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# ZAHA HADID ARCHITECTS

Zaha Hadid Architects





# ZAHA HADID ARCHITECTS: [ref-lex]ical

WHAT WAS – WHAT HAPPENED – WHAT IS



# ZAHA HADID ARCHITECTS: [ref-lex]ical

WHAT WAS – WHAT HAPPENED – WHAT IS

- LECTURE IN THE FOCUS OF TRANSFORMATION PROCESSES



# ZAHA HADID ARCHITECTS: [ref-lex]ical

WHAT WAS – WHAT HAPPENED – WHAT IS

- LECTURE IN THE FOCUS OF TRANSFORMATION PROCESSES
- PARAMETER THAT HAD IMPACT ON DESIGN, VOLUME AND FUNCTION



# ZAHA HADID ARCHITECTS: [ref-lex]ical

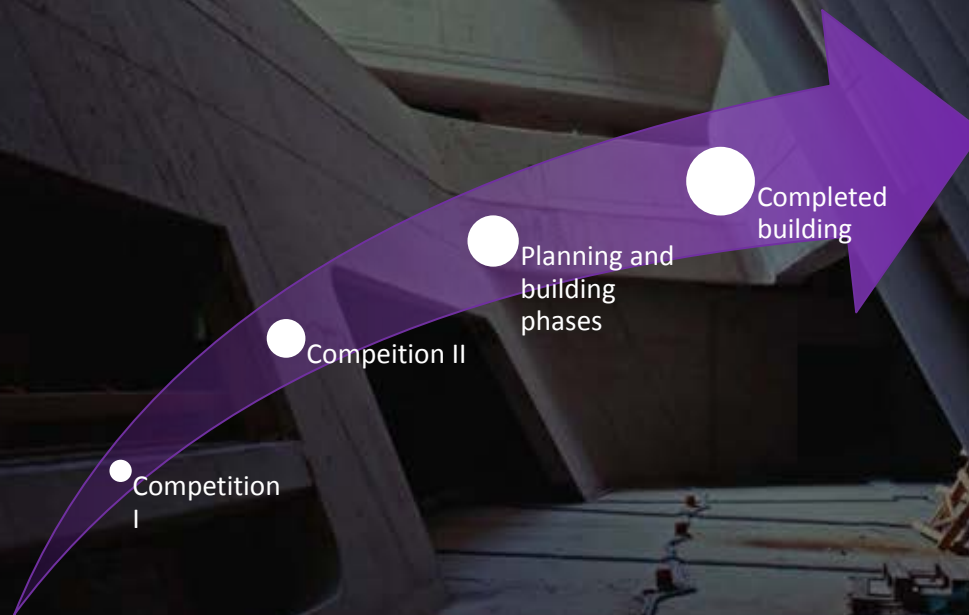
WHAT WAS – WHAT HAPPENED – WHAT IS

- LECTURE IN THE FOCUS OF TRANSFORMATION PROCESSES
- PARAMETER THAT HAD IMPACT ON DESIGN, VOLUME AND FUNCTION
- REVEAL DIVERS FACTORS THAT TOOK INFLUENCEE ON THE PROJECT

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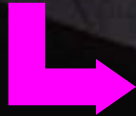
## Introduction

- Reason for brief
- Design concept – initial idea
- Program distribution



## Comparison

- From competition to completed building



## Analysis

- What has changed on design and program
- What have been the drivers for the change and non-change



## Conclusion

- What can be improved/affirmed to secure design continuity and quality processing

# INTRODUCTION

## Project data

Library and Learning Centre, Vienna

Vienna, Austria

2008 – 2013

Program:

Library space with study zones,  
magazin spaces,  
administration, study services,  
atrium, festival hall, book shop,  
copy shop, caf  teria

Client:

Projektgesellschaft University of  
Economics, Vienna

Size/Area:

