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Delivering Transit Oriented Development (TOD) in low to medium density contexts. Actor relationships and market conditions in smaller Swedish cities

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ABSTRACT
This article analyses actor relationships in Transit Oriented Development (TOD) planning in order to better understand the preconditions necessary for planning processes to result in TOD in lower density contexts, in suburbs, or small cities. Empirically, the analysis builds on a comparative case study of TOD planning projects. The focus in the analytical work is on understanding how market conditions in lower density contexts influence the conditions for TOD planning projects, and how this feeds through to planning processes. The overall conclusion is that we should not expect that planning processes in small cities with low to medium densities of populations and activities differ much from those in more ‘classic’ highly urban TOD locations. Market conditions had an impact on planning processes, but once in the planning stage conditions for implementation depended more on the ability to handle competing interests and less on market conditions. In terms of policy recommendations, it is important for actors to develop a joint vision of the built environment of the site in question that channels organizations’ individual actions in a joint direction. The ability to achieve such a joint vision for the design of the site in question may be more important in small towns than in more ‘typical’ TOD contexts in denser urban areas. This is because all enablers need to work together in a positive way in such location – which may be marginal from a market point of view – for the development to be able to go ahead.

1. Introduction
Transit Oriented Development (TOD) is typically defined as an integrated approach to transport and land use planning that makes walking, cycling, and transit use convenient and desirable, and that maximizes the efficiency of existing public transport services by focusing development around or close to public transport nodes (Thomas & Bertolini, 2015). Through its integrated planning approach TOD can also contribute to raising the quality of the built environment and be used as a tool in city development. The importance of TOD to the success of public transport, and a need to understand how to deliver TOD more often, is the key justification for this research. TOD planning presupposes the involvement of several actors, such as public transport authorities, public transport operators, municipalities, private sector property developers and the public – actors that may have different interests and need to negotiate and agree on the design of individual development sites. Ibraeva et al. (2020), Dorsey and Mulder (2013) and Mu and de Jong (2016), for example, all highlight the complexity of the actor relations within TOD and the tensions and conflicts that this can cause. These potentially complex actor relationships can make TOD planning challenging and may, from a public transport point of view, lead to suboptimal design choices for the built environment and transport infrastructures if not successfully handled. This is why previous research identifies knowledge about the ‘processual dimensions’ underlying TOD planning, particularly with regard to actor relationships, as important for the understanding of TOD delivery (Paulhiac Scherrer, 2019).

This article analyses actor relationships in TOD planning in order to better understand the preconditions necessary for planning processes to result in TOD. It also dissects the tensions and conflicts that can arise between actors in TOD planning when it comes to the design of individual development sites. Actor relationships in small cities with low to medium densities of population and activities form the empirical setting. We present more detailed research questions in section two, based on a review of previous research that we use to identify aspects of planning, which could potentially be of great importance for TOD in small cities with low to medium densities of population and activities.

In this way, the paper helps to fill two interconnected knowledge gaps in TOD research. The first gap has to do with the already mentioned ‘processual dimensions’ underlying TOD planning and the associated levers and obstacles to TOD caused by actor relationships. These are regularly mentioned in previous research as important to how TOD
planning works but are claimed by, for example, Paulhiac Scherrer (2019, p. 474) to be generally under-researched as ‘research on TOD implementation has rarely examined the connection between how the project is carried out (the actors and the processes involved) at different stages (from planning to implementation) [...’].

The second gap has to do with the lack of research about TOD in smaller cities, suburbs or in low to medium density contexts. TOD as a design concept cannot be easily applied in the same way in all contexts. For its implementation to be successful, each TOD project needs to be adapted to its specific urban form, political and planning context (Thomas et al., 2018). With reference to TOD in areas of differing development densities, Nigro et al. (2019, p. 111) write that ‘very few studies on land use and public transport integration focus explicitly on geographical areas characterized by medium or low densities of population and activities [...]’. All ‘successful’ TOD planning processes could be said to foster ‘TOD implementation through a well-integrated urban project that is as best adapted to the context as possible’ (Paulhiac Scherrer, 2019). However, how a TOD planning project should best be adapted to the context (in this paper understood as the built environment and local and regional transport conditions) is not self-evident. Different contexts offer very different conditions for TOD and the actors involved in the planning may have different views on how the site should be designed. For example, opportunities for achieving a well-integrated urban TOD project that is as best adapted to the context as possible are potentially fewer in smaller cities with low to medium densities of population and activities due to less favorable market conditions and demand for TOD-like development (see section 2). This potentially creates specific actor dynamics (or a greater need for these than in more urban contexts) that need to be better understood. The potential variations between contexts require an understanding of the conditions for TOD as diverse; and this also implies the need for a systematic comparison of cities with different characteristics and the role of organizations when planning for TOD in smaller cities.

This paper discusses actor relationships in TOD planning in smaller cities by analyzing three Swedish cases of TOD planning projects which, on a qualitative scale, range from relatively poor to relatively good market conditions and which are characterized by different actor constellations and relationships, but all in lower density contexts, in suburbs, or small cities.

2. TOD planning processes – actor interactions and dynamics

How a TOD planning project should best be adapted to the urban context is, as already mentioned, an important question in all TOD planning. Previous research mostly conceptualizes TOD as an increase of densities and mixes of land uses at sites located in urban or metropolitan areas. These sites typically offer high quality public transport and the possibility of densification and the creation of functionally mixed neighborhoods. In one of the very first definitions of TOD, Calthorpe (1993) proposed that TOD projects should rest on the principles of a primary area in the immediate proximity of the station where major commercial and employment areas should be located; at the same time, they should offer mixed land uses to ensure neighborhood vitality, i.e. a functionally mixed city that is an attractive place to live, visit, and shop. In more recent research similar ideas about vertical mixing of uses within buildings are expressed. Cervero and Dai (2014) suggest the location of high-rise buildings next to public transport nodes, where the first two floors of buildings are for retail use, above the retail facilities office spaces are built, and on top of the office spaces housing units are provided. Density is another indicator frequently used to define TOD areas. Cervero and Dai (2014) use floor-area ratio (FAR), and argue for ‘the wedding cake style’ approach to development with high densities directly adjacent to stations, and where building heights systematically taper with distance from bus rapid transit corridors.

