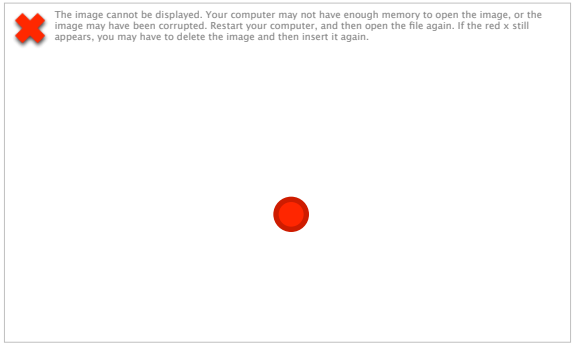
重庆津西文化中心
工作进展汇报
Introduction of Chongqing Jinxi Cultural Center

2014.8.26

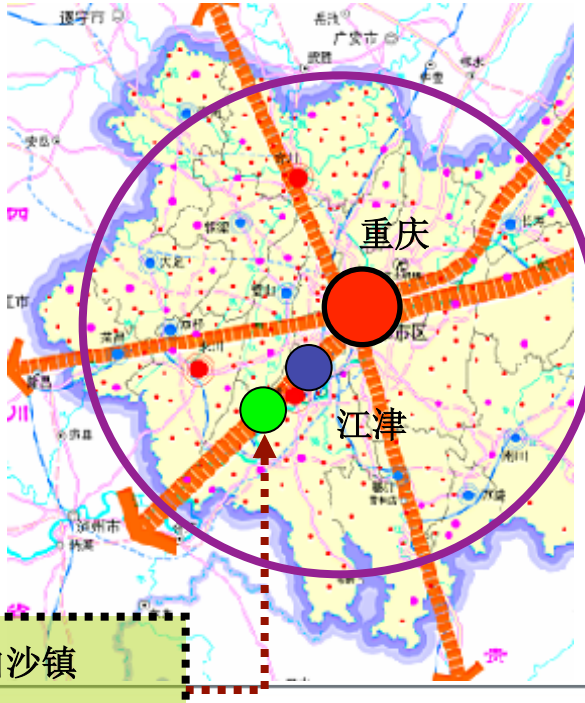
项目概况篇 01

CHAPTER ONE， PRE-PROJECT OVERVIEW

LOW ENERGY CONSUMPTION BUILDING 低能耗建筑



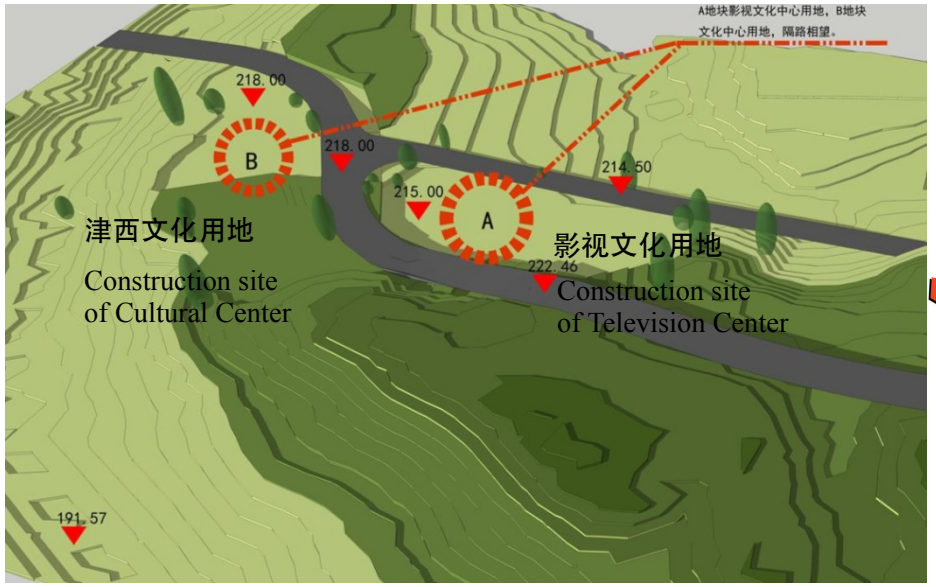
29° 03' 21.23" 北 106° 07' 39.17" 东 海拔 294 米

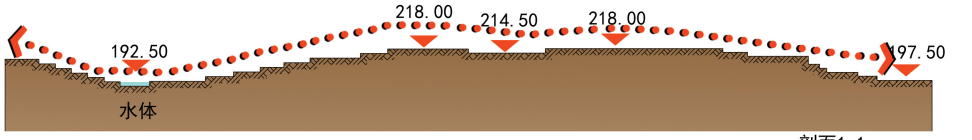


白沙镇位于重庆西部,扼长江之要津, 是黔北地区及江津西部的经济、文化、商贸中心和交通枢纽。

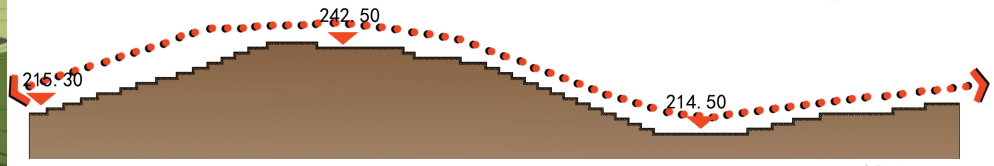
Baisha Town, in the west of Chongqing and the key location of Yangtze River, is the center of economic, cultural and business and also a important transportation hub in Northern Guizhou Province and west of Jiangjin.

用地高差分析 terrain analysis





剖面1-1



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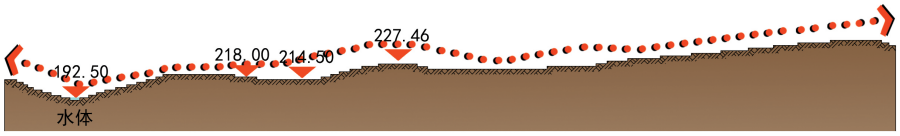

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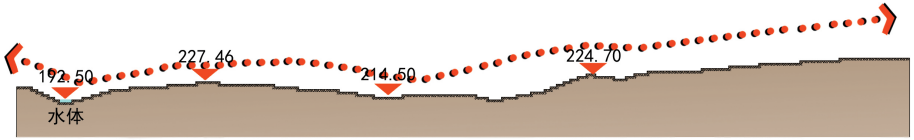
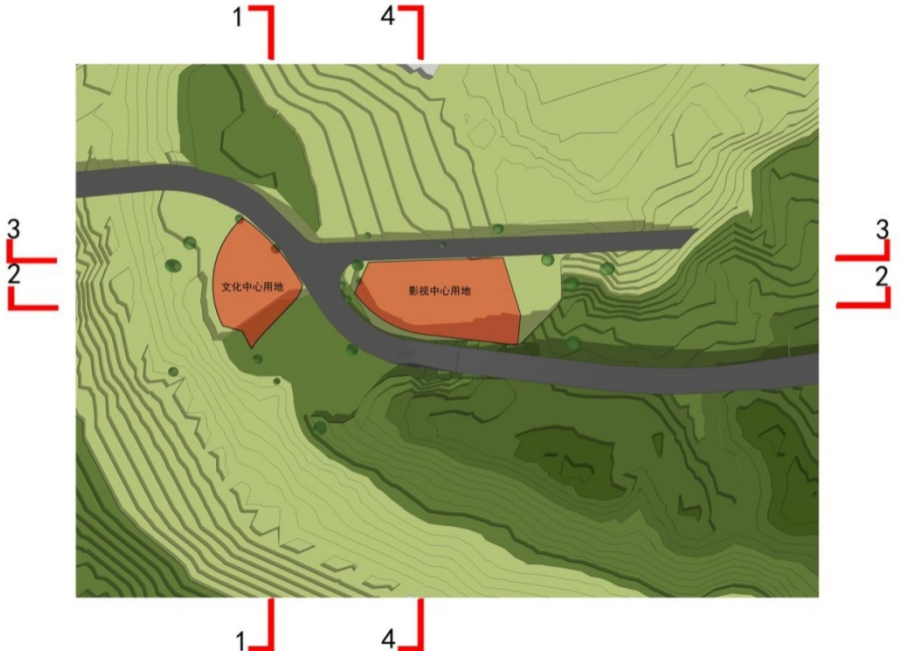


剖面3-3



城镇景观分析 view analysis

设计要点：考虑城市景观的要求，与主城道路形成对景；使得两栋建筑相互呼应，从而形成城市广场，为市民服务。
Design Points: urban roadsurban considering urban landscape requests,

“津西文化中心”建设内容：
Composition of ‘JINXI Cultural Center’

一.影视文化大厦 Building of cinema &television culture

包括影视文化用品超市、影视文化展览厅、电影院、影视文化办公室、演员接待用房、演员餐厅等；

Screen culture goods supermarket, Screen culture exhibition room, camera, office, crew reception room, dinning room, etc.

二.津西文化大厦 JINXI cultural building

包括文化用品超市、津西文化展览馆、图书馆、文化办公室、休闲健身场所、剧院、KTV、网吧、书城、培训中心、游戏娱乐中心、社区活动中心等；

Culture goods supermarket, JINXI culture exhibition room, library, office, fitness center, theater, KTV, cybercafé, book store, training center, recreation center, community center, etc.

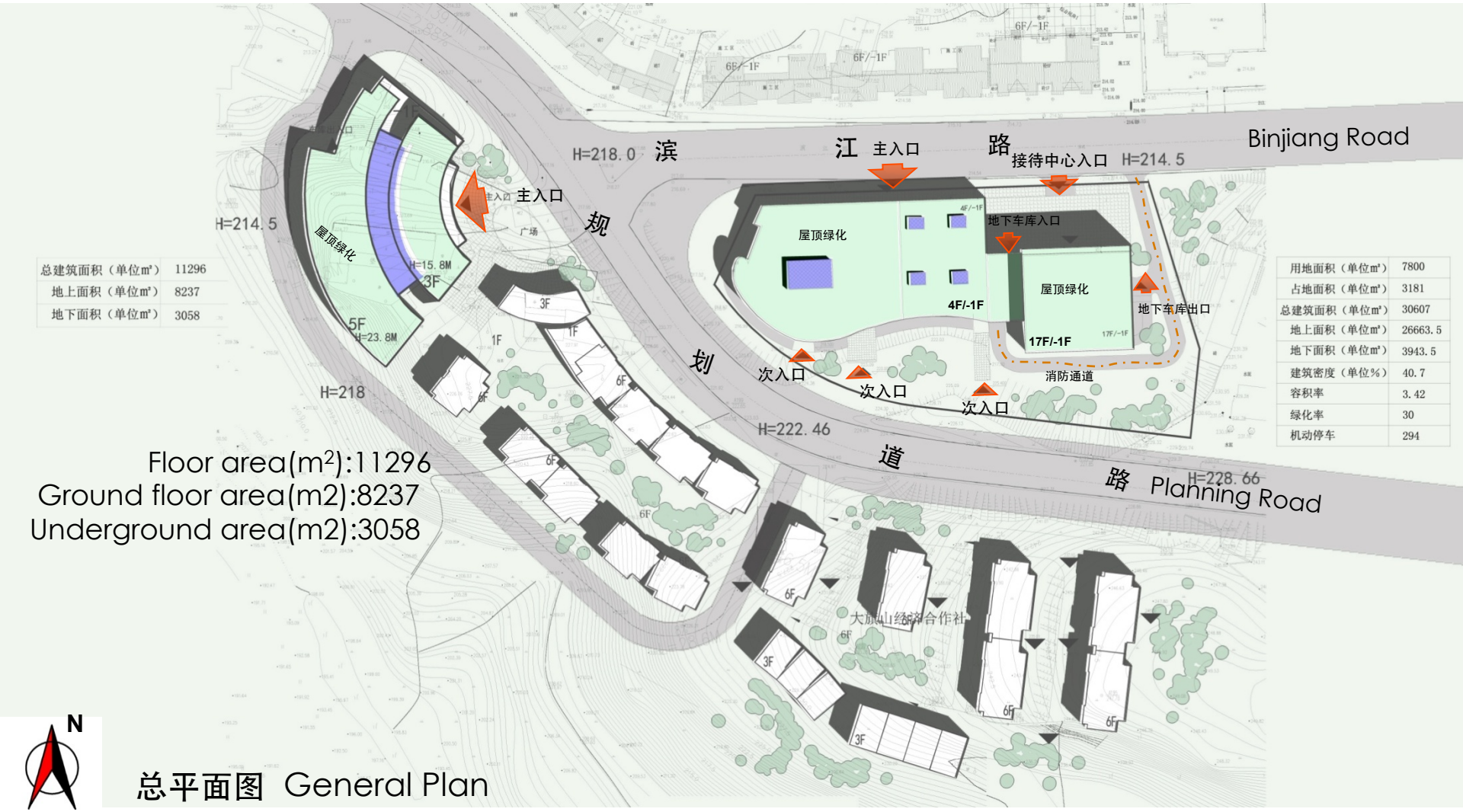
三.津西文化广场 JINXI cultural square

工程名称	津西文化中心	图名	影视文化大厦透视图	图号	05	设计号	133034
						比例	
						日期	2014.05

总体设计篇 02

CHAPTER TWO， GENERAL DESIGN

LOW ENERGY CONSUMPTION BUILDING 低能耗建筑



总建筑面积（单位㎡）	11296
地上面积（单位㎡）	8237
地下面积（单位㎡）	3058

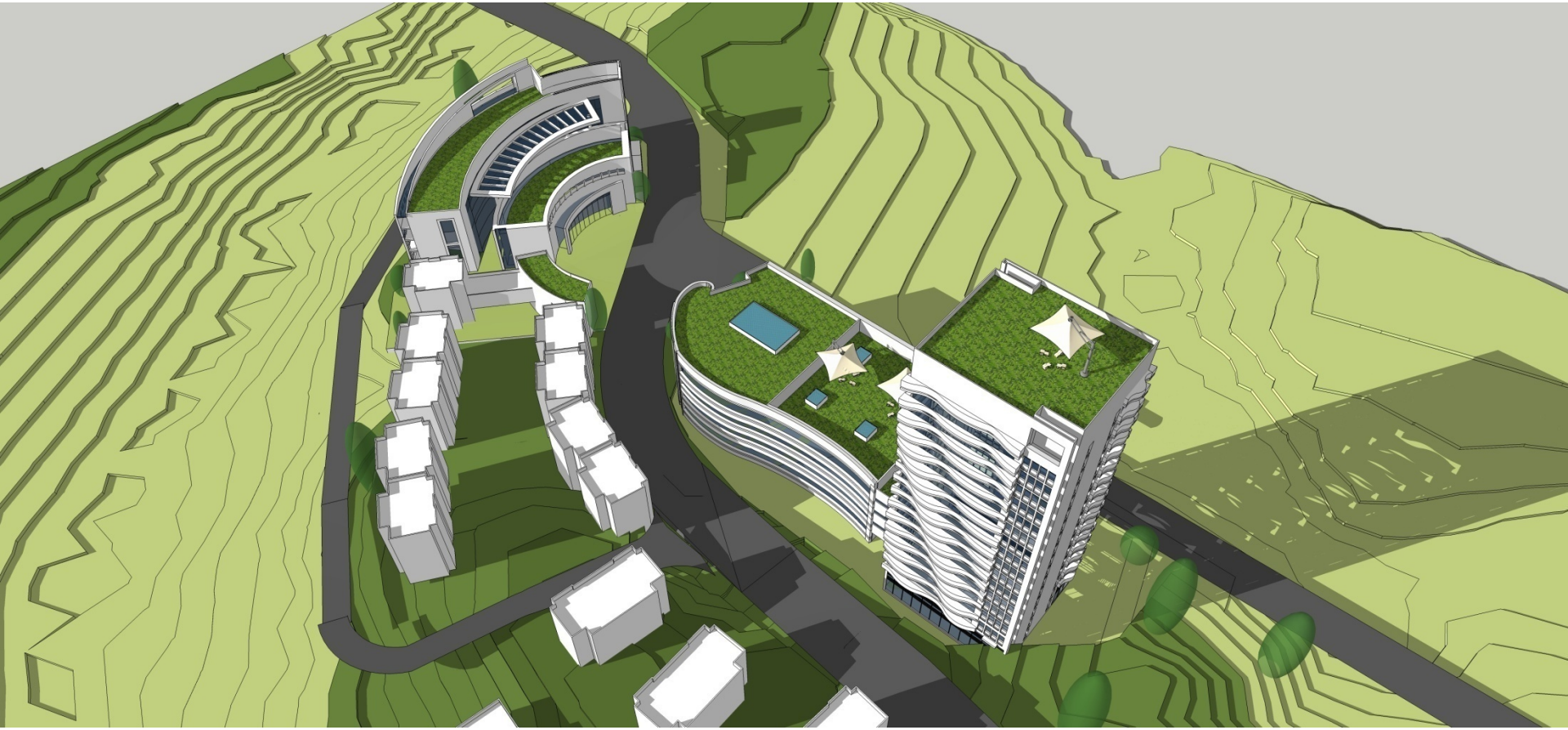
用地面积（单位㎡）	7800
占地面积（单位㎡）	3181
总建筑面积（单位㎡）	30607
地上面积（单位㎡）	26663.5
地下面积（单位㎡）	3943.5
建筑密度（单位%）	40.7
容积率	3.42
绿化率	30
机动停车	294

