Vacant lots, so often seen as neighborhood blight, have the potential to be a key element of community revitalization. Sandra Albro offers practical insights through her experience leading the five-year Vacant to Vibrant project, which piloted the creation of green infrastructure networks in Gary, Indiana; Cleveland, Ohio;
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Vacant to Vibrant provides a point of comparison among the three cities as they adapt old systems to new, green technology. Albro offers insights from every step of the Vacant to Vibrant project, including planning, design, community engagement, implementation, and maintenance successes and challenges of creating a green infrastructure network from vacant lots in neighborhoods. Landscape architects and other professionals whose work involves urban greening will learn new approaches for creating infrastructure networks and facilitating more equitable access to green space.

There is a growing body of knowledge revealing a sweeping array of connections between public health and green infrastructure—but not until now have the links between them been brought together in one comprehensive book. Green Infrastructure and Public Health provides an overview of current research and theories of the ecological relationships and mechanisms by which the environment influences human health and health behavior. Covering a broad spectrum of contemporary understanding, Coutts outlines: public health models that explicitly promote the importance of the environment to health ways in which the quality of the landscape is tied to health challenges of maintaining viable landscapes amidst a rapidly changing global environment. This book presents the case for fundamental human dependence on the natural environment and creates a bridge between contemporary science on the structure and form of a healthy landscape and the myriad ways that a healthy landscape supports healthy human beings. It presents ideal reading for students and practitioners of landscape architecture, urban design, planning, and health studies.

Over the last decade, research exploring green infrastructure planning has burgeoned. Transferable green infrastructure messages between locations though are less well established, and there remains a visible gap between the conceptual understanding of green infrastructure and its application in practice. Drawing together evaluations of green infrastructure policy-making and practice from across the world, Global Green Infrastructure...
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This book offers new research on urban policy innovations that promote the application of blue-green infrastructure in managing water resources sustainably. The author argues that urban water managers have traditionally relied on grey infrastructural solutions to mitigate risks with numerous economic and environmental consequences. Brears explores the role urban water managers have in implementing blue-green infrastructure to reduce ecological damage and mitigate risk. The case studies in this book illustrate how cities, of differing climates, lifestyles and income-levels, have implemented policy innovations that promote the application of blue-green infrastructure in managing water, wastewater and stormwater sustainably to reduce environmental degradation and enhance resilience to climate change. This new research on urban policy innovations that promote the application of blue-green infrastructure in managing water resources sustainably will be of interest to those working on water conservation and policy.

Our understandings of the landscapes around us are constantly changing. How we interact with, manage and value these spaces is important, as it helps us to ensure we live in attractive, functional...
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This book explores several interpretations of Green Infrastructure bringing together case studies of policy, practice, ecological change and community understandings of landscape. Focusing on how planning policy shapes our interactions with the landscape, as individuals and communities, the book discusses what works and what needs to be improved. It examines how environmental management can promote more sustainable approaches to landscape protection ensuring that water resources and ecological communities are not harmed by development. It also asks what the economic and community values of Green Infrastructure are to illustrate how different social, ecological and political factors influence how our landscapes are managed. The central message of the book focuses on the promotion of multifunctional nature within urban landscapes that helps people, the economy and the environment to meet the challenges of population, infrastructure and economic change. The chapters in this book were originally published as a special issue in Landscape Research.

