

A JUST TRANSITION FOR THE BUILDING SECTOR

TOWARD A RADICAL TRANSFORMATION
OF HOUSING AND THE BUILT ENVIRONMENT

SEPTEMBER 2021

September	3,	2021

To :

The Architecture Lobby (TAL) is a grassroots organization of architectural workers who advocate for just labor practices and an equitable built environment. Founded in the United States and international in membership, we bring experience and expertise from many design fields—architecture, construction, planning, landscape, engineering, academia—to protect the rights and livelihoods of all workers.

We support a federal Green New Deal (GND) as proposed in H.Res. 332 / S.Res. 166 and are committed to the resolution's call for a just transition. In 2019, members of TAL formed a Green New Deal Working Group to focus on organizing for ecological justice as it relates to architectural labor, the built environment, and sustainable futures for all. The proposed GND legislation recognizes a just transition will require structural changes to the built environment. TAL believes that a deeper transformation rooted in liberatory principles is necessary, and that GND legislation must consider infrastructure beyond individual buildings and contend with systemic problems of the building industry itself. We in the design and construction field regularly confront these issues through our work, yet often do not have the tools to challenge existing systems, codes, and hierarchies, since deep change requires collaboration with policy makers.

In this document, **TAL's Green New Deal Working Group expands on current GND housing legislation**, offering our training, experience, and insight into key impediments to change that are unique to the built environment. We respond directly to the **Green New Deal for Public Housing Act** (H.R. 2664 / S. 1218), the **Homes for All Act of 2019** (H.R. 5244), and the **Green New Deal for Cities Act of 2021** (H.R. 2644), through both policy commentary and proposals. We focus on housing because it is an urgent and critical component of any plan for a just transition, and because it intersects directly with our expertise as architectural workers.

We are also demanding a just transition for the entire building sector because, like energy workers, our livelihoods are entangled with the fossil fuel industry. In the concluding section of this document, we describe what a just transition for our industry might look like and outline the role we can play in shaping the necessary legislation. Your support is crucial to achieving this transformation.

Like you, we are motivated by the urgency of climate action and committed to long-term collaboration across policy, practice, and advocacy. Please reach us at **gnd@architecture-lobby.org** to take the next step together toward a just transition.

Sincerely,

The Architecture Lobby

Endorsed by:
TK
TK
TK

C-O-N-T-E-N-T-S

I—EXECUTIVE SUMMARY			
II—POLICY PROPOSALS			
EMISSIONS & METRICS	15		
GROWTH & MODERNIZATION	18		
GOOD DESIGN FOR ALL	22		
PARKS & LANDSCAPES	25		
AGAINST PRIVATIZATION	28		
NEW FORMS OF OWNERSHIP	30		
LAND USE & DENSITY	33		
LABOR & GLOBAL EQUITY	37		
III—POLITICAL DEMANDS	41		
A JUST TRANSITION FOR THE BUILING SECTOR	42		
SHOVEL-WORTHY, NOT SHOVEL-READY	44		
LONG-TERM COLLABORATION	45		



This document offers legislators and policy writers an overview of the critical issues specific to the building industry as it intersects with equity, the environment, and a just transition.

It consists of two sections: first, a set of **policy proposals** in direct response to the Green New Deal Housing legislation that has already been released, and second, a set of overarching **political demands** that we believe are necessary to initiate the deep decarbonization of the built environment. Throughout, we aim to identify challenges that are known to us as architectural workers, but that may be difficult to see from outside of the design and construction professions.

POLICY PROPOSALS

We looked at the **Green New Deal for Public Housing Act** (H.R. 2664 / S. 1218), the **Homes for All Act of 2019** (H.R. 5244), and the **Green New Deal for Cities Act of 2021** (H.R. 2644) with the aim of articulating potential choke points in the legislation that arise from common assumptions about what causes environmental degradation and social inequality in the built environment.

Our recommendations are organized into eight topics that we believe are crucial issues in the built environment, but which have not been properly represented in the GND housing legislation released so far. For each topic, we state our position as an organization and follow with specific proposals for how to address the issues we outline. In the aggregate, our recommendations begin to describe what might be considered a **shovel-worthy** project, changing the metrics by which projects are assessed.

POLITICAL DEMANDS

Like energy workers, our livelihoods are entangled with the fossil fuel industry. This section describes what a just transition for the building sector might look like and outlines the role TAL can play in shaping the necessary legislation.

P-O-L-I-C-Y—P-R-O-P-O-S-A-L-S

EMISSIONS & METRICS

15

POSITIONS

- 1—Energy use in buildings is not the only problem.
- 2—Increasing energy efficiency does not mean that buildings use less energy.
- 3—Existing institutions that create sustainability metrics, such as the U.S. Green Building Council, are compromised by profit motives.

PROPOSALS

- 1—Establish life-cycle assessment metrics that address whole life-cycle carbon and full site, material, and labor landscapes.
- 2—Incorporate embodied carbon and embodied energy into federal grant eligibility criteria.
- 3—Consider the energy use of entire built landscapes, not only individual buildings.
- 4—Broaden tactics for the reduction of energy use.
- 5—Support and create new institutions that are not subservient to existing industry interest groups.

GROWTH & MODERNIZATION

18

POSITIONS

- 1—The construction industry is premised on ecological destruction.
- 2—The real estate economy is premised on social inequality.
- 3—A just transition requires new economies that are not reliant on growth.
- 4—Modernization of public housing alone is not a sufficient strategy for achieving ecological justice.
- 5—Modernization techniques for the built environment are not universally applicable.

- 1—Mandate extended producer responsibility.
- 2—Mandate a just dismantling of industries reliant on single-use, unrecyclable materials as part of a larger shift in the building materials industry.
- 3—Mandate design principles of loose fit—designing buildings to adapt to unknown future uses—and disassembly—designing using demountable connections.
- 4—Support a just transition for the AEC industry.
- 5—Expand GND legislation to include tax reform and increased federal support for cities and municipalities in order to reduce municipalities' dependence on property taxes and private development.

6—Prioritize grant funding for public housing projects that include adaptive reuse of existing buildings.

GOOD DESIGN FOR ALL

22

POSITIONS

- 1—The guidelines that regulate design and design processes must prioritize ecological justice over cost/profit.
- 2—Good design for all requires a redistribution of power from private developers to residents.

PROPOSALS

- 1—Prioritize livability, not cost/profit, as the determining factor for design decisions.
- 2—Establish model design and procurement guidelines for state and local housing authorities, to be set forth by HUD, as an alternative to design excellence programs.
- 3—Link demands regarding performance to specific requirements for housing authority design standards.
- 4—Involve designers and public housing residents in planning and policy development.
- 5—Support residents' right to organize as tenant unions collectively advocating for their own interests.

PARKS & LANDSCAPES

25

POSITIONS

- 1—Landscape and its living infrastructures are fundamental to dignified, climate-responsive public housing.
- 2— Landscape is essential to a just transition centered on housing.

- 1—Prioritize landscape in both retrofit and new construction projects.
- 2—Incorporate multifunctional living infrastructures into all public housing projects.
- 3—Address cascading ecological crises and manage unpredictability by designing public housing landscapes that respond to local climatic conditions and ecologies.
- 4—Co-design with existing communities from a project's conception.
- 5—Consider public housing through the lens of ecological justice before retrofit or new construction begins.
- 6—Incorporate ecological remediation practices into all public housing projects.
- 7—Support municipal- and neighborhood-scale strategies for distributed food, water, energy, waste, and mobility systems.

AGAINST PRIVATIZATION

28

POSITIONS

- 1—The privatization of existing public housing stock is detrimental to residents and communities.
- 2—The processes of profit-driven development are at odds with improving ecological and community health.

