

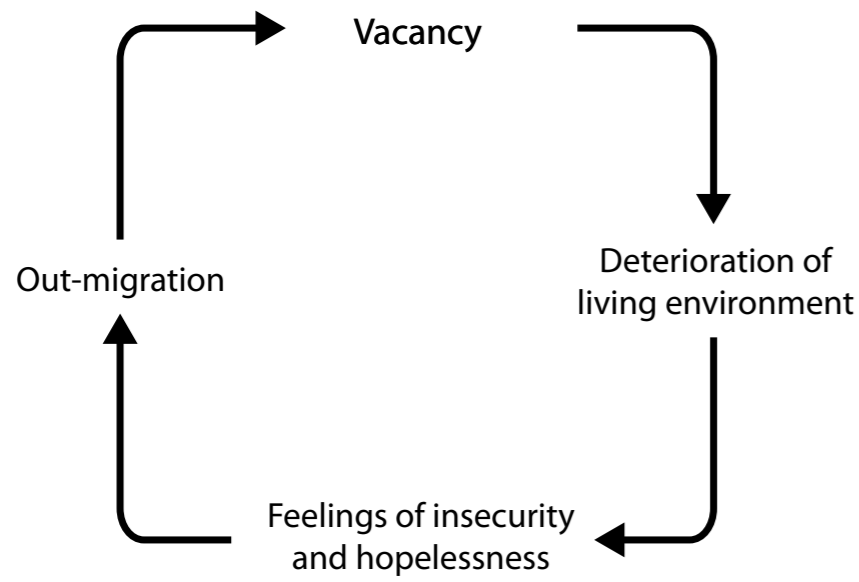
# Strategy for Shrinkage

The development of a strategy to accommodate and stabilise demographic shrinkage in Delfzijl

## Demographic Shrinkage

In the Netherlands we are used to dealing with growth of regions and cities. Much of public debate concerning spatial planning concerns the topic of growth. However, in the periphery of the Netherlands there are a few regions that are dealing with the opposite of growth: the decline of population and households. Although it is not a new phenomenon, it has not been an issue during the last 50 years. However, these regions are indicators of the future. The overall increase of population in the Netherlands is expected to end in about 25 years, but especially in the periphery of the country more and more cities and regions will face a declining population and more importantly a declining number of households.

This process of demographic shrinkage results in a downward spiral: vacancy occurs in the least attractive part of the housing stock. This results in a lack of maintenance to houses and gardens causing decay of the living environment. In turn this leads to feelings of insecurity and hopelessness stimulating out-migration from the area.



Empty plots in Delfzijl Noord after demolition. Redevelopment was halted due to the financial crisis.



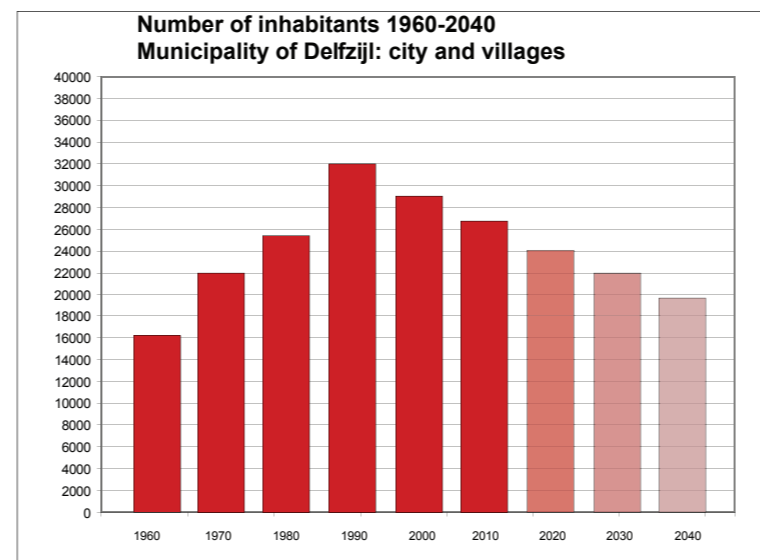
## Shrinkage in Delfzijl

Average birth rate in the Netherlands lies below mortality rate. Population growth is therefore largely dependant on migration processes. This is also the case in the Eemsdelta, but here migration numbers are negative as well (Companen 2009) resulting in a negative natural growth of the population.

According to Born (2009) the peripheral location of the Eemsdelta in the Netherlands also places the region outside of economic nuclei, limiting economic development. According to the municipality of Delfzijl, a lack of suitable employment is an important motive for out-migration. 25% of the people leaving Delfzijl are doing so because they are unable to find a suitable job (Gemeente Delfzijl 2009). The regional economy is growing, but this does not directly translate into growth of employment (Provincie Groningen 2010).

Furthermore, there is a process of out-migration of young people for education, employment and due to lack of facilities (Companen 2009; Gemeente Delfzijl 2009; van Eikeren et al. 2010).

The result is a decline of the population that has been in progress for over 20 years and is expected to continue during the coming decades.



