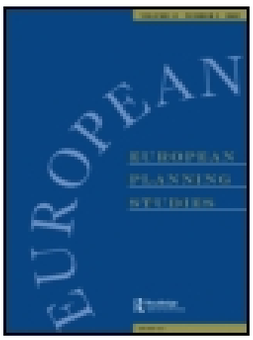

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Accelerated planning for urban housing infills: coordination strategies

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ABSTRACT

The outcome of local policies to satisfy residential demand by accelerating urban planning and development is studied here for an infill programme with about 30 plans and a target of 7,000 new suburban dwellings, launched by a mid-sized Swedish city, Gothenburg. Interviews with developers and officials, questionnaires, policy and planning documents including appeals have been analyzed. Three municipal strategies for acceleration were applied: interdepartmental coordination, collaboration with developers and parallel processing of plans and permits. Plans were produced more rapidly, but the goal of parallel work on building permits was seldom achieved. A complex pattern of delay causes has been found and is discussed in the light of coordination strategies. Strong initial focus on the physical design in the detailed development plan overshadowed the need for an early identification of coordination issues throughout the stages of implementation. This emerges as one reason why developers have been reluctant or unable to start detailed design early on, instead of embracing the principle of parallel planning and preparation for a building permit.

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Introduction

One of the policy options for a city wishing to support an increase in housing construction is to accelerate planning and permit procedures that developers face. More rapid urban planning implies greater efforts for coordination, and if the city at the same time follows a policy of densification that is translated into a high number of infill projects, the challenge should be even greater. With goal conflicts and many stakeholders, already the Chicago experiences of planning for multiple public housing projects (Meyerson and Banfield 1955) revealed the complexity of what would be called a wicked problem in the 1960s (Head and Alford 2015).

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Few researchers have analyzed policies intended to accelerate urban planning, although there are signs of a growing interest: Chien and Woodworth (2018) have identified what they label as China's Urban Speed Machine, and there are also recent studies of attempts in Italy and Germany to streamline processes through regulatory change. In an Italian context, Scattoni and Falco (2012) have analyzed how changes in planning regulations intended to accelerate local planning procedures have had little effect; they attribute slow outcomes to technical, political and cultural factors. Dillmann and Beckmann (2018) investigated how changes in the Federal German building code, which dispensed with several procedural steps for infill plans, could reduce the duration of planning. Their Stralsund case study showed that independent of type of formal procedure, 'the urgency and the (political) interest in planning' were important. In general, it is a question of strategic links between planning and housing supply policies (Gurran and Bramley 2017). Otherwise, local government strategies for coordinated action have received little attention.

The purpose of the present investigation has been to study how the implementation of local policies as a programme to satisfy residential demand by accelerating urban densification has relied on coordination strategies to shape the dynamics of the process from inception of planning to award of building permits. The chosen case, BoStad2021, is an infill programme with about 30 plans and a goal of a total of 7,000 new suburban dwellings in multifamily buildings, as launched by a mid-sized Swedish city, Gothenburg. The two research questions are first, how the city has relied on coordination strategies and second, which the effect has been on process duration. The first question relates to coordination within the city organization, between city planners and developers, and also between developers and citizens. Answering the second research question implies a study of factors that influence the duration of planning, the building permit process and ultimately the actual start of construction.

Theory

Earlier studies primarily dealing with the temporal aspects of urban planning are scarce. Developer complaints of slow and complicated procedures for obtaining various permits have been recognized long ago, as in the Berlin cases referred to by Baumeister (1876, 58) in his pioneering work on urban expansion, but these process issues have seldom engaged researcher interest. The concept of planning delay, although known to be hard to define (Keogh and Evans 1992), is linked to the development of accelerated processes. A survey of Swedish housing developers found, perhaps unsurprisingly, that they thought that 'planning is an intricate and bureaucratic process', an opinion strongly correlated with the view that the planning process is lengthy (Olander and Landin 2008). Collecting data from housing projects in southern England, Ball (2011) noted that planning for small sites appeared to be particularly time-intensive. In a Hong Kong context, the question was asked by Lai et al. (2016) whether the long period of time for obtaining planning permissions could be explained by planning board rejections or developer strategies to hoard land or improve design. Explaining their model of the Chinese Urban Speed Machine, Chien and Woodworth (2018) concentrate on incentives rather than mechanisms of coordination, despite reporting fragmented bureaucracies; their description implies ruthless top-down coordination, and

they assert that municipal economic development bureaus have a stronger position than municipal planning bureaus.