42000 m<sup>2</sup>

# INTRODUCTION

## Relocation Campus

Library and Learning Centre, Vienna



# INTRODUCTION

## New Campus at Prater

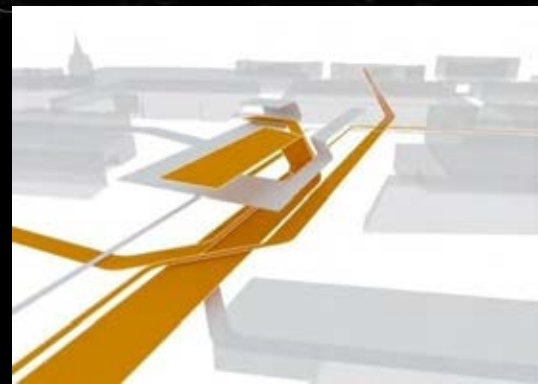
Library and Learning Centre, Vienna



# INTRODUCTION

## Masterplan

Library and Learning Centre, Vienna



# INTRODUCTION

## Volumes

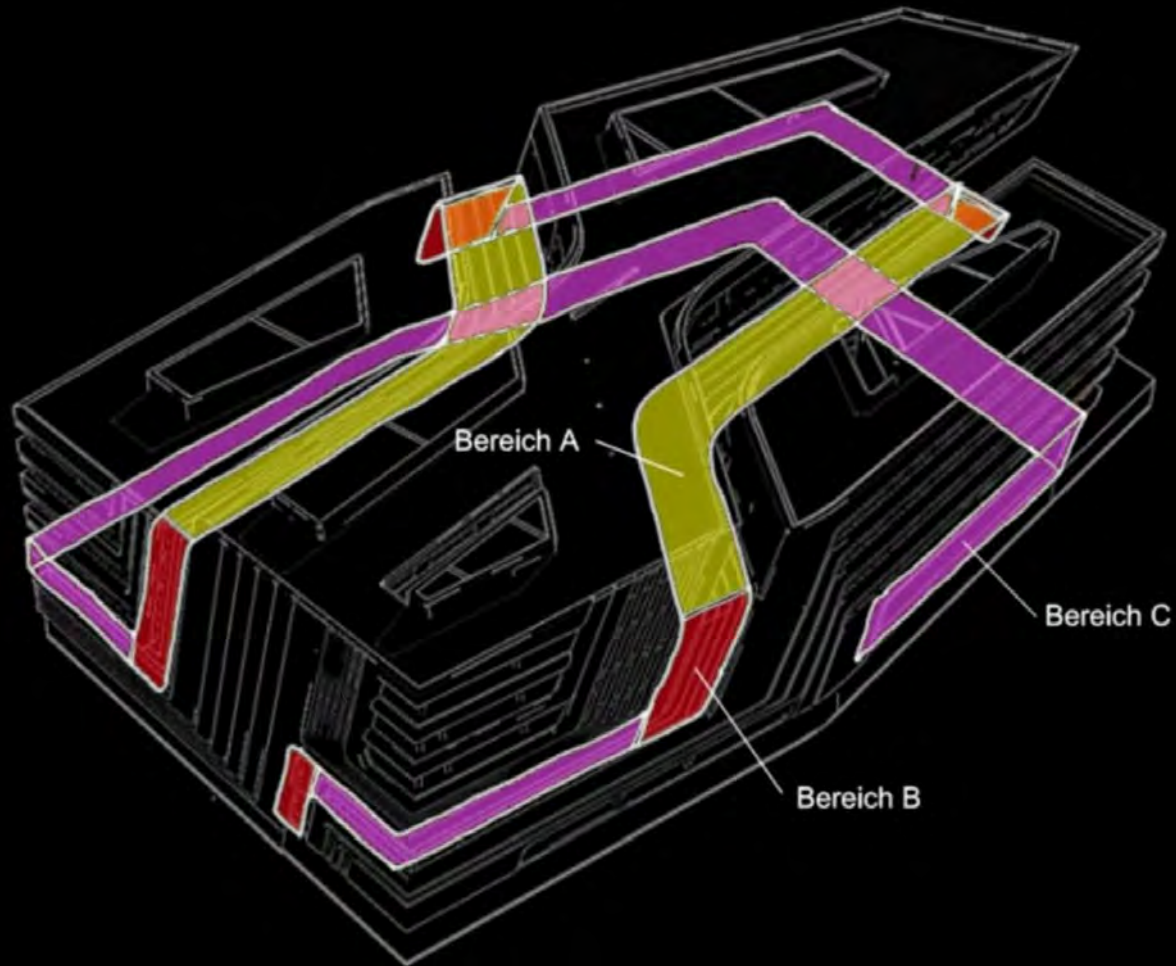
Library and Learning Centre, Vienna



# INTRODUCTION

## Gap or seam

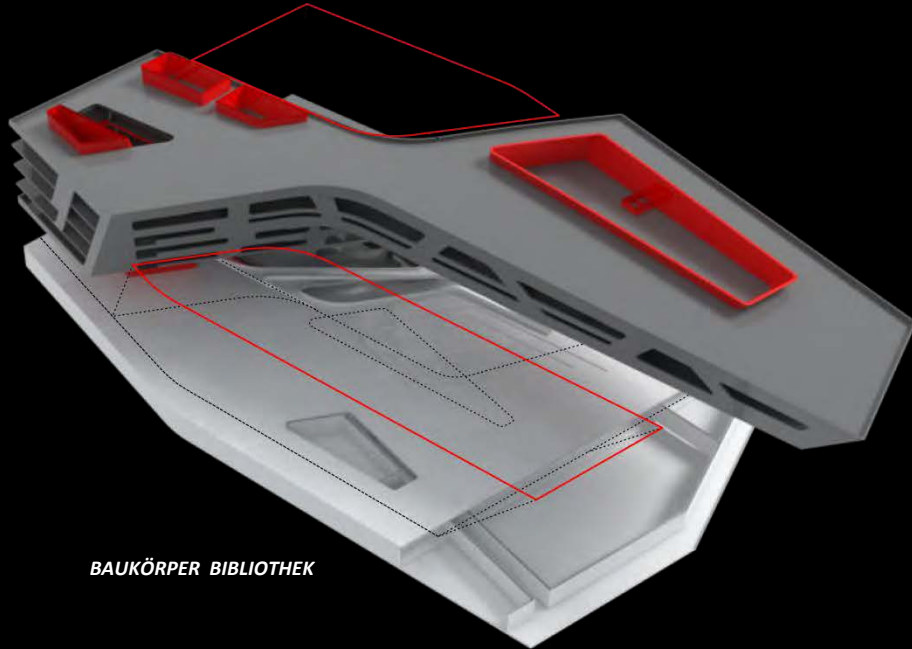
Library and Learning Centre, Vienna



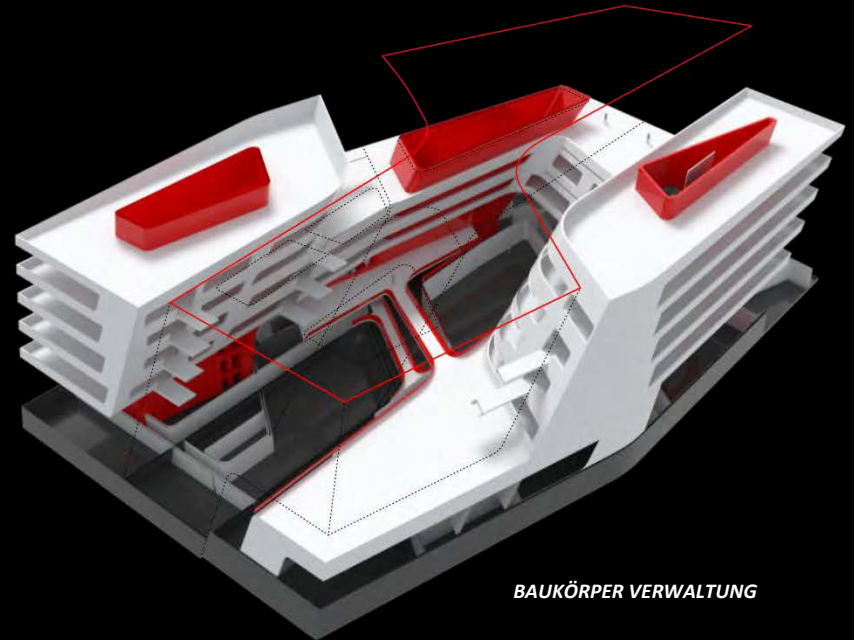
# INTRODUCTION

## Program distribution

Library and Learning Centre, Vienna



*BAUKÖRPER BIBLIOTHEK*



*BAUKÖRPER VERWALTUNG*

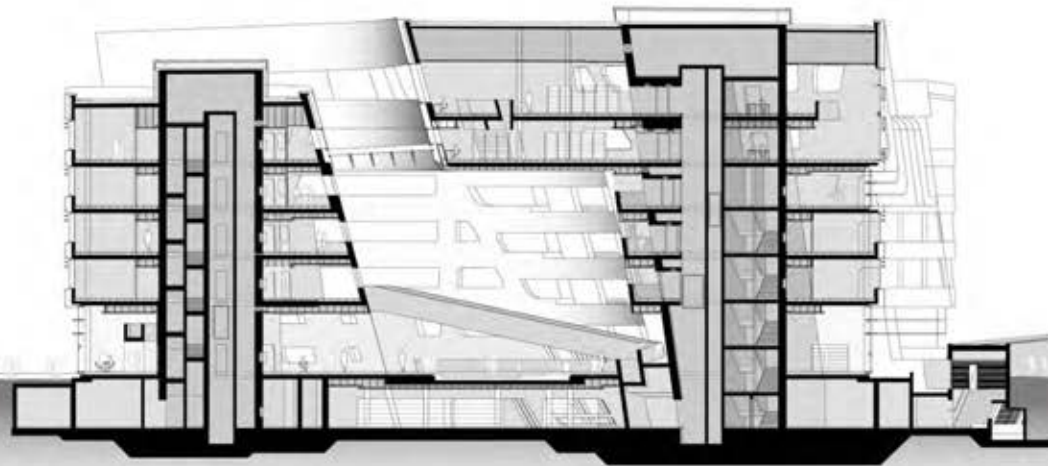
# INTRODUCTION

## Cross section

Library and Learning Centre, Vienna

LIBRARY & LEARNING  
CENTRE - UNIVERSITY  
OF ECONOMICS VIENNA

QUERSCHNITT  
CROSS SECTION



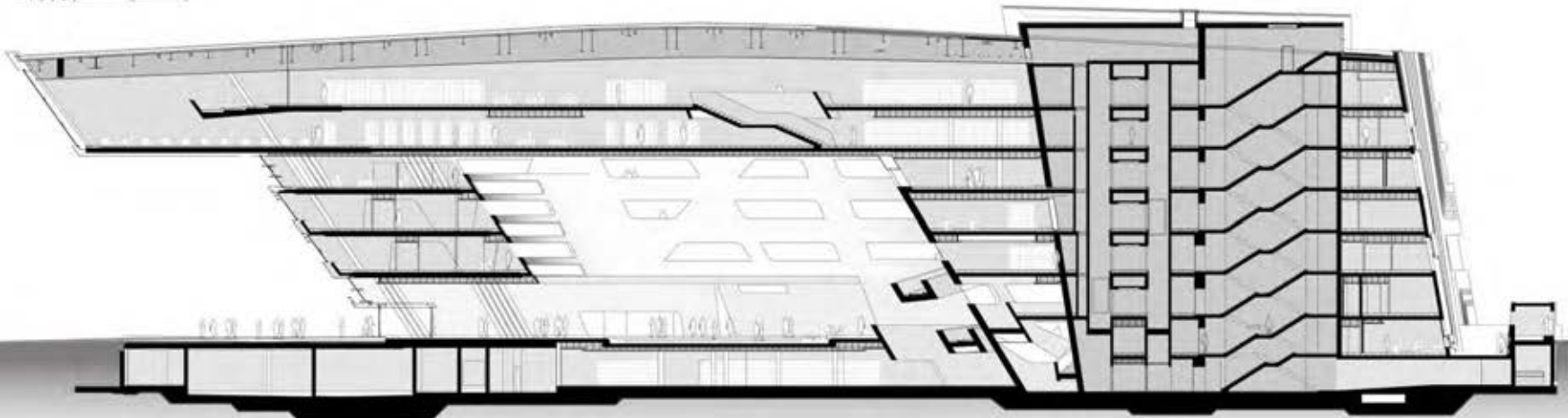
# INTRODUCTION

## Longitudinal section

Library and Learning Centre, Vienna

LIBRARY & LEARNING  
CENTRE - UNIVERSITY  
OF ECONOMICS VIENNA

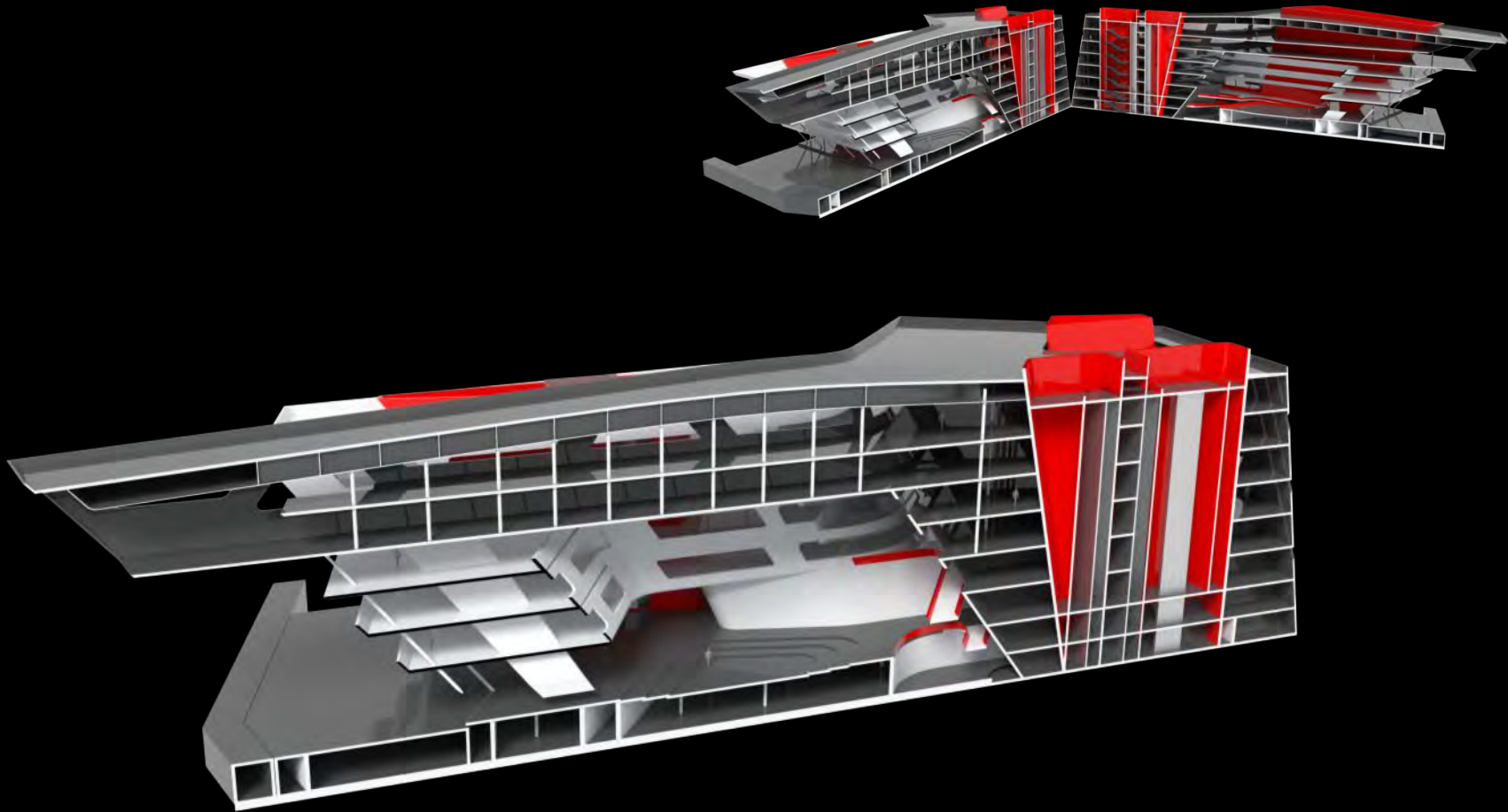
LÄNGSSCHNITT  
LONGITUDINAL SECTION



# INTRODUCTION

## Sectional model

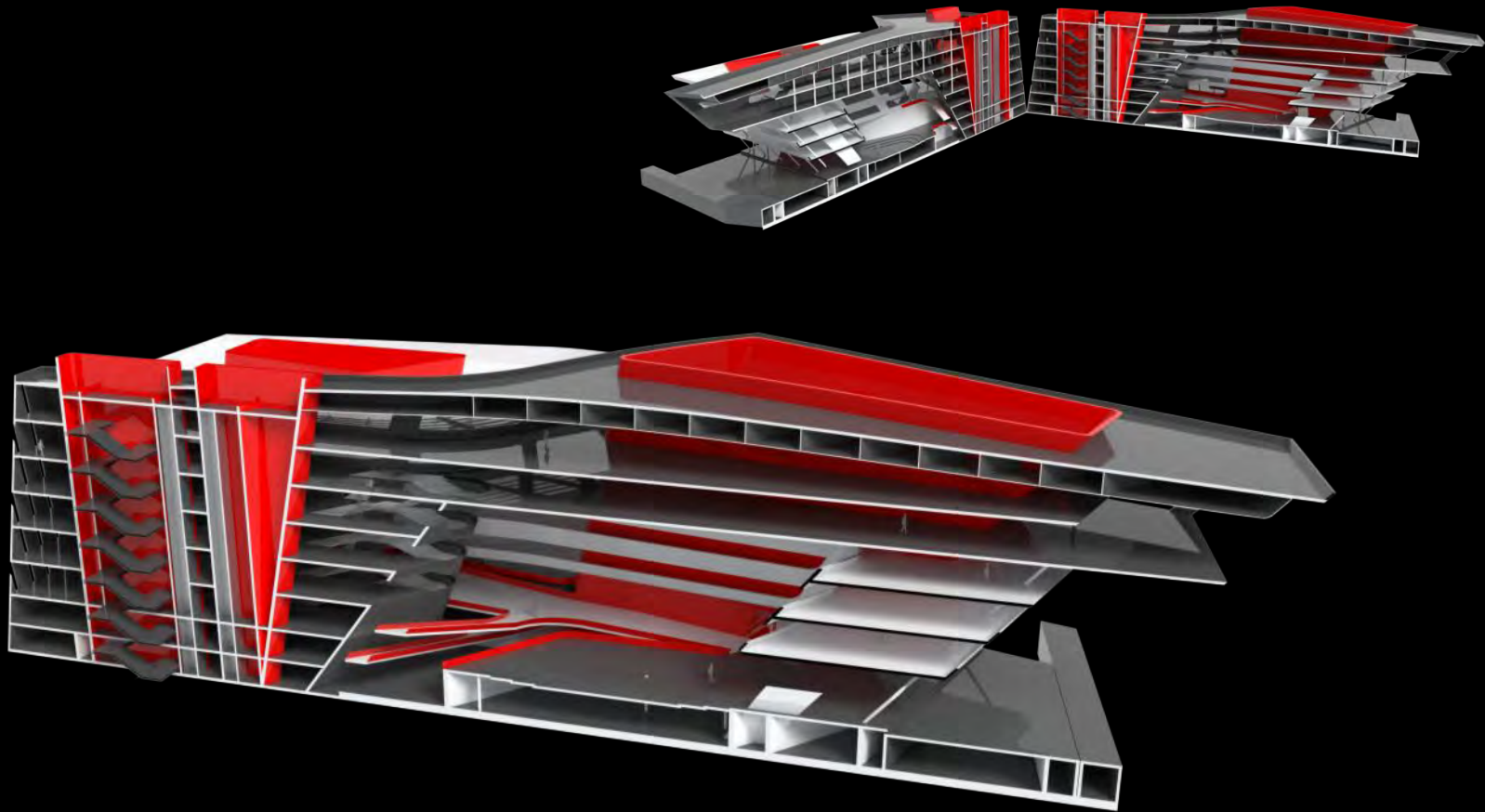
Library and Learning Centre, Vienna



# INTRODUCTION

## Sectional model

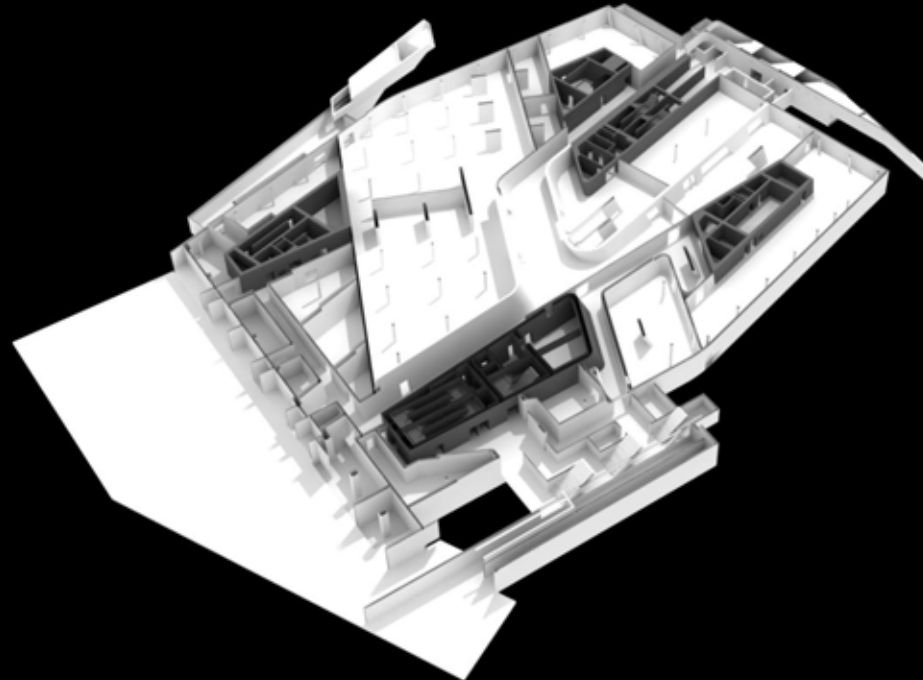
Library and Learning Centre, Vienna



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna

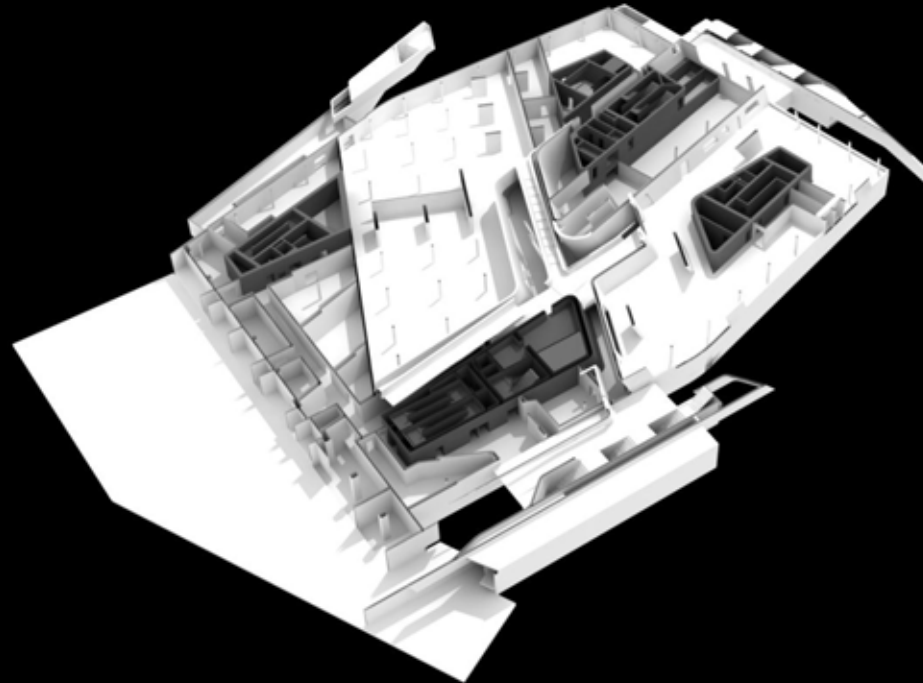


*LEVEL UG01*

# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna

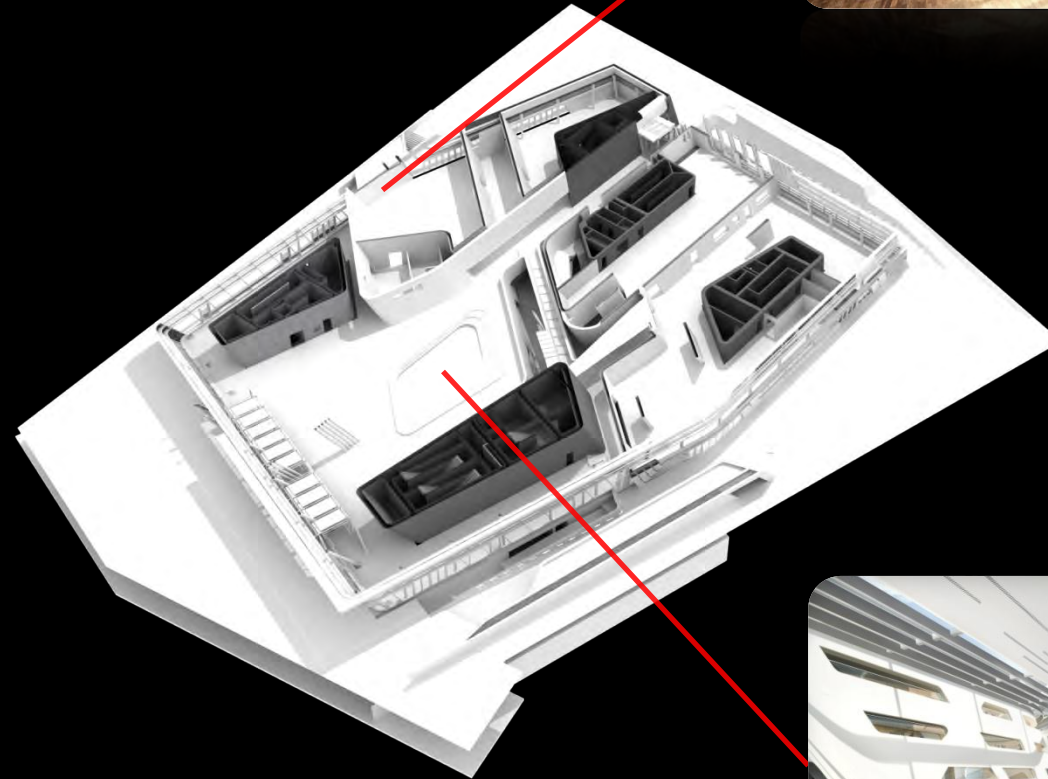


*LEVEL U101*

# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



LEVEL EG01

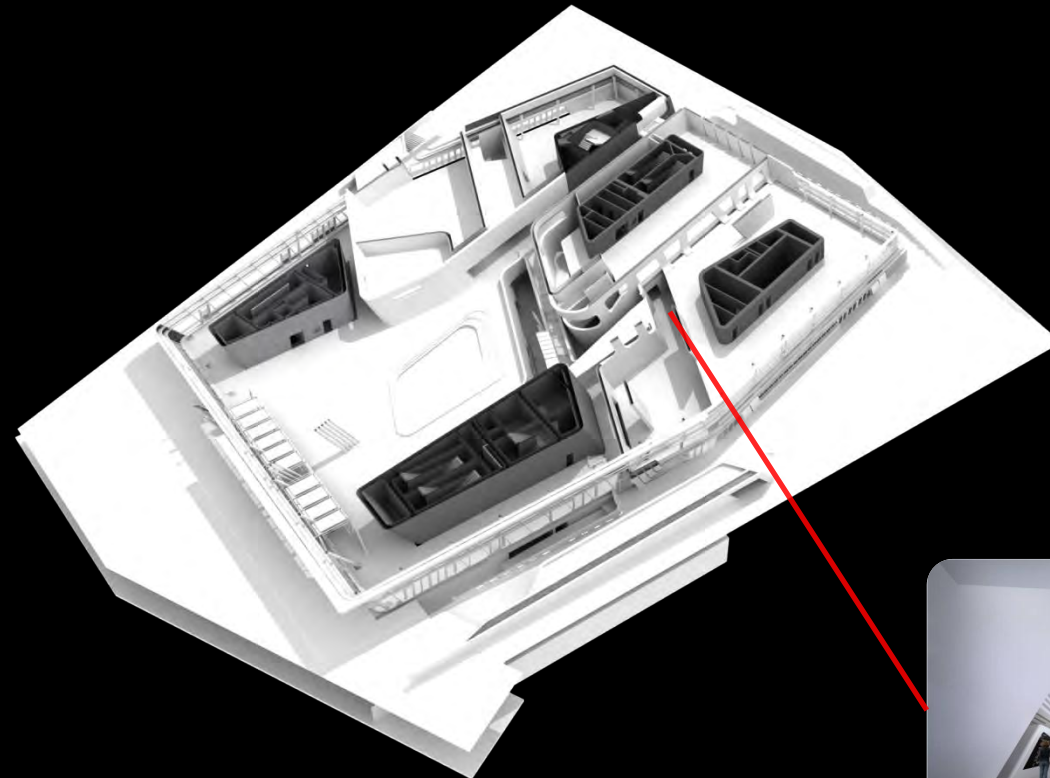


GEBÄUDESCHNITT ROHBAU HORIZONTAL

# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



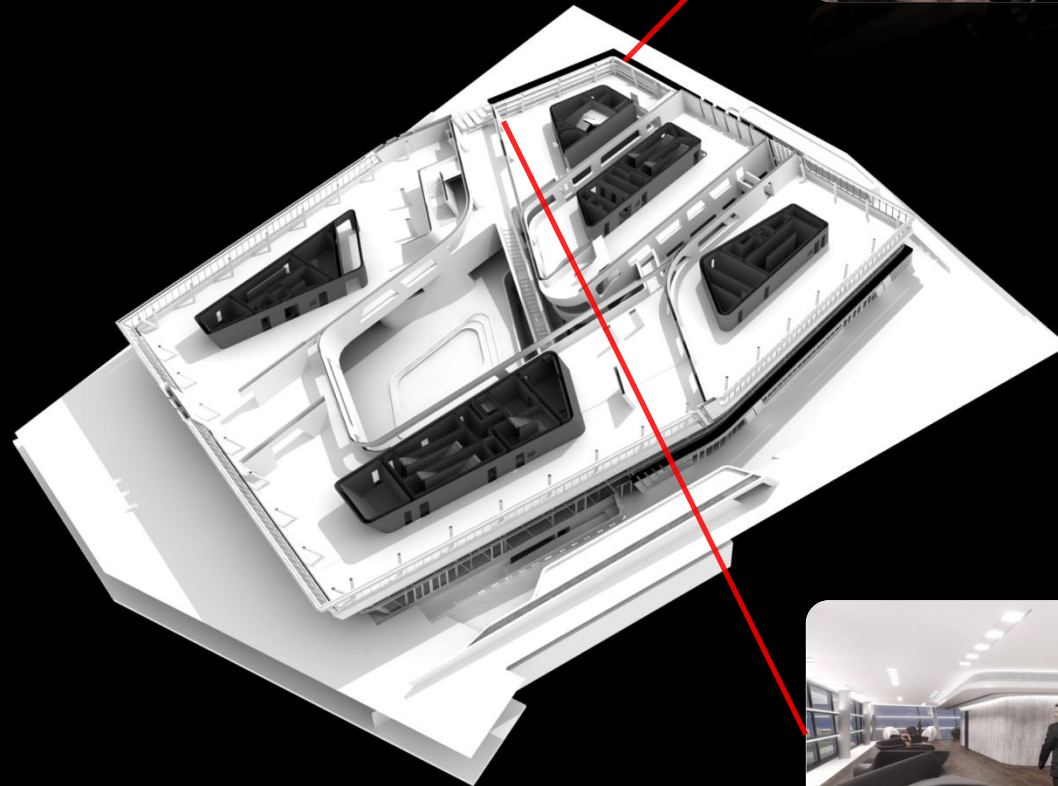
LEVEL E101



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



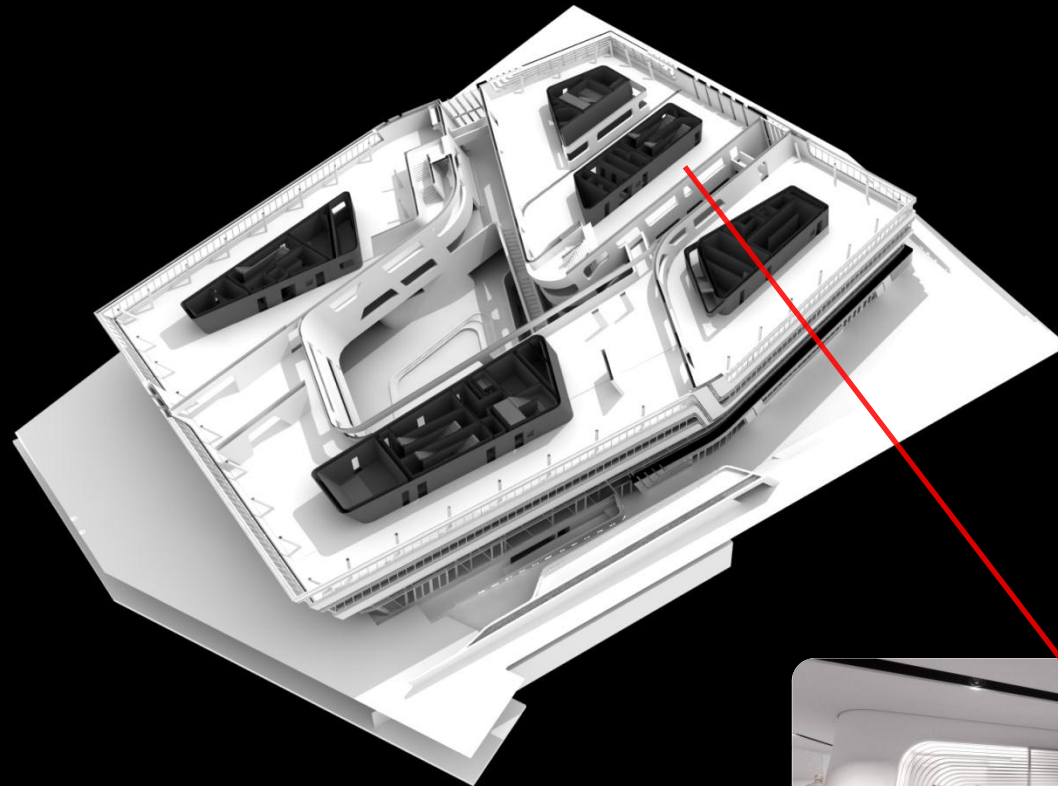
LEVEL 0g01



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



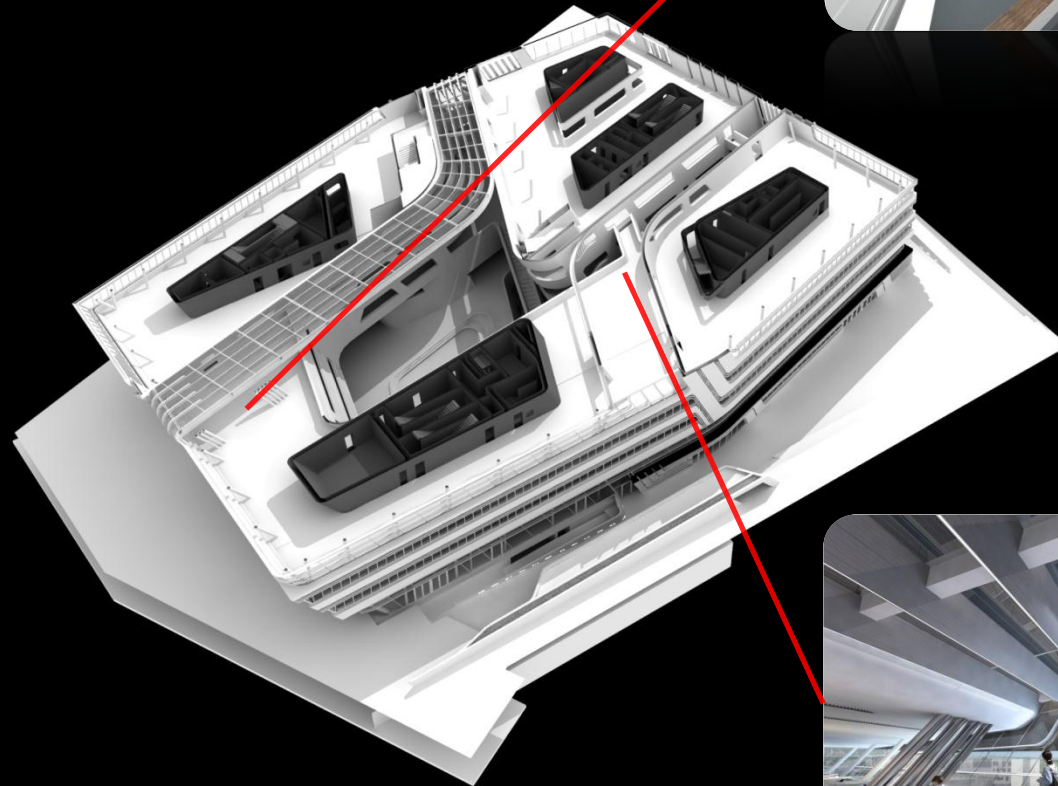
LEVEL OG02



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



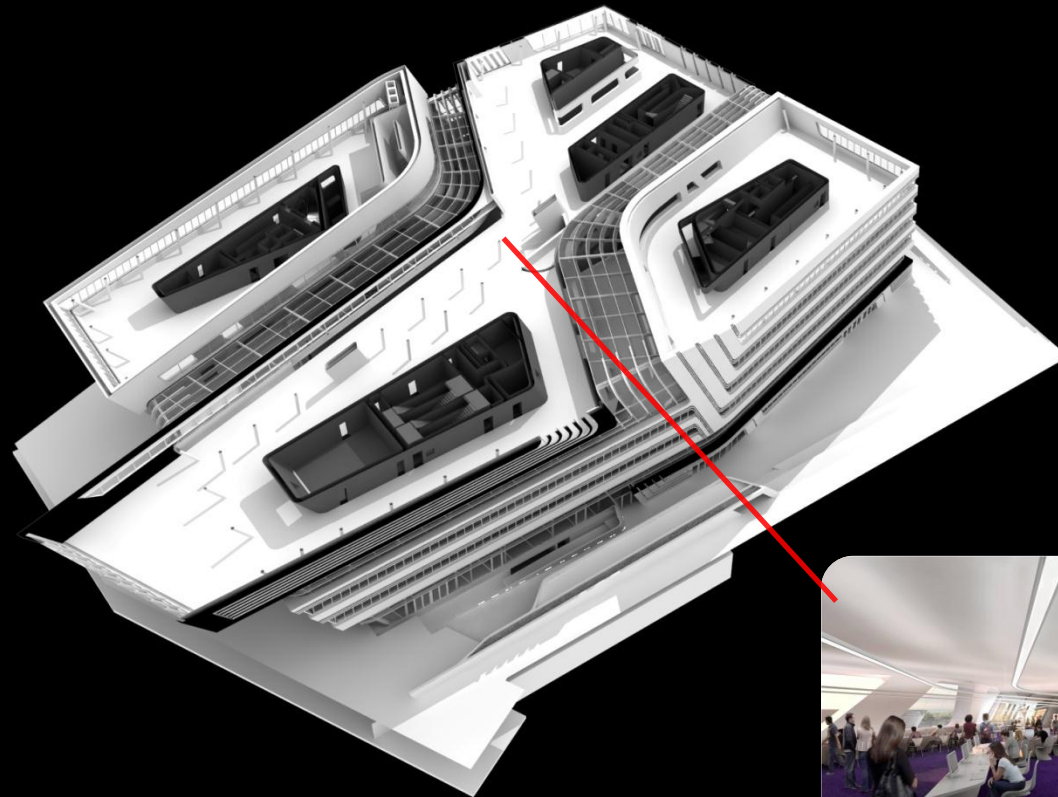
LEVEL 0G03



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



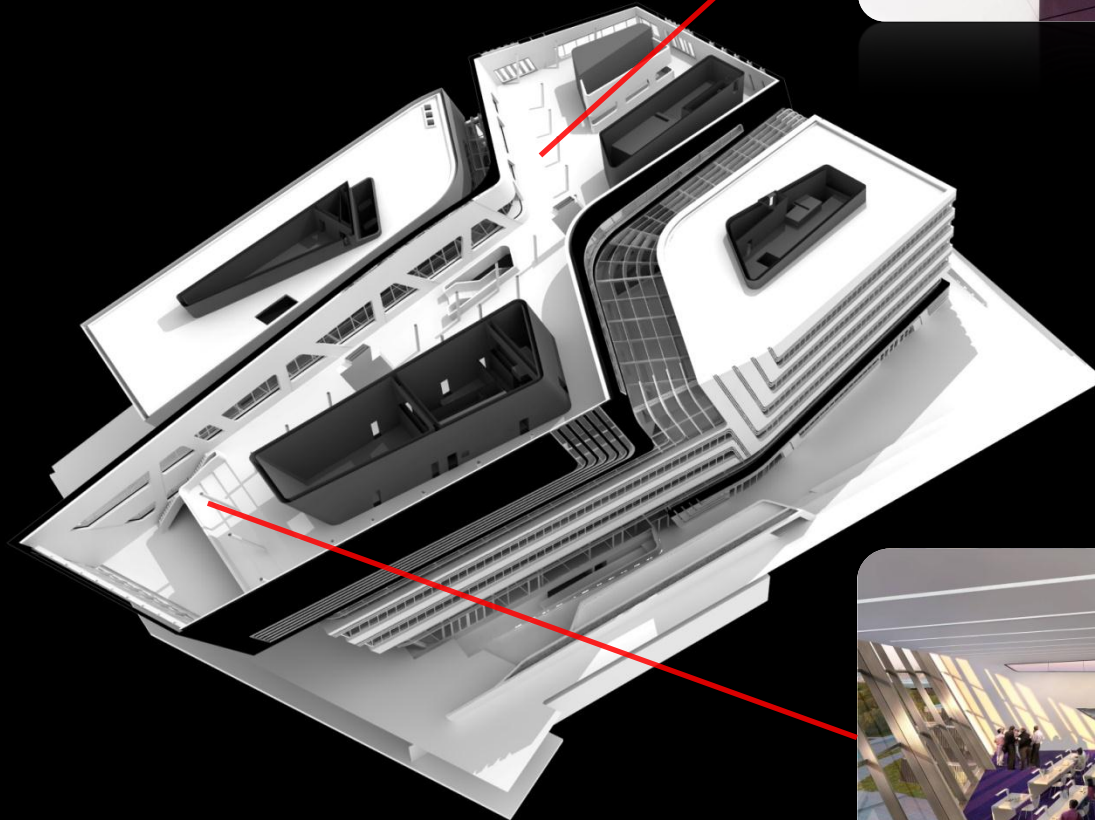
LEVEL OG04



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



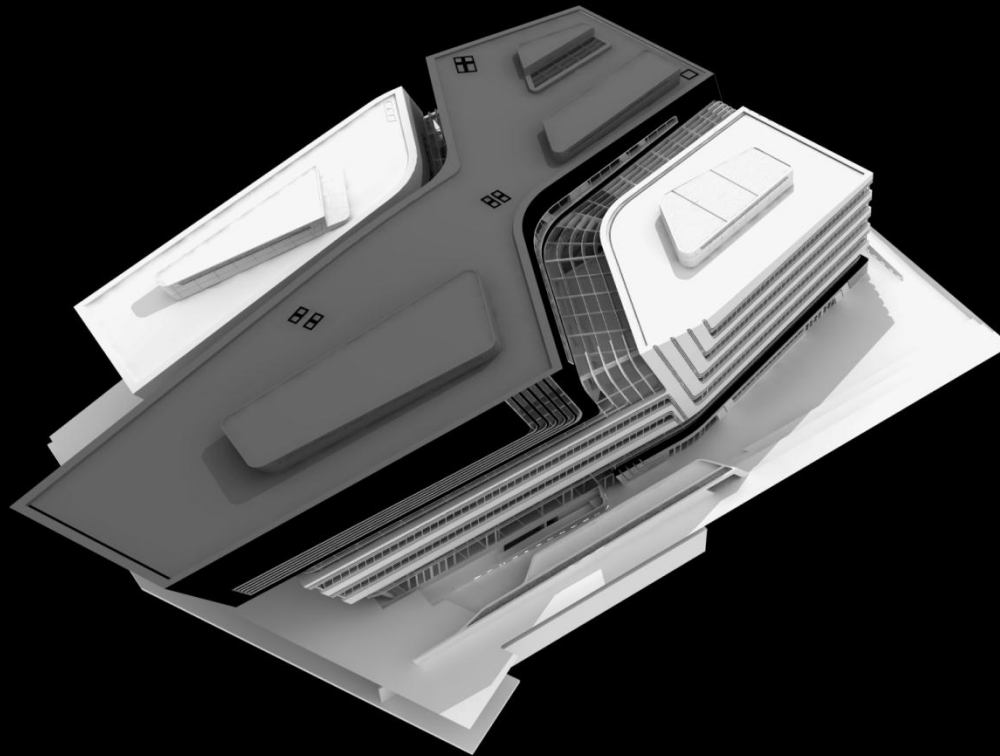
LEVEL OG05



# INTRODUCTION

## 3D floor plans

Library and Learning Centre, Vienna



*Rooflevel*

# INTRODUCTION

## Concept video

Library and Learning Centre, Vienna

# ZAHA HADID ARCHITECTS: [ref-lex]ical

WHAT WAS – WHAT HAPPENED – WHAT IS

## Introduction

- Reason for brief
- Design concept – initial idea
- Program distribution



## Comparison

- From competition to completed building



## Analysis

- What has changed on design and program
- What have been the drivers for the change and non-change



