Accessibility and cultural heritage

Under which circumstances can urban space of historical importance be made accessible?

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Abstract: The essay looks at the level of accessibility that is found in the Old Town of Stockholm. The research focus is oriented towards limitation in human mobility and physical barriers. The study visit in the Old Town targeted urban spaces that are and are not accessible today, but also the foreseeable difficulties of making this part of the city accessible to all. Simultaneously, the essay will clarify legal demands on accessibility requirements, i.e. acts, regulations and other guiding documents that become active in the discussion about accessibility and cultural heritage in public space of cultural importance. As such, the essay establishes a link between what type of urban spaces with accessibility problems that should be made accessible according to the laws and regulations. In addition, the essay will pin-point instances when an urban space cannot be made accessible and if the laws and regulations come into conflict with reality.

keywords: accessibility, cultural heritage, urban spaces, Gamla Stan - Stockholm

Introduction

Since the passing in the United Nations assembly of the Convention of Rights of People with Disabilities in 2006, many countries have signed and ratified the convention. This implies an obligation to harmonize the building act, building ordonnances and other regulations with the convention. the present day situation suggests that some countries have a very open approach to accessibility and universal design, while others are less keen on the actual implementation of the UN CRPD in national construction projects. Sweden is considered to be an advanced country when it comes to the implementation of accessibility and usability in the built environment but also in the actual usage of these concepts in most types of new construction projects. In addition, many older buildings both in Stockholm and elsewhere are being retrofitted to modern requirements and transformed in order to conform with the reformed building legislation. Boverket - The National Board of Housing, Building and Planning – and Swedish Arts Council – Kulturrådet - have even made a committment that all governmental and cultural buildings that receive funds from the state should be made accessible by the end of 2015.[1]

Still, there is one major question that often remains unanswered regarding accessibility and usability. When buildings are relatively easy to make accessible, the geography and urban landscape of a city are not as easily transformed into to an accessible topography. Historical buildings in steep landscapes may be almost impossible projects for accessibility specialists. How shall architects respond to such accessibility challenges in urban landscapes without damaging historical values that are manifested in buildings, streets and cities? When is transformation of a historical nucleus possible and when is it not? With reference to the UN CRPD and the matter of making the built environment accessible, a large theoretical conflict between the historical values of a city and its buildings may occur. This is especially true for older parts of medieval cities, often situated on steep hills or close to rivers or the sea. Cobblestoned narrow streets are problematic from an accessibility point of view – but would an asphalt coating on every street of the Old Town in Stockholm increase accessibility without destroying historical values found on the site?

Research problem

Focusing on the level of mobility in the Old Town (Gamla Stan) in Stockholm - the essay will give an answer to the question of when transformation of a historical nucleus is possible and when it is not. What spaces in the Old Town are currently not accessible and what possible measures would make them accessible? Based on a thorough reading of applicable acts, ordonnances, regulations and othe policy documents, this essay will explore the potential for accessibilizing the Old town of Stockholm.

Method

The essay looks at the level of accessibility in the Old Town of Stockholm ~~with~~ 3 regard to independent mobility for people with limitations in locomotory functions. A study visit to the Old Town explored urban spaces regarding what types of environments that can be described as accessible or not today. In combination with these evaluations, the essay clarifies what acts, regulations and guiding documents say about requirements for public spaces,

[1] Swedish National Board of Housing, Building and Planning website November 24th 2016.

accessibility and cultural heritage. As such, the essay tries to establish what types of urban spaces that are not accessible and whether they could be made accessible according to legal frameworks. Also, the essay identifies instances when urban spaces cannot be made accessible and if the laws and regulations come into conflict with reality.

Result

Legal framework

There are several acts, ordonnances, regulations, policy guidelines and other documents that touch upon accessibility and cultural heritage in Sweden. Besides the UN CRPD, the most prominent act in this field of expertise is the Plan and Building act - PBL (*Plan- och Bygglagen (SFS 2010:900*). This act is further detailed into physical requirements in the Swedish building regulations, i.e. Boverkets Byggregler (*BFS 2011:6 - BBR 18*). Concerning accessibility and usability issues for existing urban spaces, the regulations found in the so-called ALM BFS *2011:5 - ALM 2*) programme the retrofitting of old streets and squares. Concerning existing buildings, a similar set of regulations, the so-called easily eliminated obstacles, HIN-3, describe how to update old buildings to modern demands. In all of the three cases, these regulations are issued by the National Board of Housing, Building and Planning, NBHBP. The Cultural environment act (*Kulturmiljölag (SFS 1988:950*) regulates the conservation of buildings that are part of the national cultural heritages in Sweden, while the Environmental act (*Miljöbalken1998:808*) governs the national interests concerning specially valuable landscapes or cultural settings.

