

BREATHE

# 能源意识与可持续公共空间

**Energy-conscious and Sustainable Public Spaces**

汉英对照

(韩语版第373期)

韩国C3出版公社 | 编  
大连理工大学出版社

建筑立场系列丛书 No.57

B R E A T H E

# 能源意识与可持续公共空间

**Energy-conscious and Sustainable Public Spaces**

汉英对照

(韩语版第373期)

韩国C3出版公社 | 编

安雪花 于风军 焦明 孙探春 杜丹 徐雨晨 | 译

大连理工大学出版社

C3, Issue 2015.9

All Rights Reserved. Authorized translation from the Korean-English language edition published by C3 Publishing Co., Seoul.

© 2016 大连理工大学出版社

著作权合同登记 06-2016 年第 73 号

版权所有 · 侵权必究

#### 图书在版编目(CIP)数据

能源意识与可持续公共空间：汉英对照 / 韩国C3出版公社编；安雪花等译。— 大连：大连理工大学出版社，2016.6

(C3建筑立场系列丛书)

书名原文：C3: Energy-conscious and Sustainable Public Spaces

ISBN 978-7-5685-0409-6

I. ①能… II. ①韩… ②安… III. ①节能—建筑设计—汉、英 IV. ①TU2

中国版本图书馆CIP数据核字(2016)第136620号

---

出版发行：大连理工大学出版社

(地址：大连市软件园路 80 号 邮编：116023)

印 刷：上海锦良印刷厂

幅面尺寸：225mm×300mm

印 张：11.75

出版时间：2016 年 6 月第 1 版

印刷时间：2016 年 6 月第 1 次印刷

出 版 人：金英伟

统 筹：房 磊

责 编：杨 丹

封面设计：王志峰

责任校对：周小红

书 号：978-7-5685-0409-6

定 价：228.00 元

---

发 行：0411-84708842

传 真：0411-84701466

E-mail：12282980@qq.com

URL：http://www.dutp.cn

- 004 Echavacoiz城市电梯\_AH Asociados  
010 埃尔纳尼的城市电梯与人行天桥\_VAUMM  
016 巴拉卡电梯\_Architecture Project

## 能源意识与可持续公共空间

- 022 能源意识与可持续公共空间\_Julian Lindley  
028 柔和住宅\_Kennedy & Violich Architecture, Ltd.  
034 拜耳生态商业建筑\_Loeb Capote Arquitetura e Urbanismo  
040 亚利桑那州立大学卫生服务楼\_Lake|Flato Architects  
048 大卫与露西尔·帕克基金会总部\_EHDD  
060 ECCO酒店与会议中心\_Dissing+Weitling Architecture  
072 北京第四中学房山校区\_OPEN Architecture  
088 日压端子工厂\_Ryuichi Ashizawa Architect & Associates  
102 Le Clos des Fées村\_Mutabilis Paysage + CoBe Architecture

## 2015世博会：绿色实验室

- 120 2015世博会：绿色实验室\_Marco Atzori  
134 生命之树\_Marco Balich + Studio Giò Forma  
136 意大利馆\_Nemesi & Partners  
142 翅膀\_Studio Libeskind 143 万科馆\_Studio Libeskind  
144 Copagri馆\_EMBT 146 奥地利馆\_team.breathe.austria  
152 巴西馆\_Studio Arthur Casas + Atelier Marko Brajovic  
156 英国馆\_Wolfgang Buttress 160 韩国馆\_Archibanc 164 法国馆\_X-TU Architects  
168 中国馆\_Tsinghua University + Studio Link-Arc  
172 俄罗斯馆\_Speech Tchoban & Kuznetsov 173 巴林国馆\_Studio Anne Holtrop  
174 阿联酋馆\_Foster + Partners 175 德国馆\_Schmidhuber  
176 拯救儿童馆\_Argot ou La Maison Mobile  
178 慢食馆\_Herzog & de Meuron

4  
C3

No. 57 Energy-conscious and Sustainable Public Spaces

22

## Energy-conscious and Sustainable Public Spaces

- 004 Urban Elevator in Echavacoiz\_AH Asociados  
010 Urban Elevator and Pedestrian Bridge in Hernani\_VAUMM  
018 Barrakka Lift\_Architecture Project  
022 Energy-conscious and Sustainable Public Spaces\_Julian Lindley  
028 Soft House\_Kennedy&Violich Architecture, Ltd.  
034 Bayer-Eco Commercial Building\_Loeb Capote Arquitetura e Urbanismo  
040 Arizona State University Health Services Building\_Lake|Flato Architects  
048 The David and Lucile Packard Foundation Headquarters\_EHDD  
060 ECCO Hotel and Conference Center\_Dissing+Weitling Architecture  
072 Beijing No.4 High School Fangshan Campus\_OPEN Architecture  
088 Factory on the Earth\_Ryuichi Ashizawa Architect & Associates  
102 Le Clos des Fées Village\_Mutabilis Paysage + CoBe Architecture

120

## EXPO 2015: The Green Laboratory

- 120 EXPO 2015: The Green Laboratory\_Marco Atzori  
134 Tree of Life\_Marco Balich + Studio Giò Forma  
136 Italy Pavilion\_Nemesi & Partners  
142 The Wings\_Studio Libeskind 143 Vanke Pavilion\_Studio Libeskind  
144 Copagri Pavilion\_EMBT 146 Austria\_team.breathe.austria  
152 Brazil\_Studio Arthur Casas + Atelier Marko Brajovic  
156 UK\_Wolfgang Buttress 160 Korea\_Archibanc 164 France\_X-TU Architects  
168 China\_Tsinghua University + Studio Link-Arc  
172 Russia\_Speech Tchoban & Kuznetsov 173 Bahrain\_Studio Anne Holtrop  
174 UAE\_Foster + Partners 175 Germany\_Schmidhuber  
176 Save the Children Village\_Argot ou La Maison Mobile  
178 Slow Food Pavilion\_Herzog & de Meuron

建筑立场系列丛书 No.57

B R E A T H E

# 能源意识与可持续公共空间

**Energy-conscious and Sustainable Public Spaces**

汉英对照

(韩语版第373期)