Coordination, planning and collaboration

Faster planning and development processes can be expected to require stronger interdepartmental coordination within municipal administrations and also efforts for collaborating with developers. Coordination in practice in UK housing and planning departments has been analysed by Nicol (1998) with a focus on both internal and external links; in particular, the need for a forum where early consultation with housebuilding companies and associations would result in policies that are likely to be implemented.

Coordination can be defined simply as an improvement in the allocation of resources (Casson 1997, 37). In contrast to the general concept of planning, coordination emphasizes the existence of multiple organizations or departments. Peters (1998) defined policy coordination as 'the alignment of tasks and efforts of multiple units in order to achieve a defined goal'. Stead and Meijers (2009) went on to distinguish the three concepts of integrated policy making, policy coordination and cooperation on a scale. They asserted that 'policy integration leads to joint decisions and/or actions and results in joint outcomes that may be quite different from the initial preferred outcomes, whereas coordination leads to adjusted policies or goals that remain sectorally separate and distinct'.

Interorganizational coordination in the context of planning was understood by Alexander (1993) to include seven mechanisms:

- informal networks,
- interorganizational groups,
- coordinators,
- coordinating units,
- non-administered programmes,
- lead organizations and
- single organizations.

Researching joined-up government methods in general, Pollitt (2003) found no less than seventeen ways to promote joined-up policymaking and implementation; in addition to what Alexander included (and relevant to infill processes) are worth mentioning:

- shared outcome targets set by politicians,
- organizing one-stop or one-window delivery at street level,
- common budgets only to be accessed when key stakeholders agree,
- developing incentives and rewards for success in cross-cutting working,
- agreeing a formal partnership document with procedural rules for when mutual consultation is required and how it is to be conducted (in addition to a distribution of responsibilities),
- effective systems for early consultation,
- joint development of staff,
- exchange of key staff,

- developing common IT systems,
- joint research and information gathering.

The seven mechanisms identified by Alexander (1993) can be interpreted as belonging to structural coordination, setting up static schemes of responsibilities, whereas the mechanisms added by Pollitt (2003) could be said to be examples of dynamic coordination.

Negotiations as a tool for coordination have long been recognized in the context of urban planning (Healey, Purdue, and Ennis 1996). In recent years, the concept of collaboration has attracted many researchers. According to Thomson, Perry, and Miller (2009), collaboration is 'a process in which autonomous or semi-autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and ways to act or decide on the issues that brought them together; it is a process involving shared norms and mutually beneficial interactions'. For Emerson, Nabatchi, and Balogh (2012), who view collaboration in a general framework of collaborative governance, it can be defined it as 'the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished'. Their examples of multipartner governance include joined-up government and hybrid arrangements such as partnerships among the state and public-private regimes, closely resembling the programme investigated here, based on interdepartmental cooperation as well as cooperation between the municipality and developers. Their framework for collaborative governance recognizes four drivers: leadership, consequential incentives, interdependence and uncertainty, seen as a challenge for managing wicked problems.

Reviewing the growing body of frameworks and findings in research on cross-sector collaboration, Bryson, Crosby, and Stone (2015) described studies according to the major categories of general antecedent conditions; initial conditions, drivers, and linking mechanisms; processes, structures, and links between them; endemic tensions or points of conflict; and outcomes and accountabilities. In the context of public transport, Hrelja, Pettersson, and Westerdahl (2016), define collaboration as 'the attempt to overcome problems by collective action and to change a situation in which the parties would otherwise act independently into a situation where they act together to achieve shared objectives.' For them, the collaborative process is not only about negotiation, but also about building trust; collaboration is thought to be more complex and more of a long-running interaction than coordination.

Internal municipal coordination

Three challenges to internal coordination of a housing programme such as the one studied here should be noted. The imposition of time limits for planning processes can be seen as typical of New Public Management (NPM) (Mäntysalo and Saglie 2010), while the introduction of elements of NPM with its stress on devolution and decentralization creates a subsequent need for more coordination in planning (Sager 2011).

A second challenge for internal municipal coordination of spatial planning is the potential conflict between municipal financial interests arising from land ownership and selling land and on the other hand spatial planning policies (Montgomery 1987; van Rij and

Korthals Altes 2010). Different views on land development may give rise to delays in municipal processes. Even in the absence of municipal land holdings, infill effects on expenditure for investing in public services and infrastructure, together with operational costs, may cause difficulties in coordination; such effects have been studied for a Finnish city where Vihola and Kurvinen (2016) compared infill with greenfield development.