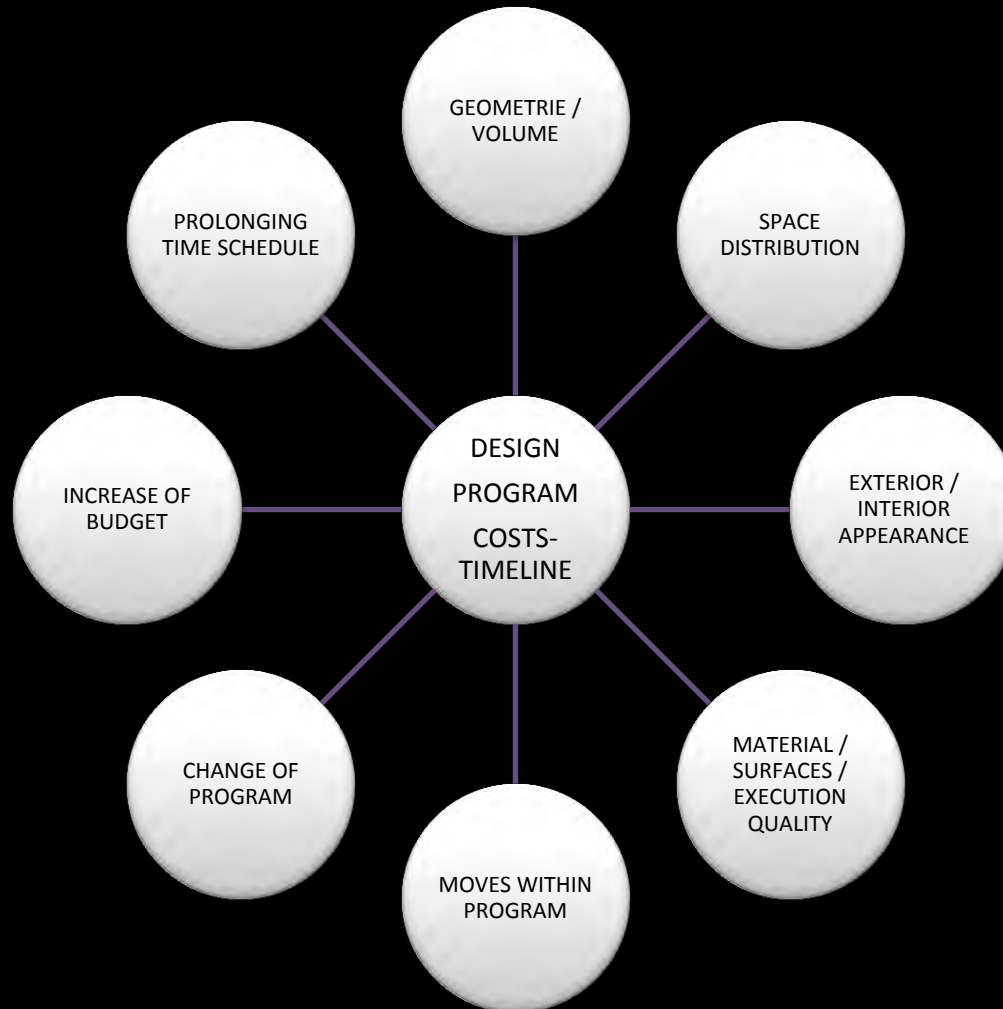
## Conclusion

- What can be improved/affirmed to secure design continuity and quality processing

# COMPARISON

## Key aspects in line

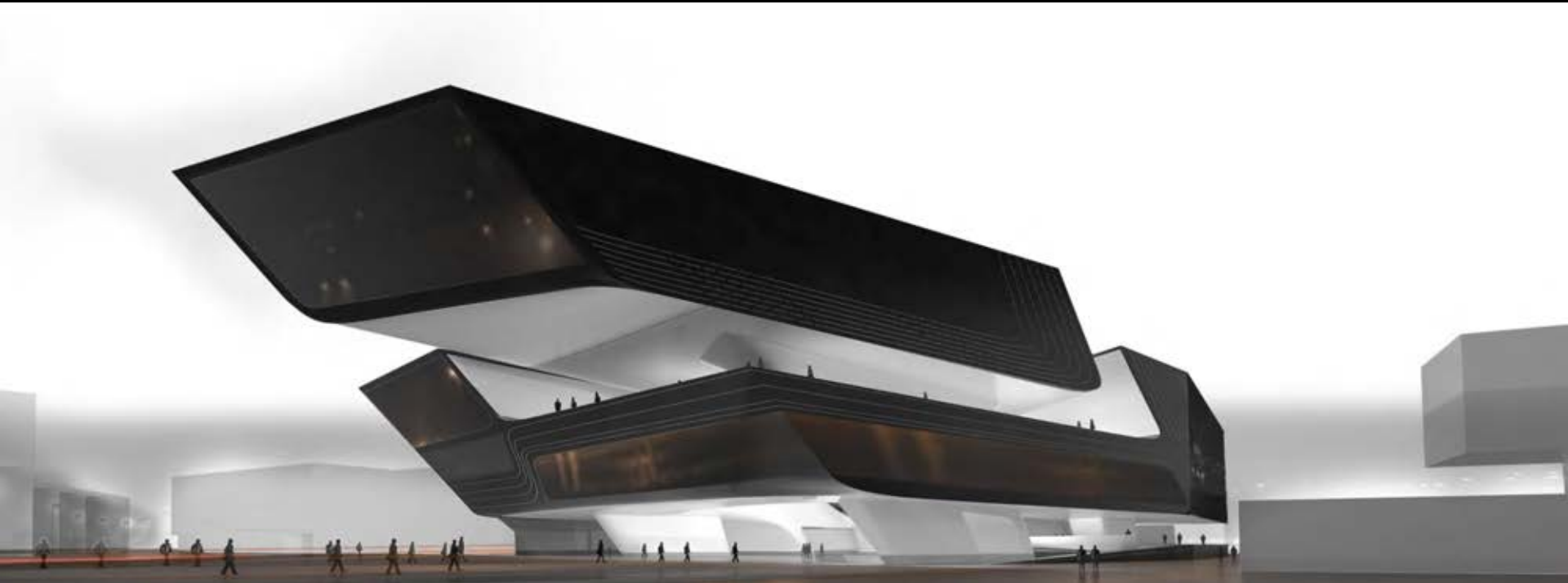
Are there any major changes?



