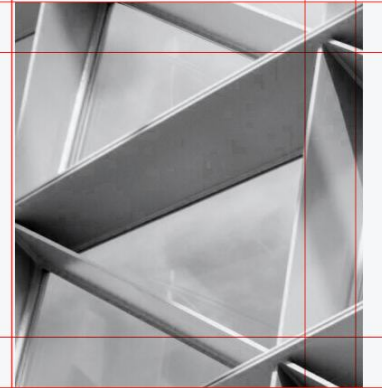
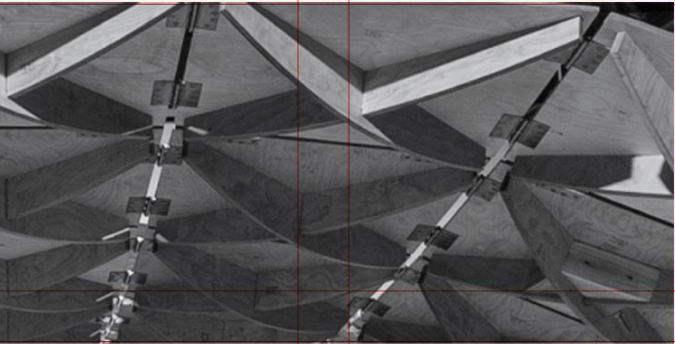




SOM

Values-Driven Design: How Architects and the Real Estate Industry Can Achieve Shared Goals for Environmental and Social Good

This whitepaper explores how ESG principles can redefine the built environment by integrating sustainability, equity, and resilience into real estate design and operations. It highlights the fundamental role of architects in advancing environmental and social goals, supported by practical tools like the Equity Design Lab Toolkit and whole life carbon assessments. Through actionable frameworks and compelling case studies, the paper demonstrates how to create buildings that balance community impact, environmental stewardship, and financial performance. By addressing the industry's most pressing challenges, it offers a clear path toward meaningful and lasting change in real estate development and management.



Taking Responsibility: How the Real Estate Industry is Embracing ESG

In recent years, Environmental, Social, and Governance (ESG) considerations have emerged as pivotal factors in the real estate industry, reshaping investment priorities, operational standards, and strategic planning across the sector. ESG reporting, a structured approach to documenting and disclosing a company's environmental impact, social responsibilities, and governance practices, has become increasingly critical for stakeholders, who seek transparency and sustainability in their real estate portfolios. In Europe, stringent regulatory requirements—such as the EU Taxonomy for sustainable activities and the Sustainable Finance Disclosure Regulation (SFDR)—have accelerated the push for ESG integration in real estate, urging companies to disclose and meet specific ESG criteria.

