



1. 市中心区步行道：设计使之具备能更好应对自然的灵活性。
2. 一场前所未有的灾难。2008年6月，锡达拉皮兹市遭受洪水侵袭，受灾面积约26km²，水深近3.7m。包括市中心区在内的9个街区受到洪灾影响，数以千计的居民被迫撤离，并造成数十亿美元的损失。
1. Downtown promenade: designing for resilience.
2. A disaster of unprecedented scale: In June 2008, the City of Cedar Rapids was inundated with floodwaters, covering 10 square miles with upwards of 12 feet of water. Affecting nine neighborhoods including downtown, the flood forced thousands of evacuations and caused billions of dollars of damage.

收稿时间 / Received Date | 中图分类号 / TU986.2
2014-05-27 | 文献标识码 / B

爱荷华州锡达拉皮兹市滨河总体规划

Master Plan for Cedar Rapids Riverfront, Iowa

Sasaki设计事务所 /
Sasaki Associates, Inc.

翻译 Translated by /
刘姝 Shu LIU
校对 Proofread by /
郑燕霖 Yenlin CHENG

摘要 ……

爱荷华州锡达拉皮兹市在2008年遭遇一场大洪水侵袭，灾后Sasaki设计事务所为该市制定的滨河总体规划成为城市与区域复兴的载体。成千上万的参与者对城市公园和休闲需求提出反馈意见，并最终形成综合总体规划，该规划描绘了一幅引领锡达河沿岸未来数年投资决策的蓝图。

关键词 ……

洪水；总体规划；城市复兴；滨河目的地

Abstract …

Sasaki's master plan for the Cedar Rapids Riverfront is a vehicle to revitalize the city and the region, which was devastated by a flood in 2008. Thousands of community participants gave feedback on the city's parks and recreation needs, culminating in a comprehensive plan that provides a blueprint to guide decisions about investments along the Cedar River for years to come.

Key words …

Flood; Master Plan; Urban Revitalization; Riverfront Destination

项目地址：美国爱荷华州锡达拉皮兹市

项目面积：3.5 hm²

项目委托：锡达拉皮兹市政府

城市设计：Sasaki设计事务所

景观设计：Sasaki设计事务所

项目团队：Mark Dawson、Jason Hellendrung、Gina Ford、Igor Andersen、Lynn Carlton、Laura Marette、Elizabeth Sargent

设计时间：2008年2月至今

Location: Cedar Rapids, IA, USA

Area (size): 3.5 hm²

Client: City of Cedar Rapids

Urban Design: Sasaki Associates, Inc.

Landscape Architecture: Sasaki Associates, Inc.

Project Team: Mark Dawson, Jason Hellendrung, Gina Ford, Igor Andersen, Lynn Carlton, Laura Marette, Elizabeth Sargent

Design Period: February, 2008 to present

锡达拉皮兹市在2008年遭遇一场大洪水侵袭，灾后Sasaki设计事务所为该市制定的滨河总体规划成为城市与区域复兴的载体。随着灾后的修复规划的逐步展开，Sasaki与市政部门协作，制定了以提高居民生活品质、留住并吸引新一代的劳动力、鼓励住宅和商业重新投资的整体规划。锡达拉皮兹市以营造更佳公园休闲系统为目标，邀请社区共同参与到决定河滨区未来的讨论当中。成千上万的参与者对城市公园和休闲需求提出反馈意见，并最终形成综合总体规划，为未来15年城市和区域的重新投资指引了方向。这一新的河滨环境将吸引当地居民和游客到访城市的核心地带，并提升区域的连通性与可持续性。该规划描绘了一幅引领锡达河沿岸未来数年投资决策的蓝图。

该项目的目标包括：吸引并留住城市居民、吸引当地居民与游客前往锡达河

河岸、修复滨河公园与步道在洪灾中受到的破坏、增强步道系统与河岸之间的连通性，同时新河滨区要成为大公园与休闲系统一部分，应优先考虑社区需求，并解决运营资金局限问题。2009年6~11月期间，