This title includes a number of Open Access chapters. With increasing global urbanization, the environments and ecologies of cities are often perceived to suffer. While pollution and destruction of green space and species may occur, cities also remain part of natural systems. Cities provide natural processes necessary for survival for humans and other living organisms in urban areas. Urban ecology elucidates some of these processes and sheds light on their importance to healthy, fulfilling urban livelihoods. Urban Ecology: Strategies for Green Infrastructure and Land Use provides background on issues relating to urban ecology and urban natural processes. The first section covers the types, values, and recognition of ecosystem services provided by natural processes in urban areas. The second section details the importance and potential of green spaces in urban areas. The third section focuses on the role of green infrastructure in urban planning and design.
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In a world where cities and urban areas are rapidly expanding, it is crucial to prioritize biodiversity and urbanization. This piece will focus on biodiversity traits of cities, and the ways in which urbanization affects biodiversity indicators. Finally, the fourth section covers some of the tools and approaches available for urban planners and designers concerned with improving or maintaining urban environments and the services they provide. This easily accessible reference volume offers a comprehensive guide to this rapidly growing field. Case studies and up-to-date research provide urban planners with new options for creating cities that will meet the demands of the twenty-first century. Also appropriate for graduate students who are preparing for careers related to urban planning, this compendium captures and integrates the current work being done in this vitally important field.

Tim Beatley has long been a leader in advocating for the “greening” of cities. But too often, he notes, urban greening efforts focus on everything except nature, emphasizing such elements as public transit, renewable energy production, and energy efficient building systems. While these are important aspects of reimagining urban living, they are not enough, says Beatley. We must remember that human beings have an innate need to connect with the natural world (the biophilia hypothesis). And any vision of a sustainable urban future must place its focus squarely on nature, on the presence, conservation, and celebration of the actual green features and natural life forms. A biophilic city is more than simply a biodiverse city, says Beatley. It is a place that learns from nature and emulates natural systems, incorporates natural forms and images into its buildings and cityscapes, and designs and plans in conjunction with nature. A biophilic city cherishes the natural features that already exist but also works to restore and repair what has been lost or degraded. In Biophilic Cities Beatley not only outlines the essential elements of a biophilic city, but provides examples and stories about cities that have successfully integrated biophilic elements--from the building to the regional level--around the world. From urban ecological networks and connected systems of urban greenspace, to green rooftops and green walls and sidewalk gardens, Beatley reviews the emerging practice of biophilic urban design and planning, and tells many compelling stories.

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Stories of individuals and groups working hard to transform cities from grey and lifeless to green and biodiverse. Our understandings of the landscapes around us are constantly changing. How we interact with, manage and value these spaces is important, as it helps us to ensure we live in attractive, functional and sustainable places. Green Infrastructure planning is the current 'go-to' approach in landscape planning that incorporates human-environmental interactions, understandings of ecology and how socio-cultural factors influence our use of parks, gardens and waterways. This book explores several interpretations of Green Infrastructure bringing together case studies of policy, practice, ecological change and community understandings of landscape. Focusing on how planning policy shapes our interactions with the landscape, as individuals and communities, the book discusses what works and what needs to be improved. It examines how environmental management can promote more sustainable approaches to landscape protection ensuring that water resources and ecological communities are not harmed by development. It also asks what the economic and community values of Green Infrastructure are to illustrate how different social, ecological and political factors influence how our landscapes are managed. The central message of the book focuses on the promotion of multi-functional nature within urban landscapes that helps people, the economy and the environment to meet the challenges of population, infrastructure and economic change. The chapters in this book were originally published as a special issue in Landscape Research.

This book addresses the nuts and bolts of planning and preserving natural assets at a variety of scales—from dense urban environments to scenic rural landscapes. A practical guide to creating effective and well-crafted plans and then implementing them, the book presents a six-step process developed and field-tested by the Green Infrastructure Center in Charlottesville, Virginia. Well-organized chapters explain how each step, from...
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With illustrative and detailed examples drawn from throughout the country, Green Infrastructure advances smart land conservation: large scale thinking and integrated action to plan, protect and manage our natural and restored lands. From the individual parcel to the multi-state region, Green Infrastructure helps each of us look at the landscape in relation to the many uses it could serve, for nature and people, and determine which use makes the most sense. In this wide-ranging primer, leading experts in the field provide a detailed how-to for planners, designers, landscape architects, and citizen activists.