Floor area(m^2):11296
Ground floor area(m2):8237
Underground area(m2):3058

N

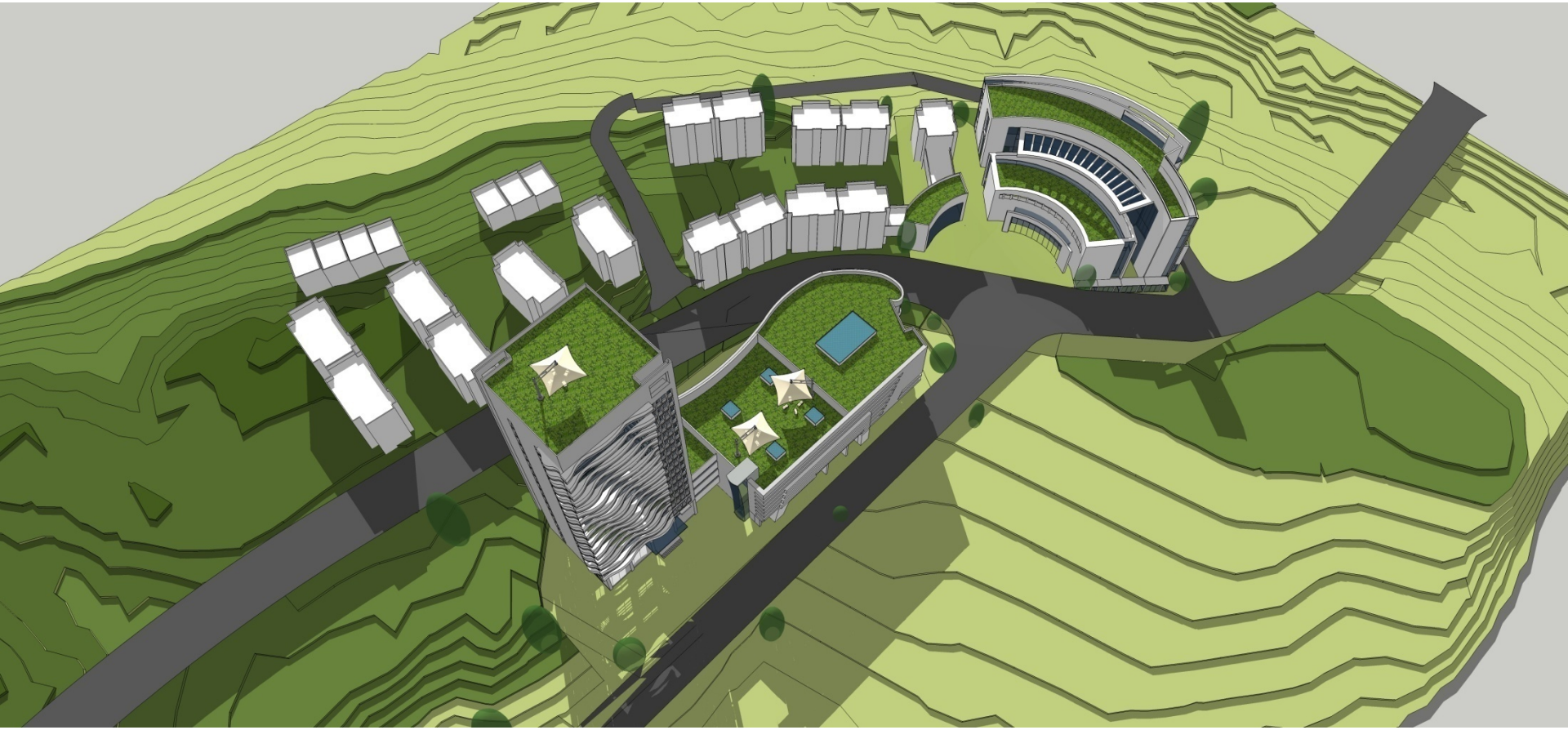
总平面图 General Plan

总体鸟瞰图 **1** Bird-eye view 1



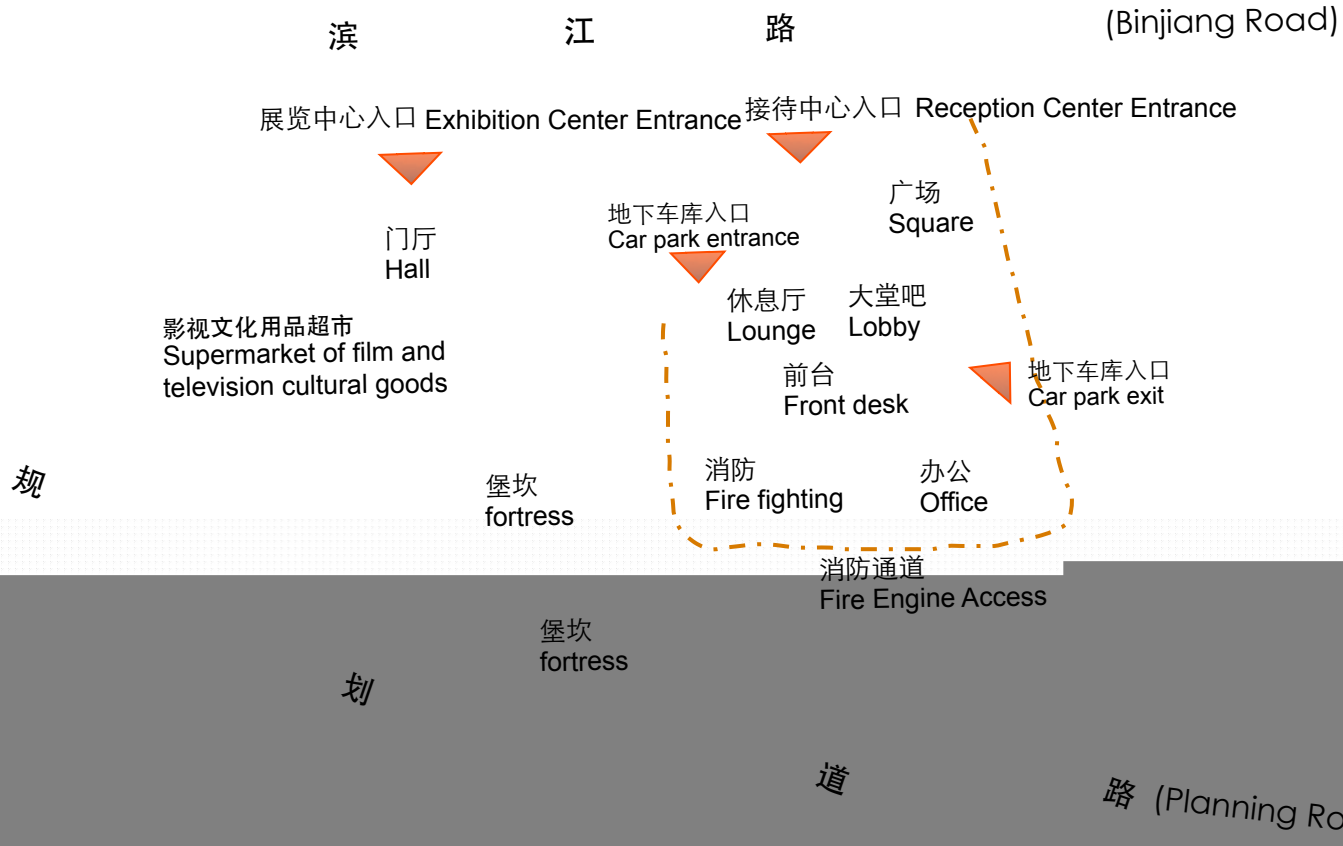
总体鸟瞰图 **2** Bird-eye view 2

总体鸟瞰图 **3** Bird-eye view 3

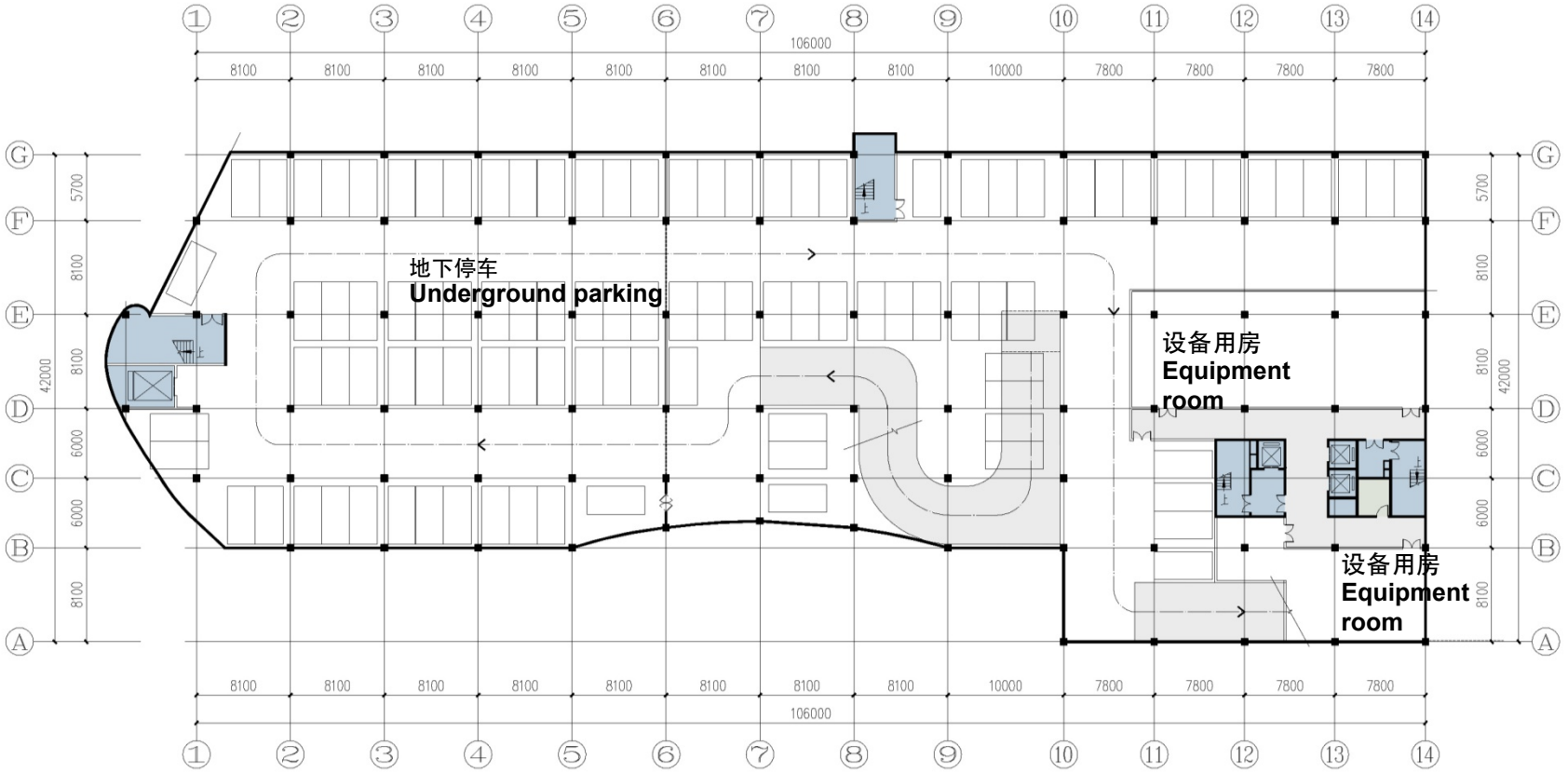


总体鸟瞰图 **4** Bird-eye view 4

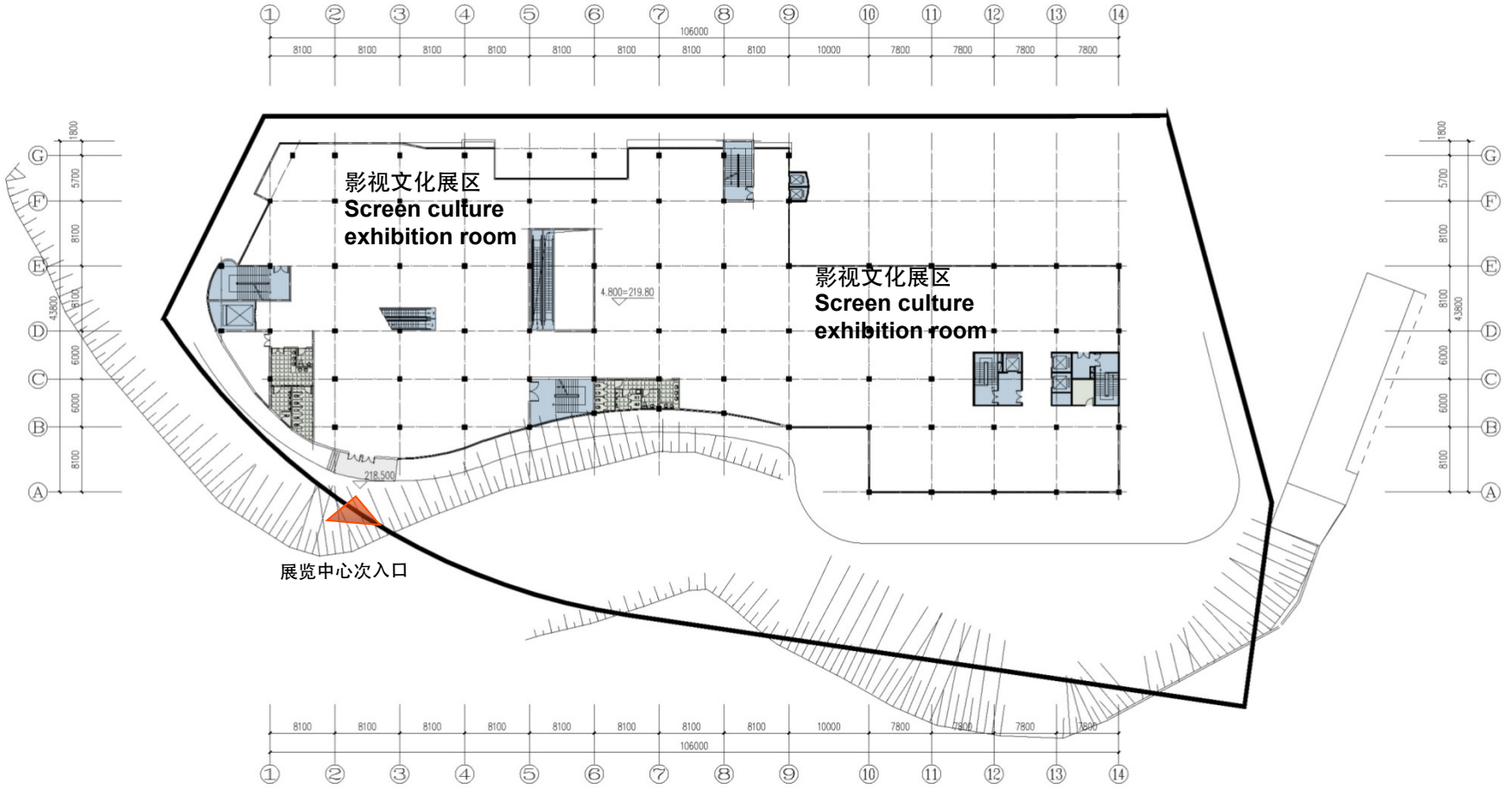
总体鸟瞰图 **5** Bird-eye view 5



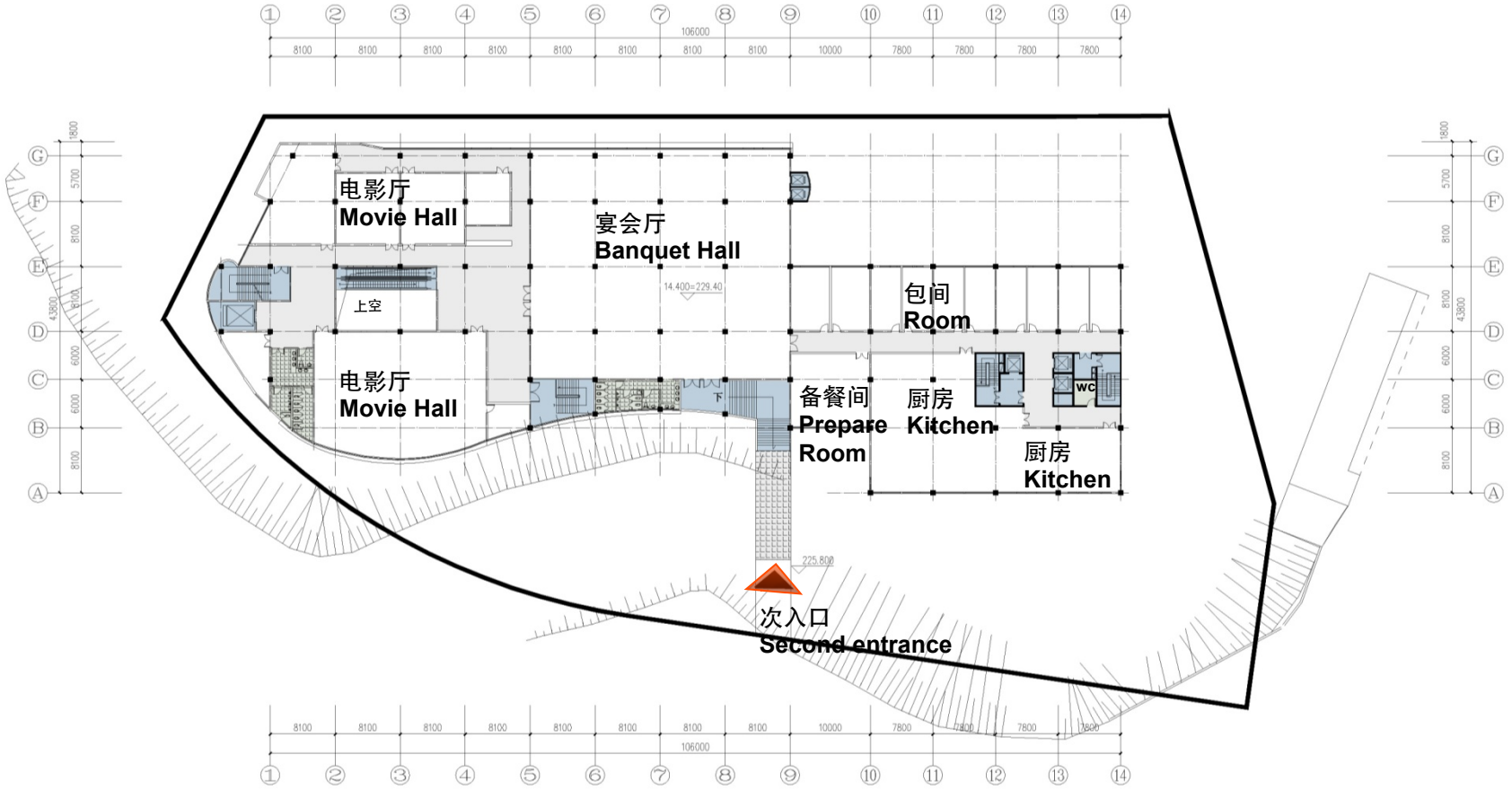
一层平面图 the ground floor plan



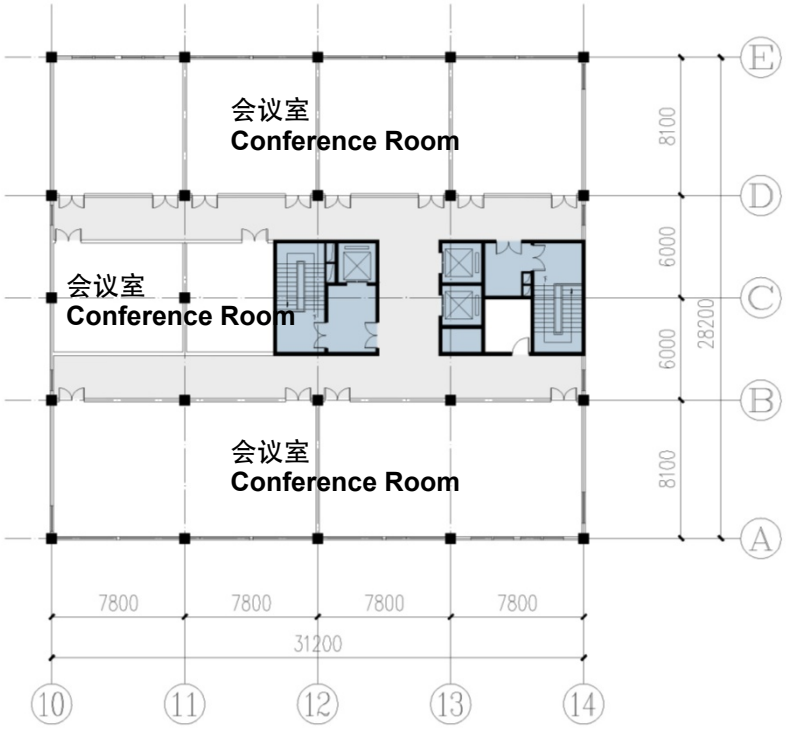
负一层平面图 the basement plan



二层平面图 the second floor plan

