CROSS COMMUNITY CLIMATE COLLABORATIVE

GUIDEBOOK

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CHAPTER 1: INTRODUCTION

Purpose: This guidebook is designed to help the Executive Sustainability Commission understand and successfully navigate the C4 Adoption Process, while providing consistency in program administration over time. Eligibility requires a C4 Community's commitment to our 3 major Imperatives.

I. IMPERATIVES COMMITMENT. C4 begins with acknowledging and agreeing to our imperatives.

- **EQUITY:** By embracing equity, we recognize the people most marginalized and are determined to give them the opportunity to excel in society.
- **RESILIENCE:** By embracing resilience, we build contingencies to combat adverse societal forces.
- **CLIMATE:** By embracing climate, we are dedicated to paths leading to carbon neutrality.

By incorporating these interrelated Imperatives into every facet of the Roadmap, the Protocol ensures a systemic approach to sustainability is centered for all projects. Once a community is committed, the actions it takes must align with the Imperatives.

II. EXECUTIVE SUSTAINABILITY COMMISSION is a team of key stakeholders that function as its core decision-making group.

- The Executive Sustainability Commission is responsible for following the C4 Guidebook, preparing each phase of the C4 Adoption process, and leading their community through implementation and reporting over time.
- The makeup and responsibilities of the team may evolve during implementation, but throughout the process the team should be broadly representative of the C4 community and include members dedicated to equity, resilience, and climate protection.
- Executive commission members will serve as priority chairperson(s).

III. THE C4 RESOURCE LIBRARY will act as an online public portal to C4 communities for knowledge sharing. It will act as an online public portal to C4 Communities and their aspirations and accomplishments.

- The Resource Library contains Sustainability Executive Commission profiles and work products once they have completed their Initial Kickoff Project.
- Sustainability Executive Commission submissions become living case studies for the C4 Collective peer-to-peer learning network and the communities in which established Sustainability Executive Commissions are located.

To assist registered Sustainability Executive Commissions, they may optionally submit the following draft documents to C4 for review:

1. A Sustainability Executive Commission plan, approximately equivalent to a Roadmap.

2. Draft documents completed after becoming a C4 partner::
   a. Imperatives Commitment Signed.
   b. Community Resolution Drafted and Submitted.
   c. C4 Capacity Assessment and Team Engagement Survey Completion

3. Roadmap Development:
   a. Assets and program blueprints, etc.
   b. A list that outlines sustainability strategies, projects, and implementation schemes for High, Moderate and Entry Levels of Execution.
   c. Community is to host a "Community Listening Session" to ensure inclusion and equity.

4. Progress Reporting:
   a. Monthly (informal) / Quarterly (Formal) reporting to C4 group and Urban Efficiency Group Sustainability Coordinator to update the larger C4 group about new developments successes failures and possible barriers.
   b. Semi-annual reporting reporting to the C4 Resource Library to benchmark efforts for other communities, to hold each other accountable to growth and increase transparency for citizens about how their municipalities have been working to add value to the community.

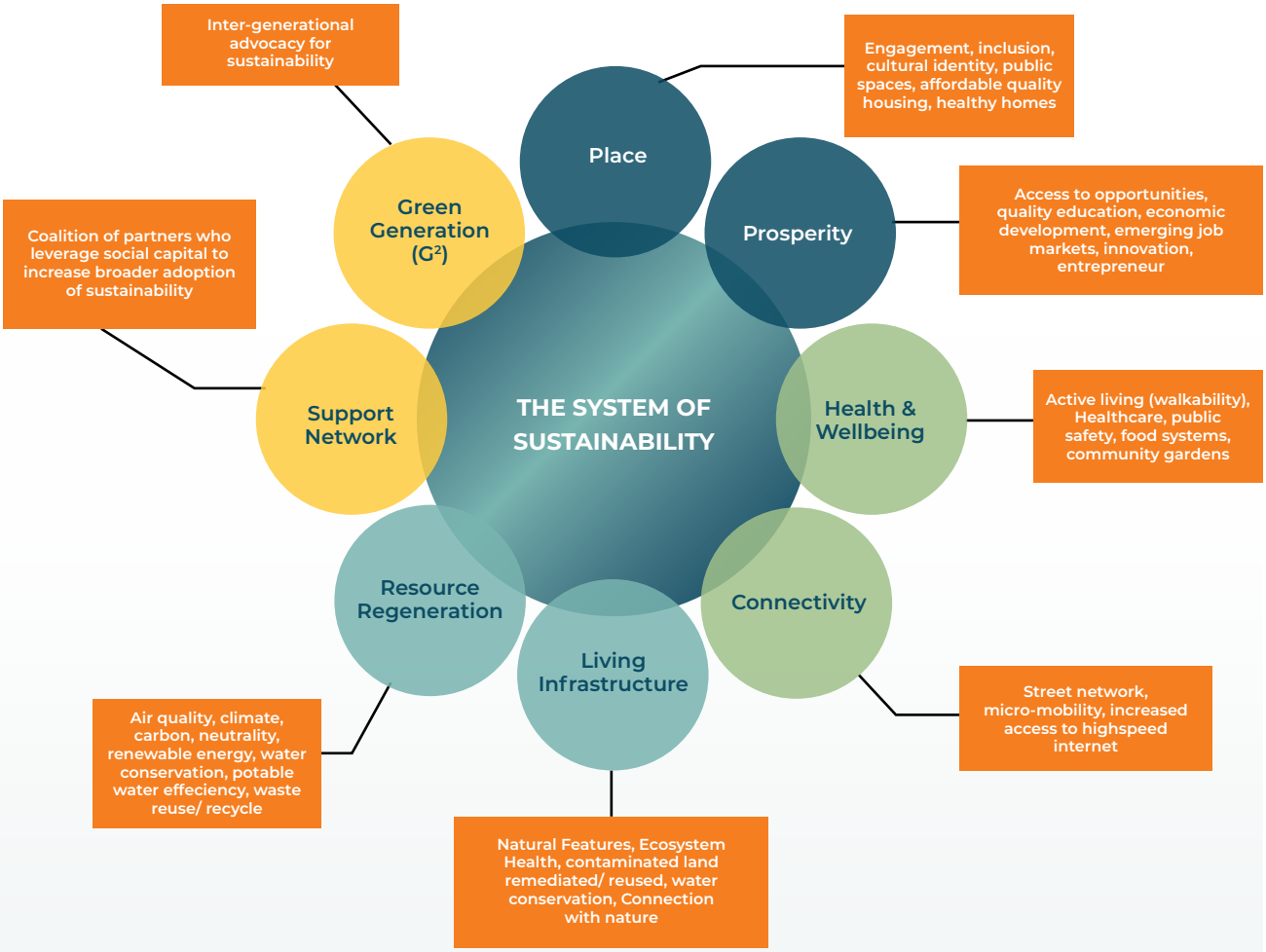
IV. ADDENDA AND UPDATES: Addenda and updates of the Guidebook may be issued by C4 periodically.

- It is the responsibility of Sustainability Executive Commission teams to maintain familiarity with addenda and ensure use of the operative version of the Protocol.
- A Sustainability Executive Commission is only responsible for the provisions of the Guidebook versions in effect at the time of becoming a C4 partner.

CHAPTER 2: SYSTEM OF SUSTAINABILITY PROTOCOL - OVERVIEW

The System of Sustainability is the overarching theme of this framework and guidebook. Through the system of sustainability, we're able to move from a siloed approach to a systemic approach to sustainability with equity being centered. This approach demonstrates the interconnectedness of all climate, resiliency, and environmental efforts that are critical in prioritizing the people and the planet as we seek an environmentally just transition.

SYSTEM OF SUSTAINABILITY PRIORITIES



This chapter describes the Protocol according to its framework addressing the system of sustainability though the three Imperatives, six Priorities, and three phases of implementation, as depicted in Figure 2.1. These are reviewed in the context of the adoption process and how each piece of the framework contributes to establishing C4 Adoption.

Definitions and Context

Imperatives: Three critical overlapping issues that must be addressed to attain community sustainability:

Equity: By embracing sustainability, we recognize the people most marginalized and are determined to give them the opportunity to excel in society.

To accomplish this, the commitment supports the following:

1. **PROCEDURAL EQUITY.** Inclusive and authentic engagement of organizations that serve vulnerable populations in Sustainability Executive Commission Formation, Roadmap development, and Performance.

2. **STRUCTURAL EQUITY.** Transparent decision-making that considers historic inequities that may have subordinated vulnerable populations and is accountable for equitable decisions.

3. **DISTRIBUTIONAL AND CROSS-GENERATIONAL EQUITY.** Fair distribution of the benefits and burdens of Sustainability Executive Commission projects and programs across all populations, and current and future generations.