该规划项目通过三次公众听证会使得千余位居民参与其中。最终形成的滨河总体规划平衡了社区多样化的需求：提供令人向往的设施以创造一个市中心目的地、提供符合社区规模的设施、形成连续的公共通



道、增加滨河娱乐功能、增加大量湿地，以及重建河岸缓冲带，使之具备河滨蓄洪与防洪之功用。

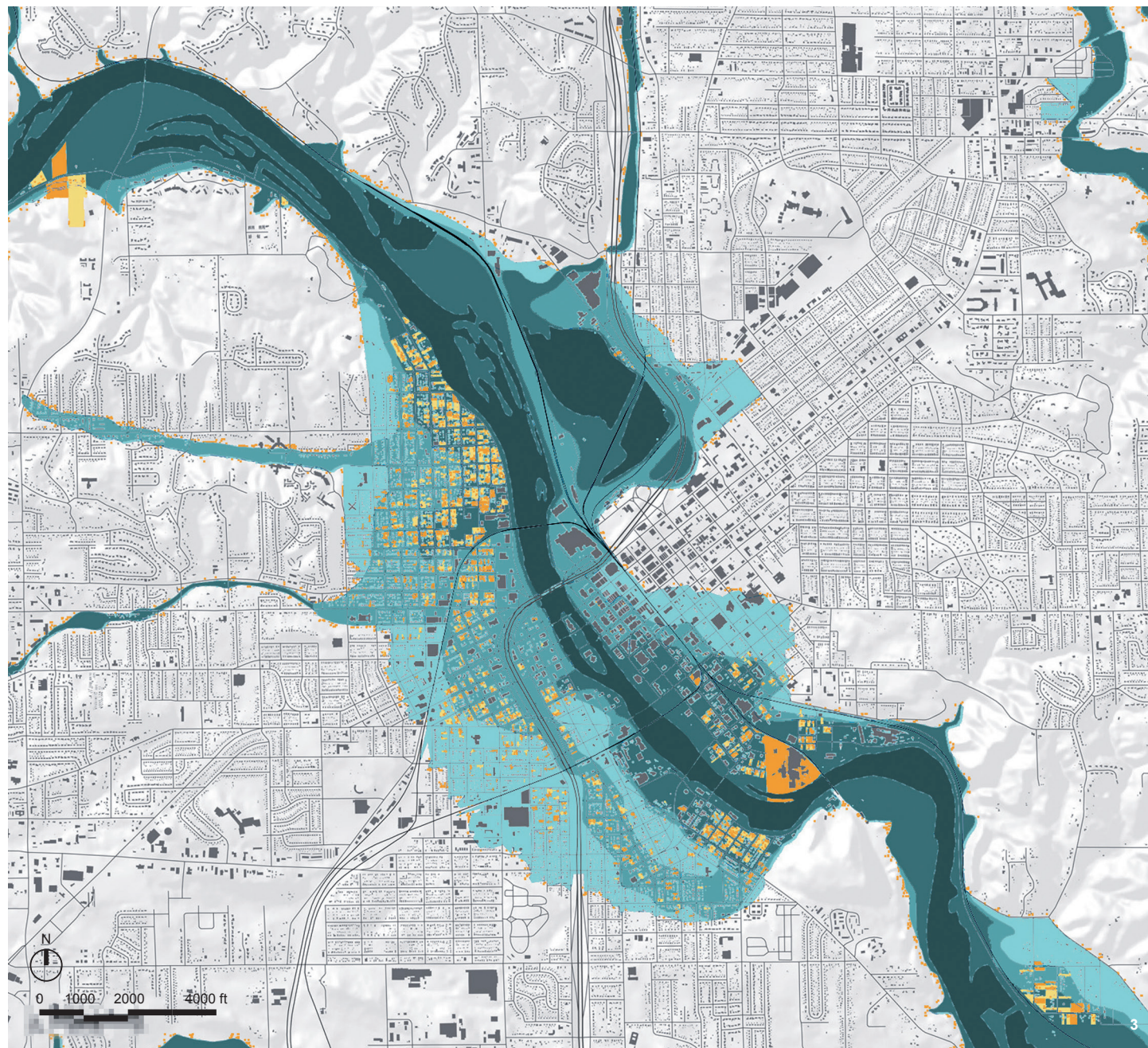
Sasaki设计事务所目前正与市政府合作实施第一阶段的滨河露天剧场和大型活动草坪项目。在设计过程中，Sasaki协助市政府完成了拨款申请和发展筹资的书面材料，并最终获得了约290万美元的州政府拨款和200多万美元的私人捐款。总体来说，此规划代表着由市、郡、州，以及

