and entry points.

(11) Control Rights: Who has authority over space management and security measures? It examines the specific allocation of management powers between public and private entities, including security arrangements and enforcement rights.

(12) Usage regulation frameworks for users: What specific activities and behaviors are permitted or prohibited? It addresses the explicit rules governing public use, focusing on allowed activities and behavioral expectations.

(13) Maintenance requirements: What physical maintenance standards must be met? It focuses specifically on upkeep obligations, including cleaning, repairs, and maintaining physical condition standards.

Phase D. Supervision Phase Criteria

(14) Supervision framework: How is compliance with POPS agreements verified and enforced? It examines specific methods for monitoring operations, inspecting conditions, and enforcing compliance.

(15) Agreement Duration: What are POPS arrangements' temporal conditions and modification provisions? It addresses the timeframes of agreements and processes for reviewing or modifying terms over time.

This framework systematically evaluates POPS implementation across different contexts while recognizing local variations. The analysis of these criteria reveals how cities have adapted their approaches to match local conditions, providing valuable insights for developing context-appropriate models. This is particularly relevant for medium-sized cities seeking to develop POPS frameworks that reflect their specific challenges and opportunities.

4 THE EVOLUTION AND IMPLEMENTATION OF POPS ACROSS URBAN CONTEXTS

The implementation policies of POPS vary significantly across different urban contexts, reflecting distinct regulatory traditions, market conditions, and governance approaches. Since their emergence in 1960s New York, POPS has evolved from bonus plaza mechanisms to complex urban planning tools adapted to diverse cities worldwide. This comparative analysis serves two essential purposes in understanding POPS adaptation for medium-sized cities. First, it provides empirical evidence of how the analytical framework's implementation phases manifest in practice, revealing the diverse ways cities have operationalized public-private collaboration in public space provision. Second, by examining various governance approaches across different urban contexts, it helps identify which elements of POPS frameworks might be most applicable to medium-sized cities' specific characteristics and institutional capacities. This analysis examines POPS implementation based on the proposed analytical framework across multiple cities, from North American origins to European adaptations and Asian models, revealing how different urban contexts have shaped these

spaces' planning, implementation, management, and supervision. The examination of POPS policies and practices across these contexts demonstrates a progression from standardized incentive-based approaches to more mixed models. Drawing from examples in cities including New York, London, Hong Kong, Seoul, and Berlin, this analysis reveals how POPS frameworks have been adapted to address different urban challenges while maintaining their role in public space provision.

4.1 Planning and Policy Framework Elements in POPS Practices

The policy objectives driving POPS implementation reflect cities' evolving understanding of public space provision through private development. Early objectives focused primarily on quantitative space provision in dense urban areas, exemplified by New York's 1961 zoning resolution (Kayden, 2000). This narrow focus has expanded to encompass broader urban goals across different contexts. Asian cities demonstrate particularly complex objectives: Hong Kong combines public space provision with pedestrian connectivity and urban ventilation, while Japanese cities integrate disaster preparedness with public space networks (Dimmer, 2012; Wu et al., 2022). European objectives emphasize social cohesion and urban integration, with German cities focusing on democratic access and community benefits, whereas UK objectives balance urban regeneration with public realm quality (Carmona, 2021). The urban and morphological context fundamentally shapes POPS implementation approaches. High-density Asian contexts have generated sophisticated three-dimensional solutions. Hong Kong's POPS form integral parts of multi-level pedestrian networks, responding to extreme density and topographical constraints. Seoul's system targets commercial districts with buildings over 5000m², creating a hierarchical implementation framework (Jian et al., 2021). European contexts demonstrate more varied applications: UK POPS span from historic centers to regeneration zones, while German implementations emphasize integration with existing urban fabric and historic districts. Dutch approaches specifically target mixed-use areas, focusing on ground-level activation and public realm continuity (Lee and Scholten, 2022).