PROPOSALS

- 1—Prioritize public ownership and public procurement for grant eligibility.
- 2—Develop new standards for determining project feasibility based on socio-ecological viability rather than profit.
- 3—Shift power from private developers to residents by specifying resident-led community engagement processes in grant requirements.

NEW FORMS OF OWNERSHIP

30

POSITIONS

- 1—Third-sector housing is a viable model that must be considered equally important to public and affordable housing.
- 2—GND housing legislation needs to meet and anticipate the needs of all kinds of households.
- 3—GND housing legislation must avoid the "highest and best use" mindset that drives contemporary urban planning.

PROPOSALS

- 1—Identify specific forms of third-sector housing that can be supported by GND legislation.
- 2—Expand potential pathways to stable tenure as a viable alternative to both home ownership and public housing.
- 3—Establish a robust housing system that can serve many different household structures and varying lengths of tenure.
- 4—Formalize and teach residents about models for communal ownership and community control.
- 5—Reframe alternative ownership models as part of a climate response strategy.

LAND USE & DENSITY

33

POSITIONS

- 1—The climate crisis demands new methods of spatial planning.
- 2—The climate crisis will cause unprecedented levels of displacement.
- 3—Increasing density while suppressing land speculation is a necessary climate response strategy.

- 1—Fund research on sustainable settlement patterns.
- 2—Establish a federally funded agency for housing and land use with

- a just transition mandate.
- 3—Create a federal climate migration plan.
- 4—Help cities and counties build local climate migration plans.
- 5—Create land use policy that preserves and expands carbonsequestering land.
- 6—Mandate climate response strategies that support density while suppressing land speculation.

LABOR & GLOBAL EQUITY

37

POSITIONS

- 1—GND housing legislation must create jobs that reduce overconsumption and halt unsustainable resource extraction.
- 2—GND legislation must address the global nature of construction supply chains.
- 3—A just transition for the construction industry requires legislated transparency and accountability.

- 1—Create a federal jobs plan that directly supports ecological regeneration and accounts for the total carbon footprint of jobs created under GND initiatives.
- 2—Use job training programs to initiate alternative labor structures such as worker cooperatives that transition workers toward economic autonomy and stability.
- 3—Protect the rights of all workers involved in the building and construction sector.
- 4—Protect the environment at all sites of extraction, manufacturing, and construction.
- 5—Require manufacturers to report their social and environmental impacts both domestically and internationally.
- 6—Require manufacturers to report their labor practices both domestically and internationally.

P-O-L-I-T-I-C-A-L-D-E-M-A-N-D-S

1—A JUST TRANSITION FOR THE BUILDING SECTOR 42

Like the energy sector, the building sector operates at the heart of the fossil fuel economy. Our livelihoods are entangled with ecological destruction. **We are in need of a just transition.**

The building sector consists of three major industries. Under the banner of a just transition for the building sector, we outline specific demands that will help to transition away from extractive and exploitative practices, and toward a more just and equitable future.

ARCHITECTURE, ENGINEERING, AND CONSTRUCTION (AEC) INDUSTRY

WE DEMAND

- Federal action to reorient the entire economy of construction so AEC workers can dedicate themselves to addressing the climate crisis rather than producing value for capital—for example, by directly employing AEC workers as part of a federally funded design sector, such as the Civilian Climate Corps.
- Federal action to create centralized responsibility for providing direction, funding, and accountability for the output of the AEC industry.
- Federal action to limit and regulate new construction, preventing projects that are solely in the service of private wealth accumulation.
- Federal action to support the rights of all AEC workers to organize.

BUILDING PRODUCT INDUSTRY

WE DEMAND

- Federal action to shift building regulations and standards from market-oriented models like LEED to models based on new flexible assessment criteria that take into account broader ecosystem relationships and long-term decarbonization strategies.
- Federal action to support the diversification and regionalization of the building product industry, which includes the partial dissolution of existing corporate/industry structures and supply networks, to encourage environmentally responsive construction techniques.
- Federal action to foster transparency and accountability by

requiring manufacturers to report their labor practices and social and environmental impacts, both domestically and internationally.

REAL ESTATE DEVELOPMENT INDUSTRY

WE DEMAND

- Direct federal funding of municipal budgets to eliminate their dependence on the real estate industry.
- Federal action to create new regulations and incentives that reorient and transition the profit-driven real estate economy, including penalizing environmentally or socially destructive development, in favor of ecological preservation, public housing, and non-profit community-owned developments.
- Federal action to support new forms of land stewardship, in order to redistribute wealth and unmake colonial patterns of land use that have all but eliminated our ability to care for land and the environment.
- Federally mandated reparations for the role the real estate industry has played in perpetuating systems of white supremacy.

2—SHOVEL-WORTHY, NOT SHOVEL-READY

44

For a just transition to occur, construction projects cannot be merely shovel-*ready*. They must embody certain values—ecological protection, social equity, and the common good—that make them shovel-*worthy*. **These values should be used in eligibility criteria for GND funding.**

SHOVEL-WORTHY PROJECTS PRIORITIZE

- Just labor practices, not exploitation;
- Social and ecological justice, not profit;
- Community co-design, not "community engagement";
- Whole life-cycle carbon accounting, not embodied or operational carbon;
- Adaptive reuse, not new construction;
- Passive and regional design, not universally applied technology;
- Loose-fit design, not single-use design;
- Regenerative design, not efficient design;
- Integrated neighborhood-scale strategies, not single-building solutions;
- Community ownership, not private ownership;
- Public, community-led procurement, not developer-led procurement;

- Density of use, not developer-driven density of single-use buildings;
- Collaboration between stakeholders, not value-creation for shareholders;
- Rigor, not political expediency.

3—LONG-TERM COLLABORATION

45

The Architecture Lobby is an international grassroots organization of architectural workers motivated by social justice and the urgency of the climate crisis. Our members comprise a spectrum of workers across our industry, from practice to education and research. We do not represent the interests of any single market, industry, or mode of building. We are ready for long-term collaboration with policy makers and want a seat at the table as the GND initiative continues to develop.

WE CAN

- Provide input on how a just transition can be achieved for our sector:
- Provide input on shovel-worthy criteria to ensure that federal funding for design and construction will be dispersed equitably and effectively;
- Provide a power map of our industry and an understanding of the critical dynamics of project planning, procurement, design, and construction;
- Provide insight into which aspects of the built environment are most important for deep decarbonization;
- Help build alliances across the AEC industry in support of the Green New Deal's call for a just transition.

WE STAND WITH YOU IN SUPPORTING THE RIGHTS AND LIVELIHOODS OF ALL WORKERS

WE STAND WITH YOU
IN THE STRUGGLE FOR ECOLOGICAL JUSTICE

WE STAND WITH YOU
IN THE FIGHT FOR A JUST TRANSITION



E-M-I-S-S-I-O-N-S-&-M-E-T-R-I-C-S

Decarbonization of the built environment requires new metrics for energy use and new institutions that expand goals beyond increasing energy efficiency, which remains the primary focus of current legislation. Metrics centered on energy efficiency fail to address how the spatial configuration of entire built landscapes shapes energy demand. To make these linkages adequately, Green New Deal legislation must evaluate energy on new terms.

1—Energy use in buildings is not the only problem.

ISSUES

Current policy language centers on decreasing operational emissions¹ by improving energy efficiency. It does not address the embodied carbon costs² or environmental impacts of manufacturing building materials and renewable energy sources. Even with 100% operational energy efficiency, if embodied carbon is not addressed, buildings will continue to produce adverse environmental effects.

