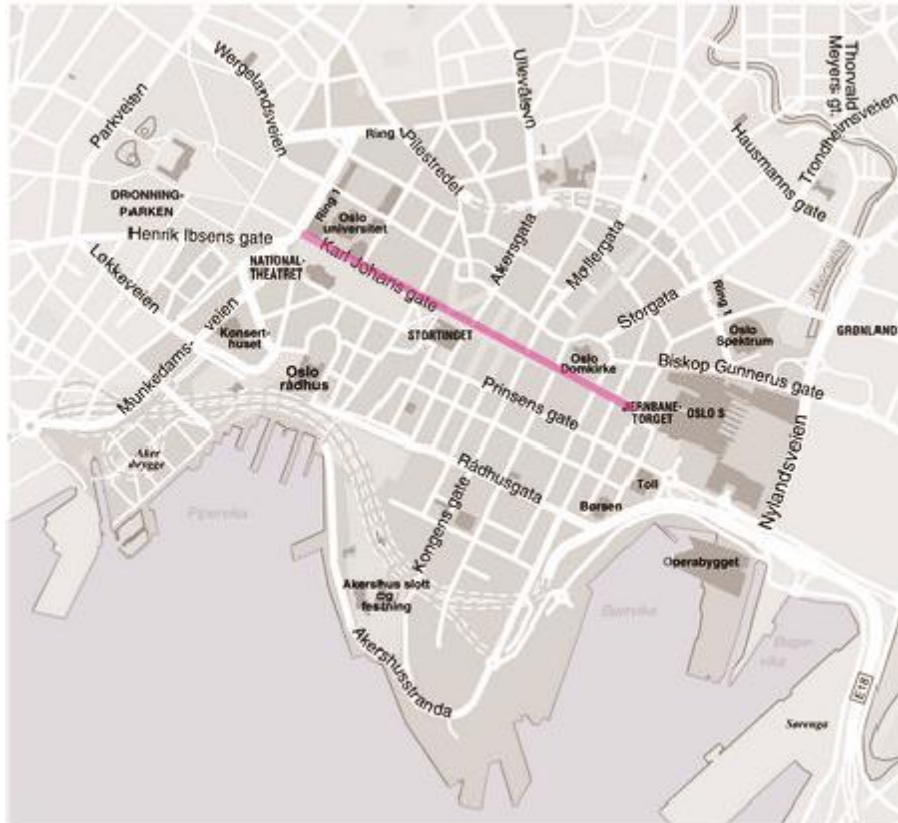


Need for better accessibility on Karl Johans gate (street) Project “Levende Oslo” (Oslo Alive)



Map of the city centre of Oslo, Karl Johans gate marked.

International Conference on Universal Design (UD 2014)

Ingvild Kvalheim and Yngvar Hegrenes, Real Estate and Urban Renewal Office,

Municipality of Oslo Secretariat Oslo Alive

Introduction

In 2005 The Capitol Campaign completed upgrading central parts of Oslo. The project was a collaboration between the Municipality of Oslo, the State and private property owners. To further develop and expand the efforts to make the city center more accessible and attractive, a new project was created to continue The Capitol Campaign work; Oslo Alive.

The Equality and Anti-discrimination Ombud has in recent years received several complaints about lack of accessibility to public businesses along Karl Johans gate. Based on this Oslo Alive has been commissioned by the Department of Urban Development, City of Oslo, to establish the project "Access to public-oriented businesses in Karl Johans gate".

The project team is consisting of key government and municipal agencies, businesses and handicap-organizations; Equality and Anti-Discrimination Ombud, Agency for Planning and Building Services, Cultural Heritage Management Office, Agency for Urban Environment, The Norwegian Association of Disabled, Norwegian Association for Blind and Partially Sighted, The Council for the Disabled, Norwegian Federation of Organizations of Disabled People, Oslo Retail Association and Oslo Centre Property Association.

