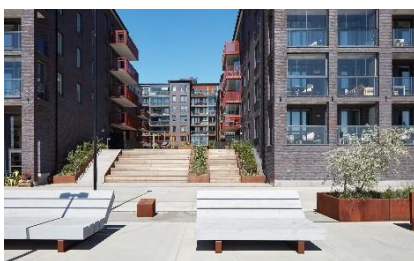




**KTH Architecture and
the Built Environment**

Real Estate Market Analysis

The Alfa project Dalénum, Lidingö



Fall 2022

The report

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2 Background to the Dalénum project

JM bought the land in 2007 for 880 million Swedish kronor and plan to build 1 000 apartments in several different phases during a ten year period starting in 2011. During this time period 780 apartments are sold as tenant-owned apartments¹ (bostadsrätter) and 220 apartments are constructed as rental units. In addition, JM will construct 50 000 square meters of commercial premises. Both rental apartments and commercial premises have been sold after completion. The commercial premises will contain shops, cafés, restaurants and offices. In addition to commercial facilities JM is also constructing public facilities, for example a school and a sport centre. The district heating plant which is located within Dalénum was refurbished in 2011 to conform to the Dalénum standard. In addition, a primary school was built in connection to phase one - Strandparken to care for families with younger children in Dalénum. The construction of a primary school was completed in 2013. The architect firm HMXP was contracted for making the detailed development plan and as well for making the architectural design of the first three phases. Kajhusen and Kajtorget, the sixth phase has been designed by Ettelva arkitekter AB. The seventh phase, the lighthouse tower project is designed by Gert Wingårdhs arkitektthus. The eight phase in 2018 was the Ypsilon project consisting of 101 apartments designed by Ettelva architects.

2.1 The Dalénum project 2012-2013

The first phase Strandparken (the Beach Park) was sold as tenant-owned apartments and contained 60 apartments in four buildings. The moving was in November 2012. The second phase was Ekparken (Oak Park) was sold as tenant-owned apartments. This phase is located to the north of the first phase and contained 77 apartments in four, five- to seven storey high buildings. The construction of the second phase Ekparken, started in December 2012 and was completed in December 2013.

2.2 The Dalénum project 2013-2014

The third phase, Ängsparken (the Meadowpark) is located along the water front in connection to the Beach Park, contains 75 tenant-owned apartments in four eight storey high buildings. The third phase started in March 2013 and where completed in March 2015.

2.3 The Dalénum project 2014-2016

JMs fourth phase was Strandpromenaden which started in March 2014 and was completed in February 2016. This phase contained 49 tenant-owned apartments. These apartments are 64-177 sqm large located in six storey high buildings. In addition, 36 condominiums² are constructed in a phase named Q1. Strandpromenaden contain 8 apartments having 1 room and a kitchen, 6 apartments having 2 rooms and a kitchen, 6 apartments with 3 rooms and a kitchen, 14 apartments with 3 rooms and a kitchen, 2 apartments with 5 rooms and a kitchen.

¹ According to Swedish law “bostadsrätt” is a tenant-owned housing/housing association. A housing association is a co-operative association normally consisting of between 20 and 100 apartments (tenant- owner apartments) built together or as detached units in a defined geographical area. The members (the residents in the tenant-owned housing) own a share of the housing association which in turn owns the housing. The members are free to sell their share and thus their tenanship rights on the open market.

² A condominium is a 3D property according to Swedish law and is an individual ownership of a dwelling in one building. A condominium may be used as a security for a bank loan on similar terms as for a private owned small house. Approximately 740 condominiums have been built in Sweden so far.

2.4 The Dalénium project 2015-2017

JMs fifth phase was Kajhusen which started in March 2015. The first moving was in the end of 2016 and continued until the third quarter of 2017. This phase contained 103 tenant-owned apartments. The apartments are 49-144 sqm large and located in four to seven storey high buildings.

2.5 The Dalénium project 2016-2018

JMs sixth phase was Kajtorget. JMs sixth phase started in March 2015 consisting of 141 tenant-owned apartments in five building blocks. This project is completed in spring 2018.

2.6 The Dalénium project 2017-2019

JMs seventh phase Fyrtornet (the light house tower) consists of a 22 storey high building as well as an eight storey high complimentary building. This project has stunning views of the lake Saltsjön.

2.6 The Dalénium project 2019-2020

JMs eighth phase Ypsilon consisted of 101 apartment phase sold as condominiums (ägarlägenheter).

2.8 The Periscope project 2020-2021

JMs ninth phase consisted of 54 tenant owned apartments (bostadsrätter). This project is completed and sold out.

2.9 The Inventor project 2021-2022

JMs tenth phase consisted of 58 condominiums (ägarlägenheter). Some of these apartments in this project may still be on the market and can compete with the Alfa project.