These documents mainly focus on new planning and building, but many of the regulations and requirements function in retroactive manner and have to be applied to existing buildings and urban spaces or natural settings. Furthermore, all governmental and cultural buildings should be made accessible according to an improved level of accessibility in concordance with the national disability policy (SFS 2001:526). These guidelines are issued by the Swedish Agency for participation, MFD.

As such, all new buildings and structures must be accessible both physically and with regard to signs and light sources as laid out in PBL, chapter 2,6§, regarding public and particular interests:

"Section 6. In planning, in matters concerning building permits, and measures regarding buildings that do not require permits in accordance with this Act, built environment and construction works must be designed and placed on the intended land in a manner that is suitable, with regard to:

1. *the townscape and landscape, natural and cultural values on the site, and in the interest of ensuring a favourable overall impression; (…)*

7. *means for persons with limited mobility or orientation capacity to access and use the area; (…)*

The first paragraph also applies with regard to outdoor signs and light sources.

In conjunction with planning and other matters, as well as with measures regarding buildings that are not part of matters covered by this Act, the particular values of history, cultural heritage, environment and art of the development area must be protected. Alterations and additions to the built environment must be done cautiously so that existing characteristic features are respected and sustained. Act (2014:477). "

Regarding public spaces, they are defined as a street, a road, a park, a square, parking area or another type of area that the detail plan has intended for a public use.[2] These areas must be made accessible so that all people including the group who experiences disabilities may use them. However, this requirement is restricted to a level that is perceived as practical and economical.[3] The detailed requirements for accessibility are further specified in other policy document in which measurements, slopes of ramps etc. are laid out in all of chapter three, section one. These guidelines are issued by the NBHPB, the Swedish Agency for Participation (MFD) and the Swedish Transport Administration, STA. The cultural heritage is regulated in both comprehensive planning and detailed plans for the built environment.

Easily eliminated obstacles in buildings and the built environment must always be removed. Exceptions from this thumb rule can be given depending on the practical and financial circumstances of the removal of such an impediment. It is important to note that the legal framework and other regulations never specify what type of projects would be impossible to realize. On the website of Boverket[4], it is stated that the cost for removing an impediment might be unreasonably burdensome for one owner but manageable for another owner. This might imply that property owned by the the state, counties and regions as well as municipalities shall always be removed. PBL chapter 8, section 12 regarding demands on public spaces and other areas states_

> *"An impediment to accessibility or usability in a public space must always be removed if it is easy to remove given the practical and financial circumstances. Act (2011:335)."*

All public buildings, i.e. buildings to which the public has access, and public spaces such as parks and parking areas shall (ska-krav) always have an accessible entrance. According to the Swedish Building regulations - BBR, a lay-by for cars with parking space shall always be available for people with reduced mobility within a maximum of 25 meters from the entrance to the public building or car-free public space.

Stockholm

In Stockholm, it is the Stockholm City Museum that are responsible for investigating and preserving the cultural heritage of the city. As such, the Stockholm City Museum classifies historically important buildings in a system with colors – blue, green and yellow. Blue is the highest classification and it means a building of significant high historical and cultural value that is protected from offensive building actions. Classification blue also comes with the strongest protection. Theclassification green is the second strongest class that signifies a building of high cultural value. The yellow class signifies a building that has a positive value for the city and a certain historical value.

When looking at the map over central Stockholm (fig. 1), one can easily see that almost all the buildings of the Old Town is classified in the category blue. In addition, the Old Town is also a classified as national interest, which covers central Stockholm and Djurgården. The Old Town is one of the "core values" of this national interest. Hence, all alterations of all types of environments and buildings in the Old Town of Stockholm must be done with the outmost respect for the cultural heritage. In the comprehensive plan for Stockholm, the totality of the Old town is mentioned as important. The grid of the Old Town, its stone buildings are

[2] PBL Chapter 1, section 4
[3] PBL chapter 8, section 12
[4] http://www.boverket.se/sv/byggande/tillganglighet--bostadsutformning/tillganglighet/enkelt-avhjalpta-hinder/ 2016-11-30

specifically stated having key values, but the shape of the streets and their functionality are not mentioned, for example regarding material and design of the streets.