Resilience: By embracing sustainability, we build contingencies to combat adverse societal stressors and forces.

Sustainability Executive Commissions understands that resiliency affects at-risk populations the most and that we must combat the social, economic, and environmental shocks and stresses in a systemic way.

To accomplish this goal, the commitment should address the following resilience categories (City Resilience Framework, 2015):

1. **Health & Wellbeing:** The health & wellbeing of everyone living and working in the city.
2. **Economy & Society:** The social & financial systems that enable urban populations to live peacefully, and act collectively.
3. **Leadership and Strategy:** Effective leadership, empowered stakeholders, and integrated planning.
4. **Infrastructure and Environment:** The way in which man-made & natural infrastructure provide critical services and protects urban citizens.

Climate: By embracing sustainability, we are dedicated to paths leading to carbon neutrality.

- Sustainability Executive Commissions will develop ways to remove our carbon footprint.

Sustainability Executive Commissions are encouraged to organize their neutrality planning around the four pillars of decarbonization:

1. **Decarbonization of power suppliers.**
2. **Shifting to renewable energy and eco-friendly fuels.**
3. **Uplifting energy efficiency and increasing waste reduction efforts.**
4. **Ensuring adequate carbon sequestration and the preservation of natural resources.**

Priorities: Each Priority has a goal statement describing a desired outcome, and outcomes are shared as objectives.

A. Place,
B. Prosperity,
C. Health & Well-being,
D. Connectivity,
E. Living Infrastructure,
F. Resource Regeneration,
G. Green Generation (G2),
H. Support Networks

Objective Categories for each Priority and How factors of Equity, Resilience and Climate Protection are correlated:

A. Place: GOAL - Create culturally inclusive, generationally relevant, historically representative places.

PLACE PRIORITY		IMPERATIVES INTERSECTIONS								
OBJECTIVE CATEGORIES	OBJECTIVES	EQUITY			RESILIENCE			CLIMATE PROTECTION		
		Procedural	Structural	Distrib. + Cross-Generation	Social	Economic	Environ-mental	Energy Use	Onsite Energy Production	Net CO2 Emissions
Engagement + Inclusion	Civic engagement is strong and processes are inclusive and representative.									
	Sharing programs are robust.									
Culture + Identity	Historic and culturally significant places are preserved and celebrated.									
	Participation in cultural events is high.									
Public Spaces	Public spaces are accessible to all.									
	Public spaces are high quality, engaging, and active.									
Housing	Housing is affordable and well maintained.									
	Housing is available to meet a diversity of dwelling needs.									
	Housing is close to facilities that offer a complete set of daily needs.									

The Place Priority deals with the correlation of a communities' social capacity and the living opportunities that environment presents. The intent is to create engaged and inclusive places that are welcoming, well-functioning, affordable, and accessible to all.

B. Prosperity: GOAL - Uplift pathways to economic success and foster innovative thinking.

PROSPERITY PRIORITY		IMPERATIVES INTERSECTIONS								
OBJECTIVE CATEGORIES	OBJECTIVES	EQUITY			RESILIENCE			CLIMATE PROTECTION		
		Procedural	Structural	Distrib. + Cross-Generation	Social	Economic	Environ-mental	Energy Use	Onsite Energy Production	Net CO2 Emissions
Access to Opportunity	Income and racial inequality are reduced.									
	Schools provide quality education.									
	Career pathways and training are available.									
Economic Development	Employment in the district is retained.									
	Job quality in the district is enhanced.									
	New job creation occurs through economic development.									
Innovation	Interaction between entrepreneurs is fostered.									
	Job growth in emerging sectors is higher than in traditional sectors.									

The Prosperity Priority deals with a communities' social and economic structure. Economic development within community ensures that the local needs are met, while uplifting cultural values to improve the local social condition. We're fostering belonging and a strong sense of place through networking collaboratively.

C. Health & Well-Being: GOAL – To ensure the physical, mental, emotional, and psychological wellbeing of all people.

HEALTH AND WELLBEING PRIORITY		IMPERATIVES INTERSECTIONS								
OBJECTIVE CATEGORIES	OBJECTIVES	EQUITY			RESILIENCE			CLIMATE PROTECTION		
		Procedural	Structural	Distrib. + Cross-Generation	Social	Economic	Environ-mental	Energy Use	Onsite Energy Production	Net CO2 Emissions
Active Living	Access to recreation facilities and services is improved.		■	■	■					
	Walkability is enhanced.		■	■	■			■		■
Health	Health outcomes and life expectancy are more equitable.		■	■	■	■				
	Affordable, high-quality health care is accessible.		■	■	■	■				
	Toxic environments are remediated and regenerated.		■	■	■	■				
Safety	Public safety is enhanced.	■	■	■	■	■				
	The built environment is designed for public safety.	■	■	■	■	■				
Food Systems	Healthy and affordable fresh food is accessible.		■	■	■					
	Food production in the district is encouraged.		■	■	■	■		■		■

The Health and Wellbeing Priority deals with improving the overall health for community residents. There are many traditional and nontraditional contributors that influence health and safety i.e. fresh, healthy foods and reduced exposure to toxins and pollutants.

D. Connectivity: GOAL - Build efficient trans-modal, communication and broadband rails for people and places.

CONNECTIVITY PRIORITY		IMPERATIVES INTERSECTIONS								
OBJECTIVE CATEGORIES	OBJECTIVES	EQUITY			RESILIENCE			CLIMATE PROTECTION		
		Procedural	Structural	Distrib. + Cross-Generation	Social	Economic	Environ-mental	Energy Use	Onsite Energy Production	Net CO2 Emissions
Street Network	The street network supports all travel modes.		■	■	■	■		■		■
	The street network accommodates people with diverse ages and abilities.		■	■	■	■				
Mobility	District travel, internally and externally, is safe, efficient, and multimodal.		■	■	■	■		■		■
	Shared mobility options are increased.	■	■	■	■	■		■		■
Digital Network	Quality wired and wireless connectivity is available throughout the district.		■	■	■	■				
	Local government data is open and accessible for public consumption.	■	■	■	■	■				

The Connectivity Priority deals with the socioeconomic value of the transit and internet access within the community. The idea is to have a digital network and transportation system that's accessible, inclusively accommodating, and environmentally conscious.

E. Living Infrastructure: GOAL - Build and foster vibrant ecosystems.

LIVING INFRASTRUCTURE PRIORITY		IMPERATIVES INTERSECTIONS								
OBJECTIVE CATEGORIES	OBJECTIVES	EQUITY			RESILIENCE			CLIMATE PROTECTION		
		Procedural	Structural	Distrib. + Cross-Generation	Social	Economic	Environ-mental	Energy Use	Onsite Energy Production	Net CO2 Emissions
Natural Features	The quality and functions of habitat are enhanced.									
	Natural features are protected.									
Ecosystem Health	Rainwater is managed in the district.									
	Soil fertility and farmland are protected.									
	Contaminated land is remediated for productive reuse.									
Connection with Nature	Access to nature is improved.									

Living Infrastructure deals with protecting and preserving natural resources, especially if it supports life. The intent is to create a community that protects indigenous life; cherishes environmental assets; fosters environmentalism; and builds contingencies to mitigate adverse environmental hazards.

F. Resource Regeneration: GOAL – Achieve universal efficiency and sustainability.

RESOURCE REGENERATION PRIORITY		IMPERATIVES INTERSECTIONS								
OBJECTIVE CATEGORIES	OBJECTIVES	EQUITY			RESILIENCE			CLIMATE PROTECTION		
		Procedural	Structural	Distrib. + Cross-Generation	Social	Economic	Environ-mental	Energy Use	Onsite Energy Production	Net CO2 Emissions
Air & Climate	Air quality is protected from criteria pollutants.									
	Electricity generation is decarbonized.									
	All sectors shift to renewable power and carbon-free fuels.									
	All sectors improve efficiency, reduce waste, increase natural carbon sinks.									
Water	Potable water is used efficiently.									
	Alternative water sources are used for nonpotable purposes.									
	Water quality is protected from pollutants.									
Waste	Waste is diverted from landfills through reduction, reuse, and recycling.									
	The residual value of organic waste is captured.									

Resource Regeneration Priority deals with energy efficiency, waste, and carbon reduction. The idea is to achieve carbon neutrality, resource conservation and systematic recycling.

G. Green Generation: GOAL – Develop intergenerational inclusion around sustainability climate and equity issues.

I. Objective: Youth engagement and development

i. Action: Established Community Programing for Youth in S.T.E.A.M.