个人与企业之间重要的合作关系，这项耗资750万美元的项目将会使城市面貌焕然一新。

2011年夏天，滨河露天剧场和活动草坪动工实施，为当地居民、就业者和游客提供各种活动空间，成为在规划中通过对基础设施的投资，为城市核心区注入活力的绝佳案例。设有永久座椅区与草坪席坐区的露天剧场设计灵活，在没有演出时可作为滨河公园对公众开放。同时它也是新

的防洪大堤的一部分。活动草坪可在露天剧场活动期间用作停车场，也可以作为活动和节日庆典的辅助会场。河岸两侧与防洪堤上种植着乡土植被，有助于恢复本地生态功能。LAF

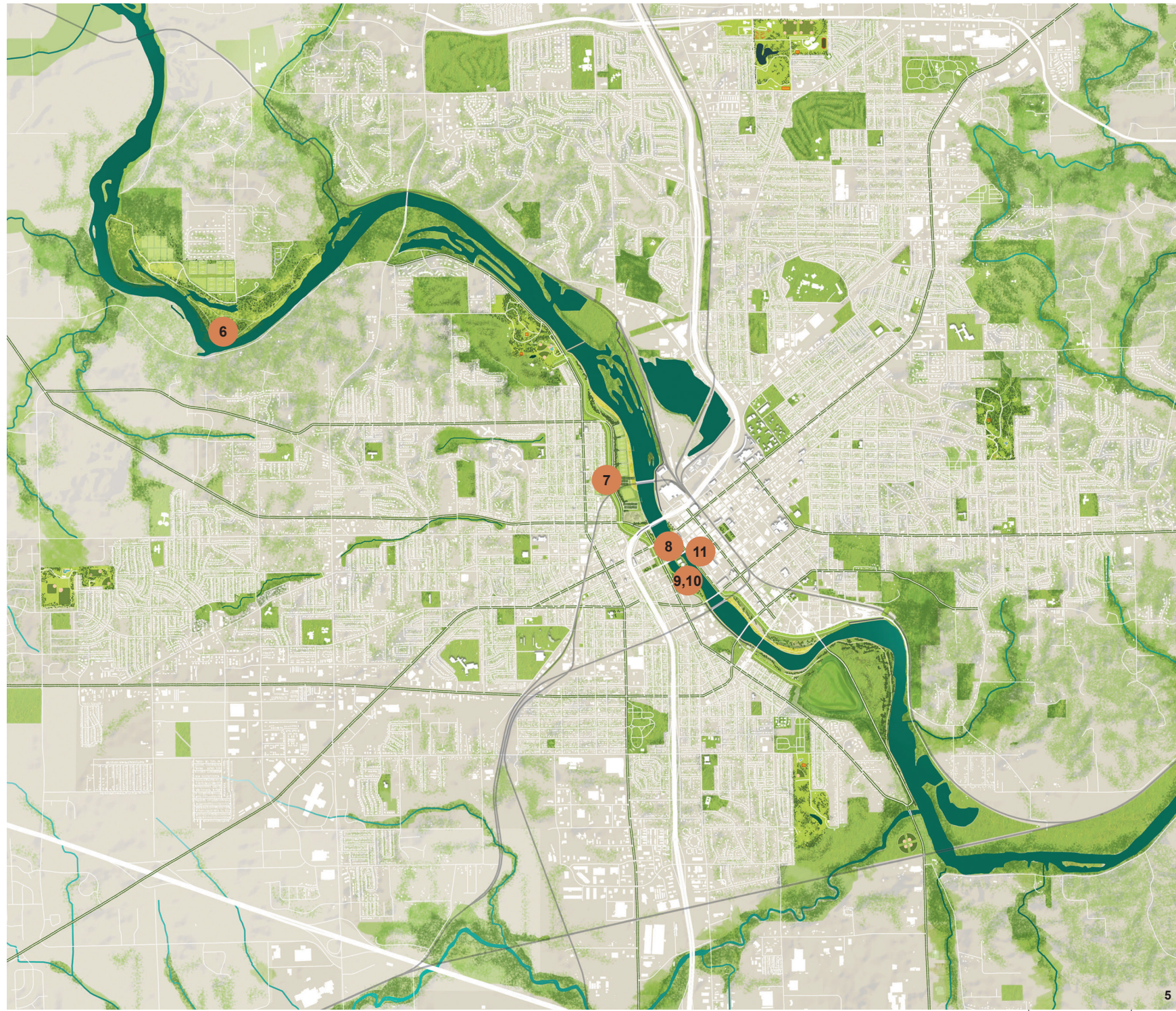
3. 洪水影响示意图：蓝色由深至浅分别代表100年一遇、500年一遇，以及2008年洪水范围。
3. Map of flood impacts (shades of blue represent the 100-year and 500-year storms, and the 2008 flood).