PROPOSALS Establish life-cycle assessment metrics that address whole life-cycle carbon and full site, material, and labor landscapes.4

- Account for regional differences in climate and ecosystems in assessment metrics.
- Include criteria relating to construction/deconstruction waste and material salvaging.
- Existing supply chains place the burden of providing the U.S. with clean energy on the sites of mineral extraction in the Global South. Account for the ecological justice⁵ issues related to electrification and renewable energy infrastructure at scale.
- 1 Operational emissions are the sum of greenhouse gas emissions generated by the operation of building systems (e.g., heating, cooling, lighting) and local energy costs associated with users (e.g., charging personal electronics, operating small appliances).
- 2 Embodied carbon is the carbon costs of material production and transportation. Embodied carbon will account for almost half of new construction emissions between now and 2050: see https://architecture2030.org/new-buildings-embodied/.
- 3 The carbon costs and ecological impacts of construction materials must be accounted for. For example, fly ash—a byproduct of coalburning electric power plants—is recognized as a sustainable alternative to portland cement in concrete due to its low embodied energy. However, it is also highly toxic, and its use and storage pose a significant ecological threat. See https://www.nationalgeographic.com/environment/article/coal-other-dark-side-toxic-ash.
- 4 A number of architects and researchers are already working on this issue. See Kiel Moe, *Empire, State, and Building* (New York: Actar, 2017); Stephanie Carlisle, "Getting Beyond Energy: Environmental Impacts, Building Materials, and Climate Change," in *Embodied Energy and Design: Making Architecture Between Metrics and Narratives*, ed. David Benjamin (New York: Columbia University GSAPP and Lars Müller Publishers, 2017); Jane Hutton, *Reciprocal Landscapes: Stories of Material Movements* (New York: Routledge, 2020). In addition, scholars in the fields of environmental management who specialize in life-cycle analysis and industrial ecology can lend their expertise in this area.
- 5 Ecological justice accounts for the social and environmental issues facing both human and non-human life.

Incorporate embodied carbon and embodied energy into federal grant eligibility criteria.

 Support projects that reuse or retrofit existing structures over new construction projects and include the adoption of policies by eligible entities that target embodied carbon, like those proposed in the City Policy Framework for Dramatically Reducing Embodied Carbon.⁶

Consider the energy use of entire built landscapes, not only individual buildings.

See "Land Use & Density," 33.

2—Increasing energy efficiency does not mean that buildings use less energy.

ISSUES

The way energy efficiency is measured is not neutral. Efficiency standards often only take mechanical systems into account and do not allow comparison to passive⁷ ways of achieving comfort and utility. Furthermore, the standard measure of energy efficiency for climate control systems is per unit of volume. As buildings become larger—in terms of square feet per capita and per function—energy consumption will rise regardless of mechanical efficiency,⁸ and pursuing energy efficiency may actually increase the rate of consumption due to increasing demand.⁹ Due to the regional diversity of the U.S., there will be no one-size-fits-all solution.

PROPOSALS Broaden tactics for the reduction of energy use.

- Advocate for passive strategies and regionally informed practices in building and urban planning.
- Consider widespread urban organization as a determining factor in overall energy use.
- Use energy intensity metrics¹⁰ to make decisions about energy reduction in HVAC design. This will require a new definition
- 6 See https://www.embodiedcarbonpolicies.com.
- 7 Passive design strategies—including shading and orientation—respond to local climate conditions to maintain comfortable temperatures within a building without the use of purchased energy.
- 8 See Michelle Addington, "Sustainability Reset" (lecture, The Architectural League, New York, New York, February 18, 2020), https://www.youtube.com/watch?v=olmywom9LXc.
- 9 This increase in demand is known as the Jevons paradox. See Fionn Stevenson and Adrian Leaman, "Evaluating Housing Performance in Relation to Human Behaviour: New Challenges," *Building Research and Information* 38, no. 5 (2010): 439, https://doi.org/10.1080/09613218.2 010.497282.
- 10 Input/output analysis, the dominant tool for policy and energy assessment, focuses on cost intensity (\$/ft2). A metric based on energy intensity would measure energy use per unit of time or area (btu/ft2; kw•hr/ft2; CO2/ft2).

of human comfort and increasing users' control over interior environments.¹¹

3—Existing institutions that create sustainability metrics, such as the U.S. Green Building Council, are compromised by profit motives.

ISSUES

Many sustainability certification programs are profit-oriented, making their metrics susceptible to lobbying by interest groups. Metrics compromised by special interests greatly reduce the likelihood of reaching aggressive energy targets and transforming the built environment.

PROPOSALS Support and create new institutions that are not subservient to existing industry interest groups.

- Establish alternative institutions that lay out new standards for measuring sustainability in building performance and construction. This includes defunding existing private, product-oriented institutions.
- Focus federal policy on building performance rather than products to avoid guaranteeing manufacturers a revenue stream for existing and imperfect solutions.

11 See Daniel A. Barber, Modern Architecture and Climate: Design before Air Conditioning (Princeton, NJ: Princeton University Press, 2020).

G-R-O-W-T-H—&—M-O-D-E-R-N-I-Z-A-T-I-O-N

Economic growth and modernization are not politically, culturally, or ecologically neutral, and should not be assumed to be universal objectives. Both have a complex relationship to emissions reduction and just transition. Although renovations and building upgrades are unquestionably important, excess focus on modernization through applied technology and technological optimism can occlude deeper problems and deflect attention from the drastic changes to our economy, built environment, and ways of life that are necessary to mitigate climate catastrophe. Therefore, state-of-the-art buildings should not be the exclusive goal of a GND housing initiative; instead, a more holistic view of the relationship between energy, ecology, and the built environment is needed.

1—The construction industry is premised on ecological destruction.

ISSUES

The economy of construction and development thrives on successive cycles of investment and disinvestment. These booms and busts are socially and ecologically devastating, leading to depleted soils, sprawl, unabating extraction, displaced populations, habitat loss, reduced biodiversity, and material depletion.

Growth requires the continued extraction and consumption of material resources.¹ (See "Emissions & Metrics," 15, and "Labor & Global Equity," 37.)

PROPOSALS Mandate extended producer responsibility.²

 Hold manufacturers responsible for the entire life cycle of a product via reuse, repair, buy-backs, recycling, and final disposal.

Mandate a just dismantling of industries reliant on singleuse, unrecyclable materials as part of a larger shift in the building materials industry.

¹ Economists have labeled this phenomenon the rebound effect, by which lowering costs or increasing efficiency in the provision of a good or service results in higher overall consumption. For example, while refrigerators have become more efficient at achieving "energy savings," U.S. households have increased the size, number of features, and number of refrigerators per capita, generating an estimated 75% increase in overall energy consumption since refrigerators first achieved saturation. See Reuben Deumling, "Thinking Outside the Refrigerator: Shutting Down Power Plants with NAECA?" (paper, American Council for an Energy-Efficient Economy Summer Study on Energy Efficiency in Buildings, Washington, D.C., 2004), 11-13–11-24.

² For an example of such guidelines, see the Organisation for Economic Co-operation and Development's report *Extended Producer Responsibility: Updated Guidance for Efficient Waste Management*, (Paris: OECD Publishing, 2016), https://doi.org/10.1787/9789264256385-ep.

Mandate design principles of loose fit—designing buildings to adapt to unknown future uses—and disassembly—designing using demountable connections.

Support a just transition for the AEC industry.

See "Political Demands," 42.

2—The real estate economy is premised on social inequality.

ISSUES

Wealth inequality is a structural condition of the real estate market.³ As such, real estate interests present a significant obstacle to social change. The production of wealth through real estate creates gentrification and sprawl, displacing low-income communities and sacrificing healthy ecological relationships to market interests.

PROPOSALS

Expand GND legislation to include tax reform and increased federal support for cities and municipalities in order to reduce municipalities' dependence on property taxes and private development.

3—A just transition requires new economies that are not reliant on growth.

ISSUES

Efforts to focus growth of the U.S. economy within certain sectors that prioritize public good as opposed to private gain (fossil fuels, suburban sprawl, private transit, etc.) are necessary. However, they are not in the interest of the private real estate market. A just transition to a steady-state economy will require reinventing the economies of the construction and real estate industries.