The main message emerging from this new comprehensive global assessment is that premature death and disease can be prevented through healthier environments—and to a significant degree. Analysing the latest data on the environment-disease nexus and the devastating impact of environmental hazards and risks on global health, backed up by expert opinion, this report covers more than 130 diseases and injuries. The analysis shows that 23% of global deaths (and 26% of deaths among children under five) are due to modifiable environmental factors—and therefore can be prevented. Stroke, ischaemic heart disease, diarrhoea and cancers head the list. People in low-income countries bear the greatest disease burden, with the exception of noncommunicable diseases. The report’s unequivocal evidence should add impetus to coordinating global efforts to promote healthy environments—often through well-established, cost-effective interventions. This analysis will inform those who want to better understand the transformational spirit of the Sustainable Development Goals agreed by Heads of State in September 2015. The results of the analysis underscore the pressing importance of stronger intersectoral action to create healthier environments that will contribute to sustainably improving the lives of millions around the world.
This volume examines the applicability of landscape urbanism theory in contemporary landscape architecture practice by bringing together ecology and architecture in the built environment. Using participatory planning of green infrastructure and application of nature-based solutions to address urban challenges, landscape urbanism seeks to reintroduce critical connections between natural and urban systems. In light of ongoing developments in landscape architecture, the goal is a paradigm shift towards a landscape that restores and rehabilitates urban ecosystems. Nine contributions examine a wide range of successful cases of designing livable and resilient cities in different geographical contexts, from the United States of America to Australia and Japan, and through several European cities in Italy, Portugal, Estonia, and Greece. While some chapters attempt to conceptualize the interconnections between cities and nature, others clearly have an empirical focus. Efforts such as the use of ornamental helophyte plants in bioretention ponds to reduce and treat stormwater runoff, the recovery of a poorly constructed urban waterway or participatory approaches for optimizing the location of green stormwater infrastructure and examining the environmental justice issue of equitable availability and accessibility to public open spaces make these innovations explicit. Thus, this volume contributes to the sustainable cities goal of the United Nations.

One of the few books describing how green infrastructure planning is enhanced with the use of geographic information systems (GIS). More than half the world's population now lives in cities. Creating sustainable, healthy and aesthetic urban environments is therefore a major policy goal and research agenda. This comprehensive handbook provides a global overview of the state of the art and science of urban forestry. It describes the multiple roles and benefits of urban green areas in general and the specific role of trees, including for issues such as air quality, human well-being and stormwater management. It reviews the various stresses experienced by trees in cities and tolerance mechanisms, as well as the strategies for mitigating these stresses. The handbook offers practical guidance for urban foresters, landscape architects, city planners, and other professionals involved in urban green infrastructure planning and design.
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The convergence of landscape architecture, ecological planning, and civil engineering presents unique challenges and opportunities. How do we navigate the interplay between design and ecology? What are the most effective scientific theories and technological means to address these issues? What innovations arise from multidisciplinary and cross-scalar approaches? What are the appropriate aesthetic statements and spatial concepts to reflect these considerations?

These questions are explored in depth in the latest edition of "Access Free Planning For Green Infrastructure In Cities The Way Forward." This comprehensive resource offers insights into the planning, engineering, and political aspects of green infrastructure, focusing on how to best restore contact with nature in our urban environments.

The book provides a clear and actionable overview of the field, making it an essential reference for students, researchers, and practitioners. It covers a range of topics, from stormwater management to public education, and identifies obstacles and provides guidance on how to overcome them at the programmatic level.

Whether you're a landscape architect, urban planner, or civil engineer, this resource is invaluable for understanding and implementing green infrastructure in your projects. It addresses the challenges you face and offers practical solutions for making a positive impact on the environment.