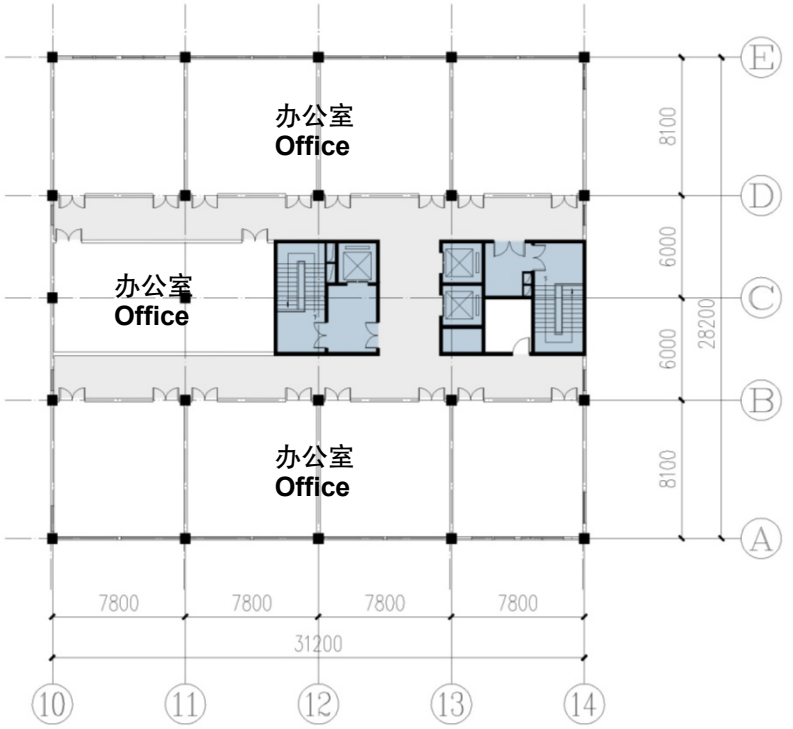


四层平面图 the forth floor plan



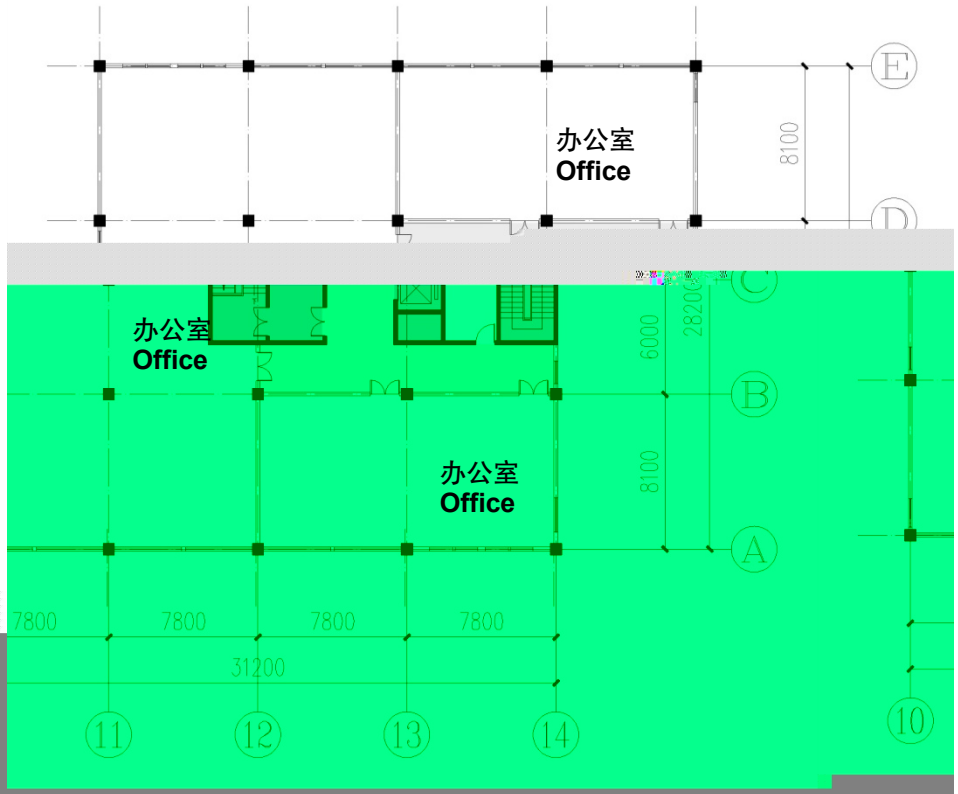
五、六层平面图

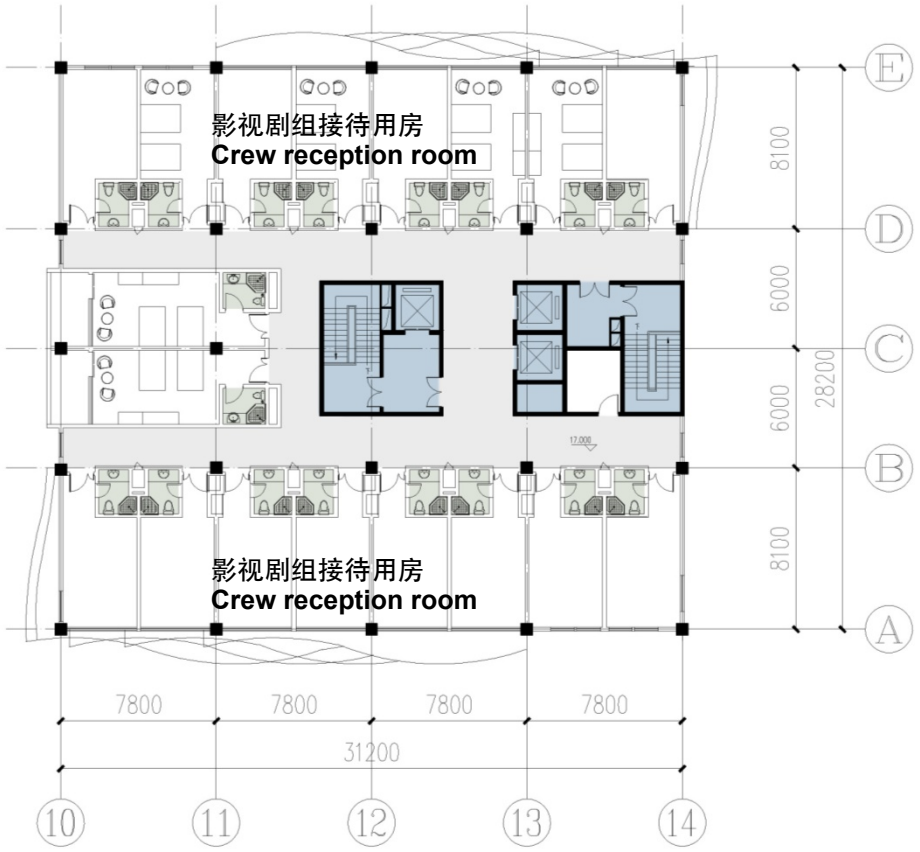
Meeting floor plan



七层平面图

Office floor plan





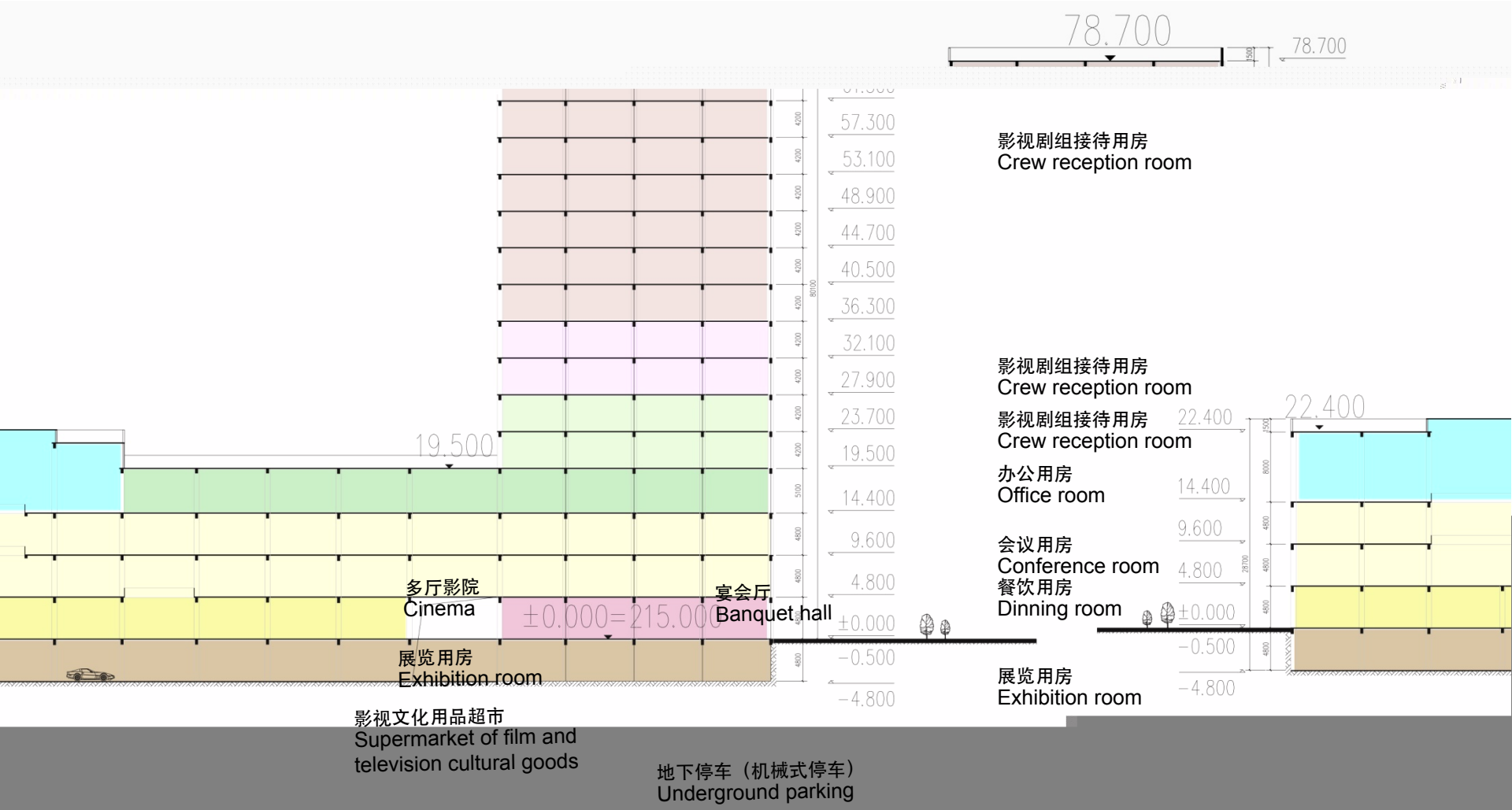
八层平面图

Office floor plan

接待中心标准层平面图

Reception center typical floor plan

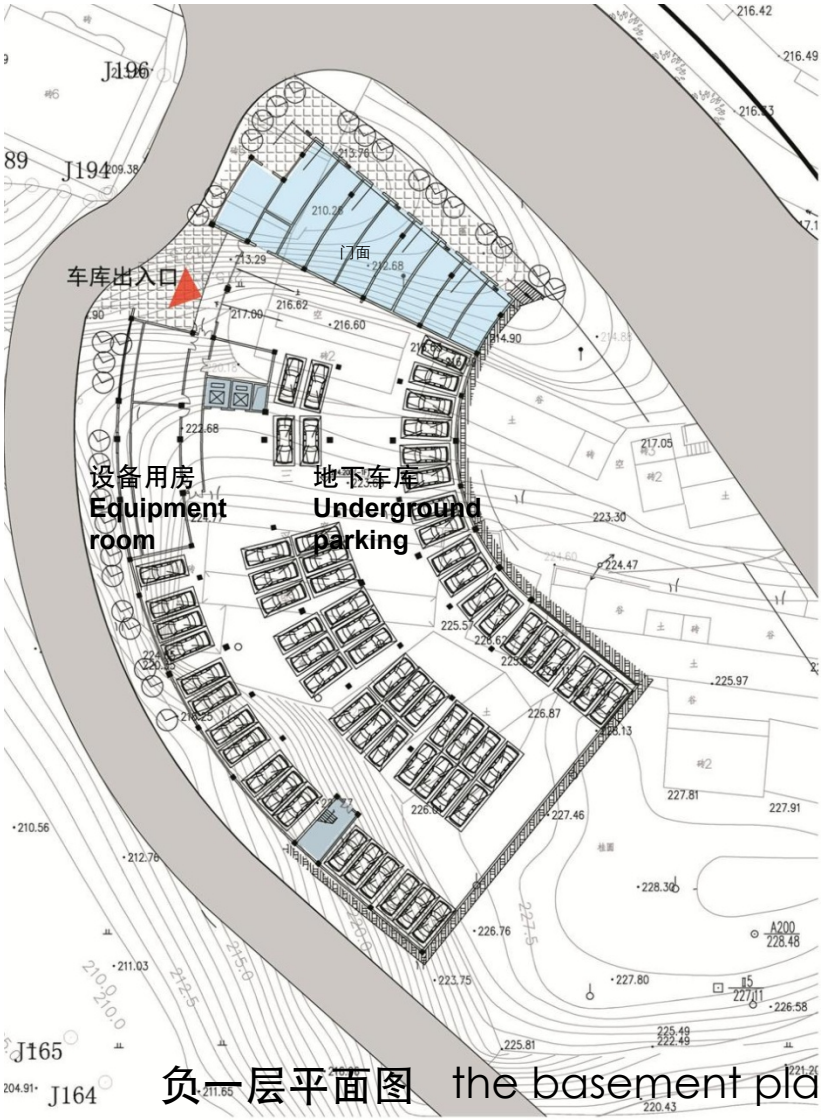
剖面功能示意图 general section



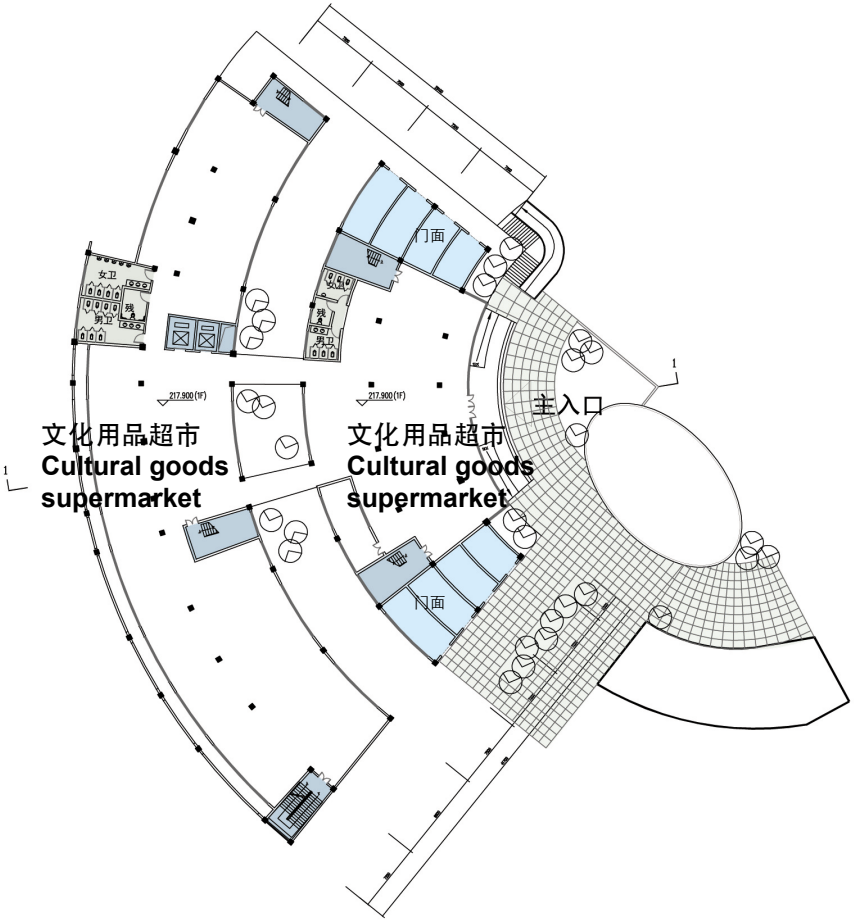
透视图 **1** perspective view 1

		窗墙比	S体形系数
Tower主体	S南墙	0.50	0.14
	N北墙	0.56	
	E东墙	0.23	
	W西墙	0.25	
Podium裙房	S南墙	0.53	0.13
	N北墙	0.34	
	E东墙	0.13	
	W西墙	0.50	
影视文化大厦			0.135