韩国C3出版公社 | 编

安雪花 于风军 焦明 孙探春 杜丹 徐雨晨 | 译

大连理工大学出版社

4  
C  
3

No. 57 Energy-conscious and Sustainable Public Spaces

22

## Energy-conscious and Sustainable Public Spaces

- 004 Urban Elevator in Echavacoiz\_AH Asociados  
010 Urban Elevator and Pedestrian Bridge in Hernani\_VAUMM  
018 Barrakka Lift\_Architecture Project  
022 *Energy-conscious and Sustainable Public Spaces* Julian Lindley  
028 Soft House\_Kennedy&Violich Architecture, Ltd.  
034 Bayer-Eco Commercial Building\_Loeb Capote Arquitetura e Urbanismo  
040 Arizona State University Health Services Building\_Lake|Flato Architects  
048 The David and Lucile Packard Foundation Headquarters\_EHDD  
060 ECCO Hotel and Conference Center\_Dissing+Weitling Architecture  
072 Beijing No.4 High School Fangshan Campus\_OPEN Architecture  
088 Factory on the Earth\_Ryuichi Ashizawa Architect & Associates  
102 Le Clos des Fées Village\_Mutabilis Paysage + CoBe Architecture

120

## EXPO 2015: The Green Laboratory

- 120 EXPO 2015: *The Green Laboratory* Marco Atzori  
134 Tree of Life\_Marco Balich + Studio Giò Forma  
136 Italy Pavilion\_Nemesi & Partners  
142 The Wings\_Studio Libeskind 143 Vanke Pavilion\_Studio Libeskind  
144 Copagri Pavilion\_EMBT 146 Austria\_team.breathe.austria  
152 Brazil\_Studio Arthur Casas + Atelier Marko Brajovic  
156 UK\_Wolfgang Buttress 160 Korea\_Archibanc 164 France\_X-TU Architects  
168 China\_Tsinghua University + Studio Link-Arc  
172 Russia\_Speech Tchoban & Kuznetsov 173 Bahrain\_Studio Anne Holtrop  
174 UAE\_Foster + Partners 175 Germany\_Schmidhuber  
176 Save the Children Village\_Argot ou La Maison Mobile  
178 Slow Food Pavilion\_Herzog & de Meuron

- 004 Echavacoiz城市电梯\_AH Asociados  
010 埃尔纳尼的城市电梯与人行天桥\_VAUMM  
016 巴拉卡电梯\_Architecture Project

## 能源意识与可持续公共空间

- 022 能源意识与可持续公共空间\_Julian Lindley  
028 柔和住宅\_Kennedy & Violich Architecture, Ltd.  
034 拜耳生态商业建筑\_Loeb Capote Arquitetura e Urbanismo  
040 亚利桑那州立大学卫生服务楼\_Lake|Flato Architects  
048 大卫与露西尔·帕克基金会总部\_EHDD  
060 ECCO酒店与会议中心\_Dissing+Weitling Architecture  
072 北京第四中学房山校区\_OPEN Architecture  
088 日压端子工厂\_Ryuichi Ashizawa Architect & Associates  
102 Le Clos des Fées村\_Mutabilis Paysage + CoBe Architecture

## 2015世博会：绿色实验室

- 120 2015世博会：绿色实验室\_Marco Atzori  
134 生命之树\_Marco Balich + Studio Giò Forma  
136 意大利馆\_Nemesi & Partners  
142 翅膀\_Studio Libeskind 143 万科馆\_Studio Libeskind  
144 Copagri馆\_EMBT 146 奥地利馆\_team.breathe.austria  
152 巴西馆\_Studio Arthur Casas + Atelier Marko Brajovic  
156 英国馆\_Wolfgang Buttress 160 韩国馆\_Archibanc 164 法国馆\_X-TU Architects  
168 中国馆\_Tsinghua University + Studio Link-Arc  
172 俄罗斯馆\_Speech Tchoban & Kuznetsov 173 巴林国馆\_Studio Anne Holtrop  
174 阿联酋馆\_Foster + Partners 175 德国馆\_Schmidhuber  
176 拯救儿童馆\_Argot ou La Maison Mobile  
178 慢食馆\_Herzog & de Meuron