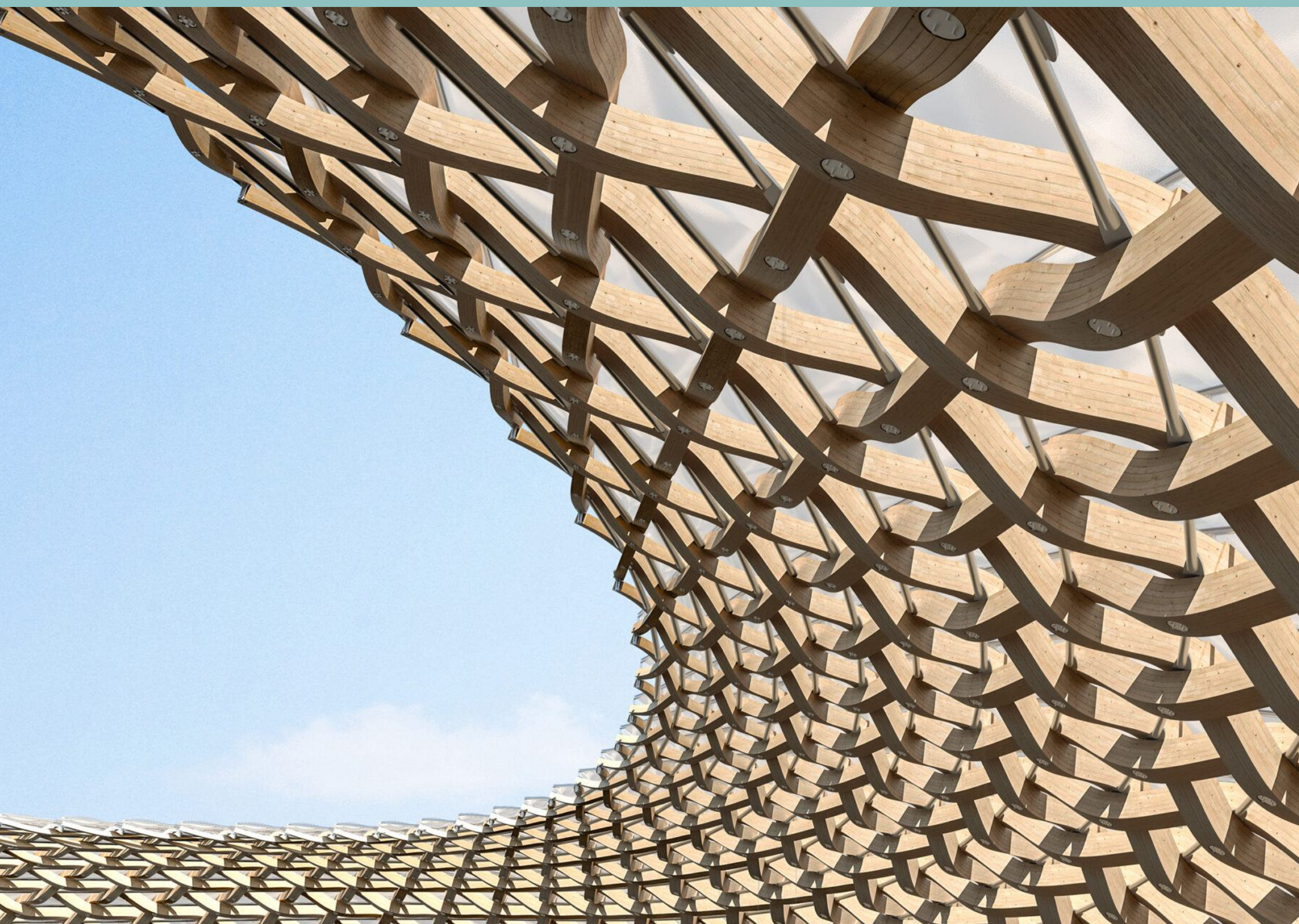
ESG reporting in real estate now goes beyond regulatory compliance. This shift is driven by a broad spectrum of factors: investor demand for sustainable portfolios, tenant preferences, and an acute awareness of real estate's significant carbon footprint. Investors recognise that sustainable properties are more resilient, often outperforming traditional assets in value retention and operational efficiency. Moreover, as extreme weather events and social inequality continue to impact communities, stakeholders demand responsible practices from developers and property managers.

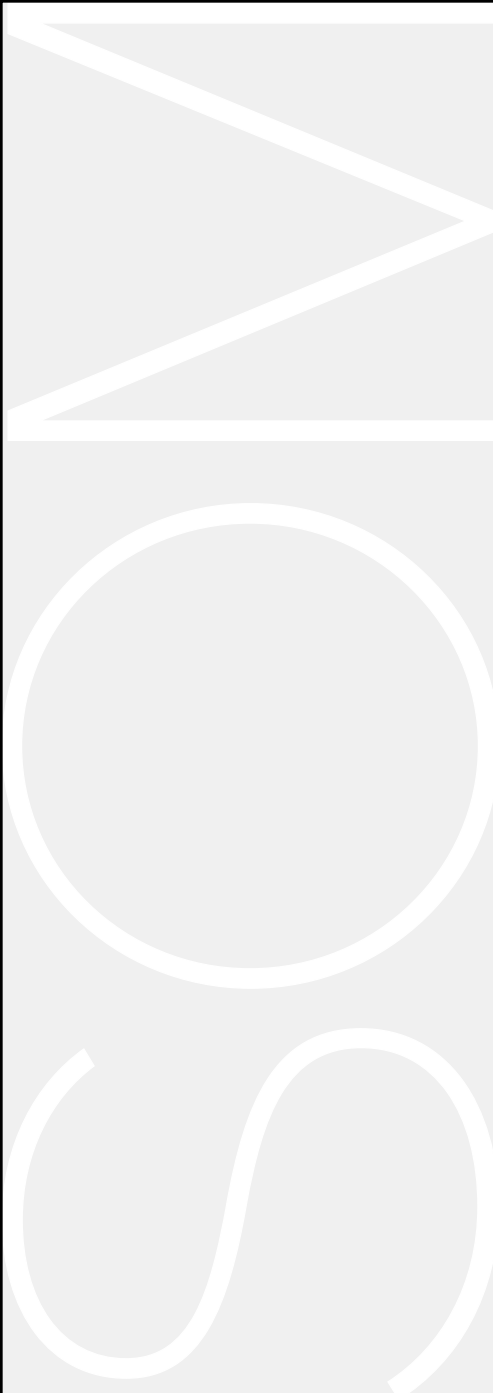
Major trends include a shift toward more detailed carbon reporting, life-cycle analysis, and metrics on tenant wellbeing and community impact. Investors and clients are increasingly focusing on assets with green certifications, net zero targets, and energy-efficient designs, reflecting a strong market preference for buildings that meet high environmental standards. Additionally, social considerations, such as community engagement and workforce diversity, and governance metrics, including transparency and ethical business practices, are integral to shaping the future of sustainable real estate.