# COMPARISON

## Main View I

Competition phase I



# COMPARISON

## Main View I

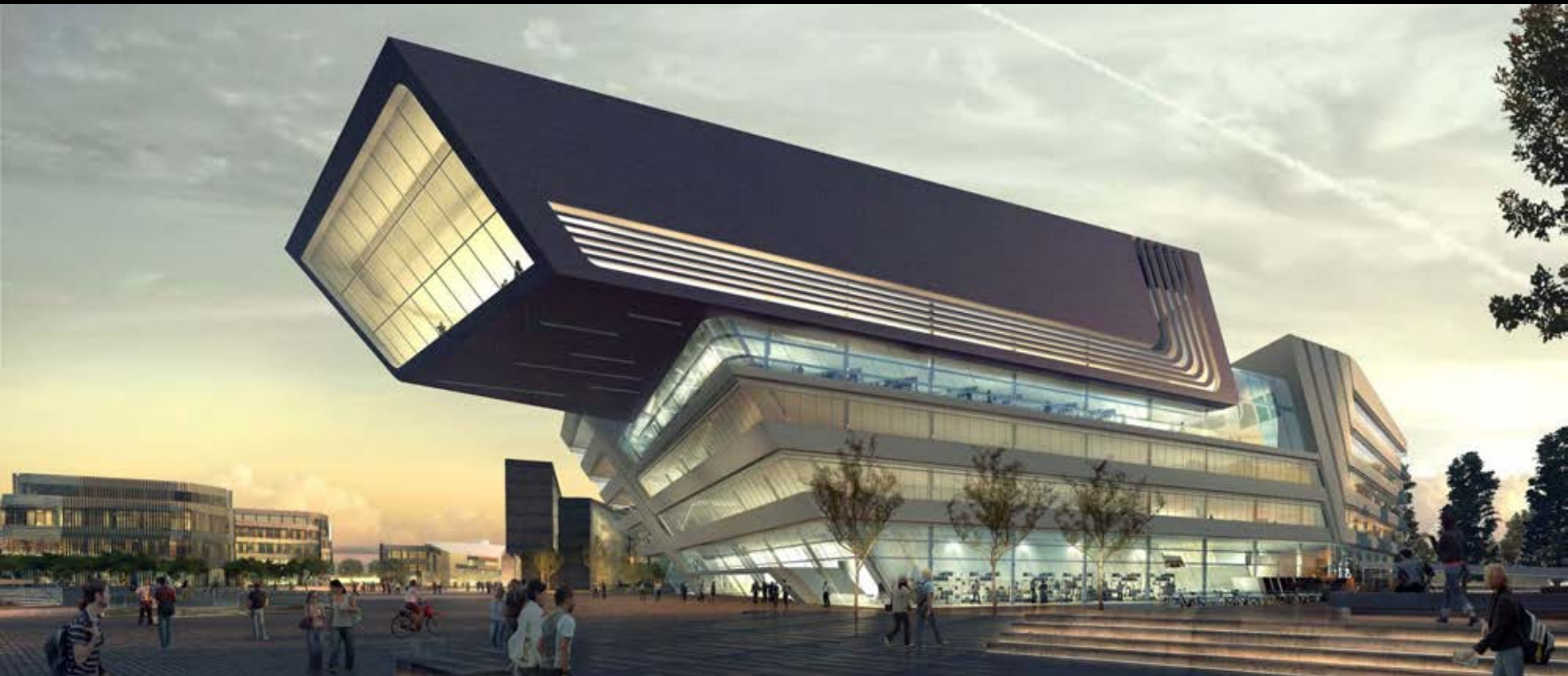
Competition phase II



# COMPARISON

## Main View I

Design Development



# COMPARISON

## Main View I

Completed building



# COMPARISON

## Main View II

Competition phase I



# COMPARISON

## Main View II

Design Development



# COMPARISON

## Main View II

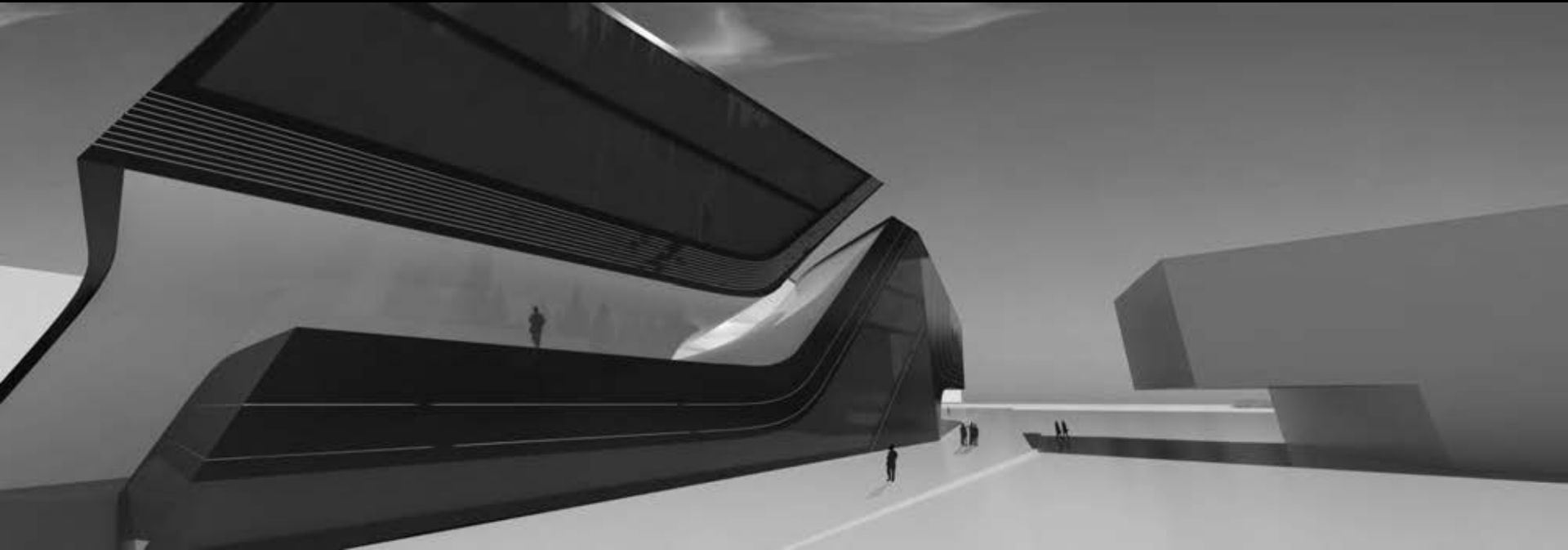
Completed building



# COMPARISON

## RearView

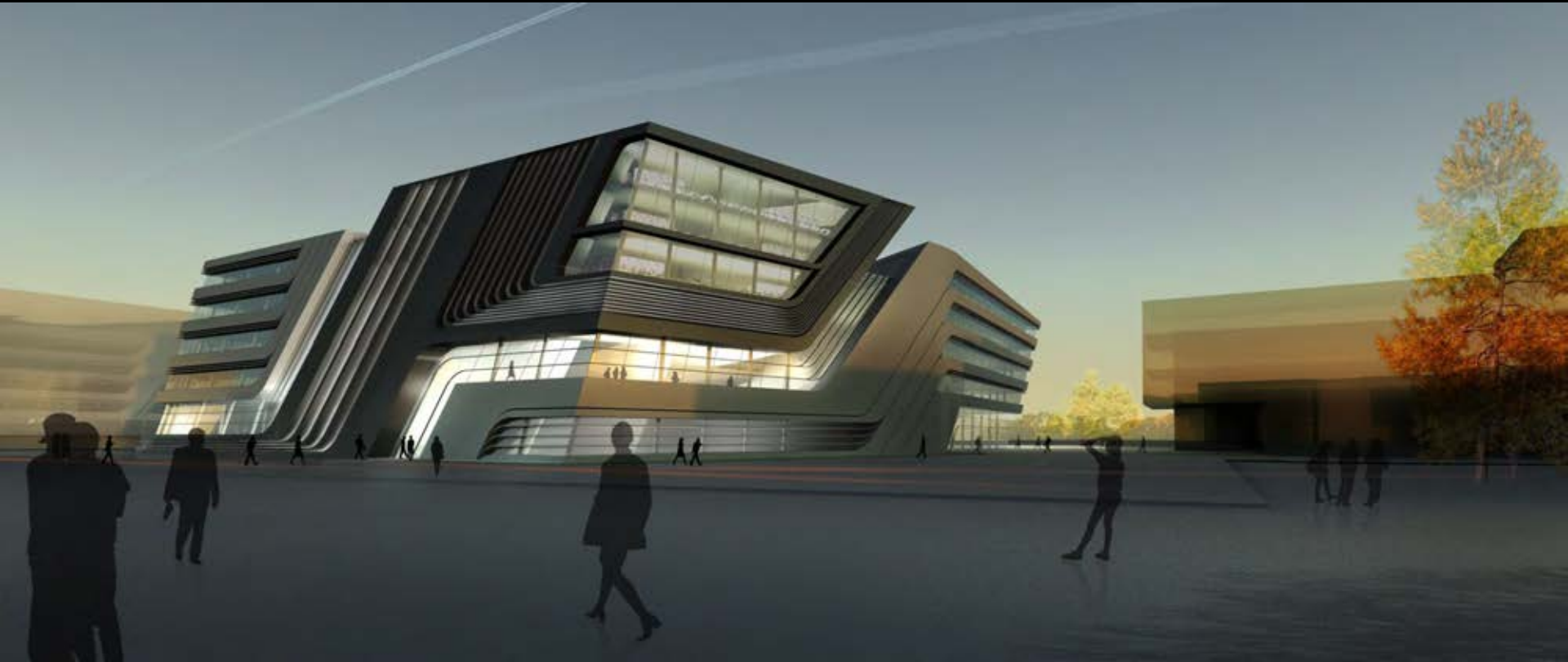
Competition phase I



# COMPARISON

## Rear View

Competition phase II



# COMPARISON

## Rear View

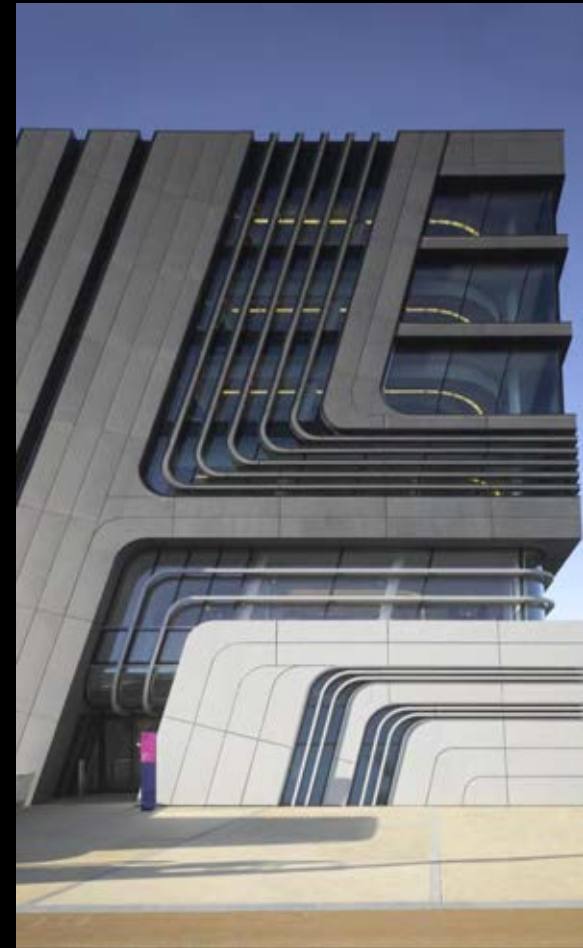
Design Development



# COMPARISON

## Rear View

Completed building



# COMPARISON

## Interior View

Competition phase I



COMPARISON

Interior View

Competition phase II



COMPARISON  
Interior View  
Design Development



# COMPARISON

## Interior View

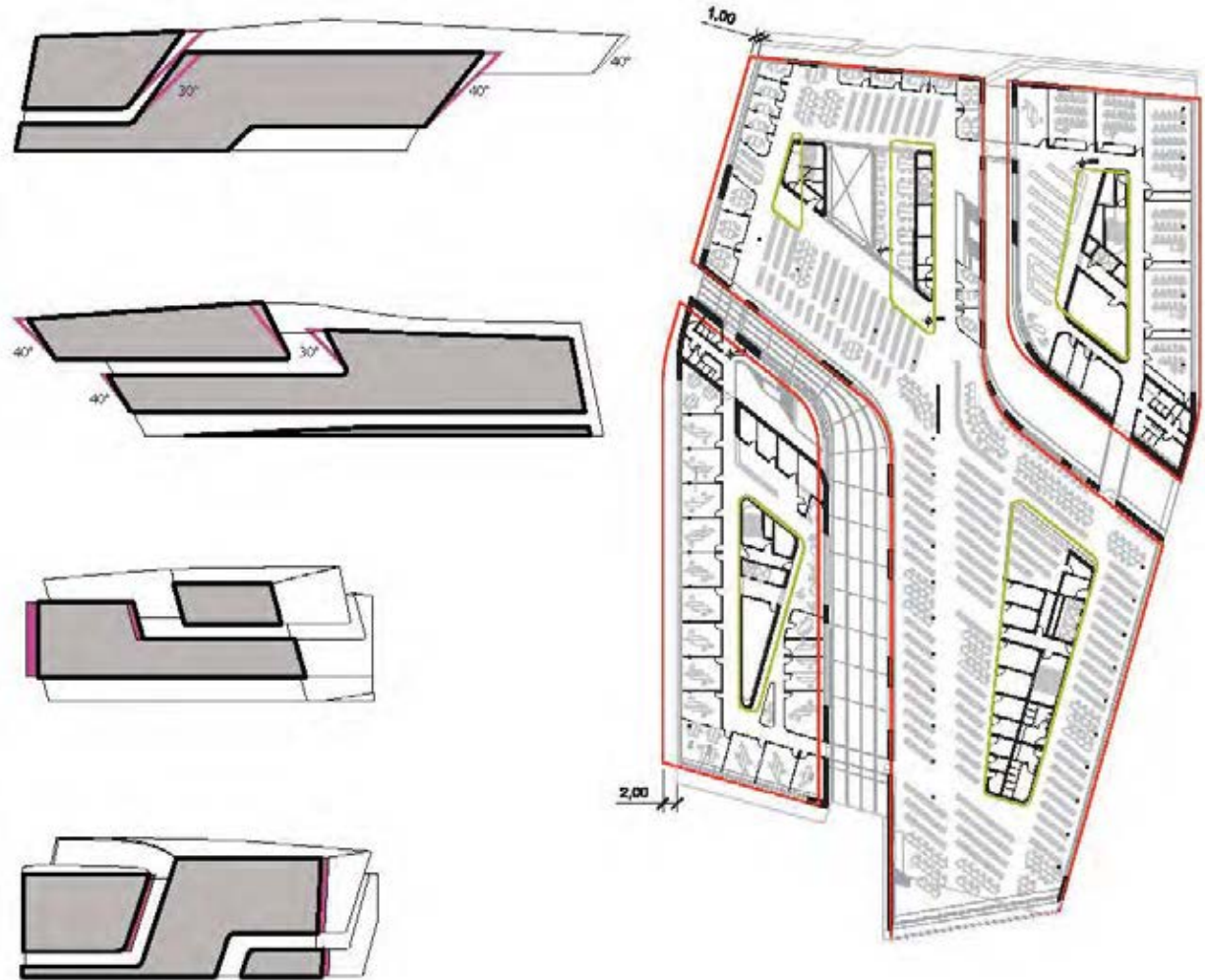
Completed building



# COMPARISON

## Geometrie

Outline preliminary design

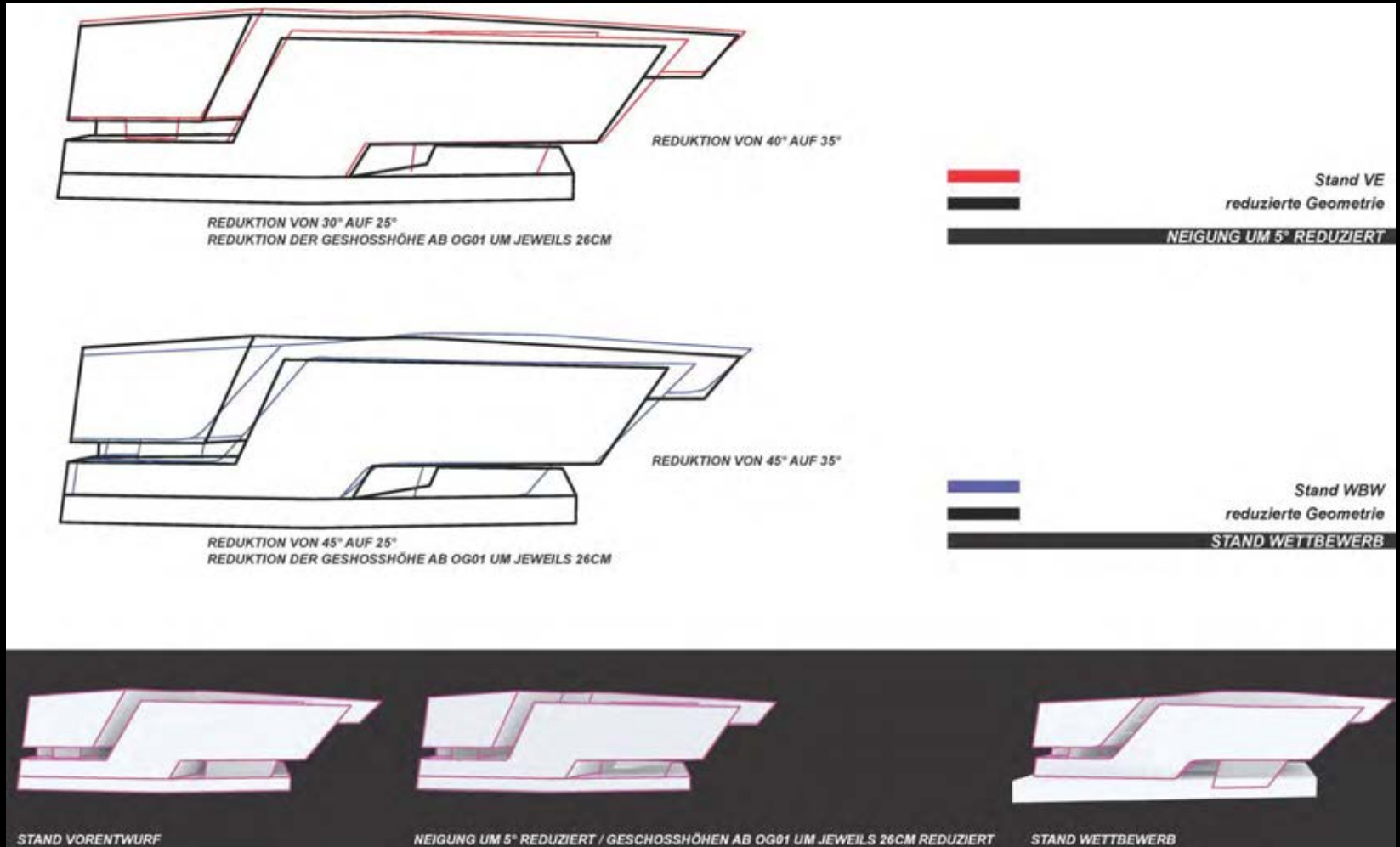


Grundriss Optimierungsphase

# COMPARISON

## Geometrie

Outline design development



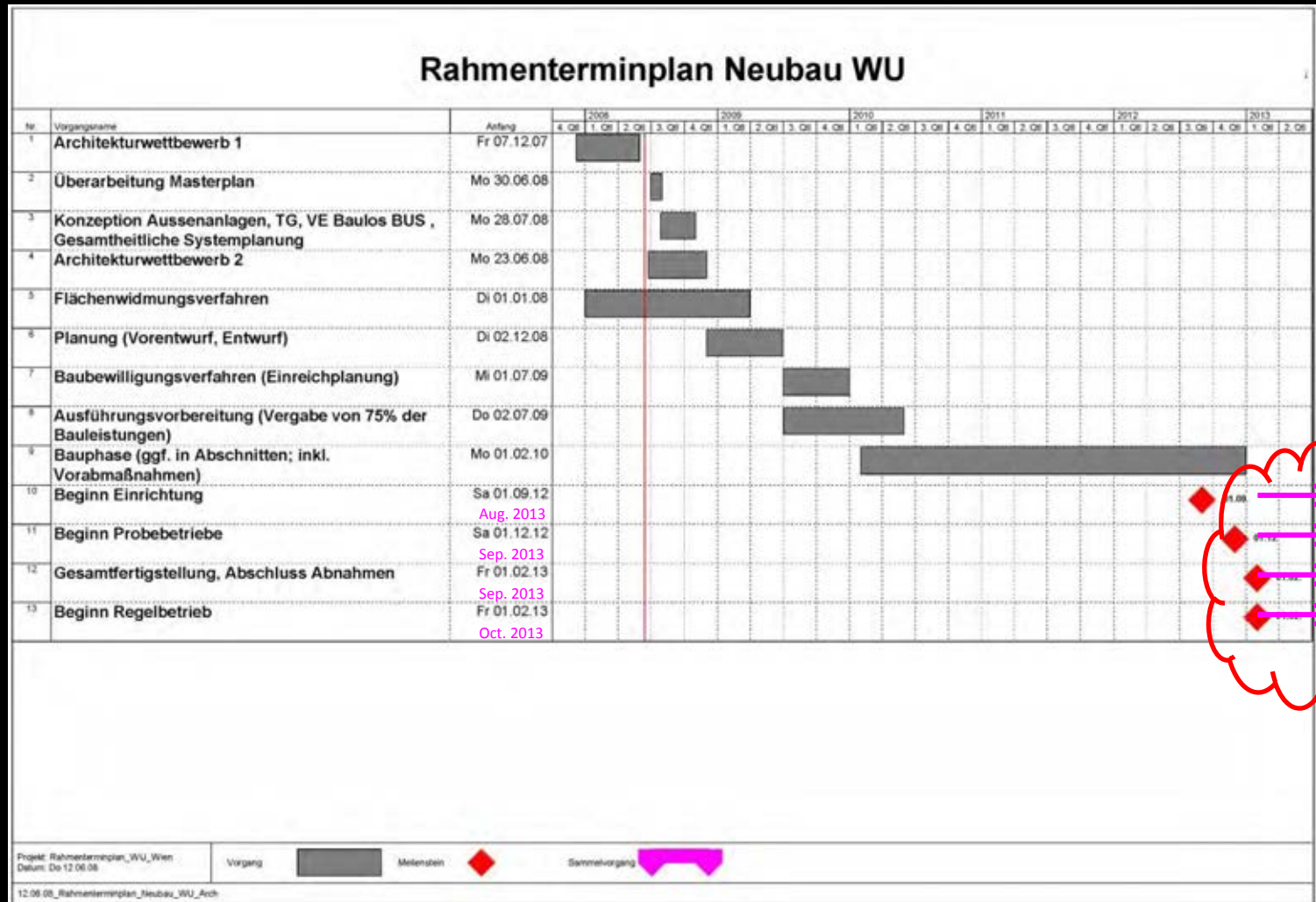
## Outline design development



# COMPARISON

## Time schedule

Framework time scheduling as to contract



# ZAHA HADID ARCHITECTS: [ref-lex]ical

WHAT WAS – WHAT HAPPENED – WHAT IS

## Introduction

- Reason for brief
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## Analysis

- What has changed on design and program
- What have been the drivers for the change and non-change



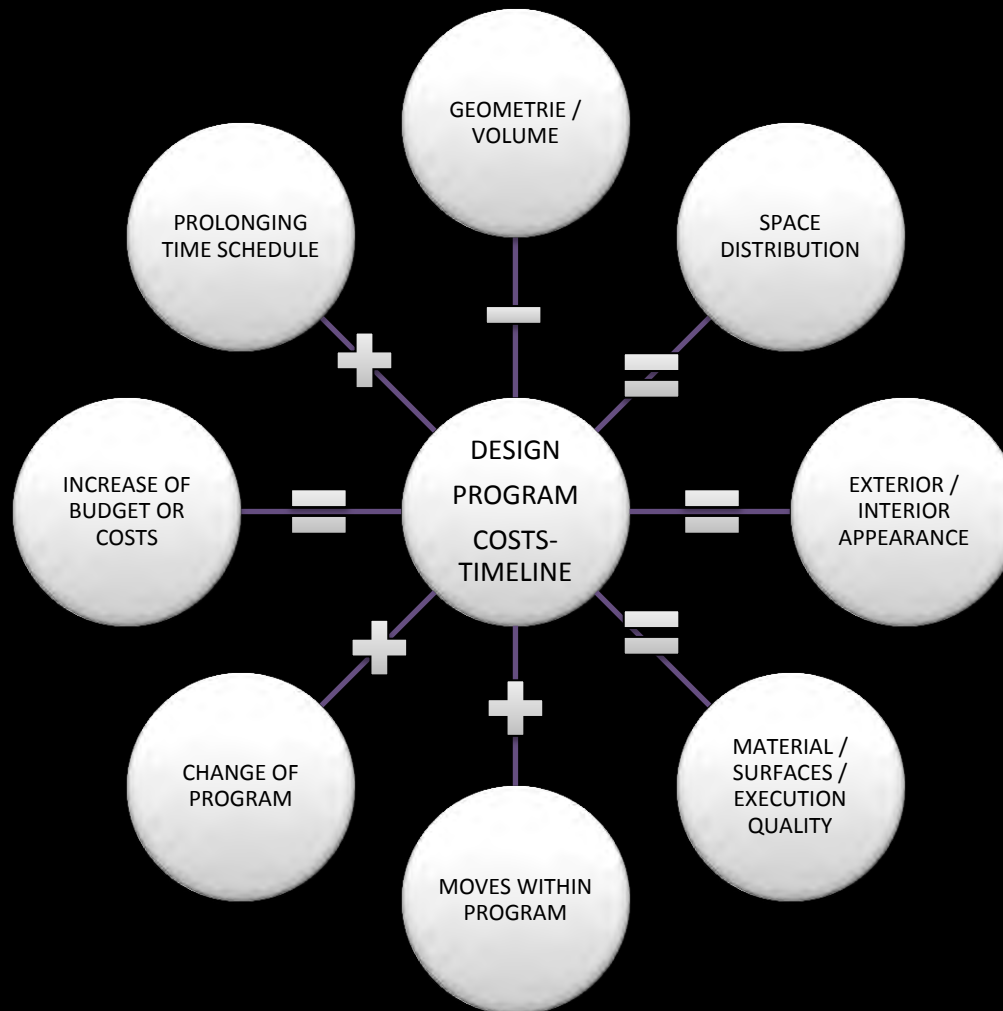
## Conclusion

- What can be improved/affirmed to secure design continuity and quality processing

# ANALYSIS

## Key aspects in line

Are there any major changes?



RATING SCALE:



# ANALYSIS

## Reasons

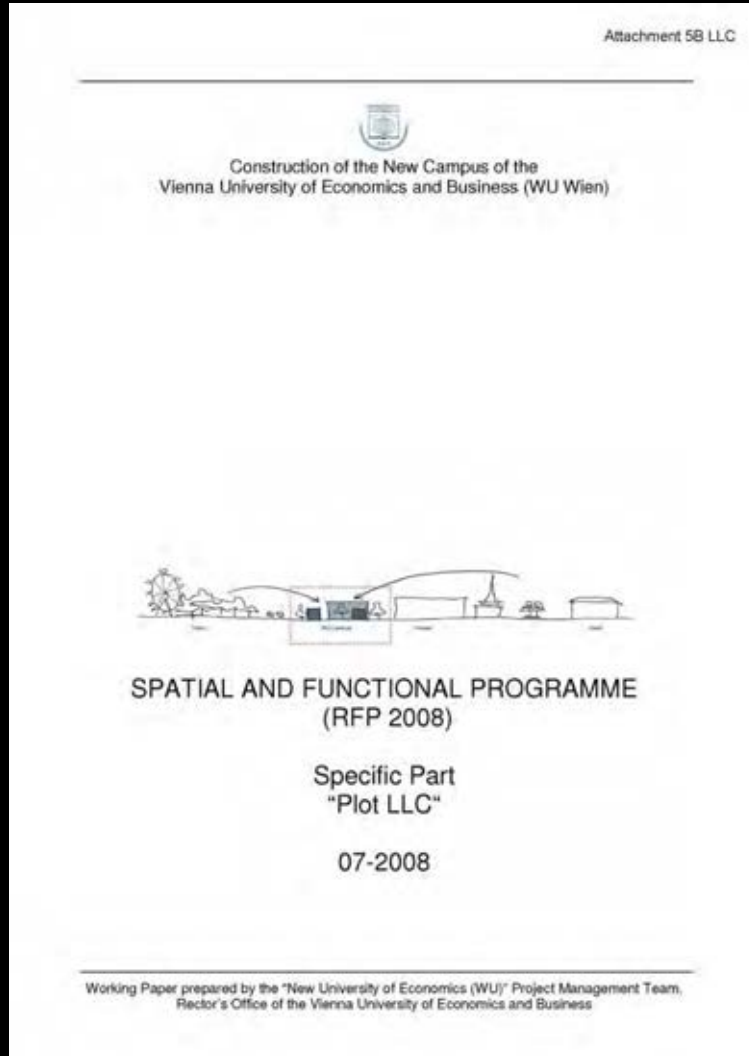
Why this continuity?




# ANALYSIS

## Brief

Broad description of the assignment



Document:	RFP-2008_Teal_LLC_WU-EN_080813_C01.doc	New Vienna University of Economics and Business (WU)	
Sub-project:	RFP	Project phase:	Competition
Author:	Burgard/Sommer	Version:	08
		Effective date:	2008-08-13

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# ANALYSIS

## Brief

### Function of Library

Document: RFP-2008_Text_LLC_404-EN_080810_CS.doc	New Vienna University of Economics and Business (WU)	
Sub-project: RFP	Project phase: Competition	
Author: Burghard Sommer	Version: 06	Effective date: 2008-08-10

### 3 Functions of the Library and Learning Center (LLC) at a Glance

The LLC building forms the very heart of the University. Being the largest building on the new Campus, it assumes a **landmark function** for the WU. In addition to the actual lecture rooms, it houses all those functions which are most frequently used by the students.

The following diagram provides an overview of the LLC's functions:

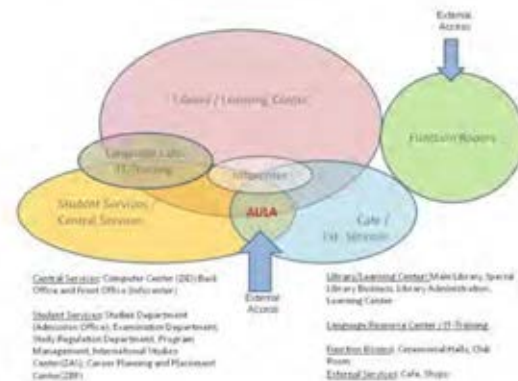



Fig. 1: Overview of LLC Functions

- The "Aula" is the Great University Hall and forms the core of the Library and Learning Center. Serving as the public interface of functional groups, it not only serves as a hub and place of orientation within the building but is also for public events.
- In the entrance area leading to the Library, the Computer Centre (Zentrum für Informatikdienste, ZID) and the Library operate a joint information and support desk including book/media loans services ("Infocenter").
- The Language Lab and the IT training rooms are special teaching facilities closely linked to the Learning Center.
- The external services such as a cafeteria, a bookshop and copy shop are closely linked to the Library and Learning Center area.

# ANALYSIS

## Brief

Vision and design approach

Document: RFP-2008_Text_ILLC_406-EN_080810_CS.doc	New Vienna University of Economics and Business (WU)	
Sub-project: RFP	Project phase: Competition	
Author: Burghardt/Sommer	Version: 08	Effective date: 2008-08-13

## 5 LIBRARY AND LEARNING CENTER

### 5.1 The Modern University Library

As a provider of information, the Library forms an integral part of the Wirtschaftsuniversität Wien. The WU Library is Austria's **largest business studies library**. Besides its basic function of delivering a service to students and researchers, the Library is to assume a strong **image-building role for the WU**.

Despite the advancement of **virtual libraries** and **digital learning environments**, there is evidence of the continued importance of paper media as a source of knowledge. Instead of a reduction in the numbers of books in printed form, we are witnessing a supplementary role for the digital medium to its analogue counterpart. Both hard and soft carriers of information have their specific advantages, which are selected depending on the respective purpose.

Accordingly, the new WU building will **not lead to a reduction in the size of the Library**, but to an expansion and improvement of both its analogue and digital resources.

In view of the developments expected in print and new media, the Library rooms must be designed with the requisite flexibility in mind.

By **linking the Library with other functions** in support of research and learning, the Library is to become the WU's "hub of information and communication" both physically and virtually.

### 5.2 The Learning Center as a Vision

Besides requiring adaptation of the teaching system, **learning in a university context** is undergoing changes that require transformation and enhancement of learning environments for students. New technologies and the need for **autonomous study** (versus lecture-type "chalk-and-talk" teaching) require strong improvements in virtual learning environments (e.g. LEARN@WU); at the same time, however, collaboration in teams, shared study and social interaction with peers are increasingly becoming the core themes of university life today.

The WU **Learning Center** provides the infrastructure for new forms of studying. It should assume a central role in student life. The WU Learning Center is characterised by the following aspects:

**Students are provided the space** required to study alone or in teams, to work out content or exchange information and experience.

- The Learning Center is the student's **"office"**. Students go to this place every day to undertake the **day-to-day business** of their education programme.
- It is **flexible** enough to cater for most diverse learning typologies. Consequently, services include **single stand-alone desks** and lively **learning lounges**, 24-hour operation for night workers, as well as cafeteria spots for "hungry learners".
- Besides offering a variety of desks for learning and working, the Learning Center provides facilities for **undertaking research, producing publications and communicating**. This means that the University must not only provide space but also technologies (e.g. Internet).

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Document: RFP-2008_Text_ILLC_406-EN_080810_CS.doc	New Vienna University of Economics and Business (WU)	
Sub-project: RFP	Project phase: Competition	
Author: Burghardt/Sommer	Version: 08	Effective date: 2008-08-13

copy and print services, presentation media) as well as information (especially in relation to the Library)

- Students are not left alone in the Learning Center, but receive core function **support from tutors**.
- Functionally, the Learning Center is **closely linked** to other key facilities for students, including **Study Services, the Library and IT services**.
- The Learning Center opens the door to the University for students, while at the same time it forms its **heart**. Consequently, its architectural design is friendly, clear-cut and functional – it invites one to stay, provides motivation to study and supports interaction with peers.

### 5.3 Design Approaches to the Library and Learning Center

The **Library** and the **Learning Center** are interlinked functional units; together, they form the intellectual and physical core of the University.

In terms of **space**, the new concept is reflected in the Central University Library, which combines the Library, Special Business Library and Learning Center services as a cross-cutting function.

In addition, the Central University Library operates specialised libraries for business law, foreign-language business communication as well as social sciences; these subsidiary libraries will be located in close proximity to the pertinent Departments.

### 5.4 Central University Library and Learning Center Zones

Basically the Central Library and the Learning Center are structured into three zones, similar to the Departments and Services:

- **Public zone:** unit area with free access
- **Semi-public zone:** controlled access for students and non-WU members (authorisation required)
- **Non-public zone:** authorised access only

Moreover, the University Library and Learning Center zones must be structured into units that can be made accessible 24-7.

Access to all semi-public areas must be provided to all WU staff on a 24-7 basis. The specialised Business Library ("Spezialbibliothek Wirtschaft") in particular should be accessible to Department staff as directly as possible.

Separate goods entrances must be provided for deliveries.

### 5.5 Central University Library

The central University Library comprises the following elements:

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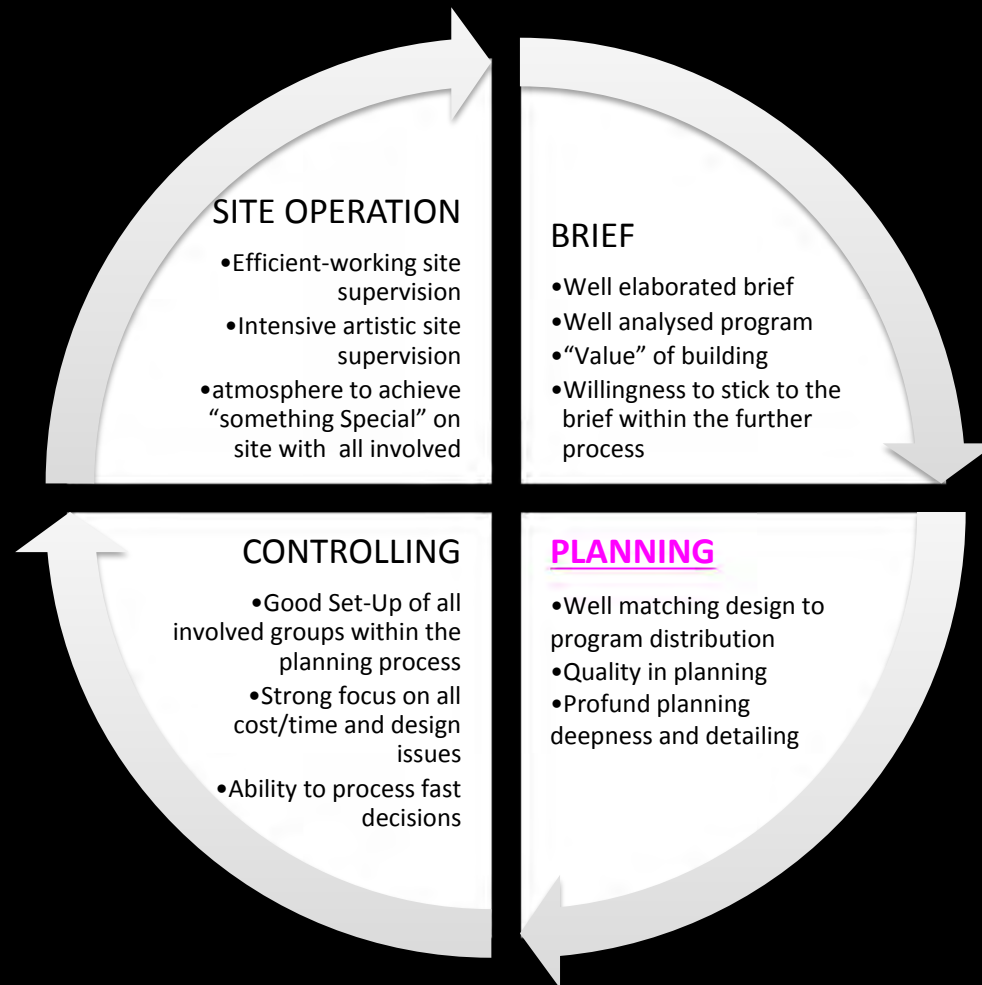
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# ANALYSIS

## Reasons

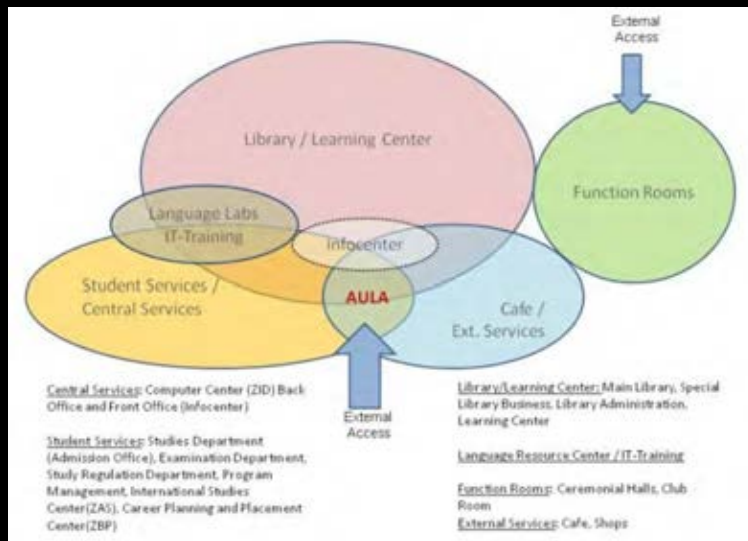
Why this continuity?