## Echavacoiz城市电梯 AH Asociados

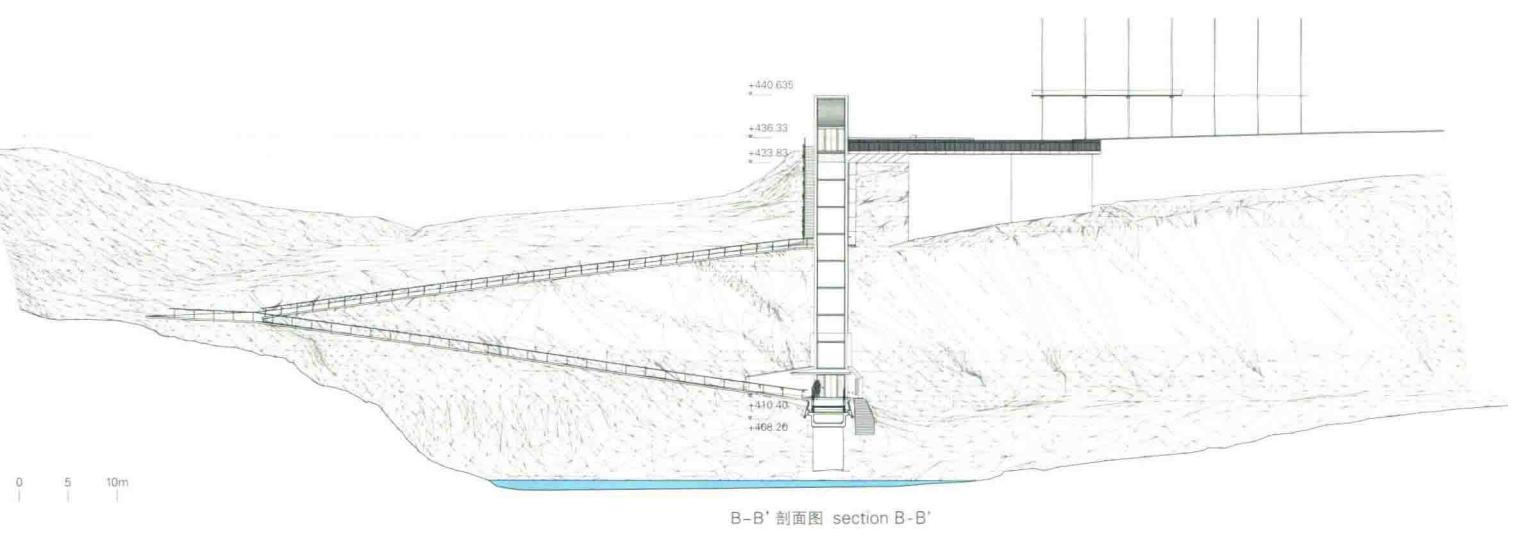
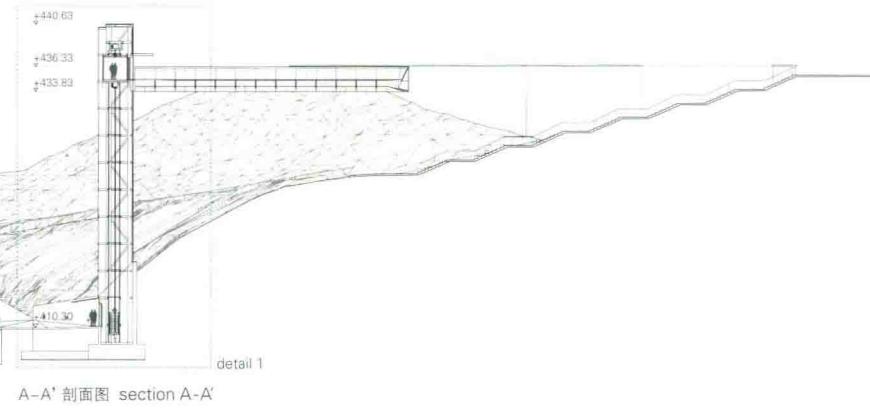
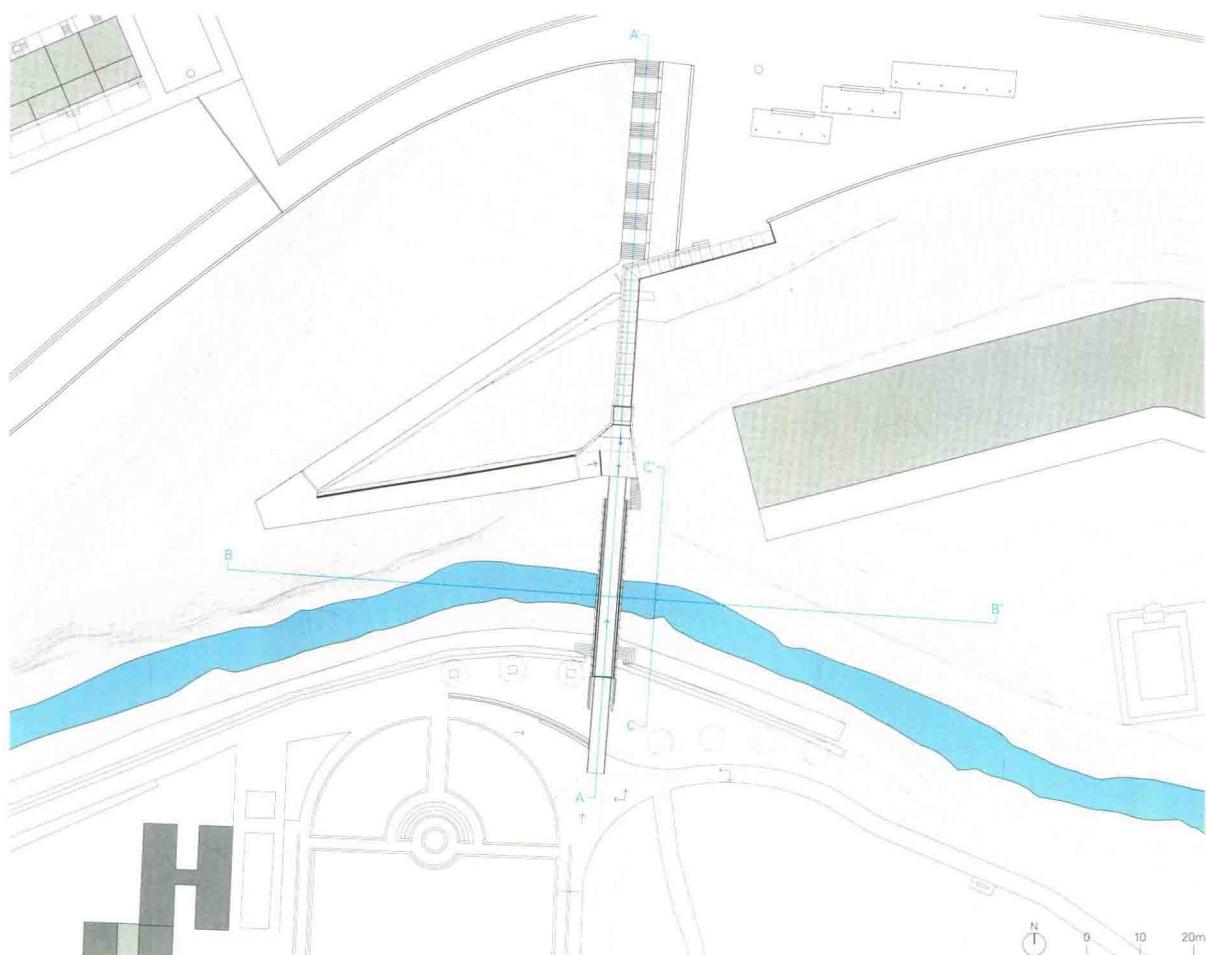
在通过Echavacoiz Norte区的行人移动性方面的研究项目里，三个存在交通不便、城市融合等历史问题的重要区域得到了重视，这些问题可以通过现代机械系统解决。其中一个重要区域需要解决人行坡道与楼梯危险的问题，这些通道是用来调节30m高差的。Urdanoy Group区的居民也通过这些通道走到位置较高的另一侧，那里有周边人行道和Echavacoiz Norte区。城市电梯的设计用两架步行天桥和一部电梯就解决了当地的交通问题，让Echavacoiz从一个只有虚名的区域变成一个拥有自己城市版图的名副其实的城市，让人行天桥和河岸公园在能够互相连接的同时，可以在未来接通快速铁路，让人行道也可以像汽车道一样，能够连接两个高度不同的区域，而这样的人行天桥也同时成为城市的一道独特靓丽的风景。

城市电梯的建筑方案着重强调建筑风格的简洁性，避免过度的结构形式主义。连续横梁构成了人行天桥的基本形状，并支撑着人行天桥的路面。路面由金属薄板制作而成，褶曲的钢板覆盖横梁表面和塔楼外侧，在视觉上实现整体的连贯性，增强城市特色。人行天桥的水平部分在与塔楼的相接处转化成垂直设计，呼应了钢结构构件形式和钢质表皮的设计。不对称的人行天桥可以保护行人免受大风的影响，同时可以让人们欣赏到全新的景观；垂直的支柱也能够牢固地支撑人行天桥。面向景观的电梯出口处只采用了很少的几种建筑材料。