These two above mentioned examples illustrate how previous research focuses on urban settings with conditions that obviously do not exist everywhere, as in smaller cities with medium and low densities of population and services – where there often are less favorable property market conditions, and as a result of this less favorable conditions for densification and mixed use development around or close to public transport nodes. Additionally, TOD planning involves choices between alternatives in connection with all the three so called Ds of the TOD concept: density (number of units per hectare), diversity (the mix of uses in a development) and design (urban design and street layouts friendly to active travel and public transport) (Cervero & Kockelman, 1997). Therefore, recent research on TOD in smaller cities concludes that the ‘TOD concept needs to be tailored to the context in such areas, especially regarding densification and urban qualities (Patrao, 2022).

The actors involved in a development in a lower density area may have views on the tradeoffs between these factors that differ from those they would have at a more urban TOD location. In addition, the motivations for actors to participate may be different in smaller cities. Property developers and investors, as a category of key actors involved in the planning of TOD, often perceive it to be risky and expensive. TOD is potentially more expensive because of ambition to create higher quality urban environments, higher densities and mixed-use development. For example, vertical mixed-use development may require unique solutions for which standard cost models are more difficult to apply (Venner & Ecola, 2007). Developers may also perceive TOD to be something of a niche market, of interest mainly to people who seek a more vibrant local neighborhood than a conventional suburban life; and for those who live in subsidized housing and who therefore, for income reasons, depend more on public transport (Feldman et al., 2012; Guthrie & Fan, 2016). Finally, developers may perceive TOD to be risky and expensive due to the interdependencies and complexities of the actor relationships required for TOD (Feldman et al., 2012; James, 2009; Utter, 2009). To conclude, TOD projects in smaller cities with low to medium densities of population and activities are likely to be even
more financially risky for property developers and investors, which may influence their interest in such locations.

The number of choices to be made in TOD planning and the potential differences between participating actors is why previous research has posited that an understanding of planning processes requires an analysis of the collective construction of problems, the problem-solving methods used and specific design choices and how they evolve throughout a project (e.g. Paulhiac Scherrer, 2019, p. 478). Related to this, actor relationships and dynamics have long been a focus in TOD literature, for example already in publications such as Bertolini (1996). More contemporary research continues to point out the importance of actor relationships for TOD planning (see Ibrea et al., 2020 for a review of TOD research) but also, as already mentioned, that the role of actor relationships is generally under-researched and that research has only begun to explain how TOD is implemented locally (Maulat et al., 2021; Paulhiac Scherrer, 2019).

Despite this, several conclusions can be drawn about potential conflicts of interests between actors, and the role and nature of actor relationships, based on previous TOD research. Conflicts of interests may, for example arise between developers and planning authorities regarding densities. Developers’ original ambitions for developing housing at higher densities, and thereby to maximize their profits through housing sales, may be significantly reduced in the course of planning processes (Levine & Inam, 2004). Ambitions for densification and urban design and street layouts friendly to public transport may also be questioned by residents with car-oriented habits and lifestyles who value a low-density built environment (Tan, Janssen-Jansen, et al., 2014). How the handling of such potential conflicts of interests is influenced by actor relationships in planning are naturally affected by the legal or organizational ‘context’ of which they are a part. A common way of describing this context in previous TOD research (not specifically about TOD projects in smaller cities) is in terms of how institutional (Thomas et al., 2018) or formal barriers and enablers influence actor interactions in planning (e.g. Paulhiac Scherrer, 2019; Tan, Bertolini, et al., 2014; Thomas & Bertolini, 2014). Tan, Janssen-Jansen, et al. (2014, p. 35) define ‘formal’ barriers as those that are caused by regulatory and legislative frameworks, and ‘informal’ barriers as those caused by political and cultural factors including acceptability and awareness of the TOD concept among planners. An example of a formal barrier, or enabler, that has been described in TOD research is the presence or lack of presence of a regulatory or advisory regional land use-transport planning body (Thomas & Bertolini, 2015). Another example is that of the regulatory instruments required by national legislation, such as regional and local development plans (e.g. Maulat et al., 2021).

Previous TOD research also illustrates how planning is clearly influenced by the factors of a more informal character and that several of the enablers or barriers reported in that research, as well as some of the ways advocated to improve conditions for good actor relationships, can be defined as informal. An example of this is how some public actors try to create conditions for TOD implementation through collaborative planning methods based on open information sharing and planning guides to help to strengthen the ‘collective knowledge’ about TOD and its coordination (Maulat et al., 2021). Judging by previous TOD research, agreements on how to act in relation to important TOD tradeoffs may be facilitated by a joint vision shared between actors about the nature of the TOD at the site in question (Hrelja et al., 2022). Another example is identified by Thomas and Bertolini (2015, 2014) when they conclude that good actor relationships between municipal actors and actors willing to experiment with new policies are important enablers, while Mu and de Jong (2016, p. 55) advocate working practices that build trusting relationships.

According to Mu and de Jong (2016), trust presupposes a positive inter-organizational relationship over time, in which many successful collaborative experiences, tactical agreements and shared visions are accumulated. The claim is that if trust between actors can be built, this can lead to the creation of a perception of mutual gain that supports the smooth operation of collaboration. Switzer et al. (2013) also emphasize the importance of trust between actors in achieving well-functioning TOD planning processes, since trust ‘functions as a replacement for information and facilitates risk taking without complete certainty about the outcomes’ as well as ensuring that actors deliver on agreements (p. 1168). Some actions that may lead to trust being developed are, according to Switzer et al. (2013) openness, delivering on promises, and planning processes characterized by openness and communication. Trust is also likely to be of importance to actors’ ability to make agreements on how to act in relation to important TOD tradeoffs about density, diversity and design.