1. Early exposure and Early engagement to climate protection, resiliency, and equity goals regionally and nationally
2. Intergenerational Inclusion
3. Working to establish youth driven sustainability climate councils
4. Civic and Service-Learning Engagement Opportunities

H. Support Network: GOAL – Establish a broader network of resource partners that can add social and economic value.

I.Objective: Community Allyship Development and Expansion

i.Action: United efforts across industries and disciplines to support the overall goal of a cleaner, safer, and more equitable society

1. Inclusivity
2. Collective Action and Impact
3. Procedural Justice

These two support pillars function as a bridge from the theoretical learning space to the practical actualization of this societal shift. The Green Generation focuses on uplifting and empowering next generation thought leaders to embrace Science Technology Engineering Art and Math fields to ensure sustainable futures. The Support Network prioritizes community partner coalition building to deliver resource support and the Collective Action needed to deliver projects at scale and achieve sustainable communities.

Implementation: Cementing the Imperatives and Priorities is a three-phase implementation framework. This framework sets the conditions for scalable and sustainable outcomes that meet the specific needs of a Sustainability Executive Commission over time.

A. **Formation** = Collaborative Governance: Formation sets the roles and expectations of the commission to ensure a continuity of service through each Phase of Implementation.
   a. Formation is the key stage in establishing a Sustainability Executive Commission.

B. **Roadmap** = Sustainability Action Plan: The Roadmap is a comprehensive performance-based action plan that forecasts a differentiated set of strategies to enhance societal sustainability.
   a. The Roadmap sets ambitious performance targets and implementation milestones based on the Imperatives and Priorities.

C. **Performance** = Semi-annually Progress Reporting: Performance entails the progress tracking, reporting, evaluation, and innovation of the roadmap.
   a. It is an ongoing phase of semi-annually reports that are shared with the community, becoming the basis of measuring impact over time and supporting peer-to-peer learning.

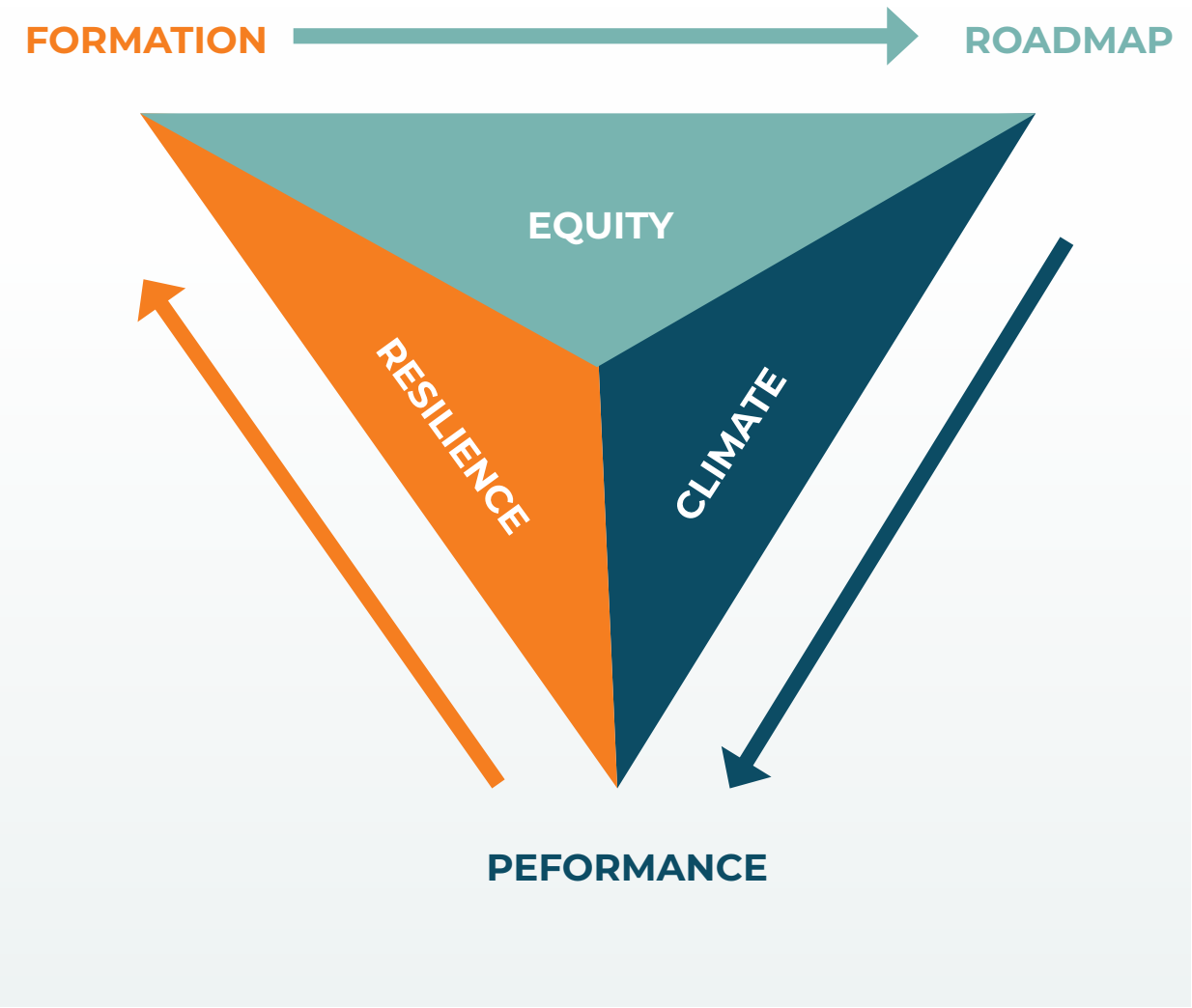
The next four chapters explains the requirements and implementation of each Phase. The appendixes provide additional resources and definitions.

CHAPTER 3: IMPERATIVES - OVERVIEW

- This chapter explains the foundation of our work starting with an Imperatives Commitment. An Imperatives Commitment is a signed dedication to Equity, Resilience, and Climate. Sustainability Executive Commissions must submit an Imperatives Commitment within 3 months of becoming a C4 partner, and the mayor's endorsement of the Imperatives Commitment is required before Formation and Roadmap documents will be considered by C4.
- The three Imperative pledges are assembled into a single Imperatives Commitment using the template linked here: https://drive.google.com/file/d/1OV7iNv0V8HVXa6JoGV52Ro24-UR5RHBH/view

This chapter breaks down the imperatives and adoption process.

Figure 3.1: These are reviewed in the context of the adoption process and how each piece of the framework contributes to C4 Adoption.



IMPLEMENTATION

This dedication to the Imperatives will be achieved through an action plan that addresses Equity, Resilience and Climate in each phase of the framework:

1) FORMATION. Procedural and structural equity must be at the heart of every Sustainability Executive Commission's formation. Inclusivity and authenticity are the standards by which every Executive Commission member abides. A common goal is best achieved through collective impact, which enables Executive Commission members to build contingencies leveraging their social and economic capital. Members should include individuals from a diverse set of backgrounds and representative of the community it serves. In order to ensure transparency and begin building a profile, communities will need to complete C4 Capacity Assessment.

2) ROADMAP DEVELOPMENT. Procedural justice is the guiding hand to being sure the Sustainability Executive commission is operating equitably by establishing and maintaining strong community relations, which includes hosting a "Community Listening Session". The executive commission must build contingencies and resilient initiatives into the roadmap to counter the social, economic, and environmental burdens on society. These strategies must drive a collective approach to carbon neutrality.

3) PERFORMANCE. Evaluation of the three Imperatives must be public, and results should be used to adjust and strengthen the Equity, Resiliency and Climate Commitment. Performance metrics will be established by the Sustainability Team and monitored routinely for progress reporting to ensure we're reaching targets or learning how to improve the plan.

a. REQUIREMENTS

i. FORM GROUP TO EVALUATE LOCAL IMPERATIVE MEASURES.
   1. TAKE A CENSUS OF LOCAL EQUITY, RESILIENCE, AND CLIMATE MEASURES.
      a. PREPARE COMMITMENT.

ii. SUBMIT SIGNED AND ADOPTED IMPERATIVES COMMITMENT.

b. PERFORMANCE METRICS

i. One activation project should be identified along with the Commitment. This indicator will also be included as part of the Sustainability Executive Commission assessment in the roadmap development phase.

ii. Roadmap Performance Metrics are updated in the semi-annually progress reports of the Performance phase. Additional guidance on selecting and maintaining Equity Performance Metrics appears in Appendix B.