### Urban Elevator in Echavacoiz

In study on pedestrian Mobility in "Echavacoiz Norte", three critical areas with historical accessibility and urban integration problems were detected and could be solved by implementing mechanical systems. One of these three critical areas was to resolve the precarious pedestrian ramp access and stairs which overcome thirty meters height difference between levels. These accesses were also used by neighbors of "Urdanoy Group" to reach the elevated area where there was a perimeter walkway and the neighborhood of "Echavacoiz Norte". This project was intended to solve current accessibility problems through two footbridges and a lift, which turned an urban reference of the integration of Echavacoiz into the city and into an object sensible to its own urban landscape. This has been possible by linking the upper pathway with the river park and with the future neighborhood of the AVE. This made

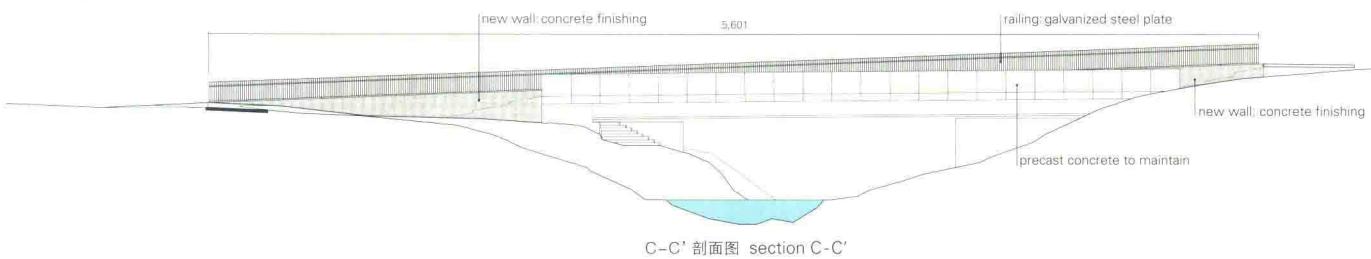


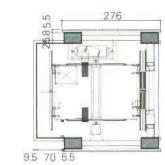


it possible to introduce new pedestrian and cyclist roads between the two urban levels and implement an architectural element that turned the panoramic footbridge and the panoramic tower into one.

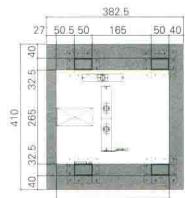
The project enhances the simplicity of each element, avoiding any excess of constructive formalism. The basic shape of the footbridge is formed by a continued beam from which the supports of the footbridge pavement are born. This pavement has been made of sheet metal plates. The exterior of the beam and the lateral levels of the tower are also covered

by a folded steel plate to get visual continuity to enhance the urban character of an element that emerges from the hill and is supported by the head of the footbridge. The horizontal part of the bridge turns into vertical where it meets the tower, in such a way that the format of steel structure element and steel skin is repeated. The asymmetry of the footbridge protects the pedestrians from wind and let them see a new territory whilst the vertical element is robust and strong in its lateral levels. The landings are open to the landscape with the minimum expression of materials.

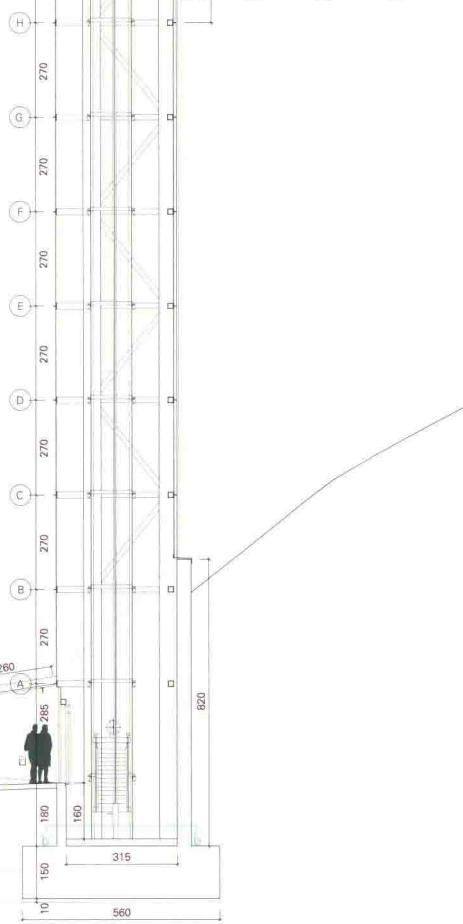
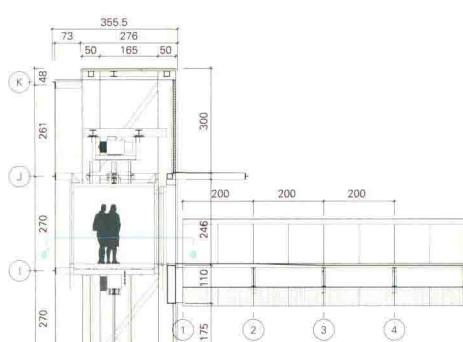