Collaboration with developers

How a planning authority interacts with developers may have consequences for the rapidity of the entire process until construction is finished, and how responsibilities are distributed between municipal planners and developers could influence the duration of processes. While Olander and Landin (2008) reported Swedish housing developers' views on the planning process for housing developments, often that the process was felt to be uncertain, intricate and bureaucratic, it is not self-evident that a wider role for developers would accelerate planning procedures.

Researchers have been concerned with the potential for conflicts between democracy and efficiency in planning, as when private planning initiatives have been studied in Norway (Falleth and Saglie 2011). The legitimacy of preliminary partnership arrangements in urban housing planning have been investigated in the Nordic countries by Mäntysalo and Saglie (2010) and again by Mäntysalo, Saglie, and Cars (2011). How private sector-led urban development projects operate has been compared for the Netherlands and the UK by Heurkens and Hobma (2014), who found in practice that what was considered to be developer-led projects was characterized by extensive, informal public-private collaboration. How this informal work is organized can be expected to influence the efficiency of the process. With a high degree of coordinated integration, there is also a general problem of accountability, depending in the capacity of politicians and the public to identify who is responsible for any failures in a programme (Peters 2006, 135).

The rate of implementation once a plan has come into legal force can be affected by several factors, including housing market conditions and further permit procedures. Walker and Vines (2000) stated, based on their studies in Australia, that the only significant delay factor for housing projects under the heading of 'external influences' was 'economic environment complexity'. Housing market instability is referred to also by Gurran and Bramley (2017, 53ff.).

Developers face uncertainty in planning and permit processes. Knowledge that a plan has acquired force cannot always be expected to lead to decisions to start construction quickly, as can be shown in simple models (Bar-Ilan and Strange 1996; Mayer and Somerville 2000; Mayo and Sheppard 2001). Adams, Leishman, and Moore (2009) claim that where competition for land is intense, house-builders assume high sale prices to make winning bids for sites, 'while the release of homes is managed on a site-by-site basis by builders to achieve the target sales rates underpinning earlier land bids'. The theory of real options can explain why developers may prefer to leave land undeveloped for long periods (Yao and Pretorius 2014) or divide developments into stages according to how market conditions change (Murray 2020), and more recently, Rubin and Felsenstein (2019) have been able to demonstrate the effect of standard deviations of planning time on housing starts in the Tel Aviv District.

Not only market factors are likely to have an impact on project schedules. It is reasonable to expect quicker implementation of developer led projects than for plan-led planning, and the current Swedish practice of day-to-day planning rather than adhering to broader plans (Hrelja 2011) could imply a rapid process of plan implementation, as a consequence of close collaboration between planners and developers. Nevertheless, a Finnish survey (Valtonen, Falkenbach, and Viitanen 2017) suggests that development-led planning may cause projects to be more vulnerable to property market uncertainty than under plan-led practices.

In principle, it is possible to incentivize developers to accelerate their activities, especially when it is a question of municipal land ownership. Valtonen, Falkenbach, and Viitanen (2018) find when comparing Helsinki and Stockholm projects that there was more emphasis on deadlines and financial penalties in the Finnish cases, although the absence of binding development schedules and penalties in the Swedish cases had not caused any notable differences in the realization of development.

Local bureaucracy is seldom identified by researchers as a delay factor for housing projects. In their survey of the housing construction sector in Northern Ireland, McCord et al. (2015) do mention delay in obtaining permits from municipality; this delay factor was ranked higher by contractors and clients than by consultants and academics. National systems for issuing building permits vary widely; control systems in the EU have been described by Branco Pedro, Meijer, and Visscher (2010). A particular problem arises when developers submit permit applications that are deemed not to conform to an approved detailed plan; there are differences within the EU in dealing with this issue (European Commission 1997). Global comparisons of duration of building permit procedures are published annually by the World Bank (2013, 2020). The World Bank method for comparing how permits are handled records the procedures, time and cost required for a business to obtain the approvals needed to build a simple warehouse and connect it to water, sewerage and telephone. It is assumed that the warehouse is in the periurban area of the largest business city. Sweden is not among the countries with a high rank.