SOM

Taking responsibility:
How the real estate
industry is embracing
ESG

Real estate owners and developers today face complex challenges in aligning their assets with evolving ESG standards. The need for compliance with local and European sustainability policies, combined with tenant and investor expectations, has created an imperative for real estate companies to adopt advanced ESG strategies. Meeting these demands requires expertise in energy efficiency, carbon reduction, and social responsibility, among other areas, often prompting clients to seek professional guidance and actionable insights.





Designer, advocate, champion: The architect's role

Architects play a crucial role in driving ESG outcomes in the built environment. From designing energy-efficient buildings and reducing resource consumption to creating spaces that promote social wellbeing, architects are at the forefront of integrating sustainable principles into real estate. By foregrounding ESG goals in design and collaborating with stakeholders to define and pursue shared goals, architects guide the creation of resilient, future-proof buildings that meet the growing expectations of investors, regulators, and communities alike.

Championing ESG in the built environment is a role that our firm, Skidmore, Owings & Merrill (SOM), has fully embraced. Conscious of the fact that the buildings we design today will have an impact for generations to come, our firm has long been proactive in foregrounding sustainability and social benefit in our work. We aim to create sustainable, efficient buildings and equitable designs that are benchmarks for reducing carbon emissions and promoting environmental and social stewardship.

We also believe that taking a holistic approach to these issues is paramount. Addressing only single parameters, such as energy consumption or carbon emissions in isolation, neglects the broader implications and potential synergies arising from considering various equity and sustainability aspects together. As a firm that comprises professionals in architecture, engineering, urban planning, and sustainability, SOM has embraced an ability to achieve greater impact in our project work through deep, interdisciplinary collaboration.

The built environment interacts with and influences social, ecological and economic systems. A holistic perspective ensures balanced and sustainable outcomes by recognising and addressing these interdependencies. By doing so, we can create environments that are not only sustainable, but also equitable and resilient. As designers, we can leverage our agency to impact and influence others across the sector by advocating for continuously increased and added value, resilience and collective responsibility and accountability.

SOM's design principles: Advancing equity, sustainability, and resilience in the built environment