This brief overview of previous TOD research shows some of the necessary conditions for well-functioning actor relationships. There is also public transport research that has analyzed actor relationships and the mechanisms that are used by actors to achieve coordination (e.g. Hrelja et al., 2020; Pettersson & Hrelja, 2020; Rye et al., 2018). This public transport research does not necessarily use TOD as a concept. However, similar to TOD research, it often describes the importance of formal or informal aspects of planning processes for actor relations, and this in connection with factors that are important for TOD, such as transport and land use integration or public transport planning in an urban context.

Previous public transport research identifies, for example, contractual (i.e. formal mechanisms), and partnerships and discursive methods of coordination (i.e. informal mechanisms), (Rye et al., 2018). It also discusses the necessary underlying qualities that enable organizations to act collectively and manage differences in interests, for example when planning public transport projects as part of a larger urban planning context in which different organizations need to work together and overcome organizational boundaries and sectoral areas. Pettersson and Hrelja (2020), for example, argue that the condition for well-functioning planning processes is that the actors succeed in establishing an honest,
open, and inclusive dialogue and creating clarity about organizational roles and the procedures for the planning process. They also highlight the importance of understanding the motivations of the other actors when trying to resolve conflicts of interests. When these conditions are in place, actors can focus on exploring shared objectives, on a general level, based on an understanding of other actors’ interests, and reap the benefits of working together.

With the help of previous public transport research, a well-functioning planning process can be conceptualized as a process where the actors involved establish joint formal and informal rules (Rye et al., 2018) that govern the relationship between and behavior of the actors and facilitate agreement on the design of individual development sites. Previous research points out that conflicts of interest are unavoidable in public transport planning and that the key is how to handle conflicts in a constructive way (Pettersson & Hrelja, 2020). The planning process is thus understood as a learning process which can enable agreement if actors engage in an open dialogue and knowledge sharing that avoids bias and seeks acceptable compromises among participating parties (Hrelja et al., 2020). This requires a well-managed dialogue in which the organizations develop trust and understanding of each other’s conditions and interest and agree of ways of working together (Hrelja et al., 2020; Pettersson & Hrelja, 2020).

By way of a summary, the lessons learned from previous TOD and public transport research about actor relationships are shown in Table 1.

However, these lessons are primarily based on research on TOD in dense and urban areas. With this in mind, a conceptual framework for analyzing the ‘processual dimensions’ (Paulhiac Scherrer, 2019) underlying TOD planning that are based on informal and informal aspects can be created. Some of the preconditions necessary for planning processes to result in TOD is that actors succeed in formulating joint formal and informal rules that govern the relationship between and behavior of the actors that in turn facilitate agreement on the design of individual development sites. Important informal aspect includes collaborative planning methods grounded in communication characterized by honesty and openness that facilitate agreement on the design of individual development sites by the establishment of a joint vision shared between actors about the nature of the TOD at the site in question.

But it is uncertain how actor relationships and dynamics differ, if at all, from more ‘typical’ TOD contexts in denser urban areas. It is reasonable to assume that some of the ‘processual dimensions’ underlying TOD planning will be of even greater importance in smaller cities, since TOD potentially faces even more challenging implementation conditions in such areas compared to more ‘typical’ urban settings. The importance of good actor relationships, the existence of common goals, the ability to handle differences in actor interests etc. should also be important in planning in smaller cities, but possibly take other forms depending on differences in power relations between actors caused by, for example, the market conditions for TOD projects in such cities. The key research questions arising from the above review are, therefore:

a. how do the market conditions in smaller cities with low to medium densities of population and activities influence the conditions for TOD planning projects?
b. how does this feed through to planning processes (actor relationships and dynamics) and eventually the design of a built environment conducive to public transport use in smaller cities?
c. what general advice can be given on how the planning processes can be designed to create conditions for TOD implementation in smaller cities?

3. Method

3.1. Case selection

The analysis builds on a qualitative comparative case study of TOD planning in the three cities of Västerhaninge, Öxnered and Kävlinge (see Figure 1). All cities are located in the semi-peripheral areas of the metropolitan Swedish regions of Stockholm (Västerhaninge), Gothenburg (Öxnered) and Malmö (Kävlinge). The projects were selected through discussions between the researchers and industry representatives from public and private organizations (regional public transport authorities, local authorities and property developers) who participated in a reference group associated with a research project of which this paper is a part. The industry representatives provided examples of

| Table 1. Summary of key lessons from previous TOD research on factors influencing actor relationships. |
| Conflicts of interest over e.g. street design, car parking, densities |
| Clarity about organizational roles and the procedures for the planning process |
| Public actors: information sharing and creation of planning guides to strengthen ‘collective knowledge’ about TOD and aid its coordination |
| Common vision and shared objectives |
| Honest, open, and inclusive dialogue |
| Trust built on accumulation of positive experiences of collaboration in past. |
| Willingness to experiment (both municipal and other actors) |

Figure 1. Location of Öxnered, Kävlinge and Västerhaninge.
TOD projects in their respective region that in their opinion illustrated important aspects of working with TOD in cities with low to medium densities of population and activities. Through this process we arrived at a long list of potential cities. The main motivation for the selection of the chosen cases is that the comparison between them illustrates how differences in market conditions fed through to actor relationships and thus influenced the design of the individual sites.

There are some important similarities between the three projects in terms of transport conditions. In all three projects, public transport service is perceived by the actors involved to be good and good quality public transport is an enabler that makes it possible to develop TOD in these locations. However, in practice there are significant differences, as explained below. On a scale the cases range from having relatively poor (Öxnered), relatively good (Kävlinge) to good market conditions (Västerhaninge) compared to TOD projects in more urban or metropolitan areas. We justify this, and we describe the market conditions from the actors’ perspective in the results section.

