Booklet: Monumental analysis

Oudezijds Voorburgwal 30, Amsterdam

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INTRODUCTION

This booklet was created for a thesis about the energy renovation of monumental buildings (Green Light District: Energy renovation of monumental buildings). The objective of the thesis is to create a generic approach for the energy renovation of monumental buildings. The scope of the research is limited to monumental buildings constructed before 1900 in the city of Amsterdam.

To assess the possible design interventions, a case study building was chosen. The chosen building is located at the Oudezijds Voorburgwal 30 in Amsterdam. It houses a store of a beer brewery (de Prael) as well as three apartments. The building is assigned as a national monument (order 1 building) and is located in the protected city view area of the city center of Amsterdam. Its location in the protected city view and designation as national monument imply that several regulations are in place to preserve both the interior as well as the exterior of the building. None of the monumental elements of the building can be altered.

It is thus necessary to identify the monumental elements of the building to assess what can and cannot be altered during the renovation design. Consequently a thorough analysis of the building throughout the years of its existence is carried out. The analysis is divided into two scale levels: the urban scale and the building scale. A chronological order was used to analyze all alterations which were made throughout the years. The results and conclusions of this research can be found in this booklet.

Sophie van Hattum

URBAN SCALE

Embedding in building block, urban fabric, orientation, etc.

1200 - 1300 Origin of Burgwallen-Oude Zijde & Amsterdam

1385 Construction of the Oudezijds Voorburgwal

1500 - 1600 Construction of the current front house

1600 - 1700 Construction of the original back house

1800 - 1900 Replacement of the East facade with current facade

± 1900 Joining of the front and back house

1922 Construction of horse stables in the courtyard

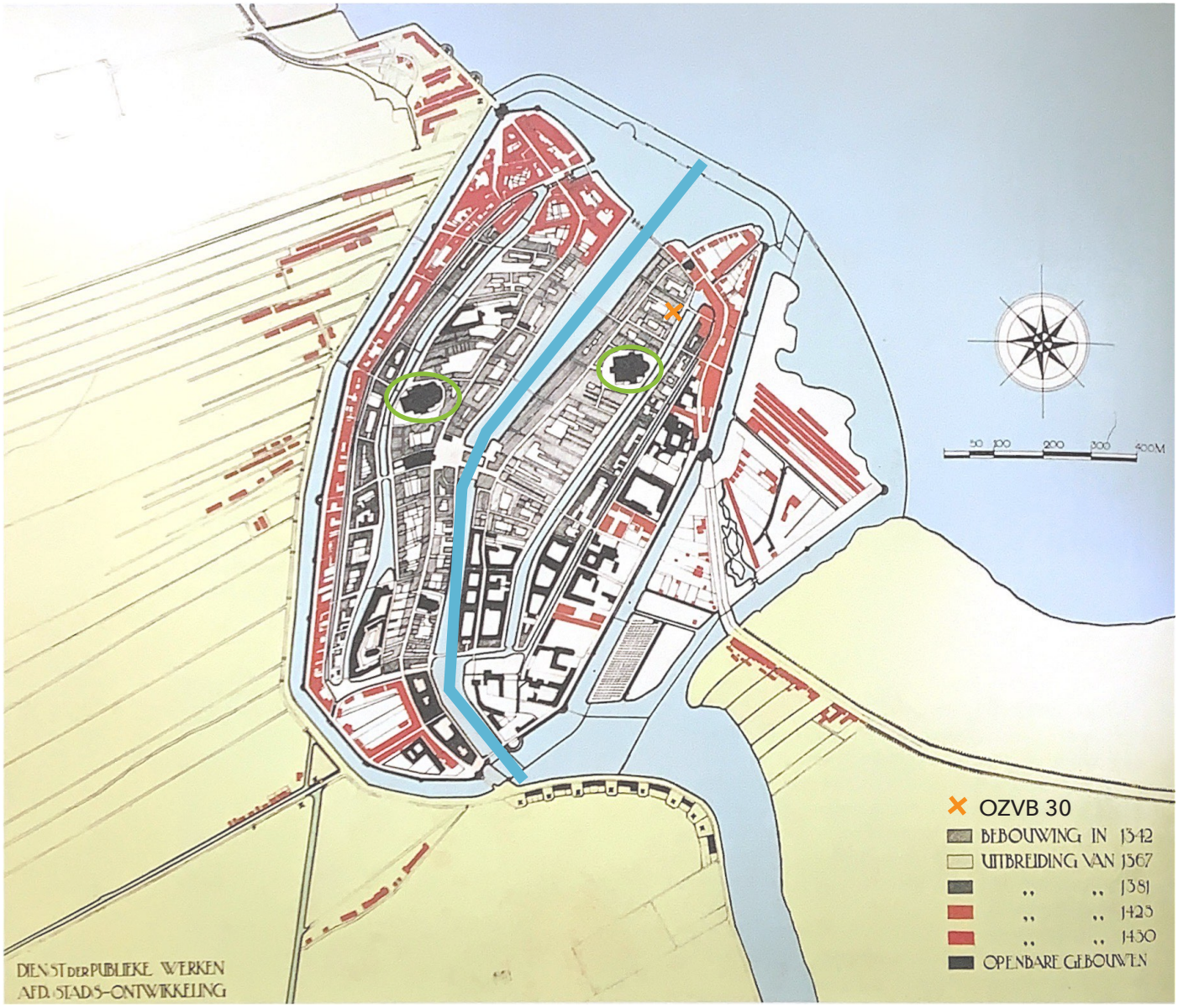
1926 Roofing of the interior courtyard between the front and back house

2005 Renovation & total replacement of the back house

2021 Current state

1200 – 1400

Origin of Amsterdam, the Burgwallen-Oude Zijde & the Oudezijds Voorburgwal



Growth of Amsterdam from the 14th to15th century. Source: Adapted from Dijkstra et al., 1999

What is the history of the Burgwallen-Oude Zijde?

Until the 14th century Amsterdam was solely a pilgrimage destination. In the 14th and 15th century the pilgrimage destination slowly became a city. The river 'De Amstel' plays an important role in the urban fabric of Amsterdam. For a significant amount of time Amsterdam was 'bi-polar', meaning that the city was structured around two important centers (see green circles for centers and blue line for division). These centers were located on either side of 'De Amstel', on the West and East bank of the river (Dijkstra, et al., 1999; Brinkgreve, 1956). Nowadays this division can still be seen in the historic city center even though 'De Amstel' is no longer present.

Around 1385, the time of the first expansion ('eerste uitleg'), the Oudezijds Voorburgwal was constructed (Dijkstra, et al., 1999): the street which the case study building is located on.

The Burgwallen-Oude Zijde, the neighborhood of the Oudezijds Voorburgwal 30, is one of the oldest neighborhoods as can be seen in the image above. Historically the neighborhood has always been a part of the city center of Amsterdam.

1500 – 1600

The building block

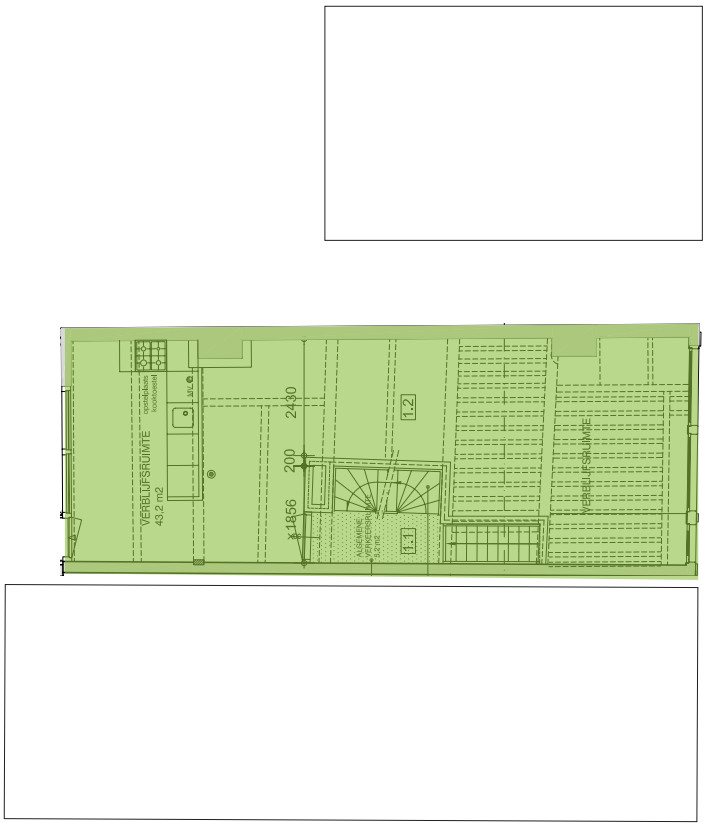
Building block of the Oudezijds Voorburgwal 30. Own work.

What is the history of the building block of Oudezijds Voorburgwal 30?
The boundaries of the building block of the Oudezijds Voorburgwal 30 are the Oudezijds Armsteeg, the Oudezijds Voorburgwal, the Heintje Hoeksteeg and the Warmoessstraat. On the North side of the building an alley is located, called the Suikerbakkersteeg. The alley is named after one of the businesses which was previously located in the courtyard of the building block, a 'suikerbakker': a business which refines sugar. The sugar refinery located on the Suikerbakkersteeg was one of the oldest in Amsterdam (Stadsherstel Amsterdam, 2020). The Suikerbakkersteeg is still in use nowadays.

Originally building blocks in Amsterdam used to have a courtyard and the buildings were placed along the perimeter of the building block (de Roon & Erfgoed Amsterdam, 2005). This was also the case with the building block of Oudezijds Voorburgwal 30. Throughout the years these courtyards were filled with additional buildings (de Roon & Erfgoed Amsterdam, 2005).

1500 – 1600

Construction of the front house



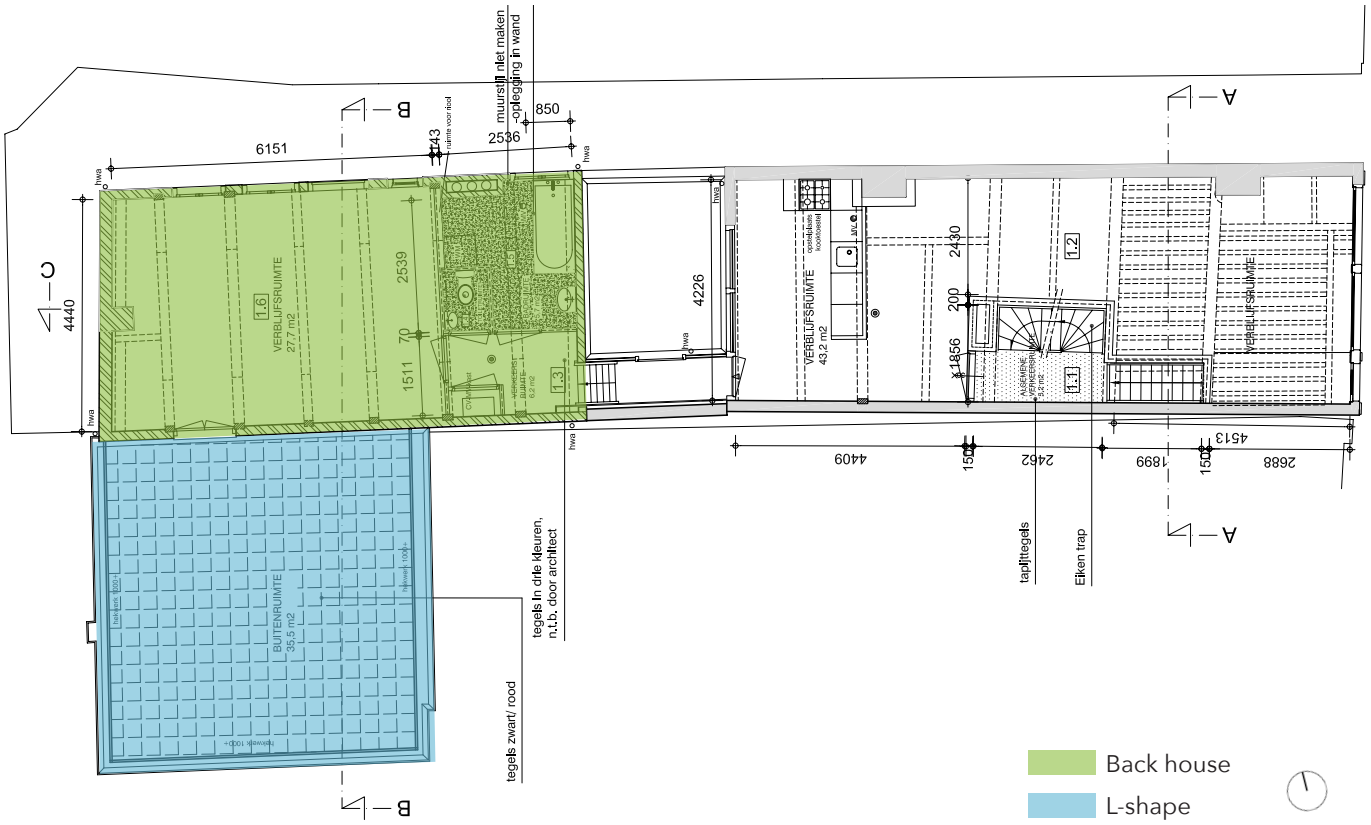
First floor and surrounding buildings. Source: Adapted from Stadsherstel, 2005.

What is the construction history of the Oudezijds Voorburgwal 30?

In the 16th century the Oudezijds Voorburgwal 30 was constructed (de Roon & Erfgoed Amsterdam, 2005). As mentioned on the previous page only around the perimeter of the building block houses were constructed. Nowadays the building consist of a front house ('voorhuis') and a back house ('achterhuis'), located in the courtyard. In the 16th century solely the front house was constructed.

1600 – 1700

Construction of the back house



First floor. Source: Adapted from Stadsherstel, 2005.

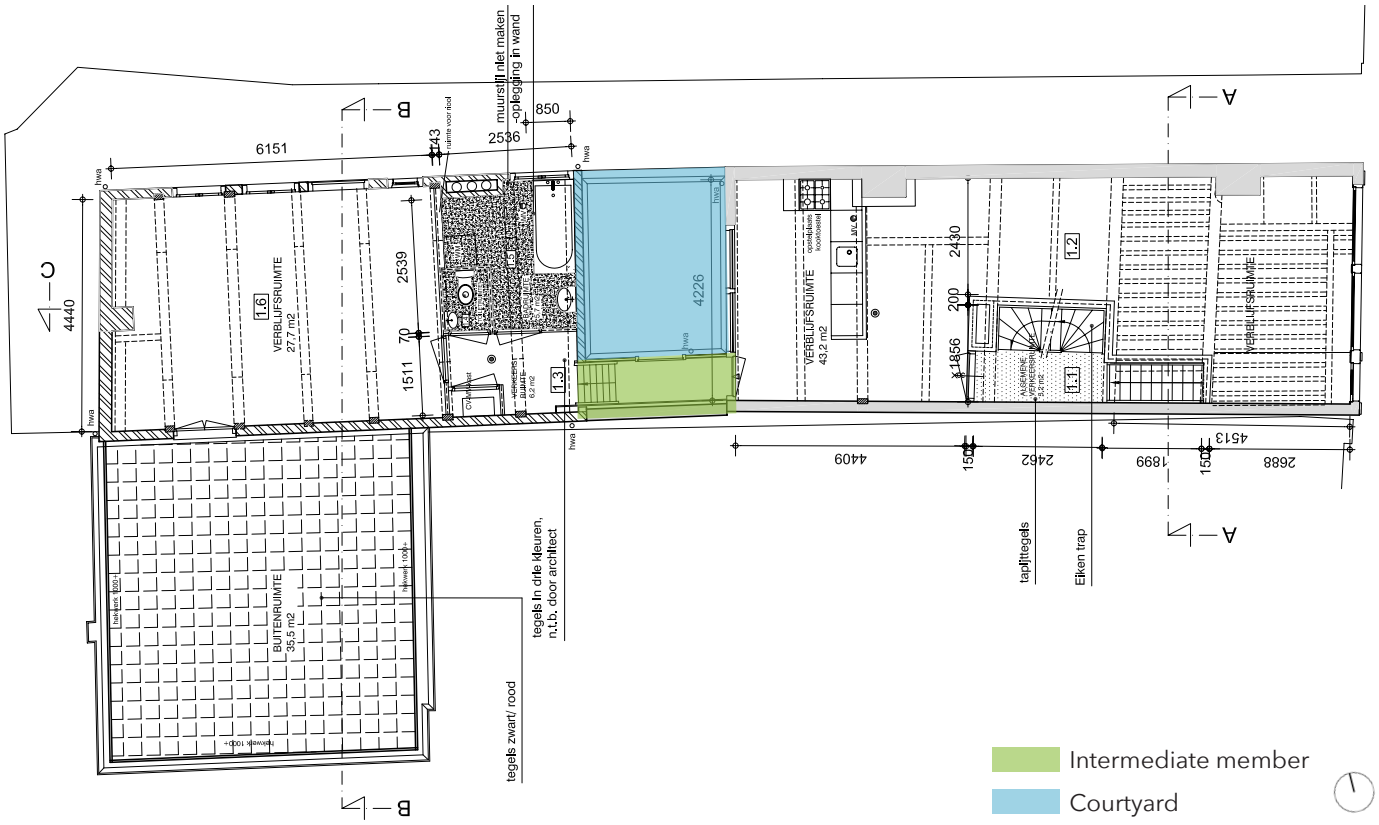
What is the construction history of the Oudezijds Voorburgwal 30?
Throughout the centuries Amsterdam's population grew tremendously and the courtyards of the building blocks became the ideal place to construct more buildings to house these people. The newly constructed buildings were generally used for poorer people or were used to house the staff who served in the front house. The courtyards were sometimes called the slums of Amsterdam (de Roon & Erfgoed Amsterdam, 2005). In the courtyard of the building block of the Oudezijds Voorburgwal 30, several buildings were constructed as well. In the 17th century a building was constructed behind the Oudezijds Voorburgwal 30 (green in the above image). At the time it was independently constructed and not connected to the front house, according to historical city maps of Amsterdam (de Roon & Erfgoed Amsterdam, 2005). It is unclear whether the original function of this building was to house staff or poor people.

Part of the back house is an addition which gives the L-shape to the building (blue in the image above). It is unclear when this was built and whether it was part of the original back house.

After the construction of the back house, the front facade of the front house (East elevation) was completely replaced between 1800 and 1900.