So, whether you're designing a new park or planning a green retrofit for an existing city, "Access Free Planning For Green Infrastructure In Cities The Way Forward" is your go-to guide for navigating the complex landscape of green infrastructure.
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Instruments and tools should be applied? Revising Green Infrastructure: Concepts Between Nature and Design examines these questions and presents innovative approaches in designing green, landscape or nature as infrastructure from different perspectives and attitudes instead of adding another definition or category of green infrastructure. The editors bring together the work of selected ecologists, engineers, and landscape architects who discuss a variety of theoretical aspects, research projects, teaching methods, and best practice examples in green infrastructure. The approaches range from retrofitting existing infrastructures through landscape-based integrations of new infrastructures and envisioning prospective landscapes as hybrids, machines, or cultural extensions. The book explores a scientific functional approach in landscape architecture. It begins with an overview of green functionalism and includes examples of how new design logics are deducted from ecology in order to meet economic and environmental requirements and open new aesthetic relationships toward nature. The contributors share a decidedly cultural perspective on nature as landscape. Their ecological view emphasizes the individual nature of specific local situations. Building on this foundation, the subsequent chapters present political ideas and programs defining social relations toward nature and their integration in different planning systems as well as their impact on nature and society. They explore different ways of participation and cooperation within cities, regions, and nations. They then describe projects implemented in local contexts to solve concrete problems or remediate malfunctions. These projects illustrate the full scope presented and discussed throughout the book: the use of scientific knowledge, strategic thinking, communication with municipal authorities and local stakeholders, design implementation on site, and documentation and control of feedback and outcome with adequate indicators and metrics. Although diverse and sometimes controversial, the discussion of how nature is regarded in contrast to society, how human-natural systems could be organized, and how nature could be changed, optimized, or designed raises the question of whether there is a new paradigm for the design of social relations to nature. The
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The multidisciplinary review in this book brings together discussions previously held only within the respective disciplines, and demonstrates how they can be used to develop new methods and remediation strategies.

Get the must-have reference on standards and best practices for the delivery of a construction project. The CSI Practice Guides are a library of comprehensive references specifically designed for the construction professional. Each book examines important concepts and best practices integral to a particular aspect of the construction process. Laying the foundation for this series, The CSI Project Delivery Practice Guide provides fundamental knowledge for the documentation, administration, and successful delivery of construction projects. It also serves as the pivotal starting point for understanding CSI's core values, as well as a useful study aid for those wishing to obtain the Construction Documents Technologist certificate. This easy-to-follow guide:

- Is a great introduction to the construction process for the new practitioner.
- Functions as a ready reference for the experienced construction professional.
- Packaged with the book is an access code which allows access to a password-protected web site with bonus content, including a PDF of the printed book and samples of CSI format documents, such as UniFormat and SectionFormat/PageFormat.

The CSI Project Delivery Practice Guide offers general information all construction professionals need for understanding their roles in the delivery of a construction project. Key principles are presented and discussed in detail to allow the reader to take full advantage of material covered in depth by the more specialized CSI Practice Guides. If you can own only one Practice Guide, this is the one to get.

The Routledge Companion to Rural Planning provides a critical account and state of the art review of rural planning in the early years of the twenty-first century. Looking across different international experiences — from Europe, North America and Australasia to the transition and emerging economies, including BRIC and former communist states — it aims to develop new ways of thinking and understanding the complexities of rural planning.

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Access free planning for green infrastructure in cities the way forward. The Companion gives coverage to emerging topics in the field and seeks to position rural planning in the broader context of global challenges: climate change, the loss of biodiversity, food and energy security, and low carbon futures. It also looks at old, established questions in new ways: at social and spatial justice, place shaping, economic development, and environmental and landscape management. Planning in the twenty-first century must grapple not only with the challenges presented by cities and urban concentration, but also grasp the opportunities – and understand the risks – arising from rural change and restructuring. Rural areas are diverse and dynamic. This Companion attempts to capture and analyse at least some of this diversity, fostering a dialogue on likely and possible rural futures between a global community of rural planning researchers. Primarily intended for scholars and graduate students across a range of disciplines, such as planning, rural geography, rural sociology, agricultural studies, development studies, environmental studies and countryside management, this book will prove to be an invaluable and up-to-date resource.