At the same time, actual property prices illustrate how market conditions differ between the case study cities, and how low they are in comparison to the nearest larger cities (Tables 2 and 3). The development of property prices (e.g. for apartments) over time (Figure 2) shows that the prices are lower than the average for the country, but also the relatively large differences between the case study cities with the highest prices being found in Haninge (the municipality in which Västerhaninge is located) and how the prices of housing in Kävlinge have increased relatively much compared to Vänersborg (the municipality in which Öxnered is located).

The cases are also characterized by different actor constellations and relationships, but all projects are located in lower density contexts, in suburbs, or small cities (see Table 3).

### 3.2. Planning conditions in cases

In Sweden Regional Public Transport Authorities are responsible for the strategic planning of public transport. In the regions that the case study municipalities are part of, there are advisory regional development plans that contain strategies for building and public transport development supporting TOD like development. However, in Sweden there is no strong regional planning level that coordinates regional transport and land use planning with municipal land use planning. It is solely a municipal responsibility to plan land use which take place through comprehensive planning and legally binding detailed development planning.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population of urban area (year of data)</th>
<th>SEK/ sq.m apartments</th>
<th>SEK/sq.m single-family houses</th>
<th>Travel time by train to regional center (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Västerhaninge</td>
<td>19,381 (2020)</td>
<td>1,769 (2020)</td>
<td>34,829</td>
<td>25–30 min. (Stockholm)</td>
</tr>
<tr>
<td>Öxnered</td>
<td>324 (2023)</td>
<td>270 (2023)</td>
<td>13,989</td>
<td>41–48 min. (Gothenburg)</td>
</tr>
</tbody>
</table>

Note: For data sources, see Appendix.

**Table 2.** Average property prices 2022/2023.

**Table 3.** Population, densities, property prices and travel time.

**Figure 2.** Development of property prices, apartments. Note: For data sources, see Appendix.
Detailed development plans are generally prepared when new construction is to be carried out. The formal planning process is normally begun with a request for a planning decision being submitted to the municipality from a property owner or developer. The municipality proposes a detailed development plan based on the idea from the developer. Affected stakeholders may comment on the planning proposal during the planning process.

In all three TOD planning projects, there are municipal comprehensive plans advocating densification and residential development in good public transport locations (see result section). The municipalities have been landowners in all three TOD planning projects. In the case of Öxnered, the municipality took the initiative for a detailed plan and developed it based on views from stakeholders. In the cases of Kävlinge and Västerhaninge, the municipalities have sold land to private property developers and worked together with them in the detailed planning phase. It is mainly the interaction between actors in the detailed planning phase that is analyzed in the results section.

There are three important sets of actor relationships of special importance for TOD planning and implementation in the analyzed cases: regional and local authorities on the one hand, public sector actors and private sector actors on the other, and finally public or private organizations and the public (citizens). A complete set of actor relationships does not exist in all projects, and this is important for the outcome of the planning process. This is described in the results section. The focus in the empirical and analytical work was on understanding what happened in the planning process and how market conditions and actor relationships influenced the outcome and design of the projects. The planning in the three cases should be seen as illustrative examples of TOD in small cities and over the challenges that may occur in such cities. Generalizability, or transferability (Lincoln & Guba, 1985) as it is sometimes termed in qualitative research, is created by discussing the results of this study in relation to previous research and to theoretical starting points.

### 3.3. Data

Methodologically, the results are based on interviews with officers from public transport authorities, municipalities and property developers participating in the planning (see Table 4), and documents. The interview questions asked touch mainly on the following themes:

- Roles and perspectives of organizations (for example, not only that an interviewee was from the municipality, but also how different parts of the municipality defined TOD in general and for the site in question).
- Questions about the ‘project’ and the planning process (for example: What market demand do you see there is for the new housing development at this location? Have there been any particular challenges during specific times in the planning process? How do you view the importance of public transport for property development at this location?)
- To what extent do regional and local plans (regional, comprehensive plans, and detailed plans) support TOD in this location?

The interviews were conducted during the COVID19 Pandemic, and were therefore conducted via Zoom. Each interview lasted for roughly 1–1.5 h. The interviews were recorded, with the approval of the interviewees, and transcribed verbatim.

### 3.4. Introducing the cases

Öxnered (about 324 inhabitants) is located in Vänersborg Municipality (43,000 inhabitants) about 100 km north-west of Gothenburg (see Table 3). Öxnered is located at a railway junction where two national main lines intersect. The trip to Gothenburg takes about 45 min by train, with a train every half hour. It is the city’s accessibility from a regional public transport perspective that led to plans for a developing the area in proximity to an existing station, which is located about 2 km from the center of the main town in the municipality. The detailed plan comprised 150–170 apartments and 25–30 terraced houses in the area. The municipality’s ambition was to use the site’s location to create a new and denser form of development in an area where more standardly they would expect high demand for new single-family housing (Vänersborgs Municipality, 2019). Today, there is no services in the area but the municipality initially assessed that
service could be added over time (Vänersborg Municipality, 2016).

The town of Kävlinge (about 10,000 inhabitants) – in Kävlinge Municipality (32,000 inhabitants) – is located along a main railway line, from Malmö to Gothenburg, and is a 20 – 25 min train ride from major regional employment locations in Malmö and other nearby cities as Lund (see Table 3). The municipality and a developer are developing the station area which is a brownfield development transforming a former slaughterhouse and food industry area closed down in 2008. The developer acquired the area from the municipality through a wholly owned subsidiary with the intention of redeveloping it as a housing area. The development plans encompass approximately 1,300 housing units for around 3,200 inhabitants as well as premises for shops and services (Kävlinge Municipality, 2015).