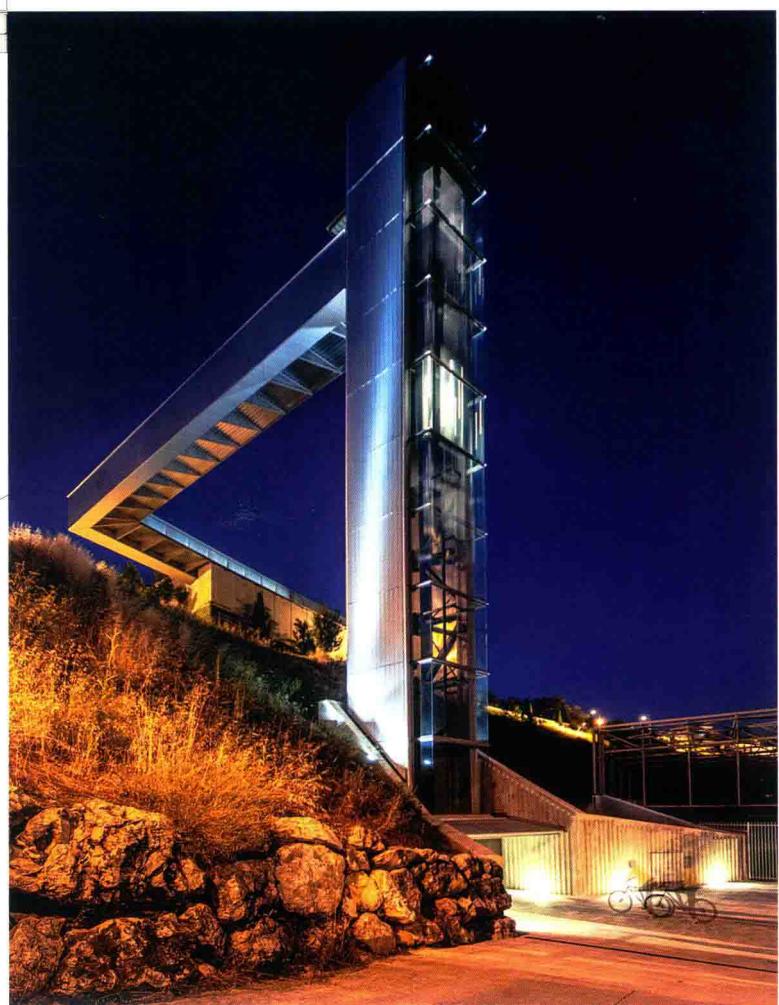
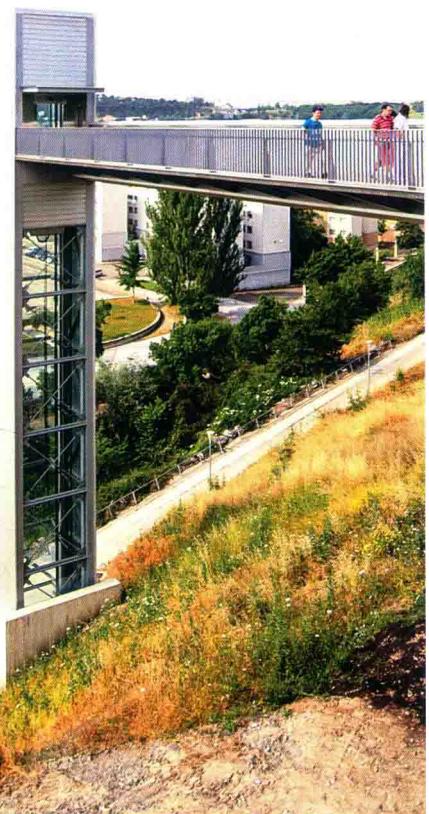
a-a' 剖面图 section a-a'

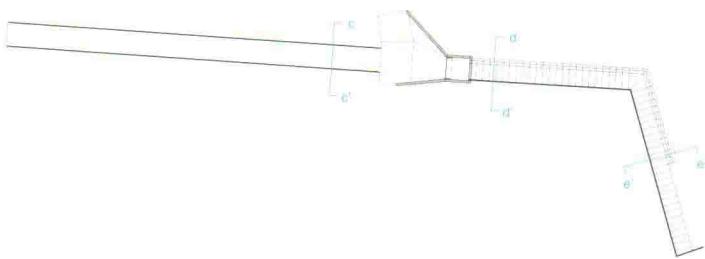


b-b' 剖面图 section b-b'



详图1 detail 1





项目名称: Urban Elevator in Echavacoiz

地点: Echavacoiz neighborhood, Pamplona, Spain

建筑师: Miguel A. Alonso del Val, Rufino J. Hernández Mingullón, Marcos Escartín Miguel, Mikel Zabalza Zámarbide\_AH Asociados

项目经理: Patricia Biain Ugarte

项目团队: Esperanza Marrodán Ciordia, María José, Alonso Pérez, Xabier Eskisabel Azanza