± 1900

Joining of the front and back house



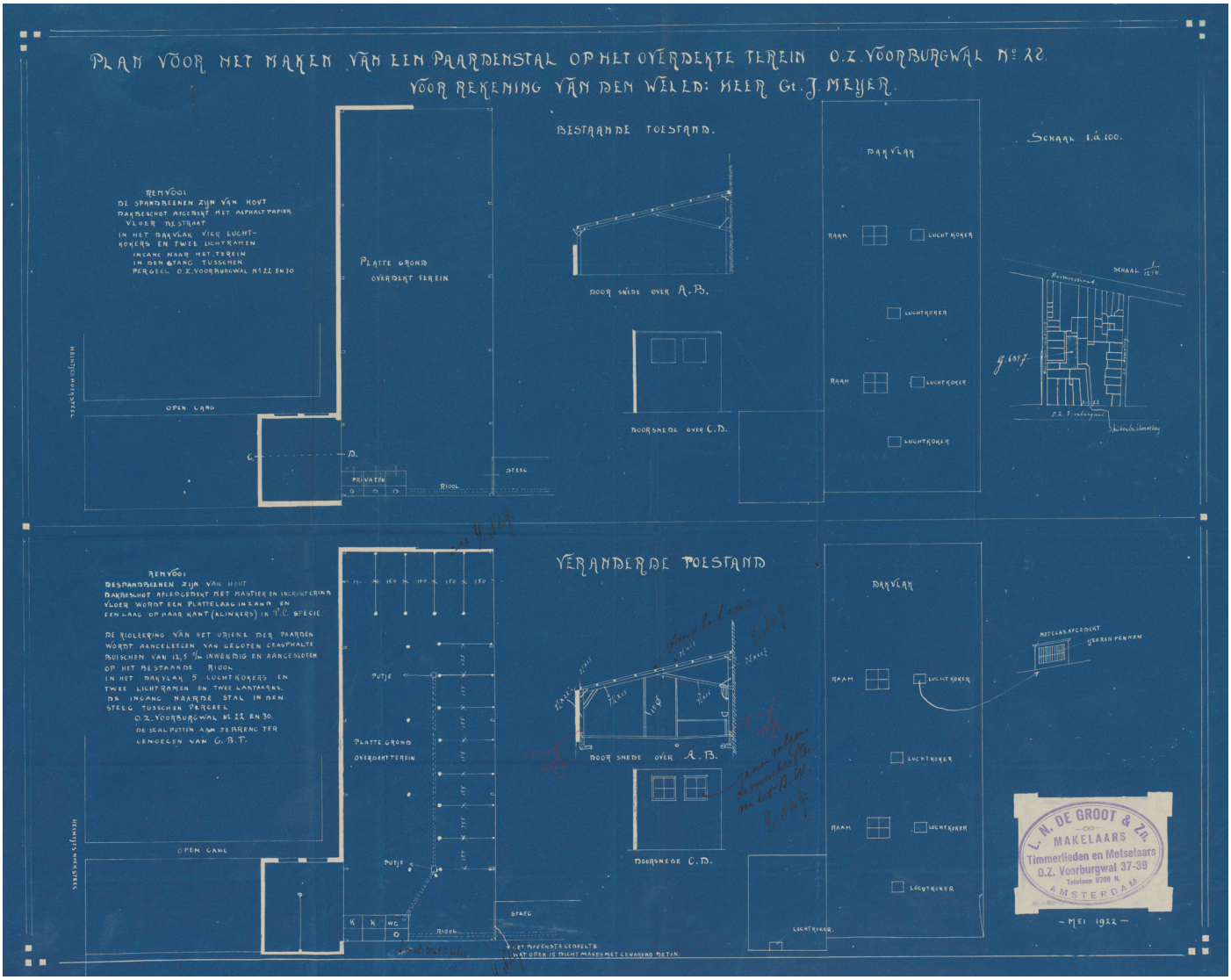
First floor. Source: Adapted from Stadsherstel, 2005.

What is the construction history of the Oudezijds Voorburgwal 30?

In 1901 the so-called 'Woningwet' (housing law) came in to effect in the Netherlands. The goal of the 'Woningwet' was to make sure all construction of buildings was proper and people were no longer allowed to live in poor & unhealthy housing (Dijkstra et al., 1999). The houses in the courtyards were then fused with the houses on the perimeter of the building block. Resulting in the so-called front house and back house (de Roon & Erfgoed Amsterdam, 2005). At the Oudezijds Voorburgwal 30 the front and back house are connected through an intermediate member (green in the image above). As a result an interior courtyard between the front and back house arised (blue in the image above) (de Roon & Erfgoed Amsterdam, 2005).

1922

Construction of horse stables in the courtyard



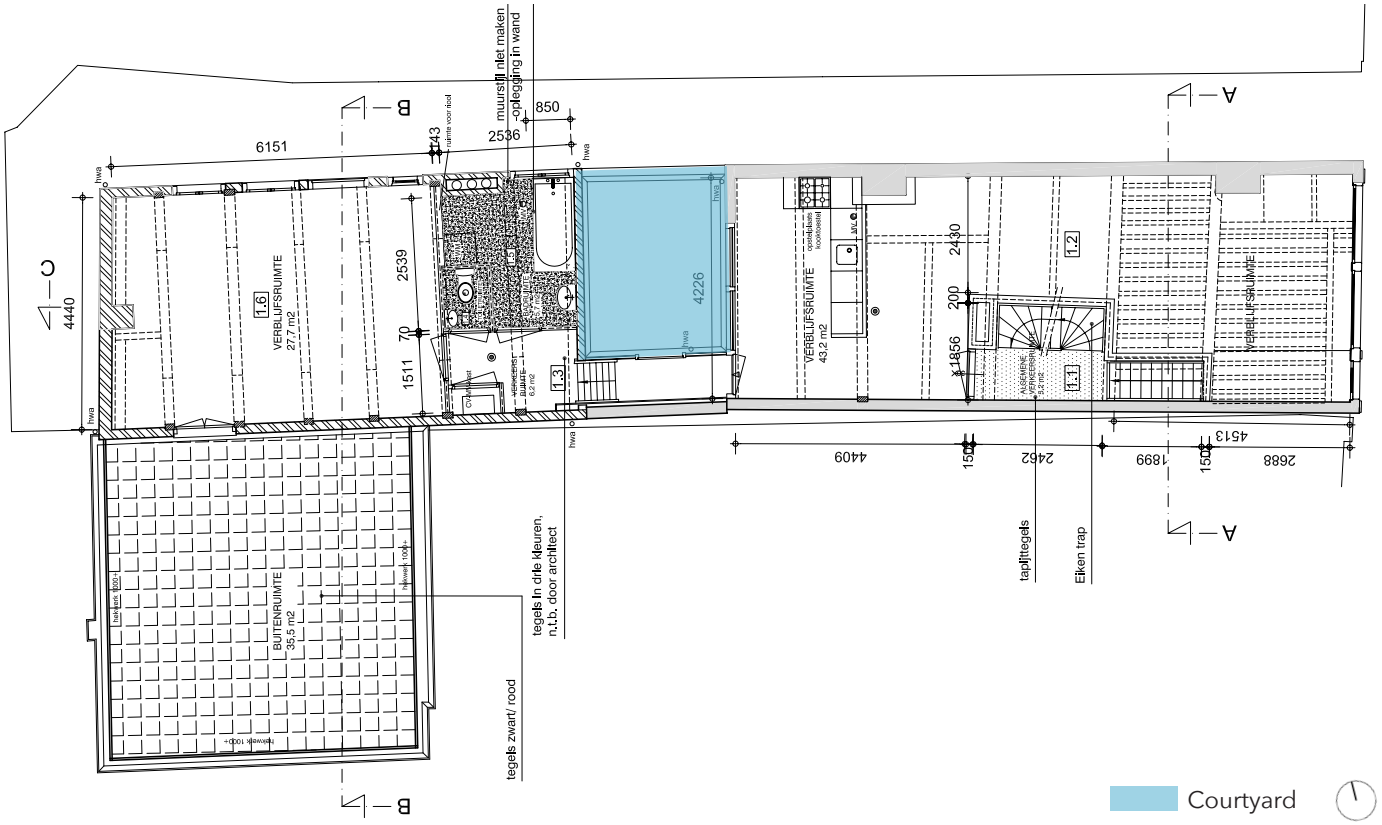
Blueprint of the horse stables. Source: Stadsarchief Amsterdam, 1922.

What is the construction history of the Oudezijds Voorburgwal 30?
In 1922, a horse stable was built in the courtyard of the building block. The horse stable was constructed by the owner of Oudezijds Voorburgwal 30 at the time (Stadsarchief Amsterdam, 1922). In 1880 the firm E.A. van Marken bought the property. The firm made carriages for the national train services and the permit request states that they required additional space to store carriages and space for horses.

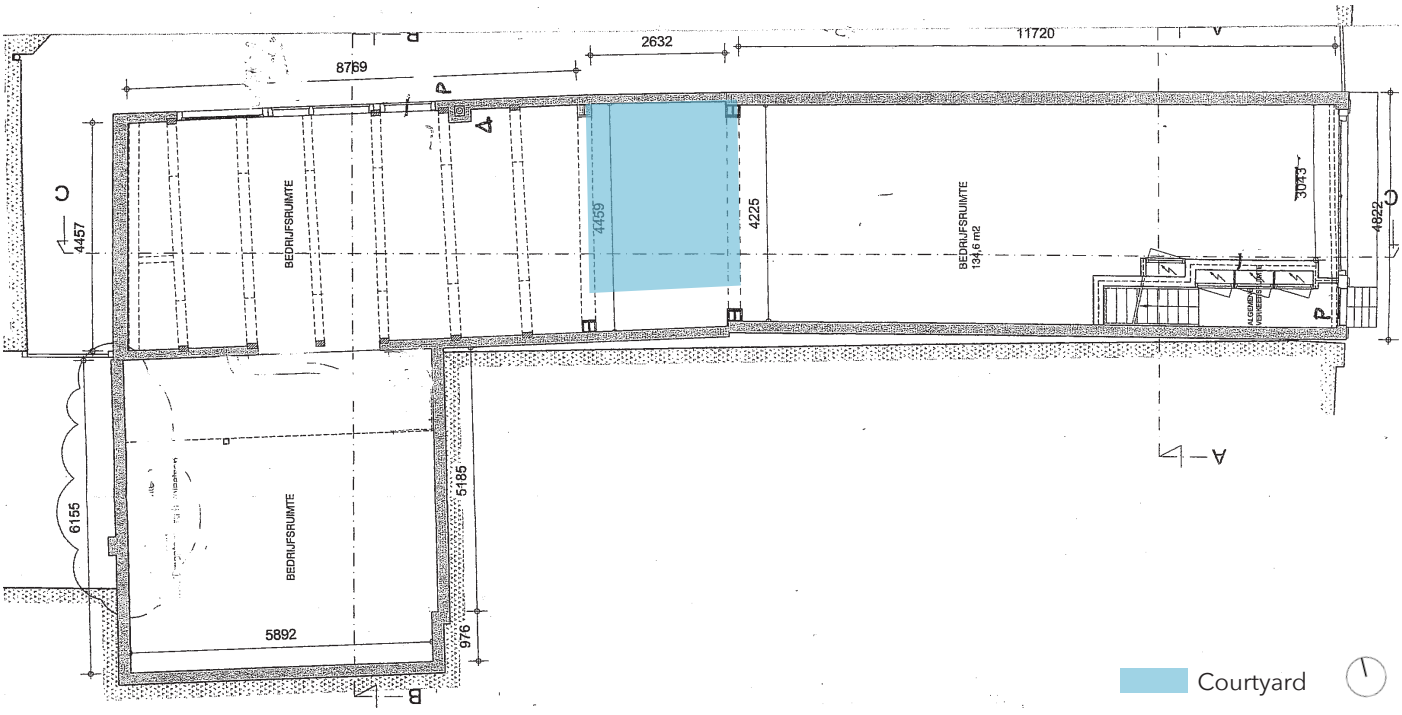
The horse stables are no longer present in the courtyard. It is unclear when these were demolished.

1926

First roof of interior courtyard



First floor. Source: Adapted from Stadsherstel, 2005.

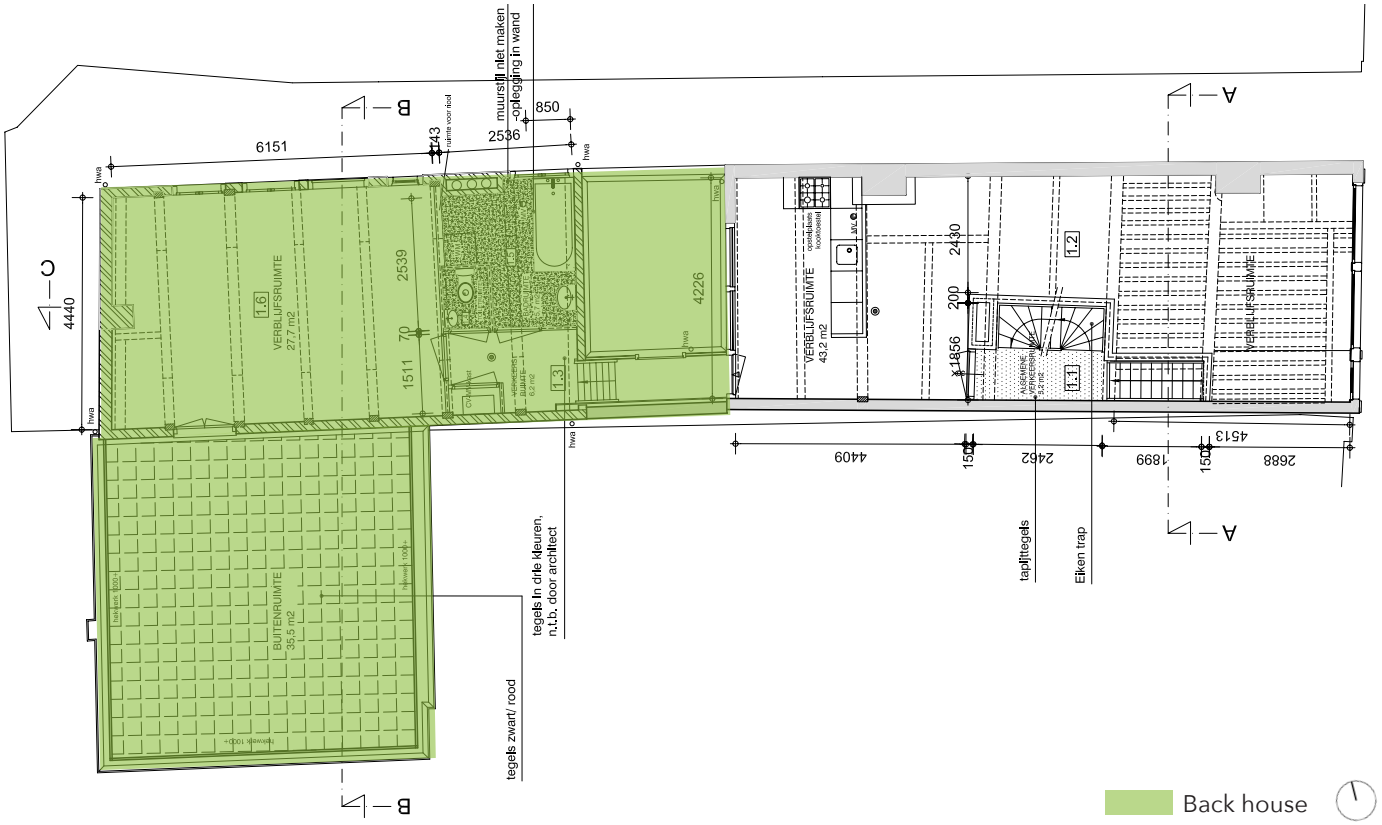


Second floor. Source: Adapted from Stadsherstel, 2005.

What is the construction history of the Oudezijds Voorburgwal 30?
In 1926 the interior courtyard between the front and back house was roofed and became part of the interior space of the ground floor (de Roon & Erfgoed Amsterdam, 2005).

2005

Reconstruction of the back house



First floor. Source: Adapted from Stadsherstel, 2005.

What is the construction history of the Oudezijds Voorburgwal 30?

In the 1990's, Stadsherstel Amsterdam bought both the front and back house and in 2005 started a renovation. During this renovation the original back house collapsed partially (de Roon & Erfgoed Amsterdam, 2005). It was then decided to rebuild the back house from scratch as the condition of the back house was extremely poor (de Roon & Erfgoed Amsterdam, 2005). The back house was designed and constructed based on the original building and it was tried to reuse several elements of the original building (Permit request, Amsterdam Archive, 2004). According to personal contact with Stadsherstel Amsterdam solely one constructive element was reused (part of a portal: a 'korbeelstel with peerkraalstuk') and perhaps some glazing. All other elements were either damaged during the collapse or were in extremely poor condition and not suitable for reuse (Personal contact Stadsherstel, 2021).

BUILDING SCALE

Expression, style, composition, architectural elements, etc.