Shrinkage is causing vacancy in dwellings of the least attractive part of the housing stock, resulting in degeneration and decay of the living environment (Gemeente Delfzijl 2009; van Dam et al. 2006; Dijkstal & Mans 2009). There is also some social segregation: Young people and people with opportunities migrate to other areas, leaving more vulnerable socio-economic groups (elderly, unemployed) behind (Dijkstal & Mans 2009; Provincie Groningen 2010).

Demographic shrinkage has already led to responses from governmental parties and housing corporations. A large transformation process in Delfzijl and Appingedam has been in effect for about a decade now. Downsizing and adapting the housing stock to different groups (higher quality, fit for elderly) will remain an important part of policy. For the period of 2009-2018, 3300 dwellings will be demolished while 2300 new dwellings will be built in the Eemsdelta (Provincie Groningen 2010). For Delfzijl this means a reduction of its housing stock by 1335 dwellings in 2018.

## Main conclusions from theory

There is not one generally applicable strategy on how to deal with shrinkage. Every situation is different and requires an approach specifically tailored to that case. However, a number of conclusions or advices can be drawn up for an approach in Delfzijl.

- Adapt the housing stock in both size and quality;
- Use reduction of the housing stock to reimagine the structure and development of the city;
- Based on existing qualities and potential, establish a core (or multiple cores) as focal point(s) for development;
- Use and develop local potential and look for new economic sectors;
- Retain or increase attractiveness of direct living environment;
- Apply temporary uses to vacant plots to uphold property values;
- Aim for results on both short and long term.

We should however be careful not to fall back too quickly to the traditional image of the concentric European city. Use of the city and its facilities has changed. The declining level of facilities in villages and the emergence of new nodes around intersections of infrastructure are indicators of change. The dominance of the traditional city centre has been broken in the Netherlands but there is not yet a true edge-city development and (historic) city centers are still valued as living environment.

## Strategy

In order to break through the downward spiral and stabilise shrinkage, both accommodation and investment is required. The first to counteract consequences of shrinkage and maintain attractiveness of neighbourhoods, the latter to improve attractiveness of city and neighbourhoods.

The proposed strategy for Delfzijl is therefore composed of two parts.

1. Accommodation of shrinkage: combat vacancy and deterioration of the living environment through reduction of the housing stock;
2. Strengthen the city through investments in local potential.

The goal is to retain existing inhabitants and to a lesser extent attract new inhabitants through offering more discernable and qualitative housing and living environments.

The assignment for the accommodation of shrinkage consists of two parts. First the planned reduction of the housing stock by 1335 dwellings until 2018 (as was agreed upon with municipalities in the region, secondly the development of an approach for the period after 2018 when reduction of the housing stock shifts from rental property to owner occupied housing. An approach was devised for the neighbourhoods of Delfzijl based on the character of the neighbourhoods, combined with the areas most likely to be affected by vacancy: concentrations of rental property.

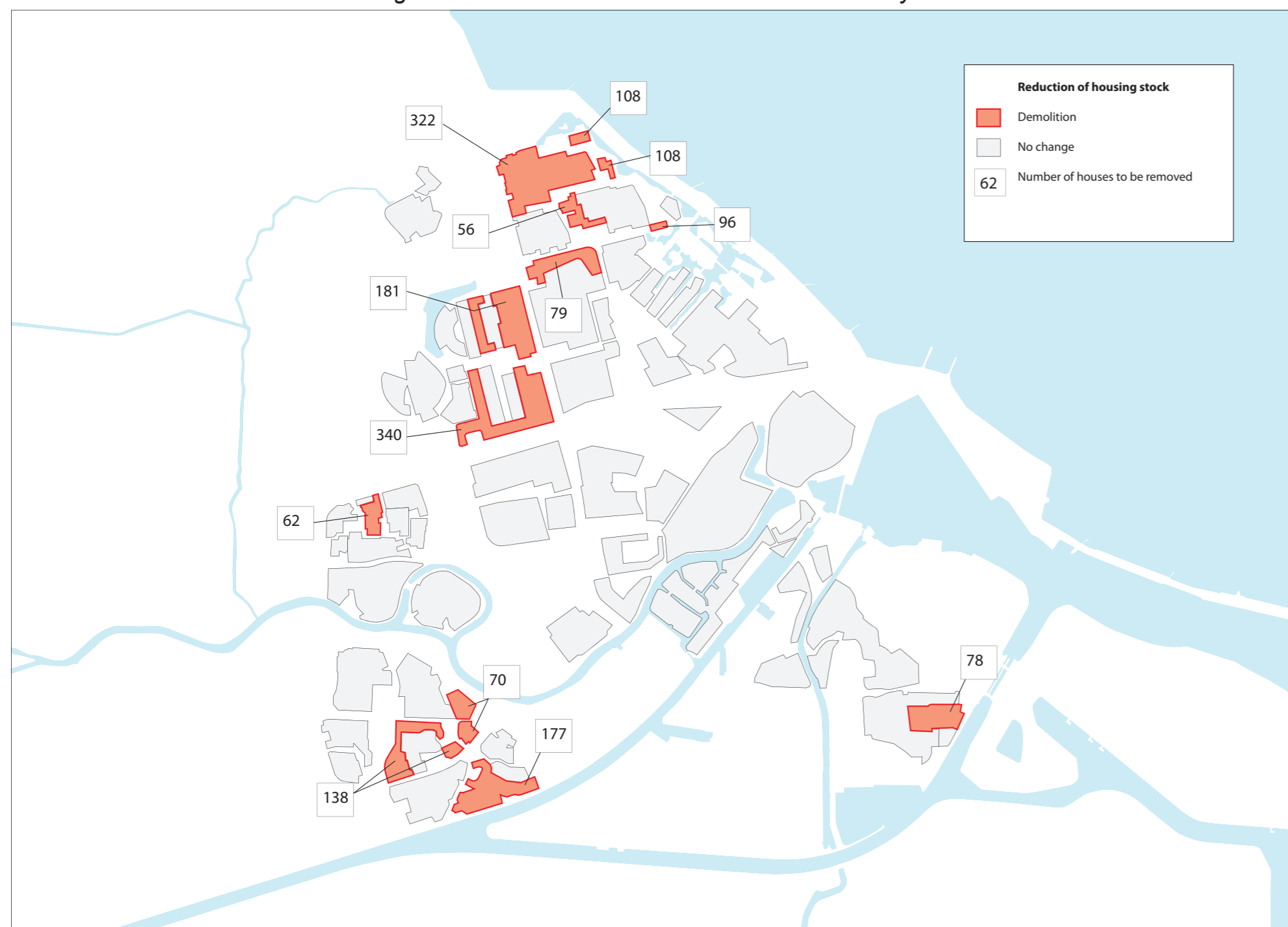
Investments are based on local potential. In the case of Delfzijl, local potential consists of its location as a port along Eems, Damsterdiep and Eemskanaal, in a wide and peaceful landscape. Municipal plans also express the desire to strengthen Delfzijl's identity as a port city and improve the relation with the harbour (van Vliet & Dijkstra 2009).