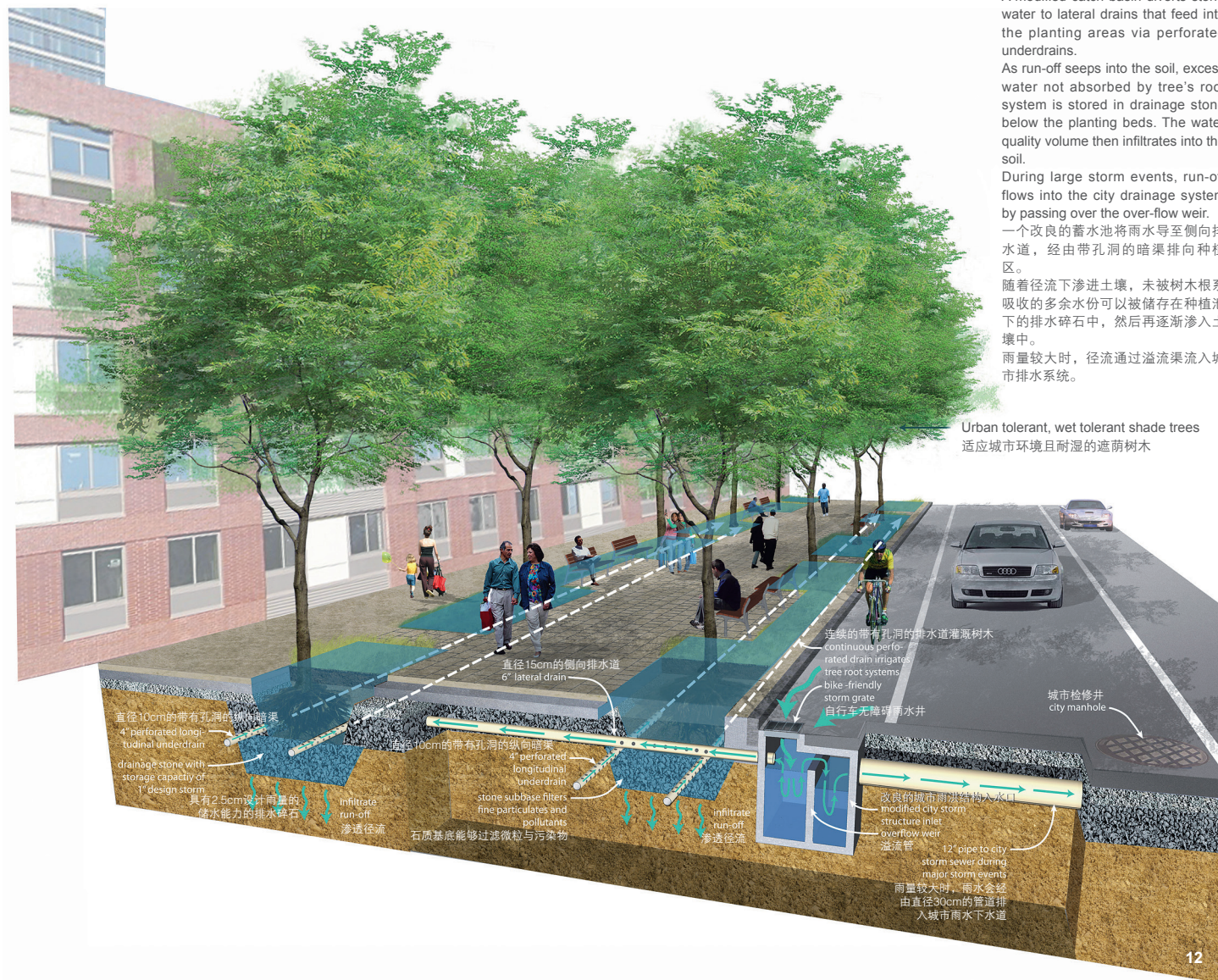
Sasaki's master plan for the Cedar Rapids Riverfront is a vehicle to revitalize the city and the region, which was devastated by a flood in 2008. Following their work on the flood recovery plan, Sasaki embarked on collaborating with the city to generate a plan that will increase residents' quality of