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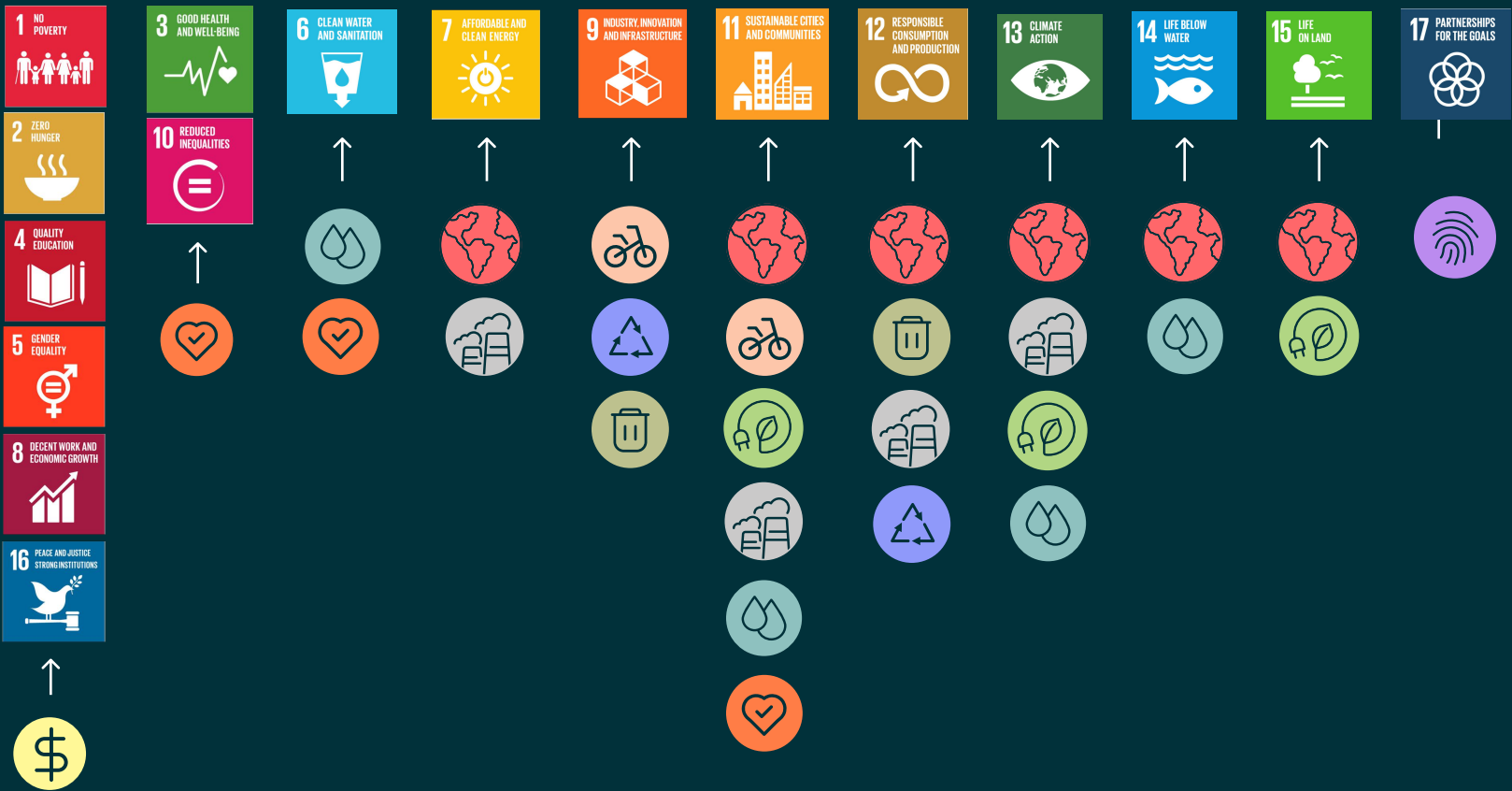
Human activities have significantly disrupted natural ecosystems and a holistic approach to sustainability seeks to preserve and restore ecological balance. This involves protecting biodiversity, responsibly managing natural resources, and mitigating environmental degradation. Such efforts are essential to maintaining the health of our planet today and for future generations.

Moreover, the traditional, linear economic models, based on extraction, consumption, and disposal are inherently unsustainable. Embracing a circular economy, which emphasises the reuse, recycling, and regeneration of materials and products can significantly reduce waste, conserve resources, and promote long-term environmental sustainability, as well as economic prosperity for local communities.

Focusing solely on short-term goals, such as energy efficiency or upfront cost reduction, can result in solutions that lack resilience in the face of future challenges, and can lead to premature renovation and/or obsolescence of built structures. A holistic approach encourages long-term thinking and adaptability, ensuring that systems can withstand and recover from various stresses and shocks, thereby enhancing their sustainability over time, while also proactively addressing risk.

Underpinned by the universally embraced UN's Sustainable Development Goals for 2030, our 10 Design Principles provide the foundations of our vision, design approach and delivery.

10 Principles- Going beyond Energy + Carbon & Establishing Holistic, Best Practice Standards



10 Principles- Linking to the UN 2030 Sustainable Development Goals

In its overarching framework, our Design Principles aim to evaluate and carefully address a multitude of priorities, defined under the umbrella of key themes in tandem—from ecology to carbon, water, materials, waste, and equity, among others—all central to the prosperity of people, planet, and economy

SOM's Equity Design Lab Toolkit: A framework to define, pursue, and measure project outcomes

Toolkit Principles

To advance our commitment to positive social impact through design, SOM founded the Equity Design Lab, an internal group that seeks to elevate equity in all of our project work. In 2020, this group created the Equity Design Lab Toolkit, an essential resource that is now used by project teams across the firm.