Figure 1. The Alfa project marked with red line.

3 The assignment

The Alfa project is your own extension within Dalénium since all of the ten previous phases is now completed during 2021. Please, observe that the Alfa project is a part of Dalénium, but it is your own project not JM's. You're not supposed to advice JM on how to act since this is your own project as an independent developer. How to design and construct the Alfa project is part of your assignment as well your choice of target groups. You may choose to build this project into several different phases or as one stand alone project with all the apartments at once depending on market conditions. The form of association could be tenant owned (BRF) or as condominium apartments (also named self-owned apartments by JM, ägarlägenheter) however, that is your choice.

The construction work of the Alfa is expected to start in January 2023 and completion may be in the end of 2024 depending upon how you decide to act. The number of rooms may vary between 1 and 5 bedrooms and the living area (BOA) may vary between 44- 130 sqm. However, that is also your decision. The price of these apartments is also a task for you to decide as well as the overall architecture. Moreover, the architecture is expected to be in harmony with the overall design of Dalénium.

Moreover, your assignment is to evaluate the Alfa project from a market perspective using a "Level A-C" market analysis according to Fanning et al³. The success of this project is of prime concern to you. Would you start the production of the apartments in January 2023 or in 2024 or 2025? When working with how many units to build I suggest that you test the absorption 2023 by building all of your planned units the first year (2022) and the units that are not sold in 2023 will become your own supply in 2024 and that procedure repeats for 2025. You have to decide on the number of bedroom apartments and their market prices. How long time will it take to sell 50% of the apartments? You are expected to advice on the number of pre-sales required to start the project. To your help you have three different macro-economic scenarios that guides you in your decision making, see chapter 3. Which of these scenarios are most likely to occur and what is the effect on your project? You chose one of these scenarios depending on your own thoughts of how the macro-economy is developing.

The number of apartments to construct depends both on a forecast of the number of potential buyers for a specific phase as well as on the success of pre-sales. Depending on the market situation, you have to decide on the number of pre-sales required to start the construction work. Other constraints are the possibility to raise funding for different project phases and the cost of capital. The price of the apartments in the Alfa project depends on the size of the apartment and the location of the apartment within the building (mainly due to the floor plane and orientation to the waterfront). For example, the pricing of the apartments in the previous phase of Kajhusen varies for example between 2,450,000-13,500,000 SEK. Pricing is definitively one of the key tasks that you need to solve within this assignment.

The primary market area for the Dalénium project has been considered by JM to be the whole of Lidingö and the secondary market area are some congregations in Stockholm. The extended market area is the Stockholm region and major cities in Sweden including elderly professionals returning back to Stockholm from foreign countries. JM has previously expected demand to be sufficient to sell all of the units in each phase according to their investigation of the market depth/potential demand. However, that conclusion was made years ago. JM considered competing supply to be located mainly in Lidingö as sales of existing privately owned small houses and tenant owned

³ Market Analysis for Real Estate, 2nd edition, Appraisals Institute 2014.

apartments in Gåshaga Pirar. JM does not believe that old tenant-owned apartments are a competing supply. It has been JM belief that projects starting up in Stockholm are not a threat to the Dalénum project. The reason for their standpoint was the location of these apartments being outside the primary market area for the Dalénum project. Another reason is these projects being directed primarily to other target groups. But what are your thoughts?

The base case scenario

The base case scenario is founded on the belief of a highly increased activity in the Swedish economy as well as in the Euro zone depending on the opening up of the economy post covid-19 pandemic. The ongoing war in Ukraine and the trade war between US and China clutters the economic development. Moreover, the financial stability in Spain and Italy contributes to the uncertainty in the global economy. The GDP growth rate in Europe is expected to be 1,2 percent during 2023.

The Swedish GDP is expected to decrease to 1,0 percent in the end of 2023 which is less than the Euro zone. During 2024 the Swedish GDP develops slightly better than the GDP growth rates in Europe and reach 1,4 percent. However, the increase in industry activity during 2023-2024 effects the open unemployment levels which will be 7,7 percent during 2023 and decrease to 7,2 percent during 2024-2025. The repo rate⁴ is expected to be 1,9 percent during 2023 and reach 2,5 percent in 2025 which will have an upward pressure on the interest rates paid by home owners. The short-term interest rate for loan by commercial banks to households is expected to vary between 3,0-4,5 percent during 2023-2025. Moreover, there is profound uncertainty in how the global economy, employment and interest rates will develop beyond 2025.