结构工程师: Eduardo Ozcoidi Echarren

设施: Javier Gironés Navarraz

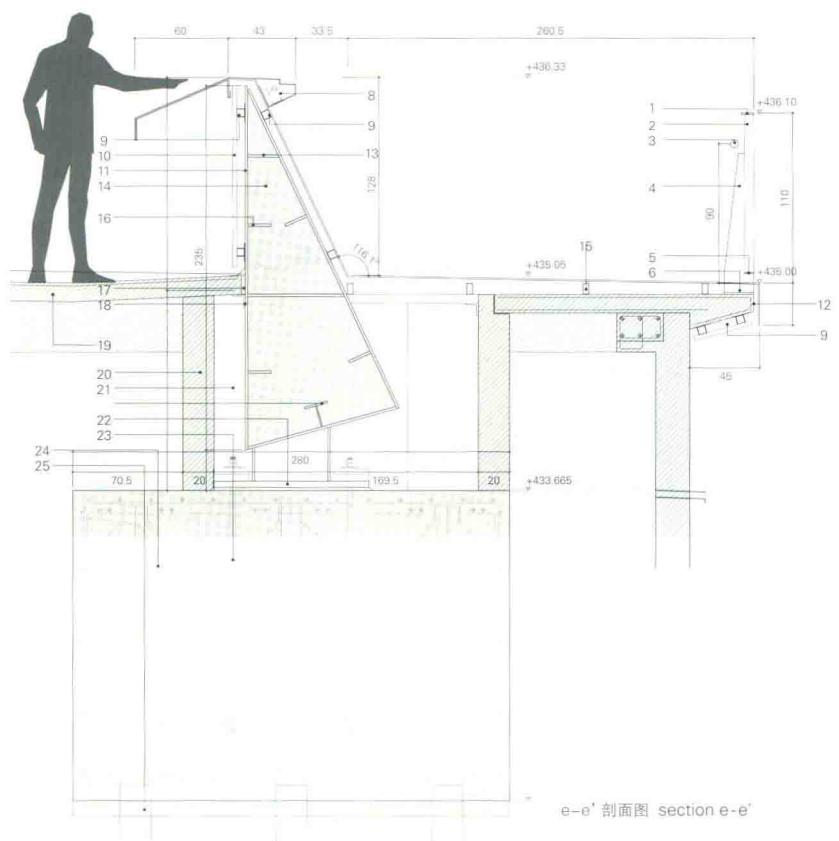
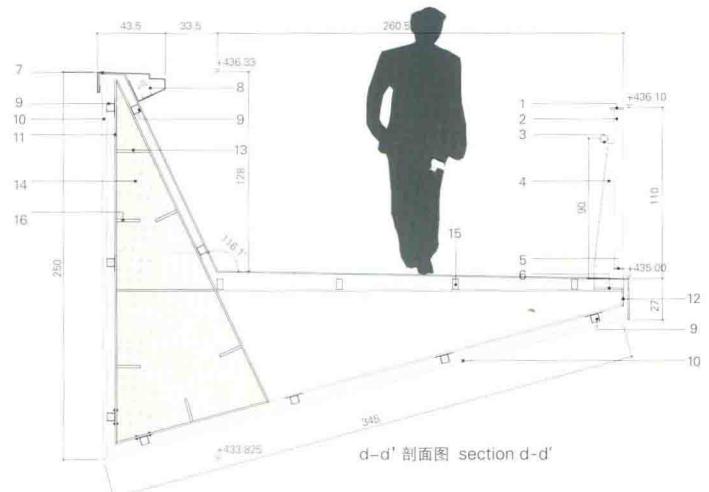
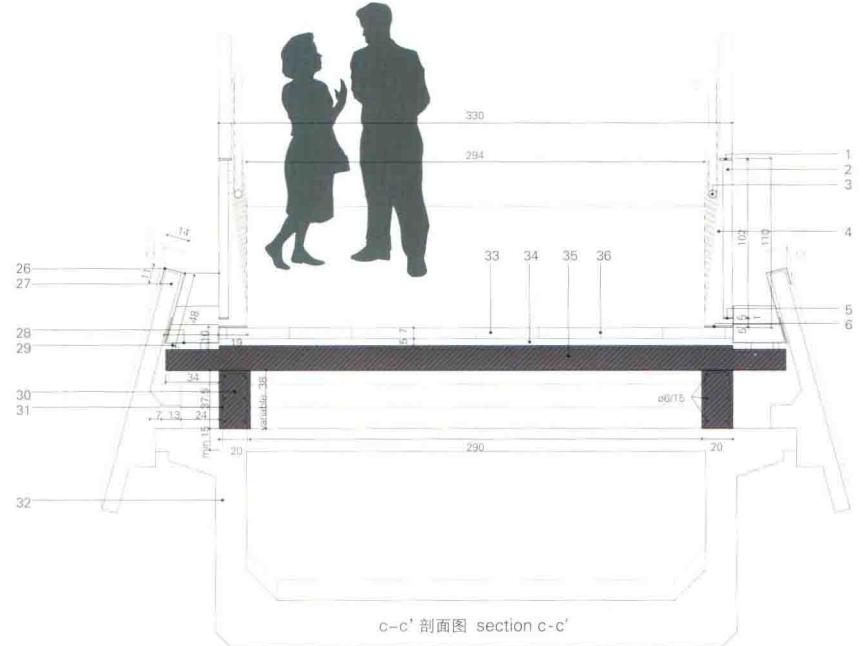
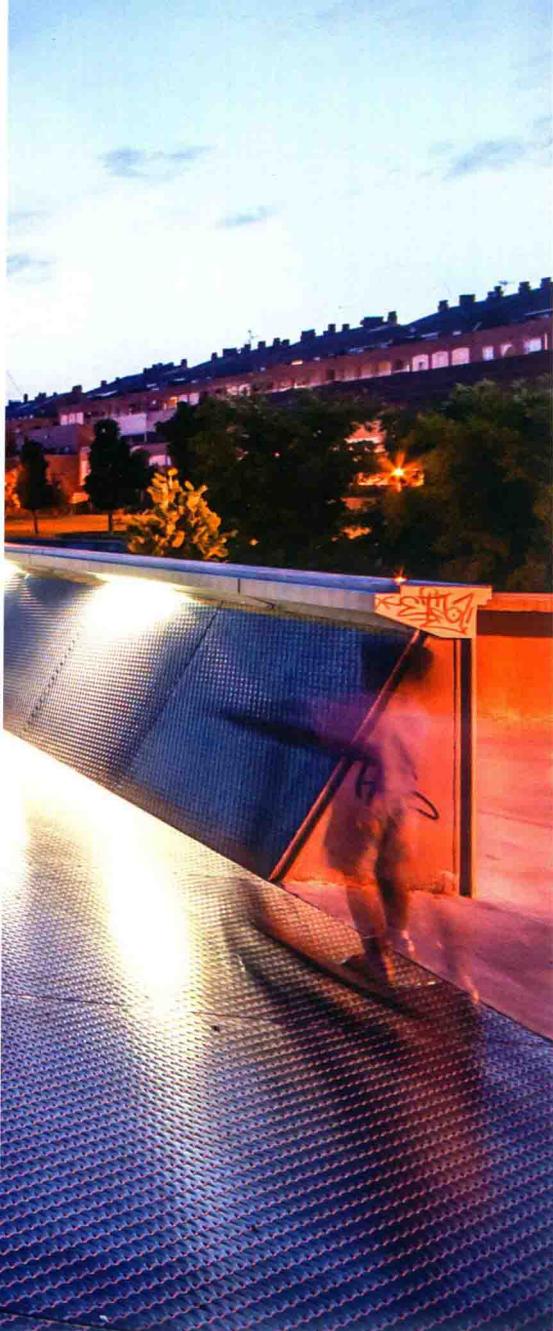
S & H: Michel Aldaz García-Mina

客户: Strategic Projects Area, Pamplona City Council

设计时间: 2012.1 / 施工时间: 2012.10 / 竣工时间: 2013.7

摄影师: ©Jesús Lázaro Izquierdo (courtesy of the architect)

1. horizontal galvanized steel plate, thick = 10mm height = 80mm
2. galvanized steel plate, thick = 8mm height = 60mm every 10cm
3. galvanized steel railing diameter 5cm
4. Galvanized steel support every 200cm, thick = 12mm
5. horizontal galvanized steel plate, thick = 10mm height = 60mm
6. galvanized steel anchor plate, thick = 8mm
7. galvanized steel plate finish, thick = 3mm
8. embedded lighting fixture type, embedded under the gangway finish
9. stainless steel profile 50.50.3 welded to a base plate, height = 120mm thick = 3mm, fixed with stainless steel screw and neoprene separator
10. folded aluminum sheet in book shape FALKIT type "Sierra de Cazorla" Serie 200 ref.103102 or similar
11. steel box beam, thick = 10mm, dimensions according structure plans
12. longitudinal plate for brackets joins 110x10mm
13. longitudinal galvanized steel stiffener, thick = 15mm
14. cross galvanized steel stiffener every 200cm aligned with the bracket support
15. stainless steel rectangular profile 70.40.3, as support for checker plate with same material chocks, even neoprene joint
16. longitudinal steel stiffener, thick = 15mm height = 150mm
17. expanded polystyrene, thick = 5cm
18. galvanized steel "L" shaped profile