Citizen dialogue in infill projects

Neighbourhood opposition can be a challenge to infill projects. Many authors hold the view that sustainability requires compact cities (Searle and Filion 2011; Williams et al. 2013; Marique and Reiter 2014; Newton and Glackin 2014; Holman et al. 2015; Gren et al. 2018). Densifying urban areas through infill projects is one line of action (Lehmann 2019, 79–107), but there is a strong potential for goal conflicts, as evidenced by early US experiences of infill: Farris (2001) identified numerous barriers to projects, among them resistance from local residents; as obstacles, McConnell and Wiley (2010) highlighted local government control over land use, costs, household preferences, as well as neighbourhood opposition.

There are two reasons why citizen appeals against plans could be more frequent for rapid densification projects. The citizen dialogue might suffer from an accelerated process (Murdoch and Abram 2002, 33; Aitken 2010) leaving conflicts open rather than resolving them, and the number of affected people would typically be greater than for greenfield developments and thus likely to generate NIMBY reactions (Schively 2007; Whittemore and BenDor 2019) and opposition among third-party groups (Buitelaar,

Galle, and Salet 2013). Projectification of an urban programme may endanger democratic processes (Kuokkanen 2013). The Melbourne study by Cook et al. (2012), who analyzed the political consequences of fast-tracking densification projects, concluded that more than a third of larger densification plans were subject to formal objections. Fast-track planning approval was efficient as to housing supply but generated 'anger, frustration and mistrust'; in comparison, a procedure with more opportunity for deliberation was however associated with costly appeal processes. Subjecting the same data to statistical analysis, Taylor, Cook, and Hurley (2016) were able to find that local handling of permits, objections and appeals reinforce social inequalities in the Australian setting.

In the UK context, the importance of infill scale was underlined by Adams and Tiesdell (2013). The nature of the developer may also influence citizeńs views (Monkkonen and Manville 2019). That a higher local educational level is associated with a higher frequency of objections is one of the results in the study by Rubin and Felsenstein (2019). Brunes et al. (2020) analyze how prices of cooperative flats are affected by infill projects in Stockholm; where income is low in an area, infills are found to have a positive effect on prices, while in high income areas, infills lack significant effects. If educational level is correlated with income, we should expect a stronger general tendency of fewer objections in poorer areas of a city.

Both planners and developers can engage in dialogues with citizens to reduce conflicts. Creating frameworks for dialogue may be seen as coordination. Beattie and Haarhoff (2014) studied University Hill, a Melbourne suburb, finding that success was due to 'shared visions of the stakeholders, their positive working relationships and sufficiently flexible urban planning processes, which gave the developers confidence to be innovative while responding to market conditions'. Analyzing density and mix in the suburbs of Halifax, Brewer and Grant (2015) emphasize market pressures, while they find political and institutional commitment to be essential for implementing policy.

Method

As the chosen case, BoStad2021, is an infill programme with multiple plans and projects, a combination of qualitative and quantitative methods has been used. Empirical data were collected through document studies, participation in meetings, workshops, seminars, interviews and questionnaire surveys. The document studies included planning documents, with a special focus on the origin, objectives and organization of the BoStad2021 programme, the selection of project sites made by the municipality, the roles of the authorities involved, relevant policies, as well as coordination strategies. Notes from programme related meetings between municipality and developers were examined as well as plan descriptions, legal agreements, appeals and court judgments. Statistical analysis of project data provided by the city (see Table 2) has been performed. More than 70 interviews were conducted between 2016 and 2019 with developers, municipal project managers, planning and permit officials, representatives of the County Administrative Board and the Swedish Transport Administration, and one official belonging to the municipal legal staff. A number of workshops and seminars were organized with those working within the programme: on lessons learned in the early phase (2016), on possible ways of addressing the quality aspect of BoStad2021 projects (2018), and on the work with building permits (2019).

Whereas the initial set of factors that are known or believed to have an impact on infill projects has been derived from the work of earlier researchers, there has been an element

of induction where additional factors and mechanisms were identified through the case documents, interviews, workshops and seminars. This constituted the basis for four online questionnaire surveys. In 2017 a survey of planning officials involved in the programme focused on coordination strategies (29 out of 37 answered, giving a response rate of 78%). In 2018 the project managers were surveyed as to whether their practices had changed due to the programme (26 out of 40 answered, giving a response rate of 65%).

A survey in 2019 of permit officials and project managers was conducted which focused on work with building permits within BoStad2021. This survey was designed as two closely related versions: one for permit officials and one for developer project managers. It was distributed by e-mail in 2019 and all eight permit officials submitted responses. Among developer project managers, 26 out of 42 answered, giving a response rate of 62%. About half of these respondents belonged to large private sector developers, about one fifth from private sector developers with 25 or fewer employees, while the remaining third were from municipally owned developer firms.