"Access to public-oriented businesses in Karl Johans gate" consists of two phases; a registration phase and a pilot project-phase.

Guidelines to ensure universal design

The Planning and Building Act § 1-1

The purpose of the act is to promote sustainable development for the benefit of the individual, the society and for future generations. This is planning by law to help coordinate state, regional and municipal tasks and provide a basis for decisions about use and conservation of resources. This is also a construction process by law to ensure compliance with laws, regulations and planning decisions; planning and decisions to ensure transparency, predictability and participation of all affected parties and governmental bodies.

Emphasis will be placed on long-term solutions, and consequences for the environment and society will be described. The principle of universal design should be taken into account in the planning and requirements of the individual building. The same applies to the interests of children and adolescents and aesthetic design environment.

TEK 10 –Regulation on technical requirements for building works

The regulations are intended to ensure that projects are planned, designed and executed on the basis of good visual aesthetics, design for universal accessibility. These regulations apply both to new buildings for work and public buildings as well as extensive remodeling of existing buildings.

Discrimination and Accessibility Act

LOV-2008-06-20-42: Laws prohibiting discrimination on grounds of disability, Discrimination and Accessibility Act, valid from 1 January 2009, has the purpose to promote equality and ensure equal rights and opportunities for social participation for all, regardless of disabilities, and prevent discrimination on grounds of disability. The law contributes to the reduction of social barriers and prevents new ones created.

Norwegian Standard 11001-1:2009 Universal Design of Structures - Part 1: Labor and public buildings

Norwegian Standards are important tools that specify requirements for buildings, environments, services and products according to society's needs and wants. Standards are important tools for universal design. Through standards we can ensure that all persons have equal access to goods and services.

The Project

Phase 1: Registration

The architect company Rik Arkitekter was engaged to do the registration survey of all the buildings and businesses at Karl Johans gate, as well as designing the reports consisting of the findings.

Registration Method

The accessibility of 75 public-oriented businesses along Karl Johans gate was surveyed. Additionally, the conservation value of the buildings these businesses are located in is considered, in a total of 39 buildings. Most buildings in Karl Johans gate have great conservation value.

The purpose of the survey was to see in what extent conservation values could be a hindrance for accessibility to the businesses for all users. As a measure of accessibility Norwegian Standard 11001-1:2009 Universal Design of Structures - Part 1: Labor and public buildings is used.

This standard contains specific requirements and recommendations in buildings. Since these standards represent the first generation of universal design standards, they contain some basic information to help improve understanding of the topics: motion - vision - hearing - orientation - sensitivity

Checklists of requirement specifications:

For each of the chapters in the standard checklists was developed, but sections that do not have relevance to the survey was not included in these checklists. We chose to focus on these chapters:

Chapter 5	Access road to employment and public buildings
Chapter 7	Entrance
Chapter 8	Layout
Chapter 9	Horizontal communication in buildings
Chapter 10	Vertical communication in buildings
Chapter 11	Finding your way
Chapter 12	Technical installations and operation equipment
Chapter 13	Indoor and materials

The checklists are divided into chapter, section and points (specifications) , where each item ticked YES or NO . For each theme a current situation was described. Chapter 10 Vertical communication was not included for businesses on one level . Some of the requirements that are registered may seem strange and less relevant to the registration of accessibility for visitors to the public- oriented businesses . This because the standard does not distinguish between visitors and employees. Specifications not appropriate for the

registration was marked by a dash instead of a cross . Some items were difficult to register, partly because it requires more knowledge of building components than observation by inspection. Example from the registration-checklist:

Kapittel 7 Inngangsparti					
Generell beskrivelse	Inngangsparti er logisk plassert, god kontrast mellom dør- og vindusparti og fasade. To trappetrinn foran inngangsdør. Løs matte på repos foran inngangsdør. Manuell, sidehengslet innadslående dør.				
Sjekkpunkt	Krav ihht NS11001-1 2009	Krav ivare tatt		Beskrivelse av nåværende situasjon	Foto
		JA	NEI		
7.1 Generelt	Inngangsparti skal være logisk plassert, godt synlig og lett tilgjengelig.		x	Inngangsparti er logisk plassert, god kontrast mellom dør- og vindusparti og fasade. Inngangen er ikke lett tilgjengelig da man må opp to trappetrinn. Trinn er ikke merket og håndlister mangler. Løs matte på repos foran inngangsdør.	1, 2
	Utforming bør inngå i overordnet veifinningsstrategi.	-		Ingen definert veifinningsstrategi.	
	Informasjon om alle hoved-funksjoner i bygningen bør plasseres i nærheten av inngangsparti.	-		Kun én funksjon.	
	Dersom inngang har callinganlegg skal dette ha utforming med tydelig lesbar tekst, god lydskjerming og god lyd kvalitet.	-		Ingen callinganlegg.	
	Ikke røykesoner ved hovedinngangsparti.	x			
7.2 Plasskrav	Horizontalt hvileplan som gir		x	Repos foran inngangsdør er 800 mm dypt.	2

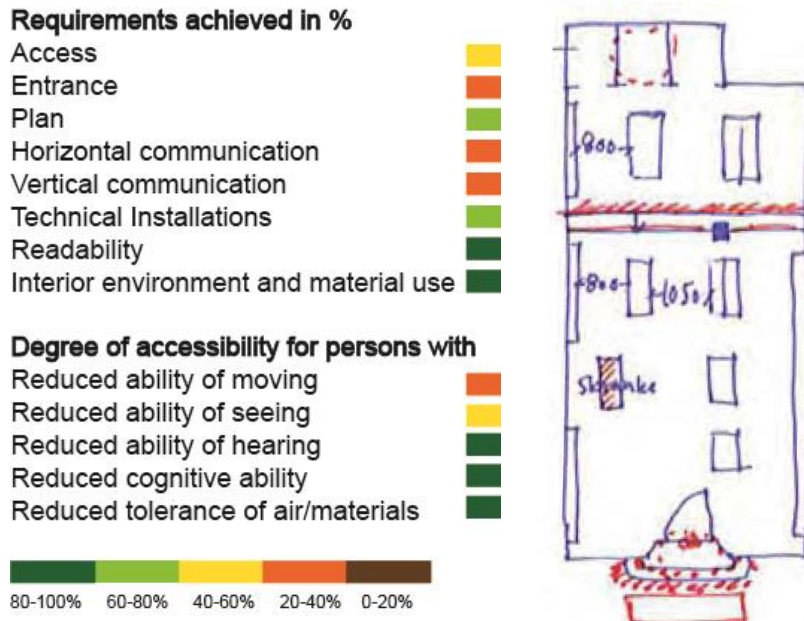
Registration results

The survey shows that none of the businesses studied fully satisfy all requirements for universal design according to the standard NS 11001 - 1:2009. For some of the businesses there are very few faults to be corrected to achieve good universal design, but several have deficiencies in access routes and entrances which makes access difficult for people with various forms of disabilities.

Each business received their business specific report showing deficiencies in order to educate about the needs and to provide guidelines for an improvement of the access.

Summary of the result

The information from the checklist was transcribed into a conclusion ; a checklist-legend summarizes the results; green: good (80-100% of the requirements fulfilled), light green 60-80% , yellow 40-60%, orange 20-40%, dark red: Poor (0-20%). This legend was supplemented with a plan showing the most serious problems marked in red:



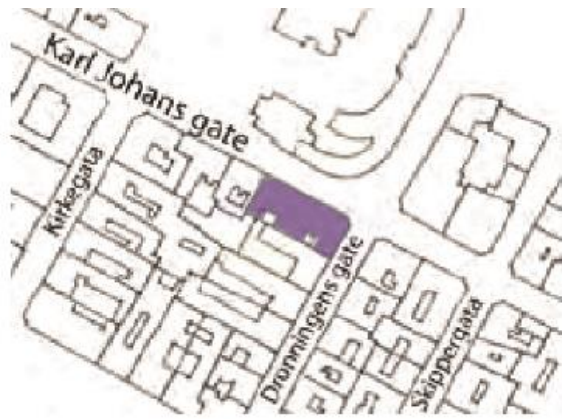
Identified deficiencies in universal design can be divided into two main groups:

- a) Faults related to the physical characteristics of the street / sidewalk and structural adaptations such as stairs, steps and thresholds at the entrance.
- b) Deficiencies related to layout, fixture, signs, etc., as well as elevators, toilets, changing rooms and internal stairs etc.

Conservation Value

There is no clear indication that conservation interests are direct obstacles to universal design. Most ground floor facades and entrances are not original, but rebuilt and adapted to different situations and varying styles. Many businesses have shutters of recent date, and often covering the whole width of the façade, and often the entrance have a door as part of this. In addition, many of the businesses granite steps are new. This means that property owners and businesses in most cases will be able to find new solutions without significantly changing the heritage elements of the facade. In cases where conservation value - considerations may provide constraints, the typical situation is where the facade and entrance is original or valuable. This may limit the expansion of the doors and the establishment of new access.

Each building is marked in a legend showing which conservation status it has: deep purple: listed building according to the Cultural Heritage Act, light purple: building zoned for preservation, yellow: buildings for conservation according to "Yellow List", grey: buildings without conservation status.

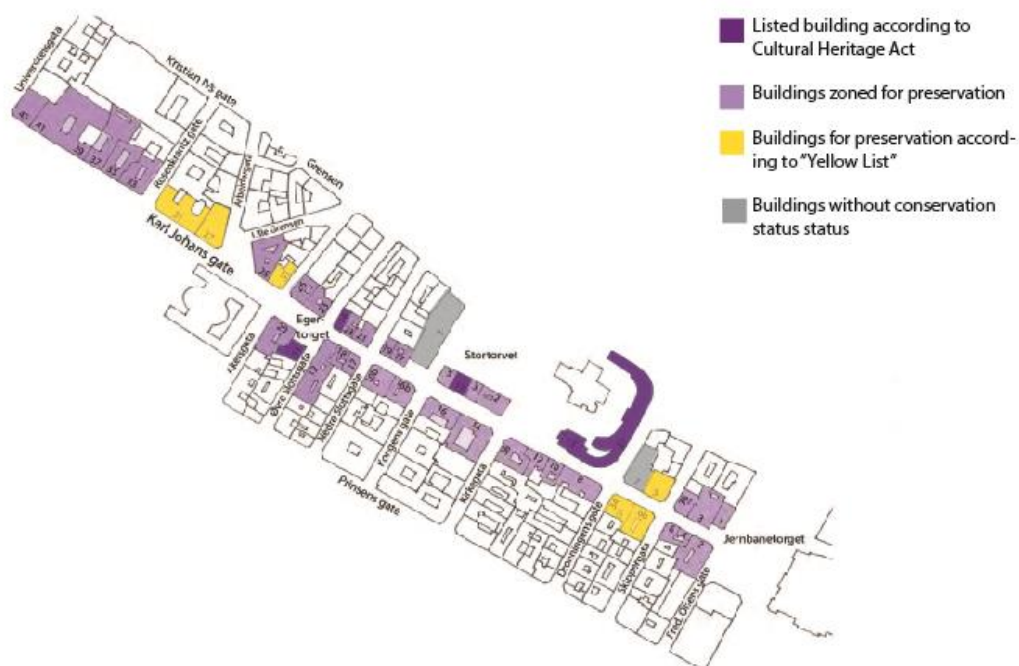


- Listed building according to Cultural Heritage Act
- Building zoned for preservation
- Buildings for preservation according to "Yellow List"
- Buildings without conservation status

It is registered a total of 39 buildings, 5 of which are protected under the Heritage Act § 15, mainly standing structures dated from the period 1537-1649, these are also automatically protected by the Cultural Heritage Act § 4, third paragraph. 30 buildings are zoned for preservation by the Planning and Building Act, to protect objects and areas that are valuable in a local and regional perspective. 3 buildings are listed for preservation according to «**Yellow list**». The function of this list is to provide information where there is an acknowledged and prioritized conservation interest. Only 1 of the registered buildings does not have any conservation status.