1 Sensitivity Who/How will SOM internally manage ourselves to promote equitable design?	2 Inclusivity How will our process engage the community to help define project values?	3 Access How will the project welcome the community once it is built?	4 Advocacy How will the project advocate for the disenfranchised/marginalized and underinvested?
5 Safety How will the project make people feel safe/protect the community?	6 Health + Wellbeing How will the project promote better life outcomes for the community?	7 Authenticity How will the project reflect/imbue the spirit and cultural integrity + beauty of the community?	8 Prosperity How will the project uplift the community economically?

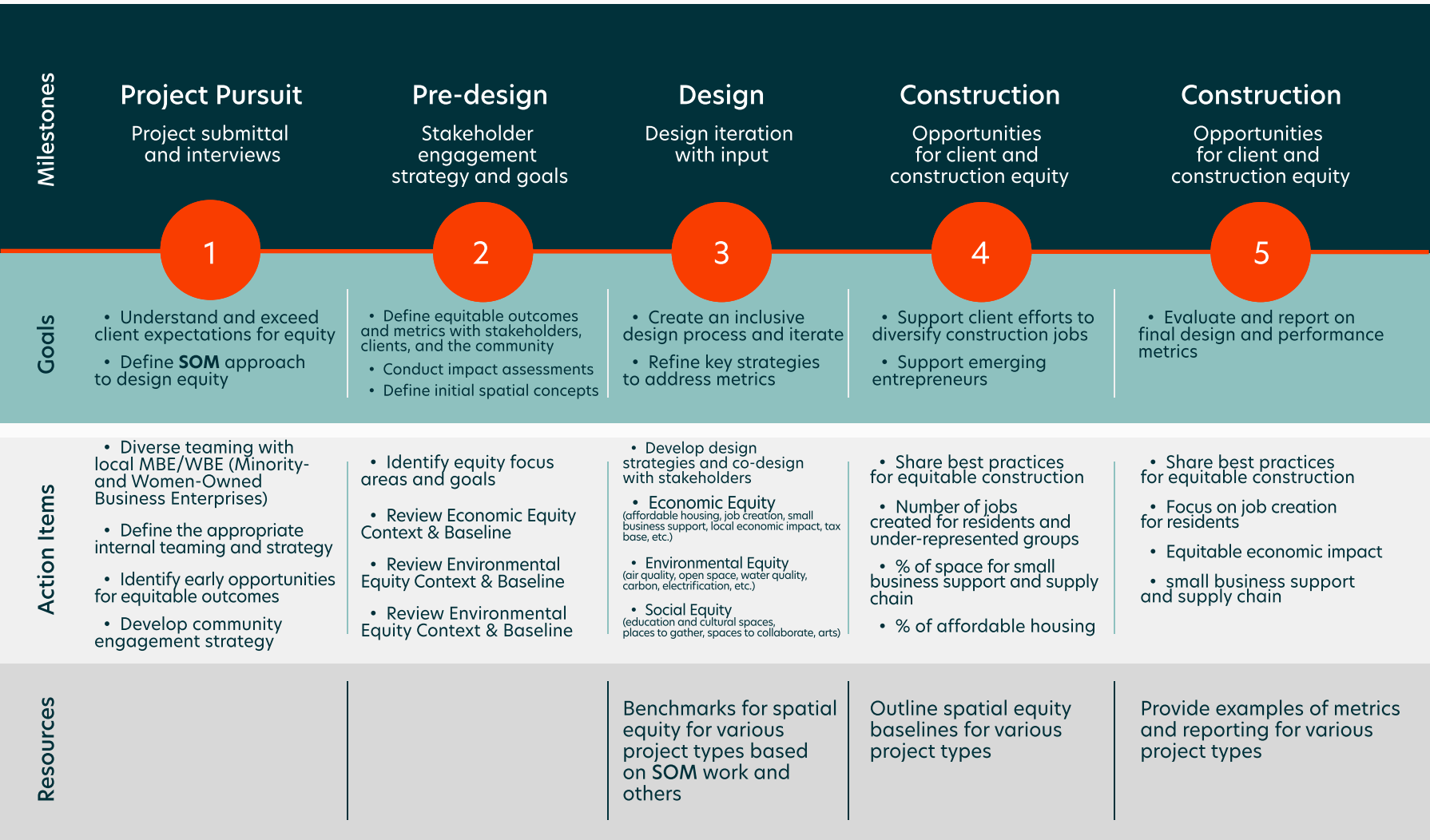
The toolkit uses both quantitative and qualitative benchmarks to determine ways of measuring success. Our methodology centres on eight overarching Equity Principles that SOM has defined: sensitivity, inclusion, access, advocacy, safety, health and wellbeing, authenticity and prosperity.