Finally, a survey in 2019/20 of 17 projects where there had been a loss of dwellings was conducted using three versions of a questionnaire. One version was for the three municipal project managers (all replied), one for all eight Real Estate Office officials involved in the 17 projects (all replied) and the third version one for 20 developer project managers (55% response rate, but responses covered 12 projects, thus 71% of the loss projects).

The Gothenburg case

Outline

Gothenburg is the second largest Swedish city, with a population of 570,000 and a density of 560 inhabitants per sq.km. of land area. Outside the city centre, the typical residential pattern is that of dispersed islands or patches (Schneider and Woodcock 2008) of multi-family housing, often with an origin in the Swedish 1965–74 Million Homes Programme (Hall and Vidén 2005). The city has extensive land holdings and dominates the urban market for housing sites. Gothenburg experiences of infill projects with vertical extension have been reported by Sundling, Blomsterberg, and Landin (2019), who point out that features of the national rent control system increase the financial viability of renovation projects, such as constructing additional floors.

In 2014, two Gothenburg housing developers and one architectural firm presented the city with a proposal for accelerating the planning process. The political response was to launch a programme, later called BoStad2021, linked to the 400-year anniversary of the foundation of Gothenburg, and the target was to have 7,000 dwellings finished by 2021. These dwellings were intended to be an addition to the 'ordinary' production volume, which in preceding years was about 2,000 dwellings annually. The city was to select infill sites, almost only in suburbs due to the city densification policy, and no less than 31 sites were identified, corresponding to 26 developers, of which four companies were owned by the city itself through the Framtiden Group (cf. on the Gårdsten area: Borelius and Wennerström 2009). Whereas the private 2014 proposal envisaged parallel processing of plans and permits, active developer participation in planning and working against a deadline, the municipal strategy added an internal project organization common to the three departments primarily involved in planning. Consequently, three main strategies for acceleration were

applied: interdepartmental coordination, collaboration with developers and parallel processing of plans and permits. Two deadlines were to be met: for the approval of the detailed development plans (end of 2017) and for the completion of all projects (2021).

The Swedish context

Five stages of the Swedish urban development process can be identified (Hedström and Lundström 2013): (1) pre-planning dialogue, (2) formal detail(-ed development) plan, (3) building permit, (4) (land allocation, if municipally owned) and (5) construction. While there is a long Swedish tradition of developer engagement in urban planning, at least since around 1960 (Hellsten and Palm 1964), the case of larger cities (such as Stockholm, see Zakhour and Metzger 2018) is that while retaining much of public landownership, municipal housing companies and the municipal planning monopoly, neo-liberal elements of negotiated planning have gained more importance in recent decades.

As for all Swedish municipalities, there is a comprehensive plan for the whole area of Gothenburg. A comparison with the planning system in Norway (Røsnes 2005) is instructive; there are many similarities between these two Scandinavian countries, but the role of superior statutory plans is stronger in Norway, while developer planning initiatives are believed to hold a weaker position in Sweden. A Swedish comprehensive plan is thus only indicative and does not constrain the detail plans which are legally binding; it can be accompanied by numerous, often vaguely formulated policy documents (Bjärstig et al. 2018; Persson 2019). Weak coordination carries the risk of leaving crucial issues unidentified and unresolved before the detailed planning stage is reached.

The Planning and Building Act allows municipalities to choose the degree of detail in their detailed development plans. Although the intended regulation of development, construction works and the rest of the environment must be clearly indicated in the plan, it 'may not be more detailed than is needed with regard to the purpose of the plan'. A building permit may be issued for a measure that deviates from the plan, if the deviation is minor (or 'of limited extent and necessary for the area to be used or developed in a suitable manner') and consistent with the purpose of the plan. It is unusual to find studies of infill experiences in Sweden, although Kärrholm and Wirdelöv (2019) discuss the successive reduction of local public spaces, caused by densification of a housing area, and Brunes et al. (2020) have investigated housing price effects of infill projects, as already mentioned.

For Sweden as a whole, the proportion of GDP spent on housing investment during the 1996–2011 period was low (=2.5%) in comparison to most OECD countries (Gurran and Bramley 2017, 80f.), and there was an increasing pressure on Swedish cities to increase residential construction, partly by designing affordable housing programmes (Granath Hansson 2017, 2019), while actual supply has tended to prioritize housing cooperatives created by private developers catering to households with investment capabilities.