In order to strengthen the character of Delfzijl as a port city, the relation of the city with harbour, river, canal and surrounding landscape will be reinforced.

- Development of quays in the harbour;
- Integration of the dyke near the city centre;
- Housing development in the maritime quarter in-between Eemskanaal and Damsterdiep;
- Housing development to complete the city centre;
- Orientation of neighbourhoods along Eemskanaal and Damsterdiep;
- (Accessibility of) routes along Eemskanaal and Damsterdiep.

The investments in the city centre will be further elaborated below.

Allocation of the reduction in housing stock: removal of 1600 social rental houses by 2018



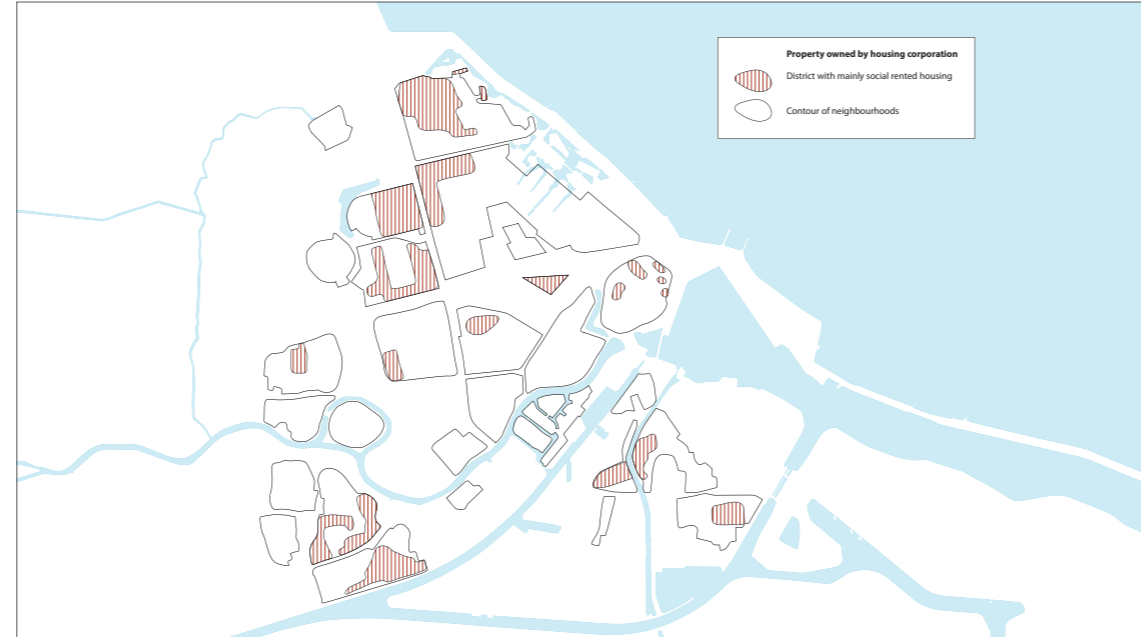
New investments for 2018



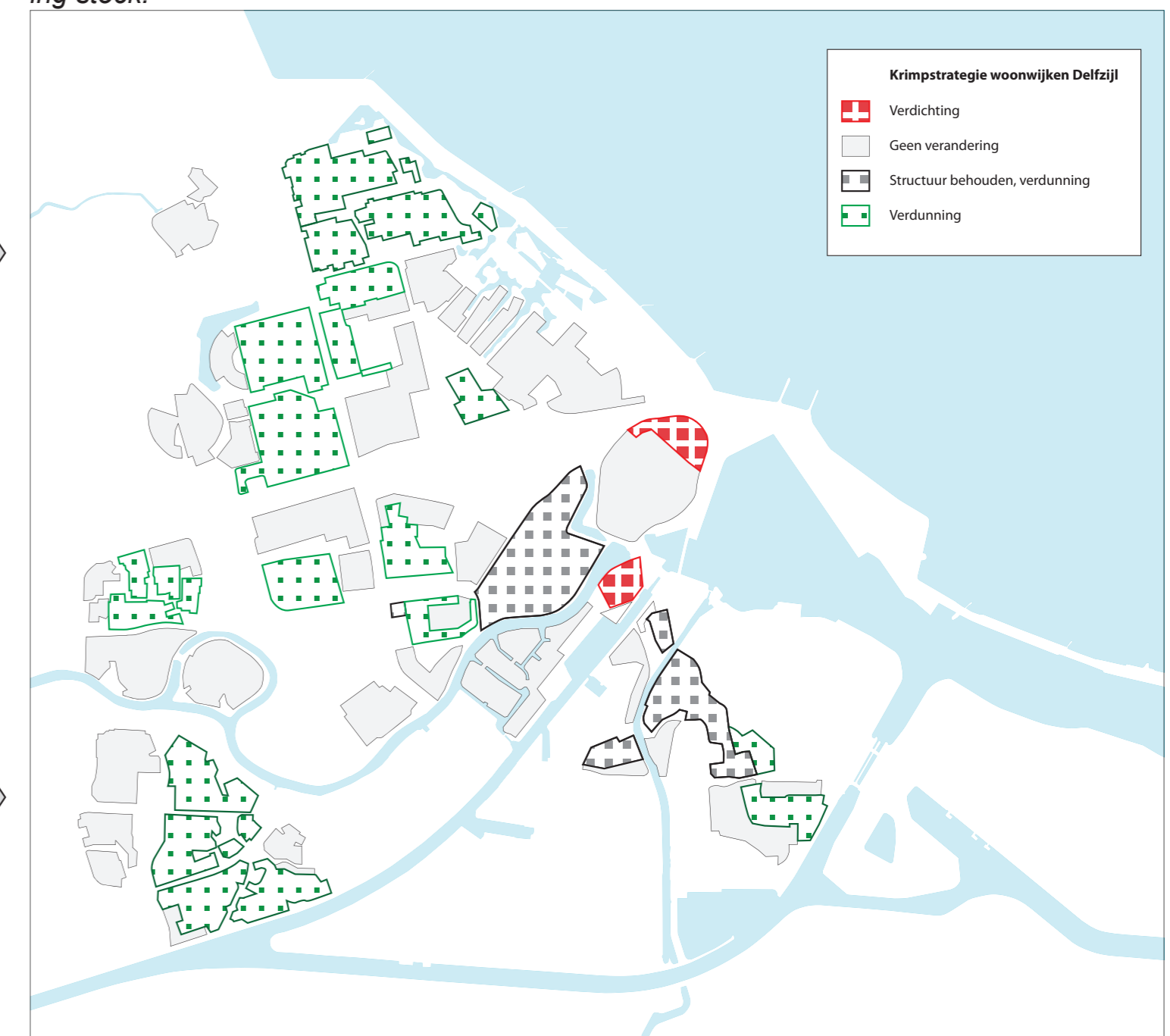
Assessment of the quality of neighbourhoods in Delfzijl



Location of rental housing in Delfzijl



An approach per neighbourhood, based on existing weaknesses and qualities of the housing stock.





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## Delfzijl City Centre: existing situation

Public space in the city centre is lacking quality and coherence. Materialisation was poorly executed, often lacking any coherence and the result was a collection of streets and areas without a clear profile and a generally chaotic image. Parking is very dominant in the city centre. The two main squares – the historic Molenberg square adjacent to an old church and the Vennenplein – are primarily being used as parking lots, as well as the voids on the north-eastern edge. Fortunately, redevelopment of public space is currently in progress and some improvements have been made to the inner ring road and Molenberg square. Despite these improvements, the outer edges of the city centre are still unaddressed: The north-western edge of Buitensingel/Stationsweg and the eastern edge consisting of dyke and quays.

Handelskade West and Damsterkade are greatly lacking in quality for recreational use. Infrastructure is clearly dominant and the result is a public space cut into pieces by bicycle path, road, railroad and parking lots. Materialisation is inconsistent and as uninspiring as the sheds which occupy the waterfront.