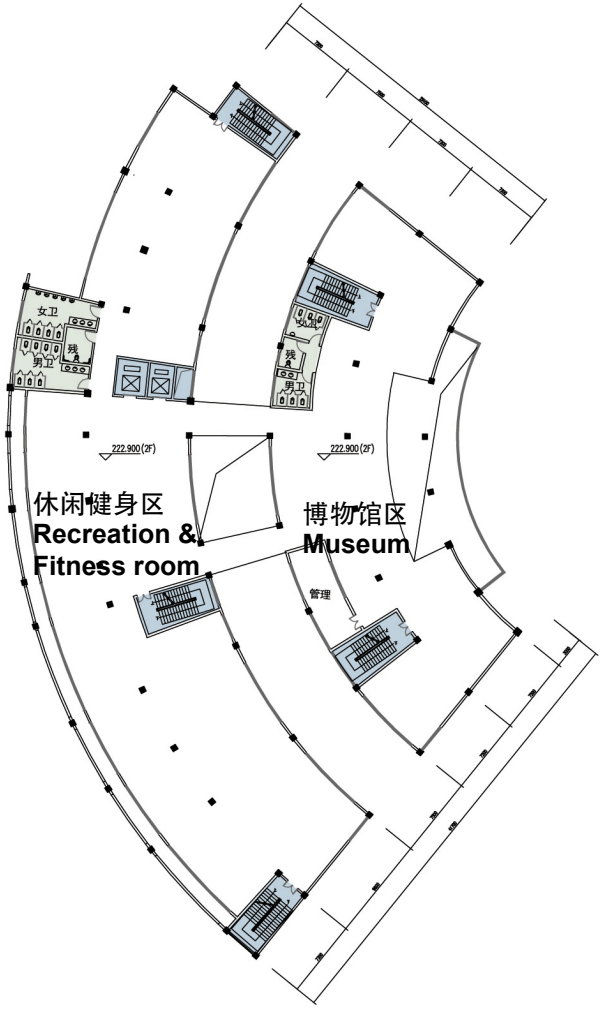
透视图 **2** perspective view 2



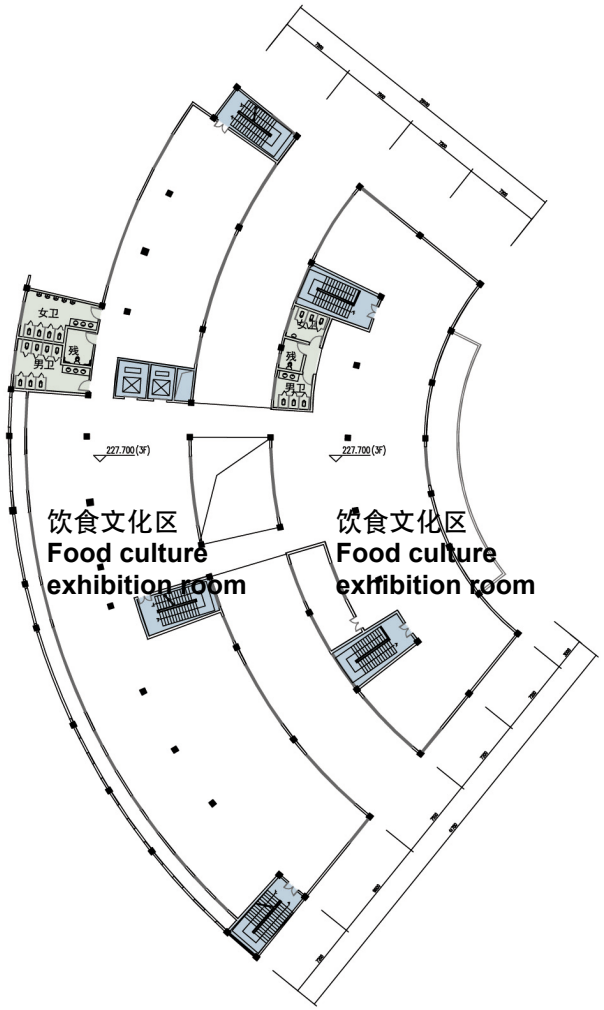
负一层平面图 the basement plan



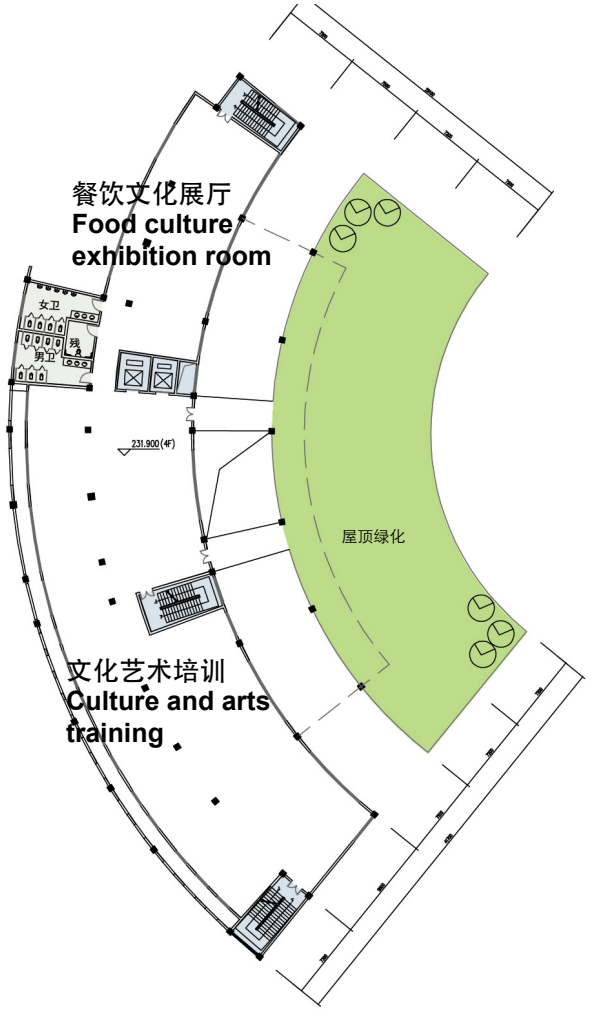
一层平面图 the ground floor plan



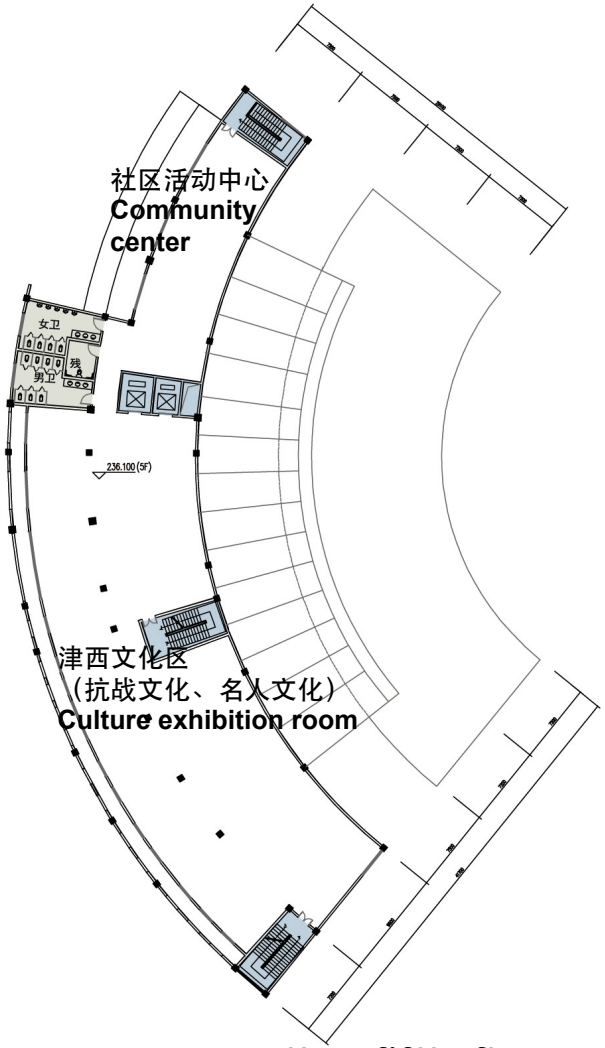
二层平面图 the second floor plan



三层平面图 the third floor plan

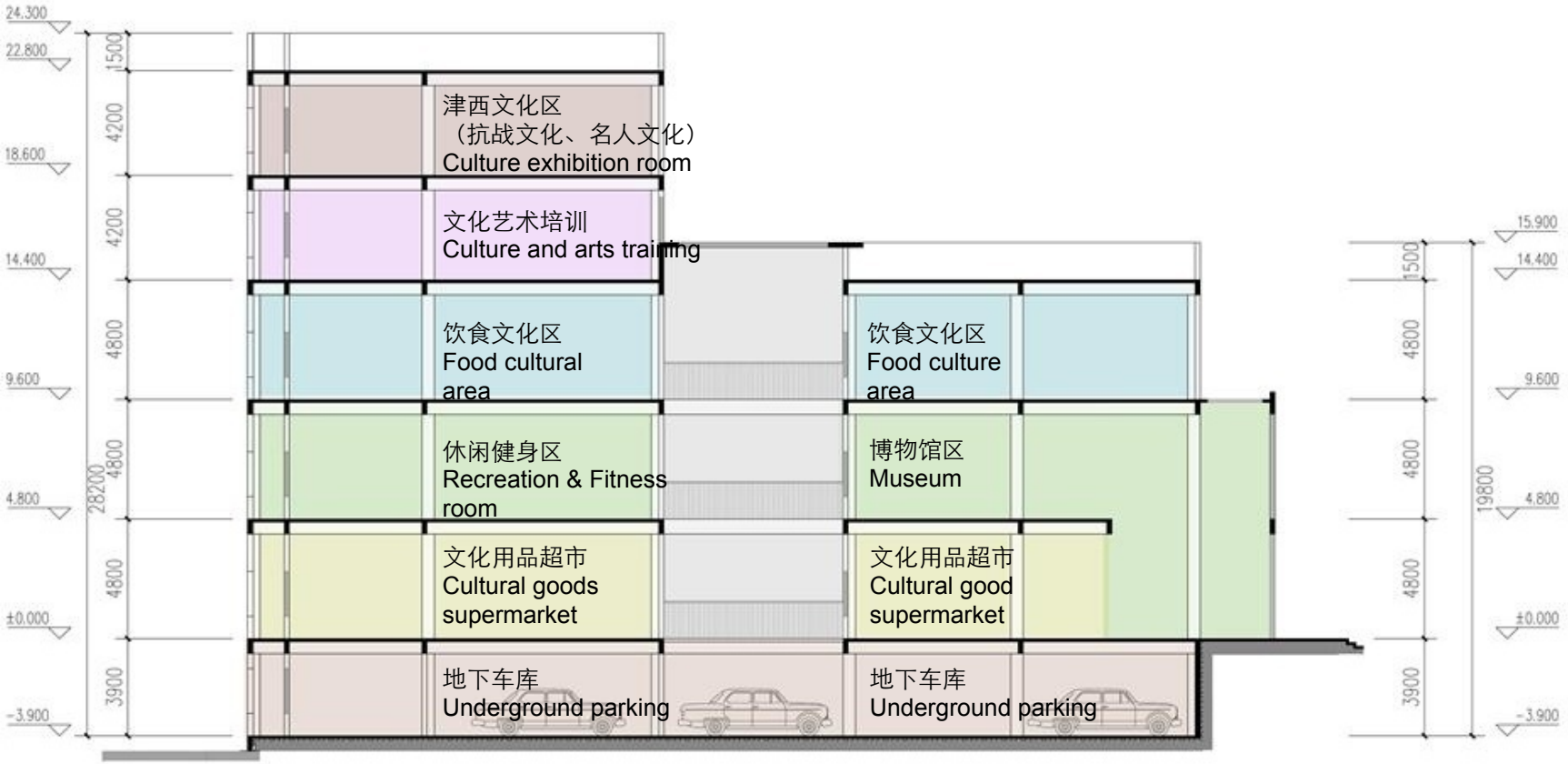


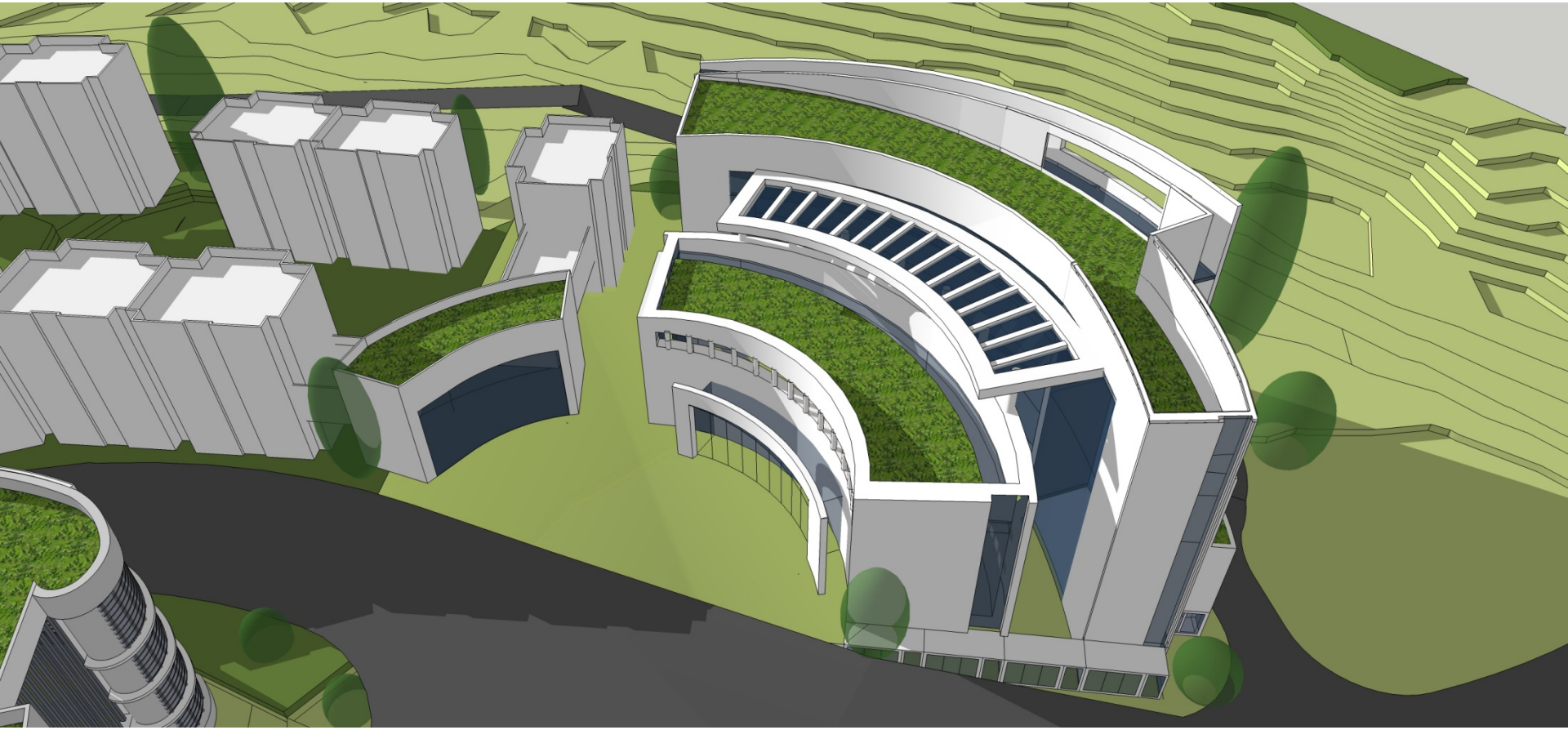
四层平面图 the fourth floor plan



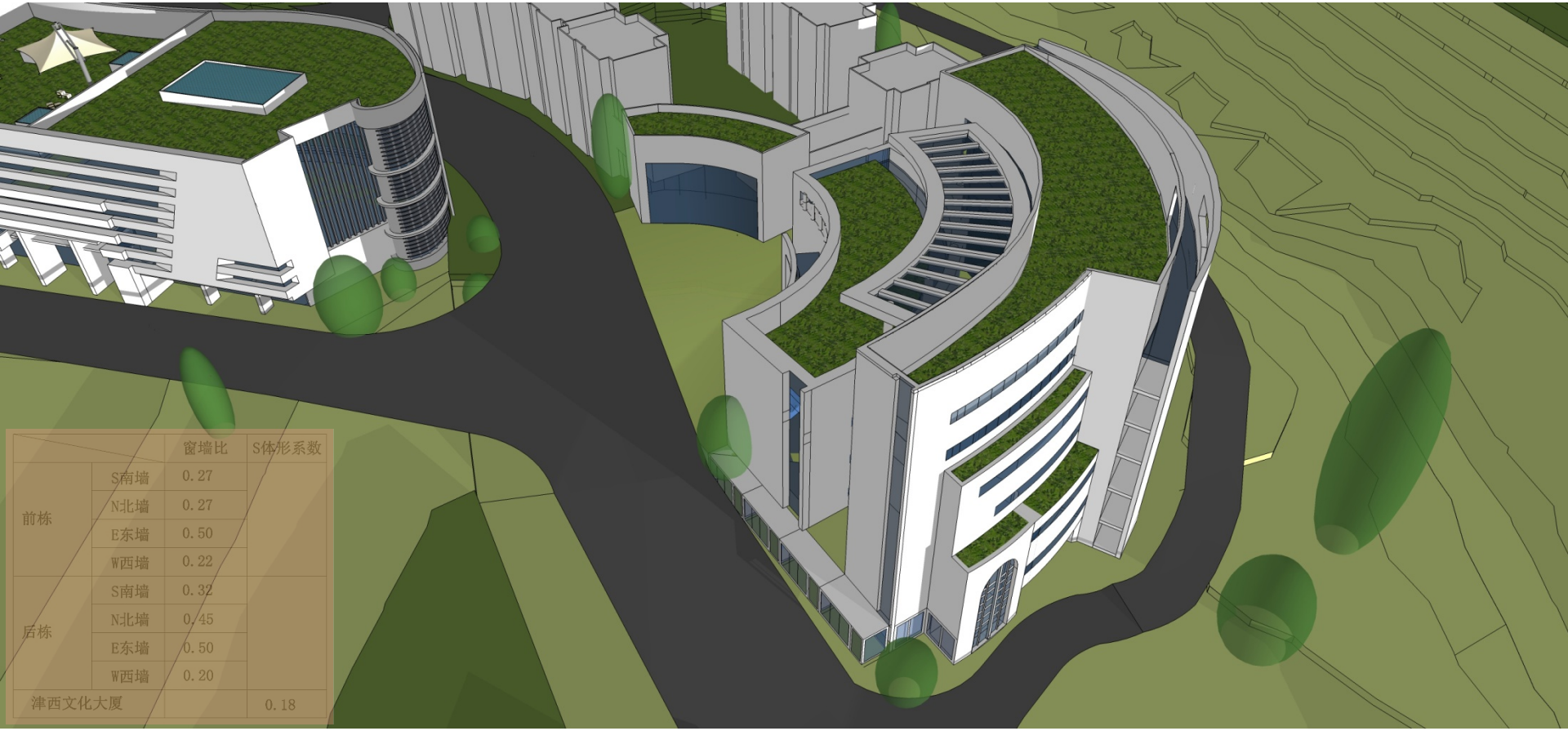
五层平面图 the fifth floor plan

剖面功能示意图 the general section





透视图 **1** perspective view 1



		窗墙比	S体形系数
前栋	S南墙	0.27	
	N北墙	0.27	
	E东墙	0.50	
	W西墙	0.22	
后栋	S南墙	0.32	
	N北墙	0.45	
	E东墙	0.50	
	W西墙	0.20	
津西文化大厦			0.18

透视图 **2** perspective view 2

被动式节能设计篇 03

CHAPTER THREE， PASSIVE ENERGY-SAVING DESIGN

