

P&C DEPARTMENT STORE Cologne (Germany)

NEW BUILDING

Client: TIMARU Grundstücks-Verwaltungsgesellschaft,
Grünwald / P & C, Düsseldorf

Architects: Renzo Piano Building Workshop, Paris

Structural engineer: Gebäude: IDK, Köln
Fassade: Werner Sobeck Ingenieure, Stuttgart

Testing engineer: Univ.-Prof. Dipl.-Ing. Matthias Pfeifer

Our services: Checking and assessment of
static calculations
Checking and assessment of
the load bearing structure on site
Checking and assessment of steel,
wood-laminate and glass elements
of the façade
Structural fire protection
Earthquake engineering
Quality assurance of execution
Façade monitoring

Brief description: New building of a department store
with exceptional architecture,
"Weltstadthaus"
- concrete frame structure with
prestressed slabs spanning
over 20 m
- high loadings due to particular
usage (storage)
- built over two existing tunnel tubes
with exits to both sides
- main columns carried by heavy
steel-concrete-composite girders
over the tunnel
- tunnels retrofitted for extreme fire
protection requirements
- façade structure constructed as
a grid shell with prestressed cables,
wooden lamella girders and
horizontally running steel tubes
- handrails, constructed with rigidly
fixed glass plates, cantilevering
from floor slabs
- extraordinary shaped building
surface with high geometrical
requirements

Completion: 2005