In order to structure the investments, 4 principles have been established.

1. Create a clear edge for the city centre
2. Complete the fabric
3. Improve integration of the dyke
4. Develop the quays as a coherent, qualitative space

The quays are an ideal location to start improvement of the centre. It is the perfect place to experience the industrial harbour and already contains a number of recreational facilities that make use of the existing marina.

Vacant plots north of the city centre



Chaotic materialisation



Handelskade West: Dominant infrastructure



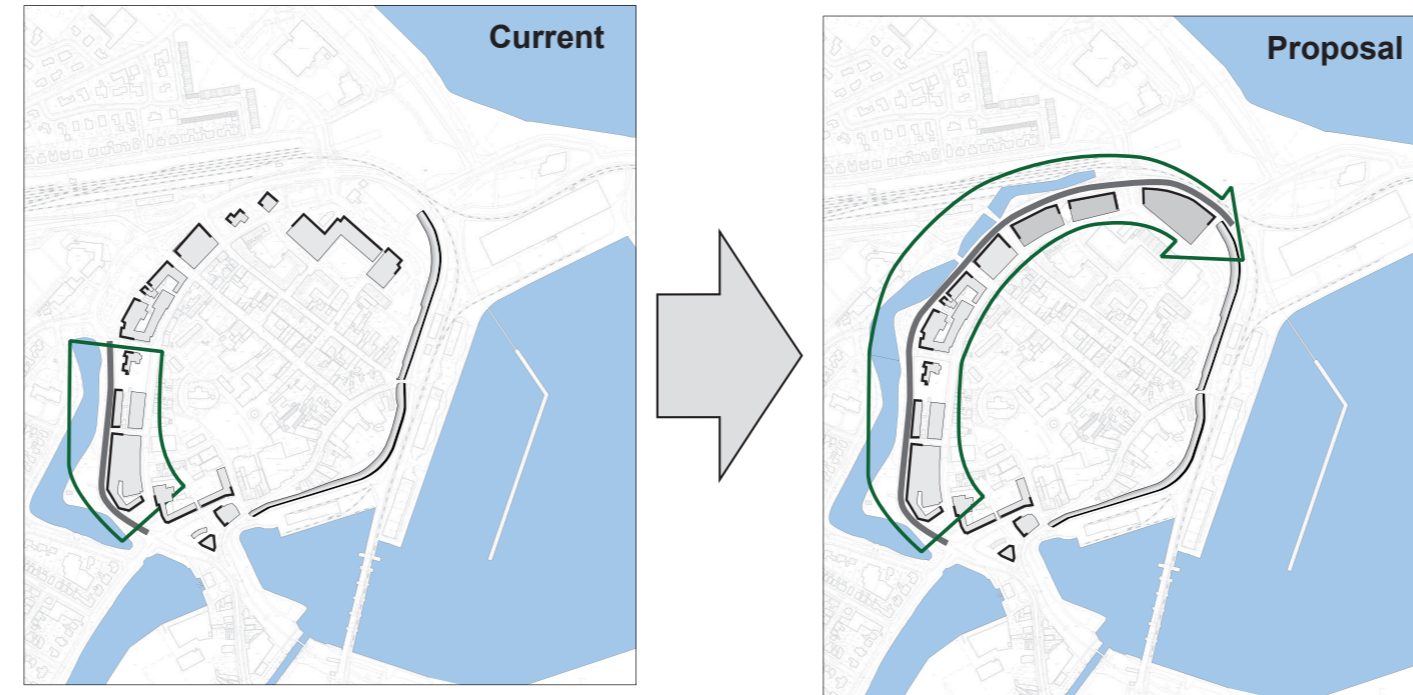
Damsterkade: vacant and dilapidated



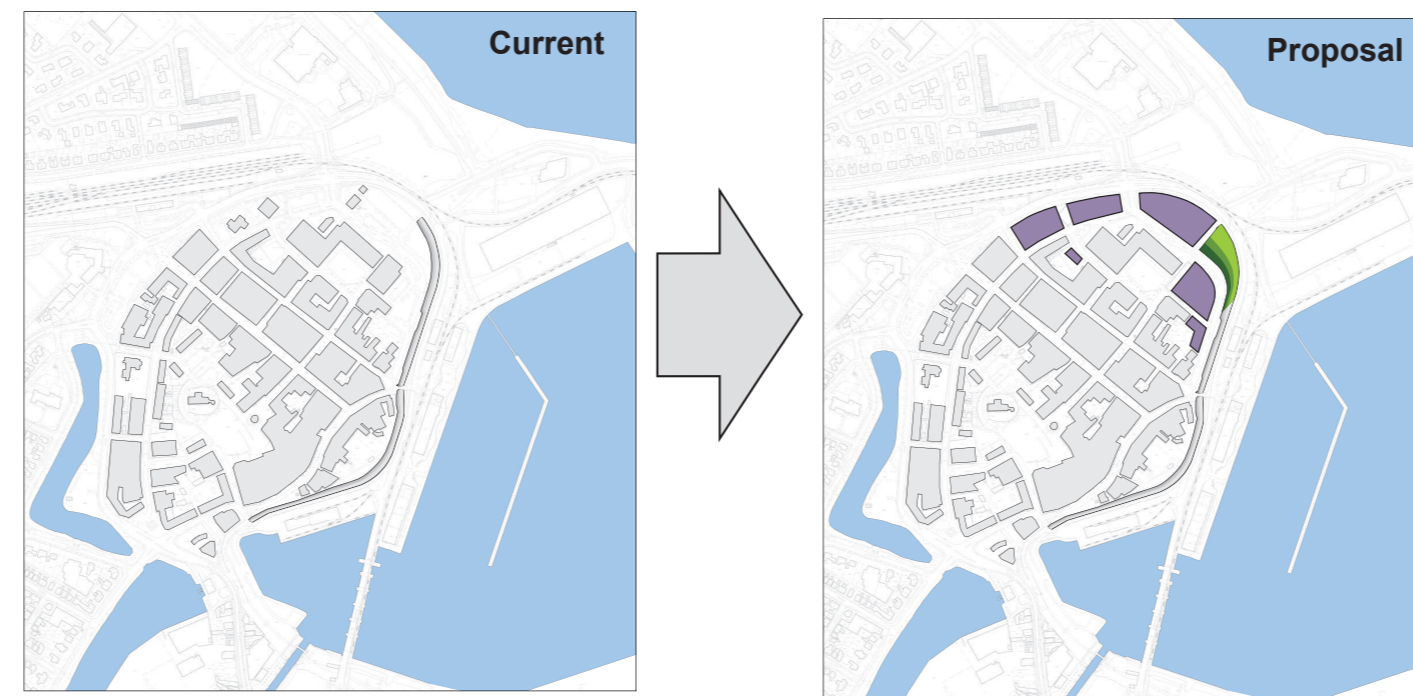
The dyke



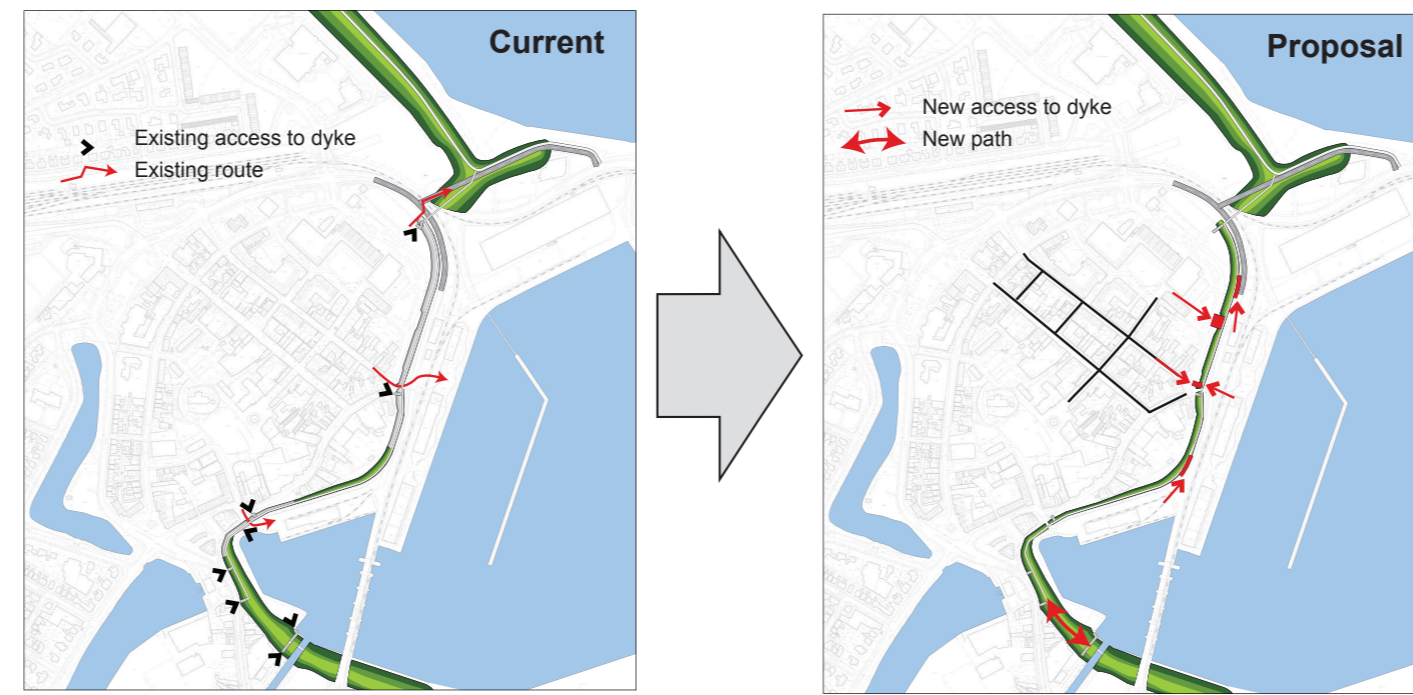
### 1. Create a clear edge for the city centre