Regarding planning incentive mechanisms, Cities have developed diverse approaches to incentivizing private sector involvement, moving beyond simple floor area bonuses. Hong Kong's system offers the most generous incentives, with up to 5x floor area bonuses for ground-level provision, complemented by plot ratio exemptions and site coverage relaxations. This contrasts with European approaches, where German cities have abandoned standardized bonus systems in favor of negotiated agreements through building permits and urban development contracts. UK systems combine development rights with long-term management arrangements, while Dutch models emphasize operational flexibility over density bonuses and also consider the protection of historic districts (Leclercq et al., 2020). The effectiveness of different incentive structures varies significantly: research indicates that larger bonuses don't necessarily produce better spaces, with Hong Kong's generous system facing similar quality challenges to more modest incentive structures (Rossini and Yiu, 2020). The same observation can be seen in terms of trade-off structure. The exchange of rights and responsibilities between the public and private sectors reveals distinct approaches to balancing interests. North American models establish permanent requirements through zoning, trading development rights for public space provision and maintenance. Asian cities have developed more complex trade-off structures: Hong Kong combines multiple incentive types with detailed management requirements (Xing 2013). Japanese systems balance public access rights with private operational flexibility. On the other hand, UK systems establish long-term private control through lease arrangements (99-250 years) (Minton, 2006; De Magalhaes and Freire Trigo, 2017). European approaches show greater variation: German cities maintain stronger public oversight through urban development contracts. Dutch models emphasize shared management responsibilities over property rights transfers, reflecting their focus on operational partnerships (Langstraat & Van Melik 2013). The effectiveness of these trade-off structures appears less dependent on the specific rights exchanged than on the clarity of agreements and quality of oversight mechanisms (Dunlop et al. 2023).

4.2 Implementation Frameworks and Mechanisms in POPS Practices

The translation of POPS policies into physical space reveals distinct regulatory and design approaches across different urban contexts. Metropolitan areas that pioneered POPS have developed sophisticated regulatory control mechanisms over time. New York's implementation framework, combines zoning requirements with detailed design guidelines and legal agreements, creating a comprehensive system for ensuring public benefits. This model has influenced other North American cities, though studies reveal varying degrees of

success in maintaining consistent quality standards and public accessibility (Huang and Franck, 2022). Hong Kong employs a multi-departmental system involving Building Regulations Section 22 and Deed of Dedication agreements, reflecting complex urban integration needs (Yu, 2018). This complex regulatory framework responds to the challenges of integrating POPS into high-density, multi-level urban environments. Japanese implementations focus on minimum design standards emphasizing size requirements (minimum 45m²), layout, and connectivity to sidewalks, prioritizing functional aspects like pedestrian circulation and disaster evacuation over social space considerations (Dimmer, 2012). Seoul's system combines elements of both approaches, implementing detailed installation guidelines while maintaining strong district-level oversight (Lee 2022). European regulatory frameworks demonstrate greater emphasis on public sector control and context sensitivity. German cities use legally binding land-use plans and urban development contracts that prioritize integration with surroundings and public accessibility. UK implementations combine planning agreements with property rights and legal covenants, creating comprehensive but complex enforcement frameworks (Carmona, 2021; Lee and Scholten, 2022).

The evolution of POPS typologies reflects increasing sophistication and diversity of form and functions in public space provision. Early implementations in US cities focused primarily on ground-level indoor and/or outdoor plazas and through block connections, mostly in office and commercial tower developments facilitating stationary activities and pedestrian movements. Hong Kong's system includes street-level spaces, elevated walkways, indoor atriums, and rooftop gardens, creating three-dimensional public networks. Japanese POPSs emphasize connectivity to sidewalks and disaster evacuation functions in high-rise buildings. Seoul POPS covers diverse ranges, including plazas, sidewalk widening, through-block connections, and also facilitating connections to transportation facilities. UK systems include open spaces, facilities through-site links, tailored to local needs in mixed-used and large-scale commercial and residential developments. Design requirements range from prescriptive guidelines to performance-based standards. North American cities typically employ detailed design guidelines specifying amenities and accessibility requirements. Asian approaches vary: Seoul's POPS Installation Guidelines provide specific requirements. However, other cities like Hong Kong focus more on circulation and connectivity than on social space design, with no well-established design standards. European design requirements emphasize context-sensitive design. UK systems incorporate design codes and local character requirements, while German approaches focus on public accessibility and urban integration.

The approval process for POPS varies from standardized procedures to case-by-case negotiations. North American cities generally employ as-of-right zoning calculations combined with design review processes, providing clarity but potentially limiting innovation. Hong Kong's multi-stage approval system reflects the complexity of implementing POPS in dense urban environments, while European approaches often emphasize public consultation and democratic approval processes. German cities particularly demonstrate how approval processes can integrate POPS within broader urban development negotiations, allowing for more context-sensitive solutions (Lee and Scholten, 2022).