PROPOSALS Prioritize grant funding for public housing projects that include adaptive reuse of existing building.

Require eligible entities to conduct analysis of the local built
environment prior to the development of new public housing in
order to assess the possibility of adaptive reuse—for example,
converting commercial property to housing—and of deploying local,

³ Reinhold Martin, "Real Estate Agency," in *The Art of Inequality: Architecture, Housing, and Real Estate, A Provisional Report*, ed. Reinhold Martin, Jacob Moore, and Susanne Eschindler (New York: The Temple Hoyne Buell Center for the Study of American Architecture, 2015), 92–97.

salvaged, and/or recycled materials.4

Fund research into urban settlement patterns.

 Research both their spatial configurations and their local economies in order to decouple social and ecological well-being from rampant energy consumption, capital accumulation, and corporate real estate.

4—Modernization of public housing alone is not a sufficient strategy for achieving ecological justice.⁵

ISSUES

Technological optimism can delay systemic change and divert attention from the near-term regulation of fossil fuels and demand-side energy use. The renovation and expansion of public housing is urgent and critical work, but as long as that work is framed within the lens of upgrades and technical improvements, solutions will remain discrete, perpetuate current extractive practices, and fail to address issues of ecological justice.

PROPOSALS Engage larger social and ecological systems beyond the renovation of individual buildings.

 Support strategies that close loops and reduce or localize consumption. Investment in public housing should be responsive to regional context and look for opportunities to foster ecosystem and resident health, longevity, and equity.

5—Modernization techniques for the built environment are not universally applicable.

ISSUES

The widespread application of mechanical strategies assumes "universal" standards of comfort regardless of context and erases local knowledge about materials, methods of construction, ecologies, and climate. Furthermore, a discourse that measures standards of living solely through modernization has encroached on and destroyed Indigenous and traditional cultures around the world, leading to a homogenized built environment.

An industry- and engineering-driven paradigm for "modernization" of the

⁴ One model for this is the European Commission's "Guidelines for waste audits before demolition and renovation works of buildings," published May 2018, https://ec.europa.eu/docsroom/documents/31521.

⁵ Ecological justice accounts for the social and environmental issues facing both human and non-human life.

built environment often supports mechanically dependent, hermetically sealed interiors that eliminate passive⁶ features such as operable windows and cross-ventilation.⁷ Comparatively, mechanically defined performance will have higher operational costs regardless of improvements in "efficiency."

PROPOSALS

Incentivize and support passive design strategies that are climatically and culturally specific to local conditions, rather than relying on universalized industry standards.

Reform building codes to acknowledge local and Indigenous knowledge about materials, methods of construction, ecologies, and climates.

⁶ Passive design strategies—including shading and orientation—respond to local climate conditions to maintain comfortable temperatures within a building without the use of purchased energy.

⁷ In the postwar period, the turn to exclusively mechanically driven air-control systems followed from the proliferation of inexpensive fossil fuels. Working solely within a technical design paradigm excluded from architectural design, these conventions, while highly inefficient, have become the predominant industry standard as promoted by industry organizations such as the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).

G-O-O-D-D-E-S-I-G-N-F-O-R-A-L-L

The GND housing legislation defines "good architectural design" through livability and sustainability, but the terms of good design must also include ecological justice, just labor practices, inclusionary design processes, and the redistribution of power. These values must be reflected in federal and local guidelines that regulate design. If left unqualified, "good architectural design" can be used solely for the benefit of developers and private investors rather than residents.

1—The guidelines that regulate design and design processes must prioritize ecological justice¹ over cost/profit.

ISSUES

The Green New Deal for Public Housing Act calls for "good architectural design" that meets the "highest international architectural standards." Yet, there is no consensus on what this means. "Good architectural design" can easily be weaponized to serve the interests of developers and private investors to the detriment of residents, greenwashing gentrification. This is at odds with the notion of good design *for all*.

In their current form, design excellence programs³ often include preselection requirements for the procurement of design services that effectively exclude small, non-corporate design practices while privileging international recognition and corporate scale. They also set out conditions for assessment and engagement that prioritize private investors over ecological health.

PROPOSALS Prioritize livability, not cost/profit, as the determining factor for design decisions.4

- Program public housing to address community needs, including services, the needs of all family sizes, physical abilities, art, day care, gardens, and collective security.
- 1 Ecological justice accounts for the social and environmental issues facing both human and non-human life.
- 2 The Green New Deal for Public Housing Act, H.R. 2664 / S. 1218, 117th Cong., Section 4 (2021).
- 3 Design is currently regulated at the state and local levels through design excellence programs. These programs set out guidelines for procurement, design assessment, and community engagement that perpetuate existing models of procurement and development. Examples include the U. S. General Services Administration's Design Excellence Program and the New York City Department of Design and Construction's Project Excellence Program.
- 4 Precedents may be drawn from public housing projects worldwide, which represent some of the finest examples of residential building despite being executed on modest budgets and irrespective of tenants' wealth. Examples include Karl Marx-Hof in Vienna (1927–30); the renovation of Cité du Grand Parc in Bordeaux, France (2019); and Via Verde in the Bronx, New York (2012).

Establish model design and procurement guidelines for state and local housing authorities, to be set forth by HUD, as an alternative to design excellence programs.

- Incorporate sustained resident engagement and decision-making power from the start of a project.
- Expand the public sector by encouraging direct hiring of designers by public housing authorities to carry out design work.
- Protect workers' rights in the private sector by establishing selection/procurement processes prioritizing unionized or cooperatively owned design and construction firms.
- Encourage financial structures that prioritize the economic wellbeing of residents and communities, rather than developers.
- Call for creative design that prioritizes ecological justice over profit.
- Maintain flexibility for the selection of materials and construction methods that are healthy, low carbon, easily maintained, and desirable to residents.
- Require post-occupancy evaluations that continue to engage with residents and communities in defining the long-term success of a project.

Link demands regarding performance to specific requirements for housing authority design standards.

- Integrate programs addressing human health, well-being, and equity, such as Fitwel,⁵ into housing authority standards.⁶
- Mandate nationwide adoption of the Zero Code⁷ or other model codes to ensure carbon neutrality. Alternatively, standards that go beyond current energy codes in regulating carbon emissions, like those provided by Passive House Institute US (PHIUS), could be integrated into housing authority standards.

2—Good design for all requires a redistribution of power from private developers to residents.

ISSUES Horizontal decision-making in the built environment and current models

- 5 Fitwel, a rating and certification system developed by the Centers for Disease Control and Prevention and the General Services Administration, assesses the deployment of design elements and building operation practices proven to increase occupant health and well-being.
- 6 An example of how this can be implemented is New York City Housing Authority's (NYCHA) Design Guidelines, which stipulate that all city-financed affordable housing projects are required to conform to the Enterprise Green Communities Criteria. These criteria include points for resident health and well-being and community wealth creation.
- 7 Environmental health and carbon emissions are dictated by state and local energy codes, typically based on the IECC model code. The American Institute of Architects has officially endorsed the Zero Code, which sets forth requirements to achieve net zero carbon buildings. It is currently an optional appendix to the 2021 IECC and must be adopted by individual jurisdictions.

of profit-motivated development are mutually exclusive. Unless the processes of design and construction are restructured to prioritize the interests of residents and local communities, "good architectural design" will remain a lever for gentrification and increasing private profit.

Public housing is often associated with a specific urban typology⁸ that physically separates buildings from the surrounding neighborhood, isolating residents.

Community engagement does not always serve communities and can be co-opted to serve a legitimizing function for developers and monied interests. In its current form, it is often scheduled only after major decisions have already been made. The misalignment of timing and power can limit the impact of input from residents and community members, leaving existing power dynamics intact.