The city Museum of Stockholm has published a document regarding preservation and maintenance of buildings in the Old Town.[5] This document provides advice regarding preservation, but also includes many of the museum's views on the cultural heritage of the Old Town. The City Museum of Stockholm states that there is a threat to the cultural and historical values of the Old Town.[6] Furthermore, the museum states that the narrow alleyways and the stone streets have a great value of experience[7] that is important for the cultural value of the Old Town. Furthermore the museum states that the doorways are essential to the character of the building and that automatic door openers should not be placed on such buildings[8].

An accessibility study visit to the Old Town of Stockholm

Immediately when arriving outside the doors of the metro station Gamla Stan, the visitor is struck by the many features of the Old Town, most of them difficult to surmount for people with disabilities. For example, the narrow and sloping sidewalks, the uneven cobblestone paving and the steep sloping streets (see fig. 2-3 of Stora Gråmunkegränd). Most buildings have a few steps that lead up from the street level to the entrance door (fig. 15) and even more steps inside the entrance. Although the western parts of the Old Town are quite flat, this does not apply to the central parts of the old city, which are very steep, so much as they can be difficult to overcome even for people without disabilities. Seemingly flat squares such as the Stortorget are also sloping quite a lot in several directions, thereby creating conditions that are not accessible. (fig. 4)

One of the main challenges of the Old Town is the steep streets that lead from the central part down to the waterfront. When looking at the height differences in the Old Town, the streets that lead up to the Royal Castle and Stortorget are the most steep ones. This essay focuses on four streets with great height differences: Storkyrkobrinken, Slottsbacken, Kåkbrinken and Tyska Brinken (see fig. 5 for map, and table 1.1). A proper ramp for pedestrians that follow the requirements of the BBR shall have an inclination of 1:12 or 1:20, with landings after every 5 meters and of a length of at least 2 metres (fig. 6).

Storkyrkobrinken (fig. 7-8) has a difference in height that corresponds to 4,3 meters measured between Västerlånggatan until the Storkyrkan, roughly 50 meters, resulting in a continuous slope of about 1:11 – without landings. A proper accessible street with similarities with a ramp shall have an inclination of 1:12. This would require a length of the street equal to almost 68 metres to cover up for the difference in height. It must be mentioned that a ramp with a slope of 1:12 is only the bare minimum for accessible rampways for people with disabilities (fig. 6), the improved level of accessibility according to the MFD would demand a slope of 1:20, which would need a distance of 102 meters. For Slottsbacken, Kåkbrinken and Tyska brinken – see fig. 9-14 and table 1.1 below:

[5] "*Vård och underhåll av fastigheter i Gamla Stan*" – Stockholm City Museum, 2016
[6] Ibid., p. 5
[7] Ibid, p. 9
[8] Ibid., p. 36-39

Table 1.1 – Steep streets in Gamla Stan

Street	Length analyzed area	Height difference	Length needed for accessible ramp for that height difference
Storkyrkobrinken	50 m	4,3 m	68 m (1:12) 102 m (1:20)
Slottsbacken	201 m	10,9 m	175 m (1:12) 260 m (1:20)
Kåkbrinken	106 m	9,4 m	151 m (1:12) 225 m (1:20)
Tyska Brinken	78 m	8,3 m	132 m (1:12) 198 m (1:20)

Besides the differences in height and the steep streets, most buildings facing these streets do not have accessible entrances. According to PBL chapter 8, section 12 all easily eliminated obstacles should be removed, but given this context it is an open question whether conditions in the Old Town could be labelled as practical and economical, for the owner of the building or for the city of Stockholm.

Preliminary conclusions

All in all, the Swedish legal framework focuses mostly on buildings and built environments, especially new developments. There are regulations concerning accessibility and how it should be implemented in urban spaces, mainly concerning accessible entrances and parking. The PBL, BBR and additional regulations are purposefully written for new buildings and structures. However, the national disability policy states that also existing buildings shall be accessible; mainly focusing on public spaces and buildings, but also remarking that private buildings of high cultural value also should be accessible.

There are no obvious contradictions in the legal framework regarding accessibility and cultural heritage. Here, both accessibility and cultural history values are equally important and should be addressed when changing an old building or an environment. However, when studying the website of the Boverket but also some documents from the City of Stockholm, there are some issues that appear to be problematic with regard to the cultural heritage and accessibility.