Embedding the toolkit and principles through different phases and outcomes enables an inclusive approach to developing innovative and meaningful solutions. It enables the project team to not only set ambitious goals and targets, but also test those sustainable solutions and policy ideas with community members, returning to them to continue to iterate on these ideas. From a business development and planning perspective, it is important that the equity vision and goals align with the company's broader vision and any client-mandated targets.

Envisioned as a guide for design professionals and our clients, the SOM Equity Design Lab toolkit provides a framework for designing built environments that prioritise social equity alongside sustainability, functionality, and aesthetics. The toolkit helps address social issues and create inclusive, accessible, and just spaces for all, while actively involving community members in co-developing solutions that tackle both environmental and social challenges.

Equity should not only be covered in marketing and design, but also should extend to partnerships with consultants, suppliers, and research and development companies that support the same goals and vision. This collaborative and iterative process requires the engagement and perspectives of multiple stakeholders along different phases of the project and across multiple aspects of the business.

Providing both a qualitative and quantitative approach, the SOM Equity Design Lab toolkit enables design teams to apply a consistent, measurable process across project phases and throughout design development. It elevates projects to achieve comparable, equitable outcomes across various practices or specific portfolios. The success metrics employed in the design process can be shared with potential clients and tenants to highlight opportunities and strategies that align with shared equity-driven and social impact values.



The image above highlights key steps at various stages of the project to embed equity and align with different stakeholders. It connects these processes to the design phases, pursuit and prepositioning, as well as client cultivation.

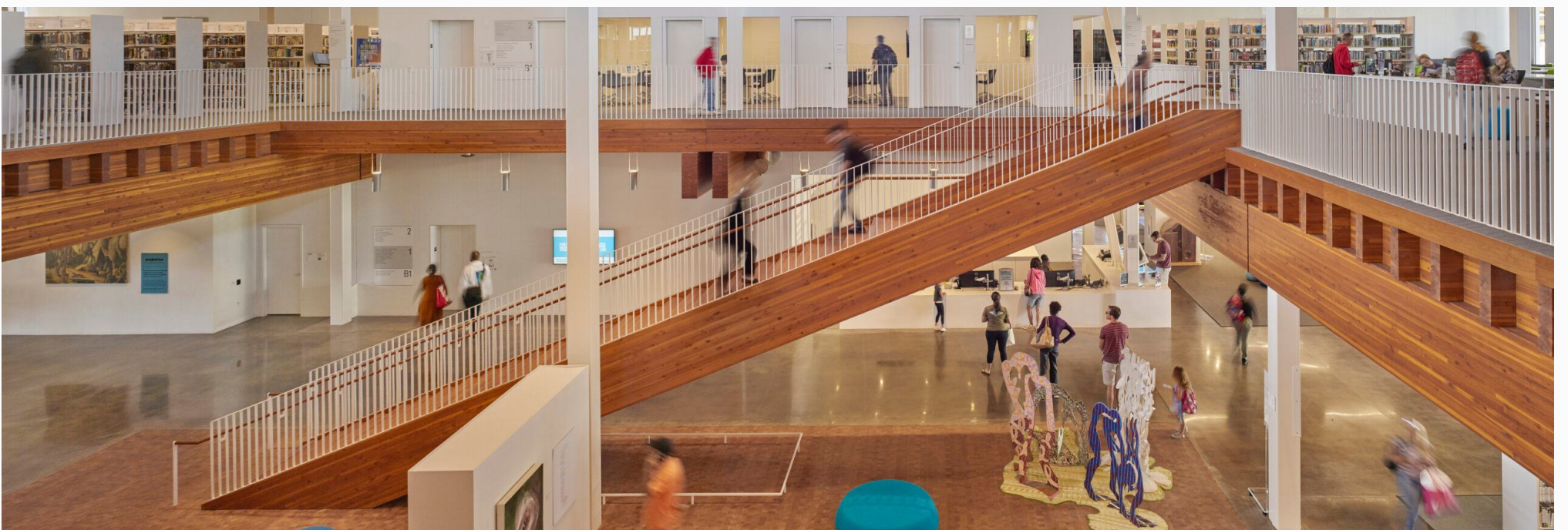
Whole Life Carbon Strategy, Design and Accounting: A new service to help clients address carbon impact holistically

In June 2023, SOM launched a new service that responds directly to our clients' needs for evaluating and reducing the whole life carbon impact of a building project. Our Whole Life Carbon Accounting service empowers the real estate industry to address carbon impact in a holistic way, and provides a solution for accurate evaluation and benchmarking.