# ANALYSIS

## Planning

Program distribution and building figure



1.1 KONZEPT



1



2



3



4

STUDIUM OPTIMIERUNGSPHASE 1 - INFOSCHNITT

3.0 GEOMETRIE | TRAGWERK



1



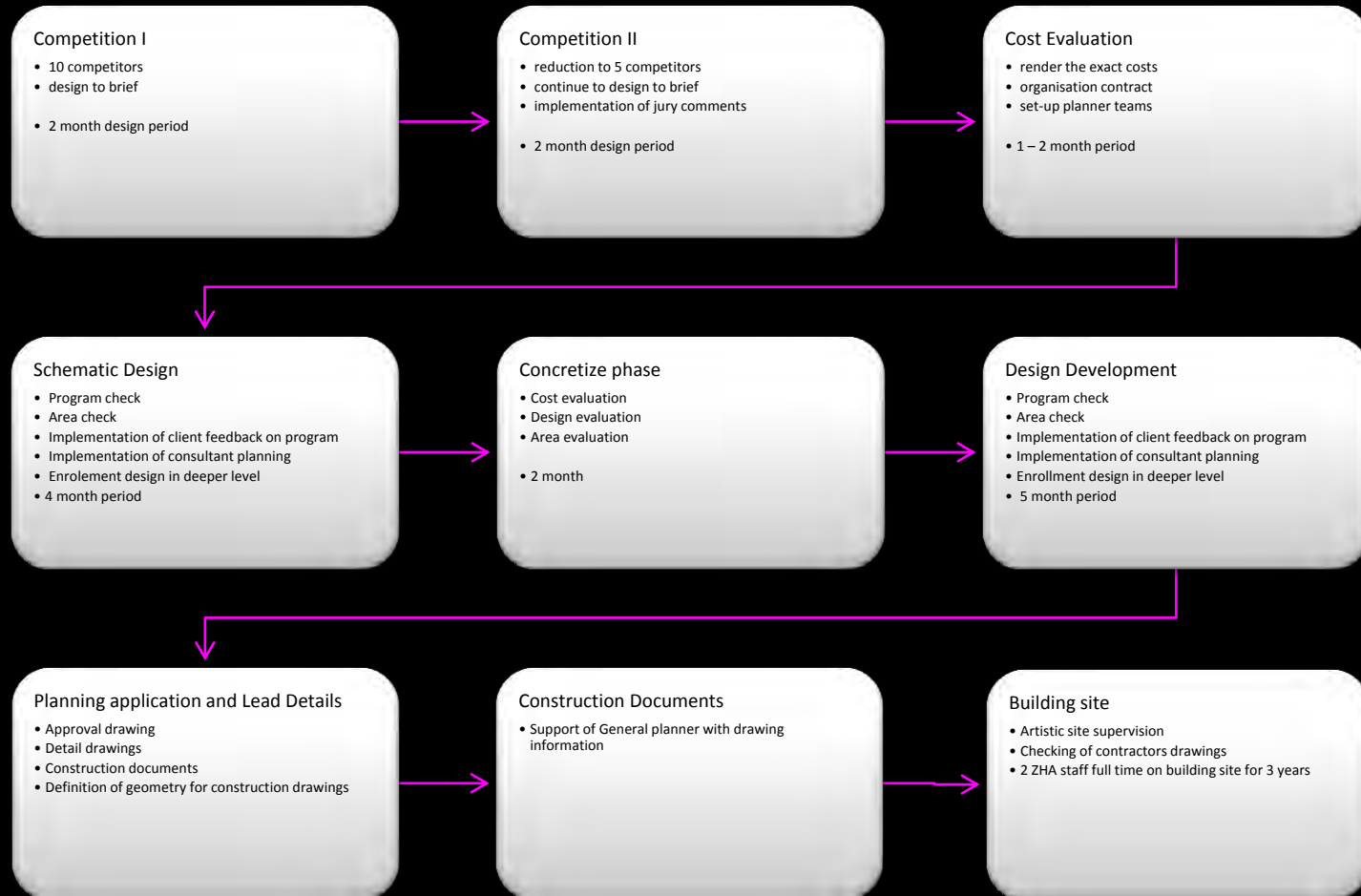
2

STUDIUM OPTIMIERUNGSPHASE 1 - INFOSCHNITT

# ANALYSIS

## Planning

LLC specific planning and building phases



# ANALYSIS

## Planning

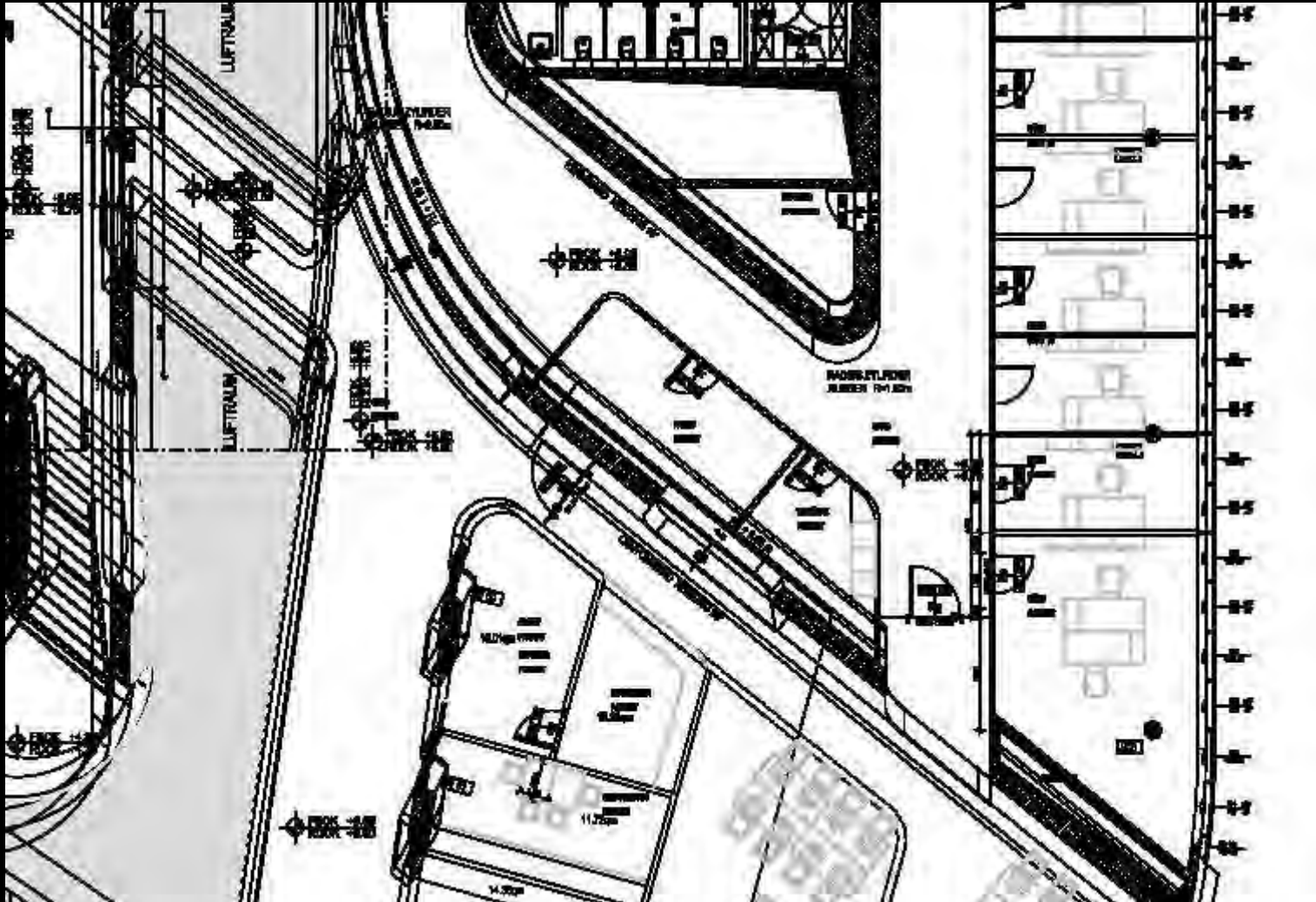
Description of complex geometry



# ANALYSIS

## Planning

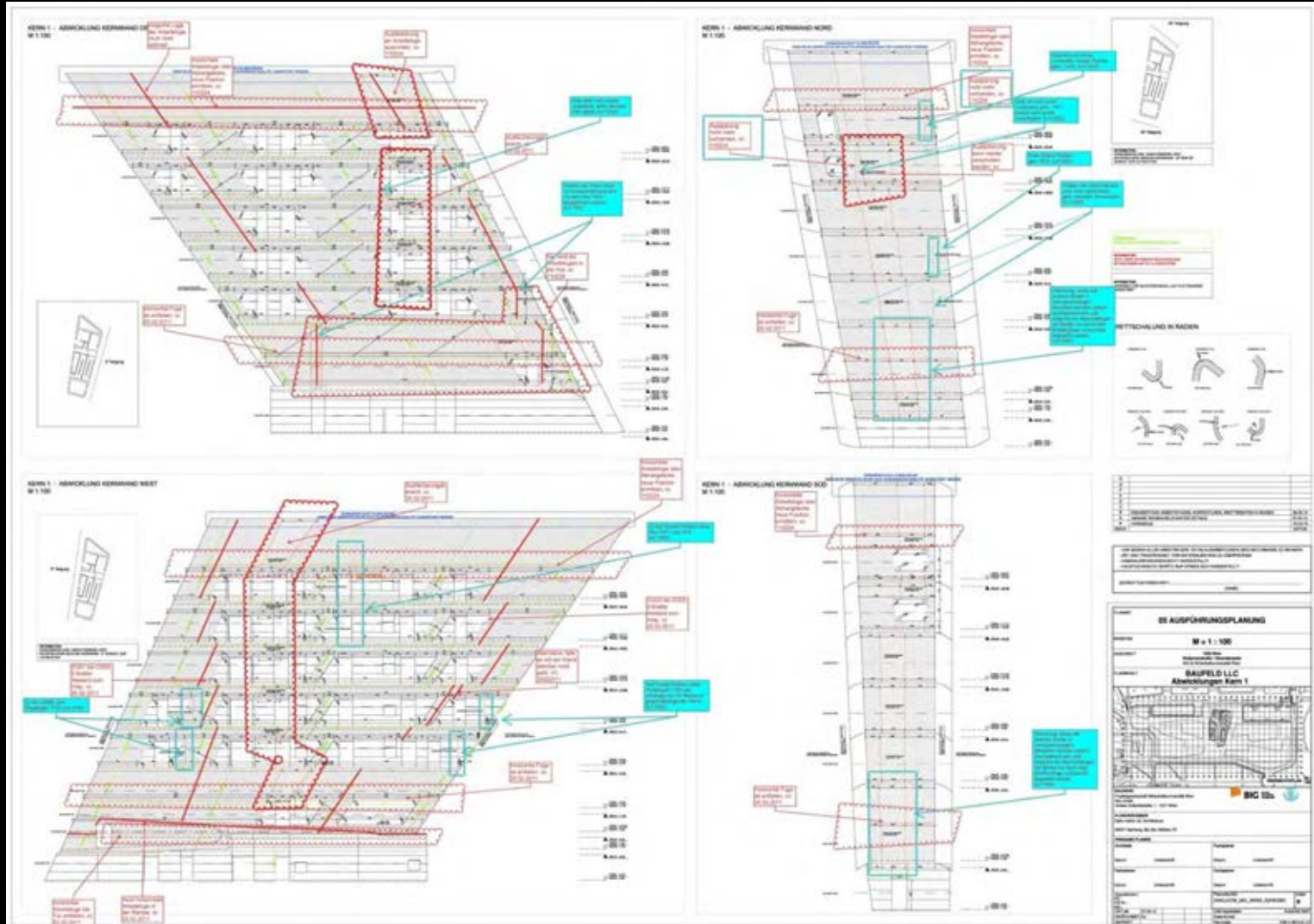
Description of complex geometry



# ANALYSIS

## Planning

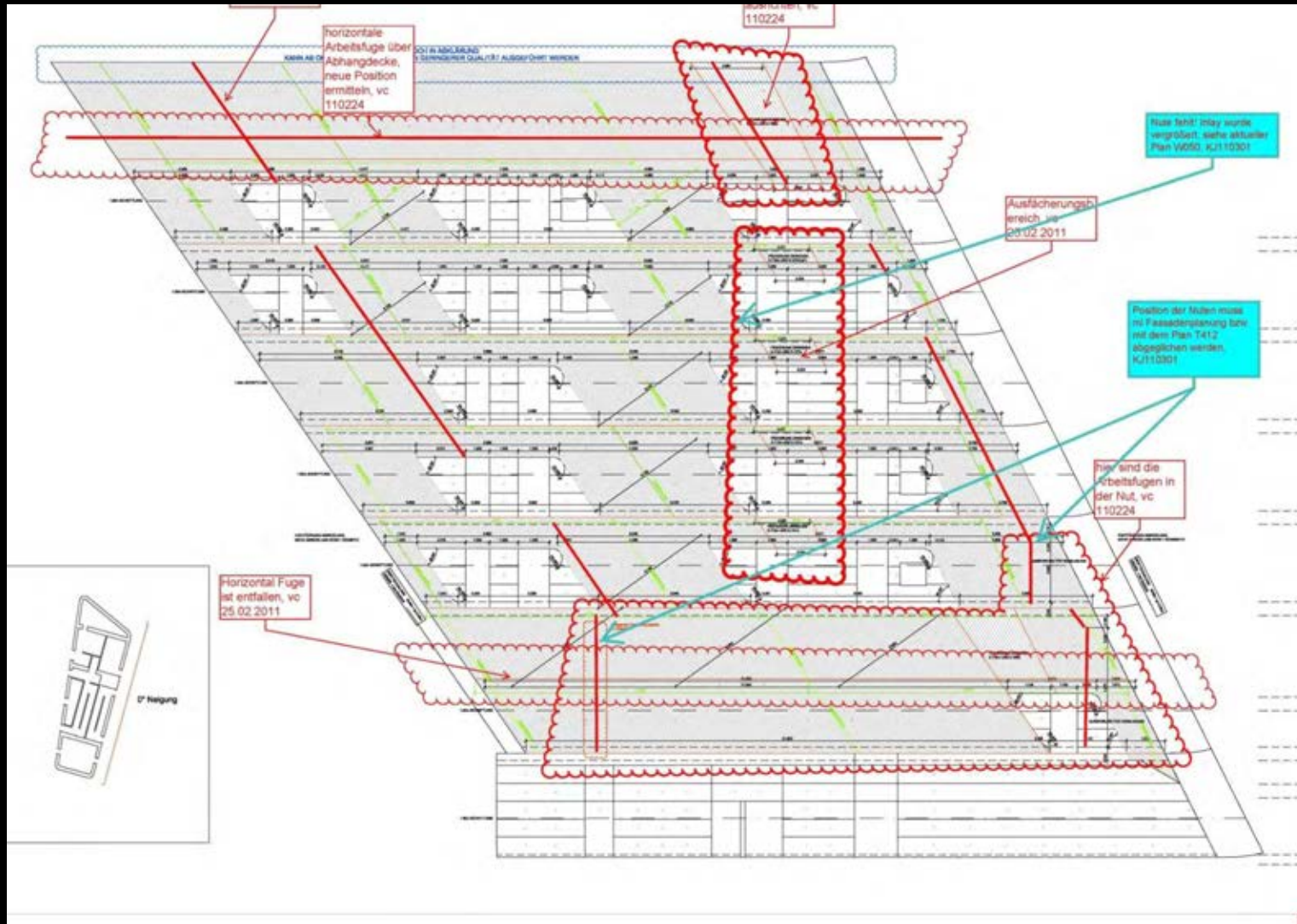
Detailing fair face concrete



# ANALYSIS

## Planning

Detailing fair face concrete



# ANALYSIS

## Planning

Profund detail level already in design stages

Fensterbank im gerundeten Bereich  
3-dimensional gebogen:  
Aluminiumbleche, lasergeschnitten,  
teilweise zylindrisch gerundet, verschweisst

Wärmeschutz-Isolierverglasung, Modellscheibe

Lamellen / Blechbekleidung im gerundeten Bereich:  
Strangpressprofile 2-dimensional gebogen, bzw.  
aus lasergeschnittenen Blechen, gebogen, verschweisst

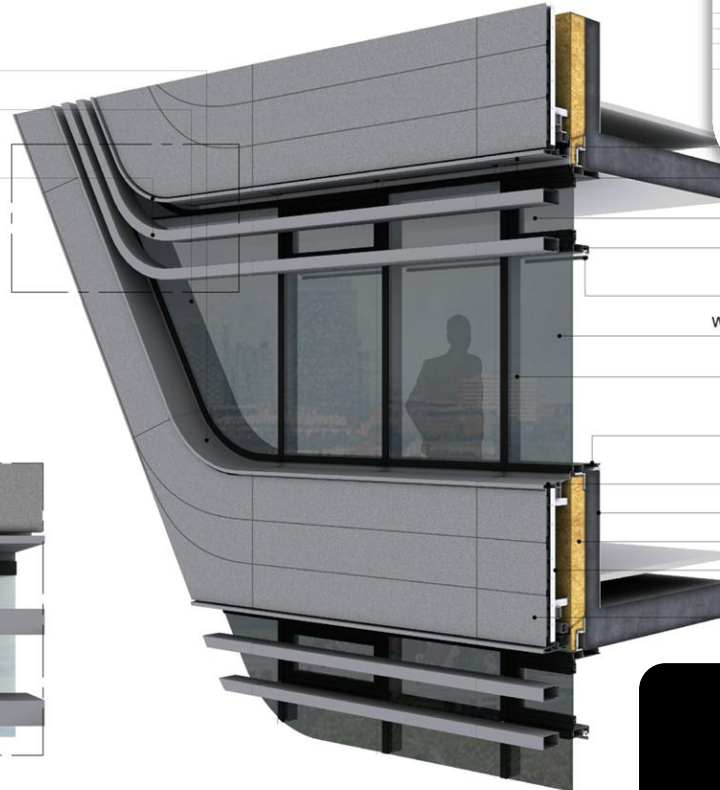
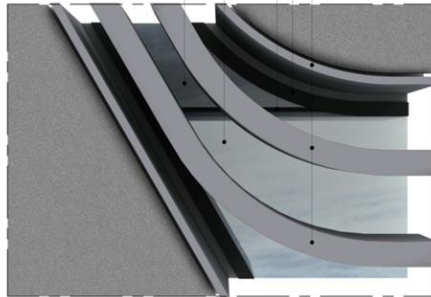
Lamellen / Blechbekleidung im gerundeten Bereich:  
Strangpressprofile 2-dimensional gebogen, bzw.  
aus lasergeschnittenen Blechen, gebogen, verschweisst

Deckschale, gebogen

Silikonfuge

Wärmeschutz-Isolierverglasung  
als Modellscheibe

Glas-Aluminium-Paneel mit  
emailierter Modellscheibe



Kipflügel, offenbar mit Handhebel

Lamellen, Aluminium Strangpressprofil

Blendschutz, Textil,  
horizontal manuell verschiebbar

Wärmeschutz-Isolierverglasung,  $U_g = 1,1 \text{ W/m}^2\text{K}$

Aluminium Pfosten-Riegel-Konstruktion

Fensterbank Innen:  
Aluminiumkantblech mit Holzwerkstoffplatte

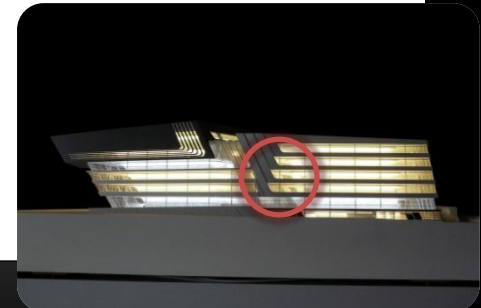
Fensterbank Aussen:  
Aluminiumkantblech mit Gefälle

Stahlbetonbrüstung

Wärmedämmung, Mineralwolle

Aluminium Unterkonstruktion

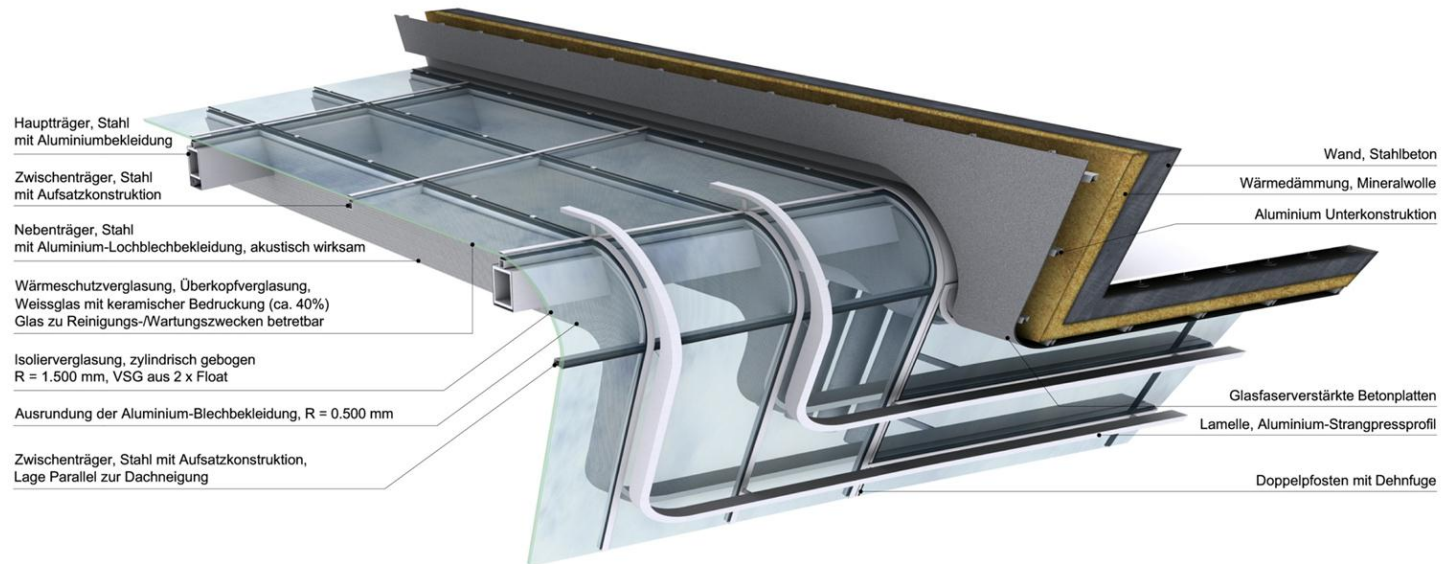
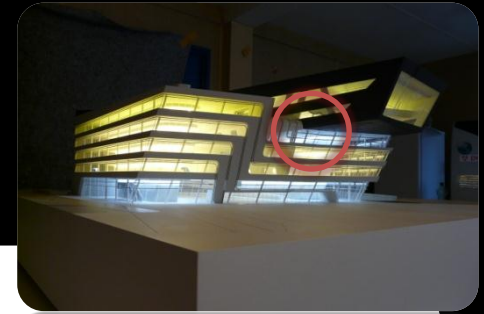
Glasfaserverstärkte Betonplatte,  
Befestigung mit Hinterschnittanker



# ANALYSIS

## Planning

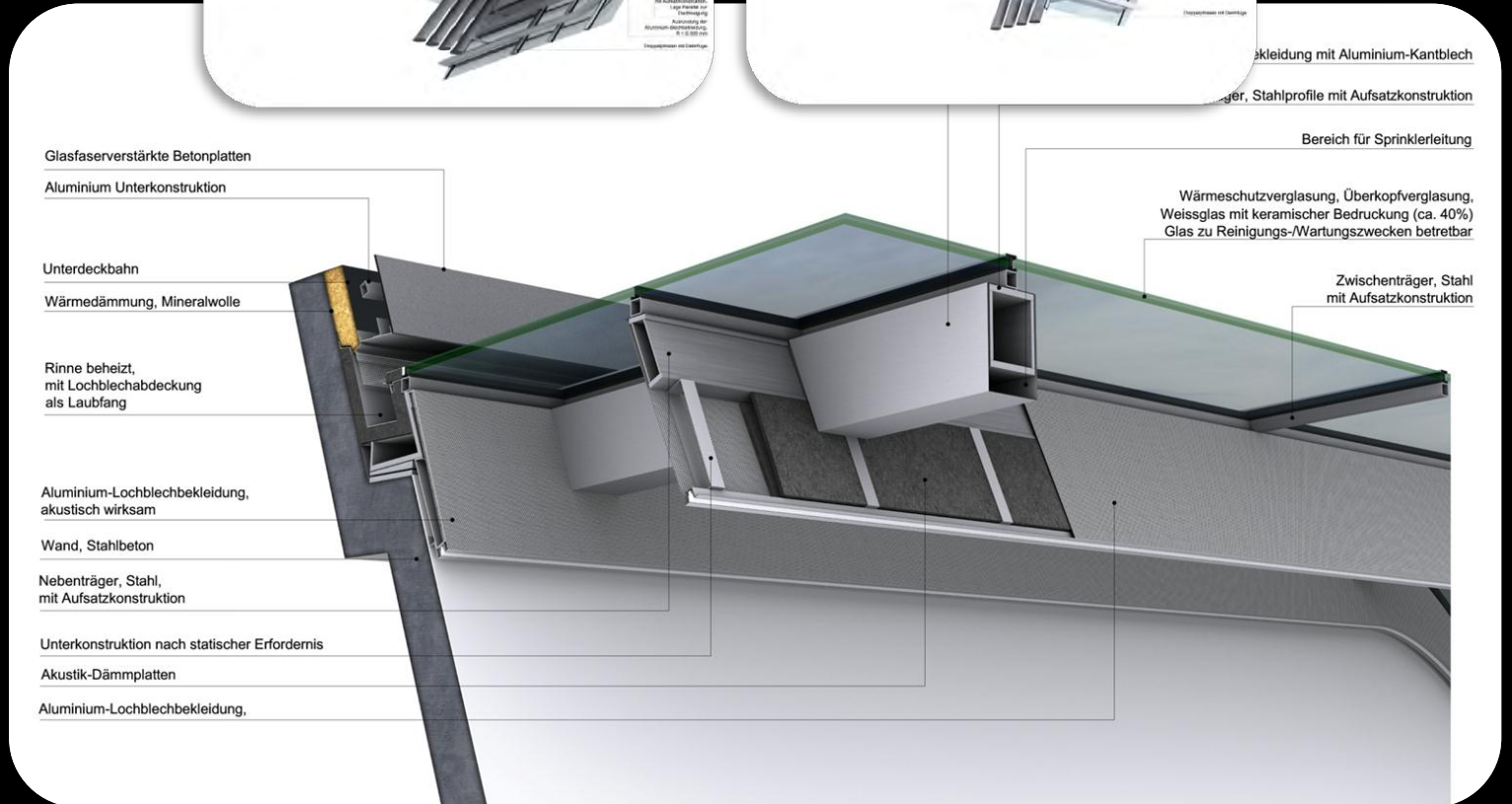
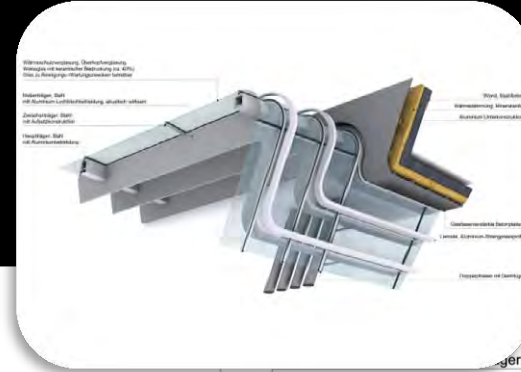
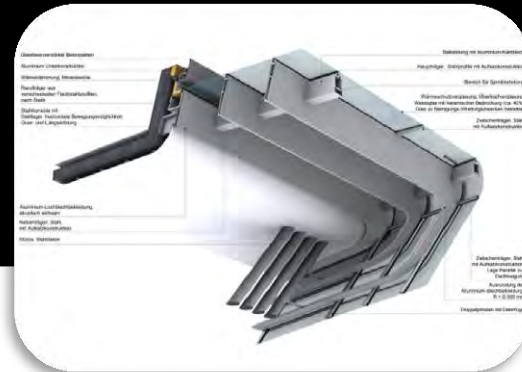
Profund detail level already in design stages