The Old town of Stockholm is one of the few places in Stockholm where quite little has been done over the years to make buildings and public spaces accessible. Cultural buildings such as churches and museums have been made accessible, as well as some more commercial buildings, but the streets remain as inaccessible as they have always been, even for motorized vehicles. It seems as if the city of Stockholm has consciously valued the historical environment to be of a higher cultural importance than to make the space accessible for people with disabilities. On the other hand, this might also be a demonstration that the city has deemed any interference physically or financially impossible with regard to PBL chapter 8, section 12.

Discussion

Legislation and guiding documents

The legal framework seem to blend into each other quite smoothly. The legislation deems accessibility and cultural heritage equally important. Furthermore, all new buildings, structures and public spaces should be made accessible to people with disabilities. In addition, public actors are always obliged to consider and take care of sites and buildings of cultural importance and value. This applies both to new constructions and to the built environment in general.

Then again, there are some contradictions between some of the regulations with the PBL, the BBR, HIN-3 and ALM-2 on the one hand and the documents of the City Museum of Stockholm regarding preservation in the Old Town on the other hand. For example, the guiding document dissuading the use of automatic door openers in the Old Town. Strangely, the City Museum of Stockholm seems to be either unaware of what the PBL, BBR, HIN-3 and the guidelines for an improved level of accessibility state regarding accessibility, or they consider the cultural heritage of the Old Town to be of a higher importance than accessibility. Truth be told, this is the only instance that the author of this essay has found clear contradictions in the official documentation concerning the implementation of requirements for accessibility and usability for people with disabilities.

As of today, the legislation does not allow welfare technology as means for addressing differences in height. As a result of this, building owners are compelled to make their buildings accessible for all. The legislation also considers cultural heritage to be of equal importance as accessibility. However, the exceptions in the legislation where buildings cannot be made accessible might need some clarifications and guidelines for when it is possible and impossible to make a building accessible.

The Old Town of Stockholm

The Old Town of Stockholm is one of the most important sites of cultural and historical importance in all of Sweden. It has the highest level of protection as a milieu and individual classifications of building with regard to cultural heritage values. This might explain the low level of accessibility that has been implemented in both buildings and urban spaces. Given that most buildings are privately owned, the owners might consider the removal of obstacles to be unreasonably costly or impossible, physically or financially. Also, the owners might consider accessibility requirements being an interference since making the buildings accessible might damage the cultural heritage value of the building. The public spaces of the Old Town such as the streets and squares are topographically challenging to level out. As table 1.1 showed, making the steep streets accessible required more space than what was available in most streets. Even if the steep streets could be made accessible, the new street would be vastly different and all entrance doors would have to be modified. If the actual surrounding buildings themselves are not and will not be made accessible, perhaps it is unreasonable to change the street inclination according to the legislation.

At the moment, the gravest problem seems to be the question of cobblestoned streets, narrow sidewalks and entrances to buildings. It is quite strange how the City of Stockholm has not identified these problematic streets, as just levelling the streets and broadening the sidewalks could be done quite easily. Of course, many streets such as Stora Gråmunkargränd are simply too narrow for having proper sidewalks. Perhaps one solution to all these issues would be to raise the entire street and remove the sidewalks. Surely this would demand a lot from the contractors as all entrances are not on the same level, but in many streets it could be possible to make the entire street level and accessible.

Conclusion

What is then a possible solution to the challenges that the Old Town of Stockholm demonstrates? If all owners of buildings and property developers would comply with the law, surely many buildings would be made more accessible. The national disability policy also wants all older buildings of cultural importance to be made accessible – which would mean all buildings in the Old Town. Perhaps only the stores would be made accessible, as the implementation of accessible entrances and stairwells might be impossible without damaging the building structure. The question is how it would look. Small ramps into all stores and entrances of every building in the Old Town might cause damages to the whole milieu. There are some buildings that have semi-accessible entrances, where the ramp is actually inside the building rather than outside, which is a very good solution. The question is only if that solution is possible for all buildings.