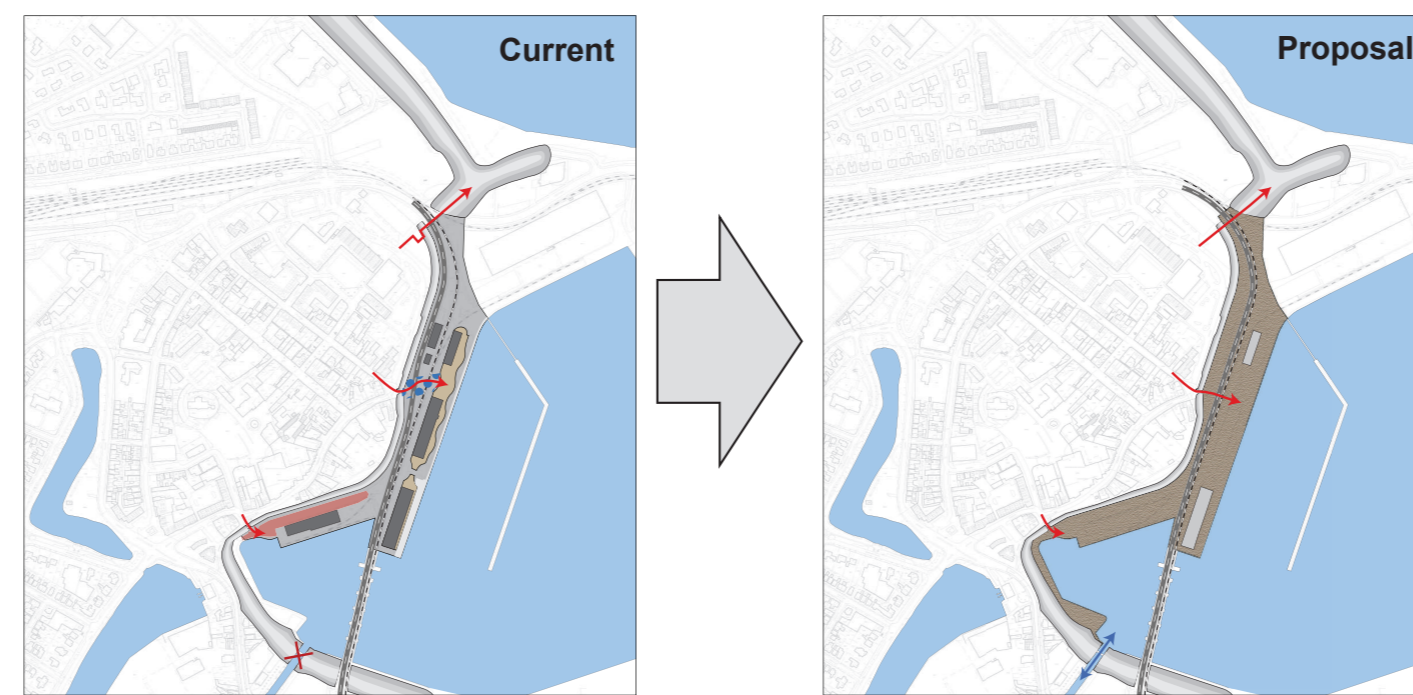
### 2. Complete the fabric



### 3. Improve integration of the dyke



### 4. Develop the quays as a coherent, qualitative space



## Developments inside the dyke

The proposal for the city centre behind the dyke consists of the redevelopment of the outer ring road and construction of a maritime quarter to the south (6). Redesigning the outer ring road creates room for reintroduction of a canal along the north-western edge (1). The park along the canal can be extended to a redeveloped station square (2). Given the limited amount of available space, a small part of the rail yard will be used for the canal. From the station square, a new route leads towards the dyke along the Eems and the beach (3). The landscaping in Kwelderland (a redeveloped neighbourhood just north of the city centre and adjacent to the dyke) is continued towards the city centre (4). The urban fabric in the northern part of the city centre has been finished in order to complete the edge. Special care should be paid to the scale of the buildings, in order to properly match them to the small scale of the existing buildings in the vicinity (5). These building blocks are quite narrow, but should – at least visually – not be developed as one block, but continue the variation and small scale of the other blocks in the city centre. Building height is therefore mainly limited to 3 and incidentally 4 stories.



## The dyke and the city centre

The main barrier in the relation of the city centre with its adjoining harbour is the sea dyke. The presence of this dyke is a complicating yet crucial factor that influences the current and future potential of the city centre.

The existing dyke does not meet the required specifications as primary defence against the sea. Many plans and studies have been made in the past concerning the future of the dyke and how the necessary improvements can be made, while also taking into account the development potential of the city centre and its relation with the harbour.