The optimistic scenario

The optimistic scenario is founded on a belief that the war in Ukraine will end during 2023 and of a slightly increased activity in the economy in the Euro zone as well as in US and China. The global GDP growth rate expects to vary between 2,5-3,0 percent during 2024-2025. The GDP growth rate post war and the corona epidemic stimulates the Swedish export industry as well as by the low exchange rate of the Swedish Krona compared to US\$ and the Euro. The unemployment level will stay at 7,0-7,2 percent until the end of 2025. The GDP growth in Sweden is forecasted to be 2,0 percent by 2025. The repo rate is forecasted to be at least 1,5 percent in the end of 2025. The short-term interest rate respond to the increase of the repo rate and reach 3,0-2,0 percent in the end of 2025.

The pessimistic scenario

The third scenario is based on a belief that the Swedish economy is once again affected by the post covid-19 effect as well as by the war in Ukraine and an upcoming trade war between US and China. The global GDP growth rate is forecasted to be below 1,0 percent in 2023 and fall to 0,7 percent in the end of 2024 and stay at that level. The drop in GDP is partly due to effects of the war in Ukraine, reduced growth rates in China as well as economic crisis emerging especially in Spain and Italy. The economic post- covid recession slow down the GDP growth rate on a global scale and affect the Swedish export industry. The GDP in Sweden will be on the level of 0 percent during 2023 and stay at that in the end of 2024. The unemployment level in Sweden is 8,0

⁴ The interest rate at which the central bank in a country repurchases government securities (such as Treasury securities) from commercial banks. The central bank raises the repo rate when it wishes to reduce the money supply in the short term, while it lowers the rate when it wishes to increase the money supply and stimulate growth. (Farlex Financial Dictionary).

percent in the end of 2023 and stay at that level in 2024-2025. As a respond to continuing financial crisis the central bank of Sweden keeps their repo rate at 3,5-4,5 % until the end of 2025. The short-term interest rates will on average be 4,5 percent during 2024-2025.

4. Construction costs

The constructions costs for the last phase of Dalénum⁵ is shown below. Use the Ms Excel sheet found in Canvas to calculate the profit margin for the scenario you suggest. The average size of an apartment in Dalénum is 81 sqm living area (BOA). The height of a building is restricted according to the detailed development plan however the size of the apartments may vary at each floorplan. This flexibility in the plan makes it possible to vary the number of apartments that is constructed in the building.

DATA			Data from Inventor project	
Apartment area (BOA)		BOA	3 900	
Total area (BTA)				
		LOA	0	
Total area below ground, cellar		BTA garage	1 200	
Total area above ground		BTA abow ground	5 100	
Total area		Total BTA	6 300	
Number of apartments			58	
Number of parking in garage (other building)			36	
BOA per apartment			67	
(BOA + LOA)/ BTA above ground			76%	
BOA / Total BTA			62%	
AQUSITION COST		Costs	SEK/ sqm BOA	SEK
Acquisition of land				
(apartment 15.000 SEK/BTA above ground)	15 000		19 615	76 500 000
Connection fee - water and sewage				
(apartment 150 SEK/BTA above ground)	150		196	765 000
Development contract: decontamination, roads, construction				
(apartment 7.000 SEK/BTA above ground)	7 000		9 154	35 700 000
Other costs due to the project				
(apartment 1000 SEK/BTA above ground)	1 000		1 308	5 100 000
Decontamination on site				
(Apartment 10-100 TSEK/apartment)	25 000		372	1 450 000
Cost of interest before production start			3 205	12 500 000
Total acquisition costs			33 850	132 015 000
PROJECT CALCULATION		SEK/ sqm BOA		MSEK
Acquisition TSEK/sqm		33 850		132,0
Production costs SEK/sqm		30 000		117,0
Management costs (developer) not included in project cost		7 000		27,3
Value added tax (VAT)		9 250		36,1
Total project cost		73 100		285,1
Risk/Profit		10 900		42,5
Total price/ sqm BOA		84 000		327,6
REF				
Profit margin project (D46/(D48-D42))		14,6%		

5 Provided by JM. Total area includes parking/garage (BTA).

5. Guidelines for writing the report

General guidelines

You should keep in mind several important considerations as you write.

- 1) You will be working group of four. We will choose your group members but the group should, if possible, due to the composition of the class, be of mixed gender, all the members should not be from same program or same nationality – if possible, at least one member from other program and different nationality than other twomembers.
- 2) The term report will be graded E-C-A. The grade that you receive is added to the exam as bonus points.
- 3) The teachers in the course will review your report. The report is graded as it is when handed in to the teachers. Appropriate comments will be given to your report.
- 4) Make sure that the report is both accurate and interesting to read.
- 5) Any material quoted, paraphrased, or ultimately derived from another author must be referenced. *The web has made it equally easy for us to check a suspicious report for plagiarism.*
- 6) The Level A-C analysis cover the period 1st quarter 2023-4th quarter 2025.
- 7) Since this is not a course in architectural design, we recommend not more than one page description in the report and illustrations are put in an appendix.
- 8) You are supposed to perform your own analysis of the global, Swedish and a regional economic outlook to guide you to which of the three scenarios to chose. The report should reflect your conclusions on how the economic outlook effectsthe Alfa project.
- 9) The report should result in a conclusion and an advice to how to act.
- 10) The economic outlook, and the Level A-C market analysis, are of course independent from the project overview. This means that those chapters are the tools that you use while making the review of your suggested scenario.
- 11) The financial statement should be based on the strategy that you find appropriate. The conclusion of profitability depends on evidence of actual and estimated future market prices for the apartments constructed in the different phases, which of course can be over- or under the previous selling prices of JM.