Chapter 8, section 12 of the PBL states that removing impediments for accessibility should always be done – if it is practically and economically feasible. This section might come in to play in many cases in the Old Town and might explain why the Old Town looks like it does. On the other hand, there are many instances in the Old Town where the urban space easily could be made more accessible. With the use of welfare technology and smart universal design, perhaps even all buildings in the Old Town of Stockholm can become accessible and usable for all.

references

Planning and Building Act (2010:900), Planning and Building Ordinance (2011:338) in English, *Swedish National Board of Housing, Building and Planning*, august, 2016

Boverket´s Building Regulations, BBR 19 BFS 2011:26, in English, *Swedish National Board of Housing, Building and Planning,* 2016

Lilja, Kersti, *Vård och underhåll av fastigheter i Gamla Stan*, Stockholm City Museum, 2016

Internet resources:

National Board of Housing, Building and Planning on easily removed impediments:
http://www.boverket.se/sv/byggande/tillganglighet--bostadsutformning/tillganglighet/enkelt-avhjalpta-hinder/
2016-11-30

Images and drawings

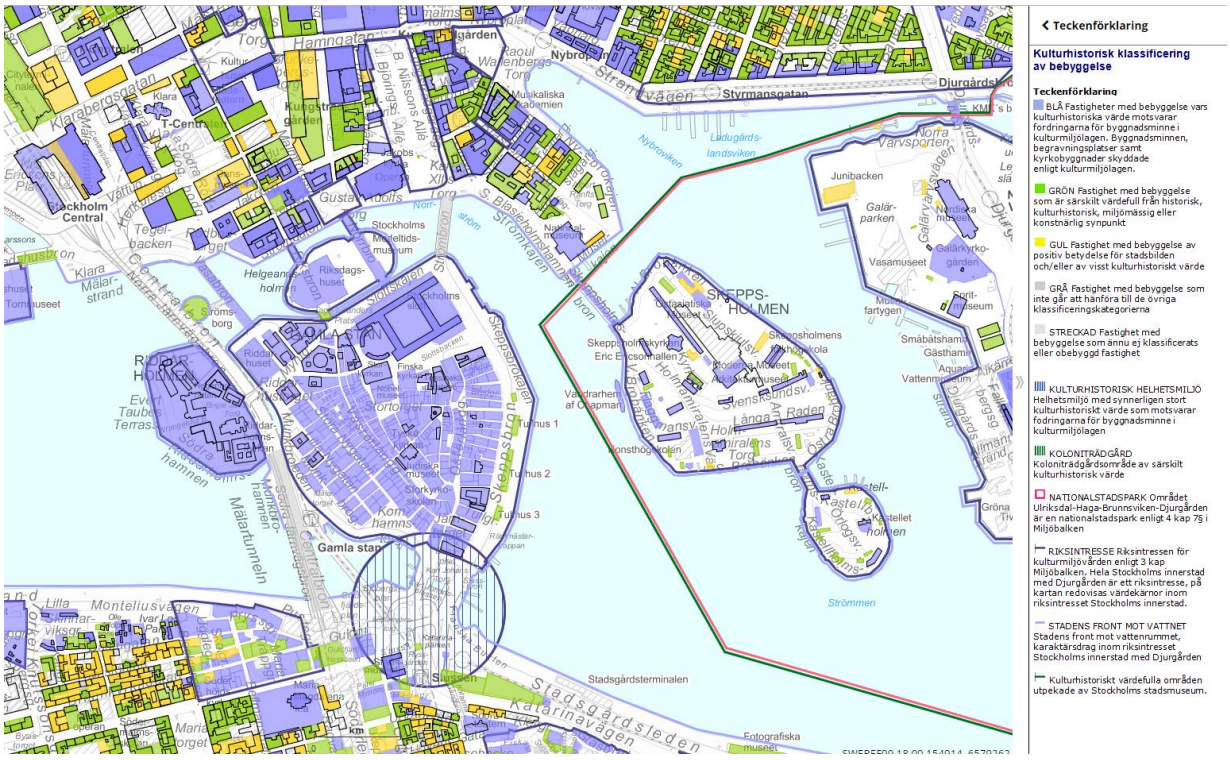

Figure 1: Map of Cultural heritage classification of central Stockholm.

Figure 2: Example of uneven street (Stora Gråmunkegränd) in the Old Town, with extremely narrow sidewalks, see fig 3 – section of Stora Gråmunkegränd.