life, attract and retain the next-generation workforce, and encourage residential and business reinvestment. Cedar Rapids engaged the community to help determine the future of the riverfront in the context of the greater parks and recreation system. Thousands of participants gave feedback on the city's

4. 洪水管理策略。项目制定了一份保护锡达拉皮兹的洪水管理方案，其中包括策略性设置的可拆除及永久性防洪堤系统、具有休闲设施的防波堤，以及位于地势最低地区的一处80hm²的修复的漫滩绿道。
4. Flood Management Strategy. To protect Cedar Rapids, Sasaki developed a flood management plan that combined strategically placed demountable and permanent floodwall systems, levees with built-in recreational amenity, and over 200 acres of reclaimed floodplain greenway in the lowest lying areas.



5. 公园与休闲设施总体规划方案。由公众听证会反馈而来的公众意见形成了6项规划原则，将推动整个公园系统未来在环境、金融、社会方面均实现可持续发展。原则包括：成为城市的未来的一项明智投资；创建一个富有活力的滨河目的地；营造标志性的社区公园；改善生态健康；增加连通性；实现高效且合算的维护。
 6. 塞米诺尔山谷修复。塞米诺尔的修复将现有的易受洪水侵袭的公园（该公园目前靠大量的修剪和养护工作维持）转变为一个湿地公园，并在其中设有一条环境教育解说步道。对该公园及其他公园的改造旨在将它们转化为可被淹没的绿岛，提升河道减缓并吸收洪水的能力。
 7. 泰伍柴可公园：一个新的社区目的地。这一位于泰伍柴可社区的新的滨水开放空间为社区居民提供了休闲设施，其亦可经受洪水淹没。
 8. 五月岛广场：打造一个充满活力、全年无休的市中心。五月岛广场可以一年四季吸引游客前来。夏季，游客可在树荫下乘凉，或在喷泉中嬉戏。冬季，广场可成为市中心的溜冰场，广场中的亭子可为溜冰租赁和管理提供场地。
 9. 露天剧场。该露天剧场是城市西部的第一道防洪设施，其地形可最终与防洪堤相连。城市居民可聚集在台阶形的座椅墙上，观赏新建舞台上的表演，以及河畔的建筑美景。
 10. 纪念墙。洪灾中的罹难者，以及公园捐赠者的名字被镌刻在这些纪念墙上，为人们提供了一处纪念与缅怀的空间。
 11. 该城市步行道创建了两层通道：一层通道位于城市边缘，另外较低的一层沿河而设。在较高一层上，游客们可以信步于各式店铺与咖啡厅之间；而较低一层则为漫步者和自行车骑行者提供了连续的滨水空间，免去他们穿街过巷的烦恼。可拆卸的防洪墙系统是该步行道设计中不可分割的一部分。
5. Six principles for the park and recreation master plan emerged from the public feedback in the Open Houses, encompassing an environmentally, financially and socially sustainable approach to the future of the park system: be a wise investment for the future of the city; create a vibrant destination riverfront; provide signature neighborhood parks; improve ecological health; increase connectivity; and be efficient and cost-effective to maintain.
 6. Restoration of Seminole Valley. The Seminole Valley Restoration reconceptualizes an existing flood-vulnerable park, currently cared by extensive mowing and maintenance, into a wetland park with an interpretive environmental education trail. Converting this and other parks to floodable greenway increases the capacity of the river corridor to slow and absorb flood waters.
 7. A new neighborhood destination, the new waterfront open space at the Time Check includes recreational amenities that serve the neighborhood, and that can also withstand flooding.
 8. May's Island Plaza is designed as a year round attraction for a vibrant, year-round downtown. In the summertime, visitors can sit beneath groves of trees or splash in the fountain's spray jets. In the winter, the plaza transforms into an ice skating rink at the heart of the city, with a pavilion for skate rental and concessions.
 9. The Amphitheater is the first segment of flood protection on the city's west side, designed as a piece of topography that will eventually connect to the levee. The people of Cedar Rapids will convene along terraced seat-walls, taking in the view of the new raised stage and architectural canopy against the backdrop of the river.
 10. The names of the victims in the disaster and the donors who support and make this park possible are engraved on the Memorial Walls: a place for people to remember and commemorate.
 11. The City Promenade creates two levels of access: one at the urban edge, and the other on a lower level along the river. Above, visitors can stroll along shops and cafes, and below walkers and bikers have continuous access to the water's edge without having to cross streets. A demountable flood wall system is integral to the promenade design.