Results

The results presented here concern municipal coordination and collaboration practices, the BoStad2021 outcomes in terms of plans, permits and dwellings, as well as an analysis of project delays.

Strategic practices

Internal municipal coordination was strengthened by creating a group of three project managers, one from each department, and shifting their main responsibilities according to project stages. Staff from departments were co-located, physically supporting closer interdepartmental coordination. Attempts were made to move from sequential processing of plans and permits to parallel processing, especially of detail planning and issuing of building permits.

Collaboration with developers was organized by instituting a hierarchy of fora: a Coordination Group with officials and developer senior managers, Project Groups and Working Groups. Developers were encouraged to set up a group of their own. There were collaboration agreements with the city, signed by each developer. Furthermore, the city saw to it that developers signed mobility agreements (including creation of car pools, bicycle spaces and other actions reducing private car use, cf. Atterbrand et al. 2005) to convince central government that traffic generation would be limited and also the need for road reinvestment. The intention to move from sequential processing of plans and permits was supported by engaging building permit officials as advisors already in the detail plan stage.

Citizen dialogue, in addition to what is legally required during the formal process of planning, was partly anticipated by developers engaging in pre-planning dialogues with citizens to be affected by infill projects.

An overview of how four strategic practices applied by the city have materialized in the planning stage and again in the permit stage is shown in Table 1. It is clear that the coordination and collaboration practices were weaker in the permit process than earlier for the detailed development plans.

Outcomes

As to outcomes, the BoStad2021 programme has contributed to a 30 per cent increase in Gothenburg housing production: the average annual volume of new dwellings was 1,930 for the 2009–2013 period, rising to about 2,500 for 2014-2019. Basic data for 26 of the infill projects are presented in Table 2. Five of the originally 31 projects have been omitted here because of atypical scale, complexity or location; in a few cases, the detail plan had not

Table 1. Strategic practices in the planning and permit processes.

Practice	Process stage	
	Planning stage	Permit stage
Anticipatory informal meetings	Developers in pre-process citizen dialogues Advice from permit official during planning (not for all projects)	Informal pre-application meeting with permit official (not for all projects)
High-level forum for officials-developers dialogues	Forum with important discussions at an early stage	Little use of forum
Interdepartmental coordination	Common project room for face-to-face dialogue	Written interdepartmental requests for consultation responses; weak digital platform
Parallel processing	Departments working in parallel. Permit (although only one!) applied for before plan acquired legal force	Departments working in parallel. Permit (although only one!) applied for before plan acquired legal force

Table 2. Infill projects: background information.

Project	Dwell-ings	Prior land use	Land owner-ship	Area median income [KSEK]	Devel-oper	Months in plan-ning	Months for per-mit	Appeals	Loss of dwellings
1	165	GR	OM	285	MP	18.6	2.9	2	
2	500	PL	OM	188	*P*	23.6	1.7	0	L
3	410	GP	M	195	MP	21.5	7.0	0	
4	600	PA	OM	188	M	28.6	5.8	0	
5	482	*P*	OM	256	*P*	26.3	3.6	3	L
6	250	I	O	378	*P*	25.2	14.7	1	L
7	300	GP	M	195	*P*	19.0	5.2	1	
8	260	G	OM	266	M	24.9	pending	60	L
9	360	GS	M	286	*P*	20.1	9.5	1	L
10	601	*P*	O	266	*P*	19.6	6.3	5	L
11	62	G	O	263	*P*	14.3	1.9	1	
12	80	*P*	O	308	M	18.0	27.7	0	
13	180	A	O	266	M	18.8	13.6	0	L
14	99	G	O	195	M	25.2	2.7	2	
15	330	S	M	279	*P*	20.1	8.7	4	
16	200	IP	O	243	*P*	17.6	25.2	3	L
17	290	GPA	O	290	*P*	23.9	5.5	2	L
18	700	PG	O	265	*P*	21.9	9.8	0	L
19	410	*P*	M	279	*P*	25.9	n.a.	100	L
20	198	GA	O	140	*P*	21.2	18.6	0	L
21	307	GP	OM	140	MP	22.9	4.5	0	
22	125	GP	M	210	MP	18.8	6.2	0	
23	293	*P*	O	280	*P*	22.2	3.0	0	
24	96	G	M	243	*P*	15.6	36.0	0	
25	400	PA	O	195	*P*	27.5	9.9	0	L
26	220	G	M	201	MP	20.1	1.6	0	

Note: Prior land use: A additional floors; G greenspace; I industry; L leisure; *P* parking; R retail; S school. Land ownership: O own land, M municipal. Developer: M municipal, *P* private. Months for permit are measured from when the detailed development plan acquired legal force. Loss of dwellings: L number of dwellings reduced by more than 10%.
Sources: Data provided by the City of Gothenburg.

come into force (2 projects) or planning had been suspended (1 project). Five projects were at least partly adding floors to an existing structure.