PROPOSALS Involve designers and public housing residents in planning and policy development.

- Include design professionals and public housing residents in decisions surrounding the planning, funding, and ownership of building projects, which can be the greatest determinants of design outcomes.
- Provide opportunities to rethink the integration of public housing into its context and give residents a stake in their communities.

Support residents' right to organize as tenant unions collectively advocating for their own interests.

⁸ This typology, the tower in the park, was originally developed by Le Corbusier in Europe and applied without revision to many parts of the world, as it was considered the "highest international architectural standard" of the time.

P-A-R-K-S—&—L-A-N-D-S-C-A-P-E-S

The landscapes around public housing are highly valued by inhabitants and are essential to GND housing and just transition goals. These shared parks and plazas provide spaces necessary for human life to flourish—areas for play, food stability, leisure, and social connections. When carefully designed, they can also contribute to healing damaged ecosystems and directly mitigate local effects of climate change, including fire, flooding, and extreme heat. Paired with overarching liberatory principles, landscape design must be included in Green New Deal housing legislation to actualize the full potential of these built and natural environments.

1—Landscape and its living infrastructures¹ are fundamental to dignified, climate-responsive public housing.

ISSUES

Current GND legislation fails to address the existence of the landscape architecture that will have to be conceptualized, designed, retrofitted or constructed, and managed throughout public housing. If such policy neglects to propose ecological and socially equitable measures, future public housing projects will perpetuate the harmful status quo of landscape as extraneous, instead of essential, to reaching GND goals.

Current GND legislation risks prioritizing marketable technological inventions in lieu of landscape-based solutions. Overreliance on technology without prioritizing living systems will cause the GND to fail.

PROPOSALS Prioritize landscape in both retrofit and new construction projects.

Incorporate multifunctional living infrastructures into all public housing projects.

- Supplant single-use infrastructures (e.g., concrete storm channels)
 with robustly multi-functional ones (e.g., floodable ball fields),
 weaving together structural and programming functionalities of
 water, food, energy, transit, and public health and safety in outdoor
 public housing spaces.
- Create climate-resilient landscapes for public housing; harbor and support indigenous flora, fauna, migratory species, and pollinators; conserve and replenish fresh water; protect and restore soils;

¹ Hybridized and living infrastructures, like bioswales and strategically planted food trees, provide innumerable ecosystem services and co-benefits like biofiltration, flood mitigation, greenspace creation, air quality improvement, cooling shade in summer and access to sunlight in winter, and improved well-being.

generate food; provide for the basic human needs of play and social connection; and employ strategies to manage impacts to climate, hydrologic cycles, and nutrient flows.

Address cascading ecological crises and manage unpredictability by designing public housing landscapes that respond to local climatic conditions and ecologies.

 Deploy techniques such as bioswales, stormwater retention systems, firewise planting, and pollinator pathways strategically in response to local conditions.

Co-design with existing communities from a project's conception.

- Supplant prescriptive, designer-as-expert development paradigms, which serve to perpetuate inequity, with community co-design processes, which distribute power between designer and community. Residents and community members of retrofit projects must be consulted early and often to ensure new landscape features and amenities are just, inclusive, and address their needs.
- Give human and non-human communities a stake in landscaping and programming their communities.
- Incorporate landscape literacy and education into the co-design process so that the community is empowered to make informed, multi-beneficial design decisions.
- Adequately support and resource adaptive maintenance programming (e.g., networks of cooperation and responsibility for resources, systems, and infrastructures).

2—Landscape is essential to a just transition centered on housing.

ISSUES

Local parks and landscapes are sites of great importance to residents and to achieving GND goals, yet these landscapes have historically been disinvested, perpetuating systemic injustices.

PROPOSALS Consider public housing through the lens of ecological justice² before retrofit or new construction begins.

 When retrofitting existing housing, prioritize reparative ecological justice measures and landscape-based climate adaptation and mitigation strategies.

² Ecological justice accounts for the social and environmental issues facing both human and non-human life.

- Project siting is often limited to marginalized land with little consideration to health implications and food access for future residents. Place new public housing within environmentally safe, socially reparative, and ecologically restorative site contexts.
- Go beyond discrete "sites" in site analysis and analyze regional context (e.g., habitat corridors) in order to retrofit existing or situate new public housing in terms of maximizing climate resiliency for both human and non-human communities, specifically migratory birds and pollinators.
- Consider the reinstatement of treaty rights and rematriation of native lands on which public housing is retrofitted or developed.³

Incorporate regenerative ecological remediation practices into all public housing projects.

- For existing retrofit projects, use landscape-based ecological remediation to address soil toxicity, pollution, and damaged ecosystems, creating healthy and regenerative landscapes.
- For new construction projects, mitigate harm caused through construction (e.g., zero carbon, safe labor practices with a living wage, ecosystem displacement) while creating healthier greenspaces for residents.

Support municipal- and neighborhood-scale strategies for distributed food, water, energy, waste, and mobility systems.

 Build systemic resilience into the landscape by strengthening and democratizing ownership of distributed infrastructures, such as localized power generation, water collection and reuse, and food production.

³ For a more detailed examination, see The Red Nation, *The Red Deal: Indigenous Action to Save Our Earth*, report (2019), http://www.therednation.org/wp-content/uploads/2020/04/Red-Deal_Part-I_End-The-Occupation-1.pdf.

A-G-A-I-N-S-T—P-R-I-V-A-T-I-Z-A-T-I-O-N

Private interests are incapable of addressing the dual crises of housing and ecological justice. GND legislation must stop ongoing privatization, ensuring the redistribution of power to public housing residents. Privatization transfers responsibility for the provision of essential services, like housing, to profit-oriented businesses. This transfer of power from the public to developer-landlords allows "housing for all" to be co-opted so that public, tax-exempt financing can be used for a return on private investment, commodifying basic needs.

1—The privatization of existing public housing stock is detrimental to residents and communities.

ISSUES

Public housing is already being dismantled through public-private partnerships, and its ongoing privatization is a direct risk to executing the social and environmental goals of the Green New Deal.¹

The grants outlined in the Green New Deal for Public Housing Act are for housing authorities, but do not specify whether they can be privatized. Within public-private relationships, local governments often protect private partners' rights to make a profit; land value is then prioritized above social and ecological issues, creating a conflict of interest.²

Across many sectors—including housing, health care, education, and transportation—privatization has a history of costing more while delivering poorer services with less public oversight.

PROPOSALS Prioritize public ownership and public procurement for grant eligibility.

¹ The national public housing stock has diminished from approximately 1.4 million units in 1994 to just over a million units today, with cities like Chicago losing two-thirds of their public housing. Since its introduction in 2012, the federal Rental Assistance Demonstration (RAD) housing program has moved a significant portion of remaining public housing units to private management in cities such as Baltimore, San Francisco, and Minneapolis. The New York City Housing Authority (NYCHA) is putting 62,000 units out of 174,000 under RAD private management, and with the introduction of their 2020 plan A Blueprint for Change have proposed creating a new Public Housing Trust to switch at least 25,000 of the remaining units from Section 9 (traditional public housing) to Section 8 (a voucher program). This shift transfers the funding of housing maintenance to private financiers through the sale of bonds, allowing NYCHA to effectively take out loans to finance construction. However, if the trust were to default on those bonds, the bondholder can renegotiate its terms, opening the door for eliminating tenant protections and even privatization. Both the RAD program and the Blueprint are using the desperate need for renovations to move public housing to the control of the private sector, a trend which needs to be reversed.

² The Community Control and Anti-Displacement Fund in the Homes for All Act of 2019 (H.R. 5244, 116th Cong., Section 5 [2019]) begins to address this, but the link between gentrification and increased land value is not clearly defined.

2—The processes of profit-driven development are at odds with improving ecological and community health.