c. RESOURCES FOR EQUITY

i. EQUITY EXEMPLARS

1. North Park San Diego Eco-community — Equitable Development Goal (https://sdnews.com/a-north-park-ecodistrict/#:~:text=Branded%20North%20Park%20EcoDistrict%2C%20the%20goal%20of%20the,modeled%20after%20a%20similar%20EcoDistrict%20in%20Portland%2C%20Ore.)
2. King County, Washington Office of Equity and Social Justice (https://kingcounty.gov/elected/executive/equity-social-justice.aspx)
3. Los Angeles Equity Atlas (http://reconnectingamerica.org/laequityatlas/index.php)
4. Toronto Strong Neighborhoods Equity Index (https://www.toronto.ca/city-government/accountability-operations-customer-service/long-term-vision-plans-and-strategies/toronto-strong-neighbourhoods-strategy-2020/)

ii. TOOLS

1. Center for Study of Social Policy Race Equity Impact Assessment (https://cssp.org/resource/race-equity-impact-assessment-tool/#:~:text=Race%20Equity%20Impact%20Assessment%20-%20Center%20for%20the,assessment%20tool%20tailored%20to%20child%20welfare%20policy%20decision-making.)
2. Just — Social Justice Label (https://www.johnstonarchitects.com/news/2021/3/18/the-just-label-making-social-justice-our-business)
3. King County, Washington Equity Impact Review Tools: March 2016 and October 2010 (https://kingcounty.gov/~/media/elected/executive/equity-social-justice/2016/The_Equity_Impact_Review_checklist_Mar2016.ashx?la=en)
4. Kirwan Institute Opportunity Mapping (https://prezi.com/rusmd3vgmg9s/kirwan-institute-opportunity-mapping/)
5. Ontario Canada Marginalization Index (https://maphealth.ca/on-marg/#:~:text=A%20small-area%20based%20measure%20of%20marginalization%20widely%20used,inequities%20over%20geographic%20location%20and%20over%20census%20years.)
6. Policy Map (https://www.policymap.com)

iii. MORE INFORMATION

1. Equity in Sustainability, USDN (https://www.usdn.org/uploads/cms/documents/usdn_equity_scan_sept_2014_final.pdf)
2. Local Governments, Social Equity, and Sustainable Communities, ICMA (https://icma.org/articles/article/social-equity-and-local-government-sustainability)

d. RESOURCES FOR RESILIENCY

i. RESILIENCE EXEMPLARS

1. Building Resilient Neighborhoods — British Columbia (https://www.resilientneighbourhoods.ca)
2. Resilient New Orleans (https://nola.gov/resilience-sustainability/)
3. Resilientville — Neighborhood Empowerment Network — San Francisco (https://www.empowersf.org)

ii. TOOLS

1. Characteristics of a Resilient Neighborhood Checklist — British Columbia (https://bconglobal.com/Resources/characteristics-of-a-resilient-organization-1)
2. City Resilience Framework (https://www.rockefellerfoundation.org/wp-content/uploads/100RC-City-Resilience-Framework.pdf#:~:text=The%20City%20Resilience%20Framework%20is%20a%20unique%20framework,actions%20and%20programs%20to%20improve%20the%20city's%20resilience.)

3. Communities Advancing Resilience Toolkit (https://medicine.ouhsc.edu/Academic-Departments/Psychiatry-and-Behavioral-Sciences/Terrorism-and-Disaster-Center/CART-Community-Resilience-Toolkit)

4. Peoples Resilience Framework (http://peoplesresilience.org/)

iii. MORE INFORMATION

1. ICLEI Resilience Library (https://icleiusa.org/pathways/resilient/)

e. RESOURCES FOR CLIMATE PROTECTION

i. CLIMATE PROTECTION EXEMPLARS

1. Engaging Diverse Communities in the Chicago Climate Action Plan (https://www.fieldmuseum.org/sites/default/files/DOE Roseland Report FINAL_1.pdf)

2. Neighborhood Climate Action Planning Handbook — Southeast Portland (https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1042&context=usp_murp)

3. National Carbon Offset Standard for Precincts – Australia (https://www.industry.gov.au/news/machinery-government-mog-changes-our-department-1-july-2022)

4. Resilient Neighborhoods: Less Carbon, More Community — Marin, California (https://www.resilientneighborhoods.org/)

ii. TOOLS

1. I-LAST™ Illinois - Livable and Sustainable Transportation Rating System and Guide (https://idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Desenv/Enviromental/I-LAST_V2 02.pdf)

2. C40 Climate Positive Development Framework (https://resourcecentre.c40.org/climate-action-planning-framework-home)

3. C40 Climate Positive Development Good Practice Guide (https://www.c40.org/good-practice-guides/)

4. Cool Climate Network — UC Berkeley (https://coolclimate.org/index)

iii. MORE INFORMATION

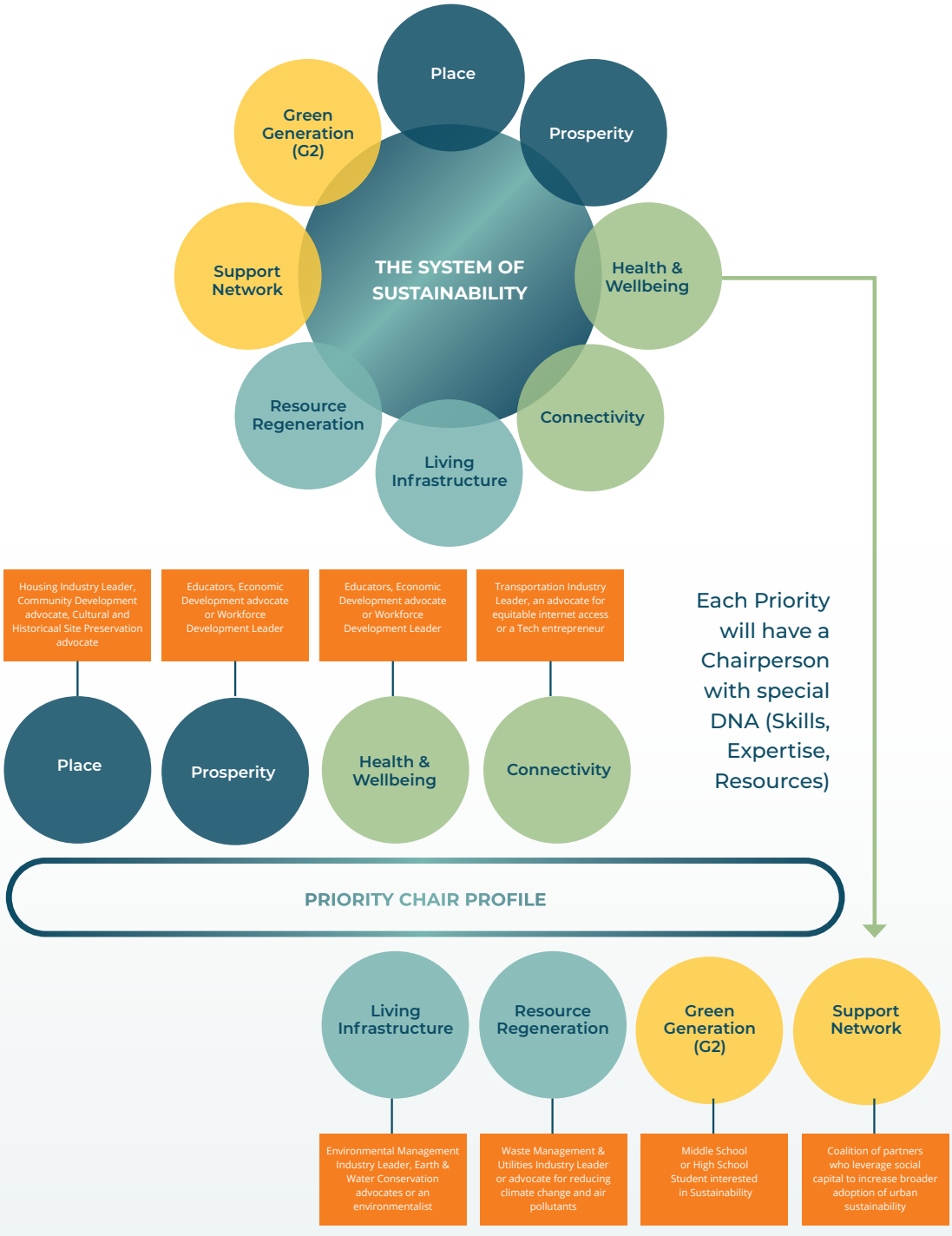
1. Community Energy: Planning, Development, and Delivery — IDEA (https://www.districtenergy.org/home)

2. Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (https://ghgprotocol.org/)

3. Local Examples of Climate Action — US EPA (https://www.epa.gov/statelocalenergy)

CHAPTER 4: FORMATION PHASE - OVERVIEW

THE SYSTEM OF SUSTAINABILITY PROGRAM:



OVERVIEW: Formation follows procedural justice to ensure the stakeholders have an understanding and ties to all populations. Ensuring a collaborative approach and combining resources will produce effective impacts on society.