4.3 Management and Operational Frameworks in POPS Practices

Management practices significantly shape POPS functionality and accessibility. North American cities establish baseline operational requirements while granting management flexibility to private entities. Asian implementations show varied approaches: Hong Kong mandates basic maintenance with limited programming requirements, focusing on circulation and access control. Japanese systems emphasize efficient pedestrian flow and emergency evacuation functions. European models demonstrate greater emphasis on public benefit: German cities require public accessibility with limited restrictions. UK systems balance private management efficiency with public access rights (Németh and Schmidt, 2011).

Access requirements represent a critical aspect of POPS management, with significant variations across contexts. Most Asian implementations link access to building operating hours, reflecting their integration with commercial developments. Hong Kong's system varies requirements by space type, with some elements of the pedestrian network requiring 24/7 access while others follow building hours. Japanese POPS maintain a more basic "generally open to public" requirement, allowing night closure with approval, reflecting their dual role as public spaces and emergency evacuation areas (Dimmer, 2012). European examples generally favor more extensive public access, with UK and German systems often requiring 24/7 accessibility, though some allowances for nighttime closure exist.

Control rights and security arrangements demonstrate how different cities approach the "publicness paradox" in privately managed spaces. UK POPS often grant full private security and management rights within planning conditions, creating effectively self-regulated environments. This contrasts sharply with Dutch approaches, which maintain strong public sector control and limit private security powers. Asian implementations show interesting variations: Seoul grants significant management and security authority to building owners while maintaining public access rights, while Japanese systems focus primarily on maintaining pedestrian circulation and evacuation functions rather than broader public space management (Rossini and Yiu, 2020). Usage regulations and behavioral controls represent perhaps the most contentious aspect of POPS management. North American cities typically establish required permitted uses while limiting activity restrictions, aiming to protect public rights within privately managed spaces. Asian implementations often impose more explicit restrictions, with Hong Kong and Seoul both limiting social gatherings and recreational uses, focusing primarily on circulation functions. European approaches vary significantly: UK systems often employ property management rules controlling commercial activity and behavior, while German cities emphasize protecting public use rights while balancing private management needs (Leclercq and Pojani, 2023).

Maintenance requirements show more consistency across contexts, though with varying levels of specification and oversight. Though standards and enforcement mechanisms differ, most systems place full maintenance responsibility on private owners. UK and Australian implementations typically demand high maintenance standards tied to property management regimes. Asian cities often require annual maintenance reporting, while European continental approaches emphasize regular cleaning obligations under public oversight. The effectiveness of these requirements often depends more on enforcement mechanisms than on the specific standards themselves (Carmona, 2021).

4.4 Supervision and Long-term Oversight Frameworks

Regarding public sector supervision mechanisms, the approaches to oversight of the proper function of POPSs reveal fundamental differences in how cities conceptualize the relationship between public benefits and private management. North American cities, particularly New York, have developed systematic oversight through city planning departments, implementing regular compliance checks and public reporting requirements, for example, every 3 years in New York. However, studies reveal that even these well-established systems face challenges in maintaining consistent supervision. Kayden's (2000) study found that 41% of New York's POPS were non-compliant with public access requirements. Asian cities demonstrate varying approaches to the supervision of POPS, often reflecting broader governance traditions and resource constraints. For example, Hong Kong relies primarily on Buildings Department inspections supplemented by complaint-based supervision. Japanese literature mentions that cities face challenges in comprehensive monitoring due to limited manpower (Dimmer 2012; To 2018). Seoul's system emphasizes district government monitoring with regular inspections, usually every 2 years (Dunlop et al., 2023).

European oversight models show greater variation in approach and effectiveness. UK implementations typically combine planning enforcement with contract compliance and annual monitoring, reflecting their property-based control model (De Magalhaes and Frere Trigo, 2017). This system provides clear mechanisms for enforcement but can lead to what Carmona (2021) describes as "privatization concerns" due to reduced public control. These systems often achieve better public accountability but can face challenges in coordination and resource allocation (Dunlop et al., 2023). In German cities, regular supervision of the public sector over POPS functions is planned to happen through regular inspections of municipal monitoring through district offices. Also, other methods like public reporting requirements and Multi-stakeholder supervision are considered in the supervisory procedure (Dunlop et al., 2023).