A modified catch basin diverts storm water to lateral drains that feed into the planting areas via perforated underdrains. As run-off seeps into the soil, excess water not absorbed by tree's root system is stored in drainage stone below the planting beds. The water quality volume then infiltrates into the soil. During large storm events, run-off flows into the city drainage system by passing over the over-flow weir. 一个改良的蓄水池将雨水导至侧向排水道，经由带孔洞的暗渠排向种植区。随着径流下渗进土壤，未被树木根系吸收的多余水份可以被储存在种植池下的排水碎石中，然后再逐渐渗入土壤中。雨量较大时，径流通过溢流渠流入城市排水系统。

Urban tolerant, wet tolerant shade trees
适应城市环境且耐湿的遮荫树木

parks and recreation needs, culminating in a comprehensive plan that directs reinvestment in the city and the region for the next 15 years. The new destination riverfront will attract residents and visitors to the heart of the city and increase connectivity and sustainability in the region. The plan provides a blueprint to guide decisions about investments along the Cedar River for years to come.

The goals of the plan included attracting and retaining residents in Cedar Rapids, attracting residents and visitors to the

riverfront, addressing flood damage to riverfront parks and trails, enhancing connectivity to the river from the trail system, and meeting community priorities for the new riverfront as a piece of the greater parks and recreation system while addressing operational funding constraints. This planning effort engaged over 1,000 residents through a series of three open houses from June to November of 2009. The resulting riverfront master plan balances a diverse set of community needs — providing desirable

amenities to create a downtown destination, neighborhood-scaled amenities, continuous public access, increased waterside recreational opportunities, and acres of new wetlands and restored riparian zones to help contain and absorb the river's floodwaters.

Sasaki is working with the city to implement the first phase Riverfront Amphitheater and Festival Lawn. During the design process, Sasaki assisted the city in writing grants and developing fundraising materials. These efforts garnered

approximately USD 2.9 million in state funds and over USD 2 million in private donations. Collectively, the project represents a major partnership between the city, county, and state along with private citizens and businesses to help transform the city through the implementation of the USD 7.5 million project.

