



Q4 INFLUENCE: IMPACT

Inflection Point

DesignIntelligence®
Quarterly



Inflection Point

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Alyson Watson calls for convergent thinking to yield greater impact.

The design industry is at an inflection point. Current society is facing some of the greatest existential challenges in human history. We live in a time marked by war, famine, flood and strife, where social media stokes division among us to a degree we have never experienced. At the same time, global climate change threatens to render entire regions of the planet uninhabitable in the next 50 years. In the United States alone, nearly 40 million people — more than 11% of the total population — are struggling to survive below the poverty line. Wealth inequality disproportionately impacts people of color, with nearly 20% of Black Americans living below the poverty line. Globally, more than 660 million people have insufficient access to clean water and sanitation. In the United States, despite being one of the richest countries in the world, nearly 2 million people live without access to safe drinking water and sanitation. Latino and African American households are twice as likely, and Native Americans are 19 times more likely, than white households to lack indoor plumbing.¹ According to the National Low Income Housing Coalition, no state has an adequate supply of affordable housing for lowest income renters:

¹ “Closing the Water Access Gap in The United States,” Dig Deep, U.S. Water Alliance, accessed September 23, 2022, <https://www.digdeep.org/close-the-water-gap>.

“Only 36 affordable and available rental homes exist for every 100 extremely low-income renter households.”² And transportation is not much better: According to the American Society of Civil Engineers, “45% of Americans have no access to transit,”³ and, as reported by the American Hospital Association, each year more than 3.6 million people forgo medical care due to transportation issues.⁴

As an industry, we are uniquely positioned to take a leadership role in addressing these global challenges, scaling our impact by widening our aperture and viewing the impacts and benefits of our work holistically. Traditionally, the role of the engineering design community in addressing the environmental and social impacts of infrastructure development has been narrow — decisions around what to build, how and where have been generally decentralized, determined on a case-by-case basis by local communities and developers. This disjointed approach has, perhaps unsurprisingly, generated disjointed results. As the cumulative effects of individual decisions materialize, the gap between the needs of our people and communities and the infrastructure being developed continues to widen.

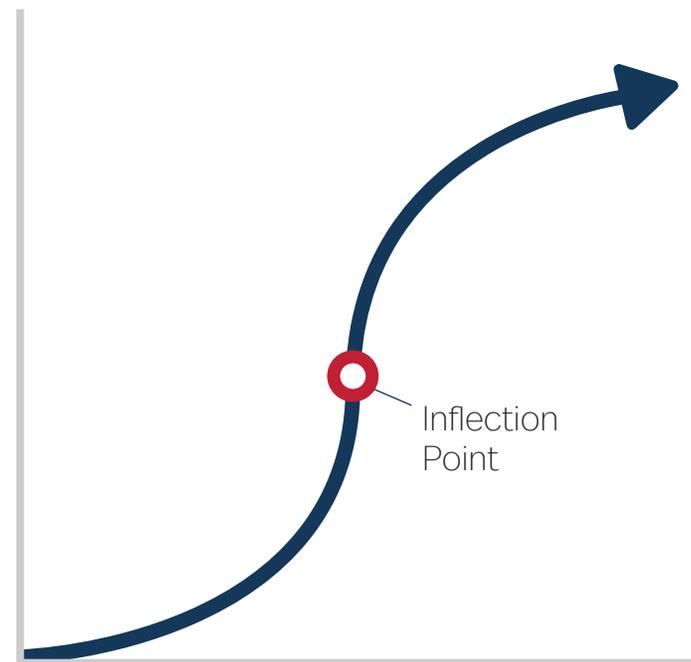
² “The Gap: A Shortage of Affordable Rental Homes,” National Low Income Housing Coalition, April 2022, <https://nlihc.org/gap#:~:text=The%20U.S.%20has%20a%20short-age,extremely%20low%2Dincome%20renter%20households>.

³ “2021 Infrastructure Report Card,” American Society of Civil Engineers, accessed September 23, 2022, <https://infrastructurereportcard.org/cat-item/transit-infrastructure/>.

⁴ “Social Determinants of Health Series; the Role of Transportation in Health Outcomes,” American Hospital Association, November 2017, <https://www.aha.org/aharet-guides/2017-11-15-social-determinants-health-series-transportation-and-role-hospitals>.