Regarding agreement structures, UK implementations choose more long-term arrangements (99-250 years) tied to property rights, providing stability but potentially limiting flexibility. European systems often employ medium-term contracts allowing periodic review. North American and Asian implementations typically establish permanent requirements through zoning, though some cities have introduced modification provisions to address changing needs. Evidence suggests successful frameworks require both clear long-term commitments and mechanisms for adaptation (Leclercq and Pojani, 2023). These variations in supervision approaches demonstrate the complex challenge of ensuring long-term public benefits in privately managed spaces.

4.5 Synthesizing POPS Governance Models and Implications

The analysis of POPS implementation across different urban contexts reveals three categories of governance models shaped by legal traditions and urban development approaches. These models demonstrate how different cities have balanced private sector involvement with public benefit, leading to three primary governance approaches that have evolved through practical experience and policy refinement.

The Zoning-Based Incentive Model, initiated in New York and adopted across Asian cities, operates through pre-established regulatory frameworks and standardized bonus calculations within the city's zoning code. This model implements district-wide regulations that specify the required public space contributions in exchange for additional development rights, particularly in high-density commercial zones. The system uses standardized formulas to calculate public space requirements and development bonuses. The model typically includes specific design and operational requirements codified in zoning regulations, applying uniformly to all developments within designated zones. The zoning-based model creates a more standardized, predictable system for both developers and city officials. The evolution of New York and Japanese POPSs in downtown high-rises since the late 1960s demonstrates how initially quantity-focused systems often require subsequent quality-oriented reforms (Huang and Franck, 2022; Dimmer, 2012).

The Property-Based Control Model, exemplified by UK implementations, establishes long-term private sector involvement through negotiated planning agreements at various development scales. These developments occur both in individual projects and large-scale regeneration schemes, operating within the city's planning system but without standardized incentive formulas like the US model. The form and type of POPS contributions are negotiated between private developers and city officials through the planning process, responding to site-specific conditions and local planning objectives. This model is characterized by property-based management rights, typically secured through extended leasehold arrangements (99-250 years). Examples like Liverpool ONE (42.5 acres) and Canary Wharf demonstrate how private developments can incorporate publicly accessible spaces under private management control. The model operates through case-by-case planning negotiations rather than standardized district-wide or city-wide regulations. German cities approach POPS governance through urban development contracts and legally binding land-use plans, with public sector involvement maintained through planning requirements and oversight (Lee and Scholten, 2022). However, specific arrangements vary by city and project.

The Partnership-Based Model for POPS establishes shared governance arrangements through structured agreements between private owners, public authorities, and community stakeholders. Unlike the property-based model's emphasis on full private control or the zoning model's regulatory approach, this model creates institutional frameworks for ongoing collaboration in space governance. The approach typically involves formal partnership agreements that define shared responsibilities, decision-making processes, and accountability mechanisms, while maintaining private ownership. Examples from UK experiences show how this can work through fixed-term governance agreements alongside long-term ownership rights and defined roles for multiple stakeholders in space management. They also have structured oversight mechanisms, regular performance review processes and flexible adaptation of space uses and programs. This model differs from simple management contracts by embedding partnership principles into the fundamental governance structure of privately owned spaces, creating mechanisms for shared control while respecting property rights.

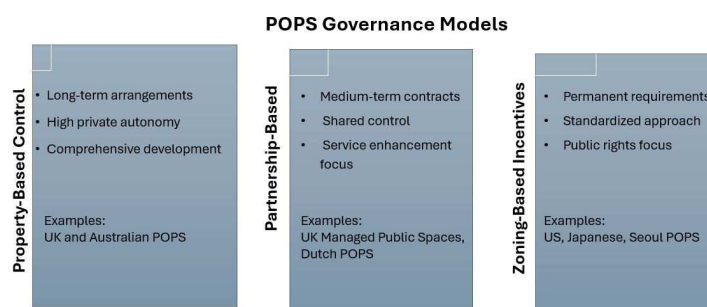


Fig. 1: POPS Governance Models. Source: authors

5 SYNTHESIS AND APPLICATION OF POPS EXPERIENCES TO MEDIUM-SIZED CITIES

This research presents a refined framework for public-private collaboration in medium-sized cities, addressing unique urban challenges through multifaceted public space provision across different implementation phases. It incorporates lessons from global POPS policies and localized urban planning nuances to create context-sensitive models catering to the distinct economic, cultural, and governance structures of medium-sized urban environments.