While the industry has for decades focused on reducing the carbon impact of a building's operations, there is now a growing consensus that an assessment of whole life carbon—which accounts for carbon impacts from building's construction and throughout its entire life cycle—should inform the way that buildings are designed, constructed and renovated. However, whole life carbon is not easy for building owners and developers to measure, for a variety of reasons.

Though projects often carry out carbon assessments at the end of design stages, these are often performed in isolation by different parties and to different standards. This results in assessments that are not comparable and cannot effectively illustrate an asset's true performance. As a project develops and design strategies evolve, the gaps between these assessments and a project's real performance (when constructed) widen, leading to a performance gap of up to five times more energy use and/or carbon emissions between predicted and actual values which in the long-term affects an asset's value and future viability.

Holistic whole life carbon assessments—including quantified operational and embodied carbon data from architecture, structures, building services and interior elements—are essential to understanding a building's true carbon impact. Performing these assessments early in the design process and ensuring their continuity during construction are critical for enabling clients to make informed decisions when it matters the most.



SOM's team of carbon experts has developed a system for evaluating and measuring whole life carbon emissions clearly and comprehensively

—from the very start of a project and throughout its life cycle. This standalone service gives our clients a holistic view of a project's environmental impact. By providing oversight and guidance from the start of a project's design into post-project completion, our team of architects, engineers, and sustainability experts helps to translate carbon targets into measurable performance outcomes.

This service involves conducting early and continuous carbon assessments, covering architectural elements, structural components, and building services, to ensure accurate measurement and alignment with ambitious carbon targets. By integrating whole life carbon assessments from the design phase through construction and operation, we enable informed decision-making, minimise the carbon footprint, and enhance the long-term sustainability of our projects.

SOM's Whole Life Carbon Accounting process has been used in the development of several projects internationally, including major renovations and new-build commercial buildings. In addition to minimizing carbon impact, our process benefits clients by reducing redundant efforts and costs in design and construction,

and reducing the maintenance of buildings, while also ensuring they are climate-resilient for the future.

Future-proofing building assets to prevent premature renovation and/or obsolescence and adding long-term value, have been a key focus of this service.

We additionally want to assist clients with their environmental reporting and meeting highest building sustainability ratings for corporate assessments, as well as benchmarking. Our service provides a unified approach, delivering clear and measurable outcomes that help clients meet their ESG requirements, while also future-proofing assets and adding long-term value.



ESG by design: Case studies in environmental and social benefit

Chicago's Wild Mile: Transforming an urban waterway into an ecological and community asset

**In Chicago, where SOM was
founded in 1936,**

our firm has a long history of shaping some of the city's most significant public spaces—from streetscape improvements to the master plan for Millennium Park, which now hosts more than 25 million visitors a year. While much of this work has been done in partnership with the city administration and planning department, we also believe that meaningful ideas for a sustainable urban future can come from small community-driven efforts. And in fact, by putting our firm's resources and design expertise behind grassroots initiatives, we can seize remarkable opportunities to advance shared goals for environmental and social benefit.

**The Wild Mile is one such
initiative:**

a long-range vision to transform an industrialised channel of the Chicago River into a habitat for wildlife, a welcoming public park, and a laboratory for education and research. This area has been envisioned as a type of eco-park since the creation of the 2003 Chicago Central Area Plan. Urban Rivers, a volunteer-based nonprofit organisation, has long championed this initiative, making the case that transforming urban waterways into wildlife sanctuaries is “not only an important environmental mission, but also a critical social one.”

In 2014, Urban Rivers sought out SOM's design and planning expertise to help transform this concept into a reality.

Working pro bono, SOM developed a design for a series of floating gardens, public walkways, and kayak docks to transform this stretch of the river into an accessible public amenity. This compelling design vision led the city to issue an RFP for a Framework Plan for the Wild Mile; teaming up again with SOM, Urban Rivers was awarded the commission to develop a comprehensive planning study for the river's ongoing transformation. The compelling design vision developed by SOM was crucial in fundraising efforts for the new park, and a broad coalition of community groups, corporations, and local businesses came together in support of the project. In 2016, the team installed a 1,500-square-foot floating garden as a first step toward making the Wild Mile vision a reality.