ISSUES

Existing mechanisms meant to protect public interests, such as environmental reviews, generally happen after major decisions have been made. As a result, they often do not assess the ecological feasibility of a project from the onset, suggest mitigating strategies instead of preventive ones, and ignore community well-being and larger ecological impacts.

The existing distribution of power in the built environment disenfranchises residents in favor of developers.

PROPOSALS Develop new standards for determining project feasibility based on socio-ecological viability rather than profit.

- Determine social and ecological viability before major decisions around siting, program, financing, and design have been made.
- Include direct engagement with the communities that will be impacted.
- Deploy new standards to reshape development patterns, including how disaster-prone landscapes such as flood zones and fireprone areas are inhabited, and anticipate the long-term impacts of gentrification.

Shift power from private developers to residents by specifying resident-led community engagement processes in grant requirements.

- Require eligible entities to empower frontline communities and create robust avenues for self-determination. Feedback, perspectives, and dissent should be acknowledged and recorded.
- Outline systems of accountability to ensure that community feedback is respected and incorporated into funded project proposals.

N-E-W—F-O-R-M-S—O-F—O-W-N-E-R-S-H-I-P

To provide equitable access to housing, GND housing legislation must support third-sector and public housing, anticipate the needs of all kinds of households, and resist the commodification of housing. The Homes for All Act of 2019 concludes with the establishment of a Community Control and Anti-Displacement Fund, marking the value of alternative forms of homeownership as means to combat gentrification and neighborhood destabilization. This shortest section of the bill has the greatest potential to champion public and third-sector housing as means for achieving housing equity and access as human rights.

1—Third-sector housing¹ is a viable model that must be considered equally important to public and affordable housing.²

ISSUES

Alternative housing is not well-defined, and so does not yet provide a clear substitute for the financialized production of housing. Without identifying and supporting alternative ownership models and communal financing mechanisms in both public and private housing, third-sector housing will continue to be marginalized.

PROPOSALS Identify specific forms of third-sector housing that can be supported by GND legislation.

• Include models such as limited equity cooperatives, resident-owned communities, community land trusts, and land banks.

Expand potential pathways to stable tenure as a viable alternative to both home ownership and public housing.

- Provide clear avenues to stable tenure in all future funding, regulation, and outreach related to housing.
- Fund third-sector housing, such as community land trusts, housing cooperatives, and community investment models.
- Study the potential of third-sector housing to serve as a model for social housing.

¹ Third-sector housing is built and maintained by organizations that do not qualify as either public state-run or private for-profit. These models provide "... a nonmarket alternative to the for-profit rentals and market-priced homeownership of the private sector; a private alternative to the publicly owned projects of metropolitan housing authorities or the military." See John Emmeus Davis, introduction to *The Affordable City: Toward a Third Sector Housing Policy* (Philadelphia, PA: Temple University Press, 1994), 4.

² Alternative ownership models are conspicuously absent from the Green New Deal for Public Housing Act; they are mentioned in the Homes for All Act of 2019 (H.R. 5244, 116th Cong., Section 5 [2019]), but not clearly defined.

2—GND housing legislation needs to meet and anticipate the needs of all kinds of households.

ISSUES

Existing public housing eligibility requirements prescribe specific social relationships that exclude those who do not live within nuclear families. In the context of climate migration, families will be increasingly separated. Alternative networks of social support will be necessary.

PROPOSALS **Establish a robust housing system that can serve many** different household structures and varying lengths of tenure.

3—GND housing legislation must avoid the "highest and best use" mindset that drives contemporary urban planning.

ISSUES

"Highest and best use" is an appraisal process used to determine the viability of development projects according to the highest possible property values, ignoring social and ecological factors. The phrase "strengthens entire neighborhoods" appears in GND housing legislation without qualification. As a result, it could be readily interpreted as economic development, i.e., "highest and best use." Economic development is not synonymous with community development. On the contrary, under the current real estate paradigm, it often serves as a lever for gentrification.

PROPOSALS Formalize and teach residents about models for communal ownership and community control.

- Provide funding for the implementation of community ownership strategies, such as land acquisition for community land trusts or technical assistance grants.
- Establish free public programs to teach communities about community control strategies.⁴
- Prioritize frontline, vulnerable, and deindustrialized communities where the potential for gentrification may be highest.

³ See the Green New Deal for Public Housing Act, H.R. 2664 / S. 1218, 117th Cong., Section 5 (2021).

⁴ For further descriptions of specific community control models, see Jarrid Green and Thomas M. Hanna, *Community Control of Land and Housing: Exploring Strategies for Combating Displacement, Expanding Ownership, and Building Community Wealth* (The Democracy Collaborative, 2018), 17, https://democracycollaborative.org/sites/default/files/downloads/CommunityControlLandHousing.pdf.

Reframe alternative ownership models as part of a climate response strategy.
 Build resilience in the face of climate migration through decommodified housing. Support new forms of mitigation and adaptation strategies⁵ that are
grounded in community governance and cooperation.

5 Mitigation strategies reduce emissions in order to stabilize the changing climate. Adaptation strategies change the built environment in response to a changing climate.

L-A-N-D-U-S-E-&-D-E-N-S-I-T-Y

Green New Deal legislation should support a just transition by establishing new methods of urban and regional planning, directly addressing climate migration, increasing density, and suppressing land speculation. While current GND housing legislation focuses primarily on buildings, future legislation should instate broad changes in land use such as increased density, mixed-use zoning, localized agricultural production, and the coordination of regional and national strategies that prioritize ecosystems over status quo development, and the coordination of regional and national strategies that prioritize ecosystems over status quo development. New construction must consider its urban and regional contexts, taking into account proximities between housing, workplaces, schools, parks, and agriculture. A national housing strategy should anticipate future migration caused by climate breakdown, address emerging patterns of flood and fire, and provide for unprecedented numbers of displaced people.

1—The climate crisis demands new methods of spatial planning.

ISSUES

Existing land use patterns in the United States are broadly low-density and energy intensive, including suburbs and current systems of transit and agriculture. Strategies such as transit-oriented development, infill, and reuse can reduce the energy consumption of the built environment; however, meeting carbon reduction targets requires broad, systemic application.

Zoning—a tool originally designed to protect land value—is limited in its capacity to address ecological issues. Furthermore, zoning is subject to exceptions and rewriting by monied interests, weakening its capacity to protect and regulate non-economic resources.

GND housing legislation focuses on building and renovation projects while prioritizing direct grants to individual projects. However, this will default to shovel-ready projects that operate within existing parameters of planning and development and do not have the capacity to holistically address the crisis. Without comprehensively addressing land use, there are no adequate parameters for defining a shovel-worthy project.

PROPOSALS Fund research on sustainable settlement patterns.1

 Support research and development for the built environment to integrate urban and ecological planning. Currently the means and methods for equitably decarbonizing our built environment and

¹ Research of this type is funded in the sciences through the system of national laboratories.

expanding carbon-sequestering land do not exist. This research should:

- Propose new adjacencies between residential, commercial, educational industrial, and agricultural zones while developing equitable pathways to structural change.
- Develop new planning techniques and methodologies that can replace or supersede zoning.
- Establish time-tested methodologies for community-led development.
- Address the major issues facing the built environment, such as automobile obsolescence or the integration of urban occupation and agricultural production.
- Posit new methods of urban and regional planning that support and connect multiple projects across scales.

Establish a federally funded agency for housing and land use with a just transition mandate.

- Use federal power to supersede political boundaries that are too limited to address climate change. The agency should:
 - Fund and disseminate research on sustainable settlement patterns.
 - Develop climate migration plans.
 - Collaborate with the U.S. Forestry Service, Bureau of Land Management, and the Department of Housing and Urban Development to facilitate the creation and care of regenerative landscapes.
 - Create new criteria that assess whether proposed changes to the built environment, such as increased density, support a just transition. This requires integrating ecological and spatial planning with both short- and long-term needs of local communities.
 - Create new structures to engage with frontline communities.
 - Find pathways to execute and deploy the agency's research findings and development plans.
 - Assist in a just transition for the AEC industry.

