



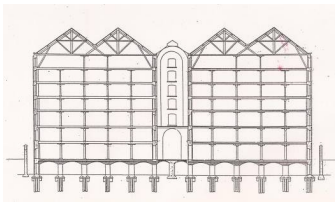
**The reconversion/renovation of St.Felix Entrepôt into city archives of Antwerpen (B.) (2002-2007)**

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 COST TU0904 : Integrated fire engineering and response - CHANIA 14\_15 oct '11

**Sint Felix Archives – Antwerp / before reconversion**



**St. Felix Archives - Antwerp**



**Major problems in 1980-2000** (not in use) :

- Displacement of harbour activities → (new) function ??
- Fire safety (public or private use problematic) (wooden and iron structures)
- Huge volumes / dark spaces / low ceilings
- Listed building = maximum conservation of identity
- Appropriate internal circulation ?

1985 – 2000 Several project for new use (a.o. storage, museum, university teaching)  
 Finally : city archives / including public consultation spaces.

**Sint Felix Archives - Antwerp**

Reconversion of the old 'entrepôt' into City Archives

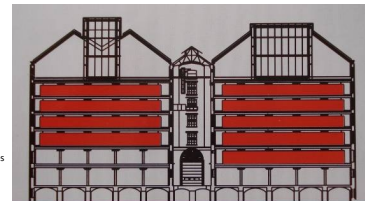
**Architectural concept :**  
 (Arch. Sobrecht & Dams, Gent + Grontmij, Zaventem)  
 Full conservation of historic structures and materials (except top floor)

**FIRE aspects:** full compartmentation by

- Separating archive space from public space
- Construction of fire-safe 'containers' for archive material at each level (fibersilicate plating + thin concrete layer on floors)
- Fire prevention of all old & new wooden elements (a.o. 815 wooden & 700 iron historic columns) with delaying varnish;
- All circulation according EC standards (a.o. 1h RF doors, automatic closing curtains, ...)
- Full detection + fighting ( dry sprinkling)

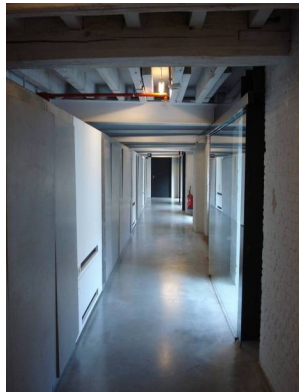
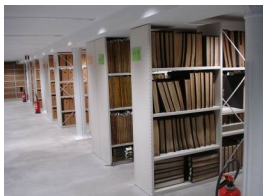
Integration of modern COMFORT & SAFETY (a.o. lift, elevators / lighting / sanitary / electronic communication)

**Result :**  
 'Container' volumes : +/- 40 km archive shelves  
 Top level (new roof with recuperated tiles) :  
 3 open atria  
 Consultation room with 120 seats  
 Staff offices  
 Auditorium & Exhibition rooms  
 Groundfloor & 1<sup>st</sup> floor : future extension



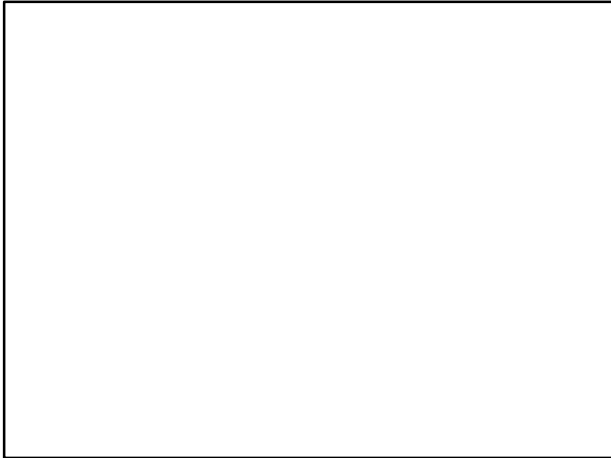
Dwarsdoorsnede gebouw met 'containers'

**Sint Felix Archives - Antwerp**



**Sint Felix Archives - Antwerp**





### St. Felix Archives - Antwerp

**HISTORY**  
 1830 ff. : development of harbour and building of new docks and warehouses  
 1858 : first storehouse St. Felix by arch. Felix Pauwels  
 1861 : destruction by fire  
 1863 : new storehouse : similar volumes but divided in two sections, separated by central corridor → 4 compartments with own (stone) stair case + lateral fire-way between neighbouring parcels;  
 central corridor with glazed roof for :  
 \* central loading & unloading  
 \* fire safety  
 \* taking natural light  
 1912 : doubling number of columns by halving the span and adding rows of new wooden columns to increase floor-load capacity (900 kg/m<sup>2</sup> → 1.200 kg/m<sup>2</sup>)  
 1980 : closing after continuous use as warehouse for different goods (reason : displacement of harbour activities and fire regulations)  
 2007 : re-opening after reconversion into city archives.

**CONSTRUCTION DATA :**  
 Facade 57 m / Depth 78 m / height +/- 15m+cellar 2.20m  
 Landparcel 3.870 m<sup>2</sup> Storage surface 23.000 m<sup>2</sup>  
 Levels : 7 Storage volume 56.000 m<sup>3</sup>

### St. Felix Archives - Antwerp

**MATERIALS**  
 Brickwork for facade and compartment separation walls / some stone for decoration

**Loadbearing structure :**  
 Columns : ½ hollow cast iron (1863) + ½ pine wood (1912)  
 Horizontal beams : ½ wood (1863) + ½ metal profiles (1912)  
 Floor : ground : tiles / other : pitch pine planks  
 Roof :  
 central passage with glazed metal roof  
 other roofs : traditional pinewood trusses covered with tiles

Doors & windows in wood.

**1976 : listed monument** because of architectural and industrial-archeologic value

### St. Felix Archives - Antwerp

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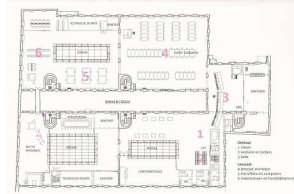
Project 'Departement Architectural Sciences' (1992) not realised

### Sint Felix Archives - Antwerp

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SINT FELIX ARCHIVES  
ANTWERPEN (B.)



Sint Felix Archives - Antwerp



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