Since some of the information provided by JM and external sources on the web is written in Swedish, we have minimized these obstacles by translating those into English. If you find text written in Swedish that you need to translate one alternative is to use the translation tool in Google (<http://translate.google.com>).

Structure and Format:

- 12) Typical length for the report is 20 to 25 pages (single-spaced, font size 12, Times New Roman).
- 13) Use a cover or front page that, in properly centered and spaced format, gives the main title and sub-title (if applicable) of the report, the full name of the author, the course, the division, and the date. The pdf file should have the group number to identify who have handed in the report.
- 14) Present a Table of Contents, even if it is a brief report.
- 15) Make sure the report is well organized and that the structure is clearly reflected in appropriate headings and subheadings. The different sections could be numbered – but they do not have to be.
- 16) Begin with a brief introduction where you explain the problem and themes the report will address, explain why the topic was chosen and how the report is organized and structured.
- 17) Include a separate section where you clearly indicate the main purpose and the specific objectives the report will address.
- 18) When you use important terms and key concepts, make sure they are clearly defined.
- 19) When you give sources (including page numbers) in parenthesis in the text use the following format: (Husén, 1997:67).
- 20) Use paragraphs to separate longer texts. There does not need to be extra space to separate paragraphs. The first line in the first paragraph under a new heading is normally placed flush at the left margin. For subsequent paragraphs use the tab key for the first line to mark with an indent where the new paragraph begins.
- 21) Make a clear distinction between statements of facts on the one hand, and the expression of personal views, interpretations, assessments, conclusions, etc. on the other.
- 22) Do not forget to include a concluding section where you give a brief summary of the report and some of your main conclusions or reflections.
- 23) Collect all the references in an alphabetically arranged list at the end of the report. All sources mentioned in the text should also appear in the reference list and vice versa.
- 24) For Tables, place the heading at the top and the source at the bottom of the table. For Figures place both the heading and the source at the foot of the figure.

6. Grading the Report ⁶

Grade E

1. Have followed the structure of the report.
2. Have made use of the data provided however with some errors but the overall conclusions are defensible.
3. References are cited in-line throughout the report.
4. Have an acceptable structure that leads the reader naturally from one topic to the next. The abstract partially defines the problem.
5. Are of the appropriate length for the assignment. The chapters are neither too short nor too long.
6. Have made some typographical and grammatical errors but the mistakes do not disqualify the report.

Grade C

1. Have followed the structure of the report.
2. References are cited in-line throughout the report.
3. Have made minor typographical and grammatical errors.
4. Have made use of the data provided with minor errors.
5. Have made use of tables and diagrams to support their conclusions and convince the reader of their correctness.
6. Are of the appropriate length for the assignment. The chapters are neither too short nor too long.
7. Market analysis is done at a good analytical level. The report provides a competent analysis of market information, develops and supports main points with relevant arguments.
8. Have a good structure that leads the reader naturally from one topic to the next. The abstract and conclusion define the problem and summarize the conclusions.

Grade A

1. Have followed the structure of the report.
2. References are cited in-line throughout the report.
3. Are free of typographical and grammatical errors.
4. Have made use of the data provided with some minor errors but the conclusions are indisputable.
5. Are of the appropriate length for the assignment. The chapters are neither too short nor too long.
6. Have made use of tables and diagrams to support their conclusions and really convince the reader of their correctness.
7. Market analysis is performed at a high analytical level. The report provides insightful, in-depth analysis at all levels from A to C.
8. Have a clear and logic structure that leads the reader naturally from one topic to the next. The abstract and conclusion not only define the problem and summarize the conclusions, but also provide a guide to the overall structure of the report.

7. Deadlines

The term report must be submitted on **Monday the 12th of December 2022** 15.00 using Canvas. No changes in the report are accepted after handing in the report. Furthermore, you will not be rewarded the credit for the course-work if the report is not delivered in time.

⁶ This guide of grading term reports is an adaptation of “A Guide to Grading Term Reports” material from the University of Nebraska at Omaha website: http://www.isqa.unomaha.edu/wolcott/Report_Guidelines.htm.