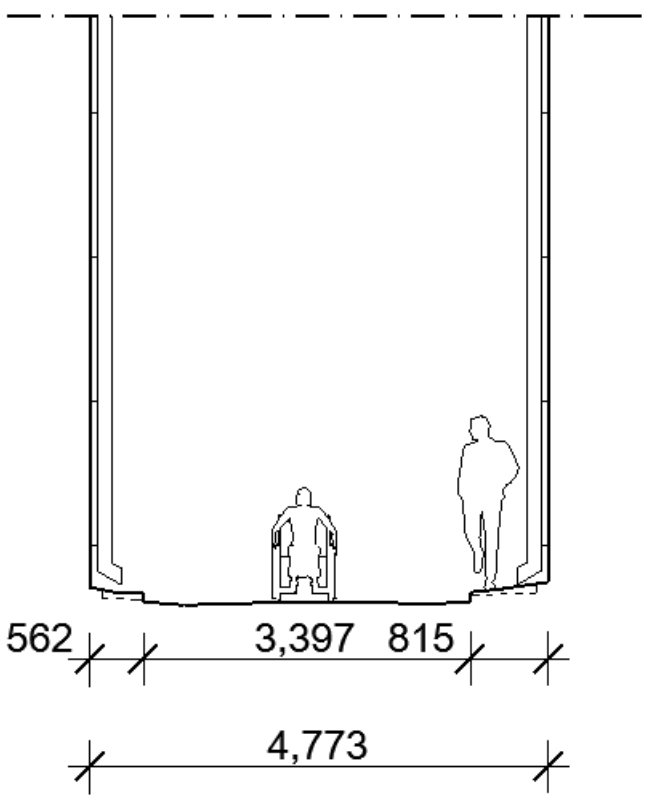

Figure 3: Section of Stora Gråmunkegränd – 1:100

Figure 4: Stortorget square is sloping in many directions.