Uncertainty of duration, as measured by the standard deviation for permit processes is higher (6.3 months) than for planning processes (3.7 months). Size of project has a slight influence on the duration of processes: the average number of months in planning is 20.3 for projects with less than 300 dwellings and 23.1 if the plan covers more than 300. Project scale seems to have an opposite effect on how many months are spent on the permit process: an average of 8.9 months for smaller projects and 6.5 for larger ones. It is notable that there is no significant correlation between duration of planning and duration of permit processes. Otherwise, there is only one relation that is evident from the data in Table 2: median income in areas with appeals was higher (KSEK 267.8) than in areas without appeals (KSEK 216.8). Two projects (8 and 19) led to numerous appeals emphasizing consequences for traffic, parking, and loss of green areas. The initial plan for project 8, as designed by officials, was modified after rejection by the municipal planning and building committee. Prior land use, ownership and category of developer appear to have little or no impact on process duration; the city had not introduced a new and stricter policy on time limits in their agreements with developers who were to use municipal land.

Relying on data provided by the city for 25 plans belonging to the programme and 20 other similar infill plans having acquired legal force during the 2016–2018 period, using

multiple regression analysis to correct for project sizes, indicates that the number of months between building committee plan task assignment and legal force was 17.2 months shorter for plans within the programme. The standard deviation for the other 20 plans was no less than 13.7 months, much higher than the 3.7 months for BoStad2021 planning processes.

A corresponding analysis with an estimated total number of work hours used for each plan (including officials together with volume and competence consultants employed by the city) as the dependent variable indicates that BoStad2021 plans consumed about 500 work hours less than other plans. Questionnaire responses from developers, who were asked to compare their resource use during the planning stage with similar suburban infill projects not part of BoStad2021, did however suggest that resource use was higher by about twenty per cent, although there were large differences between projects within the programme. Typical causes of increased resource use were suggested to be design rework and participation in additional meetings.

Reasons for delays

Whereas the planning process has been accelerated within the BoStad2021 programme, the average duration of building permit processes has been much longer than intended. Other questionnaire results allow a comparison of reasons for delay, as experienced by permit officials and developer project managers. Officials and developers agree on the relative importance of many of the delay factors in Table 3. Exceptions to this are that officials emphasize time consumed for interpreting the detail plan, mobility agreements and noise protection. A few developers indicate difficulties in communicating with officials.

A complex pattern of delay causes has thus been found. As emerged from discussions in a subsequent seminar with representatives of both developers and permit officials, the speed of permit processing can be increased by more than one strategy:

(1). Early and precise information on documents required for the permit process (increases predictability for developers)
(2). Pre-application meetings between developers and permit officials
(3). Permit start meetings with broad participation of municipal departments and organizations responsible for physical networks in the area

Table 3. Building permit delay factors according to officials and developers.

Delay factor	Officials [% of respondents, $N = 8$]	Developers [% of respondents, $N = 17$]
Interpretation of detailed development plan	62.5	11.8
Architectural design discussions	50.0	35.3
Mobility agreements	50.0	17.6
Noise protection	50.0	17.6
Accessibility requirements	25.0	29.4
Municipal infrastructure design delay	25.0	23.5
Change from cooperative to rental	25.0	5.9
Change of developer	12.5	5.9
Change of developer project manager	25.0	11.8
Change of building permit official	12.5	29.4
Other contractual issues	12.5	17.6
Difficulties in communicating	0.0	23.50

Source: Authors' 2019 questionnaires.

(4). Efficient routines for transferring project information when a staff shift occurs (both in the developer organization and among local officials)
(5). Clear municipal policies for exterior design of buildings
(6). Transparent and predictable municipal process for assessing project design qualities
(7). Project scheduling broken down into subprocesses, where responsibility for progress may shift between developers and municipality; schedules to be revised per subprocess
(8). Introducing a cross-departmental digital platform with project information, at least partly accessible also for developers.