1500 - 1600	Construction of the current front house
1600 -1700	Construction of the original back house
1700 - 1800	Addition of the fourth floor of the front house
1800 - 1900	Replacement of the East facade with current facade
1861 - 1936	Replacement of the windows of the upper East facade
1861 - 1936	Relocation of the first floor
1861 - 1936	Replacement of the roof with the current roof structure
± 1900	Joining of the front and back house
1970	Re-tiling of the roof of the back house
2005	Renovation & total replacement of the back house
2021	Current state

OCCUPANCY

End of 1500 — Lambert van Tweenhuysen - Whaling industry

1851 - 1864 — J.B. Duffeau - Hatter

1864 - 1880 — S.P. Lessage - Carpenter

1880 - 1974 — E.A. van Marken - Carriage industry

1982 - 1995 — O. van Dijk - Antony theater & apartments

1995 — Stadsherstel buys front house

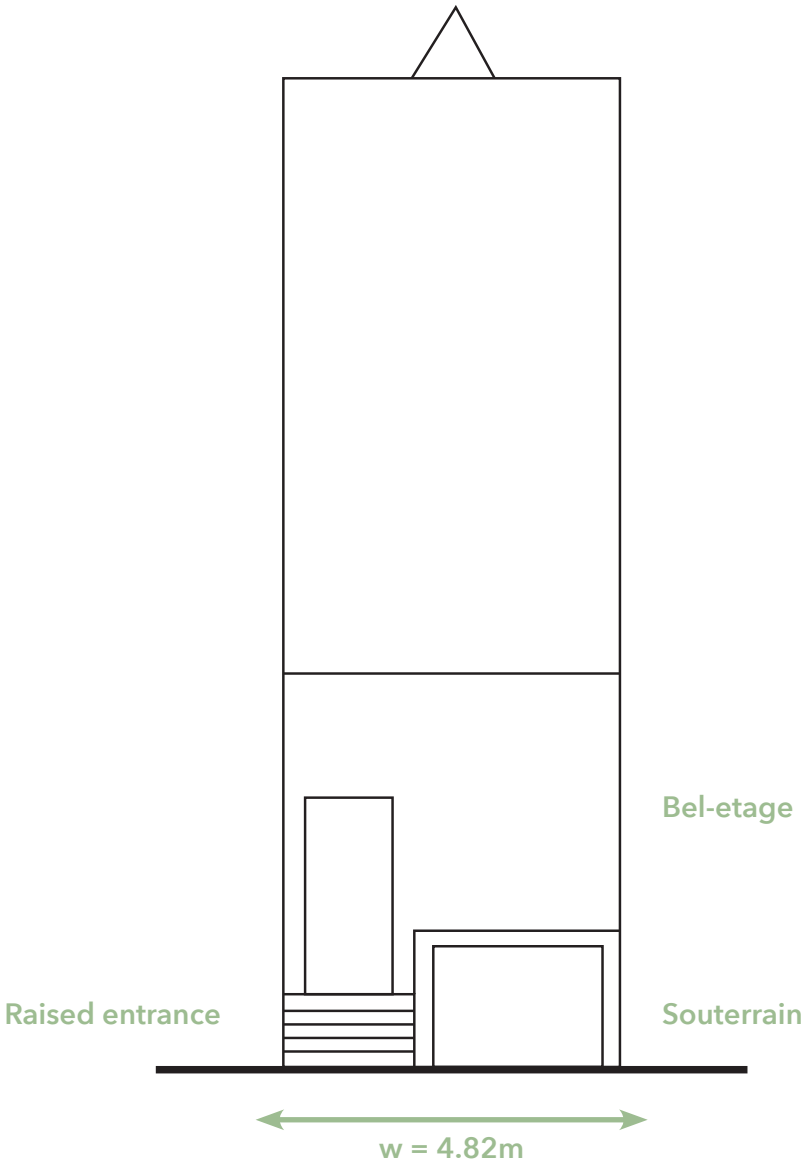
1999 — Stadsherstel buys back house

2005 — De Prael & apartments

2021 — De Prael & apartments

1500 – 1600

Front house: 16th century typical features



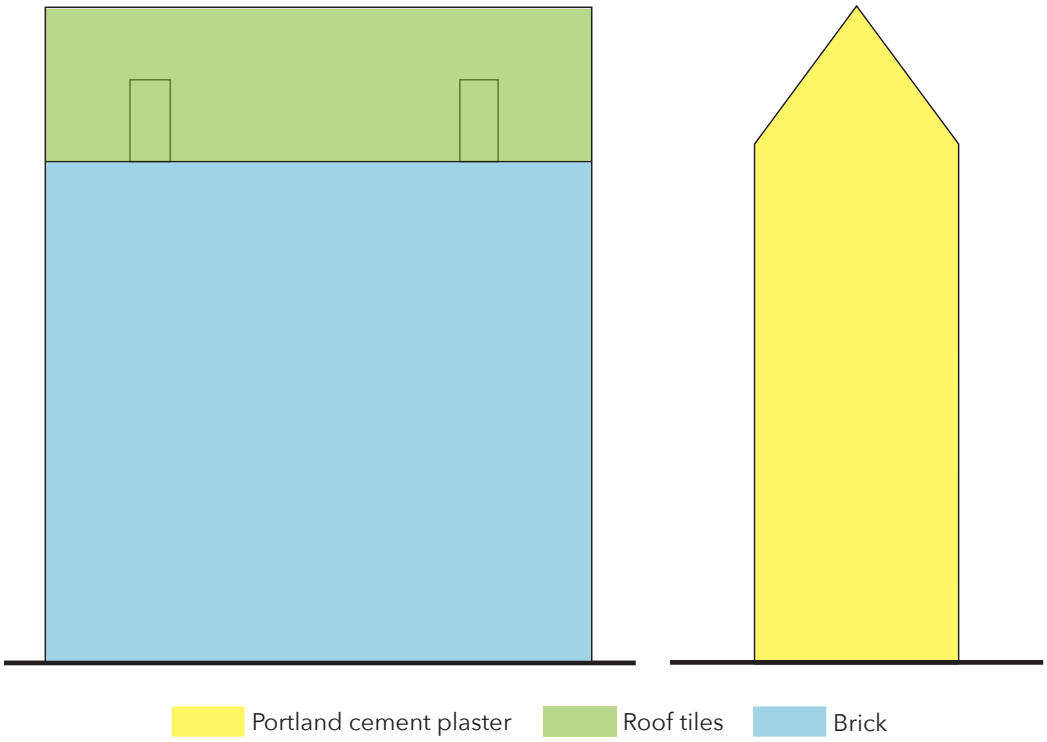
16th century features of the East elevation. Own work.

What are typical 16th century architectural features of the front house?
The front house can be traced back to the 16th century. The 16th century is known for the Renaissance, the Dutch Classicism and the 'Strakke Stijl' (Dingemans, 2021). Because the facade was replaced it is difficult to find typical features of the 16th century in the building.

However, one typical 16th century feature is the width of the building. The building is 4.8 meters wide. In the 16th century taxes were paid according to the width of the house. The relative limited width of the building also explains the depth and height of the building. Raising the swampy area with sand was a very costly activity, resulting in that often canal houses are high and deep. Furthermore, the entrance was usually raised in case of flooding (Dingemans, 2021). This is also the case at the Oudezijds Voorburgwal 30: an exterior stairs from Belgian limestone leads to the first floor. The ground floor was usually quite low as it risked flooding (Dingemans, 2021). Another 16th century feature is that all floors used to have fire places. Traces of these fire places can still be found nowadays.

1500 – 1600

Front house: the facades



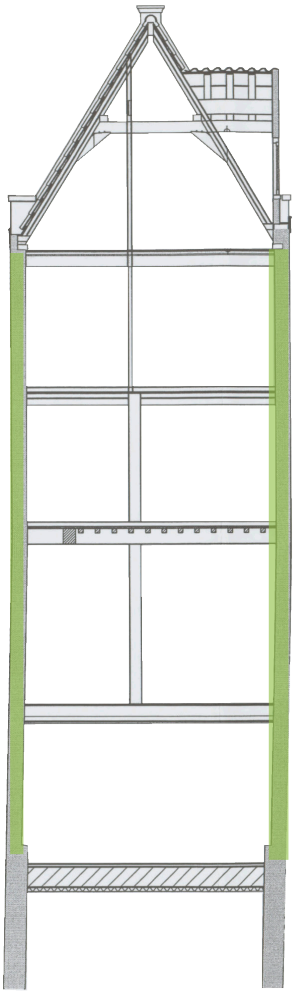
North & West elevation of the front house. Own work.

The facades of the front house were made out of brick. However, currently the West facade has been plastered with portland cement (de Roon & Erfgoed Amsterdam, 2005). The authors interpretation is that better quality bricks were reserved for the important facades (in this case the East elevation) and that more porous and lower quality stones were used for the facades which were not in sight or representative. Over time these stones have deteriorated and portland cement was applied on the facade later on (unclear when). This theory has however not been proven.

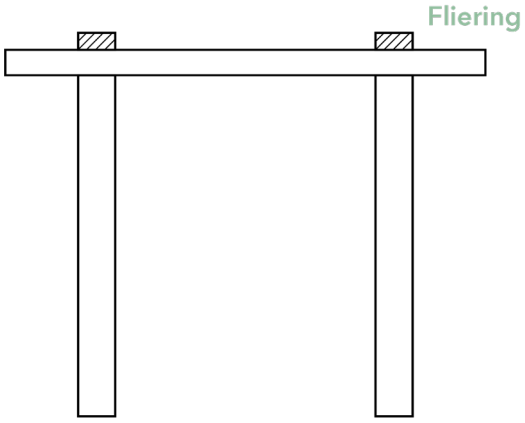
Another sign that the West facade of the front house was less important is the use of de 'tuitgevel'. In general 'tuitgevels' were used for less important facades (Dingemans, 2021). However, it is likely that the West facade of the front house has been replaced over time as at the first floor a wooden facade beam was found. The bricks of the East elevation are mostly likely not very old as the facade was replaced in the 19th century.

The roof of the front house has old Dutch corrugated roof tiles. It is unclear whether these roof tiles are original. Nothing can be found on this. It is likely however that over time multiple roof tiles have been replaced or the complete roof was redone. The roof had and still has two chimneys.

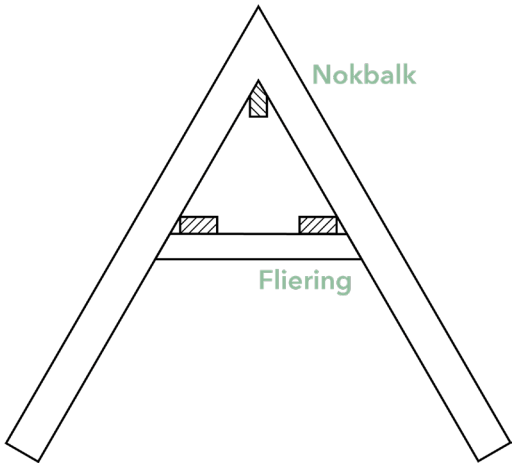
Front house: the structure



Section of the front house. Source: Adapted from Stadsarchief Amsterdam, 2005.



Roof portal of the front house. Own work.



A-truss roof of the front house. Own work.

What is the structure of the 16th century front house?

During the building historical examination traces were found of wooden construction (oak wooden columns). It is suggested that the load bearing structure of the building used to be a wooden structure and that the wooden structure is not in use anymore but the floors transfer their forces onto the load bearing walls (green in the drawing) (de Roon & Erfgoed Amsterdam, 2005). However, it is also possible that the walls have always been load bearing as buildings in the neighborhood after the large city fire in 1452 were hardly ever built from wood anymore (Buisman & Engelen, 1996).

In the front house the current roof structure is constructed with an alteration between A-shaped trusses and portals ('dekbalkgebinten'). The A-shaped trusses have diagonal braces, the portals do not. The A-shaped trusses and portals support beams in the length of the roof ('flieringen'). The A-shaped trusses and the beam on top are connected with wind braces. The ridgebeam ('nokbalk') is placed in between A-trusses. The wood used is pinewood and it is unclear from what time period the current roof structures dates. However, it is likely that the roof was altered in the 18th or 19th century and is not original anymore (de Roon & Erfgoed Amsterdam, 2005). This will be elaborated on further on in this analysis.

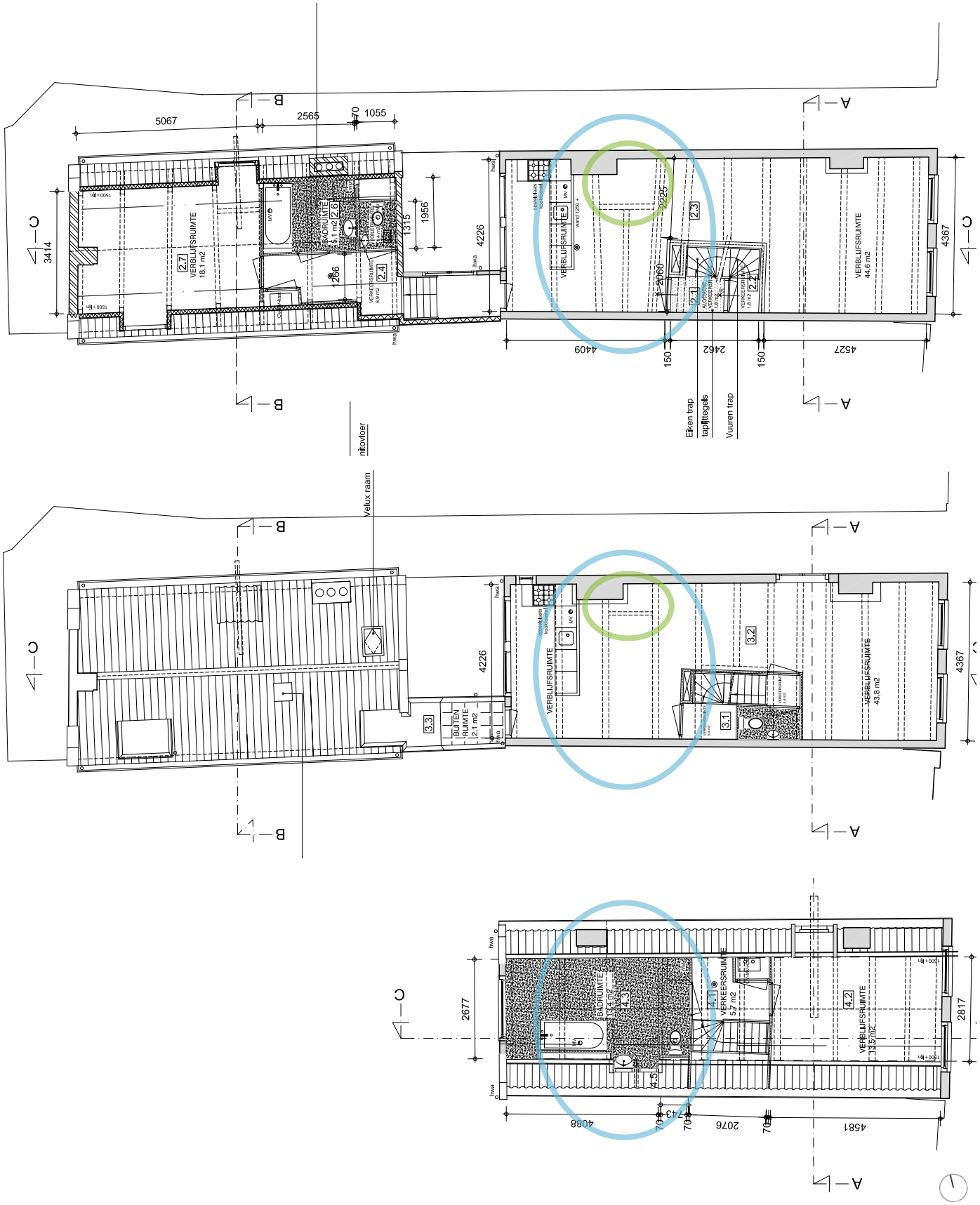
Front house: the floor structures

Section. Source: Adapted from Stadsarchief Amsterdam, 2005.

What can the floor structures tell us about the history of the building?
When looking at the floor structures of the different floors of the front house in the section it can be noted that the floor beams are not vertically parallel. A difference in the position of the floor beams can also be noted in the floor plans (see blue circles on next page). That the floor beams are no longer vertically in line can confirm that the wooden structure is no longer in use. After all, with the use of constructive walls the beams do not have to be vertically parallel. It could also confirm that the floors have been altered through the centuries. However, if the load bearing structure has always consisted of the walls, the floors did not necessarily have to be vertically parallel from the construction on.

At the fourth floor of the front house the distance between the floor beams is quite regular. This could indicate that the fourth floor was added later on, this will be elaborated on further in the analysis.

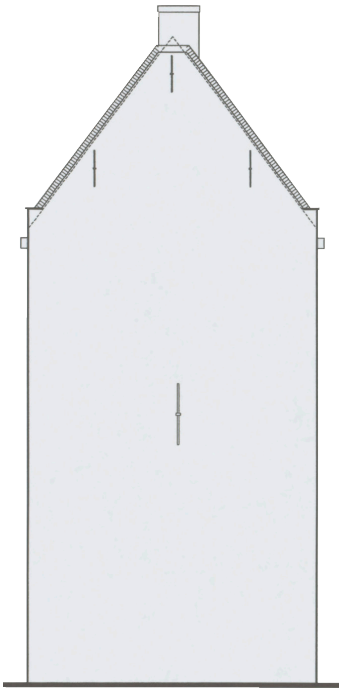
Another irregularity which can be observed on the floor plans on the next page (green circles) is a beam which was lain in the opposite direction of the main beams. This can be called a trimming bar ('raveelbalk'). According to the building historical examination it indicates that the fire place was once located there. However, the author thinks it indicates that another stairs was once present, as it is quite a large floor area for solely a fire place. This might have been used by staff or for circulation between the store and first floor. It is unclear when these supposed stairs were constructed and if they were originally a part of the building.



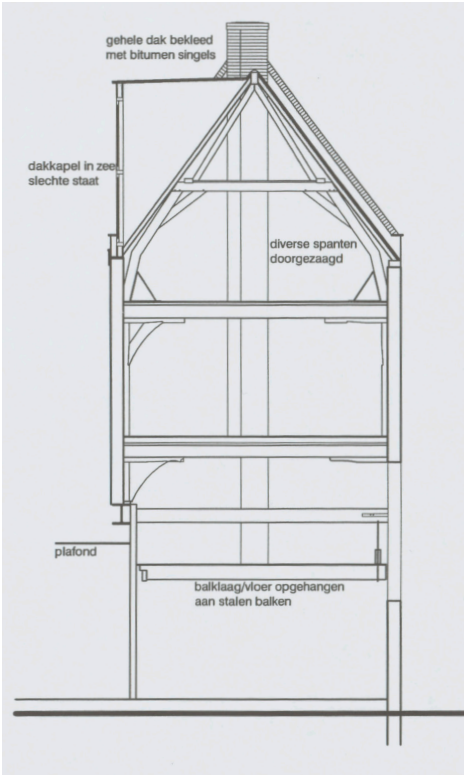
Discrepancy in floor beams (1st floor, 2nd floor & 3rd floor). Source: Adapted from Stadsherstel, 2005.

1600 – 1700

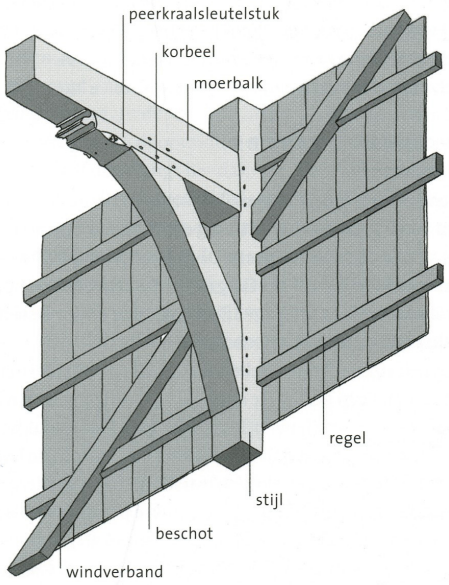
Back house: 17th century typical features



Tuitgevel West facade of back house. Source: Stadsarchief Amsterdam, 2005.



