



City of Oslo
Agency for Planning and Building Services
Oslo Waterfront Planning Office

ACCESSIBILITY IN THE FJORD CITY TRANSPORT ANALYSIS PART 2 – MAY 2005



FOREWORD

The Fjord City is being planned for environmentally-friendly urban transport focusing on prioritizing pedestrians and cyclists, and public transport. The area must be readily accessible in a positive transportation and urban structural context, both internally and in relation to surrounding areas. The Fjord City will include all areas along the sea front from Frognerkilen in the west to Ormsund-Bekkelaget in the south.

It is a political objective to develop these areas so that common values are retained to the advantage of the whole population and of future generations. The harbour structure of Oslo is changing. Fine homes, an improved environment and well-planned areas for common use are important, new objectives enhancing the values inherent in the Fjord City. Transportation and accessibility are vital elements that will affect these core values. The analysis is the result of collaboration between Oslo Havn KF (Oslo Port Authority) and the Agency for Planning and Building Services.

PROJECTIONS

The transport analysis is mainly based on the use of traffic models and is divided into two parts. In 2003 the Oslo Waterfront Planning Office carried out "Transport Analysis - Part 1". Part 1 formed the main basis for continuation of the analysis in Part 2.

In November 2004 the Oslo-Charrette was implemented concerning three alternative projections for the Fjord City in 2030: *PARK*, *NETWORK* and *LARGE*, which also provided important contributions and ideas to Part 2 of the analysis.

In Part 2 an attempt has been made to formulate three proposals for provision of an environmentally-friendly transportation service for the Fjord City, based on three alternative projections, and to illuminate the consequences among other things of various degrees of



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utilization, different use of areas, variable rates of development, reduced parking space, different forms of vehicle charges and alternative transport solutions.

SUMMARY

One of the objectives for the Fjord City is: "Environmentally-friendly urban transport must be planned where the focus is on pedestrians and cyclists, and public transport shall be prioritized". With this in mind the transport analysis of the Fjord City Part 2 can be summed up in the following points:

- **The transportation environment will benefit from concentration on urban development in the Fjord City rather than in the region outside.**

Development of the Fjord City will mean a significant growth in traffic by all means of transport. At the same time it is important to note that the corresponding establishment of homes and businesses in other, more peripheral areas of the Oslo region would have resulted in significantly more vehicular traffic, because more people would have made both more frequent car trips (due to a less well-developed public transport service) and driven longer distances (since alternative development sites are located further from the city centre). At the same time the number of pedestrians and cyclists would have decreased considerably. Altogether this would result in more noise and pollution than if the Fjord City was developed.

- **The projection that is assigned most importance in further development is not decisive for the overall traffic scene in the Oslo area.**

Large parts of the Fjord City have either been completed, such as Aker Brygge, or have been determined, such as the regulatory plans passed for Tjuvholmen and the Bjørvika area. Independently of the projection, the sites that remain to be planned will generate less traffic than the areas whose development has already been stipulated. Viewed as a whole, therefore, as far as the Fjord City is concerned there would not be such a difference in traffic production from projection to projection. In other words the stipulated areas will "drown out" those areas where various projections may be chosen. This would indicate that it is not of critical importance to the overall traffic scene in Oslo whether one or the other projection is selected as the basis for further planning

- **Even if there is heavy traffic regardless of which projection is chosen, the analysis indicates that high utilization in central parts of the Fjord City as in "Large" would result in less vehicular traffic in relation to development volumes, thus improving the environment as a whole.**

The projections do not differ significantly from one another when it comes to the pressure of vehicular traffic on the main road system. Nevertheless, there are clear differences between them when it comes to travellers' choices of means of transport. For example, there are more who would use public transport, cycle or walk in the "Network" projection because of the high proportion of homes, than in the "Park" projection. At the same time there would be significantly more who cycled and walked in "Large" than in "Network". "Large", with its approx. 2,500 more residents and approx. 3,700 more employees than "Network", would not cause more vehicular traffic than "Network". Even if we take into account uncertainty in the calculations, this is a clear signal that high utilization of central parts of the Fjord City would be favourable if we wished to reduce vehicular traffic and improve the environment.