There has been a tendency among developers to lower the number of actual dwellings to be built in a first stage, once the detail plan has gained legal force which reduces a fundamental uncertainty. As can be seen in Table 2, this creep in numbers emerges as often stronger among large developers, who otherwise could be expected to be more able to absorb financial risks in their projects. For a small developer, there might be higher adjustment costs for moving staff and other production resources between (very) few projects; having had the plan approved, it would make more sense to pursue a project that is large compared to their total turnover. In Table 4, which shows how officials and developers have ranked causes of loss of originally planned dwellings, there is agreement that the strongest cause is complaints from adjacent properties. More than developers do, officials assign a high rank to reduced market demand for co-operative dwellings. Conversely, developers are more willing to refer to consequences for municipal infrastructure as causing creep.

Discussion and conclusion

The present investigation has studied how local policies to satisfy residential demand by accelerating urban densification have relied on coordination strategies. The Gothenburg BoStad2021 programme analyzed here is such a local political initiative for more efficient management within an unchanged legal framework, while the infill studies reported by Scattoni and Falco (2012) and Dillmann and Beckmann (2018) concern outcomes of specific changes in regional or central government planning regulations. Although the city has introduced a number of changes in order to coordinate its urban planning and development processes to support the target of 7,000 additional dwellings

Table 4. Causes of loss of planned dwellings according to officials and developers.

Cause of loss	Officials [$N = 11$]	Developers [$N = 11$]
Complaints from adjacent properties	1	1
Reduced demand for cooperative flats	2	4
Initial overestimation of number of dwellings	3	-
Consequences for municipal infrastructure	4	2
Other causes	5	-
Unprofitable rental housing	6	5
Redesign	7	7
Insufficient early investigations	8	-
Shortage of resources for planning, design, construction	9	3
Initial uncertainty of number of dwellings	10	6

Note: Rankings weighted by number of dwellings lost per project.
Source: Authors' 2019/20 questionnaires.

in a set time frame, it seems that the best explanation for the success of the programme, as measured by a more rapid production of plans, is the clearly expressed political goal in itself. An important consequence has been an emphasis on projectification in the planning and development processes.

Coordination has been in focus, although not all the mechanisms listed by Alexander (1993) and Pollitt (2003) have been applied – or only to a limited extent. Thus there has been no single programme manager, nor have there been municipal project coordinators following single projects throughout the planning and permit processes and further on to start of construction; no common budgets, no incentives and rewards (or disincentives) for cross-cutting working. The absence of individual incentives is at least partly to be explained by Scandinavian organizational culture. Certain strategies take more time than the years covered by BoStad2021 to put into practice. Thus there has been no joint development of staff and no implementation of common IT systems.

Kuokkanen (2013) has highlighted the risk of projectification for democratic processes, but there is no clear evidence here for these having been endangered. If we take the frequency of appeals in the planning process as a measure of citizen engagement, there is no marked difference from earlier projects with slower processes; possible explanations are that the political focus on BoStad2021 influenced developers, property owners and dwellers, as well as developer efforts to conduct local project dialogues before the formal process of planning was initiated.

It is tempting to suggest that stronger comprehensive planning and a less myopic focus on the individual detail plan, evident in more than one BoStad2021 project, would resolve conflicts related to the larger urban transportation network, a cause of concern for the central government authority in question. Vertical coordination between central and local government in transport planning (cf. Hrelja 2011) was improved, however, by introducing mobility agreements between the city and developers. Comprehensive planning with stronger force would reduce municipal flexibility to respond to new ideas from developers but would also increase predictability for those who wish to build, before engaging in detail planning dialogues. Weak comprehensive planning does have consequences for the need for coordination when entering and running the detail planning process.

For at least some of the about 30 projects, there has been a strong initial focus on the physical design in the detail plan rather than a comprehensive attempt at early identification of internal needs of coordination with other municipal departments throughout successive stages of implementation. This emerges as one of the reasons why developers have been reluctant or unable to start detailed design early on in the total process, instead of embracing the principle of parallel planning and preparation for a building permit, not waiting for the plan to come into legal force.

The strong political emphasis on two deadlines, the first for the about 30 detailed development plans and the second for the completion of 7,000 dwellings was translated into strong and efficient means of coordination for reaching the first milestone in 2017. The consequences of the option nature of a plan that has come into legal force and the relative lack of developer incentives to proceed with design and actual construction affect the possibilities for reaching the original quantitative goal for the number of dwellings by a certain time, further complicated by the Covid-19 pandemic.

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