Västerhaninge (about 19,000 inhabitants) is located in Haninge Municipality (98,000 inhabitants) about 25 km from Stockholm’s inner city (see Table 3). Västerhaninge has very good access to public transport in the form of a bus terminal and commuter train that run to and from Västerhaninge toward Stockholm City with four trains per hour from early morning until just before midnight, reducing in the night hours. The core of the district is the commuter train station and city center facilities. Today, there are both commercial and public services within the area. The re-development of the area is planned to take place around these locations through densifying the existing built environment and by improving the quality of the public space. The municipality and private property developers are planning for an additional 1,000 apartments and 18,500 m² of commercial and public space including an indoor swimming pool (Haninge Municipality, 2020).

4. Results

An important prerequisite for all three projects is that the growth of nearby larger cities has spread development along good communication routes further and further out in the network of interconnected towns of which Västerhaninge, Kävlinge and Öxnered are a part. The property developer from the Kävlinge case, for example, describes this as the development leads to ‘B-location cities’ gradually becoming of interest for new projects, adding that:

A lot of people are moving out of large cities such as Malmö and Helsingborg. We notice that for our customers, security is something that is highlighted very often, not least in Kävlinge. The big cities are starting to get insecure and maybe big and impersonal and expensive. People value other things than to live in the middle of the big city, and you can maybe get away a little cheaper, so you have been able to value these surrounding municipalities in a different way and also if there are important public transport close by, you might even be able to sell a car. We notice that there is a different [type of] demand for the more peripheral locations than before (interview property developer).

TOD is in a similar way seen by the local authorities as a planning strategy for promoting economic development by offering housing in good public transport locations for regional commuting (Haninge Municipality, 2020; Kävlinge Municipality, 2010; Vänersborg Municipality, 2016). The ambition to develop Öxnered, as an example, is part of the realization of the municipality’s plan to grow to 50,000 inhabitants by 2030 through ‘conscious investments in housing in such attractive locations that few cities can compete with Vänersborg [a nearby city and the municipality in which Öxnered is located]’ (Vänersborg Municipality, 2016, p. 4). The three TOD projects can thus be understood as ways for both public and private actors to capitalize on economic development at a regional scale because it results in better market conditions - demand for housing - in more peripheral locations, but with good public transport. How well the actors involved actually succeed in this differs radically between the three projects. In the following, we will in turn describe how market conditions feed through to planning processes and how actor relationships influenced planning processes. We will start with Västerhaninge, where the influence of proximity to Stockholm which results in relatively high land use values, is most evident.

According to the property developer in Västerhaninge the high prices of housing in Stockholm have led to the emergence of a market for newly produced housing in good public transport locations such as Västerhaninge, a site which had not previously been relevant for the company. However, the interviewee also stressed that each project still needs to be analyzed based on its conditions to make it profitable. For the municipality, the goal was to develop Västerhaninge’s small town qualities, and make the place an attractive housing alternative in the Stockholm region by planning for new housing and taller buildings, renewal of the center, new parks, workplaces and activities to enrich city life with cafés and restaurants etc. (Haninge Municipality, 2012).

How to create an attractive site, however, caused disagreement and conflict between the property developer on the one hand and the municipality and the regional public transport authority on the other. The reason for this was conflicting interest regarding desired levels of density and views on how much space on the site should be left clear for housing development and public space, compared to space for public transport (the bus terminal). Actor disagreements can be illustrated by the negotiations over the bus terminal of importance for the function of the regional public transport system. According to the public transport authority, the bus terminal currently functions well for commuter trains and buses both from a bus traffic point of view and from a passenger point of view (interview officer Public transport authority). The public transport authority considered that its future needs and functions as a ‘bus traffic and passenger environment’ were put at risk by the property developers’ original ambitions for developing housing at high density. In particular, it could compromise future regional public transport operations by, among other things, removing turning points, according to the interviewee from the public transport authority.

The disagreement arose at a very early stage in detailed planning when the property developer presented an sketch
of the area to the municipality and the public transport authority. Disagreement resulted in a long and sometimes stalled process and the planning work was paused for a few months. The actors indicated different reasons for the stalling of the process. From the municipality’s point of view, they felt that the property developer was not always honest in their communication with the municipality, and that other reasons were given for their position in matters of how the land should be used in the best way, when in fact the property developer wanted to secure land for the construction of housing and thereby maximize its profit through future housing sales (interview municipal officer). The property developer, on the other hand, describes how the municipality (in addition to safeguarding the space for the station), by changing its mind during the planning process and adding services to the plan, e.g. a swimming pool, made it difficult to agree on how the site should be designed to become both an ‘attractive’ living environment and center as well as a functioning exchange point for public transport (interview property developer officer). In this case, the fact that the site was in part already a bus terminal and thus serving an important public transport function added to the complexity of the site and of its actor relationships (by adding into the mix a third, powerful actor in the form of the public transport authority); this is a TOD-related complexity, although not one of course that is confined to developments in low-density contexts.

According to an interviewee from the municipality, it is important to make compromises in all projects, but the interviewee also felt that the municipality and the public transport authority understood each other better because both organizations represent the public and, by extension, the taxpayers. In the end, the municipality and the region decided to make a restart of the planning process by discussing the design of the site without the property developer. The result of the discussion was then presented to the property developer (interview municipal officer and officer Public transport authority). This procedure resulted in the property developer not feeling that they had the same opportunities as other parties to influence the design of the site. In an interview the property developer expressed the view that the bus terminal admittedly is very important for the attractiveness of the site, but that:

[...] we do not want this gigantic area of buses. The terminal takes up a lot of space, land that could otherwise have been housing that is worth a lot of money. We never felt that we could weigh economic values against other values. Although we presented proposals [on how to balance interests], there was never a discussion about what the land is worth and what it should be used for. It ended up that we had to accept and come up with a proposal that meant fewer housing (interview property developer).