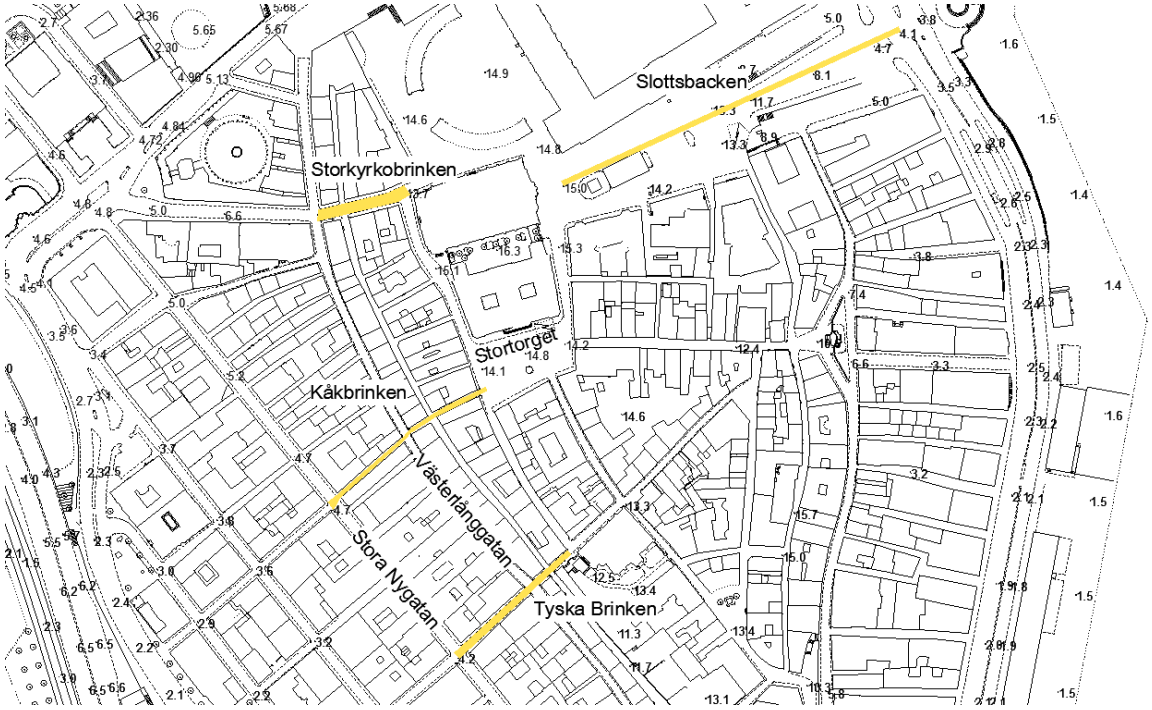

Figure 5 – Gamla Stan and the analyzed streets

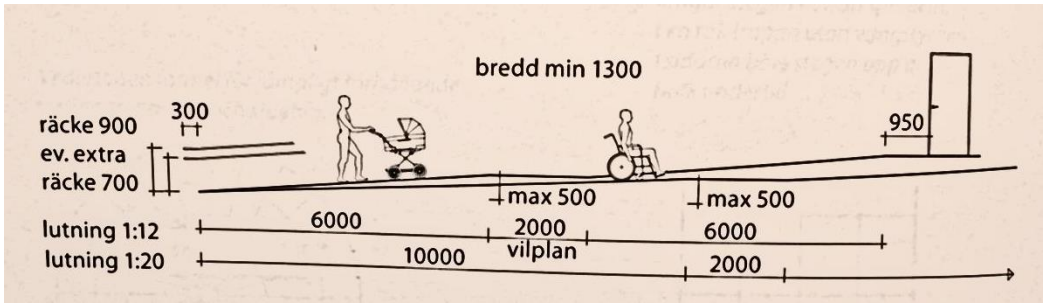

Figure 6: Correct makeup of a ramp according to Swedish standards.

Figure 7: Storkyrkobrinken seen from Västerlånggatan up towards Storkyrkan and Trångsund.

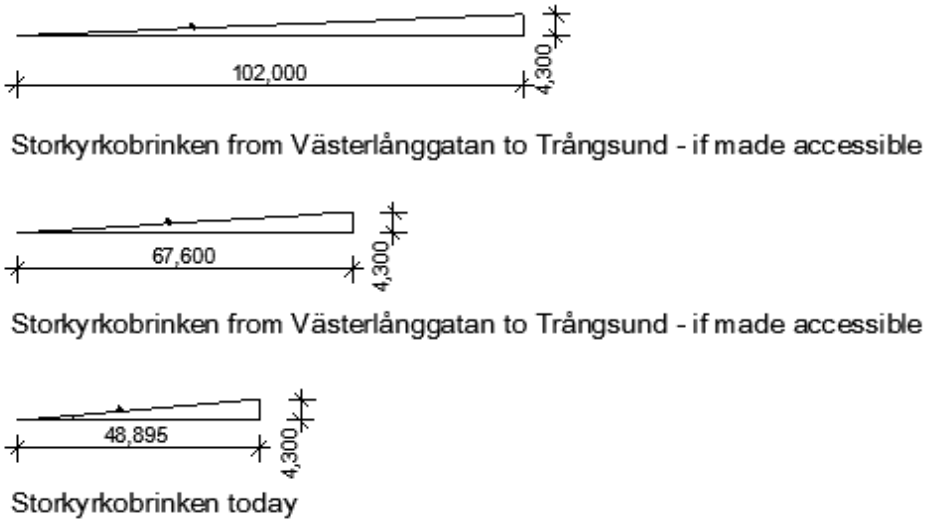

Figure 8: Storkyrkobrinken's inclination today (bottom) is not accessible. Distance needed to make an accessible ramp (1:12) of the same height difference (middle), 1:20 (top)

Figure 9: Slottsbacken seen from Skeppsbron up towards Storkyrkan.

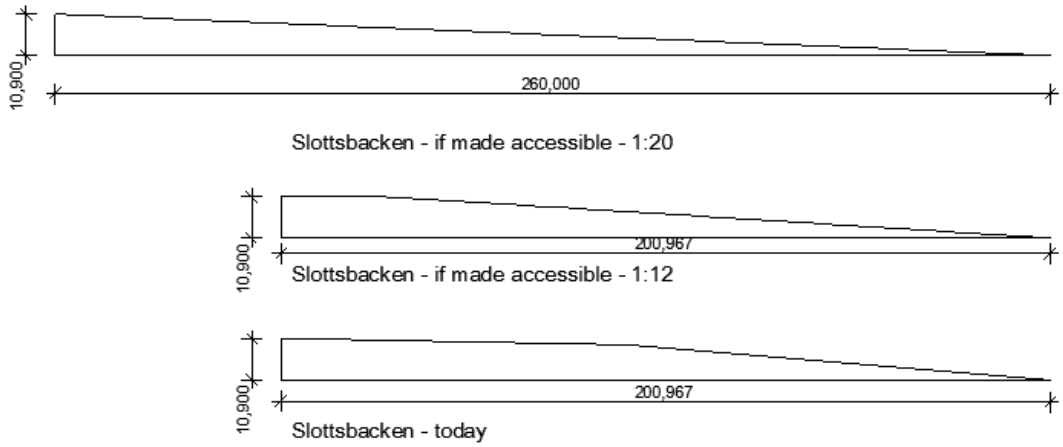

Figure 10: Slottsbacken's inclination today (bottom) is not accessible. Distance needed to make an accessible ramp (1:12) of the same height difference (middle), 1:20 (top)