5.1 Planning and Policy Approach for Medium-Sized Cities

The Planning and Policy phase is crucial for setting the foundational strategies that will guide public-private collaboration in medium-sized cities. This phase integrates adaptive models that respond to less intense market dynamics and limited resource availability, prioritizing sustainable operations and community benefits. The policy objective of the involvement of the private sector in public space provision in midsize cities is proposed to adopt a hybrid model that combines the strengths of the Dutch partnership approach with the UK Business Improvement District (BID) framework. This recommended model is particularly suited to medium-sized cities with less critical density, allowing for more focus on balanced operations and community benefits. This approach supports the creation of partnerships involving local businesses and stakeholders in the planning process, ensuring that developments are not only economically viable but also cater to the community's needs. This aligns with the findings by Healey (2015), who emphasizes the importance of collaborative planning processes for medium-sized cities that engage multiple stakeholders to achieve sustainable urban development. Regarding the urban planning context, the framework proposes adopting the German rights-of-way approach combined with localized UK town center management principles for the urban planning context. This strategy emphasizes the need for broader urban integration rather than focusing solely on central business districts (CBDs), which suit medium-sized cities better where the urban fabric might be more spread out and heterogeneous. By adopting localized management strategies, cities have better opportunities to ensure that planning initiatives are more inclusive and reflect the diverse needs of different urban areas. This recommended method is supported by the work of Kunzmann (2010), who advocates for planning that respects local characteristics and enhances the functionality of all urban areas, not just the economic centers.

The proposed planning incentive mechanism combines operational cost-sharing, similar to the Dutch BIZ model, where businesses in a designated area collectively invest in local improvements. This approach moves away from reliance on floor area ratio (FAR) bonuses, which may not be effective in less dense urban settings of medium-sized cities. Operational cost-sharing allows for distributing maintenance and development costs among local businesses, promoting a vested interest in the area's success. Lastly, the development of a trade-off structure can involve linking heritage conservation with improvements in the public realm, drawing on models from Australia and Europe. This approach aims to ensure that developments contribute positively to the public space while preserving cultural heritage, which is crucial for maintaining the unique identity of medium-sized cities. It considers sustainable operations over merely extracting development rights and stresses the importance of integrating heritage preservation with urban development to enhance the quality and resilience of public spaces.

5.2 Integrated Design Phase Approach for Medium-Sized Cities

The recommended design phase criteria for public-private collaboration in medium-sized cities address creating multifunctional, context-sensitive public spaces that balance commercial viability and public access. This approach ensures that urban areas effectively meet the diverse needs of their communities while honoring local characteristics and constraints. Multi-functional spaces are essential for maximizing land use in medium-sized cities. The literature of POPS recommended designs that accommodate a variety of activities, from leisure to cultural events, ensuring these areas are vibrant and utilized throughout different times of the day and year. The findings recommend space type requirements in medium-size cities that combine German mixed-use integration standards and UK retail core guidelines. Such variety promotes flexibility in space usage, allowing areas to serve multiple purposes – commercial, recreational, and cultural – thereby supporting a dynamic urban life. This approach addresses what is expressed earlier as the need for adaptable urban environments in medium-sized cities facing diverse developmental pressures (Servillo et al., 2017).

Incorporating context-sensitive design standards can help new developments resonate with the existing urban fabric, honoring the area's historical, cultural, and architectural elements. This approach is reflected in the design & quality standards criteria, which suggest adopting contextual standards alongside quality benchmarks. These standards help avoid prescriptive metropolitan design standards and ensure that new spaces blend seamlessly with their surroundings, enhancing the local character rather than diluting it. As Kunzmann (2010) noted, context-sensitive designs are essential for maintaining the 'Übersichtlichkeit' – the clarity and legibility that fosters community engagement and integration. So It is beneficial to design public spaces that are commercially viable for private sector yet accessible to all. POPSs literature shows commercial activities that complement public access, such as open cafés and retail spaces can enhance public enjoyment without imposing barriers, however overfilling them may lead to café creep (Mohammadi 2021). The Regulatory Control Mechanism supports this balance by incorporating a simplified version of the Japanese district-level approach with UK management agreements, providing a regulatory framework that emphasizes quality and accessibility without burdening medium-sized cities with complex regulations. This balance reflects findings from Bell & Jayne (2009), who highlight the challenges medium-sized cities face in fostering economic growth while ensuring public space inclusivity.