The Västerhaninge case illustrates what may happen in TOD planning projects located in lower density areas and smaller cities where there are no market problems achieving TOD principles of densification and mixed use etc. Instead, the relatively high land value in Västerhaninge resulted in potentially similar problems in actor relationships as those that arise in more denser and metropolitan sites and cities. This case illustrates how differences in actor interests caused problems when the desire of the developer to develop at high density clashed with the regional public transport authority’s and the municipality’s ambitions to safeguard future public transport operations as well as – from the developer’s point of view – other lower value uses, such as a swimming pool.

The Västerhaninge case also illustrates how TOD planning potentially becomes more complex when public and private organizations with ‘differing logics’ are involved (especially in cases when there are high economic returns at stake). Different views on how the land best could be used fed through to planning processes and influenced actor relationships and dynamics negatively. The actors did manage to reach an agreement about on the design of the development site, but it was one that was not based on a joint vision shared between organizations about the nature of the TOD at the site in question. This was a result of a planning process which, based on previous TOD and public transport research on actor relationships in high-density contexts (see section 2), can be said to have lacked the necessary qualities for well-functioning stakeholder relations to be able to develop. Instead, the communication between the actors was based on an absence of openness, trust or inclusive dialogue.

Despite this, the project was realized, and the relatively high land value must be assumed to be a reason why the project succeeded after all despite poor actor relationships. In addition, the pivotal role of the public transport authority made this unequivocally a case of actor relationships in a TOD context, both adding complexity, but also changing the power dynamic in that the developer was in effect ‘outnumbered’ by the two public sector actors. In a non-TOD context, this would have been less likely to have occurred. It might also have been less likely to have occurred in a lower density TOD context such as Öxnered which is not as operationally critical to the public transport system as is Västerhaninge.

The market conditions for new TOD like housing projects in Kävlinge, which the property developer, as already has been described, thought of as a ‘B-location,’ illustrate how market conditions were viewed by market actors at the time the real estate company acquired the area from the municipality.

When we bought the land, people shook their heads and said: what the hell are you doing in Kävlinge! It is a place that’s been losing population for years. Why are you going in there? People didn’t understand. 1600 housings in Kävlinge, it will take you a thousand years to build! (interview property developer).

According to the interviewees from the property developer, the site’s disadvantage was the potentially negative image customers might have of Kävlinge and perceived shortcomings in the quality of services, such as the quality of schools. Although rising land values reached a tipping point that made a B site such as Kävlinge of interest to this particular developer, it was still difficult to get ‘the calculation to add up’ as one interviewee expressed it (interview property developer). What made the property developer see a business opportunity in Kävlinge was the site-specific
qualities that included the location near the station and proximity to nature, which made it possible to market the development as a safe and quiet alternative at half the price compared to housing in surrounding larger cities (interview property developer).

But, as in Västerhaninge, the planning came to a standstill for periods after the land was acquired by the developer due to an overly lengthy administrative municipal process of developing a detailed plan (according to one interviewee from the property developer), or to different perceptions of how the area should be developed (according to one of the municipal interviewees). Whilst these issues could be observed in many planning processes, the fact that this development in this location represented a significant departure from the norm in this low-density small town environment lengthened the planning process and gave more grounds for disagreement than a conventional residential development in Kävlinge; and these disagreements were more significant than they might be on a less economically marginal site in a more urban location.

An interviewee from Kävlinge Municipality describes how the municipality and the property developer made a complete ‘restart’ of the planning process and with this managed to create a common understanding of how the site should be developed (reasons for this restart are explained below). The interviewees explained that they managed to create this common view by building an understanding of both the motivations of and the limits of what other party could accept in a negotiation (illustrated by the quote below). This made it possible to agree on a design of the area that met the interests of both parties. An interviewee from the municipality describes how a restart of the planning was facilitated by a change in personnel. The property developer appointed a new project manager that had previously worked as a municipal officer, which, according to one of the municipal interviewees, understood how ‘we as a municipality think’. The parties:

[...] sat down and started to ‘give and take’. The real estate company must make money and get a reasonably good financial return, and we [the municipality] must feel that we are building a good urban environment. That’s what we landed in, but they haven’t gotten everything they wanted. It’s like in any other project. We are aware that the developer obviously wants to get as much building rights as possible, while we at the same time have to weigh it against public interests and create a good whole. Through dialogue together with the real estate company, it has finally been resolved [...]. It’s always a balancing act (interview municipal officer).

Agreement on how the site should be designed was facilitated by jointly drawing up guidelines (Kävlinge Municipality, 2011) for the design of the built environment. The parties agreed on a design of the site with the ambition to develop the site’s small town qualities, fully in line with the municipal plans (Kävlinge Municipality, 2010). This resulted in a detailed plan aimed at making the site an attractive part of central Kävlinge with a dense, pleasant mixed-city structure with housing in combination with services including a swimming pool, businesses and parks’ (Kävlinge Municipality, 2015). The plans signaled an ambition to build more urban and at a higher density than the largely car-based residential development that has been the norm in Kävlinge for decades. The project was then marketed under the brand 'Stationssstaden' (the Station City). These processes are in some ways similar to those that would be found in the development of single family homes or row housing in small town like Kävlinge, but as a new form of development in this context, TOD offers many more potential areas of disagreement and thus the need for effective dialogue between developer and municipality is even more acute.

The Kävlinge project illustrates what may happen in TOD planning in lower density areas and smaller cities when rising land values reach a tipping point that potentially make ‘B sites’ like Kävlinge of interest for developers. But it took a driving property developer acting as an ‘TOD entrepreneur’ and identifying business opportunities when other property developers did not, buying land from the municipality, to drive development and planning. A similarity with the Västerhaninge project is that the actors in the Kävlinge project also tried to develop small town qualities of the site and thereby target a customer group seeking to move away from the larger surrounding cities by offering lower price housing but at the same time a more urban environment at higher densities than seen in such locations before. An important difference compared to the Västerhaninge project is the much better actor relationships. For example, in Kävlinge there were – as in Västerhaninge – different views regarding how much space on the site should be left clear for housing. However, the municipality and the property developer established working practices that made it possible for them to find a balance between interests and differences that result from a public and private organization working together and translated this into a physical design of the site that is in line with TOD planning design principles. This depended on an understanding of other organizations’ motivations, and a shared vision of the built environment.