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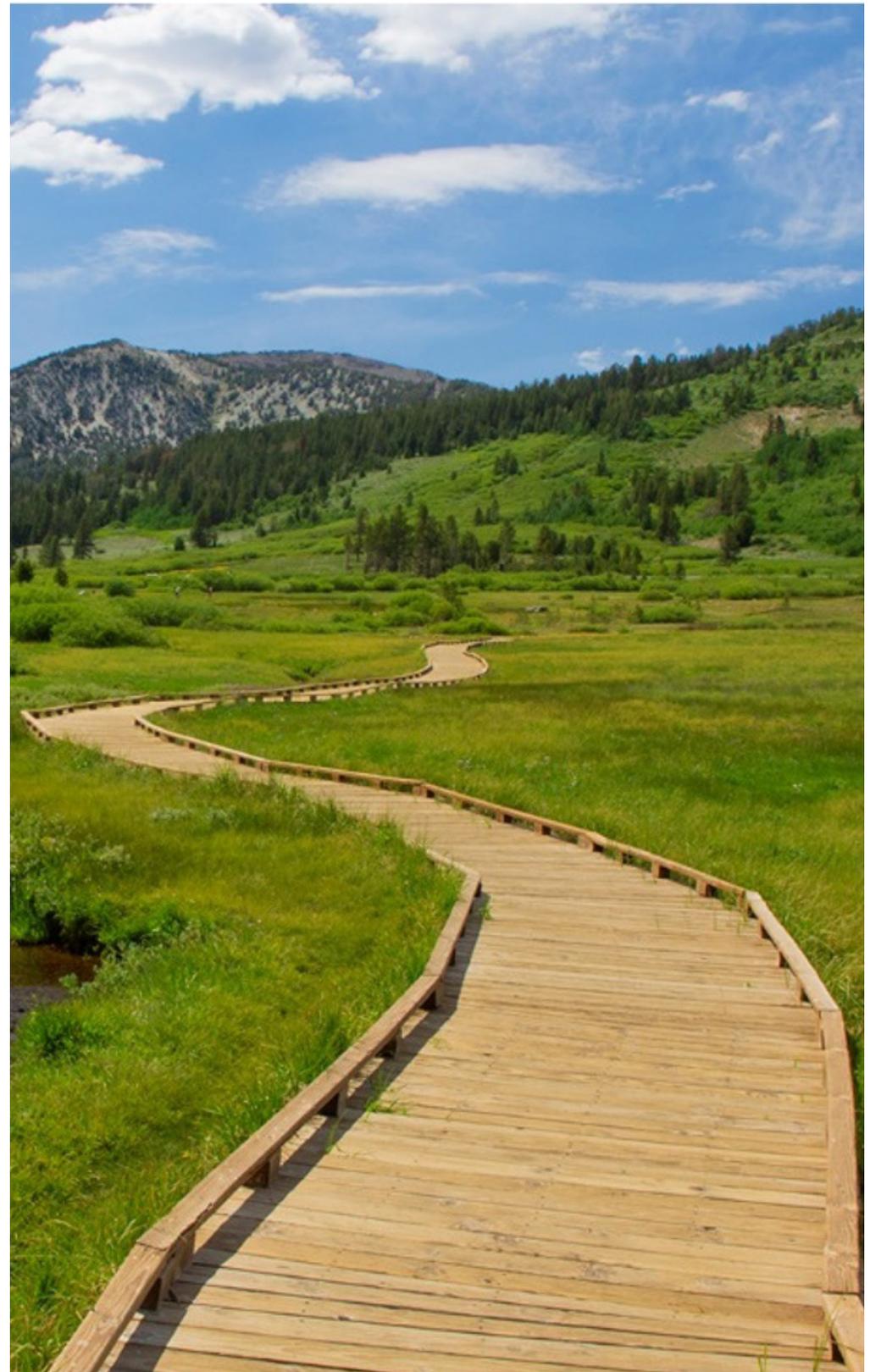
ESG Trends

Broad recognition of the failure of traditional approaches to address social needs is evident in current trends around environmental, social and governance (ESG) principles, which are being promoted by investors and government interests alike. Environment Analyst recently reported that the environmental and sustainability consulting market reached \$41 billion in 2021. That market share is projected to hit \$53 billion by 2025, requiring an additional 75,000 consultants. In a podcast entitled “Why ESG Is Here to Stay,” McKinsey’s Robin Nuttall explains that government interest in ESG is driven by the realization that social problems such as environmental pollution and workplace diversity cannot be solved by government alone — these challenges require support and assistance from the corporate sector.⁵

If ESG is here to stay, what is it and how can the design community take advantage of momentum around this growing trend to scale our impact as we address some of the world’s most pressing challenges?