Legend showing the overview of the heritage status of buildings in Karl Johans gate:

Map section with an overview of the building's heritage status:



Registration Report

The report "Registration Report – Accessibility to public-oriented businesses in buildings with conservation values in Karl Johans gate - Project Report 2013" summarizes the results of the survey of all the businesses and is used in the second phase of the project.

Each business has received a fact-sheet with information about the building they are located in, and the business accessibility.

This report is a guideline to make the city centre more accessible, and will be used when developing a pilot in phase 2.

Phase 2: Pilot project

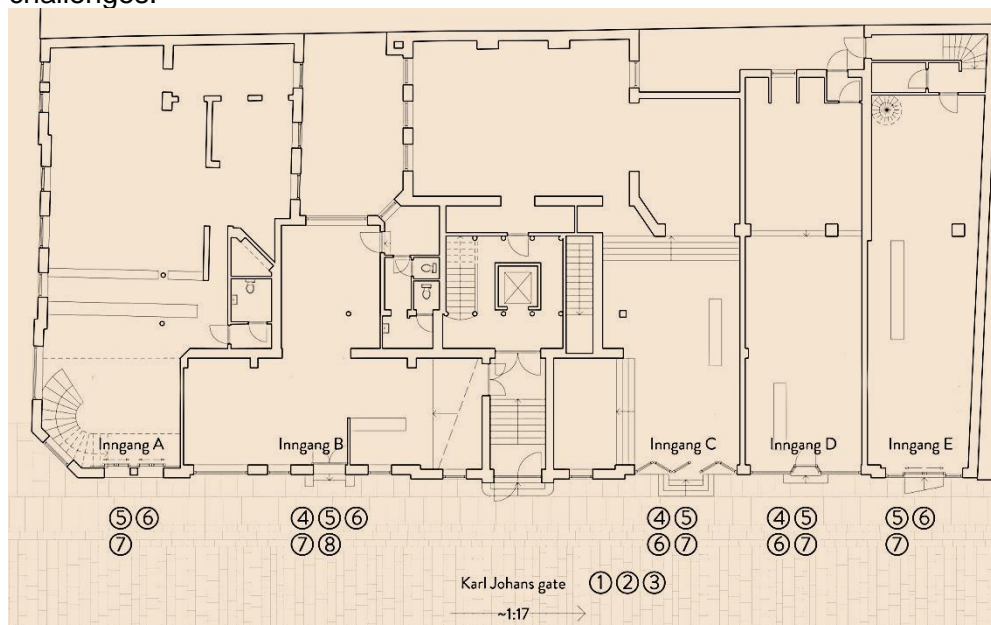
Phase 2 consists of developing a collection of pilot projects for property owners and authorities for future building modifications. 4 addresses are chosen; typical situations with one granite step outside the entrance, and challenges caused by the sloping road.

We continued working with the project team consisting of key government and municipal agencies, business agencies and disability organizations to work on the development of good examples of universal design in listed buildings in Karl Johans gate.

The architect company Flux Arkitekter is engaged to develop a feasibility study for a collection of pilot projects. These pilots will be used as an inspiration for further work with accessibility in the city center of Oslo.