- The collective impact approach is ideal for addressing the system of sustainability. The Formation phase seeks to create the following favorable conditions for collective impact (Kania and Kramer, 2011):

I. A COMMON AGENDA.
II. MUTUALLY REINFORCING ACTIVITIES.
III. SHARED PERFORMANCE METRICS.
IV. CONTINUAL COMMUNICATION.
V. BACKBONE ORGANIZATION SUPPORT.

To achieve these conditions in the Formation phase, the Protocol promotes the application of the collective impact practice of "collaborative governance," an approach that addresses complexities and interrelated activities within sustainability.

- Collaborative governance is key in achieving equity and accountability.

In the Formation stage, Sustainability Executive Commissions are fortified by their diversity of thought and provide opportunities for collaboration to achieve a common goal.

- For instance, the technique of asset mapping is proposed below as a mechanism in building team continuity and completing an inventory on community resources and opportunities.
- Collaboration is embedded in the Sustainability Executive Commission's Community Resolution. The following sections provide guidance on the Formation steps and additional resources.

IMPLEMENTATION

I. FORMATION: Formation prioritizes the imperatives while identifying key stakeholders for the Sustainability Commission.

i. Formation is the key stage in building a Sustainability Executive Commission.
ii. Community Resolution Sample found at the linked here: https://drive.google.com/file/d/1yaAs-krE62WzTti1X_gR9YG4j4IcrbrHR/view
iii. C4 Capacity Assessment and Team Engagement Survey can be found linked here: https://drive.google.com/file/d/1r4Qf2v5Ko6pisk9yYz3-S9bDkCnVSfII/view

1. REQUIREMENTS:

CONFIRM READINESS TO FORM A SUSTAINABILITY EXECUTIVE COMMISSION

a. Evaluate whether the Sustainability Executive Commission is ready to meet Protocol requirements.
i. ESTABLISH SUSTAINABILITY TEAM ORGANIZATIONAL CAPACITY:
ii.COMMIT TO COLLABORATION:

2. RESOURCES: To assist in Sustainability Executive Commission formation, the following resources provide useful principles, best practices, and case study success stories:

I. EXEMPLARS
i. Indianapolis Neighborhood Resource Center Organizer's Workbook (http://www.inrc.org/organizers-workbook)
ii. Lloyd Ecocommunity Development — Portland (https://ecodistricts.org/wp-content/uploads/2013/03/Lloyd-cs5.pdf)

iii. People's Academy for Community Engagement — Seattle (http://www.seattle.gov/neighborhoods/peoples-academy-for-community-engagement)

iv. Putting Theory into Practice — Asset Mapping in Toronto Neighborhoods (https://resources.depaul.edu/abcd-institute/publications/publications-by-topic/Documents/kelloggabcd.pdf)

II. TOOLS

i. Capacity Building Program — Tools (https://www.cmap.illinois.gov/programs/lta/capacity-building-program)

ii. Community Building Tool Packets — Our United Villages Community Legacy Program (https://static1.squarespace.com/static/55b14a8ce4b07de064245397/t/5758876aab48deef1014e42e/1465419627523/Hosting+a+Neighborhood+Celebration+updated+1.2013.pdf)

iii. Community Engagement Guide for Sustainable Communities (https://www.policylink.org/sites/default/files/COMMUNITYENGAGEMENTGUIDE_LY_FINAL (1).pdf)

iv. Discovering Community Power — Mobilizing Local Assets and Your Organization's Capacity (https://resources.depaul.edu/abcd-institute/publications/publications-by-topic/Documents/kelloggabcd.pdf)

v. LISC Institute for Comprehensive Community Development (https://www.lisc.org/our-initiatives/community-leadership/lisc-institute/)

vi. Making a Difference in Your Neighborhood — A Handbook for Community Decision-Making (https://www.sophe.org/wp-content/uploads/2017/01/Making-a-Difference-in-Your-Neighborhood-A-Handbook-for-Using-Community-Decision-Making-to-Improve-the-Lives-of-Children-Youth-and-Families.pdf)

vii. Participatory Asset Mapping — A Community Toolkit (https://communityscience.com/wp-content/uploads/2021/04/AssetMappingToolkit.pdf)

viii. Standards for Neighborhood Associations, Community Coalitions, Business Community Associations — Portland (https://www.portlandoregon.gov/civic/article/97870)

III. DECLARATIONS OF COLLABORATION

i. Curry County Housing Stock Upgrade Initiative Declaration of Cooperation (http://orsolutions.org/wp-content/uploads/2013/12/HSUI-DoC-final-w-most-signatures.pdf)

ii. Foster Green Ecocommunity & Foster-Lents Integration Partnership Memorandum of Understanding (http://fostergreenecodistrict.org/)

iii. Nadaka Nature Park and Garden Project Declaration of Cooperation (https://friendsofnadaka.org/history/)

iv. Swan Island North Portland Air Quality Forum Declaration of Cooperation (http://orsolutions.org/wp-content/uploads/2014/01/Swan-Island-Declaration-of-Cooperation-with-elec.-signatures-1-30-13-FINAL.pdf)

IV. MORE INFORMATION

i. Asset-Based Community Development Institute (https://resources.depaul.edu/abcd-institute/Pages/default.aspx)

ii. Collective Impact, Kania and Kramer (https://ssir.org/articles/entry/collective_impact)

iii. Collaborative Governance in Theory and Practice, Ansell and Gash (https://academic.oup.com/jpart/article/18/4/543/1090370)

iv. The Abundant Community: Awakening the Power of Families and Neighborhoods, McKnight (https://www.amazon.com/Abundant-Community-Awakening-Families-Neighborhoods/dp/1609940814/ref=sr_1_1?s=books&ie=UTF8&qid=1463605432&sr=1-1&keywords=The+Abundant+Community%3A+-Awakening+the+Power+of+Families+and+Neighborhoods%2C+McKnight)

v. The Power of 'Co' — The Smart Leader's Guide to Collaborative Governance, Twyford (https://www.amazon.com/Power-Co-Leaders-Collaborative-Governance/dp/0646579169)

CHAPTER 5: ROADMAP PHASE - OVERVIEW

OVERVIEW: The Roadmap is a performance-based action plan with a vision and comprehensive set of strategies to improve a Sustainability Executive Commission's equity, resilience, and sustainability while achieving Priority goals and objectives.

This chapter provides guidance on assembling a Roadmap with the following primary components:

- Introduction
- Community boundary
- Priority-based asset map
- Community program blueprints
- Ongoing and imminent activities by others
- Priorities and objectives
- Performance Metrics
- Existing conditions and baseline performance assessment
- Existing local targets and parallel efforts
- Sustainability Executive Commission build-out estimate performance targets at entry, moderate and high levels
- Potential strategies
- Strategies assessment
- Implementation responsibilities, funding, and scheduling

ROADMAP COMPONENTS

A. SUSTAINABILITY TEAM CONTEXT:

I. Demographics, Land Use, Housing, Employment, Education, Recreation, Cultural, Health and Human Services, Public Safety, Transportation, Infrastructure, Natural Environment, Climate

B. PRIORITIES:

I. PLACE, PROSPERITY, HEALTH + WELLBEING, CONNECTIVITY, LIVING INFRASTRUCTURE, RESOURCE REGENERATION

C. OBJECTIVE CATEGORIES:

I. Place: Engagement+ Inclusion, Culture + Identity, Public Spaces, Housing
II. Prosperity: Access to Opportunity, Economic Development, Innovation
III. Health & Wellbeing: Active Living, Health, Safety, Food Systems
IV. Connectivity: Street network, micro-mobility, increased access to highspeed internet
V. Living Infrastructure: Natural Features, Ecosystem Health, Connection with Nature
VI. Resource Regeneration: Air & Climate, Water, Waste

D. PERFORMANCE METRICS: Baseline Targets

E. STRATEGIES: Projects, Programs, Policies, Implementation Funding + Timing

The Roadmap is an essential communication and leveraging tool to engage the community, attract support, and bind stakeholders together in a common implementation framework. A strong Roadmap includes the following attributes:

1) STAKEHOLDER INVOLVEMENT.
2) A VISION THAT REFLECTS THE C4 COMMITMENT AND LOCAL ASPIRATIONS.
3) UTILIZATION OF ACCURATE DATA.
4) INTENTIONALITY WITHIN IMPLEMENTATION.
5) EFFECTIVE RESILIENCY AND REINFORCED BY BUILT-IN CONTENGENCIES.

The following sections provide guidance on preparing a Roadmap for submission, additional resources to help in the preparation, and a template outlining required Roadmap content.