Today, building on SOM's Framework Plan, Urban Rivers is continuing to expand the Wild Mile in phases, as funding and resources become available. Even with just the first segment complete, the environmental and social outcomes have been remarkable. The Wild Mile is now home to more than 60 native wetland species. Making the most of its proximity to more than 40 schools and academic institutions, the Wild Mile incorporates rich educational and community programming. These include a volunteer-led and technology-driven initiative, River Rangers, which recruits "citizen scientists" to document and provide regular reports on reintroduced plants and wildlife.

The Wild Mile presents an innovative example of community investment and shared vision. Its model for community engagement has already been implemented in another area of the Chicago River, Bubbly Creek, and the project has become a reference point for urban waterway design internationally.

Expertise [Civic + Government](#), [Cultural, Graphics + Brand](#), [Landscape + Ecology](#), [Urban Design + Planning](#)

Location
Chicago, Illinois, United States



Charenton-Bercy Development, Paris, France: Achieving environmental and social benefit at the scale of a district

As growing cities seek to expand housing, economic opportunities, and green spaces, planners and city leaders are increasingly looking to the urban periphery. In Paris, the Charenton-Bercy district—located on the city's eastern edge, near the Bois de Vincennes—is one of the key sites that make up the “Grand Paris,” a long-range development plan for the wider metropolis.



In 2018, SOM led the winning design scheme in the initial master plan competition to transform Charenton-Bercy from an underutilised, peripheral zone into a highly connected, mixed-use urban district. With this type of ambitious, large-scale project, architects and planners can find remarkable opportunities to advance goals for sustainability and social benefit—achieving goals that are shared by the municipal government, private developers, and local communities.

SOM's master plan for Charenton-Bercy advances the city administration's sustainability agenda: a third of the site is reserved for green space, while a further third will be occupied by buildings with green roofs. A landscaped garden bridge will cross above active rail lines to connect the district to the Bois de Vincennes, the city's largest public park. The streetscape design and architecture extend the greenery of the park throughout the new district. A series of low-rise buildings form a walkable, mixed-use community, harmonious in scale with the adjacent urban areas. Community and public amenities in the district include a new primary school, a fitness centre, and a network of outdoor public spaces.

Following the adoption of the master plan, individual lots within the district are being designed by multiple architects, all following the guidelines for environmental and social benefit established in the overall district plan. SOM has designed one of the key buildings at the centre of the district: a low-rise workplace building, triangular in plan. SOM's client, Bouygues Immobilier, defined ambitious sustainability goals for this flagship building: it should achieve leading French and European certifications for environmental performance

(including BREEAM NC 2016, NF HQETM Bâtiment Durable 2016, Bâtiment Biosourcé niveau 2, E2C1, Wiredscore Ready, WELL Ready, and OsmoZ Ready). With these objectives in sight, SOM developed a design to allow Bouygues Immobilier to meet and exceed all of these certifications.

SOM's sustainability approach for the building begins with a strategy to reduce the carbon impact of construction through material selection. The team developed a hybrid concrete-timber structure for the building, and also a facade design that makes extensive use of timber.

Further design strategies seek to reduce the building's operational energy use

such as the facade design which increases daylight within the workspaces, while also providing shade. With social benefit in mind, the design team focused on making the building a model workplace that supports health and wellbeing. Building users will have access to planted terraces on every level, as well as an expansive roof garden that includes a walking and jogging path.

Green spaces are also provided at the ground level: a large courtyard at the centre of the building is accessible to all users. By aligning goals shared by the municipality, the client, and the local community, the new architecture taking shape at Charenton-Bercy demonstrates the impact of a design process guided by clear ESG objectives.





Conclusion

As a global collective of architects, urban designers and engineers, we at SOM have recognized our role in facilitating positive change towards a more regenerative built environment. To enable this, we advocate for the role of the designer to change and evolve—beyond an obligation to meet a client's brief to one that also recognises our shared commitment to preserve the natural environment and create a more equitable society.

We firmly believe that excellent clients evolve through open and meaningful partnerships with their design teams, groundbreaking solutions can be realised when there is openness for a project brief to be evolved and refined. This is where practitioners can become agents of change within the built environment.

Collaboration among diverse partners—such as governments, community organisations, businesses, developers and residents—plays a pivotal role in this process. Through knowledge sharing, stakeholders can leverage their unique insights and expertise to co-create solutions that address systemic inequities, while also advancing sustainable practices. This collective effort ensures that projects are responsive to the specific needs of the community, ultimately leading to a more inclusive and sustainable future for all.