Focus on findings

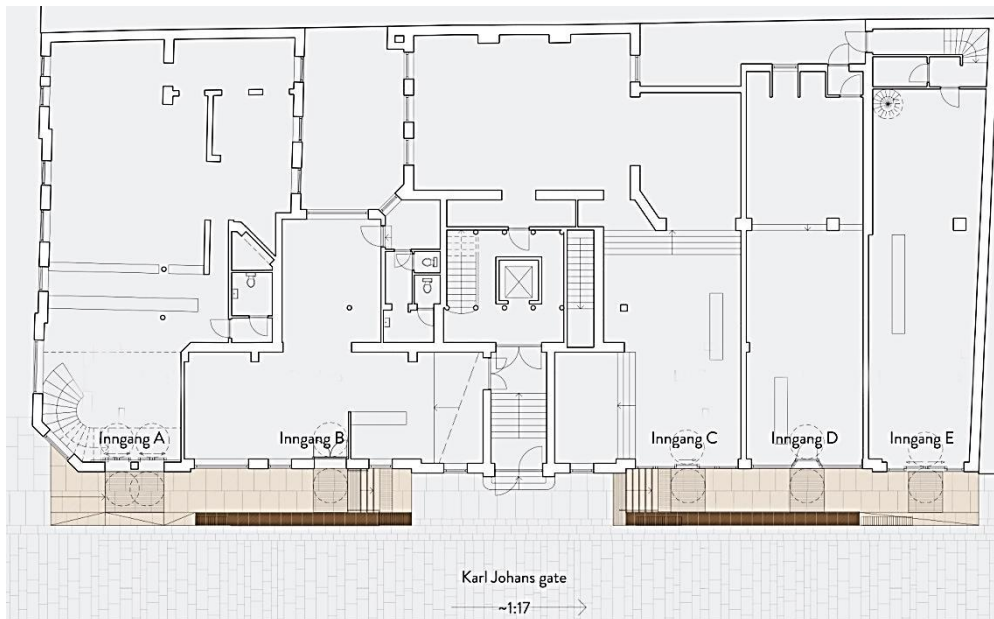
Plan showing the findings at the different entrances in this building locating the main challenges:



- 1) Too steep entrance
- 2) No guidelines finding your way
- 3) Lighting not glared
- 4) Steps at the entrance
- 5) Not obstacle free area with abrasion grid
- 6) No contrast stripe, perils, attention field or handrail to stairs
- 7) No marking of glass door or glass panels

8) The door at the entrance is too low.

The idea is to solve all these problems with one single concept. A typical way of attempting this is to build a ramp at the pedestrian area solving several entrances in one solution:



Challenges

This way of thinking started several discussions in the project group.

The amount of ramps, railings and street furniture appears disturbing in the street scape as well as disturbing the facades, in disorder with the simplicity and symmetry of the façade. Incorporated elements become too dominant; elements in front of the façade should be reduced.

Could ramps in streetscape at Karl Johans gate have a common design even though every single entrance and façade should be taken into account?

It is important to ensure mobility and accessibility for pedestrians and cyclists and therefore it has been worked out requirements to ensure this. It's not desirable with extensive use of artificial guidelines in public spaces which means that natural guidelines like facades, different zoning with furniture, pavement curbs is preferred and kept free of hindrances.

Accessibility to a building should be regarded as an inherent part of the building; to be solved within the building structure and private property. Basically ramps and stairs on pavements or other pedestrian areas should be avoided or reduced. These elements affect efficient winter maintenance as well. However, if it's not possible to solve the height differences within the building structure it could in some cases be acceptable with ramps and steps as long as it's not a hindrance of general traffic.

The issue is to consider the degree of accessibility within the tolerance limits of the conservation valued building, and these values must be identified in order to find the limit and the scope. The goal is that both considerations could be unified and that the pilot projects have transferable value to similar projects.

If the project should have a real effect as a guide, it might be that the project has to be a lawfully binding guide, or the whole length of Karl Johans gate must be re-zoned.