IMPLEMENTATION

A. Roadmap: The Roadmap phase involves the Sustainability Executive Commission building up a sustainability action plan. The roadmap strives for S.M.A.R.T. targets and milestones using Imperatives and Priority Performance Metrics. The minimum requirements for a Roadmap are:

I. Uphold the Imperatives and strategize for each Priority
II. Identify a minimum of one objective for each Priority objective category.
III. Provide at least one implementation strategy for each objective.
IV. Determine one or more Performance Metrics for each Priority's objective category.
    i. Sustainability Executive Commissions could address issues not outlined in the system of sustainability, and if so are encouraged to create a timeline for addressing Priorities not included in a n initial Roadmap.
    ii. Roadmap Template is provided at the end of Appendix C.

1. REQUIREMENTS

a. DEFINE CONTEXT AND GOALS: Understand the Sustainability Executive Commission's environment and interests.

i. REQUIRED ACTIONS
    1. Collectively determine boundary, identify common issues, and identify solutions relevant to the Imperatives and Priorities.
        a. Hosting public listening sessions are necessary for servicing the community
    2. Select objectives that align with research, assets, and stakeholder input.

b. SELECT PERFORMANCE METRICS, ASSESS BASELINE, AND SET TARGETS: Select Performance Metrics for the Priorities, establish current performance baselines, and develop performance targets for the roadmap at three levels of sustainability planning (Entry, Moderate and High).

i. REQUIRED ACTIONS
    1. Select Performance Metrics for reporting on Priority baseline conditions, future targets, and ongoing performance, as described in Appendix B.
    2. Using the Performance Metrics, prepare a baseline assessment of current performance relative to the Imperatives and Priorities, and develop performance targets using the Performance Metrics and relevant local plans.

c. DETERMINE STRATEGIES AND BUILD ROADMAP: Identify strategies, funding, and an implementation schedule for reaching targets and assemble into a comprehensive action plan.

i. REQUIRED ACTIONS
    1. Seek stakeholders' advice to find more ways to achieve targets.
    2. Incorporate performance targets, strategies, and implementation scheme into a Roadmap.

2. RESOURCES:

a. To assist in Roadmap preparation, the following resources provide useful principles, best practices, and case study success stories:

i. ASSESSMENT TOOLS

1. Catalog of Administrative Data Sources for Neighborhood Performance Metrics — NNIP (https://www.urban.org/research/publication/catalog-administrative-data-sources-neighborhood-indicators)

2. Characteristics and Guidelines of Great Neighborhoods — APA (https://canvas.uw.edu/courses/1546669/files/90096128?module_item_id=15442972)

3. Guide to Starting a Local Data Intermediary — NNIP (https://www.urban.org/research/publication/nnips-guide-starting-local-data-intermediary)

4. Opportunity Score — Redfin (https://www.redfin.com/news/data-center/opportunity-score/)

5. Planning to Stay: Learning to See the Physical Features of Your Neighborhood, W. Morrish (https://www.amazon.com/Planning-Stay-Learning-Physical-Neighborhood/dp/1571312463/ref=sr_1_1?s=books&ie=UTF8&qid=1463604963&sr=1-1&keywords=planning+to+stay)

6. Vital Records: A Source for Neighborhood Performance Metrics — NNIP (https://www.urban.org/research/publication/vital-records-source-neighborhood-indicators)

ii. SUSTAINABLE NEIGHBORHOOD DESIGN AND DEVELOPMENT INFORMATION

1. City Comforts: How to Build an Urban Village, D. Sucher (https://www.amazon.com/City-Comforts-Build-Urban-Village/dp/0964268019/ref=sr_1_1?s=books&ie=UTF8&qid=1463441029&sr=1-1&keywords=city+comforts)

2. Neighbors and Neighborhoods: Elements of Successful Community Design, S. Brower (https://www.amazon.com/Neighbors-Neighborhoods-Elements-Successful-Community/dp/1611900018/ref=sr_1_1?s=books&ie=UTF8&qid=1463166896&sr=1-1&keywords=-%09Neighbors+and+Neighborhoods%3A+Elements+of+Successful+Community+Design%2C+S.+Brower.)

3. Seven Rules for Sustainable Communities: Design Strategies for the Post-Carbon World, P. Condon (https://www.amazon.com/Seven-Rules-Sustainable-Communities-Strategies/dp/1597266655/ref=sr_1_1?s=books&ie=UTF8&qid=1463166931&sr=1-1&keywords=-%09Seven+Rules+for+Sustainable+Communities%3A+Design+Strategies+-for+the+Post+Carbon+World%2C+P.+Condon.)

4. Shaping Neighborhoods: For Local Health and Global Sustainability, H. Barton (https://www.amazon.com/Shaping-Neighbourhoods-Health-Global-Sustainability/dp/0415495490/ref=sr_1_fkmr0_1?s=books&ie=UTF8&qid=1463166967&sr=1-1-fkmr0&keywords=-%09Shaping+Neighborhoods%3A+For+Local+Health+and+Global+Sustainability%2C+H.+Barton.)

5. The Great Neighborhood Book: A Guide to Placemaking, J. Walljasper (https://www.amazon.com/Great-Neighborhood-Book-Do---Yourself/dp/0865715815/ref=sr_1_1?s=books&ie=UTF8&qid=1463167012&sr=1-1&keywords=-%09The+Great+Neighborhood+Book)

6. The Hidden Potential of Sustainable Neighborhoods: Lessons from Low-Carbon Communities, H. Fraker (https://www.amazon.com/Hidden-Potential-Sustainable-Neighborhoods-Communities/dp/1610914082/ref=sr_1_1?s=books&ie=UTF8&qid=1463167071&sr=1-1&keywords=-%09The+Hidden+Potential+of+Sustainable+Neighborhoods%3A+Lessons+-from+Low-Carbon+Communities%2C+H.+Fraker.)

iii. ROADMAP STRATEGIES

1. See Appendix C.

CHAPTER 6: PERFORMANCE PHASE - OVERVIEW

OVERVIEW: Performance entails the implementation, monitoring, evaluation, and improvement of the roadmap. Sustainability Executive Commissions must submit Performance progress reports within 1-year of joining C4 and continue reporting semi-annually thereafter. The Performance phase is an ongoing effort to:

i. EXECUTE THE SUSTAINABILITY PLAN.
ii. MONITOR TARGET PROGRESSION.
iii. CONTINUOUS IMPROVEMENT.
iv. KNOWLEDGE SHARING AND EVIDENCE INFLUENCES STRATEGY.

Sustainability Executive Commissions embraces continuous learning to ensure efficient strategizing.

IMPLEMENTATION

A. Performance: The Sustainability Executive Commission evaluates progress in strategy implementation and meeting performance targets. This is an ongoing phase in which reports are shared regularly with the community and publicly on the C4 Resource Library.
   i. A Sustainability Executive Commission's semi-annually progress report becomes the basis of measuring impact over time and supporting peer-to-peer learning.

1. REQUIREMENTS
   a. CONFIRM GOVERNANCE
   b. IMPLEMENT AND ROUTINELY UPDATE ACTION PLAN
   c. TRACK PROGRESS
   d. LEARN FROM PERFORMANCE

2. **PROGRESS REPORTING:** Sustainability Executive Commissions is encouraged to submit a semi-annual progress report beginning on the anniversary of joining C4. Sustainability Executive Commissions receive a preliminary review in response to an initial progress report submission.
   a. Once the initial progress report has been received, Sustainability Executive Commissions must submit a progress report semi-annually. These ongoing progress reports are reviewed in the same manner as the initial report.
   b. **SEMI-ANNUALLY PROGRESS REPORT TEMPLATE** is provided below
   i. TEMPLATE COMPONENTS
   1. INTRODUCTION.
   2. IMPLEMENTATION ACTIVITIES.
   3. GOVERNANCE STATUS.
   4. PERFORMANCE METRICS.
   5. RESULTS & STRATEGIES EVALUATION.