Many of the factors that previous TOD research and public transport research (see section 2) have identified as important to encourage well-functioning stakeholder relations to develop in high-density contexts are in summary also found in the planning process in Kävlinge. They include a well-functioning dialogue between actors based on an understanding of the other party’s motives. A shared vision of the built environment was for example delivered by collaborating to create supporting planning documents.

In the Öxnered project, ambitions to deliver a denser built environment were part of the municipality’s goal to develop housing within walking and cycling distance from stations, developing them into what the municipality called station communities (Vänersborg Municipality, 2017). The municipality’s goals would, if fully implemented, have meant a major change in the nature of the area. Today, the area is sparsely populated with only a few single-family houses and there are no businesses (Vänersborg Municipality, 2019). The purpose, as expressed in the detailed plan, is to develop the station site with an attractive functionally mixed
neighborhood; single-family houses, apartment buildings, school, preschool and premises for other local services, all within proximity to nature, water and public transport’ (Vänersborg Municipality, 2019, p. 6). However, the development ambitions clashed with the market demand for other forms of housing than originally planned for in the area by the municipality. In Öxnered, which is the case that is most peripheral vis-à-vis larger cities, there is a demand for a suburban rather than a denser and more urban quality of life. There is high and growing demand to buy land from the municipality to build single-family houses, as an interviewee from the municipality described it. In addition, the active market actors in the area are predominantly small building companies that build suburban type single-family houses. That no larger property developer was involved in the TOD plans in Öxnered points to a lack of market conditions to support the municipality’s aspirations to densify, in the following illustrated by a municipal officer’s reflection on the market conditions:

I am not sure when we can get the larger expansion of multi-family houses in Öxnered. […] There is a big risk that we will now stop at selling a lot of plots for single-family houses in Öxnered, and that not much more will happen after that. That is why we have included certain restrictions on the number of plots for single-family houses in the plans. In summary, based on a wishful thinking based on the comprehensive plan’s ideas about what constitutes sustainable development, it would have been good to have a much denser development, especially near the station. But in reality, and in order to get the development going, to get it kind of rolling, then we probably have to start selling plots for single-family houses in the first stage (interview municipal officer).

The municipality’s original detailed plan proposal was also questioned by several of the area’s residents and nonprofit organizations in the statutory public consultation process (Vänersborg Municipality, 2018). The municipality’s accommodation of residents requests for a lower height of apartment buildings than originally intended that were planned to be built next to single-family houses, resulted in a detailed plan for a ‘dispersed development of detached houses, semi-detached houses and terraced houses with a lot of nature left in the area’ (Vänersborg Municipality, 2019, p. 23). Another municipal officer described during an interview how the questioning from residents resulted in a design of the area that was not in line with the municipality’s original ambitions, and which from a TOD perspective cannot be seen as optimal:

The municipality wants to build higher and denser housing next to the station. Those who live there today in the residential area did not agree with us, and we have had to scale down the ambitions to accommodate the wishes of those who already live in the area. They do not want high-rise buildings that are four stories high next to their single-family house. We had to reduce the plot ratio building rights and the height of the buildings. Now the largest buildings in the area is located furthest from the station. It is not at all what we thought from the beginning (interview municipal officer).

In summary, the Öxnered project illustrates what can happen when ambitions for a more TOD-like development in smaller cities meet less favorable market conditions and a demand for another kind of development. The original municipal goals of densification were, despite being expressed in long term planning documents and municipal land ownership, successively watered down because of opposition from residents and lack of supporting market actors that could act as a policy entrepreneur (as they did in the Kävlinge project). This led to suboptimal design choices which risk producing lock ins and a low-density property development that may impact the potential for higher densities in the long-term. There is no reason to believe that Öxnered is very different from the many other similar small towns that exist in the region in which Öxnered is located, or for that matter in other regions or countries. However, it may also be argued that the municipality here did not sufficiently nuance its conception of TOD at the site (it was trying to deliver quite urban development in a location with a current population of only 324 people), and in so doing missed the opportunity to deliver somewhat higher densities, but in a way that fitted into the existing development pattern.

5. Conclusions

The aim of this paper was to analyze actor relationships in TOD planning in order to better understand the preconditions necessary for this to result in TOD in small cities with low to medium densities of populations and activities, and understand how they differ (if all) from those in more ‘typical’ TOD contexts in denser urban areas. It has also analyzed the tensions and conflicts that can arise between
actors in TOD planning when it comes to the design of individual development sites.

In addition, the research questions posed at the end of the literature review in Section 2 of this paper were as follows:

a. how do the market conditions in smaller cities with low to medium densities of population and activities influence the conditions for TOD planning projects?

b. how does this feed through to planning processes (actor relationships and dynamics) and eventually the design of a built environment conducive to public transport use in smaller cities?

c. what general advice can be given on how the planning processes can be designed to create conditions for TOD implementation in smaller cities?

In relation to the first question, on market conditions, it is clear from our cases that the viability of TOD is related to the gradual dispersal of development from center to peripheral areas. The regional context of which these projects are a part of is also of key importance. It is the increasing property prices and customer perceptions of quality of life in different parts of the metropolitan region that pushes development to lower density locations well served by public transport. But the market conditions clearly differ between the cases analyzed.