ESG is simple at its core. As viewed through investor’s eyes, ESG is focused on the environmental, social and governance-related impacts (risks) of an investment portfolio. Although ESG is inherently a risk management approach to investing, it has an important connection to sustainable design. Specifically, ESG investment principles select for and promote more sustainable projects and programs, projects where sustainability is broadly defined as the interconnectivity of environmental stewardship, social responsibility and economic contribution. In this way, momentum around ESG investment translates to momentum around sustainable design.

⁵ Sara Bernow and Robin Nuttall, “Why ESG Is Here to Stay” interview by Sean Brown, McKinsey, May 26, 2020, podcast, <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/why-esg-is-here-to-stay>.





It is our responsibility to take holistic, systems views of traditional projects to prevent adverse impacts and scale our influence. Only with such perspective can we make progress against society's greatest challenges. But we must begin today.

ESG and Sustainability Questions

The intersection of ESG with sustainability is paramount to achieving more impactful results. While ESG principles will ultimately drive investment toward more sustainable outcomes, they cannot achieve the desired result alone. We need an integrated approach. The work of engineering design professionals ultimately shapes the built environment. Any true benefit to

people and communities resulting from ESG investment funnels directly through our work. Only by applying a holistic sustainability lens and fully considering the potential environmental and social impacts of our efforts can we leverage the ESG movement to address the social challenges that plague us. But how can a simple shift in approach result in meaningful change and scaled impact?

Let's consider an example: When prioritizing capital water main replacement projects, we typically consider factors such as pipe age and materials. We could also consider equity issues associated with various parts of the system and prioritize for repair areas that have received less attention in the past. Have we considered whether traffic, transportation and economic impacts associated with construction will be disproportionately felt by underserved communities? Can we minimize community impacts by implementing multiple projects concurrently, rather than sequencing them and extending outages and prolonging impacts? Who is involved in making project-related decisions? Are those impacted part of designing the solution?

Here's another example: When designing vertical infrastructure, are we taking into consideration potential impacts to the existing community? How might the new infrastructure positively or negatively impact the local population? Could an increase in property values result in people being displaced? Will the infrastructure change the face of the local community? Are the aesthetics consistent with the local community values? Are those most likely to be affected being meaningfully engaged in the design and decision-making? As design professionals, do we have the diversity of thought and workforce complexity to truly understand and reflect the values and needs of the local community we serve?

Call to Action: Beyond Business-As-Usual

We have seen the results of a business-as-usual approach. As design professionals, we are actively engaged in shaping the world around us. With each project, we have the opportunity to address the great societal and environmental challenges of our time — or perpetuate them. At this inflection point in history, it is our responsibility to take holistic, systems views of traditional projects to prevent adverse impacts and scale our influence. Only with such perspective can we make progress against society's greatest challenges. But we must begin today. We must begin with ourselves. Because, while the greatest impact opportunity lies in the outward expression of sustainability principles, we must first internalize the workforce complexity, flexibility and diversity of thought and holistic systems-thinking approaches. These mind shifts are necessary to effect real change — as we intentionally, proactively design the new world.

Alyson Watson is chief executive officer of industry-leading water and environmental firm Woodard & Curran. A Stanford University graduate and accomplished triathlete, Alyson has more than 20 years of experience as an executive leader, environmental consultant and project manager focused on water-resources planning and water quality analysis. As CEO, Alyson is responsible for overall firm performance and strategic direction. She joined Woodard & Curran in 2016 following the acquisition of RMC Water and Environment, where she was president and CEO. In addition to serving on Woodard & Curran's Board of Directors since 2018, she is a director and ESOP trustee for Mark Thomas & Co., a California-based transportation engineering firm. Alyson has built her career working on and managing interdisciplinary teams building creative solutions to difficult water and environmental issues. She is passionate about ensuring the availability of abundant, clean water and finding innovative and collaborative avenues to protect, preserve and enhance this most critical natural resource.