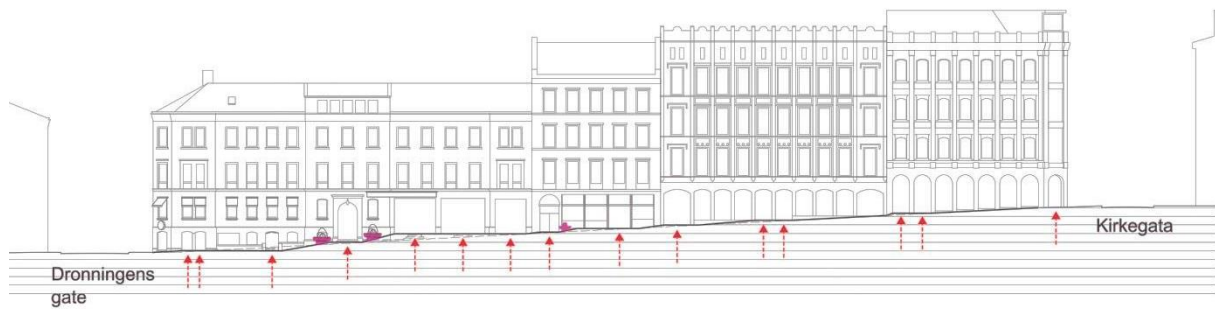
The project group decided to go on with the pilot project with focus on the terrain and the interior of each business. We have to try to ensure that small businesses keep their individual size and entrance and not become a part of one big Shopping Centre which fills the whole building or block.

Terrain-modelling

Working with modelling the street this plan shows how the sloping street could be differentiated along a path in the middle of the street. The idea is that the path in the middle of the street is 1:20 and universally designed. This concept will be evaluated and proceeded further.

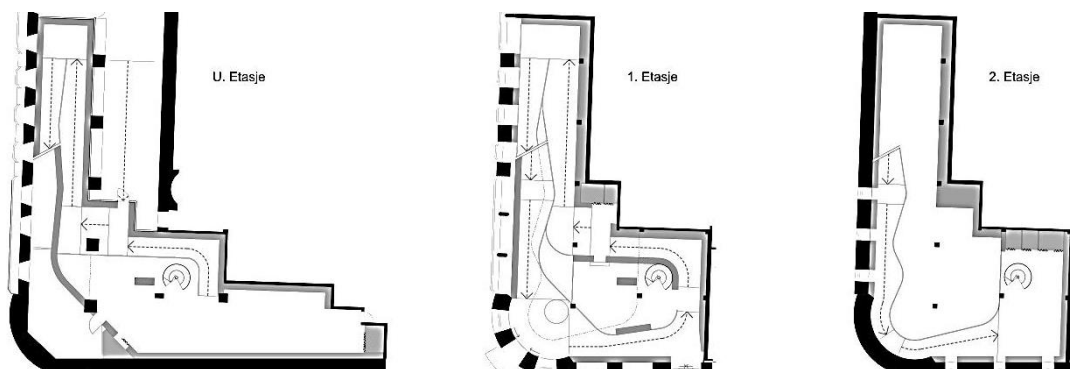


This plan shows the steepness, how this is remodeled to enter each business. The red arrows show each entrance.



Interior-modelling

Modeling the interior into one ramp; floor divisions are removed and made into one ramp moving between all the floors:



This is only possible if the interior or construction of the building doesn't have any conservation value, and if the business and property owner can afford this. It is important to give the public and customers a good experience, and it is necessary to have profitable businesses. All businesses should have equal possibilities.

Conclusion / Summary

It is the business and not the property owner that is responsible for universal design according to the Discrimination and Accessibility Act §13. This obligation means that all places where the public has access to the premises must be designed so that the public has access regardless of reduced ability. In issues on universal design there must be an assessment of what is possible to obtain on the basis of the economy of the business, what conservation values to consider, and the amount of structural challenges. This might mean that the question of universal design should be raised to a higher level.

We are still working on these pilots, and will have further discussions in the project group as well as doing adjustments of the concepts. The plan is to complete the project by the end of June 2014.