- 19. concrete slab similar to existent  
with steel reinforcement 8/15
- 20. concrete wall 20cm with double steel reinforcement 6/20
- 21. lift ditch for regular inspection
- 22. steel plate 1000.1000.35 over a high resistance mortar layer
- 23. 12 steel anchor bolts #32-6.8
- 24. reinforced concrete foundation 280x600x200cm
- 25. concrete micro piles ø200mm
- 26. auction galvanized steel perimeter sill prefabricated  
supported in a channel and steel overlapping, thick = 5mm
- 27. sill part of existing prefabricated concrete
- 28. folded sheet steel galvanized, thick = 5mm, by way of canal  
with longitudinal slope of 3.7%
- 29. omega galvanized steel channel substructure 40,40,20mm  
as steel and screwed a precast slab
- 30. beam of concrete, thick = 20cm, support for precast slab,  
anchored beam bridge through holes filled resin hilti re = -500
- 31. double mesh ø6/15
- 32. prefabricated girder bridge calculated to overload 1000kg/m<sup>2</sup>
- 33. tile floor type, color ash mass, dim. 60x40x7cm. 40x40x7cm
- 34. grip mortar layer M40, thick = 4cm
- 35. concrete slab type T7, thick = 13+3cm
- 36. fill mortar board

## 埃尔纳尼的城市电梯与人行天桥\_VAUMM

在城市可持续发展的自然变革过程中，景观的可接近性显得尤为重要。城市基础设施的创建要更加人性化，每一个公民都应该有机会去接近它们。本案项目中的城市电梯将Latsunbe-Berri区和Urbieta大街连接起来，同时，这个公共设施也是将老城区和新城区连接起来的纽带，不只是地域的联系，它的范围包含城市发展的各个方面。若把范围缩小一点，该电梯还将运动中心和康复中心连接起来，满足了人们日常生活中进入这些重要公共设施的需要。

人行天桥的设计深受运动中心的位置决定和影响，桥的背面是一个绿地斜坡，从景观设计的角度来看，该坡道通往远处的大山。而人行天桥巧妙地运用了这样的双重景观，一面是封闭的，另一面是开放的。不管是电梯还是天桥的设计，都与人们紧紧相连，人们可以乘电梯通往人行天桥，穿过天桥便到达了一个树林，再往前，视野又会开阔，可以看到更远处的景象。

海拔较低的塔楼可以实现将电梯入口修建在树林中，彰显电梯的城市化特征。电梯的中间站既解决了进入体育中心Pelota赛场的问题，也作为一个悬臂梁支撑着整个人行天桥。Urbieta大街上的人行天桥被

拓宽出一个充足的空间供行人通过。

从结构的角度来看，塔楼的支撑能够使人行天桥更加厚重，也就让人行天桥能够有足够宽的路面通过原有的挡土墙来支撑。而正是由于这些结构要求，人行天桥将会创新性地打破传统模式，形成独特的雕塑艺术表达语言。

利用这种表达语言，整座塔楼和人行天桥得以改造其所在的城市环境。黑色的基调渲染了抽象的艺术氛围，形成了强烈的对比效果：一面是透过玻璃看到的璀璨的城市景观，另一面则是一片漆黑，似乎是在尝试与宽敞的体育中心进行对话。

### **Urban Elevator and Pedestrian Bridge in Hernani**

In the natural evolution of a city towards sustainability, accessibility may be seen as a key element, capable of providing opportunities for all population segments of citizenship. The elevator connects Latsunbe-Berri district with Urbieta Street,





**项目名称:** Urban Elevator and Pedestrian Bridge in Hernani

**地点:** Hernani, Gipuzkoa, Spain

**建筑师:** VAUMM

**结构工程师:** Raul Lechuga Durán

**发起者:** City of Hernani

**项目团队:** Iñigo garcia odiaga, Jon muniategiandikoetxea markiegi, Marta álvarez pastor, Javier ubillos pernaut, Tomás valenciano Tamayo