Finally, the planning phase must be supported by an efficient and democratic approval process. The Approval Process in medium size cities can get insights from democratic review of private involvements in Dutch cities and simplified technical standards used in some asian cities like Hong Kong, ensures that public space projects are both high-quality match with private developments and also community-approved. This process helps maintain design standards while facilitating faster implementation, critical for adapting to the evolving needs of medium-sized cities without extensive bureaucratic delays.

5.3 Integrated Management Approach for Medium-Sized Cities

The management of public spaces in medium-sized cities benefits from balancing professional oversight with active community involvement. The analysis suggests integrating the operational efficiency of the UK BID framework with community-focused Japanese programming approaches. This integration enables efficient daily operations while ensuring spaces are programmed with activities meeting local interests and needs. Such hybrid models facilitate responsiveness to community feedback and changing usage patterns.

Access requirements analysis indicates potential benefits in combining public rights framework with European and UK's flexibility approaches used in large scale developments, allowing for varying access times and uses that reflect local community needs. The control rights framework benefits from integrating Dutch active public oversight principles with successful examples of UK private management capabilities. This balanced approach helps prevent over-commercialization while maintaining operational efficiency. Usage regulations appear most effective when encouraging community engagement while preventing conflicts by few private rules. Maintenance of public spaces must adhere to high standards to ensure safety, cleanliness, and functionality. Combining maintenance standards with community integration practices offers a model where maintenance tasks are performed efficiently while encouraging community involvement in minor upkeep, fostering a sense of ownership and stewardship among local residents.

5.4 Supervision Approach for Medium-Sized Cities

The supervision framework analysis reveals patterns in effective oversight mechanisms for medium-sized city contexts. Evidence from European engagement practices and Asian efficiency metrics suggests that multi-stakeholder monitoring systems can effectively balance oversight needs with resource constraints. The examination of agreement durations indicates that flexible term structures with regular review provisions, as demonstrated in UK and Dutch models, may better accommodate medium-sized cities' evolving needs while maintaining operational stability.

Table 1 synthesizes the findings from our analysis of POPS implementation across different urban contexts and presents a structured framework for their adaptation to medium-sized cities. The table organizes insights across the four implementation phases discussed in sections 5.1-5.4: planning and policy, implementation, management, and supervision. For each criterion within these phases, the table presents two complementary perspectives: 'Potential Adaptation' outlines specific recommendations for medium-sized cities based on our analysis of POPS practices across different urban contexts, while 'Key Literature Considerations' provides supporting evidence from existing research that validates these adaptations' relevance to medium-sized cities'

characteristics and capacities. This dual approach ensures that proposed adaptations are both grounded in successful POPS practices and responsive to the unique challenges and opportunities present in medium-sized urban contexts.

Potential Adaptation for Medium Cities		Key Considerations from POPS Literature
A. Planning & Policy	Policy Objective	Evidence from NYC/Hong Kong shows bonus models effectiveness in lower density areas - Dutch partnership models demonstrate success in balanced development - UK town center approaches show effective community integration
	Urban Planning Context	German rights-of-way integration demonstrates success in medium contexts - Japanese district approach shows effectiveness at local scale - UK town center management proves valuable for local adaptation
	Planning Incentive Mechanism	Traditional FAR bonuses show limited effectiveness (NYC/Tokyo) - Melbourne's mixed incentive system demonstrates adaptability - Dutch BIZ model shows operational success in varied contexts
	Development Trade-off Structure	Australian heritage-linked benefits show effectiveness - European public realm trade-offs demonstrate success - Asian models prove valuable for integrated approaches
B. Implementation	Regulatory Control Mechanism	Japanese district frameworks demonstrate effective local control - UK management agreements show accountability success - Dutch democratic oversight proves valuable in medium contexts
	Space Type Requirements	German mixed-use standards show effectiveness - UK retail integration demonstrates viability - Hong Kong/Singapore models prove value of adaptable spaces
	Design & Quality Standards	Malbourne's contextual standards show effectiveness - European quality benchmarks demonstrate balance - Japanese efficiency standards prove valuable
	Approval Process	Dutch democratic process shows value in local contexts - Hong Kong technical standards demonstrate efficiency - UK stakeholder engagement proves effective
C. Management	Operational Requirements	UK BID operations show efficiency in medium contexts - Japanese programming demonstrates effectiveness - Dutch partnership models prove valuable
	Access Requirements	Seoul's rights framework shows clarity and effectiveness - European flexibility demonstrates success - UK access management proves valuable
	Control Rights Framework	Dutch public oversight shows effectiveness - UK private management demonstrates efficiency - Asian models prove valuable for balanced control
	Usage Regulation	German activity support shows success - Japanese management demonstrates efficiency - UK programming proves effective
D. Supervision	Maintenance Requirements	UK standards show effectiveness in medium contexts - Australian community integration demonstrates success - Asian efficiency models prove valuable
	Oversight Mechanism	European engagement shows effectiveness - Asian metrics demonstrate efficiency - UK monitoring proves valuable
	Agreement Duration	UK agreements show stability benefits - Dutch flexibility demonstrates effectiveness - Asian adaptation proves valuable in changing contexts
	Flexible term structures - Regular review provisions - Adaptation mechanisms	
Conclusions	Primary Characteristics	Partnership-based rather than incentive-driven Local scale integration over metropolitan solutions Community governance with professional management Flexible frameworks with clear standards
	Strengths	Combines successful elements from Dutch/German democratic processes and UK management efficiency Resource-efficient governance model Clear public accountability Strong community integration
	Challenges	Balancing community control with professional management Ensuring long-term viability Managing stakeholder expectations European models' coordination issues Asian cities' oversight problems US models' enforcement difficulties