Figure 11: Kåkbrinken seen from Stora Nygatan

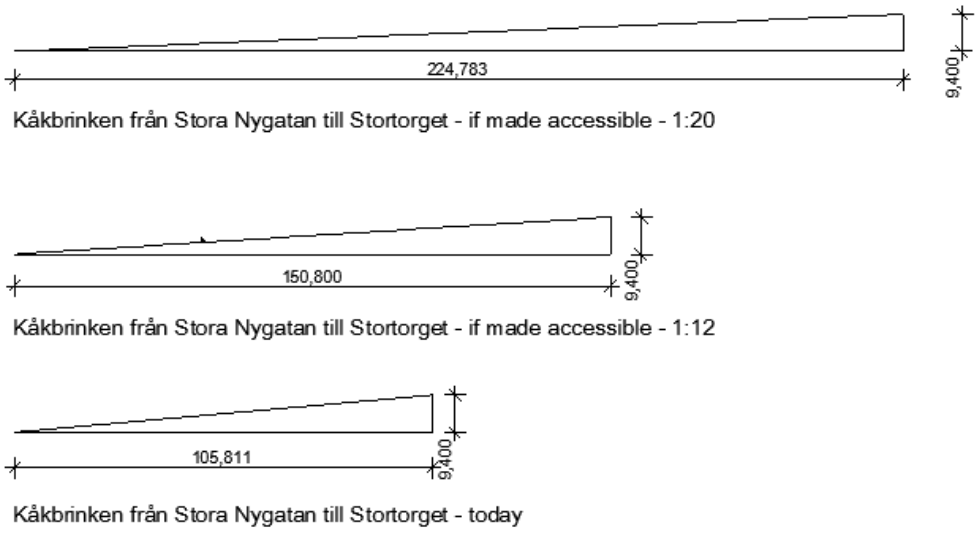

Figure 12: Kåkbrinken's inclination today (bottom) is not accessible. Distance needed to make an accessible ramp (1:12) of the same height difference (middle), 1:20 (top)

Figure 13: Tyska Brinken seen from Västerlånggatan up towards Tyska Kyrkan.

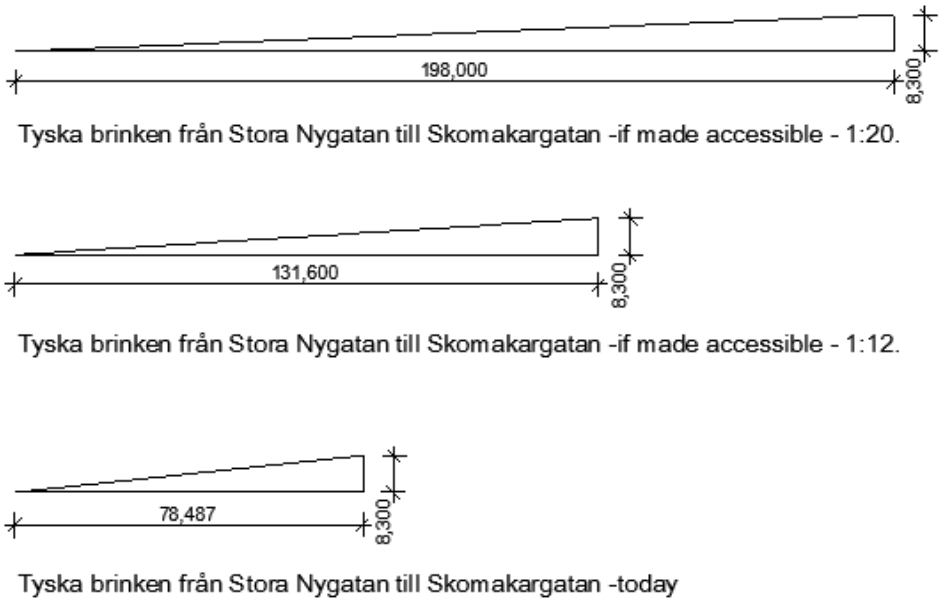

Figure 14: Tyska Brinken's inclination today (bottom) is not accessible. Distance needed to make an accessible ramp (1:12) of the same height difference (middle), 1:20 (top)

Figure 15: Example of a store entrance that is not accessible due to height differences and street design.