**结构设计:** Raul Lechuga Durán

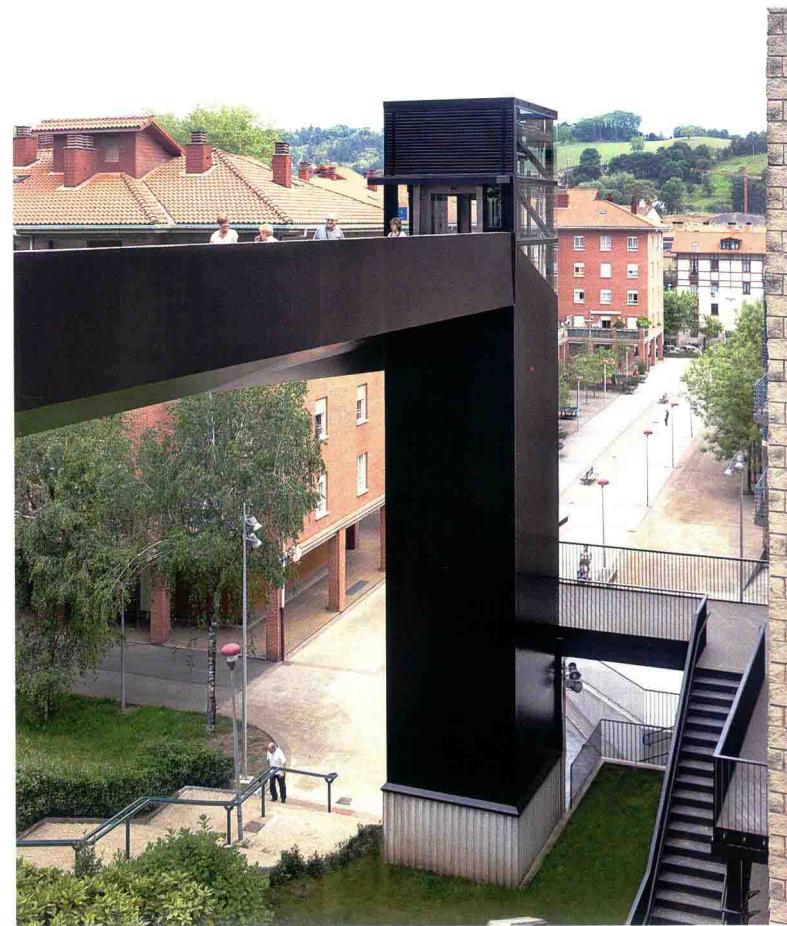
**质量控制与管理:** Julen Rozas Elizalde

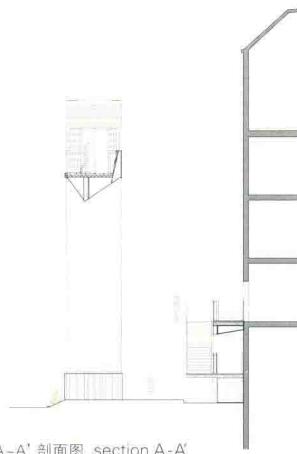
**健康与安全:** Bategin

**用地面积:** 355m<sup>2</sup> / **建筑面积:** 160m<sup>2</sup> / **有效楼层面积:** 155m<sup>2</sup>

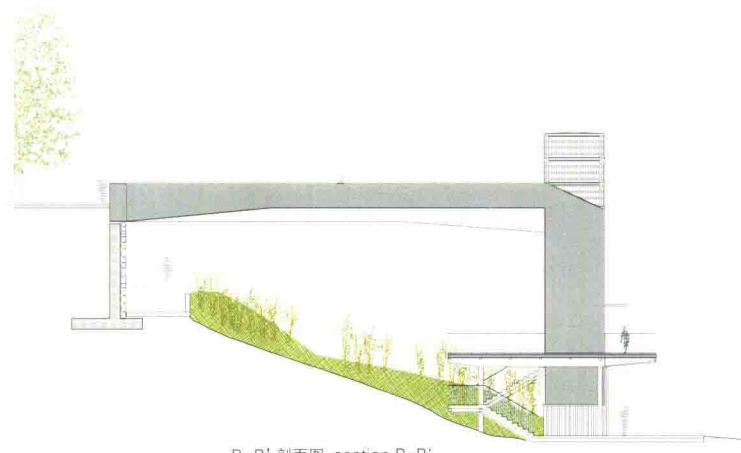
**竞赛时间:** 2014.6 / **设计时间:** 2014.7 / **施工时间:** 2014.11—2015.4

**摄影师:** ©Aitor Ortiz (courtesy of the architect)





A-A' 剖面图 section A-A'



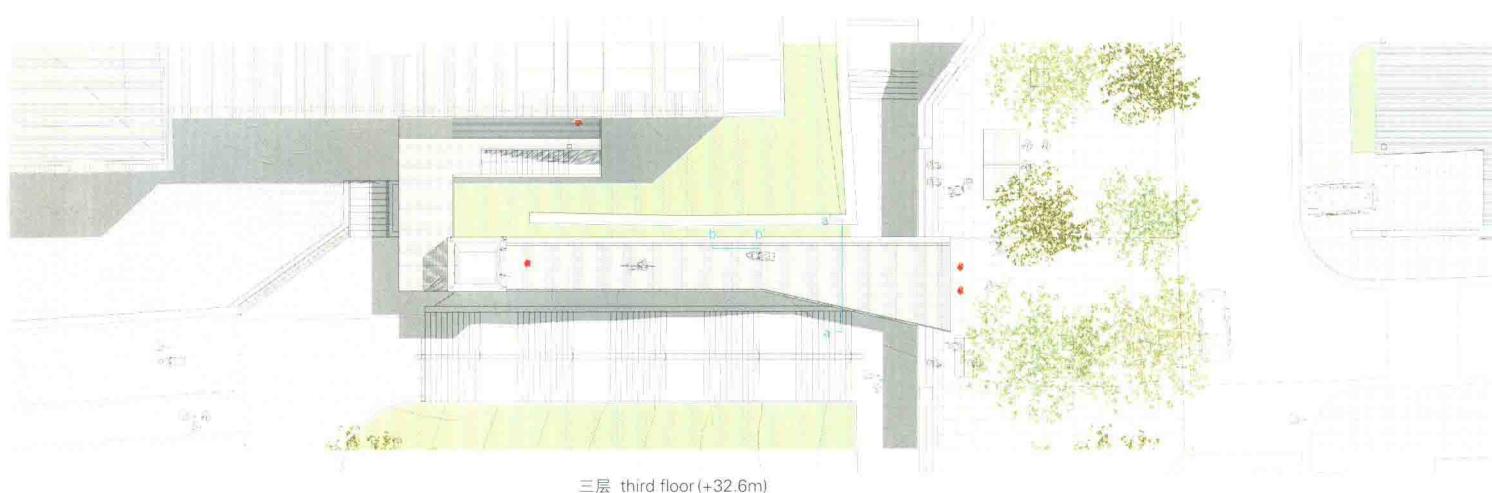
B-B' 剖面图 section B-B'



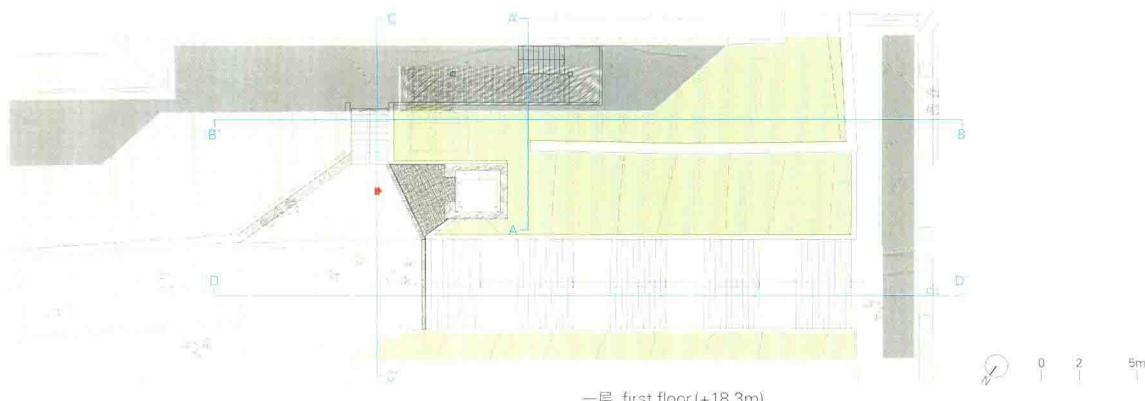
C-C' 剖面图 section C-C'



D-D' 剖面图 section D-D'



三层 third floor (+32.6m)



一层 first floor (+18.3m)