As abolishing the dyke along the city centre entirely yields the best development opportunities for the city centre, an altered version of an existing alternative – two separate harbours – was devised.

In comparison to the proposal mentioned above, the location of the dyke has been moved closer to the city centre, allowing part of the industry to remain at its current location. Furthermore, the locks are positioned in this new dyke, connecting

recreational and industrial harbour. The dyke along the city centre can be removed and free passage between harbour and Damsterdiep/Eemskanaal becomes possible.

There are a number of constraints concerning this proposal, first and foremost the scale of this intervention. As this solution only encompasses a small sluice for recreational vessels, the existing industry along Handelskade Oost will no longer be viable. Part of this industry could be relocated to the Zeehavens industrial zone, which is only partially in use. The existing chemical industry will then be moved to Oosterhorn.

The required investment will consequently be vast, although upgrading the dyke is part of the Delta program. Nevertheless, the question remains whether the spatial benefits and new opportunities presented by a recreational harbour can overcome these (financial) constraints.

The second proposal follows the main conclusion of the workgroup – the dyke will remain at its current position – and looks for ways to redesign the dyke. The harbour will remain in use as an industrial harbour, in close relation to the character of Delfzijl as an industrial port. Consequently, it ensures a certain amount of liveliness in the harbour all year round, as opposed to a recreational harbour which is dependant on leisure.

According to prognoses in the Delta reports (Gemeente Delfzijl 2010) the existing dyke does not offer sufficient protection and will have to be heightened by 1,5 meter. Due to the limited available space along the path of the dyke, alternatives are also being researched. One proposal of students of the Hanze Hogeschool (van der Leest et al. 2009) is to introduce pre-embankments at the Schermdijk to reduce the strength of the waves, allowing the dyke itself to have a reduced height. Applying pre-embankments should only be used in case the normal practice of increasing the height of the dyke is impossible.

The two proposals differ in character. For the Recreational Harbour, the program and character is related to leisure, water recreation, floating houses and dunes. Housing development along the quays will also be possible.

The industrial harbour dwells on the existing industrial character of the harbour. The floating docks, large cranes unloading sea-going ships and large hangars. The dyke remains a prominent element along the quays but will become more accessible from both quays and city centre.

Proposal 1: Recreational Harbour



Proposal 2: Industrial Harbour





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## 1. Recreational Harbour

Due to the changed course of the dyke, industry along Handelskade Oost is relocated to the other side of the harbour. A dune landscape can be realised on the location of the former industry. The idea for the dunes originates from a design proposal for the coast of Delfzijl. Although they would be completely artificial, it does add a unique feature to the coastline of Groningen. Most of the dunes would be covered in grasses, but the outside could still consist of sand as there is also some sedimentation at that part of the river. A large beach would of course be part of this proposal. Removal of the locks between harbour and Damsterdiep/Eemskanaal allows unhindered passage for ships and promotes the harbour of Delfzijl as a node for water recreation. Without tidal influences in the harbour it also becomes possible to place floating houses along the quays. These could be used for permanent use or as holiday homes.

The program for this design proposal consists mainly of housing. Both apartments and (differentiated) row housing. No commercial program has been strictly planned, but it should definitely be possible to incorporate small shops, restaurants and cafes in the buildings along the quays. This proposal also incorporates two museums. The first is interwoven in the dunes and is a relocation of the existing MuseeAquarium just north of the city centre, featuring exhibitions on the ecosystem of the Waddensee and Eems-Dollard. The second museum is an annex of the Northern Maritime Museum (Noordelijk Scheepvaartmuseum) in Groningen, with exhibitions on naval history and along the quays several historic ships accessible for visits.



## 2. Industrial Harbour

The size of the second proposal is intervention is smaller in comparison to the Recreational Harbour and concentrates on the existing dyke and quays. The main element is the dyke, which has been transformed from an obstacle into an integral part of the city centre. The dyke – which is actually a cantilever wall covered with steel – has been moved farther onto the quays, allowing for program to be realised behind the wall.

The water barrier only consists of a thick wall, covered with corten-steel positioned at a slight angle. A parking garage is located behind this wall, with houses or small apartment blocks on top of it. The width of the 'dyke' allows for a wide route on top as well as private gardens for the housing blocks and groups of trees planted on top of the dyke. Access from quays to dyke and vice versa is possible at multiple locations via ramps and stairs.

This plan also includes redevelopment of the beach, expanding its size and preferably allowing swimming 24 hours a day by constructing a low dyke that retains water during low tide. Furthermore, the connection between harbour and Eemskanaal will be re-established to give recreational vessels a more direct access to the marina near the city centre. This is a relatively simple operation as the sluice is still physically present. Reconnecting Damsterdiep and harbour will be a more complicated process but increases the recreational potential of this river as well.

This second plan was eventually selected as the optimum proposal for redevelopment of the dyke and quays near the city centre. The possible benefits of a more direct connection between city centre and harbour do not outweigh the downsides: significant costs, long time span for realisation, limited flexibility of program, limitations to organising DelfSail, loss of unique character due to removal of industry.