Cost of Maintaining Green Infrastructure reports findings from efforts to capture and quantify the expenses associated with operating and maintaining sustainable stormwater-management technologies. This book addresses international research communities concerned with conceptual, scientific, and design approaches to urban land developments and biodiversity. The main focus is on the understanding of human-environment interactions analysed by multi-disciplinary approaches. The articles in this important collection include new concepts and challenges for sustainable green space development emerging from the pressure caused by urbanisation. The concept of biophilic urbanism and the framework of urban ecosystem services are introduced and referred to by applications in different case studies in Europe. Case studies also refer to the current challenges for biodiversity in different urban areas.
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important human-species interactions are identified by analysing the allergenic potential of urban trees in a US city. Anthropogenic influences on the survival or local extinction of species are examined in a Mediterranean urban area. In all articles, the importance of urban planning on green infrastructure development, biodiversity conservation and management within the urban ecosystem is highlighted, and planning recommendations are given.

Green infrastructure encompasses many features in the built environment. It is widely recognised as a valuable resource in our towns and cities and it is therefore crucial to understand, create, protect and manage this resource. This Handbook sets the context for green infrastructure as a means to make urban environments more resilient, sustainable, liveable and equitable. Including state-of-the-art reviews that summarise the existing knowledge as well as research findings, this Handbook provides current evidence for the beneficial impact of green infrastructure on health, environmental quality and the economy. It discusses the planning and design of green infrastructure as a strategic network down to the individual features in a neighbourhood and looks at the process of green infrastructure implementation, emphasising the importance of collaboration across multiple professions and sectors. This comprehensive volume operates at multiple spatial scales, from strategic networks at the regional level to individual features in neighbourhoods, with international case studies used throughout to illustrate key examples of good practice. This collection of expert contributions will be invaluable to students and academics in the fields of planning, urban studies and geography. Practitioners and policy-makers will also find the policy discussion and examples enlightening.

This book shows for the first time how green infrastructure can work in an African urban context. On one level it provides a major rethinking of the role of infrastructure in urban society since the
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The creation of networked infrastructure in the early twentieth century. On another, it explores the changing paradigms of urban development through the fundamental question of how decisions are made. With a focus on Africa's fast-growing secondary towns, where 70 per cent of the urban population live, the book explains how urban infrastructure provides the key to the relationship between economic development and social equity, through the mediation of natural resources. Adopting this view enables investment to be channelled more effectively to provide the engine for economic growth, while providing equitable services for all residents. At the same time, the mediation of resource flows integrates the metabolism of the city into the wider ecosystem. This vision leads to a new way of thinking about infrastructure, giving clear definition to the concept of green infrastructure. On the basis of research gathered throughout an extensive career, John Abbott draws in particular from his experience in Ethiopia to demonstrate the ways in which infrastructure needs to respond to the economies, societies and natural environments of twenty-first century urban Africa.

This book provides an overview of the large and interdisciplinary literature on the substance and process of urban climate change planning and design, using the most important articles from the last 15 years to engage readers in understanding problems and finding solutions to this increasingly critical issue. The Reader's particular focus is how the impacts of climate change can be addressed in urban and suburban environments—what actions can be taken, as well as the need for and the process of climate planning. Both reducing greenhouse gas emissions as well as adapting to future climate are explored. Many of the emerging best practices in this field involve improving the green infrastructure of the city and region—providing better on-site stormwater management, more urban greening to address excess heat, zoning for regional patterns of open space and public transportation corridors, and similar actions. These actions may also improve current public health and livability in cities, bringing benefits now and into the future. This Reader is innovative in bringing climate adaptation...
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Green infrastructure together, encouraging a more hopeful perspective on the great challenge of climate change by exploring both the problems of climate change and local solutions.