# ANALYSIS

## Planning

Profund detail level already in design stages



# ANALYSIS

## Planning

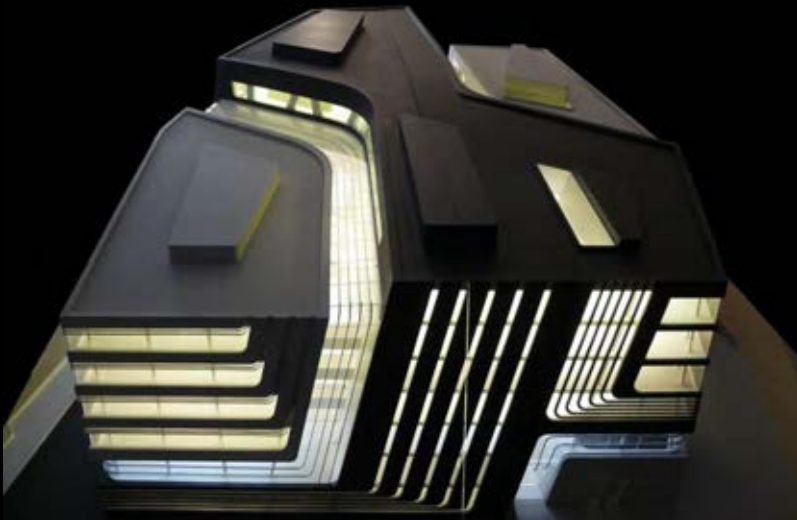
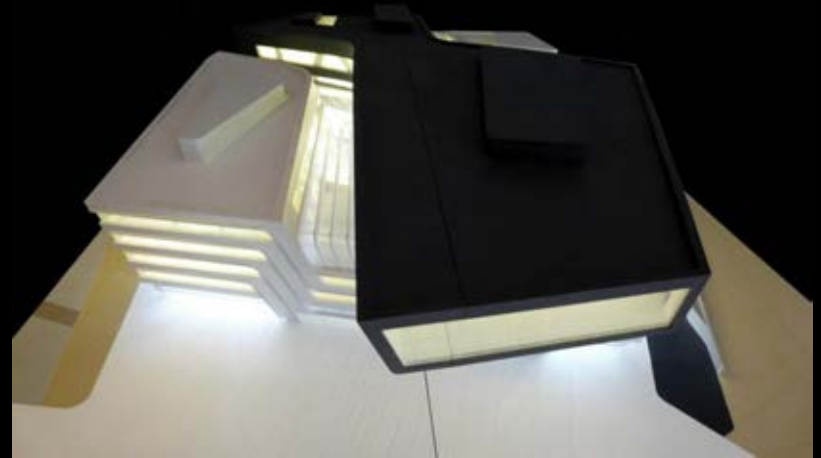
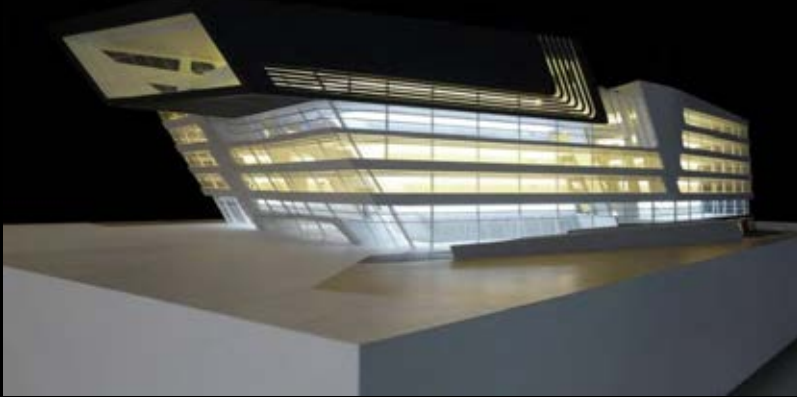
Profund detail level already in design stages



# ANALYSIS

## Planning

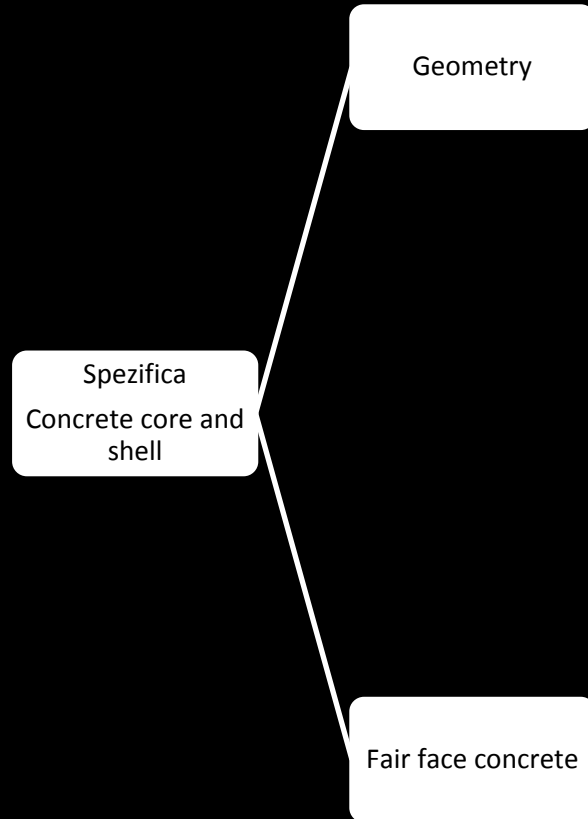
Modell 1:100 for client, consultant and contractors



# ANALYSIS

## Planning

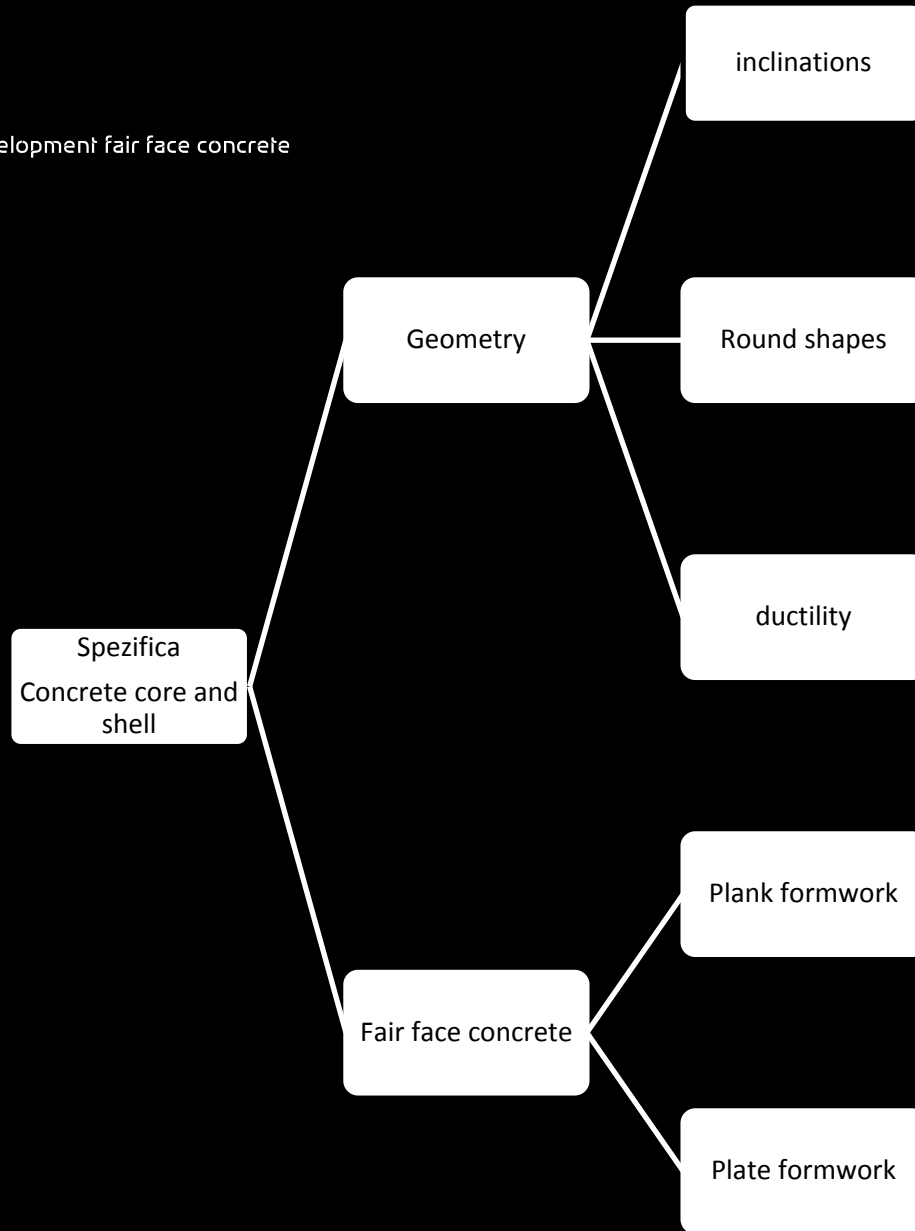
Procedure and challenges development fair face concrete



# ANALYSIS

## Planning

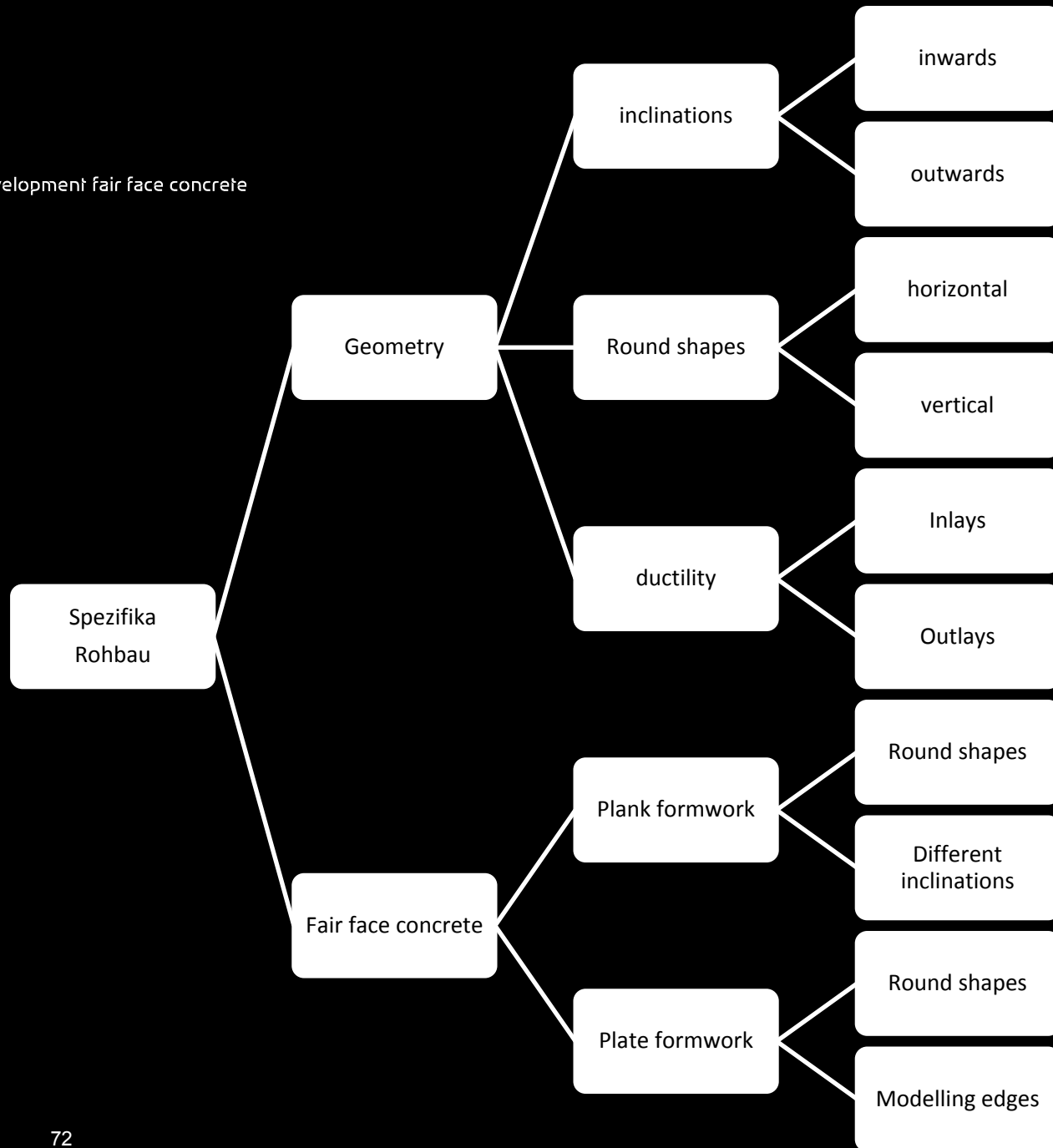
Procedure and challenges development fair face concrete













# ANALYSIS










## Planning

Procedure and challenges development fair face concrete

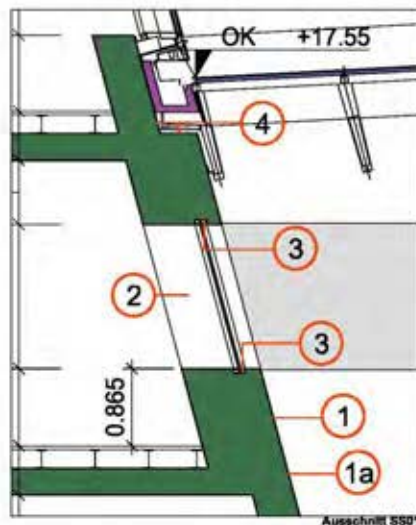


Diese Abrechnung ist exemplarisch und dient dem Verständnis, ein Anspruch auf Richtigkeit oder Vollständigkeit ist nicht gestellt.  <b>POSITIONEN LV LLC BAUMEISTER</b> Positions- nummern Beton, Schalung, Bewehrung, Putz Beschreibung			<b>GEBÄUDE ALLGEMEIN</b>   <b>KERNE</b> Wände Kerne <b>AUßERHALB KERNE</b> Wände + Stützen außerhalb der Kerne Decken außerhalb der Kerne		<b>SPEZIELLE RÄUME</b>   <b>FESTSAAL</b> Wände + Stützen Festsaal groß <b>CAFE</b> Wände + Stützen Cafe Decke Festsaal groß Treppe Cafe		<b>SPEZIELLE BAUTEILE</b>    <b>SHOWTR.</b> Show- treppen O 2 + 3 <b>RAMP.</b> Rampen <b>FLUBA.</b> Fluchtwegs Bauwerke <b>FORMT.</b> Formteile <b>STAKO.</b> Stahl- konstruk- tion				
 Wand	070204A - Q	GP, Wand versch. D., b.h=3,6m	X	X	X	X	X	X	X		
	070204S, V, W	GP, Wand b.h=3,6m Sch., Bew.	X	X	X	X					
 Decken	070205B	GP, Wand versch. D., u.h=3,6m	X	X							
	070205S, V, W	GP, Wand u.h=3,6m Sch., Bew.	X	X							
	070200C	VB, Nische, Leibung	X	X							
	070207A	Az, Einbau Kastenträger	X								
	070210A, C, D, E	GP, Brüst. + Schürzen		X							X
	070210S, V, W	GP, Brüst. + Schür., Bew.		X							
	070211A	GP, im Stahl eingeh. Brüstung		X							X
	070327A, B, C, D, E	GP, versch. Dicken b. h=3,6m	X	X							
	070327S, V, W	GP, Schalung + Bew. b. h=3,6m	X	X							
	070328A - H	GP, versch. Dicken u. h=3,6-6m	X	X							
<b>STANDARDELEMENTE</b>  Stützen	070328S, V, W	GP, Schalung + Bew. u. h=3,6-6m	X	X							
	070329A	GP, versch. Dicken u. h=6-8m		X							
	070329S, V, W	GP, Schalung + Bew. u. h=6-8m		X							
	070330B, C	GP, versch. Dicken b. h=23m		X							
	070330S, V, W	GP, Schalung + Bew. b. h=23m		X							
	070300C, D	VB, Randschalung Schräg				X					
	070300E	VB, Schwerlast unterstellung				X					
	070300G	VB, Deckenanschluss dicht				X					
	070300J	VB, Überhöhung				X					
	070300F	VB, Deckensprünge				X					
	070343E, F	Az, Decke im Gefälle	X	X							
	070343G	Az, Decke im Gefälle		X							
	070257A - X	GP, Verbundstützen b. h=4,75m		X							
	070257Y	Az, Gellinger Plz		X							
	070258A - Q	GP, Verbundstützen b. h=9,00m		X							
	070258R	Az, Gellinger Plz		X							
	070259A	Az, Verbundstützen, Klariack				X					
	070260A, B, C, D, E	GP, Hängestützen		X							
	070260F	Az, Gellinger Plz		X							
	070261A	GP, Verbundstützen		X							

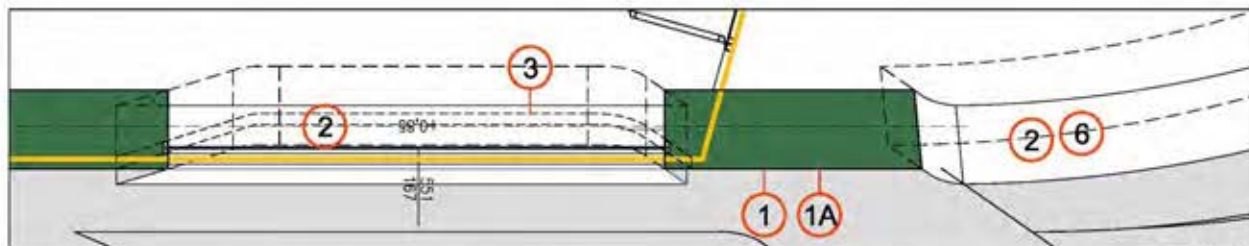
POSITIONEN LV LLC BAUMEISTER				GEBÄUDE ALLGEMEIN		SPEZIELLE RÄUME				SPEZIELLE BAUTEILE							
Beschreibung				KERNE		AUSSERHALB KERNE		FESTSAAL		CAFE		SHOWTR.	RAMP.	FLUBA.	FORMT.	STAKO.	
Position-nummern Art, Beschreibung GP Grundpos. Belon, Schalung Az Aufzählung Bewehrung, Putz VB Vorbemerk.				Wände Kerne	Decken innerhalb Kerne	Wände + Stützen außerhalb der Kerne	Decken außerhalb der Kerne	Wände + Stützen Festsaal groß	Decke Festsaal groß	Wände + Stützen Cafe	Decke Cafe	Treppe Cafe	Show- treppen O 2 + 3	Rampen	Fluchtwegs Bauwerke	Formteile	Stahl- konstruk- tion
AUSFORMUNG WAND		Wand geneigt	070227C 070227G 070227K	Az, Neigung 03-30% Az, Neigung 30-50% Az, Neigung 50-70%		X X X							X X X	X X X	X X X	X X X	
		Wand gerundet	070221A 070221B 070223A 070223B	Az, Kernwand R. b. 1m Az, Kernwand R. ü. 1m Az, Wand R. b. 1m Az, Wand R. ü. 1m		X X	X X						X X	X	X X	X	
WAND - OFFNUNGEN		Laibung geneigt	070200C	VB, Abrechnungsregel			X			X			X		X		
		Laibung gerundet	070245B 070245C 070242D 070242G 070242J	Az, Brüst.+Balk.R.b.1m Az, Brüst.+Balk.R.ü.1m Az, Aufdopp. Wand b.0,5m Az, Aufdopp. Wa.Ba.Br.b.0,5m Az, Aufdopp. Wa.Q2 b.0,5m		X X X X		X		X			X X X X X		X X		
		Aussparung an Laibung	070231S	Az, Wa.Ba.Br.Aussp.b.150X35		X											
			SB Bretterschal.	070616A,B,C,D,E 070619A,B,C,D,E	Az, Bretterschalung Kerne GP, Schutz Sichtbeton Kerne		X X										
SICHTBETON		Plattensch rhomb. aussen	070641A 070642A	Az, Plattensch. FlußWN,W GP, Schutz Sichtbeton FlußW											X X		
		Plattensch orth. aussen	070643A 070644A	Az, Plattensch. FlußWO GP, Schutz Sichtbeton FlußW											X X		
		Plattensch orth. innen	070617A,B,C,D,E 070619A,B,C,D,E	Az, Plattensch. Kerne GP, Schutz Sichtbeton Kerne		X X											
		Plattensch rhomb. innen	070637A 070638A 070623A 070624A	Az, Plattensch. Treppe Cafe GP, Schutz Treppe Cafe Az, Plattensch. Festsaal Az, Schutz Festsaal				X X				X X					
		Plattensch + Kassetten	070627A 070328X 070628 070628A	Sichtbeton Plattenschalung Az, Kassetten VB, Umstellen des Schutzes Az, Schutz Flächen und Kanten					X X X X								

Diese Bezeichnung ist eine Ergänzung zum dem Leistendruck, um Angaben zur Richtung oder Vorzeichenangabe hinzuzufügen			GEBÄUDE ALLGEMEIN		SPEZIELLE RÄUME				SPEZIELLE BAUTEILE									
POSITIONEN LV LLC BAUMEISTER			KERNE		AUSSERHALB KERNE		FESTSAAL		CAFE		SHOWTR.	RAMP.	FLUBA.	FORMT.	STAKO.			
Beschreibung			Position-nummern	Art, Beschreibung GP Grundpos. Az. Aufzählung Bewehrung, Putz VB Vorzeichen	Wände Kerne	Decken innerhalb Kerne	Wände + Stützen außerhalb der Kerne	Decken außerhalb der Kerne	Wände + Stützen Festsaal groß	Decke Festsaal groß	Wände + Stützen Cafe	Decke Cafe	Treppe Cafe	Show- treppen Q 2 + 3	Rampen	Fluchtwegs Bauwerke	Formteile	Stahl- konstruk- tion
AUFDOPPELUNGEN		Aufdoppelung über 10cm	070242A	Az. Aufdopp. Wandversprünge			X											
		Inlay bis 10cm	070242C 070242F 070242I	Az. Aufdopp. Akustik Festsaal Az. Aufdopp. Akustik Galerie Az. Aufdopp. Akustik Showtreppe			X		X		X				X			
		Inlay bis 3cm	070242S	Az. Plattensch. auf Brettersch.	X													
FORMTEILE		Rundung Boden konv.	070235R 070235T	Az. konv. Bodenrund., R=1,0m Az. seifl. Abschluss													X X	
		Rundung Boden konk.	070235S 070235T 070235U 070235V 070235W 070235X	Az. konk. Bodenrund., R=1,0m Az. seifl. Abschluss, R=1,0m Az. konk. Bodenrund., R=0,5m Az. seifl. Abschluss, R=0,5m Az. konk. Bodenrund., Freiform Az. seifl. Abschluss, ellipt.													X X X X X X	
		Rundung Decke konv.	070236S 070236T	Az. konv. Deckenrund., R=0,5m Az. konv. Deckenrund., Freiform													X X	
		Rundung Decke konk.	070236U 070236V 070237A	Az. konk. Deckenrund., R=0,5m Az. konk. Deckenrund., R=1,0m Az. konk. Bo+De.rund., R=1,0m												X	X X	
															X			
ANDERE POSITIONEN			070358A 070358B 070358H	Az. Beton Showtreppe Q2 Az. Beton Showtreppe Q3 Az. Beton Treppe Cafe									X	X X				
		Stahlkonstruktion	320307A,B 320307C 320309A 320311A 320313A 320315A 320505A 320505B 320605A 320801E 321205E 321205F,G	GP, Profile Dachkonstruktion GP, Profile Dachkonstruktion GP, Formrohre GP, Kleinteile GP, Ankerteile GP, Auflagerkonstruktionen GP, Geschw. Kastenr., Dach GP, Geschw. Kastenr., Canyon GP, Geschw. Blechr., H-Form GP, Kopfboizendübel GP, BS Spritzbesch. Canyon GP, BS Spritzbesch. Dach												X X X X X X X X X X X X X X		

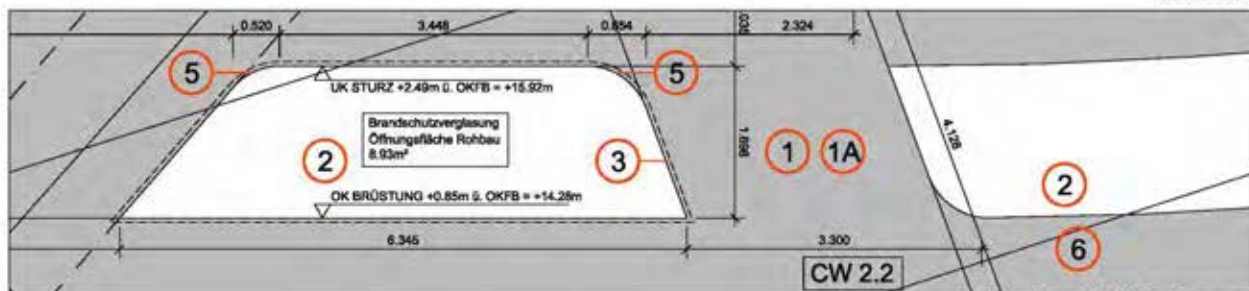
## CANYONWAND - BEISPIELHAFT



Ausschnitt S501



Ausschnitt D603

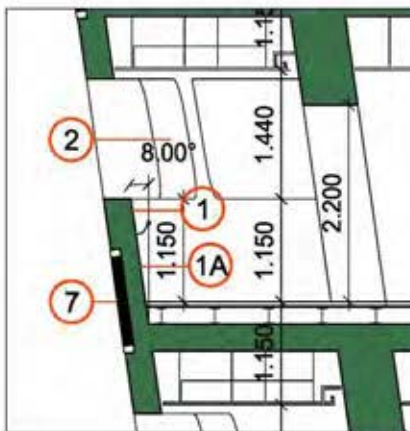


Ausschnitt Abwicklung Canyonwand

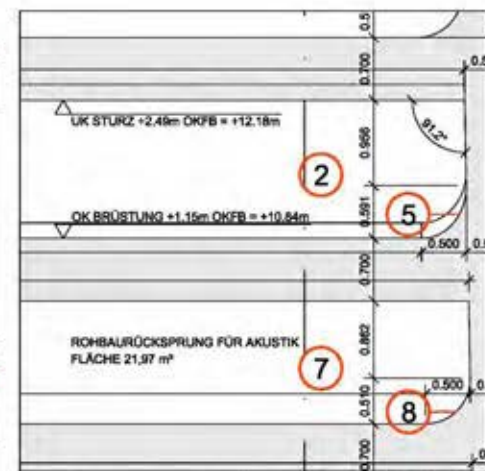
## POSITIONEN BEISPIELHAFT

- |   |  |
|---|--|
| <p>1 POS.070204 N,S,V,W<br/>GRUNDPOS.BETON/ SCHALUNG/<br/>BEWEHRUNG</p> <p>1A POS. NEIGUNG AZ 070227G ü 30-50%<br/>(NUR DIE TATSÄCHLICHE NEIGUNG<br/>MIT NUR EINER<br/>AUFZÄHLUNGSPPOSITION)</p> <p>2 POS.070200 C<br/>ÖFFNUNG, AUSSPARUNG, LEIBUNG,<br/>SOWIE LEIBUNG<br/>GENEIGT (VON DER VERTIKALEN) +<br/>GENEIGT (VON DER HORIZONTALEN)<br/>[4.ABSATZ]<br/>[5.ABSATZ]</p> <p>3 POS.070231 S<br/>NUT UMLAUFEFEND<br/>- AUFZÄHLUNGSPPOSITION</p> | <p>4 POS.070242 A<br/>RÜCKSPRUNG - AUFZÄHLUNG NUR<br/>BEI HERSTELLUNG IN EINEM<br/>ARBEITSGANG</p> <p>5 POS.070245B<br/>RUNDUNG IN LEIBUNG<br/>- AUFZÄHLUNG</p> <p>6 POS.070223B<br/>KRÜMMUNG ÜBER 1m</p> <p>7 POS.070242F<br/>AKUSTIKSTREIFEN, GALERIE</p> <p>8 POS.070242G<br/>RUNDUNG IN LEIBUNG<br/>AKUSTIKSTREIFEN<br/>- AUFZÄHLUNG</p> |
|---|--|

## GALERIE - BEISPIELHAFT



Ausschnitt S501



Ausschnitt Abwicklung Galerie

Diese Aufstellung ist exemplarisch und dient dem Verständnis, ein Anspruch auf Richtigkeit oder Vollständigkeit ist nicht ableitbar!