2—The climate crisis will cause unprecedented levels of displacement.

ISSUES

Local governments do not have the tools to respond to new levels of both voluntary mobility and forced migration that the climate crisis will bring. The movement of people during and after crises will be unpredictable, making it impossible for individual towns and cities to prepare for regional

population shifts—including both influx and efflux.

High levels of migration create unexpected surges in housing demand. If land preservation strategies are not in place, rapid development defaults to cheap construction techniques and building on greenfield sites²—practices that are ecologically destructive and overburden existing infrastructure.

PROPOSALS Create a federal climate migration plan.

- Procure affordable housing for migrants through a federal strategy put in place by the federal government. Protect migrants from market volatility when they are most vulnerable.
- Include temporary, transitional, and permanent migrant housing options, all of which should prioritize affordability over private profit.
- Coordinate with individual cities and districts to proactively support voluntary migration to climatically advantageous regions.
- Require spatial, ecological, and regional planning to create lowenergy, low-impact, high-density, well-constructed, locally sourced, ecologically sensitive housing to prevent the reckless development of greenfield or ecologically vulnerable sites when migration occurs.

Help cities and counties build local climate migration plans.

- Create local resilience and adaptation strategies that respond to specific natural disasters, such as floods, fires, storms, and extreme weather.
- Update and strengthen local disaster preparedness plans to ensure that federal and local funds are distributed equitably and to maximize safety of all residents during disasters.
- Enforce transparency of public plans.
- Educate the public regarding their specific regional risks and shortand long-term emergency preparedness and evacuation options.
- Collaborate with the federal Housing and Land Use Agency to develop local infrastructure plans that can accommodate rapid changes in population numbers due to migration.

2 Greenfield sites are previously undeveloped and often rural areas left to their natural state or used for agricultural purposes.

3—Increasing density while suppressing land speculation is a necessary climate response strategy.

ISSUES

Density is necessary to reduce humanity's ecological footprint. However, densification initiatives can be used to justify real estate speculation, which contributes to displacement, gentrification, and ecological destruction. Local governments continue to advocate for real estate speculation because decades-long reduction of federal aid to local governments has left them overly reliant on property tax to generate revenue.

Property value is currently the primary metric for determining the allocation of funding for resilience and recovery. This is inversely related to providing support for frontline communities. Further, privileging property value perpetuates ecologically destructive land use patterns and re-establishes the status quo.

PROPOSALS Mandate climate response strategies that support density while suppressing land speculation.

- Decouple state and municipal budgets from real estate tax.
- Support local initiatives for inclusionary zoning.
- Expand rent regulation to support increased density and limit gentrification during development as well as during migration periods.
- Disallow speculative absentee private investment in real estate.
- Mandate a steep federal tax for non-primary residences—density
 of building is pointless if empty real estate is warehoused for
 speculation.
- Prevent misappropriation of federal block grants for real estate speculation through grant requirements. (See "Against Privatization," 28.)

L-A-B-O-R—&—G-L-O-B-A-L—E-Q-U-I-T-Y

To support a just transition, Green New Deal housing legislation must address consumption and resource extraction, the global nature of construction supply chains, and the lack of transparency in the construction industry. Current Green New Deal legislation focuses on the creation of good union jobs in the retrofit, construction, and long-term care of buildings in the Global North. This is a necessary starting point; however, we must also decouple jobs from profit-oriented, extractive economies and assume accountability for global asymmetries.

1—GND housing legislation must create jobs that reduce overconsumption and halt unsustainable resource extraction.

ISSUES

Supporting labor during a just transition is not simply about retraining individuals to work in a different job, but also about transitioning to a clean, fair, and regenerative economy.

Our current economic system creates jobs by increasing production, and as such, a call for more jobs risks leaving the foundations of capitalist relations intact. Livelihood should be defined by qualitative metrics of social well-being and belonging, in contrast to a singular emphasis on wages and job creation.

PROPOSALS

Create a federal jobs plan that directly supports ecological regeneration and accounts for the total carbon footprint of jobs created under GND initiatives.

Use job training programs to initiate alternative labor structures such as worker cooperatives that transition workers toward economic autonomy and stability.

2—GND legislation must address the global nature of construction supply chains.

ISSUES The Buy American Act¹ has substantial loopholes. The existing domestic

¹ GND housing legislation states that building materials must be "substantially manufactured, mined, and produced in the United States in accordance with . . . the 'Buy American Act.'" However, manufactured products could qualify as being domestically produced if just 55 percent of their value of component parts were manufactured domestically. See the Green New Deal for Public Housing Act, H.R. 2664 / S. 1218, 117th Cong., Section 6 (2021). Also, the Buy American Act states that "the items to be procured or the materials from which they are manufactured must be present in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality"—meaning that if they are not available domestically, they can be sourced from outside the United States.

supply of construction materials and systems cannot meet the sudden increase in demand set forth in GND housing legislation. As a result, materials and systems can and will be sourced internationally, bypassing the intention of the act. Even if products are assembled in the U.S., many of their component parts are manufactured elsewhere and thus are not subject to domestic labor protections or sustainable sourcing. These loopholes will limit the capacity of the AEC industry to transition into sustainable building.

The Buy American Act does not address the rights of workers involved in the production of construction materials, domestically or internationally.

PROPOSALS Protect the rights of all workers involved in the building and construction sector.

- For products purchased within the U.S., protect workers by adding a fair labor clause to the Buy American Act, including a living (not minimum) wage, the right to unionize, safe work practices, apprenticeships for long-term training, and anti-discrimination hiring.
- For products purchased outside the U.S., establish a Buy Fair Act for when the Buy American Act cannot be honored and building materials must be imported.

Protect the environment at all sites of extraction, manufacturing, and construction.

 Establish a federal Buy Clean Act that applies to all materials, component parts, and products procured both domestically and internationally.

3—A just transition for the construction industry requires legislated transparency and accountability.

ISSUES

The fabrication of solar panels, wind turbines, and other technology required for the full electrification of buildings and construction of renewable energy infrastructure will rely heavily on increased extraction and labor in the Global South.² Designers and builders need increased transparency to ensure they are sourcing materials from manufacturers with just labor practices. Forced labor and poor working conditions are

² The human rights and labor violations associated with mining are widespread, from failure to respect the sovereignty of Indigenous communities living at sites of lithium extraction in Chile to the use of child and enslaved labor for cobalt mining in the Democratic Republic of the Congo.

commonplace in the global supply chains that feed the building and construction sector.³

Free trade relies on the deregulation of labor and environmental impacts at the sources of material extraction for the production of competitively priced goods. Within a capitalist system that privileges profit, this results in the exploitation of workers at all points along building material supply chains⁴ and the creation of global sacrifice zones.

Legislation will create demand for specific products and materials. Keeping their pricing competitive relies on the exploitation of workers and land, often beyond U.S. borders. If these issues are not addressed from the outset, new supply chains will perpetuate the original problems and become difficult to shift.

PROPOSALS Require manufacturers to report their social and environmental impacts both domestically and internationally.

- Require that Environmental Product Declarations be provided for all building materials and products. Reporting must be paired with specific minimum standards that limit environmental harm.
 All negative impacts should be tracked so that the U.S. is able to understand and account for the environmental degradation linked to its imports.
- Develop a system for reporting social impacts on the communities living near sites of extraction.
- Ban the use of Red List⁵ materials, chemicals, and elements. Materials used in construction directly impact human health and greater ecosystems. GND housing legislation must ban the inclusion of known toxins from appearing in new buildings, retrofits, and standards.