Infrastructure Planning and Finance is a non-technical guide to the engineering, planning, and financing of major infrastructure projects in the United States, providing both step-by-step guidance, and a broad overview of the technical, political, and economic challenges of creating lasting infrastructure in the 21st Century. Infrastructure Planning and Finance is designed for the local practitioner or student who wants to learn the basics of how to develop an infrastructure plan, a program, or an individual infrastructure project. A team of authors with experience in public works, planning, and city government explain the history and economic environment of infrastructure and capital planning, addressing common tools like the comprehensive plan, sustainability plans, and local regulations. The book guides readers through the preparation and development of comprehensive plans and infrastructure projects, and through major funding mechanisms, from bonds, user fees, and impact fees to privatization and competition. The rest of the book describes the individual infrastructure systems: their elements, current issues and a 'how-to-do-it' section that covers the system and the comprehensive plan, development regulations and how it can be financed. Innovations such as decentralization, green and blue-green technologies are described as well as local policy actions to achieve a more sustainable city are also addressed. Chapters include water, wastewater, solid waste, streets, transportation, airports, ports, community facilities, parks, schools, energy and telecommunications. Attention is given to how local policies can ensure a sustainable and climate friendly infrastructure system, and how planning for them can be integrated across disciplines.

Green infrastructure can be defined as an interconnected network of greenspace that conserves natural ecosystem values and...
functions and provides associated benefits to human populations. Green infrastructure planning involves the strategic planning and management of these networks. A review of existing ordinances and a green infrastructure inventory indicate that Anderson Township, in southwest Ohio, is quite rich in green infrastructure assets and is well positioned to preserve lands and develop sustainably through existing comprehensive plan initiatives and the Township Greenspace Program. However, the absence of green infrastructure as a defined concept within the comprehensive plan limits the ability of the Township to fully achieve a sustainable development framework. Other options should be explored to protect and expand upon the core green infrastructure network in Anderson Township.

Urbanization is a global phenomenon that is increasingly challenging human society. It is therefore crucially important to ensure that the relentless expansion of cities and towns proceeds sustainably. Urban ecology, the interdisciplinary study of ecological patterns and processes in towns and cities, is a rapidly developing field that can provide a scientific basis for the informed decision-making and planning needed to create both viable and sustainable cities. Urban Ecology brings together an international team of leading scientists to discuss our current understanding of all aspects of urban environments, from the biology of the organisms that inhabit them to the diversity of ecosystem services and human social issues encountered within urban landscapes. The book is divided into five sections with the first describing the physical urban environment. Subsequent sections examine ecological patterns and processes within the urban setting, followed by the integration of ecology with social issues. The book concludes with a discussion of the applications of urban ecology to land-use planning. The emphasis throughout is on what we actually know (as well as what we should know) about the complexities of social-ecological systems in urban areas, in order to develop urban ecology as a rigorous scientific discipline.
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The LEED-ND initiative, Sustainable Urbanism: Urban Design with Nature is both an urgent call to action and a comprehensive introduction to "sustainable urbanism"—the emerging and growing design reform movement that combines the creation and enhancement of walkable and diverse places with the need to build high-performance infrastructure and buildings. Providing a historic perspective on the standards and regulations that got us to where we are today in terms of urban lifestyle and attempts at reform, Douglas Farr makes a powerful case for sustainable urbanism, showing where we went wrong, and where we need to go. He then explains how to implement sustainable urbanism through leadership and communication in cities, communities, and neighborhoods. Essays written by Farr and others delve into such issues as: Increasing sustainability through density. Integrating transportation and land use. Creating sustainable neighborhoods, including housing, car-free areas, locally-owned stores, walkable neighborhoods, and universal accessibility. The health and environmental benefits of linking humans to nature, including walk-to open spaces, neighborhood stormwater systems and waste treatment, and food production. High performance buildings and district energy systems. Enriching the argument are in-depth case studies in sustainable urbanism, from BedZED in London, England and Newington in Sydney, Australia, to New Railroad Square in Santa Rosa, California and Dongtan, Shanghai, China. An epilogue looks to the future of sustainable urbanism over the next 200 years. At once solidly researched and passionately argued, Sustainable Urbanism is the ideal guidebook for urban designers, planners, and architects who are eager to make a positive impact on our—and our descendants'—buildings, cities, and lives.