Technical drawing of a roof plan showing a gabled roof structure. The drawing includes a green-shaded area representing the roof slope. Dimensions are given in meters (m). Labels include '1', '1A', and '2' in red circles. A note '8.00°' is present near the gable end.

Dimensions (m):

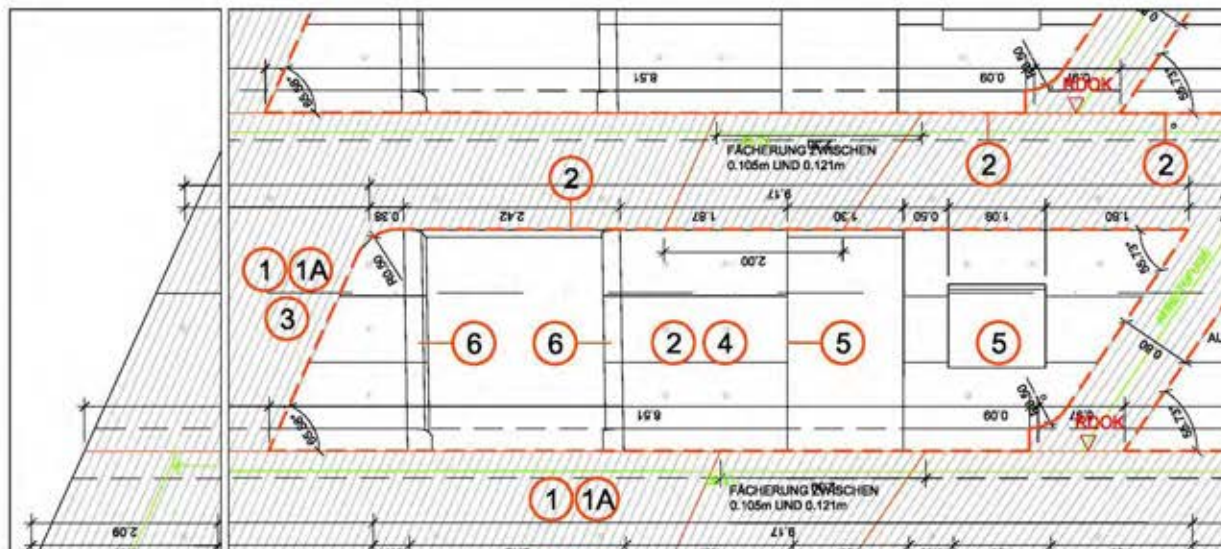
- Horizontal dimensions (from left to right): 1.150, 1.150, 1.440, 1.150, 1.150.
- Vertical dimensions (from top to bottom): 0.300, 0.250, 0.600, 0.300.
- Internal dimensions: 2.200, 2.590.

Labels:

- 1 (in red circle)
- 1A (in red circle)
- 2 (in red circle)

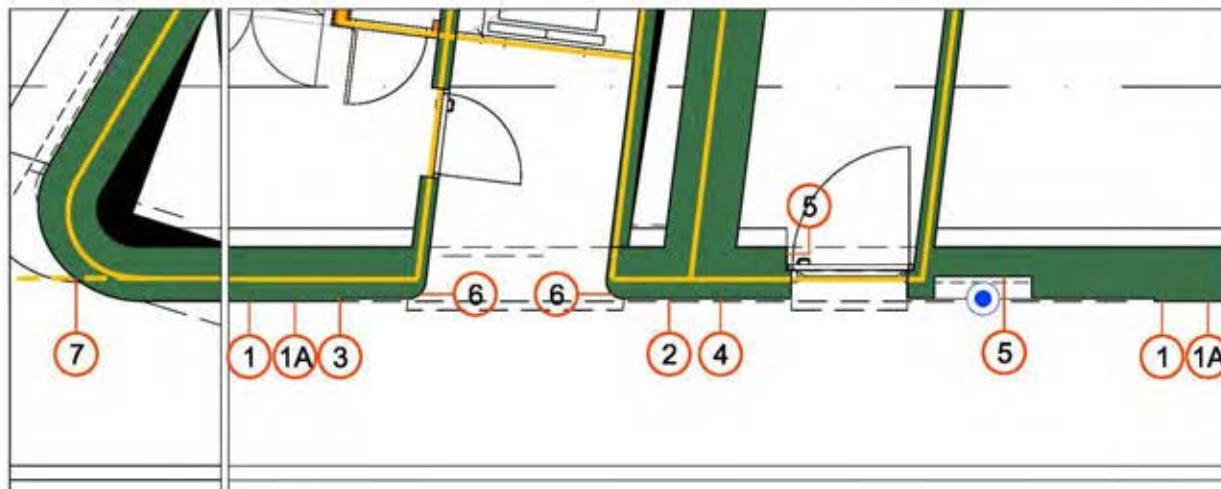
Note: 8.00°

Ausschnitt 8501



**Ausschnitt Abwicklung Kernwand**

- 1 POS.070205  
GRUNDPOS.BETON/ SCHALUNG/ BEWEHRUNG
- 1A POS. 070227C  
NEIGUNG
- 2 POS.070242E  
INLAY
- 3 POS. 070616ff.  
SICHTBETON BRETTerschALUNG
- 4 POS. 070617A-E  
SICHTBETON PLATTENSCHALUNG
- 5 POS.070200C  
NISCHEN, LEIBUNG  
[4.ABSATZ]
- 6 POS.070221A  
KRÜMMUNG BIS 1m
- 7 POS.070221B  
KRÜMMUNG ÜBER 1m



**Auschnitt OG03**

Diese Aufstellung ist exemplarisch und dient dem Verständnis, ein Anspruch auf Richtigkeit oder Vollständigkeit ist nicht ableitbar!

**CAMPUS WU**  
WIRTSCHAFTS UNIVERSITÄT WIEN  
1040 WIEN

**BIG**  
BUNDESINSTITUT FÜR  
GEGENSTÄNDLICHE  
RECHTSANFANGEN

**WU**  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN

**BAUHAER**  
Projektgesellschaft  
Wirtschaftsuniversität Wien Neu GmbH  
Hörner Zollamtstraße 1 - 1031 Wien

**PLANVERFASSEN**  
**VASKO + PARTNER INGENIEURE**  
Office@vasko-partner.at | <http://www.vasko-partner.at>  
Grünzinger Allee 3 - 1190 Wien

INDEX	DETAIL	DEZ	ÄNDERUNG

07	10			MASSTAB
..	..	..		1:50
DATUM		30.06.2010		
GEZEICHNET		HeC		
DATEI \\V_PLC02\ 001_AX10_05H81002.dwg				

Plancode BIG	GLSKT 001	HWLT AX10	ART 05	GRN HB	ST 10	NR 02	AGGR V00
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**KERNWAND**  
**DARSTELLUNG ABRECHNUNG**  
**BEISPIELHAFT**

# ANALYSIS

## Reasons

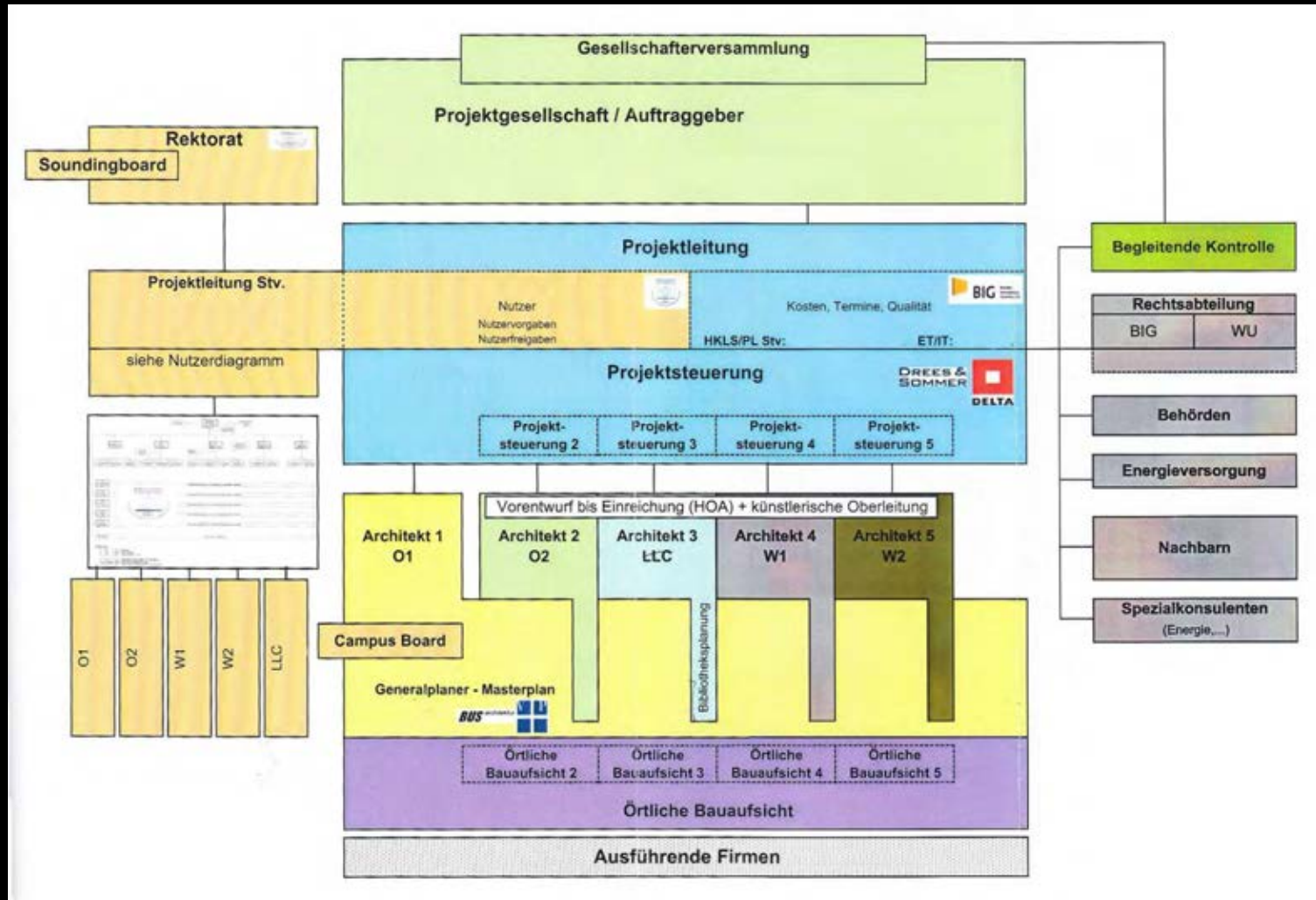
Why this continuity?



# ANALYSIS

## Controlling

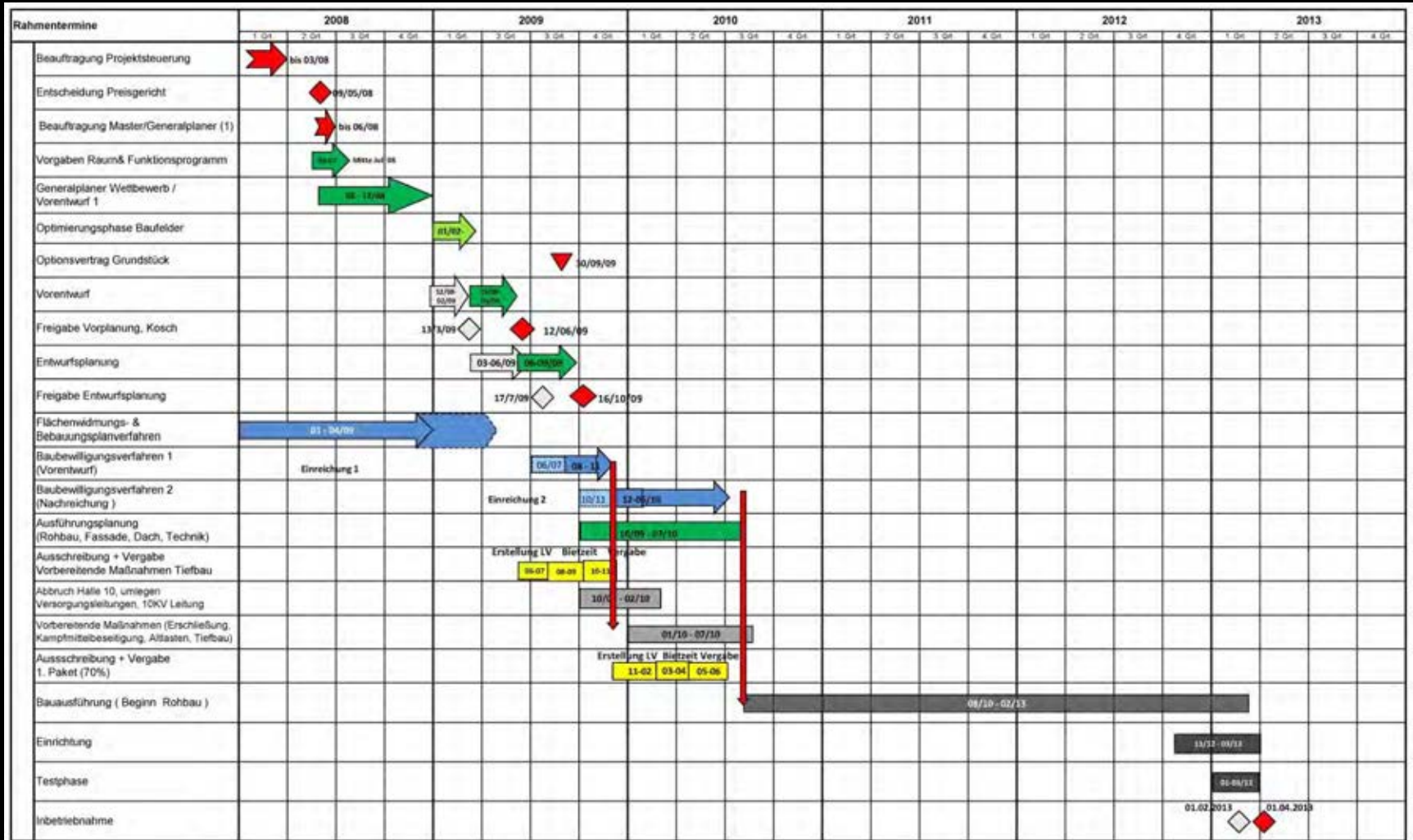
Organigram involved boards/planner/controller



# ANALYSIS

## Controlling

Framework time scheduling as to contract



# ANALYSIS

## Reasons

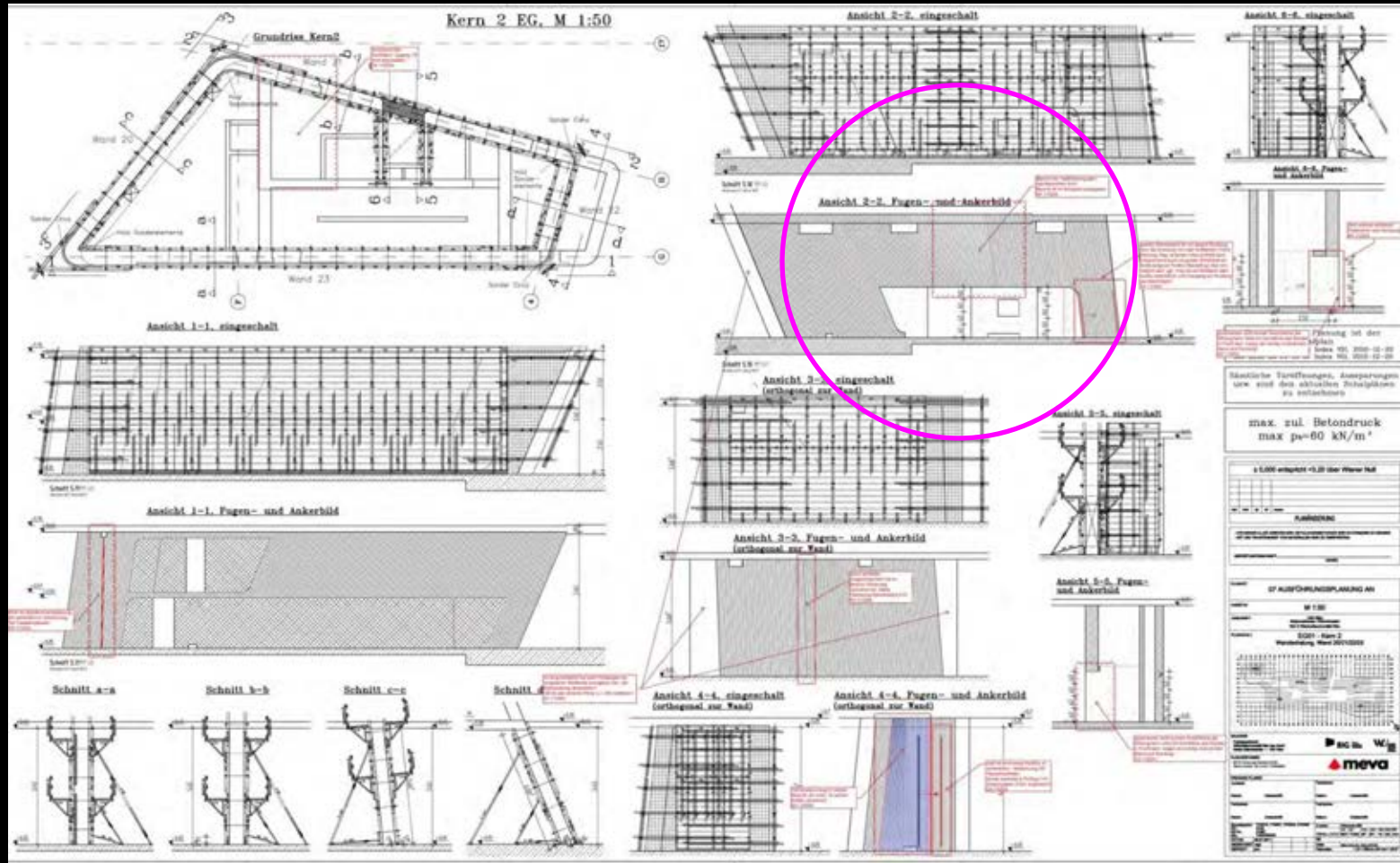
Why this continuity?



# ANALYSIS

## Site operation

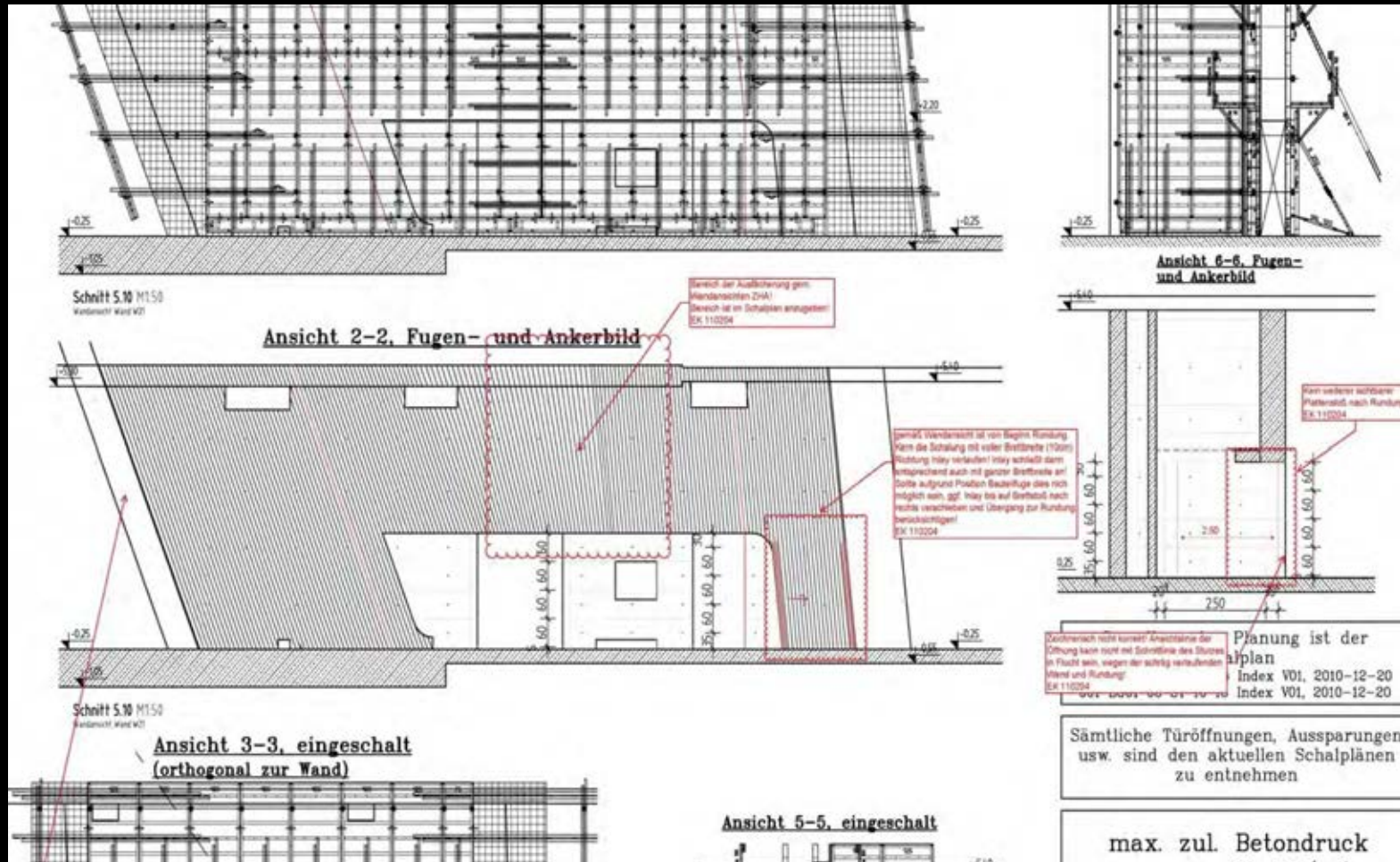
Checking of contractors drawings



# ANALYSIS

## Site operation

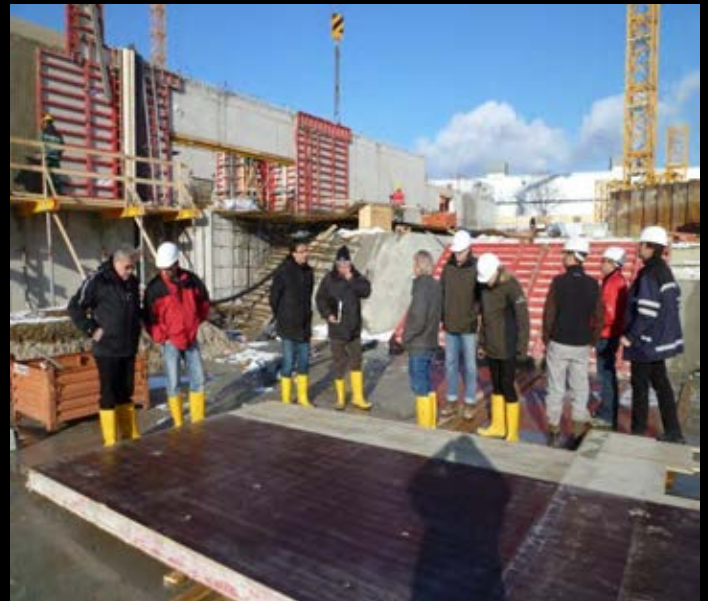
Checking of contractors drawings



# ANALYSIS

## Site operation

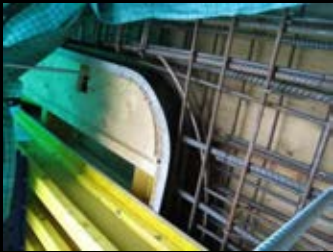
e.g. expert in fair face concrete team



# ANALYSIS

## Site operation

e.g. mock-up inspection



# ZAHA HADID ARCHITECTS: [ref-lex]ical

WHAT WAS – WHAT HAPPENED – WHAT IS

## Introduction

- Reason for brief
- Design concept – initial idea
- Program distribution



## Comparison

- From competition to completed building



## Analysis

- What has changed on design and program
- What have been the drivers for the change and non-change