Wooden structure. Source: Stadsarchief Amsterdam, 2005.



Example korbeelstel with peerkraalstuk. Source: Joost de Vree, n.d.

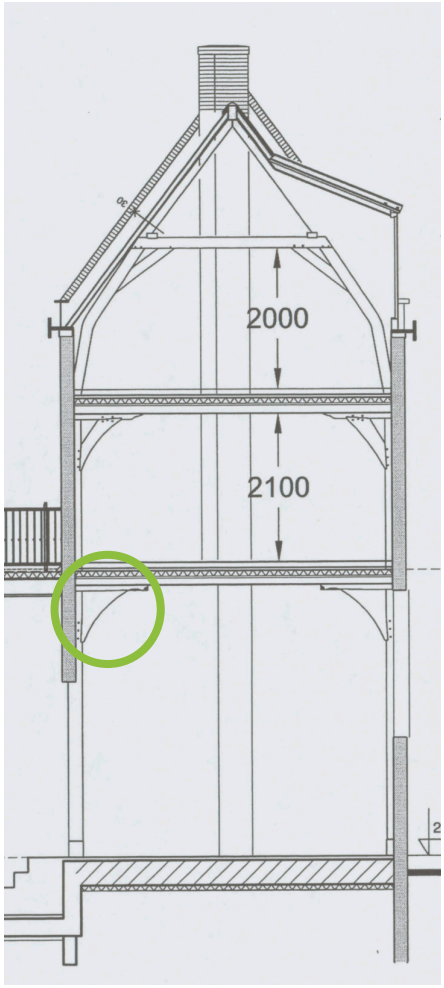
What are typical 17th century architectural features of the back house?

The back house was constructed in the 17th century. During the renovation in 2005 it was in such poor condition that it partially collapsed. The building was however reconstructed in almost the same manner but with new materials. It is thus complex to find 17th century features.

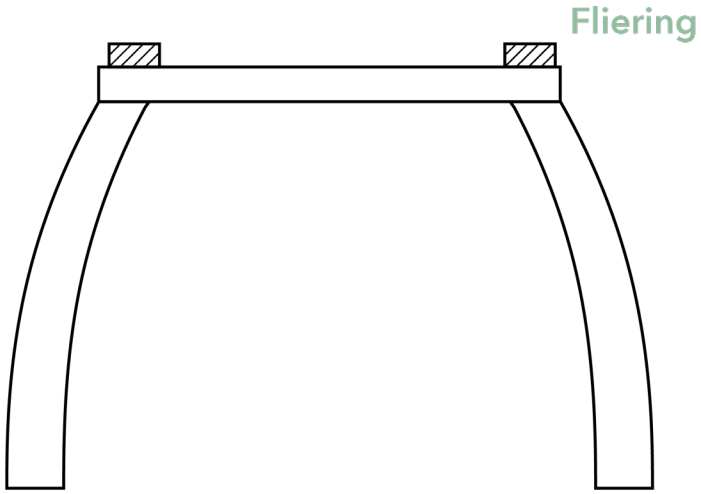
A feature from the 17th century which can be found is the shape of the East and West facades. Both are so-called 'tuitgevels', a very common facade typology in the 17th century. Tuitgevels were not very special and were only used on the facades which were not representative of the building (Dingeman, 2021). This is also the case with the Oudezijds Voorburgwal 30, as the facade typology was used for the back house, which is invisible from the street.

Another 17th century feature is the partial use of a wooden frame for the construction of the house. The back house originally features quite some aesthetic pieces such as the 'korbeelstel with peerkraalstuk' (see image above). It is not likely that the wooden frame has a constructive function after the regulations implemented due to the city fire of 1452 (Buisman & Engelen, 1996). In the current situation the floors are lain on the load bearing walls (Load bearing calculations renovation, 2005).

Back house: the structure



Wooden structure. Source: Adapted from Stadsarchief Amsterdam, 2005.



Curved portal of roof back house. Own work.

What is the structure of the 17th century back house?

As mentioned on the previous page the back house had quite a few wooden elements. In the current situation the floors are lain on load bearing walls (Load bearing calculations renovation 2005). As mentioned in the previous chapter some wooden elements were preserved and were reused in the renovation of 2005, such as the "korbeelstel with peerkraal sleutelstuk" (circled green in the section above, not exact location).

The roof of the back house was also constructed with portals, however these portals are slightly curved as can be seen in the drawing above. According to the building historical examination the wood of the roof dated back to the 17th century. However, during the renovation in 2005 the roof was rebuilt and is thus not original anymore.

1700 – 1800

Addition of the fourth floor of the front house

Section. Source: Adapted from Stadsarchief Amsterdam, 2005.

Why is the floor structure of the fourth floor different compared to the other floors?
The floor structure of the fourth floor of the front house is quite symmetrical. This could be an indication that the floor was added later on. The building historical examination estimates this was done in the 18th century (de Roon & Erfgoed Amsterdam, 2005). This floor addition also makes it likely that between the original East facade and the current East facade another facade was used for the building. However, no traces were found for this during the building historical examination.

It is unclear whether the roof structure was redone during the addition of the fourth floor or the roof was simply lifted. More can be found on this further in the analysis.

Replacement of the East facade of the front house: 19th century typical features

Strict composition of upper facade. Own picture.

East facade in1861. Source: Stadsarchief Amsterdam & J. Olie, 1861.

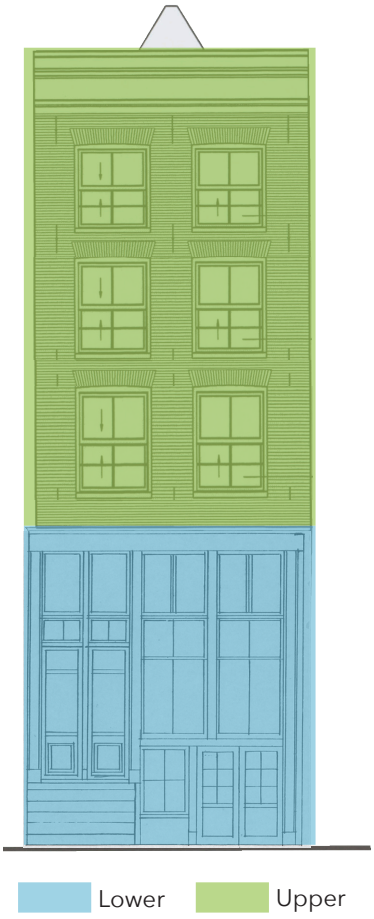
What are typical architectural features from the 19th century in the facade?
According to the building historical examination the East facade of the front house dates back to the 19th century. Often in the 19th century the wore down facades of the canal houses were replaced (Dingemans, 2021). This is also the case at Oudezijds Voorburgwal 30. According to the buildings historical examination the facade had a precedent (or even multiple precedents).

A typical 19th century feature of the facade is the expression of the facade. The typology of the facade is a framed facade ('lijstgevel'). It has a wooden cornice ('kroonlijst') at the top of the facade (1). It can be said that another cornice is applied as a transition between the lower and upper facade. The ornaments on the lower facade are also a feature of the 19th century. In the 19th century the functionality of the building was more important to the architect than the aesthetics. To keep the people satisfied several ornaments were 'pasted onto' the facade such as the pillars with capitals (Gombrich, 2016, p. 535). In the 19th century there was not a clear art style, rather styles were imitated upon the wish of the client and resulted in the arisal of neo styles (Gombrich, 2016, p. 499). In the author's opinion the facade looks neoclassical (Dutch) due to the use of pillars (very common for Dutch classicism) and cornices. Furthermore, other features of the Dutch Classicism which can be found in the facade are the strict composition, the symmetry and the flatness of the facade. Lastly, not the whole facade is decorated but only several parts (the lower facade and top), another feature of Dutch Classicism (Dingemans, 2021).

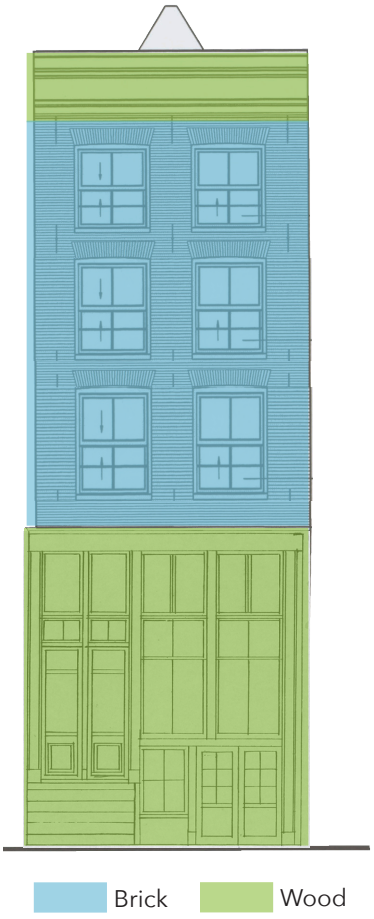
Other typical features are the wall anchors (2), the arches above the windows (3) and the window types. More will be explained about these features further in the analysis.

1800 – 1900

East elevation



Organization. Source: Adapted from Stadsarchief Amsterdam, 2005.



Materialization. Source: Adapted from Stadsarchief Amsterdam, 2005.

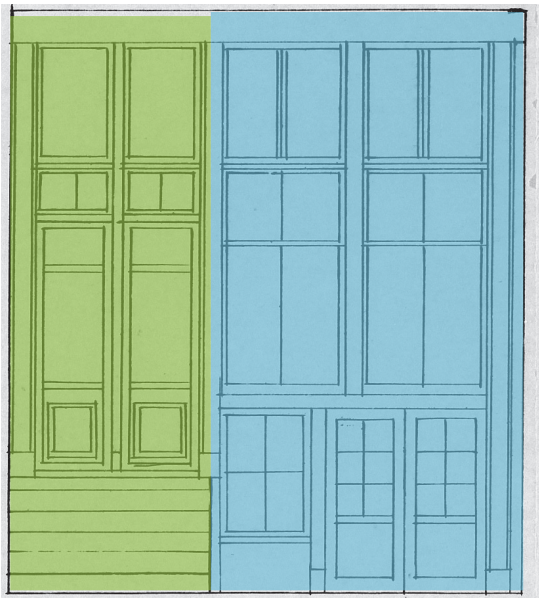
Functions in 19th C. Source: Adapted from Stadsarchief Amsterdam, 2005.

What is the organization of the East elevation and what is the reason for this?
The East elevation (the most important facade) can be divided into a lower facade, the 'pui' (blue in the first image), and an upper facade (green in the first figure). The lower facade has a wooden finishing whereas the upper facade is made from brick (second figure). The author thinks the difference in material can be explained by the difference in function behind the facade parts. From the 19th century the building was occupied by residents who also conducted their business from home and the building has always had a mixed-use function (as can be seen in the occupant timeline at the beginning of the chapter). Behind the lower facade the souterrain used for the business, and bel-etage were located, and were thus of more importance (de Roon & Erfgoed Amsterdam, 2005). Behind the upper facade the less important functions (such as bedrooms) were located.

Nowadays the mixed-use function is still present with a store on the ground floor and three individual apartments above.

East elevation: the lower facade

Pillars. Source: Adapted from Stadsarchief Amsterdam, 1872.



Facade division. Source: Adapted from Stadsarchief Amsterdam, 1872.

Left pillars. Own picture.

Right pillar. Own picture.

What was the organization of the lower East facade and what is the reason for this?
The lower facade has three wooden pillars with capitals (see drawings above & pictures). The two most outer ones are nearly located on the corners of the building. A third pillar divides the lower facade into two parts. The author thinks this can again be explained by the original function in the 19th century behind the facade. The left part (green in the right drawing) demarked the entrance to the dwelling (nowadays still dwellings) and the right part (blue in the drawing above) demarked the living area and basement (bel-etage & souterrain.

1800 – 1900

East elevation: the lower facade

Pillars & yellow color. Own picture.

Lantern. Own picture.

What are the architectural accents in the East facade?
The lower facade has three pillars. These strictly have an aesthetical function (not constructive) and are a feature of 19th century architecture as explained previously. The lantern is another accent of the facade. As it is not present in pictures from the past centuries it is probably not an authentic feature of the building. Nowadays it is lit with an electrical lamp. The lamp type suggests that it was once lit with fire (gas).

The facade of the Oudezijds Voorburgwal 30 stands out from the surrounding buildings due to the color usage. The facade has yellow accents. It is unclear why the yellow color was used and whether it is the original color of the 19th century facade.

1800 – 1900

Replacement of the East facade of the front house

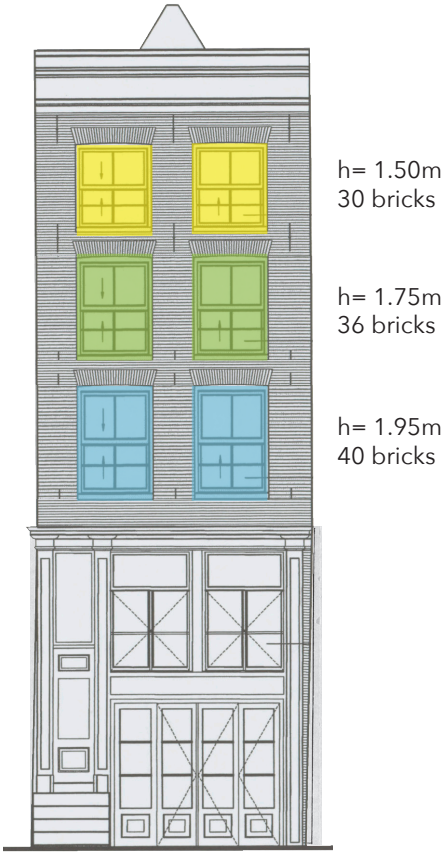
Zoom-in wooden cornice top of facade. Own picture

Zoom-in wooden lower facade. Own picture.

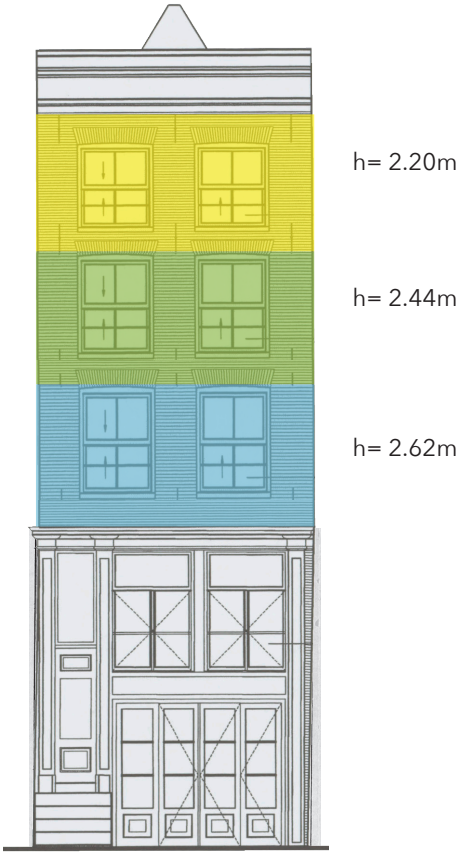
Is the wood of the East facade constructive?

Looking at the material of the East facade it appears as if the facade is made from wood. However it should be noted that it is likely that the wood is just decoration 'pasted onto' a brick structure. This can be observed when looking at the pictures above. This has most likely always been the case.

East elevation: the upper facade



Window height. Source: Adapted from Stadsarchief Amsterdam, 2005.



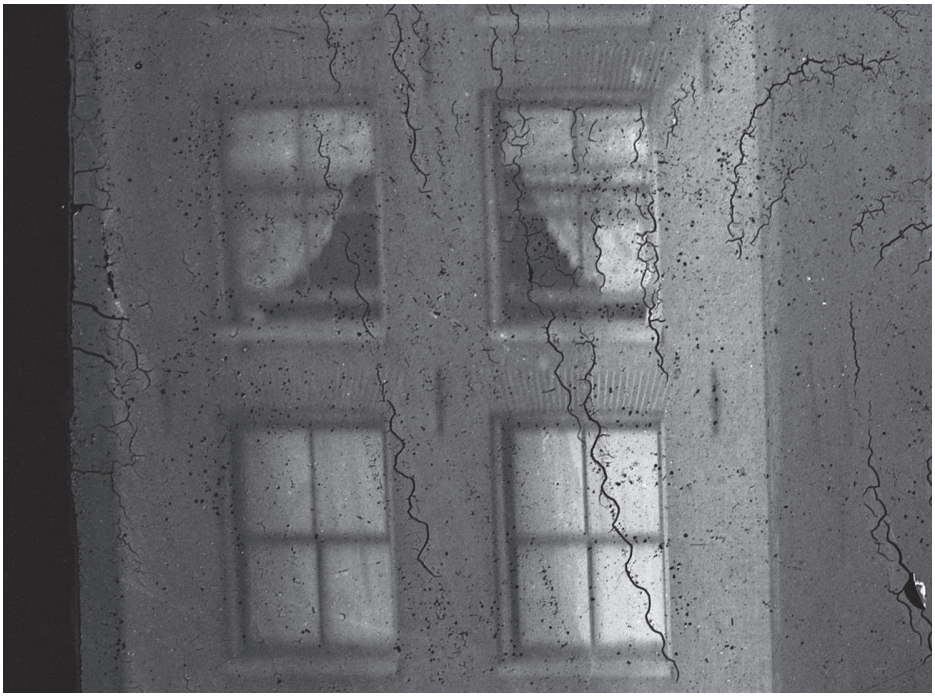
Floor height. Source: Adapted from Stadsarchief Amsterdam, 2005.

Why do the windows of the upper facade decrease in size towards the top of the facade?
When analyzing the windows of the upper facade it can be observed that the height of the windows decreases towards the top of the facade. An explanation for this could be that the floor height also decreases towards the top of the house. Another explanation could be due to the amount of daylight entering the houses. Often in canal houses the size of the windows decreases towards the top of the facade due to the fact that more daylight can enter higher up in the building (Vereniging Vrienden van Amsterdamse Binnenstad, 2006). The exact reason why the window height decreases towards the top of the facade is unclear, however the author thinks it does not have any architectural or aesthetic reason as the height difference is hardly visible from the street.