With more than half of the world's population now living in urban areas, it is vitally important that towns and cities are healthy places to live. The principal aim of this book is to synthesize the disparate literature on the use of vegetation in the built environment and its multifunctional benefits to humans. The author reviews issues such as: contact with wildlife and its immediate and long-term effects on psychological and physical wellbeing; the role of vegetation in reducing heat islands and improving air quality; and the potential for vegetation to provide aesthetic and recreational benefits to urban dwellers. The book also examines the economic benefits of green infrastructure, including reduced maintenance costs and increased property values. Finally, the book provides case studies of successful green infrastructure projects and discusses the challenges and opportunities for implementing such projects in urban environments.

As the world becomes increasingly urbanized, it becomes even more important to prioritize sustainable urban design and green infrastructure. The LEED-ND initiative, Sustainable Urbanism: Urban Design with Nature, provides a comprehensive guide for urban designers, planners, and architects to create healthy and sustainable cities for future generations.
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Removing health-damaging pollutants from the air; green roofs and green walls, which provide insulation, reduce energy use and decrease the carbon footprint of buildings; and structural vegetation such as street trees, providing shading and air circulation whilst also helping to stop flash-floods through surface drainage.

Examples are used throughout to illustrate the practical use of vegetation to improve the urban environment and deliver ecosystem services. Whilst the underlying theme is the value of biodiversity, the emphasis is less on existing high-value green spaces (such as nature reserves, parks and gardens), than on the sealed surfaces of urban areas (building surfaces, roads, car parks, plazas, etc.). The book shows how these, and the spaces they encapsulate, can be modified to meet current and future environmental challenges including climate change. The value of existing green space is also covered to provide a comprehensive textbook of international relevance.

This is the New York State edition of the GIC's guide to evaluating and conserving green infrastructure (GI) across the landscape. It provides an historical background to GI, as well as practical steps for creating GI maps and plans for a community. It discusses issues around evaluating green assets, public involvement in the mapping process, and the practical steps in bringing together GIS information into a useful format. It draws from twelve field tests GIC has conducted over the past six years in a diversity of ecological and political conditions, at multiple scales, and in varied development patterns – from wildlands and rural areas to suburbs, cities and towns. This guide is intended to help people make land management decisions which recognize the interdependence of healthy people, strong economies and a vibrant, intact and biologically diverse landscape. Green infrastructure consists of our environmental assets – which GIC also calls 'natural assets' – and they should be included in planning processes. Planning to conserve or restore green infrastructure ensures that communities can be vibrant, healthful and resilient. Having clean air and water, as well as nature-based recreation, attractive views and abundant local food, depends upon considering our environmental assets as
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Available from GIC at www.gicinc.org. Over the last decade research exploring green infrastructure planning has burgeoned. Transferable green infrastructure messages between locations though are less well established and there remains a visible gap between the conceptual understanding of green infrastructure and its application in practice. Drawing together evaluations of green infrastructure policy-making and practice from across the world Global Green Infrastructure illustrates where successful practices can be identified. Examples from major green infrastructure development areas in the UK, Europe and the USA highlight the variety of investment options that can deliver socio-economic benefits. There is also a growing awareness of the added value of landscape planning in the rapidly developing cities of India and China. Reflecting on ten international case studies Global Green Infrastructure highlights the ways that ecology and engineered solutions can deliver successful urban development. Based on in situ research with the growing community of green infrastructure researchers and practitioners Global Green Infrastructure looks at the contradictions, consensus, and expanding evidence base of successful investments. This book also presents an in-depth commentary on the contemporary approaches to investment in urban greening and green infrastructure, and draws on the lessons we have learnt from a decade of experimentation, delivery and reflection.