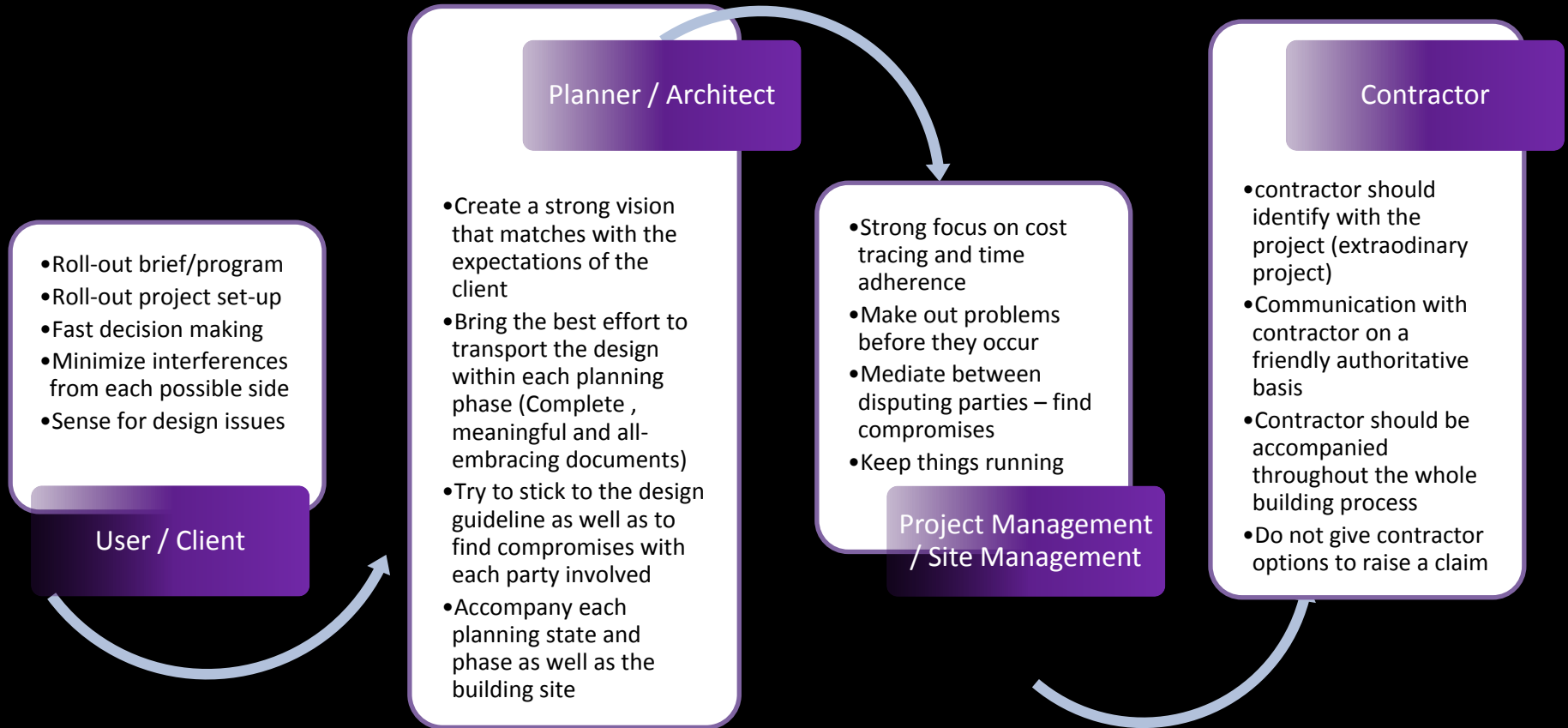
## Conclusion

- What can be improved/affirmed to secure design continuity and quality processing

# CONCLUSION

## Key issues for different parties involved

To carry through the best competition design to the best possible build project





# ZAHA HADID ARCHITECTS: [ref-lex]ical

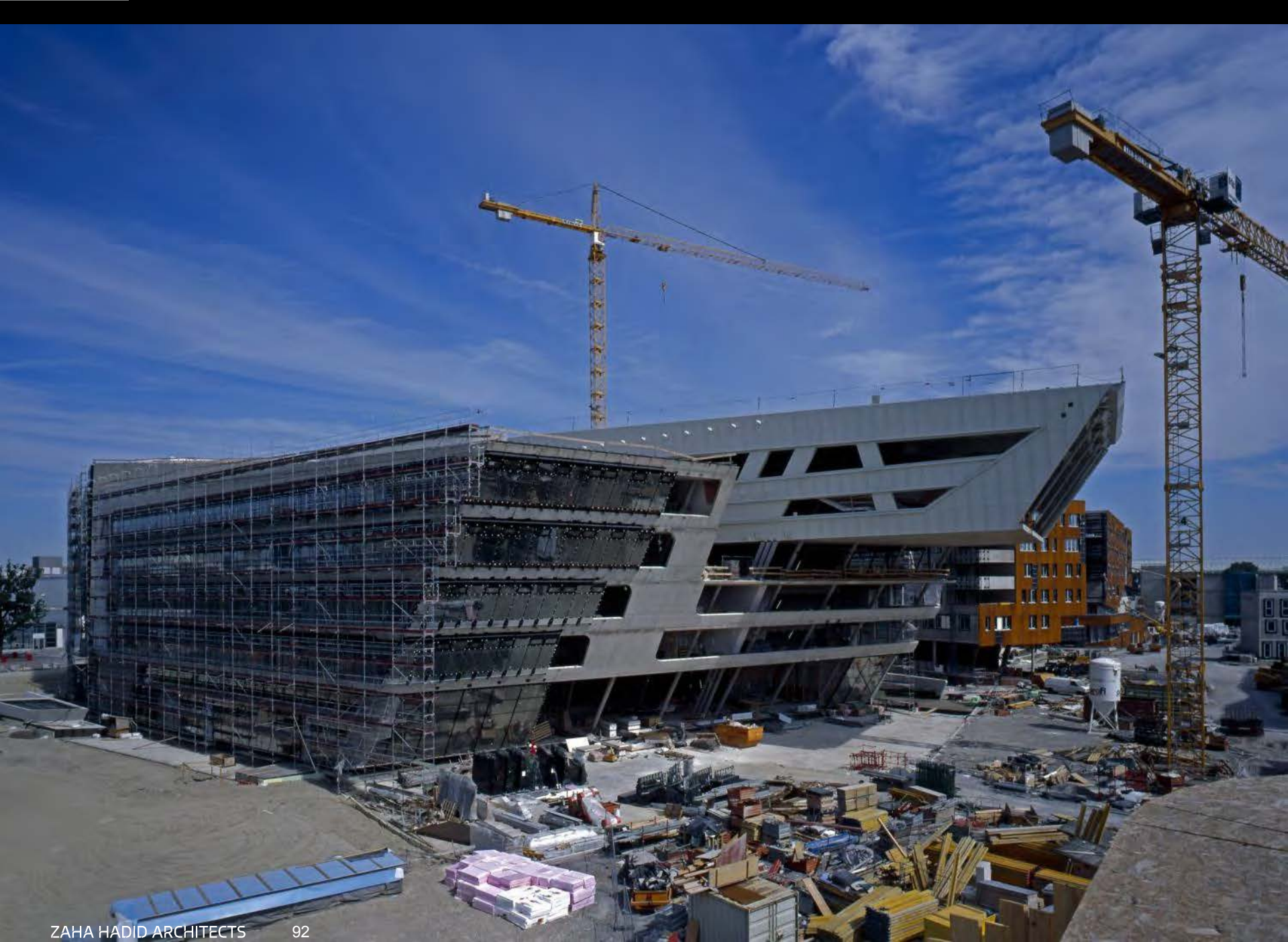
WHAT WAS – WHAT HAPPENED – WHAT IS

## IMAGES BUILD PROJECT















































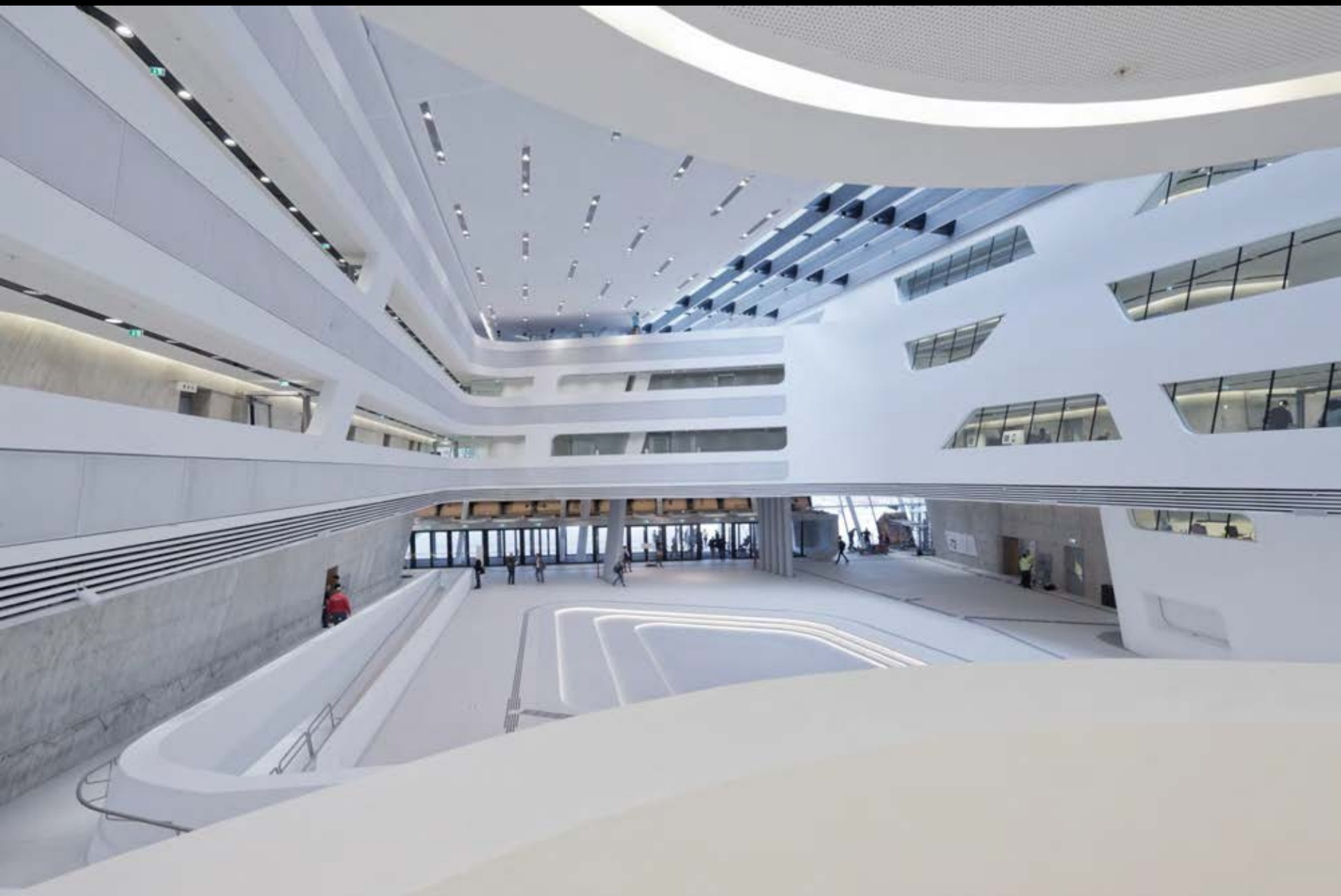














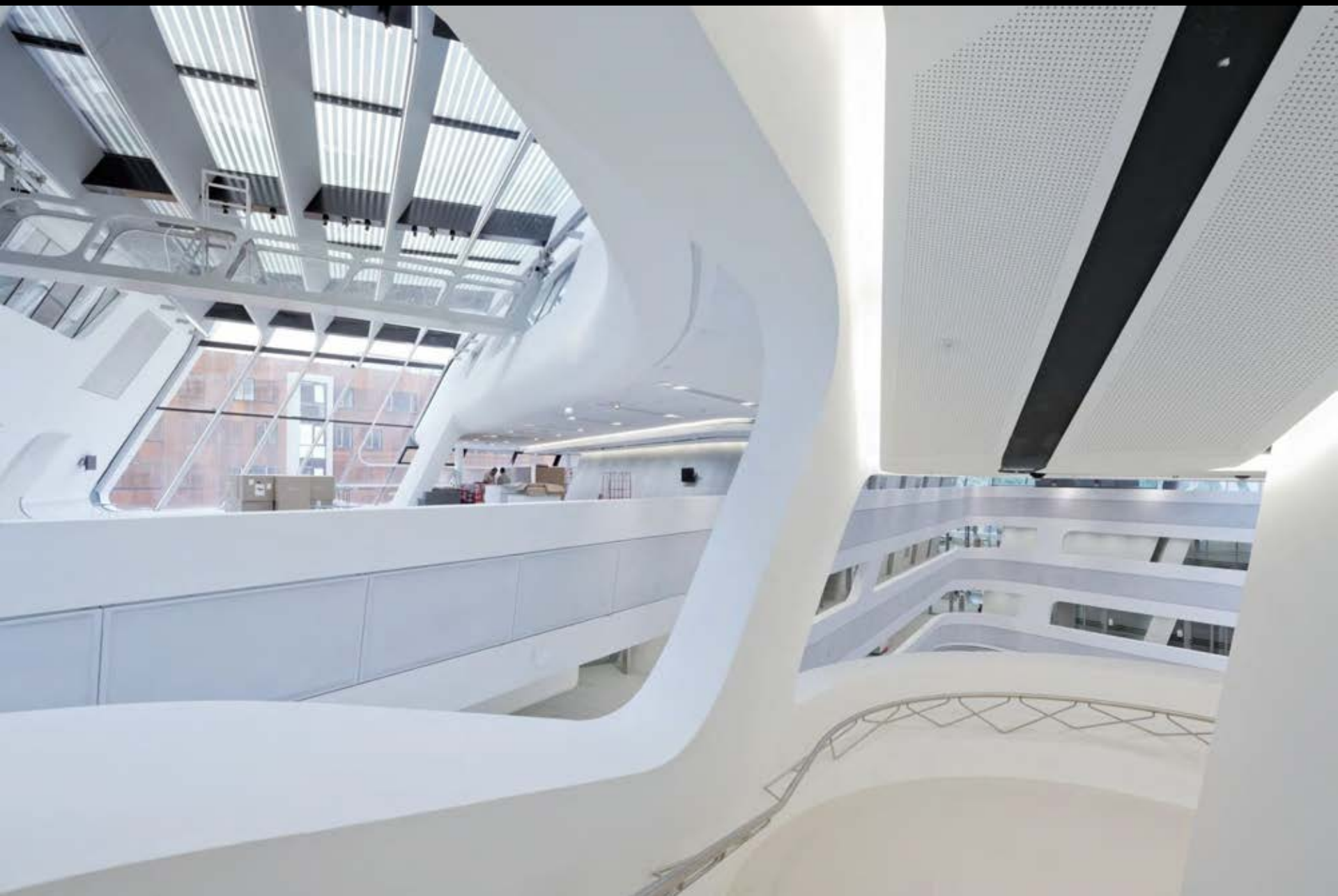










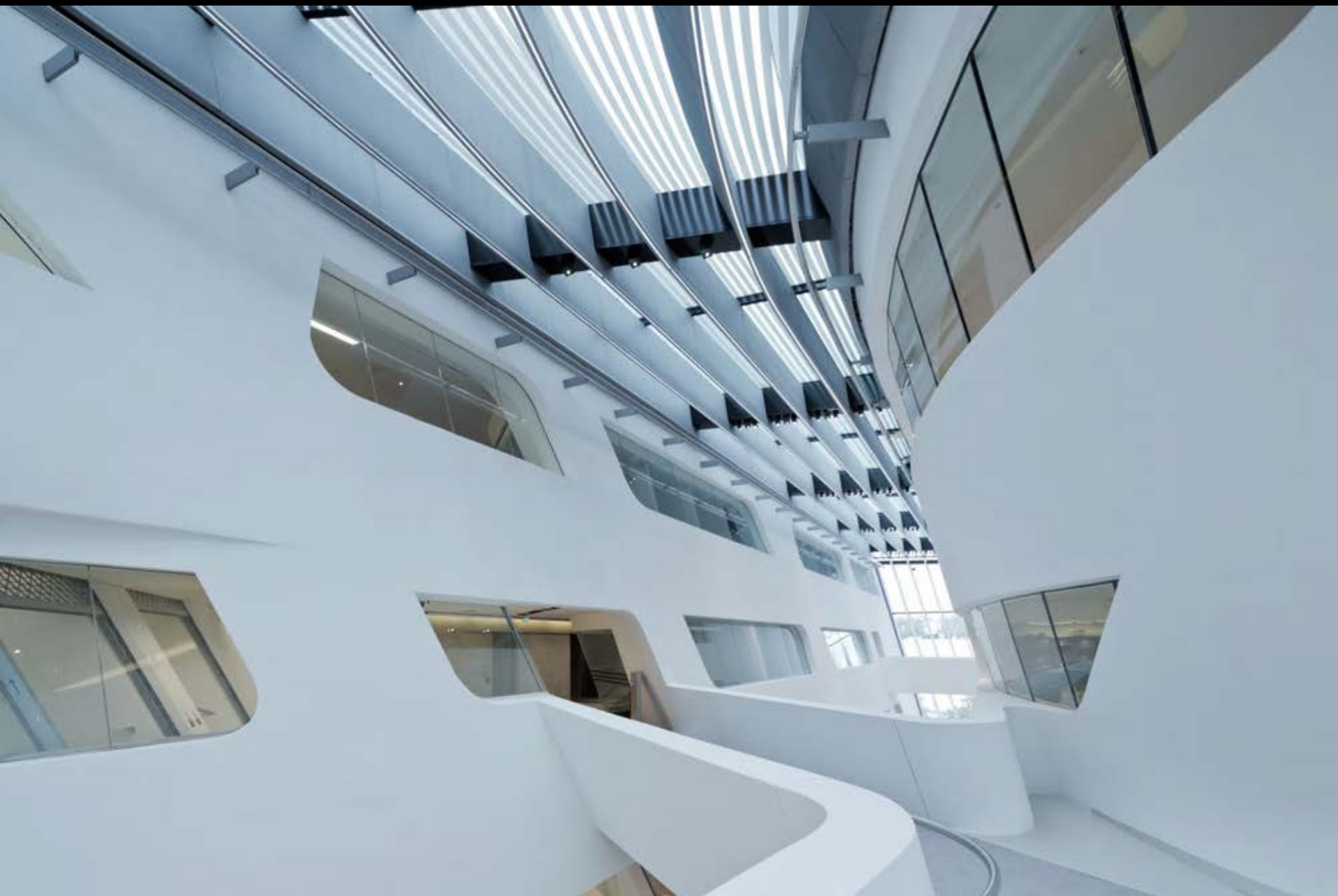














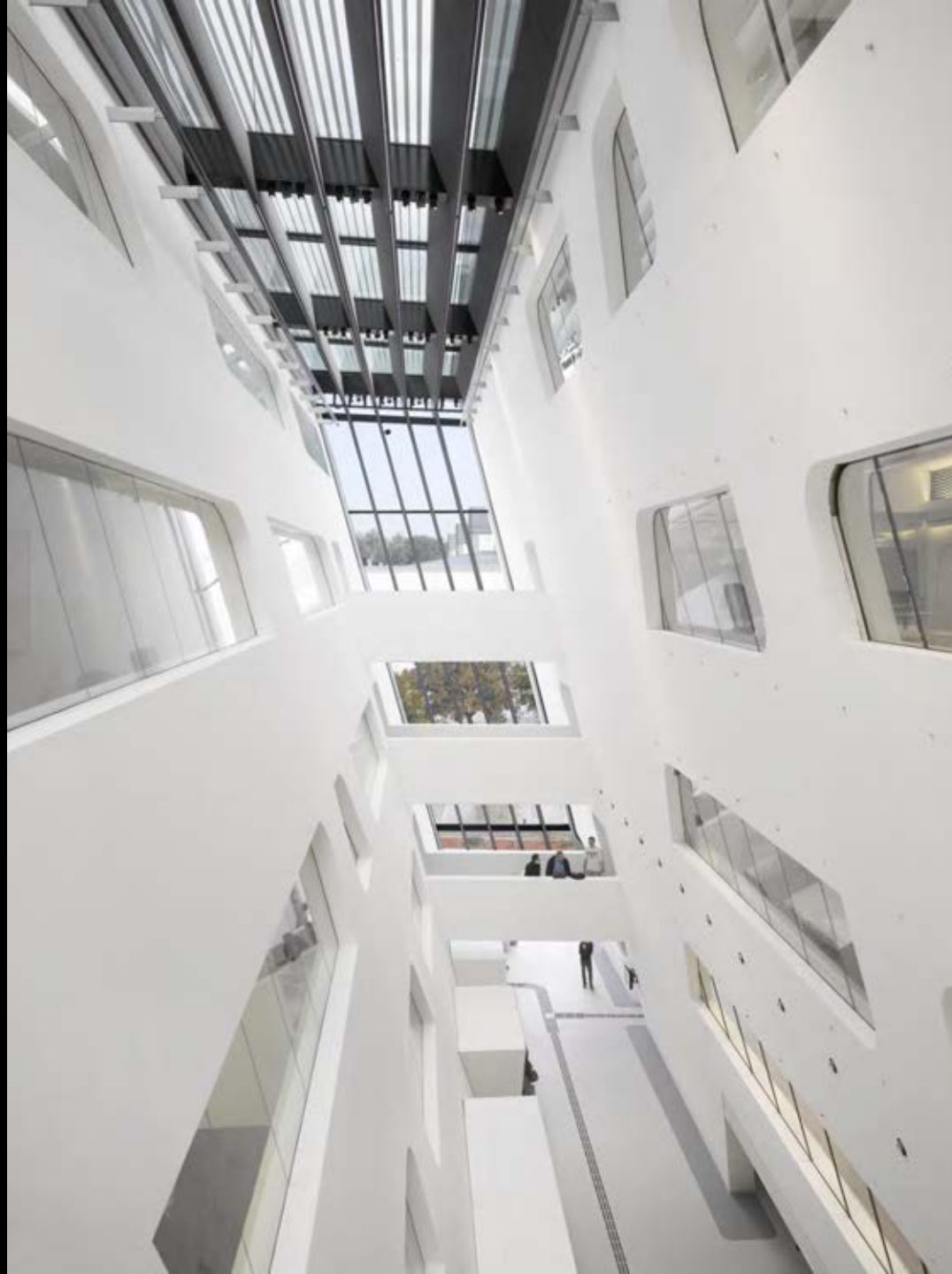










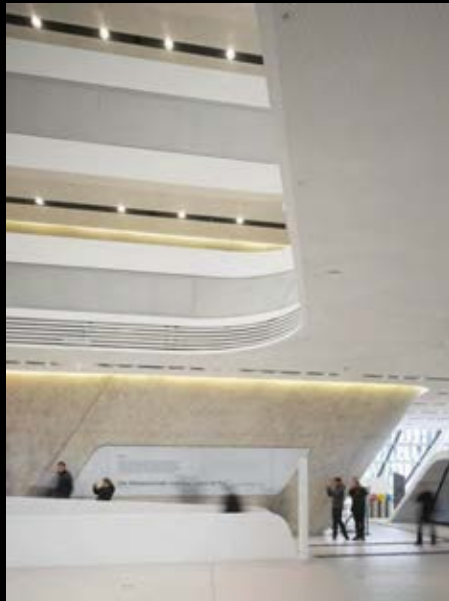






































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MANY THANKS  
FOR YOUR ATTENTION!