The horizontal distance between the windows are four stretches or seven headers. The vertical distance between the windows of the second floor and third floor is the arch and four brick layers. The vertical distance between the windows of the third floor and fourth floor is the arch and three brick layers. Throughout the centuries the position of the windows do not seem to have been altered.

East elevation: the structure

Buttresses. Source: Adapted from Stadsarchief Amsterdam, 2005.



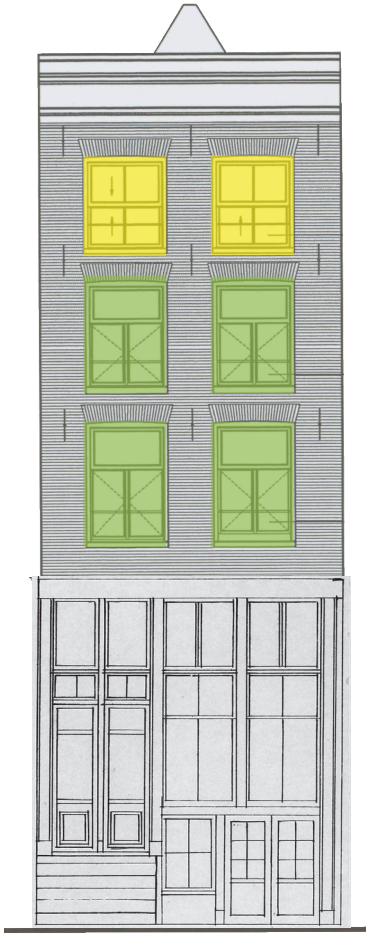
Buttresses. Source: Stadsarchief Amsterdam & J. Olie, 1861.

What is the function of the alternative brick pattern above the windows?
The masonry bond used for the East elevation is a cross bandage: layers of headers and stretchers alternate.

Above the windows a different brick pattern was used ('anderhalfssteens licht getoogde strekken'). This was present in the 19th century but is still present nowadays. The arches function as buttresses and transfer the weight of the brick above the window towards the sides of the windows. Thus, they have a strict constructive function. However, the slight arch on the bottom has been made for aesthetic reasons and does not have a constructive function (de Roon & Erfgoed Amsterdam, 2005). Without the buttresses the window openings would not be able to exist.

1861 – 1936

Replacement of the windows of the upper East facade



Window type. Source: Adapted from Stadsarchief Amsterdam, 2005.

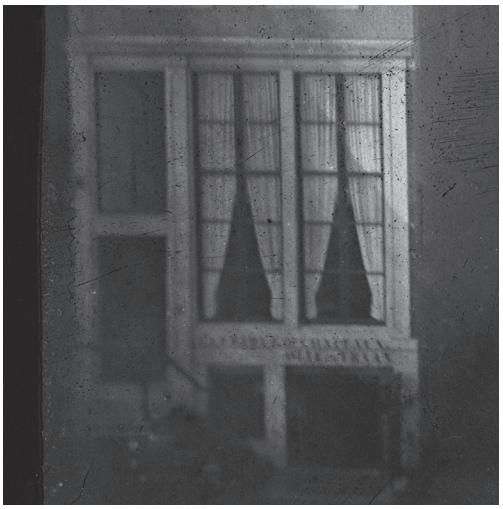
Windows in 1861. Source: Stadsarchief Amsterdam & J. Olie, 1861.

Why is there a difference in the type of windows at the upper facade?

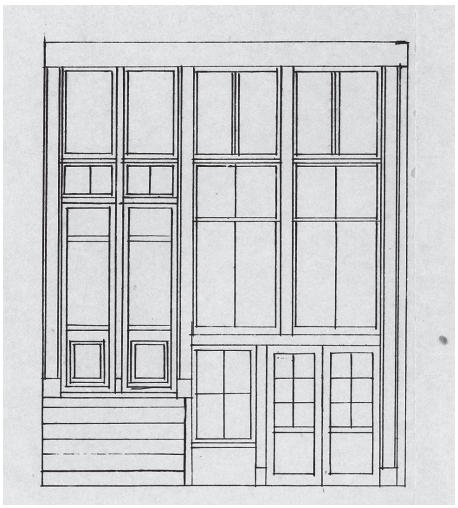
There are two types of windows at the upper facade: sash windows and T-windows. Only the upper two windows are sash windows. When looking at the image of 1861 of the facade it is noticed that previously all windows were sash windows. It can be concluded that the lower windows were once replaced (between 1861 and 1936). In the 19th century sash windows were often replaced with T-windows as they were easier to open and had less draught issues (Vereniging Vrienden van Amsterdamse Binnenstad, 2006). However, it is not fully clear why the upper windows were seemingly not replaced.

1861 – 1936

Relocation of the first floor & alterations to the lower East facade

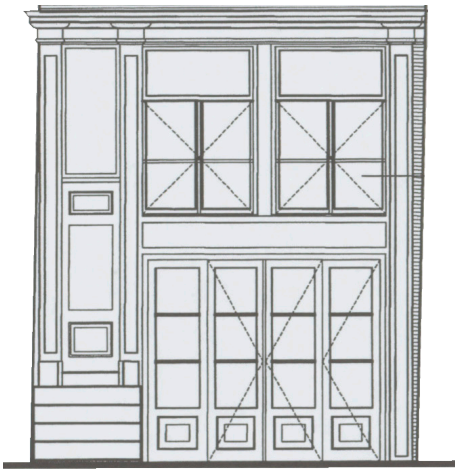


Lower East facade in1861. Source: Stadsarchief Amsterdam & J. Olie, 1861.



Lower East facade in 1872. Source: Stadsarchief Amsterdam, 1872.

Lower East facade in 1936. Source: Stadsarchief Amsterdam, 1936.



Lower East facade after 1936. Source: Stadsarchief Amsterdam, 1872.

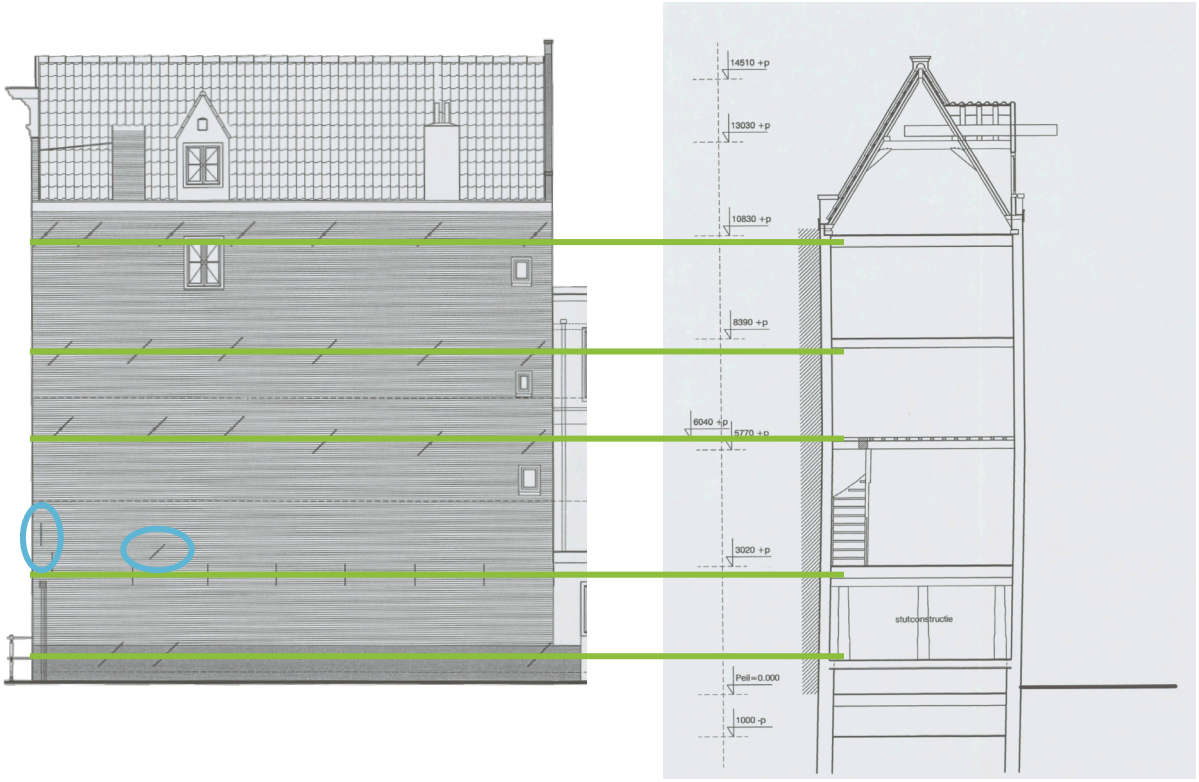
How was the lower East facade altered after its construction in the 19th century?
Looking at pictures of the lower East facade throughout the years it can be noted that the lower East facade of the front house has been altered slightly. The main difference is the height of the windows on the first floor. On the pictures above it can be noted that the height of the windows on the first floor in 1861 and 1872 was higher than in 1936. Consequently the height of doors on the ground floor has changed as well.

There are traces that the first floor was lifted (see further on in the analysis) giving a proper explanation to the change in window height of the lower facade. Most likely the floor height was altered due to a change in function.

Another alteration which can be observed between 1872 and 1936 is that not only the composition of the facade in the vertical direction has been altered, but also in the horizontal direction. The width of the door and stairs has been altered. No explanation was found for this alteration. It seems as if a feature of the lower East facade is the possibility to alter according to the wishes of the functions behind the facade. The facade is quite flexible.

1861 – 1936

Relocation of the first floor



Floor height & wall anchors. Source: Adapted from Stadsarchief Amsterdam, 2005.

Wall anchors North facade. Own picture.

What is the function of the steel wall anchors?
As can be seen on the drawings above, the steel wall anchors on the North facade (at the Suikerbakkersteeg) coincide with the floor levels. The anchors are located at the same height as the floor beams. An exception is at the height of the ground floor.

The blue circles on the drawing above indicate that there are additional wall anchors which do not coincide with the existing floor levels. Looking at the picture to the left the actual amount of anchors is even larger than what is shown in the drawing.

Floor anchors which do not coincide with the floor levels may indicate that the floor was previously located at a different height. This can be confirmed when compared with the facade composition (see previous page).

1861 – 1936

Replacement of the roof structure of the front house

Roof structure in1861. Source: Stadsarchief Amsterdam & J. Olie, 1861.

Roof structure in1936. Source: Stadsarchief Amsterdam, 1936.

Roof structure in 2021. Own picture.

How was the roof structure altered throughout the existence of the building?

When comparing the picture taken in 1861 with the picture taken in 1936 it can be seen that the structure of the roof has altered. In 1936 the roof had a steep pitched inclination whereas in 1861 the roof seems to have a smaller inclination and seems to be higher. It is thus highly likely that the current roof structure is not original anymore. Which was also confirmed when looking at the structure of the roof (see page 19).

Looking at the picture below it can be seen that the outer wall anchors at the top seem to have lost their function as there are no beams or roof behind it. This also confirms that the roof structure has most likely been altered throughout the years.

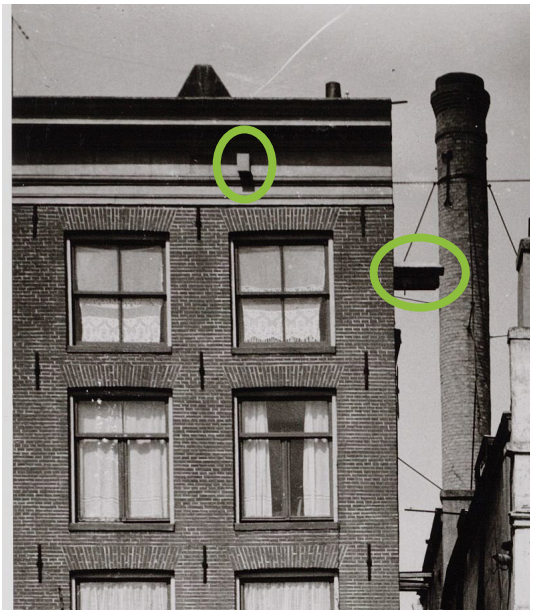
Wall anchors. Own picture.

1861 – 1936

Replacement of the roof structure of the front house

Lifting beams in 2021. Source: Adapted from Stadsarchief Amsterdam, 2005.

Lifting beams in 1861. Source: Stadsarchief Amsterdam & J. Olie, 1861.



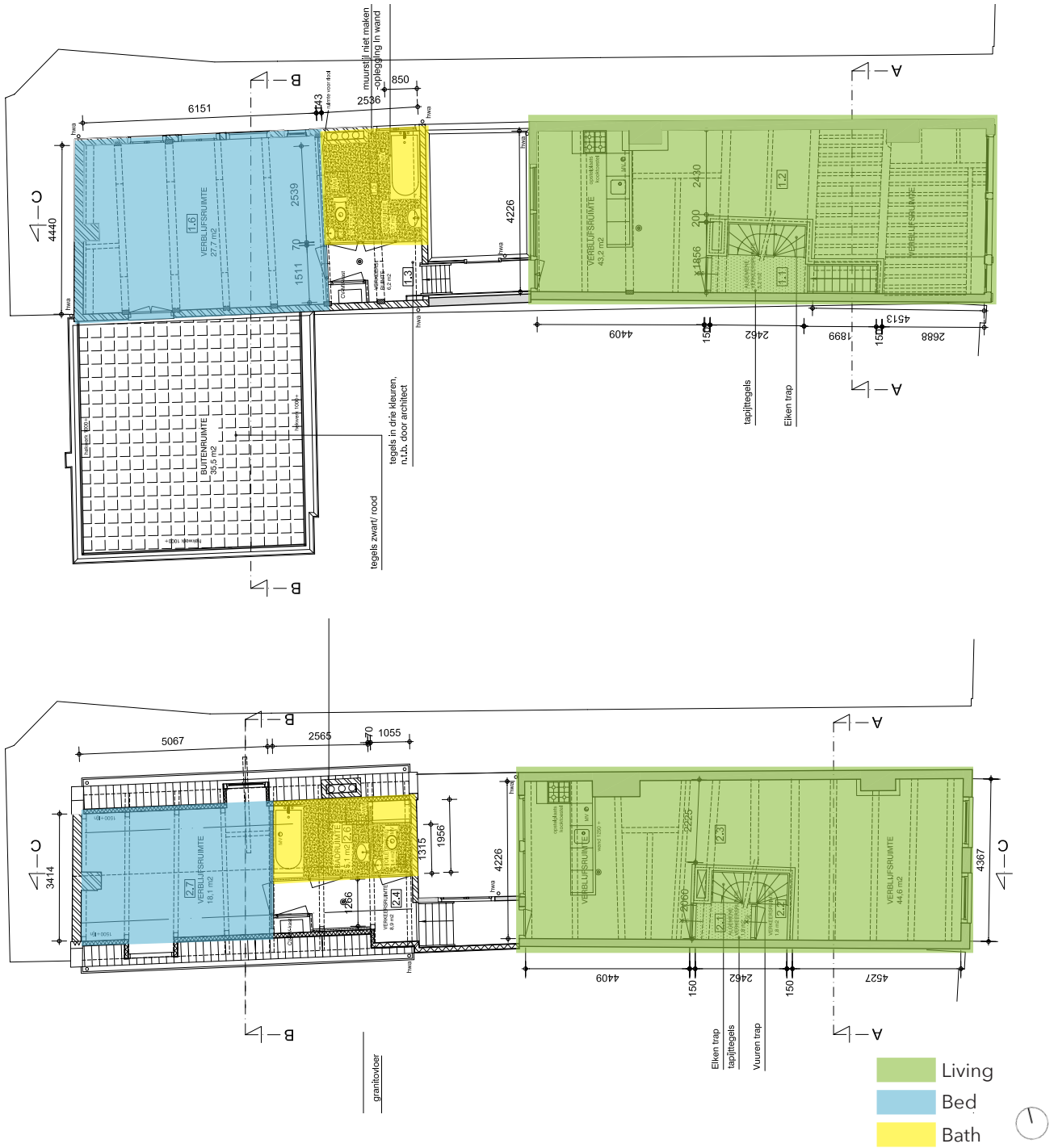
Lifting beams in 1936. Source: Stadsarchief Amsterdam, 1936.

Why are there two lifting beams and hooks?

The building has two lifting beams. One on the East elevation (not visible in the drawing) and one on the North elevation. On the picture of 1861 it can be observed that the lifting beam on the side of the building was already present but the lifting beam at the front of the building was not. No explanation was found for the presence of two beams. The author thinks a possible explanation could be that because there are no windows in the alley on the first, second and third floor nothing could be lifted up to those floors. As the lifting beam in the East facade is in the middle of the first floor it is also possible that it was used for lifting goods to the first floor.