LOW ENERGY CONSUMPTION BUILDING 低能耗建筑

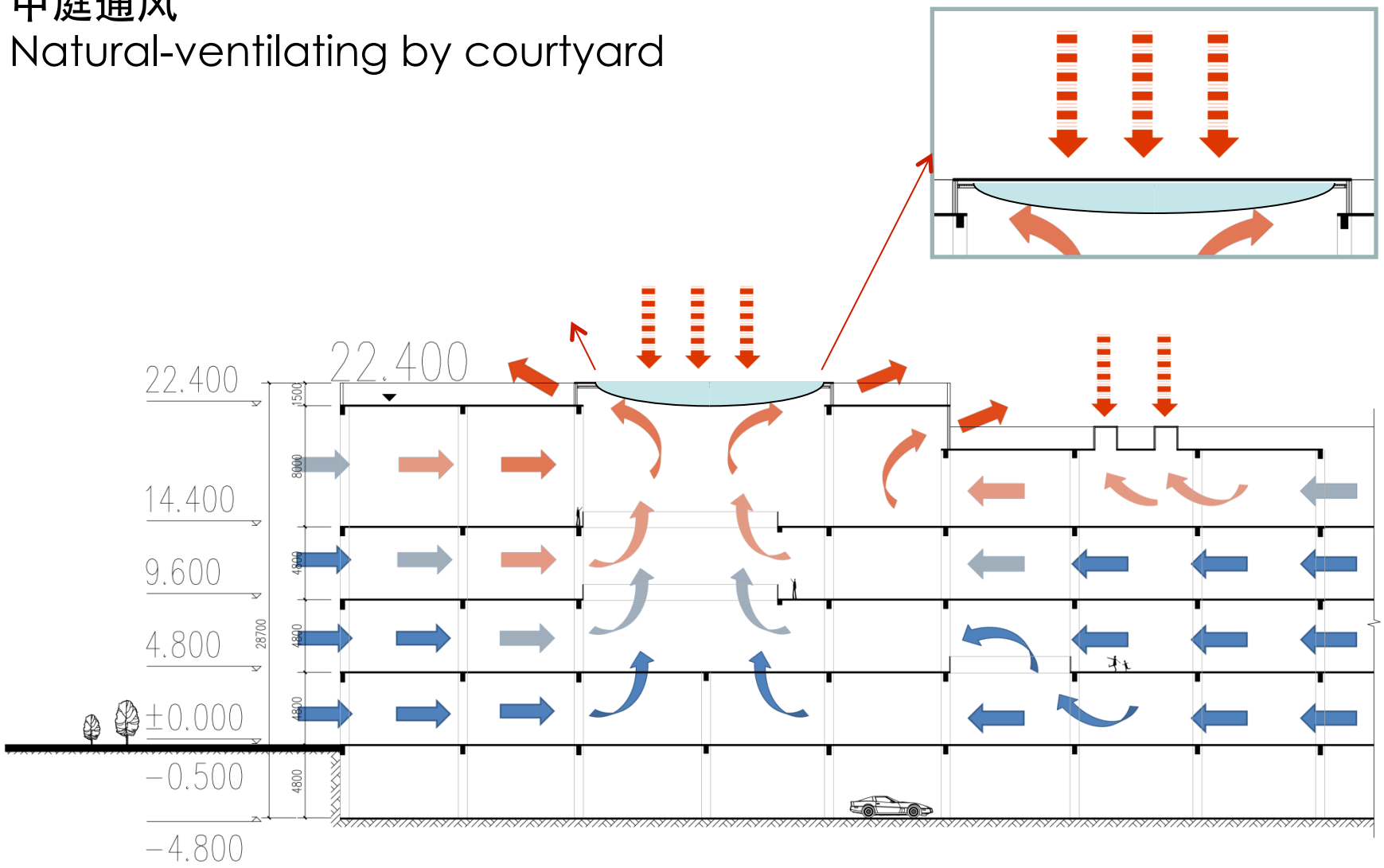
影视文化大厦被动式设计难点

The passive design emphases on the building of Cinema & television culture

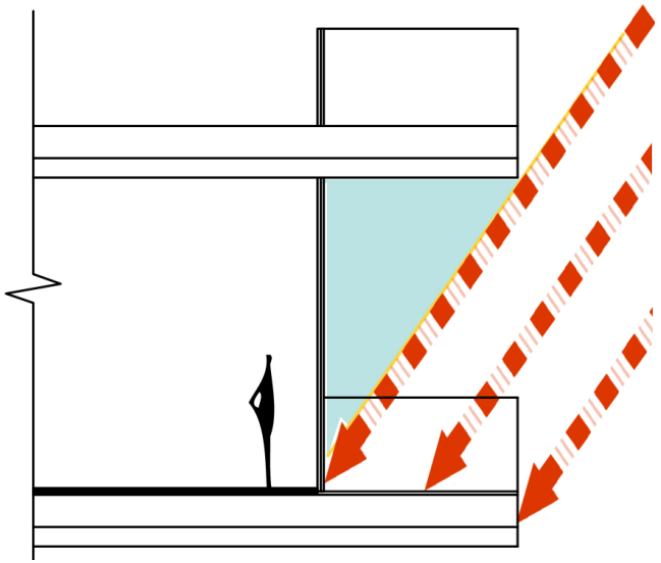
一、大进深展厅的通风、采光问题 ——进深大，自然采光通风困难。
Disadvantages on natural-ventilating and day-lighting for Large-depth room

二、西向房间的隔热问题——西晒较为严重。
The overheating on the west side

中庭通风
Natural-ventilating by courtyard



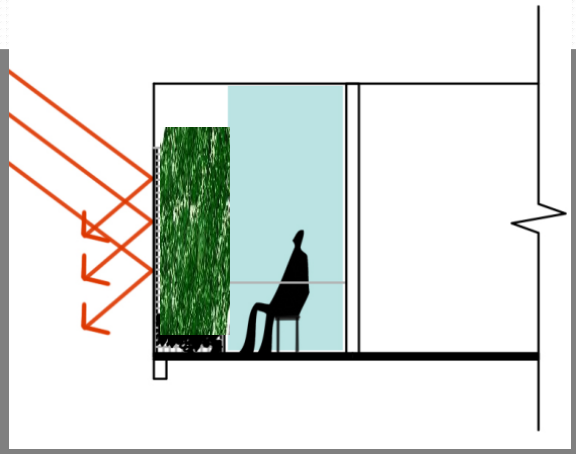
南墙遮阳
Balcony sunshad in the south envelope

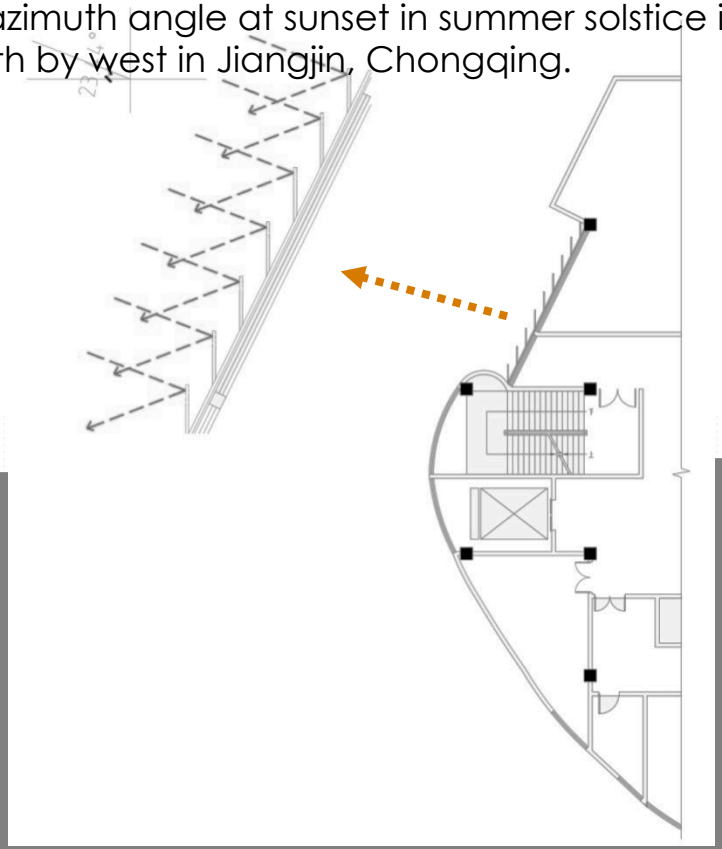


西墙遮阳
Greenery and vertical boards sunshade in the west envelope

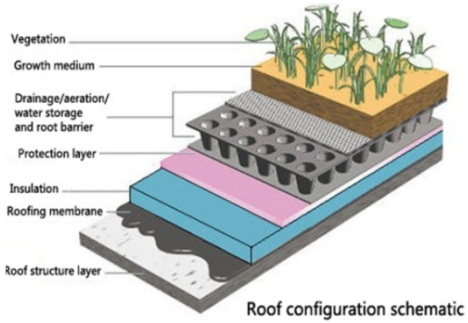
重庆江津地区夏至日日落时分的太阳方位角是西偏北23.44°

The solar azimuth angle at sunset in summer solstice is 23.44° north by west in Jiangjin, Chongqing.