When relatively good market conditions exist in the form of a high land value and demand for housing, as in the Västerhaninge project, we can expect potentially similar tensions and conflicts between developers and local authorities regarding densities (number of units per hectare) as those that arise in more denser and metropolitan sites and cities, as described in previous TOD research. For example, the property developer and the municipality in the Västerhaninge case had different interests regarding how much space on the site should be left clear for housing vs for public transport. The actors found it difficult to cooperate with each other because they were a private and public organization respectively. The working practices and ways used to resolve actor conflicts made an agreement on how to act in relation to tradeoffs regarding densities hard to achieve. The communication between the actors was characterized by an absence of openness and trust and of an inclusive dialogue between actors—all of which are factors previous TOD research describe as important preconditions necessary for planning processes to result in TOD.

This begs the question, how can agreements between actors in situations when actors have different interests be facilitated, so that the differences do not stall the planning process or even risk the project? We use the Kävlinge case to make some recommendations regarding this. The Västerhaninge project was still realized, and the relatively high land value must be assumed to be a reason why the project succeeded after all despite a poor relationship between the private sector developer and the two public sector actors—a power imbalance that would not have been as important, had this not been a TOD site and an operationally important public transport location.

The Kävlinge case is in comparison particularly analytically interesting as it is marginal from a market point of view but good actor relationships meant that TOD-type development could nonetheless be realized. A prerequisite was that a market actor acted as a TOD policy entrepreneur. Hence market conditions had an impact, but actor dynamics once in the planning stage were more related to informal conditions and less to market conditions. That said, the developer also recognized that there was a market for a TOD site that nonetheless offered tranquility, perceived better levels of personal security, and easy access to countryside and green space in a way that a more urban location may find it more difficult to offer.

The key lesson of the Kävlinge case, though, is that informal conditions there led to processes that functioned sufficiently well so as to be able to secure TOD at a site that from a market perspective was marginal. A key condition was that the municipality and property developer, as public and private actors, working together succeeded in developing an understanding of the motivations of and the limits of what the other party could accept in negotiations. This laid the foundations for agreements regarding the number of units per hectare, the mix of uses in a development and urban design and street layouts. Such agreements were facilitated by jointly creating guidelines for the design of the built environment through which a shared vision for the built environment of the site in question eventually was achieved.

Returning to the literature on actor relationships in TOD, in Table 5 we present its key lessons, and how our findings relate to those.

The overall conclusion then is that we should not expect that planning processes in small cities with low to medium densities of populations and activities to differ much from those in more ‘classic’ highly urban TOD locations. However, it is an important finding that in the Västerhaninge case, actor relationships between public and private sector actors were poor, yet the development went ahead, whereas excellent actor relationships were a necessity in Kävlinge. The critical difference between the two cases is land values and the degree to which the site is marginal for TOD in market terms.

The three cases analyzed provide context dependent illustrations of the associated levers and obstacles to TOD caused by actor relations—which in previous TOD research is termed ‘processual dimensions’ underlying TOD planning (see section 2). The outcome of these ‘processes’ can at best create good conditions for TOD if they result in the actors being able to create a joint vision of the built environment of the site in question that channels organizations’ individual actions in a joint direction whilst still providing space for the individual organization to fulfill its objectives.

The results illustrate how important ‘informal’ or ‘informal institutional’ conditions (see Section 2) are for developing such a joint vision of the built environment at the site in question. The informal conditions were important in all cities and this finding is of importance to planning in
In all three projects, public transport service is perceived to be good, but on the other hand in the Öxneder case – the furthest from its regional center - the development industry clearly does not see it as sufficiently good to justify driving up densities close to the station. The results illustrate how TOD is used to try to realize the ambition of reviving small, less economical productive cities. However, market conditions led to a very different outcome in Öxneder versus the other two cases. The key differences observed were the absence in Öxneder of a development company interested in TOD, as a result of the market there, which itself results from the relative distance from the regional center.

In addition, the presence in Öxneder of strong (relatively, in the local context) citizen involvement was noted, which was not raised as an issue in the other cases. The Öxneder project thus illustrate, in line with previous TOD research, how ambitions for densification may be questioned by residents that value a conventional low-density built environment (see Section 2). Furthermore, the municipality did not define carefully enough the kind of TOD that might appeal to the market and be acceptable to the public in the location in question.

In terms of policy recommendations, planning policies and strategies should in cities with similar market conditions and actor dynamics as in Öxneder aim to prevent extensive low-density development, maybe by even turning down developers proposing suburban style development. In such areas public planning authorities might need to combine a long-term perspective, allowing medium or high-density development to take place in stages, with efforts to improve TOD market conditions by, for example, establishing welfare services (such as schools and health care) close to public transport nodes in order to achieve ‘critical mass’ that may then help to attract in further, higher density, development. However, it is also very important to define an acceptable level of density that TOD should have in the context of specific sites in such locations – this shows the importance of finding a definition of TOD that fits with the context of the site and its location.

A final consideration is the degree to which differences in framework conditions (public sector ownership of land, planning legislation and so on) make our conclusions generalizable outside Sweden, or not. It is the case that Swedish municipalities are still significant land owners and they have stronger powers than in many countries to regulate development. In addition, the public transport authority in Sweden is a powerful well-financed regional actor whereas in other countries public transport may be organized at the municipal level, or even entirely privately-provided. However, we would argue that our conclusions primarily relate to informal relationships between actors that are not in themselves dependent on framework conditions and that, therefore, our conclusions can be generalized beyond Sweden and Scandinavia.

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Appendix

Sources of Data, Table 2:

Property prices from Svensk Mäklarstatistik AB: https://www.maklarstatistik.se/, Svensk Mäklarstatistik AB is owned by the industry organization Mäklarsamfundet (Association of Swedish Real Estate Agents).

Sources of Data, Table 3:


Data about Öxnered from Municipality of Vänersborg, private communication.

Property prices: see sources of data, Table 2.

Sources of Data, Figure 2:

Property prices from Svensk Mäklarstatistik AB: https://www.maklarstatistik.se/, Svensk Mäklarstatistik AB is owned by the industry organizations Mäklarsamfundet (Association of Swedish Real Estate Agents).