± 1900

Joining of the front and back house



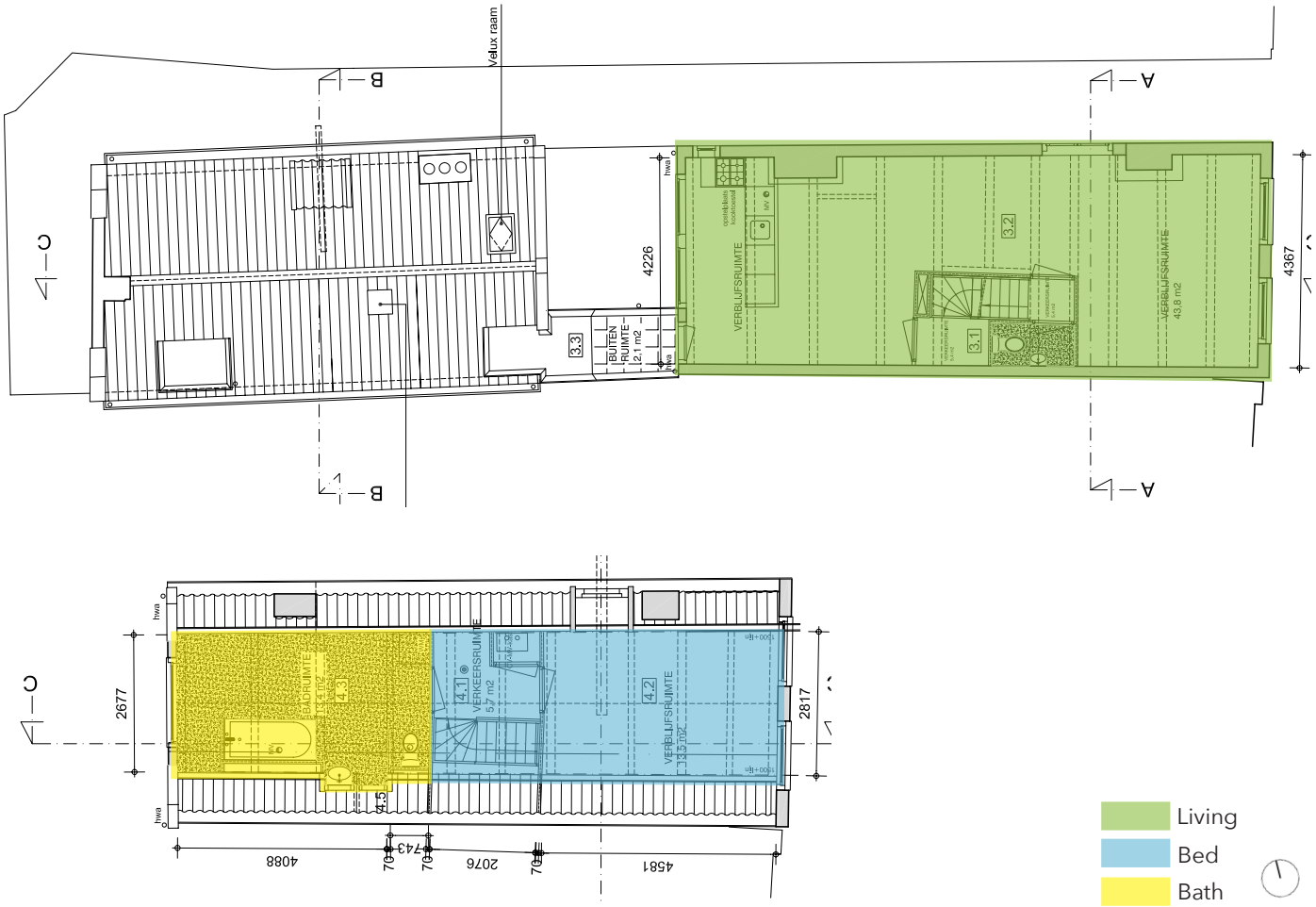
Functions on the first floor & second floor. Source: Adapted from Stadsherstel, 2005.

After the joining of the front and back house how were the functions organized?

Some time after joining the front and back house the house was divided into three apartments on the above ground floors and the store function remained on the ground floor. It is unclear when the house was divided into separate apartments. The living areas of the apartments on the first and second floor are located in the front house whereas the sleeping areas and bathrooms are located in the back house. The author thinks this was done so that the living areas have a view over the canal. The bathrooms are located in the middle of the apartments as these do not require a lot of daylight.

± 1900

Joining of the front and back house



Functions on the third and fourth floor. Source: Adapted from Stadsherstel, 2005.

The third apartment is located on both the third and fourth floor of the front house with the living areas on the third floor and the bedroom and bathroom on the fourth floor.

± 1900

Joining of the front and back house

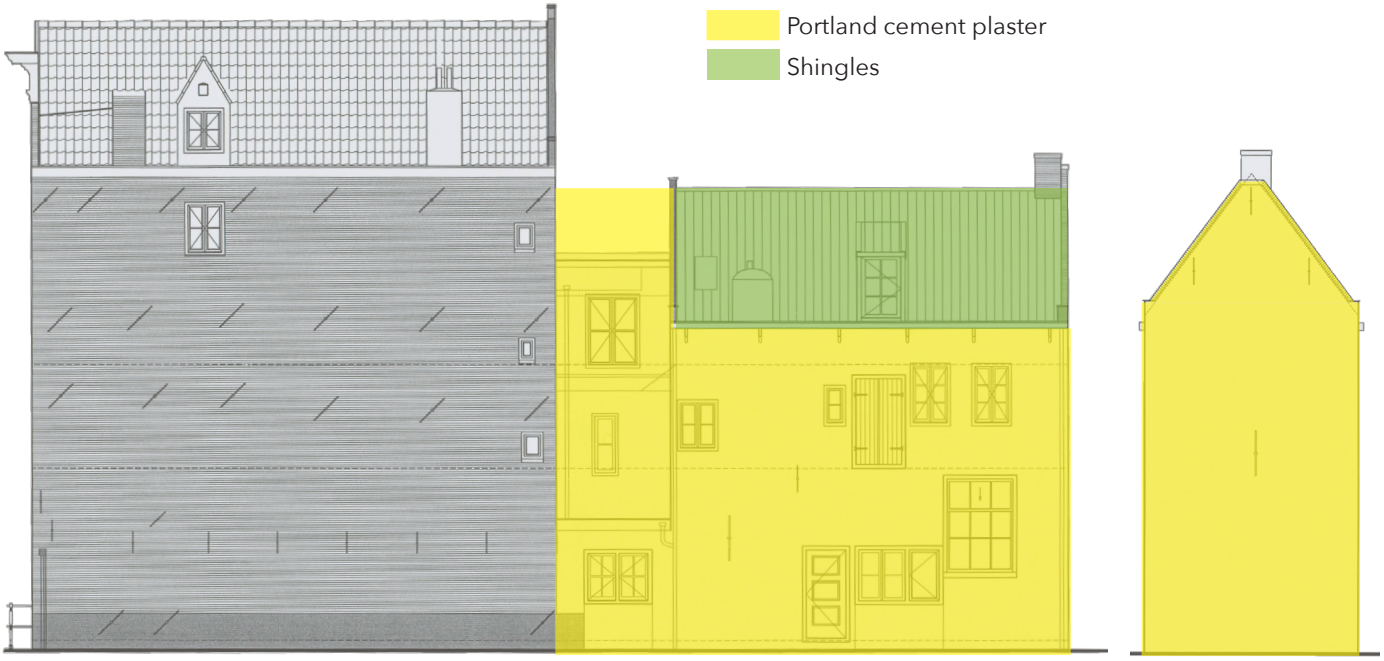
Height difference of floors. Source: Adapted from Stadsarchief Amsterdam, 2005.

Why is there a height difference between the floors of the back and front house?
Due to the fact that the front and back house were once separate buildings, as explained previously, there is a height difference between the floors of the front and back house (green lines).

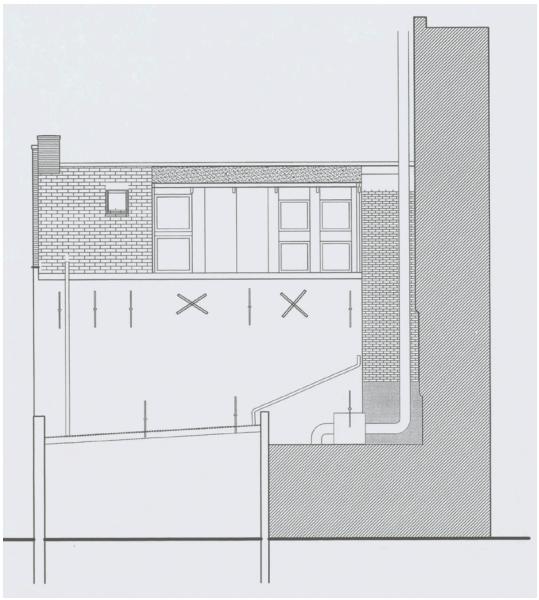
When looking more closely at the second floor of the front house it can be noted that the height level of the floor is different in two. In the 16th century this could be an indication that the function in the lower part was not as important as in the higher part. Previously it was mentioned that the first floor used to be the bel-etage. This could explain why the front part is higher. According to the building historical examination the height difference is due to a phase difference in the construction (de Roon & Erfgoed Amsterdam, 2005).

1970

Re-tiling of the roof of the back house



North & West elevation of the back house, pre 2005. Source: Adapted from Stadsarchief Amsterdam, 2005.



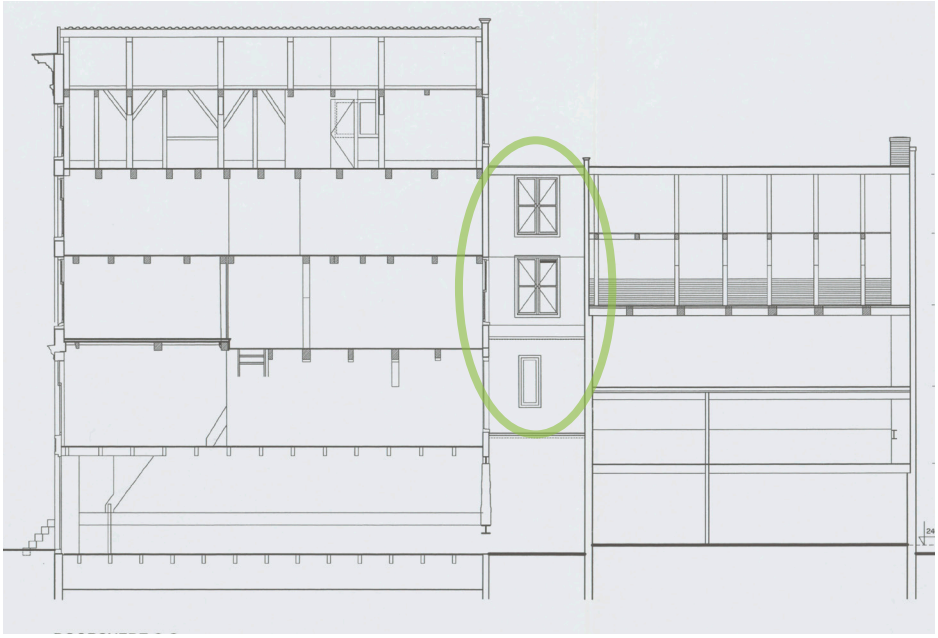
Dormer on South roof of the back house, pre 2005. Source: Adapted from Stadsarchief Amsterdam, 2005.

The complete back house is plastered with portland cement (de Roon & Erfgoed Amsterdam, 2005). As mentioned previously the plaster was most likely used to cover the porous and deteriorated bricks of the back house (unclear when this was done). In 1970 the roof of the back house was renovated and shingles were placed (de Roon & Erfgoed Amsterdam, 2005). The original material of the roof is not clear. It is also unclear whether the shingles from 1970 were reused in the renovation of 2005.

Around 1970 a large dormer window (covering 2/3rd of the roof area) was placed on the South facing roof of the back house (de Roon & Erfgoed Amsterdam, 2005). The author thinks this was probably done simultaneously with the re-tiling of the roof.

2005

Total renovation



Section prior to renovation. Source: Adapted from Stadsarchief Amsterdam, 2005.

Section of renovation in 2005. Source: Adapted from Stadsarchief Amsterdam, 2005.

What was altered architecturally during the renovation in 2005?
During the renovation in 2005 mostly technical issues were solved. No major architectural changes were made during the renovation. The architectural expression of the front house was kept intact completely. During the renovation in 2005 the whole back house and intermediate member were reconstructed. The intermediate member was lowered with one floor during the renovation, as can be seen in the drawings above.

During the renovation the large dormer window on the South facing roof of the back house was replaced with a smaller version.

2005

Total renovation: the windows

L to R: East elevation front house, North elevation, West elevation front house, West elevation back house. Source: Adapted from Stadsarchief Amsterdam, 2005.

Which windows were replaced during the renovation in 2005?

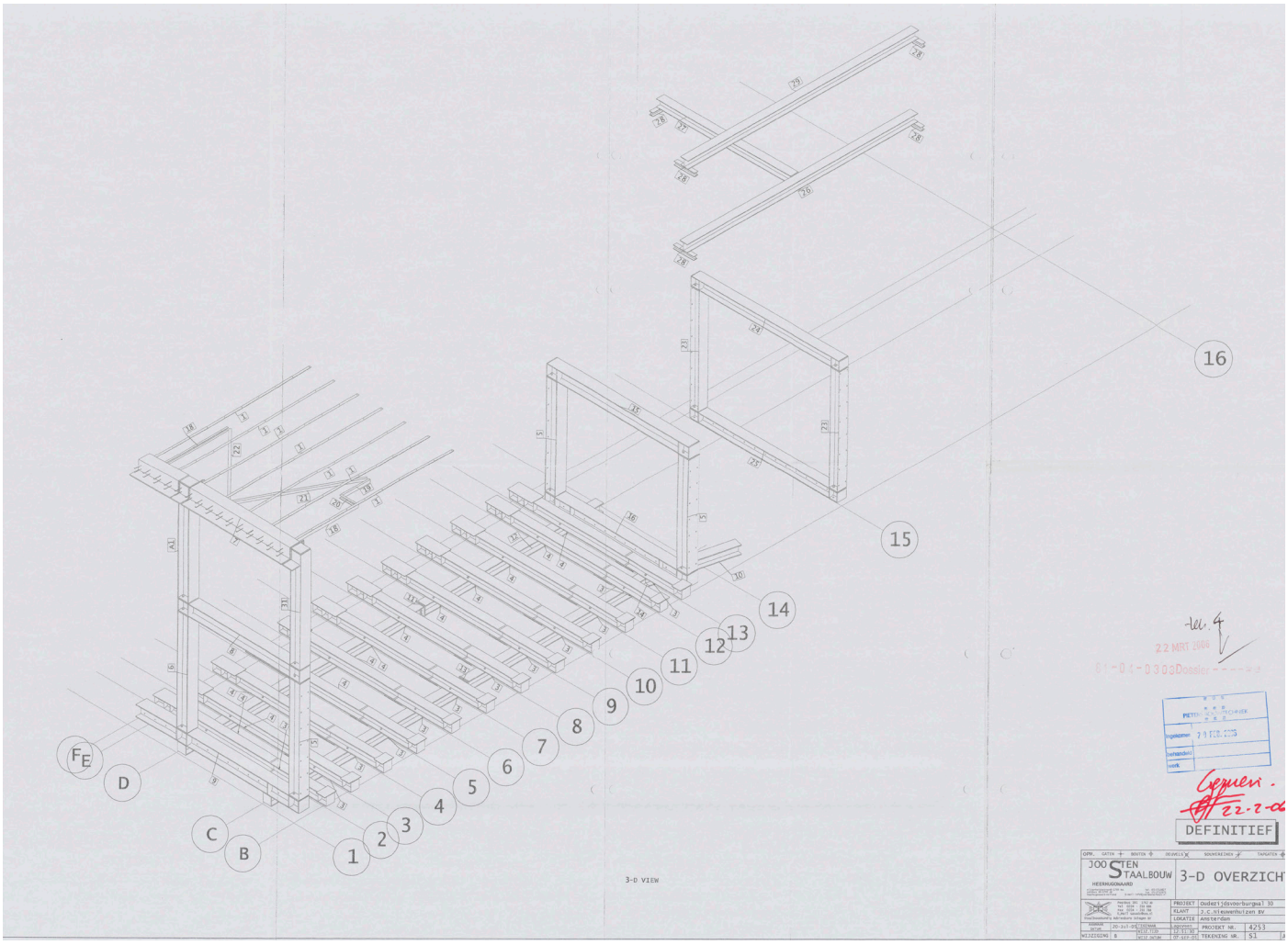
All windows of the front and back house currently have single glazing. During the renovation in 2005 no double glazed windows were placed. Several windows however were equipped with a windowpane behind the existing window ('achterzetraam').

It is difficult to determine which windows have monumental glazing. As mentioned before the windows of the East facade of the front house were replaced between 1861 and 1936 and are thus most likely not monumental. According to the building historical examination done in 2005, none of the windows of the West facade of the front house are older than a century. During the renovation in 2005 the circular window on the attic of the front house (yellow in West elevation) was closed (de Roon & Erfgoed Amsterdam, 2005).

Since the back house was rebuild completely in 2005, it is not likely that any of the glazing and frames are original.

2005

Total renovation: the structure



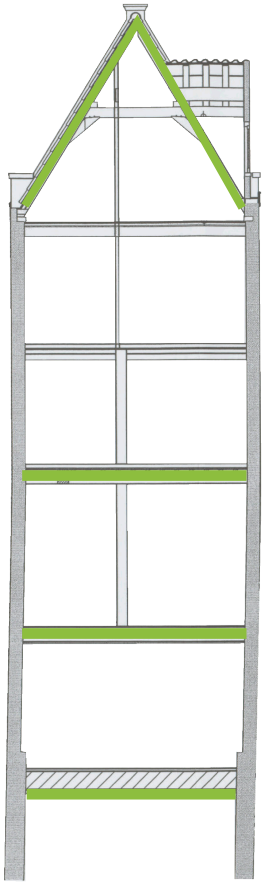
Steel structure. Source: Stadsarchief Amsterdam, 2005.

Why was a steel structure implemented on the ground floor?

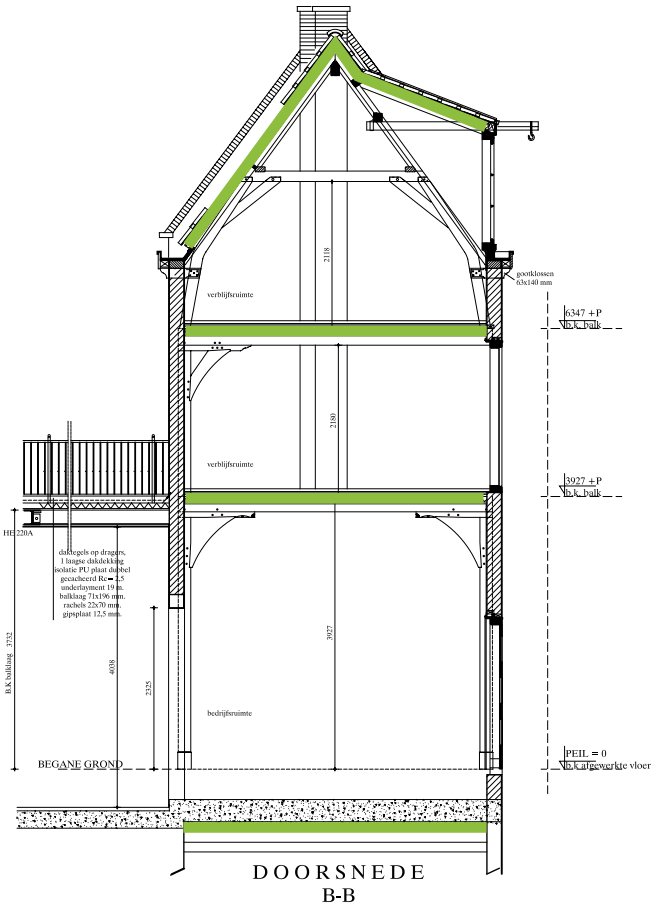
The renovation drawings show that a steel frame structure was implemented on the ground floor. The reason for this is that the stability of the building would be insufficient without it. Furthermore the structure of the first floor was in a very poor condition prior to the renovation and thus needed a complete replacement. During the building historical examination prior to the renovation it was also noted that there was hardly any foundation underneath the building, so a new foundation was constructed (De Roon & Erfgoed Amsterdam, 2005; Amsterdam Archive, 2005).