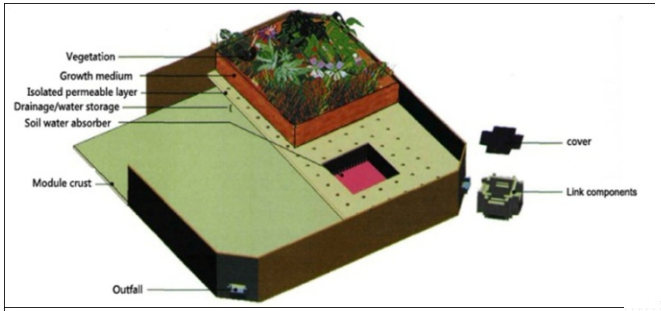


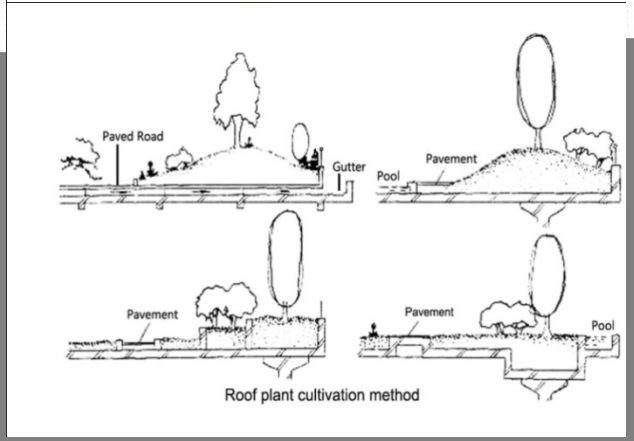


屋面绿化
Roof garden



Roof configuration schematic



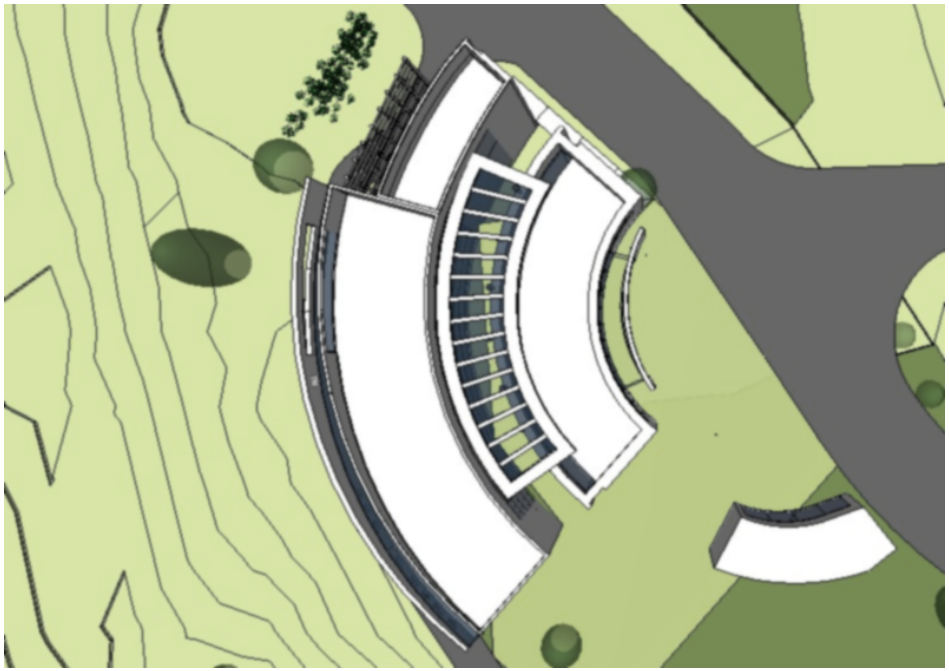


Roof plant cultivation method

津西文化大厦被动式设计难点

The passive design emphases on the JINXI cultural building

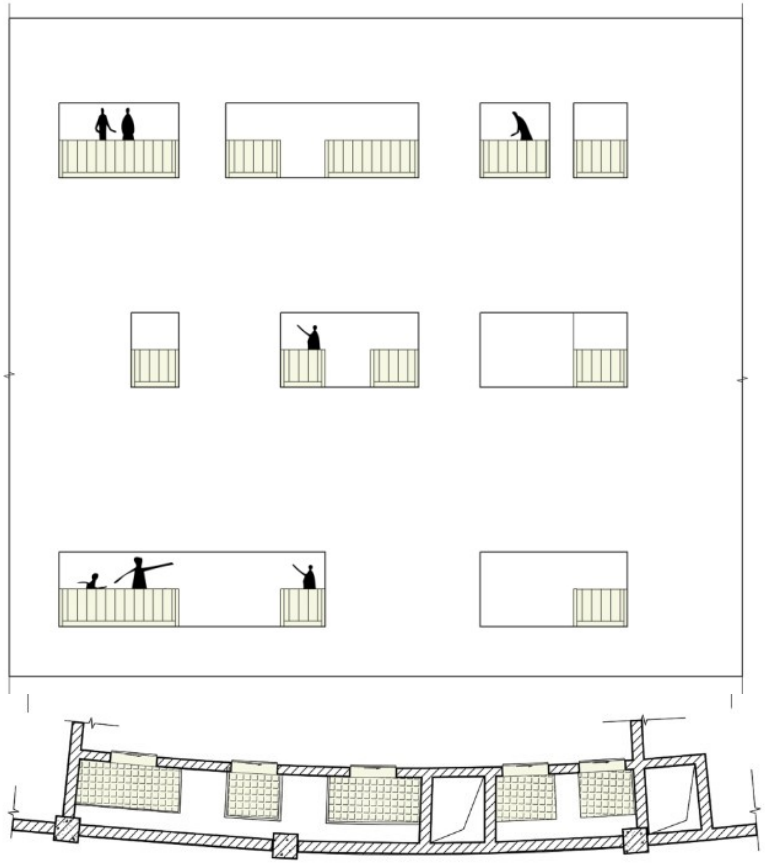
建筑为东西朝向——西晒较为严重
Building orientation from the east to west
Over-heating on the west side



津西文化大厦被动式设计要点

西墙综合遮阳通风

Double wall for shading and ventilating

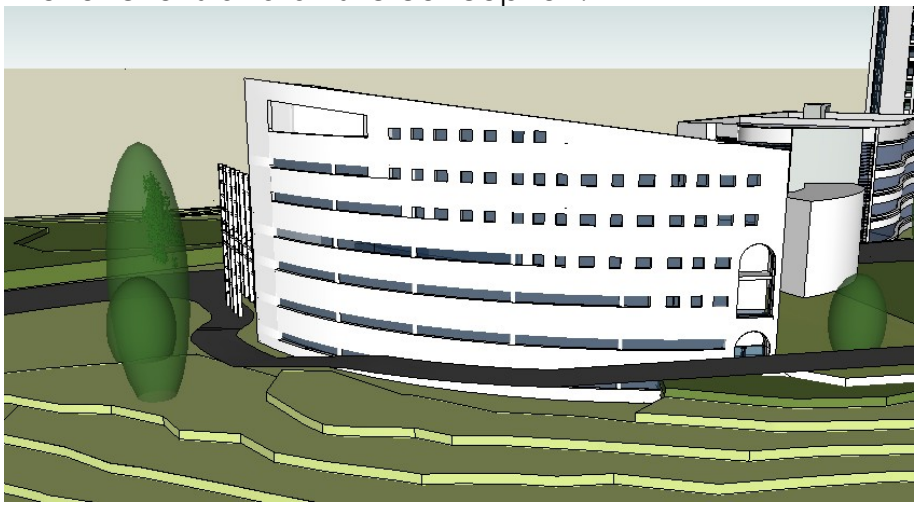


由于建筑朝向问题，西晒不可避免。

Due to the orientation, Over-heating on the west side is an inevitable problem.

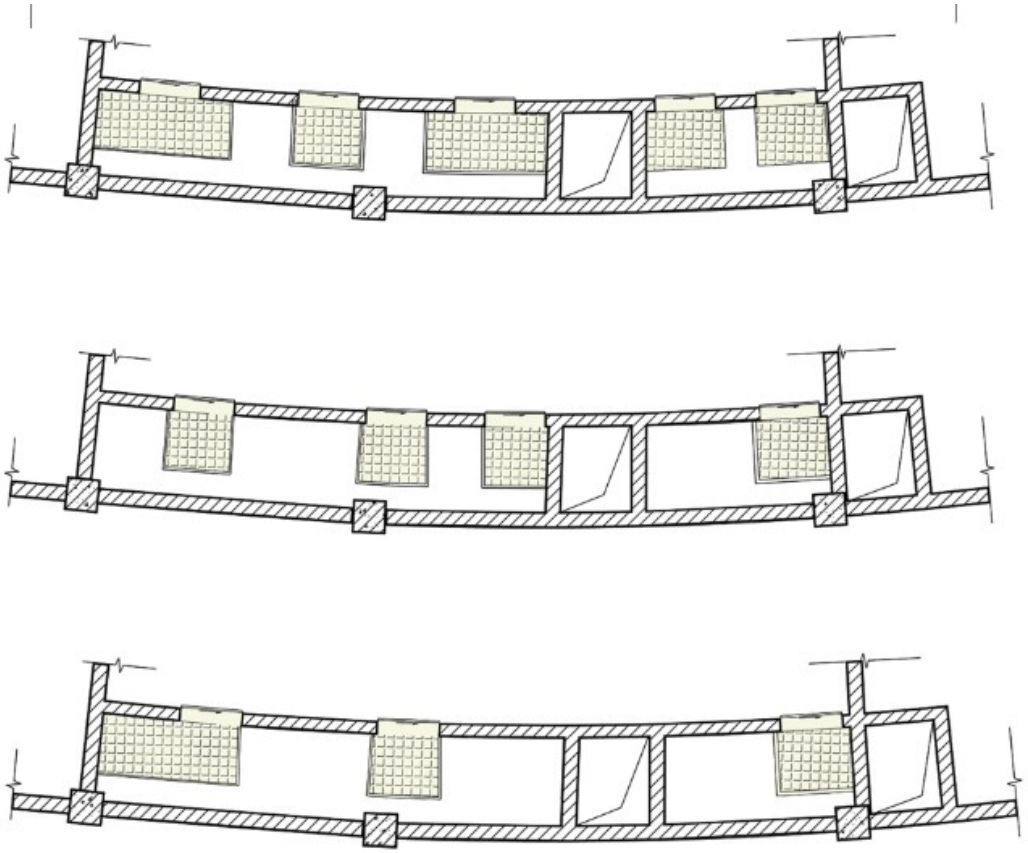
因此，我们采用大面积的实墙，对阳光有效的遮挡；并在合适的地方开洞采光，保证功能满足的基础上，营造出立面效果的韵律感和美感。

Large-area walls are introduced to block the sunlight; holes are opened for day lighting, guaranteeing both the functions and artistic conception.