- **A high proportion of businesses would result in higher proportions of public transport than a high proportion of homes.**

The sensitivity analysis concerning more homes at the expense of businesses at Filipstad in "Park" would result in vehicular traffic on a 24-hour basis being doubled, while public transport would hardly change. The proportion of residents then has been changed from zero to approx. 7000, while the number of employees has been reduced from approx. 7000 to approx. 3000. Homes create more trips and have more parking spaces than business areas. However, by moving homes to more peripheral areas of the Oslo region, you would create a greater number of significantly longer car trips than by locating them in the Fjord City.

- **Strict enforcement of parking norms and increased concentration on public transport solutions will be absolutely crucial to the Fjord City achieving as good environmental results as this analysis shows.**

In this analysis considerable emphasis has been placed on good public transport solutions, because it is crucial that there should be a good enough service, so that as many as possible do not need cars. The analysis also shows that parking facilities in the Fjord City area to a very great degree would decide choice of means of transport. This particularly applies to journeys to and from work and visits. Thus, it is important that further planning and implementation really manage to adhere to the calculations with its prerequisites concerning a very strict parking norm. Without such follow-up, the result would be more vehicular traffic than that shown in the calculations.

- **Since many people will wish to cycle or walk rather than drive or use public transport, a special effort should be made to provide facilities for pedestrians and cyclists in the Fjord City area.**

Very many of the future users of the Fjord City areas will choose to cycle or walk. In over 30% of all personal journeys that are made, people will choose to walk or cycle rather than drive or use public transport. To a greater degree people will choose to walk or cycle inside the Fjord City area if utilization is high as in "Network", and particularly for "Large". For "Park", which has a somewhat lower degree of utilization, there would be more walking and cycling trips between the Fjord City area and the rest of the city than inside the Fjord City. This means that considerable emphasis would have to be placed on physical facilities for pedestrians in the Fjord City areas. This would be more important the higher the degree of utilization will be.

IMPORTANT RESULTS IN ADDITION TO THE MAIN CONCLUSIONS

In addition to the main conclusions, the Transport Analysis for the Fjord City Part 2 may be briefly summarized in the following points:

- *Scheduled boat services* as public services may function as a supplement. The model calculations show that they often lose in competition with other public transport facilities on journeys that have a purely transportation purpose and where the time factor is important. On journeys where the purpose also has a recreational element, boats will be more attractive. This will be further reinforced in the summer season and in addition it may be supplemented by calls at special attractions.

- *Development of the E18 highway in the west and the Southern Corridor* will have only a marginal effect on traffic to and from the Fjord City area, even if the time saved from Asker is

around 10 minutes in the rush-hour direction. The probable reason is the strict enforcement of the parking norms in the Fjord City assumed in the analysis. Thus, few new journeys will be created. However, the increased traffic on the E18 highway will probably result in more traffic to those parts of the city centre and inner city where parking facilities are better than in the Fjord City. The Palace Park tunnel will result in less surface traffic, thus a better environment, but no increased capacity.

- *The access roads the Fjord City (e.g. Munkedamsveien and Mosseveien)* will experience a minimal increase in traffic even if the Fjord City is developed. Limited capacity in the E18 Corridor near the city centre both on the east and west side is the probable cause. On the east side of the city this will instead result in vehicles driving in the Ekeberg Tunnel via the E6 highway. On the west side there are no such clear alternatives, and the Fjord City traffic will probably deflect some traffic on to the Ring 3 highway, or else Ring 2. New studies with other modelling tools will be necessary to illuminate the consequences in more detail.
- *The location of the ferry terminal* will affect the pattern of traffic in the vicinity, but the effects of this can only be illuminated partially and provisionally with the methods that have been utilized in the present analysis. In the “Large” projection it is proposed that both cruise and ferry traffic be located at Sjursøya. So far the analysis shows that traffic would be reduced on Mosseveien in towards the city as a result of this. A ferry and cruise terminal would produce less traffic on a 24-hour basis than Sjursøya does as a traditional harbour handling goods. Moreover, in the latter case traffic would be somewhat heavier south of Sjursøya.
- *Approx. 1/3 of private car and public transport journeys from the Fjord City will go to the inner city (excl. the Fjord City).*
Pedestrian and cycle journeys will mainly go only to the city centre and inside the Fjord City.
- *“Large” has higher proportions of public transport than “Network”, and “Network” has higher ones than “Park”.* The differences may seem insignificant, but a difference in proportion of public transport in “Large” of 49.5% to 44.1% in “Park” corresponds to 8000 public transport journeys per 24-hour period. Translated into carriage units this corresponds to 60 packed streetcars! Such differences may be of great importance to how good a public transport service it will be possible to operate in the Fjord City.

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