2005

Total renovation: the insulation



Insulated parts of front house. Source: Adapted from Stadsarchief Amsterdam, 2005.



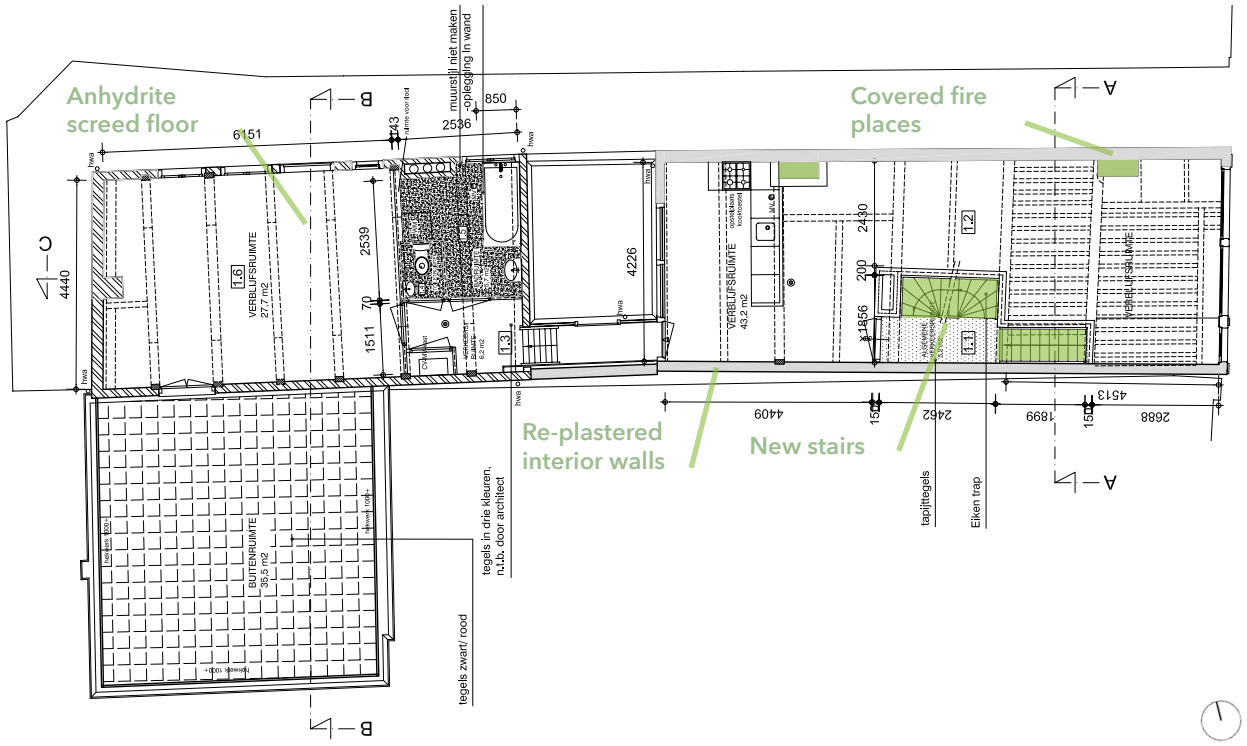
Insulated parts of back house. Source: Adapted from Stadsherstel, 2005.

Was the building insulated during the renovation?

According to the drawings and the permit request, the ground floor of the whole building was insulated as new concrete was poured for the ground floor during the renovation. However, none of the facades of the front or back house were insulated during the renovation. The apartment seperating floors have been acoustically insulated. Both roofs of the front and back house were insulated as well (minimaly).

2005

Total renovation: the interior



Altered interior elements during the renovation in 2005. Source: Adapted from Stadsherstel, 2005.

What was altered in the interior during the renovation of 2005?

During the renovation in 2005 the stairs were replaced as they were not authentic anymore. Furthermore all floors were insulated (for acoustical purposes) and a layer of anhydrite was poured on top of the floors. The fire places from the 19th century are no longer in use, but both chimneys are still present (de Roon & Erfgoed Amsterdam, 2005). Lastly, the inner walls were re plastered during the renovation (Permit request renovation, 2004).

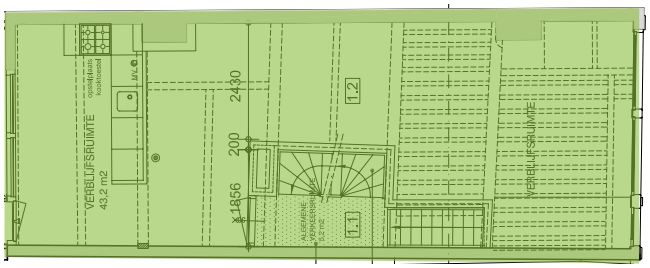
CONCLUSION

What can & cannot be altered?

1200 - 1300	Origin of the Burgwallen-Oude Zijde & Amsterdam
1385	Construction of the Oudezijds Voorburgwal
1500 - 1600	Construction of the current front house
1600 - 1700	Construction of the original back house
1700 - 1800	Addition of the fourth floor of the front house
1800 - 1900	Replacement of the East facade with the current facade
1861 - 1936	Replacement of the windows of the upper East facade
1861 - 1936	Relocation of the first floor
1861 - 1936	Replacement of the roof with the current roof structure
± 1900	Joining of the front and back house
1922	Construction of the horse stables in the courtyard
1926	Roofing of the interior courtyard between the front and back house
1970	Re-tiling of the roof of the back house
2005	Renovation & total replacement of the back house
2021	Current state

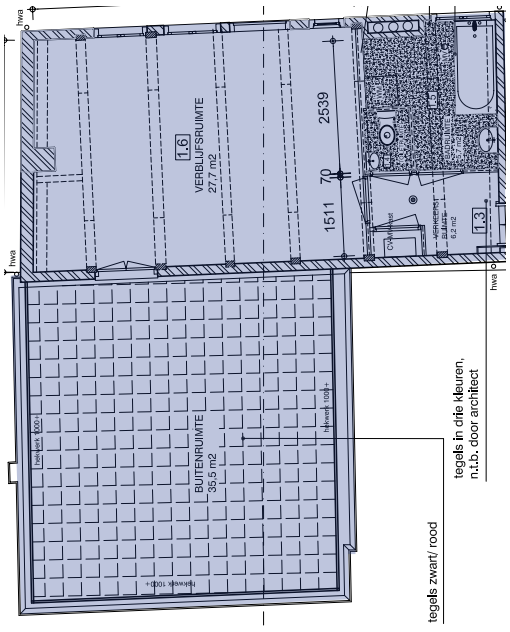
URBAN SCALE

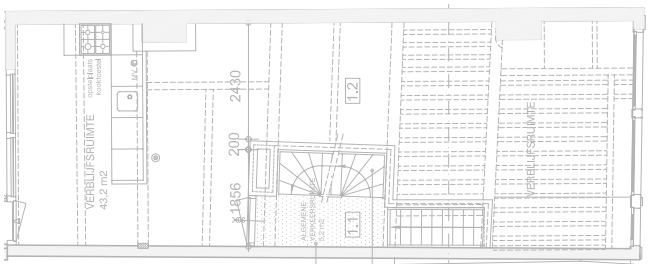
1500 -1600

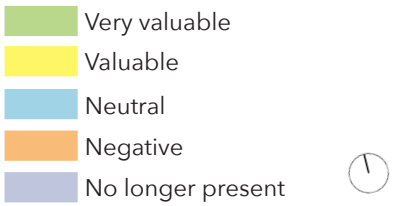


Construction of the front house. Source: Adapted from Stadsherstel, 2005.

1600 - 1700

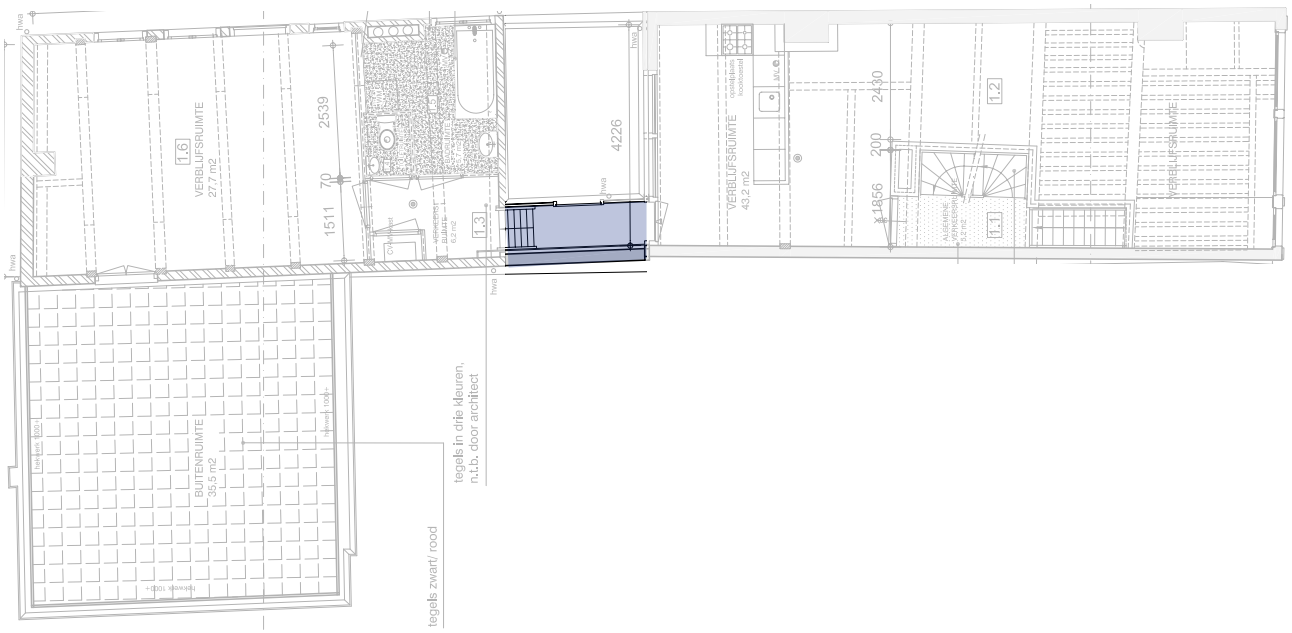






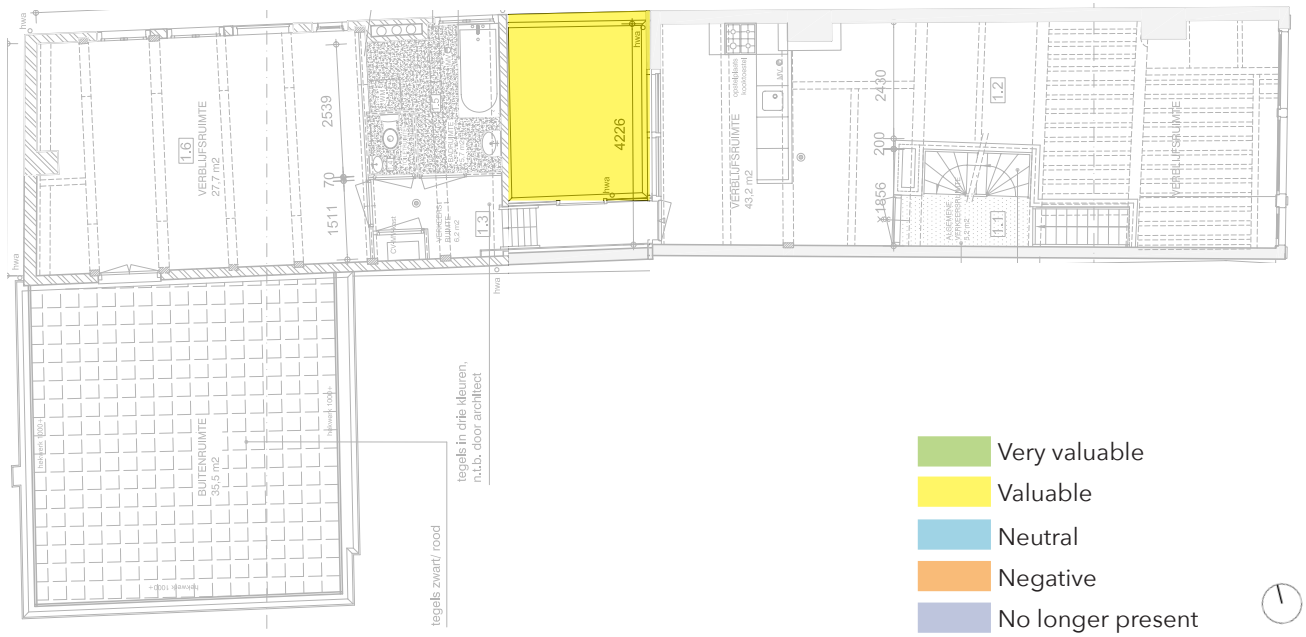
Construction of the original back house. Source: Adapted from Stadsherstel, 2005.

± 1900



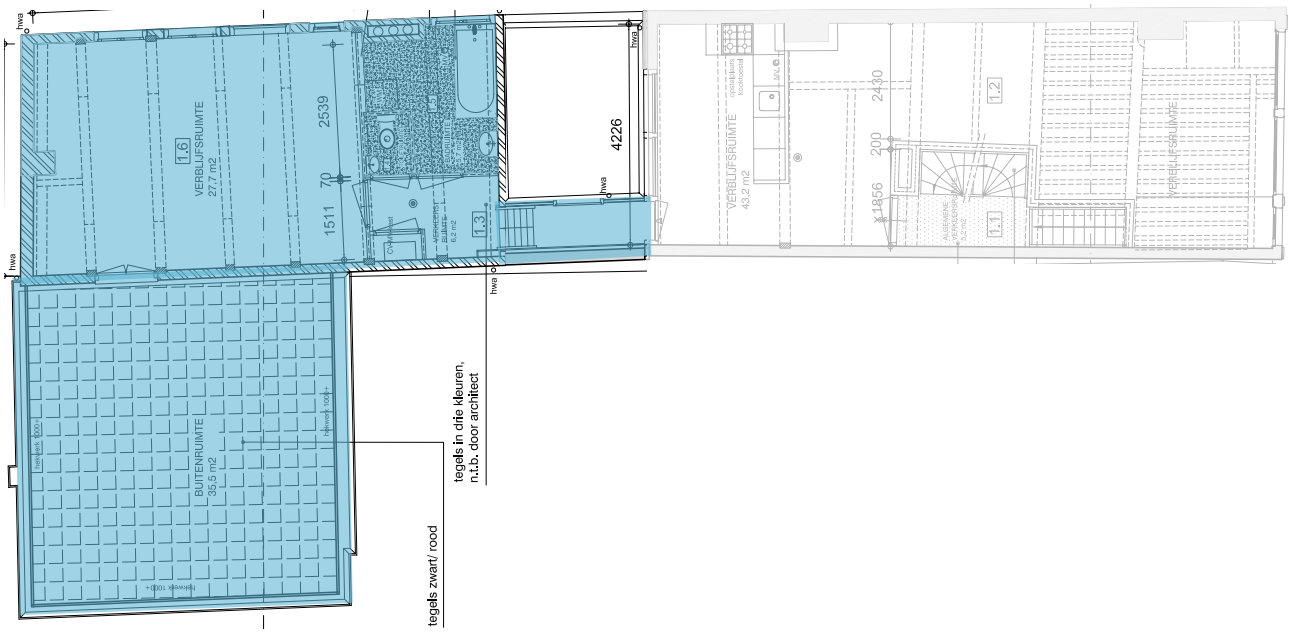
Construction of the intermediate member. Source: Adapted from Stadsherstel, 2005.

1926



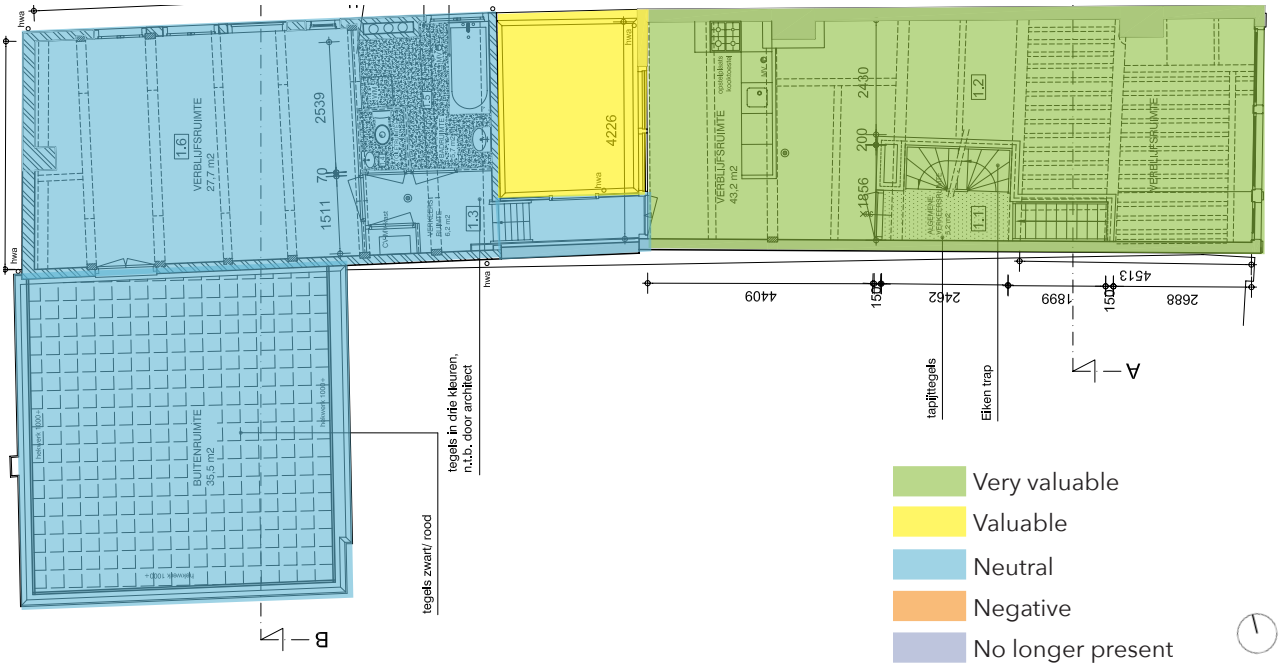
Roofing of interior courtyard. Source: Adapted from Stadsherstel, 2005.