³ For example, Michael Green reports that "timber is one of the most widely used construction materials in the world and is ranked as the fifth-largest product (by value) at risk of forced labor imported into the U.S." See Green, "Timber Assessment: Know the Source, Lessen your Risk," Design for Freedom, http://www.designforfreedom.org/take-action/timber-assessment/.

⁴ The Design for Freedom Report outlines the prevalence of modern slavery in building material suppy chains. See Sharon Prince, Luis C. deBaca, and Chelsea Thatcher, eds., *Design for Freedom: A Call to Action for Practicing Professionals within the Ecosystem of the Built Environment*, report (New Canaan, CT: Grace Farms Foundation, 2020).

⁵ See "The Red List," International Living Future Institute, https://living-future.org/declare/declare-about/red-list/.

Require manufacturers to report their social and
environmental impacts both domestically and
internationally.

 Similar to Environmental Product Declarations, which create transparency around environmental impacts, reporting on labor practices will help prevent worker exploitation in building material and technology supply chains.⁶ Reporting must be paired with specific minimum standards that ensure the right to organize, safe working conditions, and a living wage for all workers. These standards could be outlined in the Buy American and Buy Fair Acts.

6 The International Living Future Institute's "Just" organization program provides a potential model for this. See http://www.living-future.org/just/.



1—A JUST TRANSITION FOR THE BUILDING SECTOR

Like the energy sector, the building sector operates at the heart of the fossil fuel economy. Its basic functioning is ecologically untenable, as it mobilizes and consumes enormous quantities of material, land, and energy. The livelihoods of workers in this industry are dependent on continuous construction, and thus ecological destruction. With the profit-based structure of the industry today, we have little recourse to participate in deep decarbonization. We are in need of a just transition.

We ask for your support in transforming the three major components of our industry: the architecture, engineering, and construction (AEC) industry, the building product industry, and the real estate development industry.

ARCHITECTURE, ENGINEERING, AND CONSTRUCTION (AEC) INDUSTRY

As a service industry within a capitalist society, AEC consists of an aggregation of individual profit-oriented projects driven primarily by their own internal financial logic. Within this context, workers have little say in the larger environmental impact of their work, and the industry as a whole cannot respond to the scale and interconnectedness of our various crises.

WE DEMAND

- Federal action to reorient the entire economy of construction such that designers, builders, and engineers can dedicate themselves to addressing the climate crisis rather than producing value for capital. For example, under the GND, the government could directly employ AEC workers as part of a federally funded design sector, such as the Civilian Climate Corps.
- Federal action to create centralized direction, funding, and accountability for the output of the AEC industry.
- Federal action to limit and regulate new construction, preventing projects that are solely in the service of wealth accumulation.
 Projects should focus on retrofit, recycling, and adaptation, and new construction should be reserved for emergency scenarios, like climate migration.
- Federal action to support the rights of all AEC workers to organize.

BUILDING PRODUCT INDUSTRY

Building product manufacturers are motivated by the creation of markets for their goods. They focus on growing market share and send lobbyists to Congress to represent their business interests, regardless of environmental impact. By supporting regulations that ensure the ubiquity of their products, assemblies, or construction techniques, these actors create inertia in the built environment around existing supply chains, preventing structural change in the built environment.

WE DEMAND

- Federal action to shift building regulations and standards from market-oriented models like LEED to models based on new flexible assessment criteria that take into account broader ecosystem relationships and long-term decarbonization strategies, such as degrowth, that will inevitably affect construction and the production of building materials.
- Federal action to support the diversification and regionalization
 of the building product industry to encourage environmentally
 responsive construction techniques. This will require the partial
 dissolution of existing corporate/industry structures and supply
 networks, which are responsible for homogenizing construction
 across otherwise diverse climates and regions.
- Federal action to foster transparency and accountability by requiring manufacturers to report their labor practices and socioenvironmental impacts, both domestically and internationally.

REAL ESTATE DEVELOPMENT INDUSTRY

Due to the influence of the real estate development industry, change in the built environment is primarily driven by private wealth accumulation, rather than by community necessity, ecosystem stability, or public health. This is exacerbated by municipalities' dependence on private development to support their tax base. However, despite its power, the private market will be unable to create an equitable built environment under the interwoven crises of systemic racism and climate breakdown. The livability of entire regions will degrade—as is currently happening in the Western US and Canada, due to wildfires—forcing the relocation of entire communities in a context where many are already without access to stable and affordable housing. This refugee crisis will be further aggravated by regional climate variation and the need to preserve carbon-sequestering landscapes, which will create land scarcity and trigger an unprecedented affordability crisis. Only the wealthy will be able to relocate to relatively climatically stable regions. The relationship between people, housing, and land must be fundamentally rethought.

WE DEMAND

- Direct federal funding of municipal budgets to eliminate their dependence on the real estate development industry.
- A federal climate migration plan encompassing managed retreat,

- housing of climate refugees, and new mechanisms for creating and preserving affordability.
- Federal action to create new regulations and incentives that reorient and transition the profit-driven real estate economy, including penalizing environmentally or socially destructive development, in favor of ecological preservation, public housing, and non-profit community-owned developments.
- Federal action to support new forms of land stewardship, in order to redistribute wealth and unmake colonial patterns of land use that have all but eliminated our ability to care for land and the environment.
- Federally mandated reparations for the role the real estate industry has played in perpetuating systems of white supremacy.

2—SHOVEL-WORTHY, NOT SHOVEL-READY

A federal stimulus presents an incredible opportunity to make change in the built environment. However, the need to act quickly due to ecological urgency and political expediency may create a preference for development projects that are **shovel-ready**. Most projects that are shovel-ready today were not designed with decarbonization in mind. Implementing a project without determining first if it is **shovel-worthy** risks deflecting action from more drastic, ambitious, and effective systemic change. For a just transition to occur, projects must embody the following values, which should be used in eligibility criteria for GND funding.

SHOVEL-WORTHY PROJECTS PRIORITIZE

- Just labor practices, not exploitation;
- Social and ecological justice, not profit;
- Community co-design, not "community engagement";
- Whole life-cycle carbon accounting, not embodied or operational carbon;
- Adaptive reuse, not new construction;
- Passive and regional design, not universally applied technology;
- Loose-fit design, not single-use design;
- Regenerative design, not efficient design;
- Integrated neighborhood-scale strategies, not single-building solutions;
- Community ownership, not private ownership;
- Public, community-led procurement, not developer-led procurement;
- Density of use, not developer-driven density of single-use buildings;
- Collaboration between stakeholders, not value-creation for shareholders;
- Rigor, not political expediency.

3—LONG-TERM COLLABORATION

The Architecture Lobby is an international grassroots organization of architectural workers motivated by social justice and the urgency of the climate crisis. Our members comprise a spectrum of workers across our industry, from practice to education and research. As an organization, we do not represent the interests of any single market, industry, or mode of building. We see political engagement as a means for change, especially because the current structure of our industry offers us limited opportunities for meaningful alternatives. We are ready for long-term collaboration with policy makers and want a seat at the table as the GND initiative continues to develop.

WE CAN

- Provide input on how a just transition can be achieved for our sector;
- Provide input on shovel-worthy criteria to ensure that federal funding for design and construction will be dispersed equitably and effectively;
- Provide a power map of our industry and an understanding of the critical dynamics of project planning, procurement, design, and construction;
- Provide insight into which aspects of the built environment are most important for deep decarbonization;
- Help build alliances across the AEC industry in support of the Green New Deal's call for a just transition.

WE STAND WITH YOU IN SUPPORTING THE RIGHTS AND LIVELIHOODS OF ALL WORKERS

WE STAND WITH YOU
IN THE STRUGGLE FOR ECOLOGICAL JUSTICE

WE STAND WITH YOU
IN THE FIGHT FOR A JUST TRANSITION