As the population, economy and urban built environment in the Gauteng City-Region (GCR) expand, government is increasingly under pressure to provide urban infrastructure to support growth. It is increasingly important that this infrastructure is sustainable, minimising the negative environmental impacts often associated with traditional forms of urban development. Green Infrastructure (GI) is the interconnected set of natural and man-made ecological systems, green spaces and other landscape features that provide services and strategic functions in the same way as traditional infrastructure. In harnessing the benefits of ecosystem services, GI has emerged as a more efficient, cost effective and sustainable...
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Alternative – and sometimes accompanying approach – to conventional forms of infrastructure. Despite international evidence demonstrating how GI can be used as an alternative to, or in tandem with, traditional infrastructure, the GI approach has so far gained only limited traction in the GCR. In 2013 the GCRO published the State of Green Infrastructure in the GCR report. The report established the principles that underpin GI, used available data to map the extent of GI networks in the region, assessed to what extent municipalities were aware of and applying a GI approach, and demonstrated a possible way to value GI in local government financial systems. The conclusions of the State of Green Infrastructure report were used to guide the next phase of GCRO's research in support of the adoption of GI approach – a phase focused on better understanding the opportunities for implementing GI in planning and infrastructure development programmes and on addressing some of the challenges associated with shifts towards this approach. A framework for a green infrastructure planning approach in the Gauteng City-Region, GCRO's fourth Research Report, builds on the foundations laid in the State of Green Infrastructure report. It assembles expert inputs and reflections from collaborative stakeholder discussions in what was known as the Green Infrastructure CityLab to illustrate important considerations for the development of a GI planning approach in the Gauteng City-Region (GCR). The report is divided into three broad sections. Part A introduces the theoretical underpinnings of a GI approach and builds an argument for the importance of incorporating GI into planning and infrastructure development in the GCR. Part B presents three pieces written by external experts. They consider how GI and ecosystem services can be valued by municipalities, and how so-called 'grey-green' infrastructure design solutions can be implemented in the GCR. Part C reflects on the stakeholder engagement process that has been undertaken, primarily through the GI CityLab, to deepen understanding of how GI can be embedded in municipal practice. Based on these research findings, this report concludes with a strategy for GCRO's next phase of work in its ongoing Green Assets and Infrastructure Project.
Green infrastructure integrates human and natural systems through a network of corridors and spaces in mixed-use and urban settings. Austin takes a broad look at green infrastructure concepts, research and case studies to provide the student and professional with processes, criteria and data to support planning, design and implementation. Key topics of the book include:

- The benefits of green infrastructure as a conservation and planning tool
- Requirements of ecosystem health
- Green infrastructure ecosystem services that contribute to human physical and psychological health
- Planning processes leading to robust green infrastructure networks
- Design of green infrastructure elements for multiple uses.

The concept of ecosystem services is extensively developed in this book, including biological treatment of stormwater and wastewater, opportunities for recreation, urban agriculture and emersion in a naturalistic setting. It defines planning and design processes as well as the political and economic facets of envisioning, funding and implementing green infrastructure networks. The book differs from others on the market by presenting the technical issues, requirements and performance of green infrastructure elements, along with the more traditional recreation and wildlife needs associated with greenway planning, providing information derived from environmental engineering to guide planners and landscape architects.

What is green infrastructure? Why should we develop it? Who uses it? And what socioeconomic and ecological value does it provide? This useful guide provides an essential introduction to green infrastructure for planners, landscape architects, engineers, and environmentalists keen to understand how we can use landscape principles to deliver more sustainable urban planning. Using multiple examples from practice in the UK, Europe, North America, and Asia, the book illustrates how good policy ideas and innovative planning practice can help create more sustainable and ecologically focused urban landscapes.

The health of our planet and ourselves depends on how we plan, design, and construct the world between our buildings. Our...
Increasing dependence on fossil fuels over the last century has given us unprecedented individual mobility and comfort, but the consequences are clear. Climate change, sprawl, and reliance on foreign oil are just a few of the challenges we face in designing new-and adapting existing-communities to be greener. Based on the National Building Museum’s Green Community exhibition, this book is a collection of thought-provoking essays that illuminate the connections among personal health, community health, and our planet’s health. Green Community brings together diverse experts, each of whom has a unique approach to sustainable planning, design, politics, and construction.