2005



Reconstruction of the back house and intermediate member from scratch. Source: Adapted from Stadsherstel, 2005.

Now



Organization building. Source: Adapted from Stadsherstel, 2005.

Now

Alley & courtyard. Own work.

Which elements on urban scale are valuable?

At the urban scale, the organization of the front house, intermediate member and back house is very valuable as it explains the history of the building and how the building was organized before and after the joining of the two separate buildings around 1900. Furthermore, the position of the building within its block has not been altered since the construction of the houses and is valuable. Another valuable element on the urban scale is the courtyard in which part of the building is located. The courtyard has been present since the 16th century. Even though buildings were constructed within the courtyard throughout the centuries, parts of the courtyard are still present and should be preserved. Furthermore, an alley (Suikerbakkersteeg) is located right next to building. This alley has been present since the building existed and should be maintained.

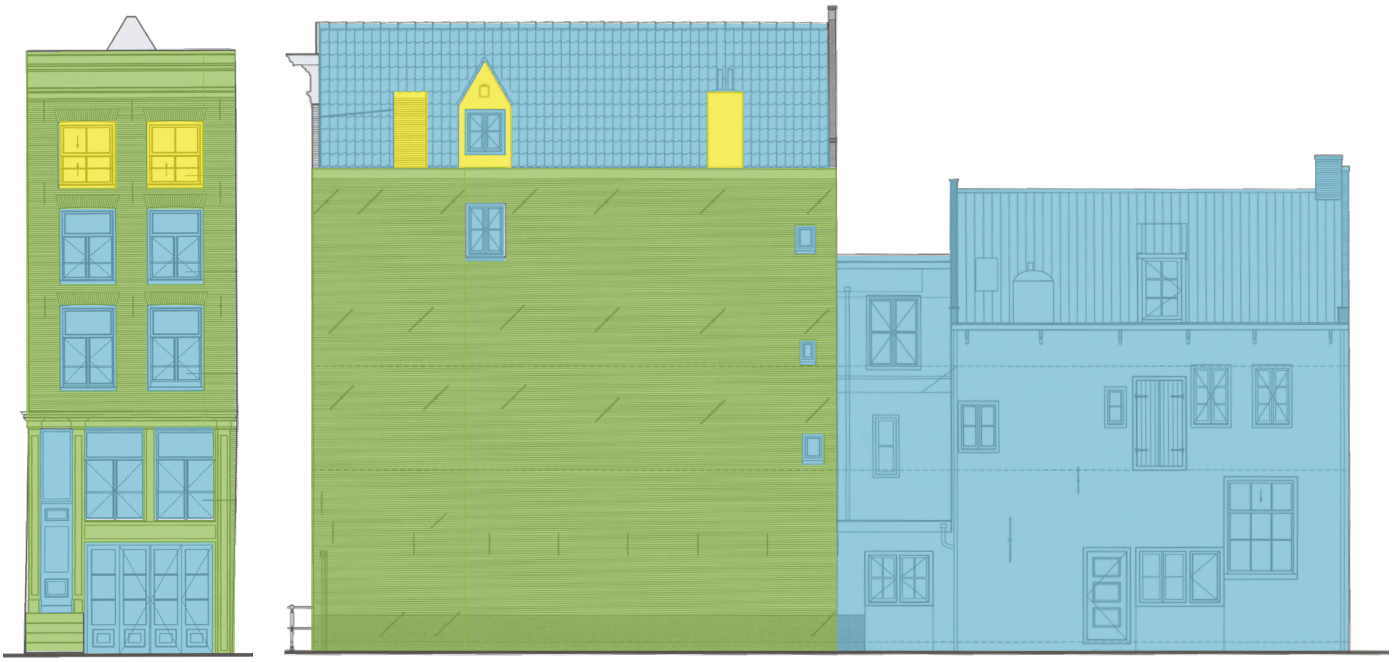
Other valuable elements are the buildings orientation toward the canal, the interior courtyard which arose after the joining of the two buildings and was roofed in 1926 and the fact that the building is detached from its neighbors on both sides.

	Very valuable	Valuable	Neutral	Negative
Urban scale	Organization of front house, intermediate member and back house	Orientation towards canal	Back house in general	
	Presence of courtyard	Interior courtyard	Intermediate member in general	
	Contours back house	Detached from neighbors		
	Suikerbakkersteeg			
	Embedding in building block			
	Front house in general			

Mapped values on the urban scale level. Own work.

BUILDING SCALE

Exterior



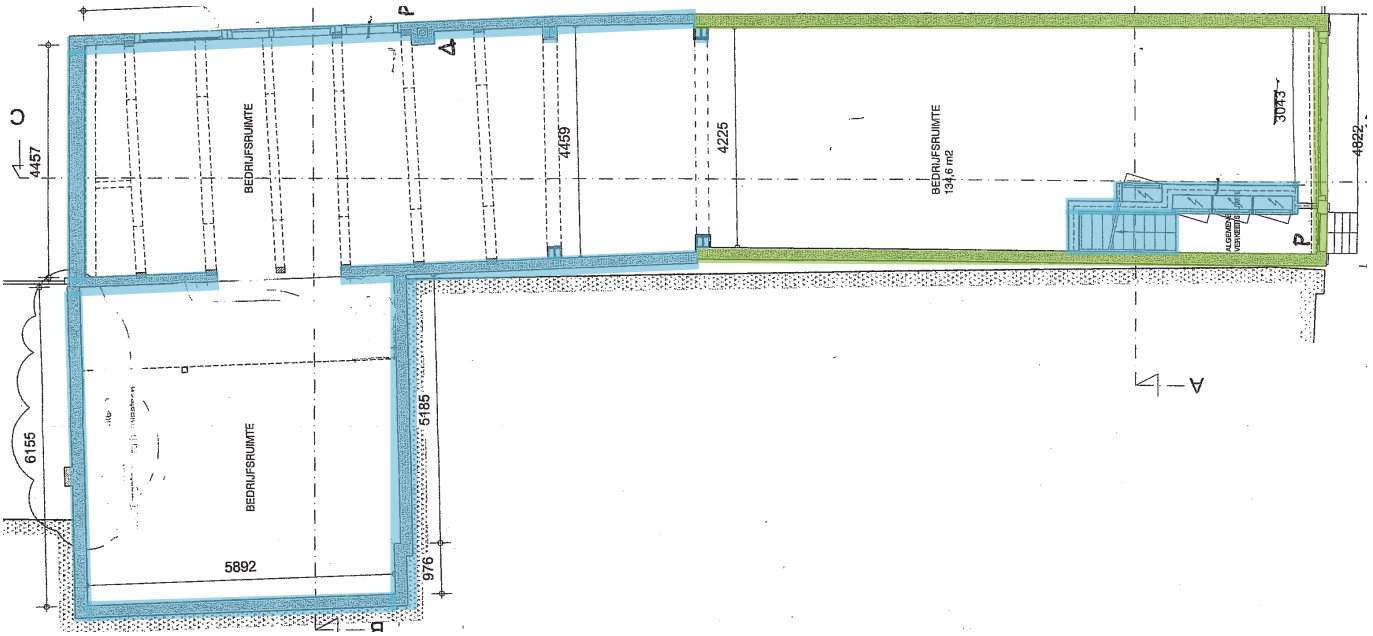
L to R: Mapped values of the East facade front house, North facade, West facade front house, West facade back house. Adapted from Stadsarchief Amsterdam, 2005.

Very valuable
Valuable
Neutral
Negative

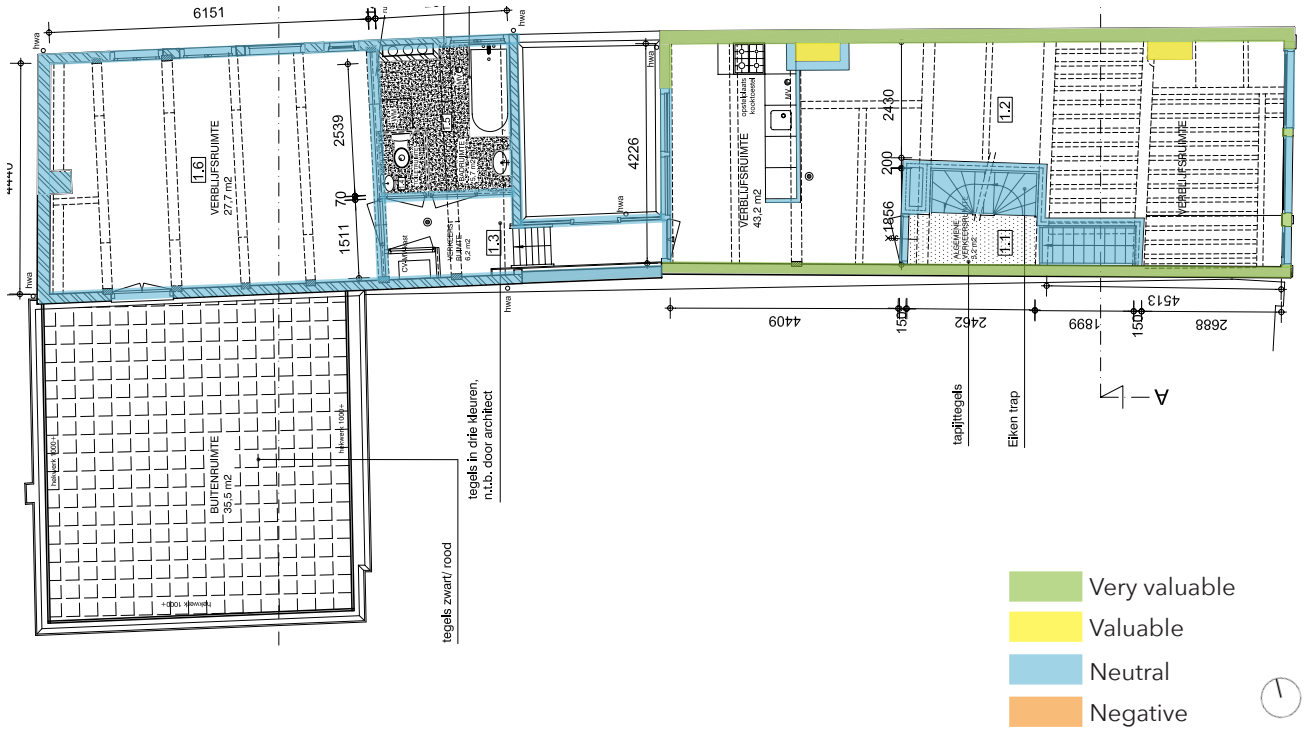
Which exterior elements of the building are valuable?
The back house was reconstructed from scratch in 2005 and does not have any specific monumental values on the exterior (or interior). The front house however was constructed in the 16th century and it is likely that the North and South facades are still the original materials and composition largely. These are thus of high value. The East facade of the front house was added in the 19th century but is quite valuable as little alterations have been done afterwards. The composition of the lower East facade has been altered after the original construction in the 19th century. However, it is still of heritage value as a characteristic of the facade is its flexibility and possibility to alter according to the function behind the facade. The upper East facade has hardly been altered after its construction in the 19th century and is very valuable.

The roof tiling of the front house is most likely not original and thus not necessarily valuable. The chimneys and dormer on the roofs are deemed valuable because they were most likely modified after the roof alteration between 1861 and 1936. Concerning the windows of the West facade of the front house the building historical examination deems it unlikely that they are older than a century and are thus not of value. Most of the windows of the East facade were replaced between 1861 and 1936 and are not of monumental value (except the windows of the fourth floor). Probably none of the windows have monumental value.

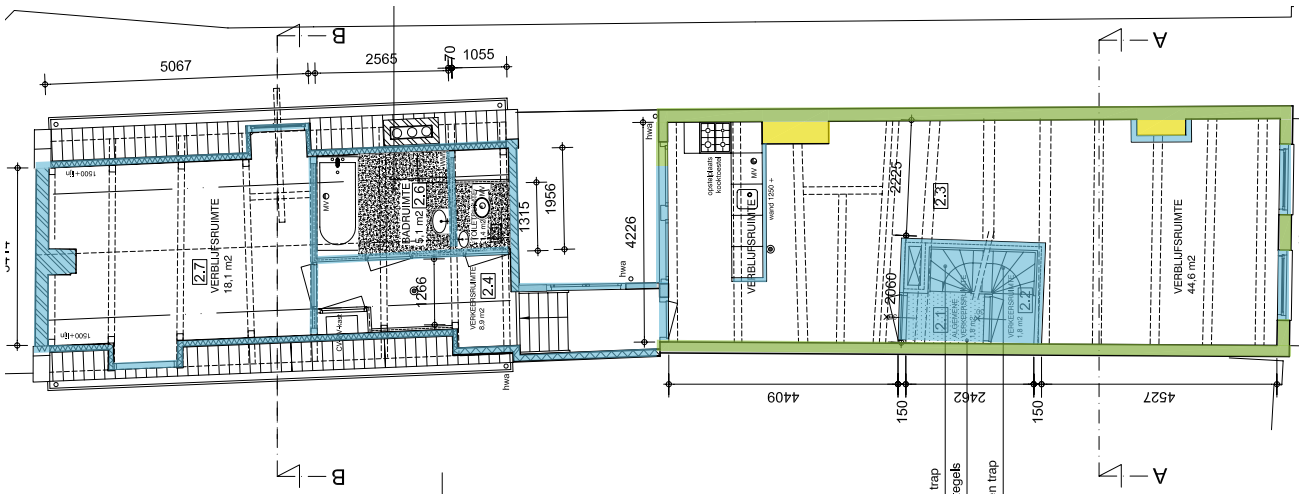
Interior & walls



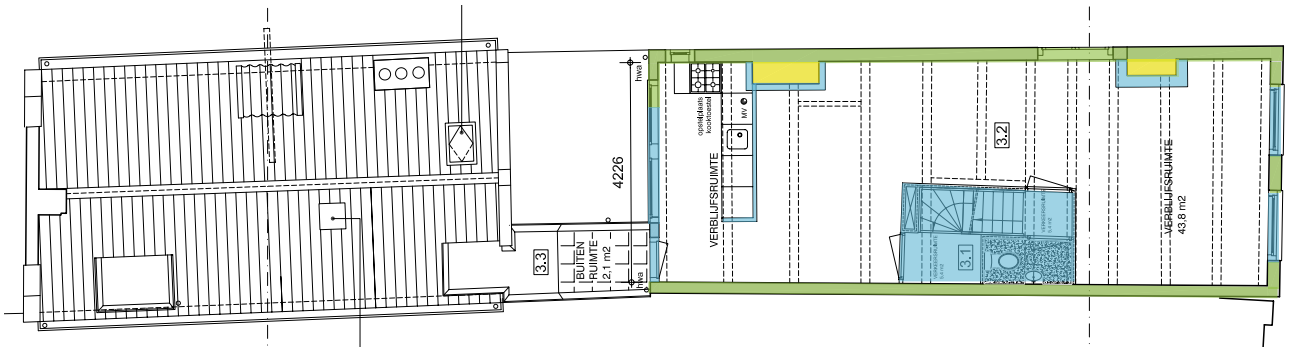
Mapped values of the ground floor. Adapted from Stadsherstel, 2005.



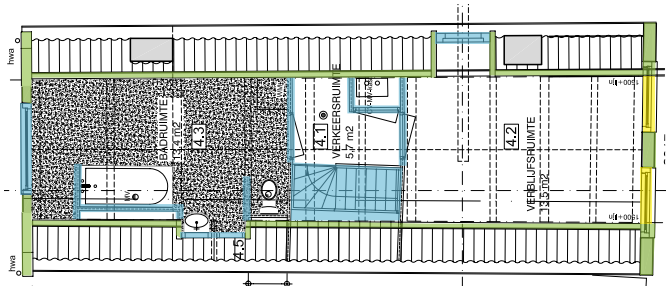
Mapped values of the first floor. Adapted from Stadsherstel, 2005.



Mapped values of the second floor. Adapted from Stadsherstel, 2005.



Mapped values of the third floor. Adapted from Stadsherstel, 2005.



Mapped values of the fourth floor. Adapted from Stadsherstel, 2005.

Very valuable
Valuable
Neutral
Negative

Which interior elements of the building are valuable?
The back house does not have any specific monumental value on the interior either. The only thing which was incorporated from the original building is a 'korbeelstel' from the 17th century. This is very valuable, but unclear where it is located in the building. In the front house the South and North exterior partition walls are most likely original and of high value. The West and East exterior partition walls were altered throughout the centuries but are also of high value as they are important for the expression of the building. All interior walls are not of value as they have been added during the renovation in 2005. On the interior several traces can be found from the old wooden frame structure, these are very valuable as they date back to the original 16th century construction. The chimneys have been present for multiple centuries too, and even though not in use anymore are valuable. The fireplaces however were added in the 20th century and not of specific value. The finishings on the interior for both the floors and walls were redone during the renovation in 2005 and are not valuable. The stairs were constructed during the renovation as well. Furthermore, there is no historical furniture. Concerning the function of the building it has always had a mix-used function of dwellings and industry. This is quite valuable to the building.

	Very valuable	Valuable	Neutral	Negative
Building scale exterior	Composition East façade (lower & upper)	Dormers	Roof tiles front house	
	Flexibility lower East facade	Chimneys	Exterior back house	
	Facades front house (materials & composition)	Upper windows East façade front house	Most glazing & window frames front house	
	Raised entrance			
	Arches above windows East Facade			
Building scale interior	Exterior partition walls	Chimneys	Fireplaces	Interior finishes floors
	Any remains of wooden structure front house	Mixed-use function	Height of first floor	
	Remaining peerkraal stuk in back house		Interior walls and finishes	
			Stairs	
			Furniture	
Building scale structure	Roof structure front house		Ground floor front house	
	2^{nd}, 3^{rd} & 4^{th} floor front house		First floor front house	
			Structure back house	

Mapped values on the buildings scale. Own work.

Structure

Mapped values of the structure. Adapted from Stadsarchief Amsterdam, 2005.

Which structural elements of the building are valuable?

Since the back house was reconstructed in 2005, the structure of the building is not of monumental value. However, looking at the front house the floor structure of the second and third floor can be traced back to the 17th century and is of high value. The fourth floor dates back to the 18th or 19th century when the building height was increased and the roof was reconstructed. The roof and fourth floor are also of high monumental value. The ground floor and first floor of the front house were reconstructed in 2005 and not valuable.

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