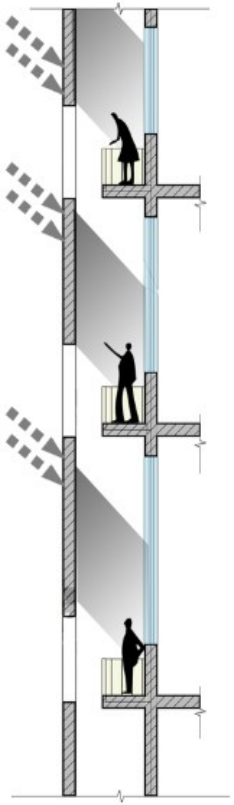


津西文化大厦被动式设计要点

西墙综合遮阳通风
outer wall for shading



图示为阳台位置节点大样
Details of balcony

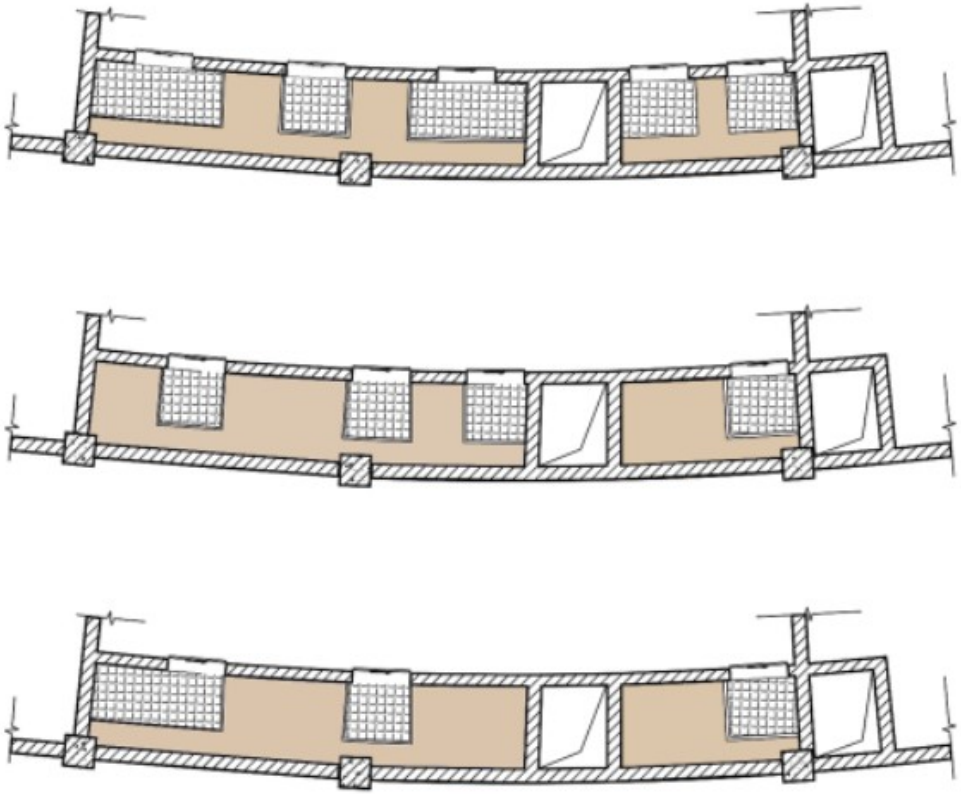


遮阳
Shading

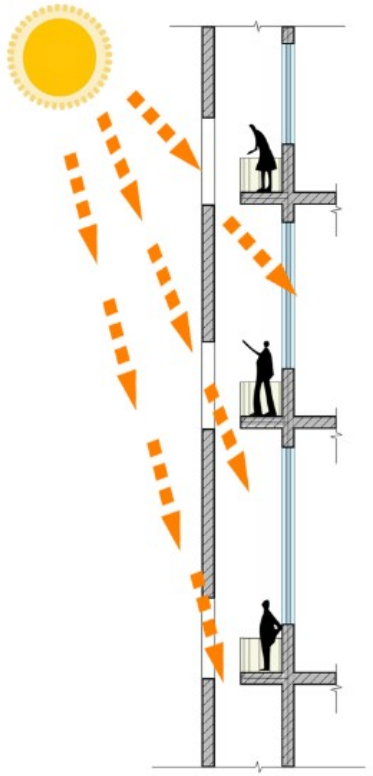
津西文化大厦被动式设计要点

西墙综合遮阳通风

Balance between shading and day-lighting



图示红色色块部分为采光井位置
Red is the location of light well

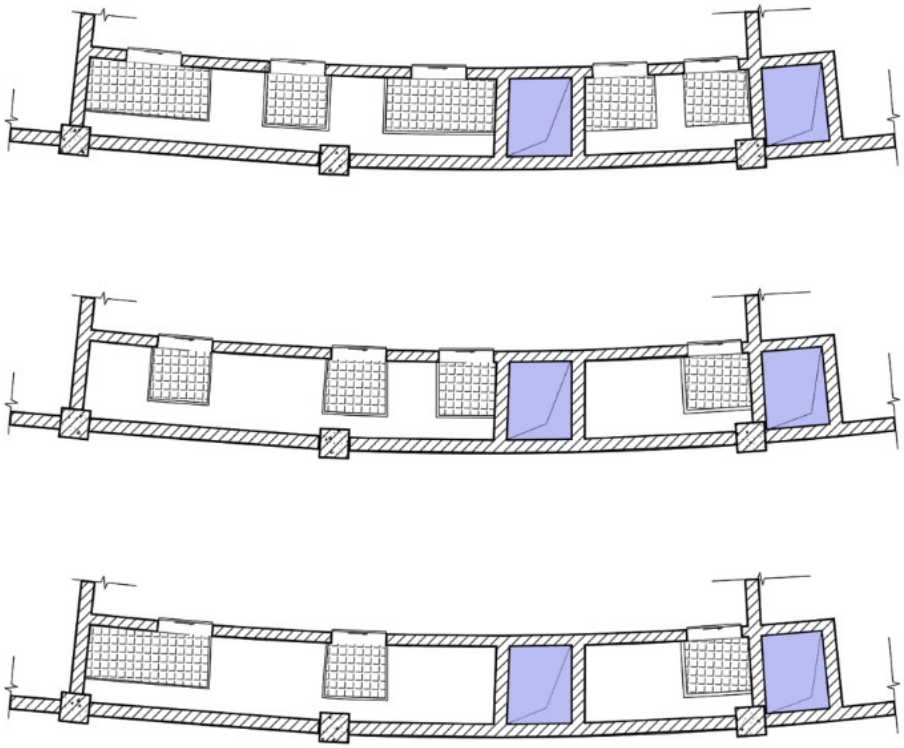


采光
daylighting

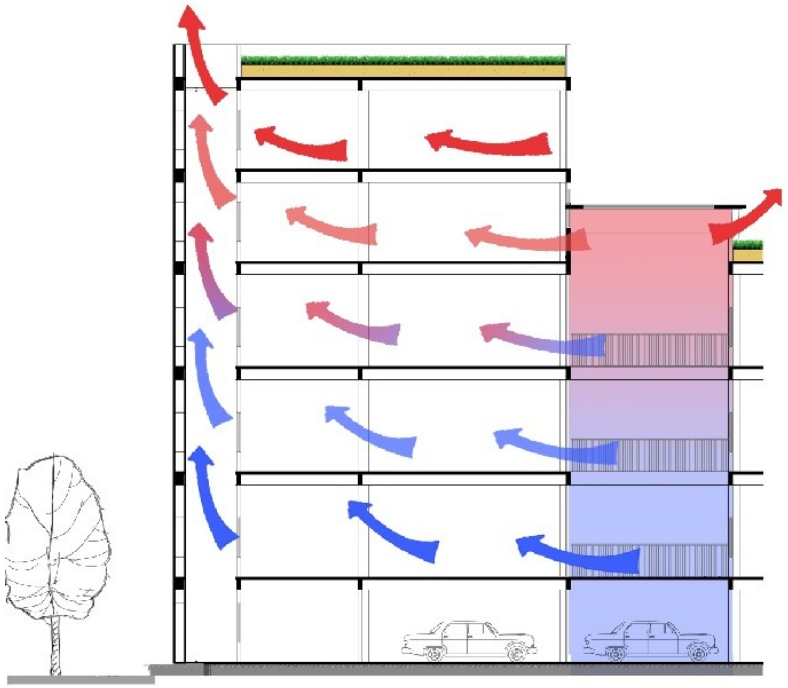
津西文化大厦被动式设计要点

西墙综合遮阳通风

Combining with “chilly alley” for ventilating cooling



图示蓝色色块部分为通风井位置
Blue is the location of chilly alley

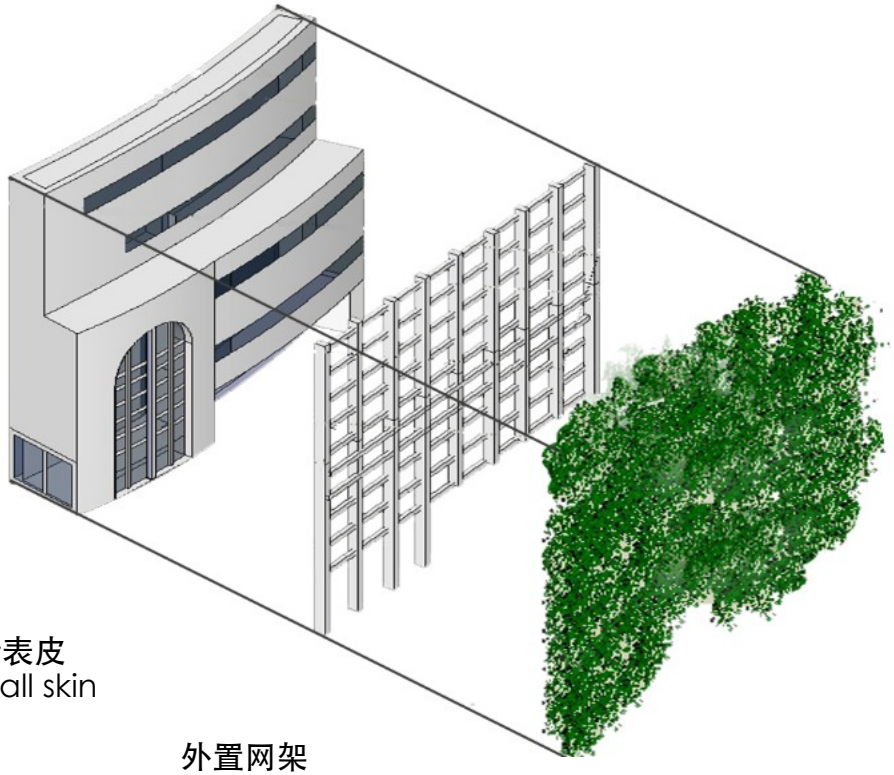


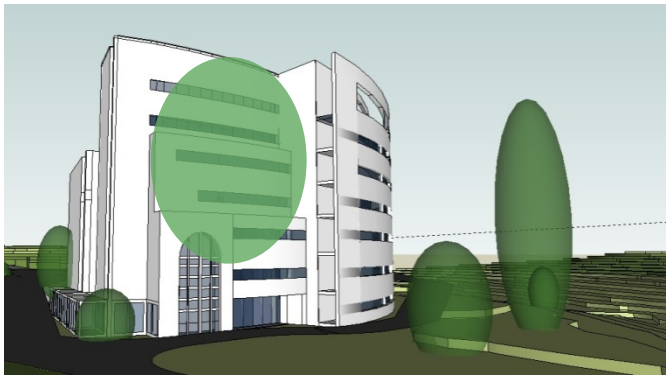
通风

chilly alley

津西文化大厦被动式设计要点
Passive design points of JINXI Cultural Center

垂直绿化
Vertical greenery





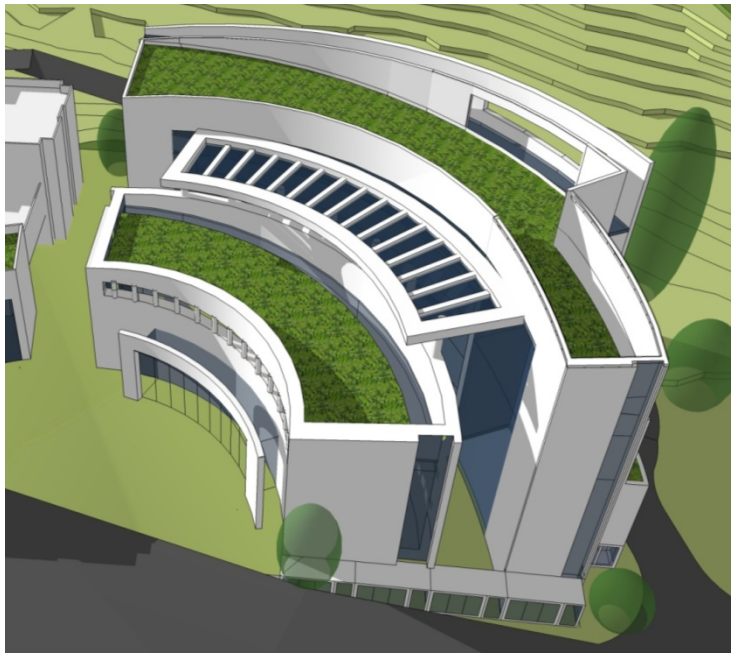
垂直绿化：采用外置式网架上挂攀爬植物而完成。
Vertical greening: hang vines on the outer frame.

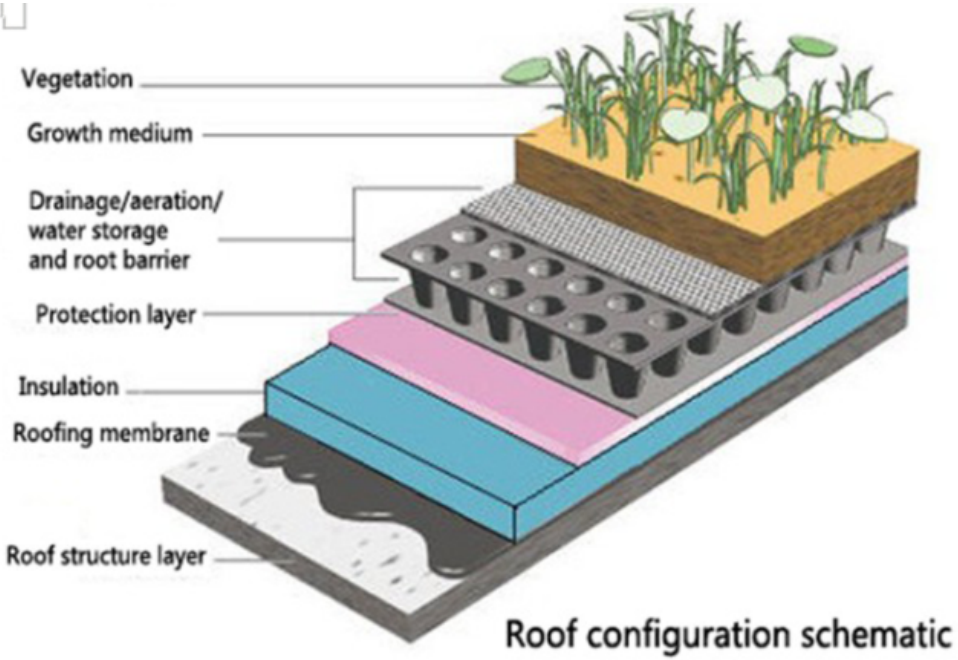
既解决了绿色建筑直接攀附建筑造成的通风采光问题，又为建筑增添了绿色生态的小空间，形成绿色通廊。

植物的自身落叶特性会产生这样的效果：
夏季——隔热通风
冬季——形成别样的肌理脉络

津西文化大厦被动式设计要点
Passive design points of JINXI Cultural Center

屋顶绿化
Roof garden





Roof configuration schematic

主动式节能设计篇 04

CHAPTER FOUR, ACTIVE ENERGY-SAVING DESIGN

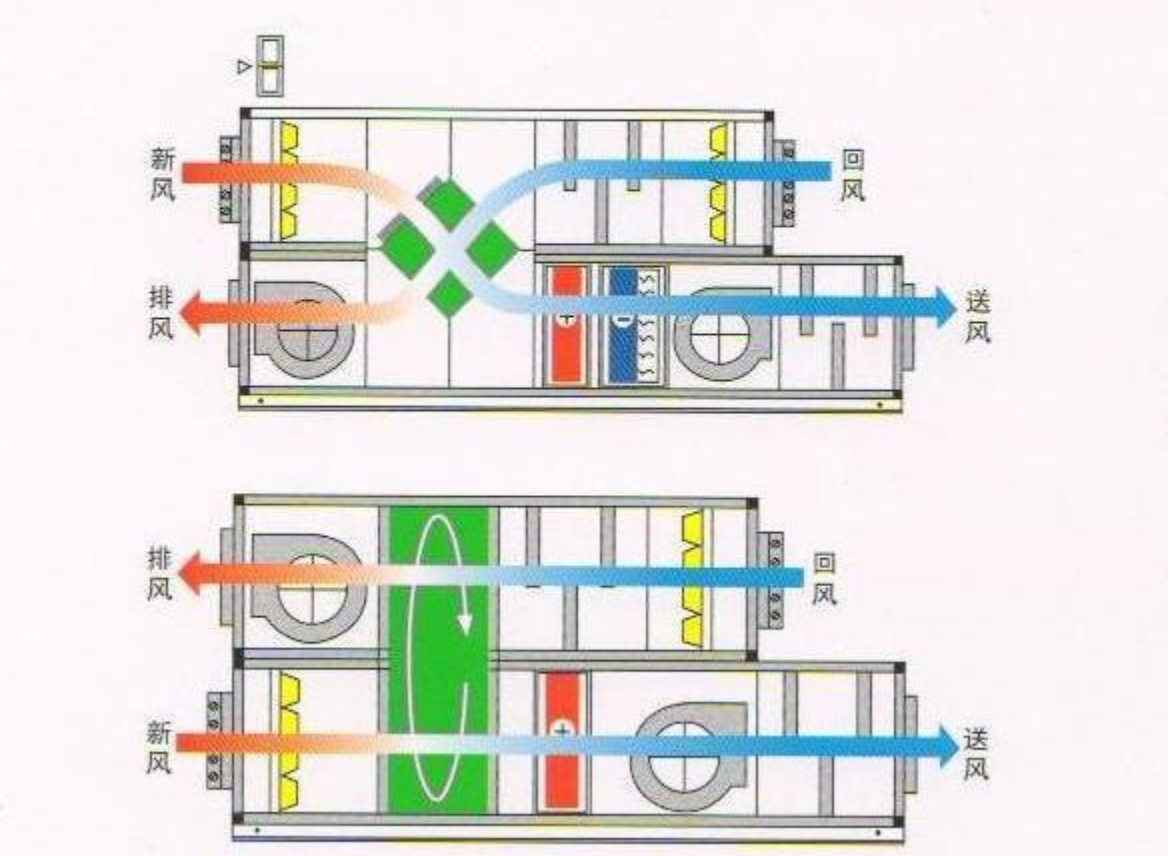
LOW ENERGY CONSUMPTION BUILDING 低能耗建筑

津西文化大厦主动式设计要点
Positive design points of JINXI Cultural Center

江水源热泵系统(River water source heat pump system)