3. **RESOURCES:** To support monitoring, reporting, and knowledge sharing, the following resources provide useful principles, best practices, and case study success stories:
   a. SUSTAINABILITY COMMISSION EXECUTIVE TEAM-SCALE PERFORMANCE REPORTS (
   i .A 2030 Community on the Rise — Cleveland (http://www.2030districts.org/sites/default/files/atoms/files/2015 Report%2C 1.26.16%2C electronic version.FINAL_.pdf)
   ii.Capitol Hill EcoCommunity Index Update — Seattle (https://www.capitolhillecodistrict.org/)

iii. Capitol Hill EcoCommunity 2014 Annual Report — Seattle (https://ecodistricts.org/information-exchange/capitol-hill-ecodistrict-2015-annual-report/)

iv. Midtown: Inside Our Growing Eco-Community — Atlanta (https://www.midtownatl.com/about/programs-and-projects/planning-and-urban-design)

v. Millvale Ecocommunity Pivot 2.0 — Millvale PA (https://issuu.com/evolveea/docs/millvale_pivot_2_final_report_highr/9)

vi. Pittsburgh 2030 Community Progress Report (https://www.2030districts.org/pittsburgh/annual-progress-reports)

vii. Saint Paul Ecocommunity (https://www.xcelenergycenter.com/sustainability/news/detail/city-partners-launch-saint-paul-ecodistrict)

viii. Vital Signs 14 — Baltimore (https://bniajfi.org/wp-content/uploads/2016/04/VitalSigns14_FullOnline.pdf)

b. TOOLS/MORE INFORMATION

i. Evaluating Progress and Making Adjustments — NeighborWorks America (https://www.neighborworks.org/Documents/Community_Docs/Revitalization_Docs/StableCommunities_Docs/Evaluating-Progress.aspx)

ii. Guide to Evaluating Collective Impact — Collective Impact Forum (https://collectiveimpactforum.org/resource/guide-to-evaluating-collective-impact/)

iii. International Standard 14001: 2019 — Environmental Management Systems (https://www.iso.org/standard/72333.html)

APPENDIX A: GLOSSARY

ASSET. Something of social, economic, environmental, and/or organizational value that could support commission formation, and something of value toward achieving Priority goals.

BACKBONE ORGANIZATION. An organization dedicated to coordinating and guiding communities through the C4 Framework while providing additional resource and technical assistance, Urban Efficiency Group, LLC and Seven Generations Ahead.

BASELINE ASSESSMENT. A comprehensive, quantitative appraisal of a community's current performance characteristics as measured by Imperatives and Priority Performance Metrics.

SEMI-ANNUALLY PROGRESS REPORT. A report on community progress submitted either quarterly or bi-annually to maintain C4 certification

CARBON DIOXIDE (CO2). Carbon dioxide is one of the so-called 'greenhouse gases' that absorb heat in the atmosphere. The release of carbon dioxide through excessive burning of fossil fuels adds to global warming. The carbon dioxide is absorbed back into the system physically through plants and trees, but this can be arrested if humankind cuts down too many trees and reduces that absorption capacity. CO2 also serves as the comparative reference for which all GHGs are measured.

CARBON NEUTRALITY. According to the definition of the Intergovernmental Panel on Climate Change (IPCC), carbon neutrality, or net zero CO2 emissions, refers only to carbon dioxide emissions and is a state of balance between the CO2 emitted into the atmosphere and the CO2 removed from the atmosphere. In actual business practice, organizations often use the term "carbon neutrality" to include all greenhouse gas (GHG) emissions when they announce their ambitious emissions reduction targets.

CLIMATE. Actions to eliminate greenhouse gas emissions and reduce climate change.

COLLABORATIVE GOVERNANCE. An organized, structured systematic approach to addressing community wide issues.

COLLECTIVE IMPACT. A governance option that supports combining social and economic resources to create sustainable change through differentiated yet collaborative efforts

DECISION-MAKING BODY. The governing body of the community as authorized in the Community Resolution.

COMMUNITY RESOLUTION. A nonbinding agreement that recognizes C4 organizational roles and responsibilities and describes resources that participating stakeholders will provide to the organization.

COMMUNITY. An area with a local identity, character, and/or planning area boundary; equivalent to neighborhood.

SUSTAINABILITY EXECUTIVE TEAM/COMMISSION. Key stakeholders who coordinate its Imperatives Commitment preparation and who will evolve into the decision-making body created or designated in a Community Resolution. Throughout the Protocol process, the team should be a broad representation of the community. Please note the terms used to identify the Executive Sustainability Commission are interchangeable based on the official language designated by the municipality i.e. sustainability commission, sustainability team, and sustainability committee.

ENDORSEMENT. C4 communities' individual approval of a community's Imperatives Commitment, Community Resolution, and Roadmap.

EQUITY. In the context of sustainability, the term equity has to do with fairness – whether all people have similar rights and opportunities, basic needs to maintain an acceptable quality of life.

GREENHOUSE GASES. Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

IMPERATIVES. Three critically important, overarching issues that must be addressed to attain neighborhood sustainability: Equity, Resilience, and Climate. The C4 Protocol requires a commitment to Imperatives action before certification may be granted.

KNOWLEDGE HUB. A resourceful platform with sources of projects, tools for establishing performance metrics and guides for building sustainability plans or strategies.

PERFORMANCE METRICS. A set of quantitative measurements that characterize community performance relative to the Imperatives and Priority objectives. Performance Metrics are used to express performance targets, and semi-annually performance results for a given Imperative or Priority. See Appendix B for additional information.

NATURAL CAPITAL. The quantity of natural resources, such as land, water, and air, that communities depend on for basic needs.

NEIGHBORHOOD. A subarea of a community with a distinct identity, character, and/or planning area boundary; equivalent to community.

OBJECTIVE. A set of action to complete a Priority goal.

OBJECTIVE CATEGORY. A set of interrelated objectives.

PRIORITY. One of the Protocol's eight focuses: Place, Prosperity, Health and Wellbeing, Connectivity, Living Infrastructure, Resource Regeneration, and Green Generation and Eco-Network. For certification, a community Roadmap must address all C4 Priorities.

PROGRAM. A service or activity that addresses any strategy outline in the action plan. A program may execute several projects at various levels: entry, moderate and high.

PROJECT. An action or coordinated actions, such as a land development, that address any Roadmap strategy.

PROTOCOL. The C4 framework for achieving people-centered, community-scale sustainability; and a certification standard that recognizes community-scale sustainability leadership and achievements.

PUBLIC SPACES. Publicly accessible roads, shopping centers, outdoor recreational areas, and any public facilities.

RESOURCE LIBRARY. The online portal and database maintained by C4 communities to record registered communities and their certification work products.

RESILIENCE. Community resilience is the sustained ability of a community to use available resources (energy, communication, transportation, food, etc.) to respond to, withstand, and recover from adverse situations (e.g., economic collapse to global catastrophic risks). This allows for the adaptation and growth of a community after disaster strikes.

ROADMAP. The action plan prepared by a commission to describe community context and conditions, set future performance targets, formulate strategies to achieve the targets, identify funding for the strategies, and establish a schedule for achieving the targets based on a reasonable timeline.

STAKEHOLDERS. People and organizations based in, or serving, a community, including but not limited to public agencies, private utilities, schools, community development corporations, major property owners and investors, civic groups, and faith-based organizations.

STRATEGY. A Roadmap implementation measure that may include one or more programs or projects. See Appendix C for additional information.

SYSTEM OF SUSTAINABILITY. A model that shifts the focus from siloed climate efforts that prioritize the planet to systemic sustainability efforts that prioritizes the people and planet.

TEMPLATE. The outline of required content in community certification documents, including the Imperatives Commitment template, Community Resolution template, Roadmap template, and semi-annually progress report template.

APPENDIX B: ILLUSTRATIVE PERFORMANCE METRICS

Performance Metrics are values that can be measured quantitatively and that characterize community performance relative to the Imperatives and Priorities. Performance Metrics are developed during the roadmap phase and used to benchmark relative conditions. They are also used to gauge progress towards targets in the Performance phase. Suitable candidates for Performance Metrics meet the following criteria:

Measure impact of an Imperative or Priority objective.
Use data that is current and accessible.
Be easily understood by the public and media.
Foster action.

The executive sustainability commission has the following options for developing a locally responsive set of Performance Metrics:

- Use the illustrative Performance Metrics from Tables B.1 and B.2 directly or as beginning points in formulating a set of Performance Metrics that fit local circumstances.

- Adopt or adapt relevant Performance Metrics that are already used in the community. Many civic organizations and public agencies operate local Performance Metrics programs focused on social, economic, and environmental conditions. These may offer cooperative data and measurement advantages for a community.

- Consult exemplary neighborhood sustainability indicator projects, such as the Seattle Sustainable Neighborhoods Assessment Project (https://www.seattle.gov/opcd/ongoing-initiatives/seattle-2035-comprehensive-plan#projectdocuments) and the San Antonio Neighborhood Sustainability Assessment Project (https://www.sanantonio.gov/Portals/0/Files/Sustainability/NeighborhoodSustainabilityAssessmentReport.pdf).

- Adopt or adapt relevant Performance Metrics that appear in databases at the following metrics knowledge hubs:

    - Community Performance Metrics Consortium Project List (https://communityindicators.net/indicator-projects/)

    - International Institute for Sustainable Development Community Indicator Systems (https://www.iisd.org/projects/community-indicator-systems)

    - National Neighborhood Performance Metrics Partnership (https://www.neighborhoodindicators.org/)

    - World Council on City Data (https://www.dataforcities.org/)

- Consider Performance Metrics used in urban sustainability assessment and rating tools from the selection in the SEED Sustainability Education and Economic Development Center (https://theseedcenter.org/resources/).