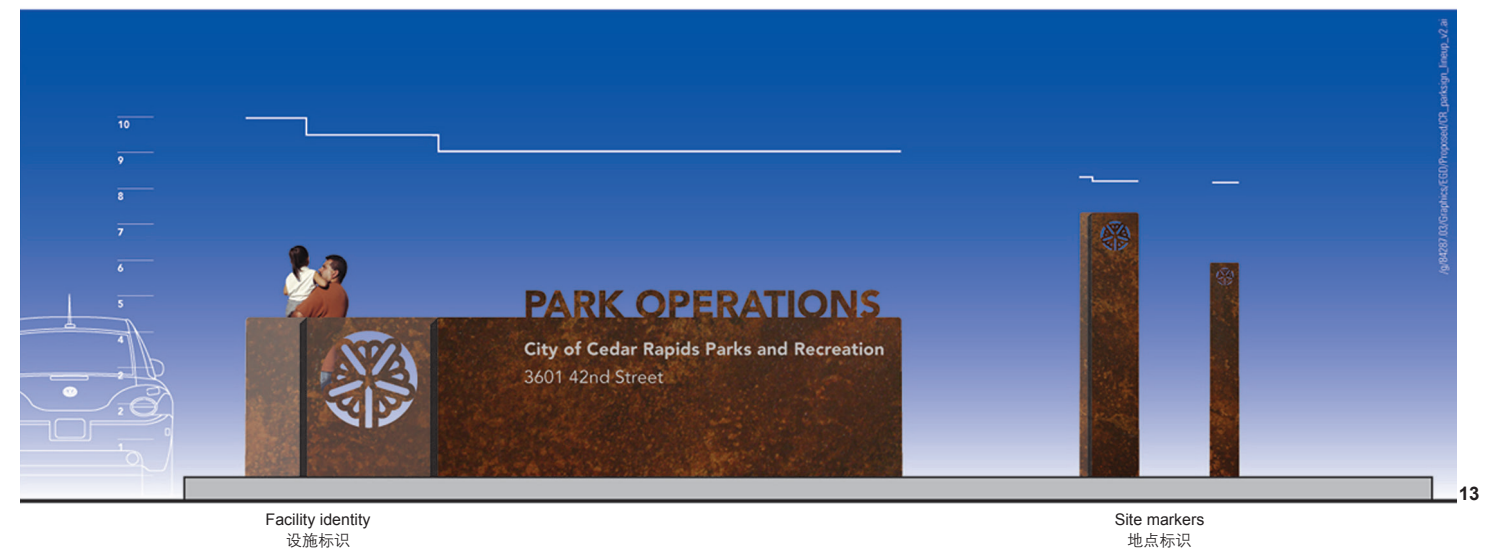
In the summer of 2011, construction began on the Riverfront Amphitheater and Festival Lawn. This aspect of the project is a poignant example of how the plan leverages the investment in infrastructure to help

activate the core of the city with programmable spaces for residents, workers, and visitors. The flexible amphitheater includes permanent and lawn seating, but also functions as a riverfront park that is accessible to the public when performances are not taking place. The amphitheater is also integrated into a new levee. The Festival Lawn accommodates parking for amphitheater events, but can also be programmed as a secondary venue for events and festivals. Plantings of native vegetation along the river's edge and on the levee restore the ecological function of the site. **LAF**

12. 项目为第十街医疗街区街景设计了一个独特的水资源再利用系统，其可收集道路上的雨水，用于植被区灌溉。这一策略将用于灌溉的饮水量降至最低，并在径流排入锡达河之前，以缓速过滤径流。
13. 公园系统识别。项目为锡达拉皮兹公园体系设计了一套新的标识系统，其灵感来源于当地的建筑风格。
12. The design for the 10th Street Medical District Streetscape proposes a unique water reuse system that harvests stormwater from the roadway to irrigate the planted areas. This strategy minimizes the use of potable water for irrigation and helps to slow filter runoff before it is directed to the Cedar River.
13. A new system of signage was developed for Cedar Rapids' park system, drawing material inspiration from the vernacular of the region.



Park entry
公园入口标识
Regulatory
管制标识
Trailhead
步道起点标识
Trailhead with info panel
带有信息板的步道起点标识
Trail markers
步道标识
Interpretive
解说标识



Facility identity
设施标识
Site markers
地点标识