津西文化大厦主动式设计要点
Positive design points of JINXI Cultural Center

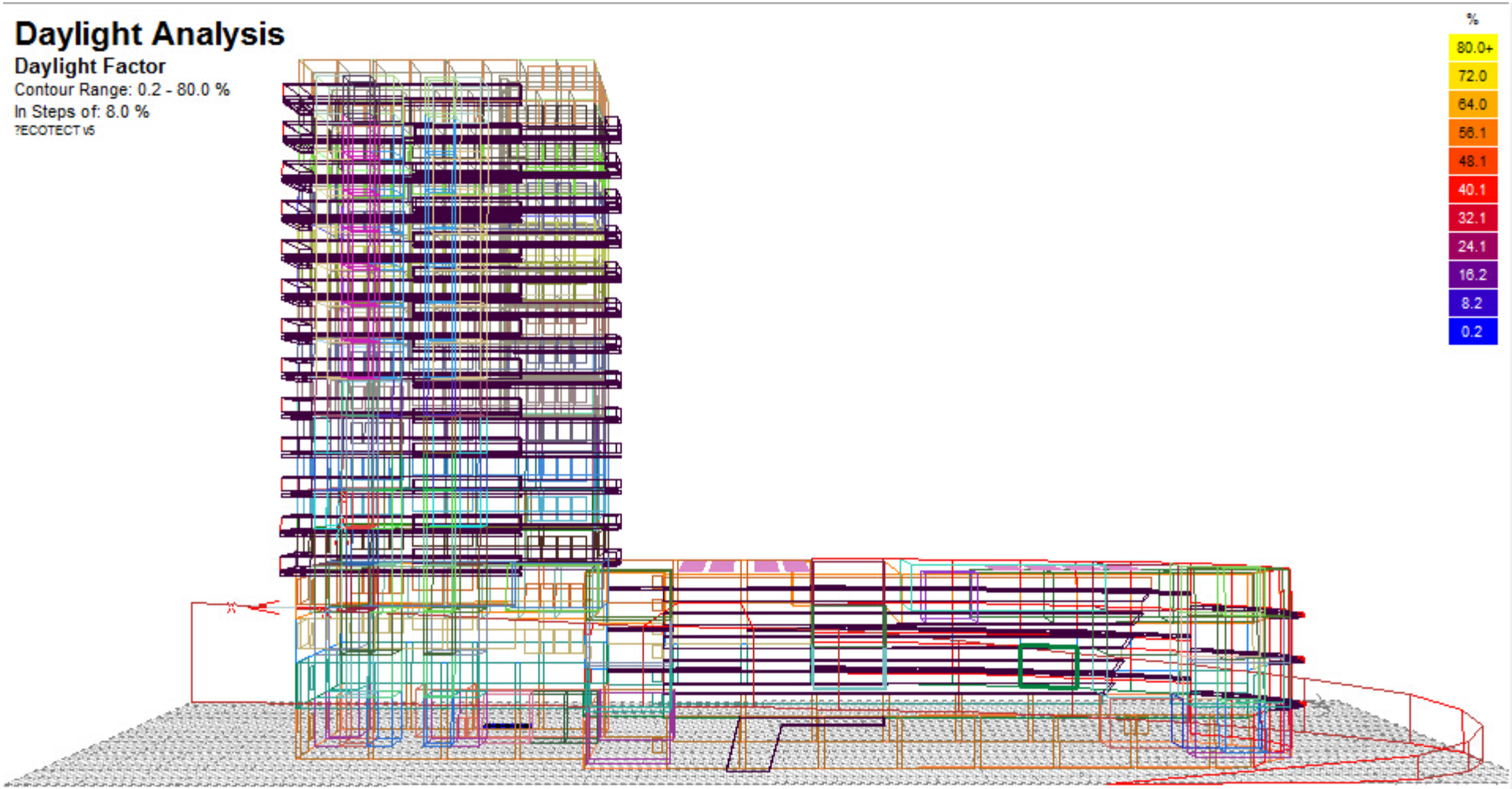
热回收式空气处理机(Heat recovery air conditioning unit)



近期工作进展 05

CHAPTER FIVE, Recent work

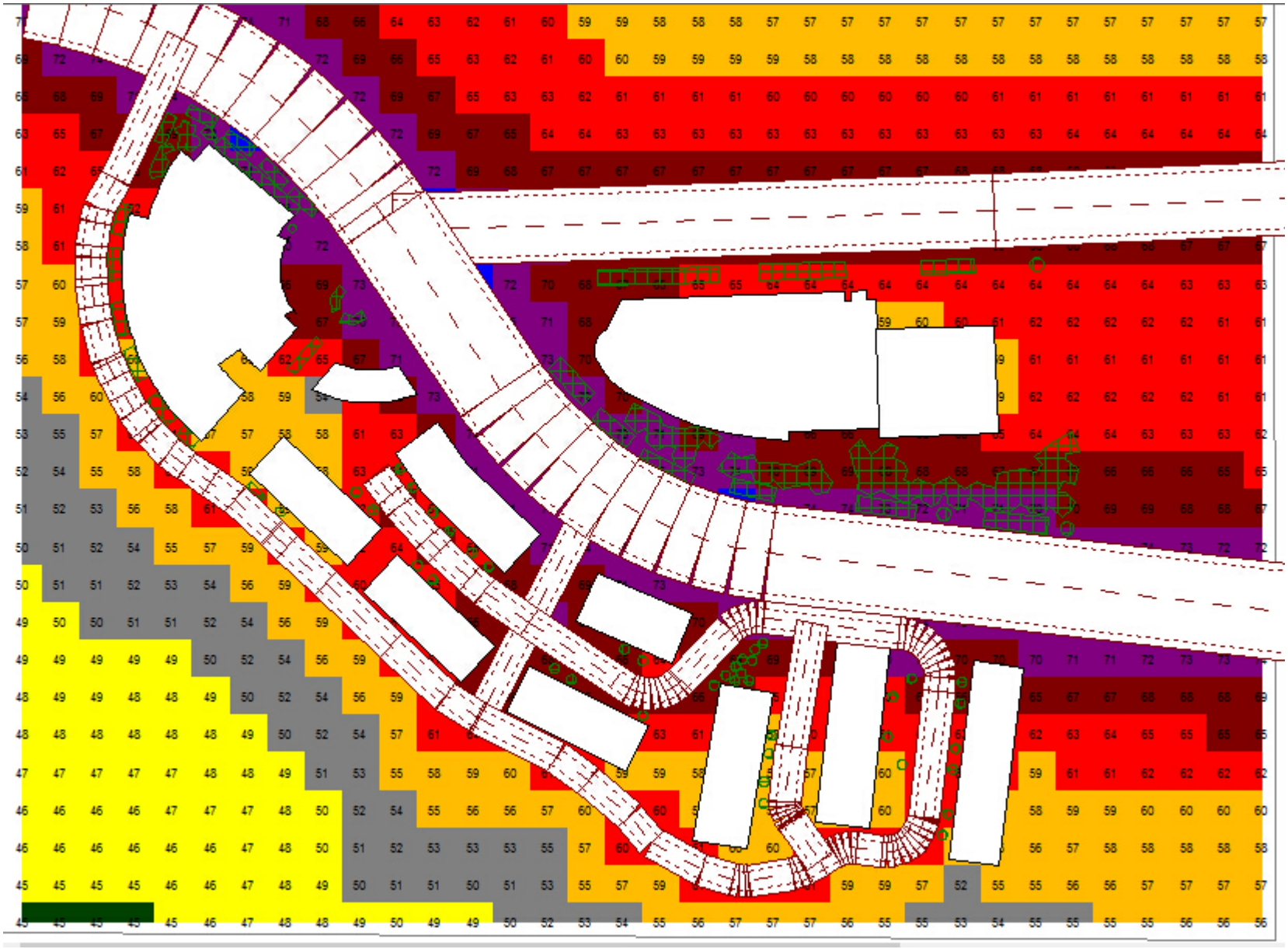
采光分析Daylight Analysis



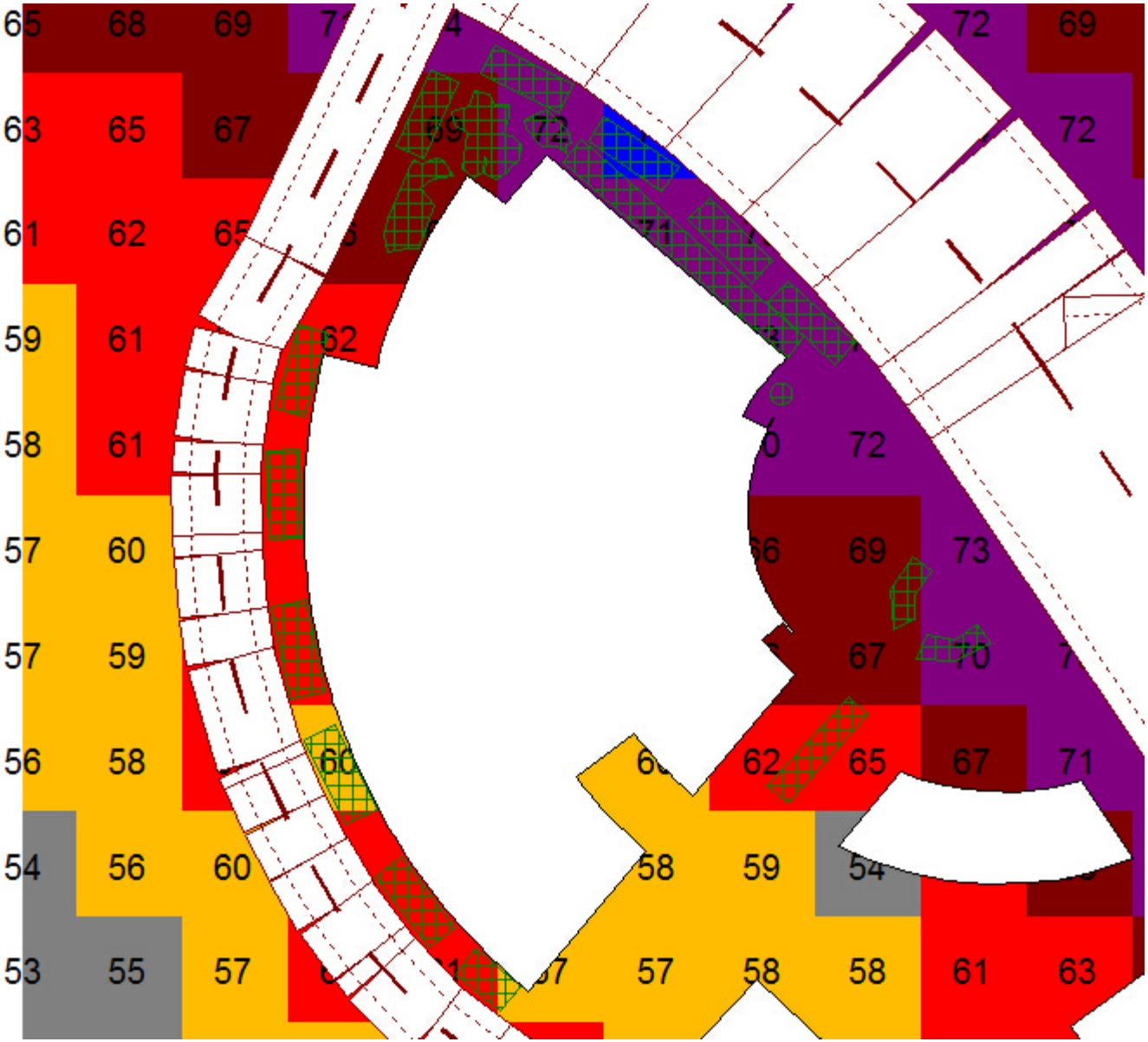
采光建筑模型

Building model for daylight analysis

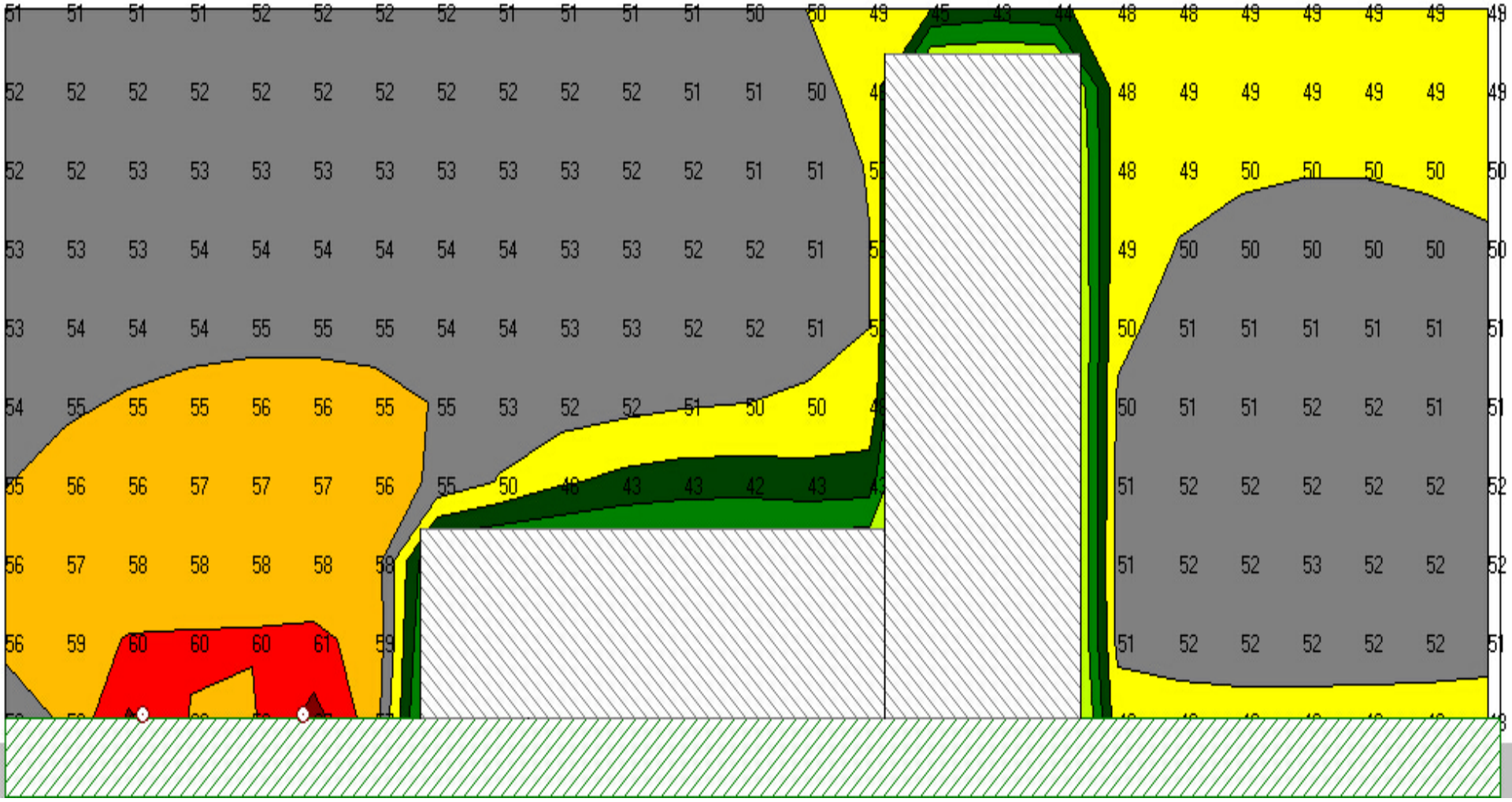
Noise simulation



Noise simulation



Noise simulation



Energy System

1、探讨采用槽式太阳能的可能性
Discussion of the possibility of solar trough system

太阳能资源贫乏地区 – 重庆

Chongqing, a city with poor solar energy resources

平板式太阳能光热系统在重庆实践经济效益差，寿命周期内投资无法回收。

Solar flat plate systems has been found that it was hard to return investment in the life cycle due to the poor economic performance in Chongqing

2、江水源热泵系统
Revier water source heat hump system

拟与美方Climate公司合作；
正在测试夏季水温、水质。
Plan to collaborate with U.S. company Climate.
The water temperature and quality is being tested.

Some Research

Human behavior

结论：无论是办公建筑还是居住建筑，人们开窗、开门的驱动力绝不仅仅是室内外温度及室内空气品质，人们追求热舒适、光舒适、与室外沟通等的心理驱动也是其非常重要的影响因素，任何单纯将开窗、开门概率与室内、外环境参数建立的个案关联模型都不适用其它案例，会产生极大的概率偏差。

Conclusion: regardless of office buildings and residential buildings, the reasons why people open doors and windows are not just for indoor and outdoor temperature and air quality, but also for thermal comfort, lighting comfort and requirements of communication with the outdoor space. Models based on individual cases to make association between possibility of opening doors and windows and indoor and outdoor environment parameters are not applicable, which will lead to an enormous probability deviation.

困惑Confusion

没有足够的时间把图纸和报告翻译成英文，建筑体量大，建模难，在美方没有时间独立建模情况下如何加强与美方的合作？

There is inadequate time to translate all drawings and reports into English. It is also difficult to model due to the huge building spaces. In the case that U.S. partners do not have enough time to model, what should we do to strengthen the cooperation with U.S.?

END