Table 1: Proposed governance structure for medium-sized cities based on the developed planning and policy framework.

6 CONCLUSION

The analysis of POPS implementation across different urban contexts reveals three distinct categories of governance models that have evolved through practical experience and policy refinement. the Zoning-Based Incentive, the Property-Based Control, and the Partnership-Based models create institutional frameworks for ongoing collaboration in space governance through structured agreements between private owners, public authorities, and community stakeholders, while maintaining private ownership. The identification and analysis of these three models represents a significant contribution to both theoretical understanding and practical implementation of public-private collaboration in medium-sized cities. While traditional POPS emerged from high-density metropolitan areas where land values and market pressures could support density bonus incentives, medium-sized cities present fundamentally different contexts requiring alternative approaches. The research demonstrates that successful adaptation requires moving beyond simple scaling down of metropolitan solutions toward context-sensitive governance frameworks that account for different market dynamics, institutional capacities, and community characteristics.

For medium-sized cities, the findings suggest that elements of the Partnership-Based Model, combined with simplified regulatory frameworks, offer the most promising direction. This approach can leverage the

stronger community networks and social capital typically present in medium-sized cities while accommodating their more limited institutional capacities and different market conditions. The research particularly emphasizes the importance of developing flexible governance frameworks that can support various forms of public-private collaboration while ensuring public benefit and operational sustainability. The practical implications focus on developing context-sensitive incentive structures, clear quality standards, and transparent monitoring mechanisms that match medium-sized cities' governance capacities. This includes creating community-based management models that integrate public space provision with heritage preservation and local economic development objectives. For local governments, the key challenge lies in building institutional capacity for managing public-private partnerships in ways that maintain public benefit while ensuring operational sustainability.

This study has several limitations that suggest directions for future research. The primary limitation lies in the methodology's reliance on secondary literature for POPS policy analysis, rather than direct examination of city policy documents, due to accessibility constraints and language barriers. This methodological constraint suggests the need for more comprehensive primary policy analysis in future research. A second limitation concerns the study's ability to assess the long-term effectiveness of different governance models in medium-sized cities and understand how varying socio-economic contexts influence their success. Future research should address these limitations through direct policy analysis and empirical investigation of the effectiveness of different governance models, particularly focusing on community engagement mechanisms, the economic sustainability, and public space quality outcomes of various management approaches. Additionally, comparative case studies analyzing actual policy implementation in different urban contexts would provide valuable insights into the practical adaptation of these governance models.

While POPS principles can inform public space provision in medium-sized cities, their successful implementation requires careful consideration of local contexts and governance capacities. The three governance models identified provide a broader framework and continuum for understanding how different institutional arrangements can support public space provision across varying urban contexts. The challenge lies not just in creating public spaces, but in ensuring they remain truly public while being operationally sustainable. This research provides a foundation for understanding how different governance approaches can support this goal while addressing the unique characteristics of medium-sized cities.

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