- Adopt or adapt Performance Metrics from subject matter technical sources — for example, the U.S. EPA Guide to Sustainable Transportation Performance Measures for transportation (https://www.epa.gov/sites/default/files/2014-01/documents/sustainable_transpo_performance.pdf) or the California Healthy Communities Data and Performance Metrics Project for health (https://www.cdph.ca.gov/Programs/OHE/CDPH Document Library/HCI/ADA Compliant Documents/The Healthy Communities Data and Indicators Project ToolKit for Website ADA Compliant.pdf).

- Create new, custom Performance Metrics that take advantage of unique local data.

IMPERATIVE PERFORMANCE METRICS

A community's Performance Metrics set must include at least one system metric for each Imperative. Communities are encouraged to include additional Imperative Performance Metrics, if desired. Illustrative Performance Metrics for each Imperative are shown in Table B.1.

This outline details the Imperatives with their Objective Categories as it correlates to the Illustrative Performance Metrics for each Imperative

Table B.1: Illustrative Imperative Performance Metrics

IMPERATIVE		ILLUSTRATIVE INDICATOR
EQUITY	Civic participation	• Percentage of eligible voters voting in latest local election
	Economic opportunity	• Unemployment rate • Percentage of population living below poverty level • Percentage of population receiving social assistance
	Health and wellbeing	• Premature mortality (deaths under age 75) • Percentage of population reporting good or excellent mental health • Persons with diabetes per 100 population
	Physical surroundings	• Walkability score • Number of civic meeting spaces within walkable distance • Number of healthy food stores within walkable distance • Amount of green space within walkable distance
RESILIENCE	Social	• Average years of educational attainment • Language competency (percentage of population who speak English as a second language) • Percentage voter participation in latest election
	Economic	• Percentage of businesses with 100+ employees • Percentage of households in poverty • Sector diversity — percentage of workforce in primary, secondary, and tertiary sectors
	Environmental	• Percentage of land area in 100-year floodplain • Percentage of land area subject to sea level rise • Percentage of land area with hydric soils (liquefaction)
CLIMATE PROTECTION	Energy use	• Average residential electricity & natural gas use (million Btu/year) • Average household vehicle fossil fuel use (gallons/year) • Per capita total energy use (million Btu/year)
	Onsite energy production	• Carbon-free thermal energy produced within the district (million Btu/year) • Renewable power generated within the district (megawatt hours/year)
	CO_2 emissions	• Per capita CO_2 emissions (metric tons/year)

PRIORITY PERFORMANCE METRICS

A community's indicator set must also include at least one performance metric for each Priority objective category, and communities are encouraged to include additional Performance Metrics, if desired. Illustrative
Performance Metrics for each Priority objective category are given in Table B.2.

This outline details the Priorities with their Objective Categories as it correlates to the Illustrative Performance Metrics for each Priority.

Tables B.2: Illustrative Priority Performance Metrics

PRIORITY: PLACE - CREATE CULTURALLY INCLUSIVE, GENERATIONALLY RELEVANT, HISTORICALLY REPRESENTATIVE PLACES.

OBJECTIVE CATEGORIES	OBJECTIVES	ILLUSTRATIVE PERFORMANCE METRICS
ENGAGEMENT + INCLUSION	Civic engagement is strong and processes are inclusive and representative.	Percentage of population engaged in public consultation processes (e.g., attendance rates, social media subscribers).
		Demographic makeup of engagement participants.
		Number of hours per capita volunteered annually by residents and business employees.
		Percentage of eligible residents voting in most recent local election.
	Sharing programs are robust.	Number of sharing programs in continuous operation. Percentage of households and businesses participating in sharing programs annually.
CULTURE + IDENTITY	Historic and culturally significant places are preserved and celebrated.	Number of historic/cultural preservation projects completed, and programs operated annually.
		Number of public art and cultural interpretive installations.
	Participation in cultural events is high.	Percentage of population participating annually in cultural events within the district.
		Number of public spaces available for events.
PUBLIC SPACES	Public spaces are accessible to all.	Percentage of dwelling units and businesses within a 0.25 mile (0.4 km) walk of a public space other than a street.
	Public spaces are high quality, engaging, and active.	Number of activities programmed annually for public spaces, including streets.
		Number of people using public spaces daily, at peak and average levels of occupancy.
HOUSING	Housing is affordable and well maintained.	Percentage of dwelling units at affordable levels.
		Percentage of dwelling units occupied.
		Percentage of dwelling units in poor condition.
		The district's Housing and Transportation Affordability Index score.
	Housing is available to meet a diversity of dwelling needs.	Diversity index score of district dwellings.
		Percentage of dwellings meeting local visitability and universal design standards.
	Housing is close to facilities that offer a complete set of daily needs.	Percentage of daily essentials (e.g., shopping, civic, education, recreation) within a 0.5 mile (0.8 km) walk of 50 percent of dwellings.

PRIORITY: PROSPERITY - UPLIFT PATHWAYS TO ECONOMIC SUCCESS AND FOSTER INNOVATIVE THINKING.

OBJECTIVE CATEGORIES	OBJECTIVES	ILLUSTRATIVE PERFORMANCE METRICS
ACCESS TO OPPORTUNITY	Income and racial inequality are reduced.	Household income and education levels.
		Percentage of population living below the poverty line.
	Schools provide quality education.	Graduation rates.
		Absenteeism rates.
		Percentage of students advancing from one grade level to the next.
	Career pathways and training are available.	Number of training programs matched to district job opportunities.
		Percentage of eligible district participants enrolled in training programs.
ECONOMIC DEVELOPMENT	Employment in the district is retained.	Number and type of jobs retained annually (workforce survey).
		Percentage of district residents employed at locations in the district.
	Job quality in the district is enhanced.	Median wage.
		Percentage of employees with full job benefits.
	New job creation occurs through economic development.	Number of "local sourcing" agreements and programs in operation.
		Number of community-owned/controlled business formations annually.
INNOVATION	Interaction between entrepreneurs is fostered.	Number of incubators, accelerators, maker spaces, and co-working spaces in the district.
		Number of programs, and enrollment levels, to cultivate business innovation.
	Job growth in emerging sectors is higher than in traditional sectors.	Number of district-based start-ups in emerging sectors annually.

PRIORITY: HEALTH AND WELLBEING - TO ENSURE THE PHYSICAL, MENTAL, EMOTIONAL, AND PSYCHOLOGICAL WELLBEING OF ALL PEOPLE.

OBJECTIVE CATEGORIES	OBJECTIVES	ILLUSTRATIVE PERFORMANCE METRICS
ACTIVE LIVING	Access to recreation facilities and services is improved.	Percentage of population within a 0.25 mile (0.4 km) walk of a public indoor or outdoor recreation space.
	Walkability is enhanced.	Percentage of street length in the district with sidewalks on both sides.
		The district's Walk Score.
	Health outcomes and life expectancy are more equitable.	Average life expectancy.
HEALTH	Affordable, high-quality health care is accessible.	Percentage of population with cardiovascular disease.
		Asthma rates.
		Obesity rates.
		Percentage of population with health insurance coverage.
		Walk and Transit Scores of health facility locations.
	Toxic environments are remediated and regenerated.	Number of days annually that air quality emissions standards are exceeded in and near the district.
		Percentage of population living near an unremediated brownfield or contaminated site.
SAFETY	Public safety is enhanced.	Annual composite index score of crimes against persons and property.
	The built environment is designed for public safety.	Percentage of public space frontages visible from a street.
		Number of pedestrian and bicyclist fatalities annually.
FOOD SYSTEM	Healthy and affordable fresh food is accessible.	Percentage of dwelling units within a 0.5 mile (0.8 km) walk of a fresh food outlet.
	Food production in the district is encouraged.	Area per capita used for food production.
		Percentage of households with a home garden or using a community garden.
		Quantity of local fresh food procured annually by establishments in the district.

PRIORITY: CONNECTIVITY - BUILD EFFICIENT TRANS-MODAL, COMMUNICATION AND BROADBAND RAILS FOR PEOPLE AND PLACES.

OBJECTIVE CATEGORIES	OBJECTIVES	ILLUSTRATIVE PERFORMANCE METRICS
STREET NETWORK	The street network supports all travel modes.	Intersections per square mile or kilometer.
		Transit stops per square mile or kilometer.
		Percentage of total street length with bicycle sharing.
	The street network accommodates people with diverse ages and abilities.	Percentage of students walking to school and residents walking to work.
MICRO-MOBILITY		Percentage of arterial intersections with traffic-controlled crosswalks.
INCREASED ACCESS TO HIGHSPEED INTERNET		
MOBILITY	District travel, internally and externally, is safe, efficient, and multimodal.	Vehicle miles or kilometers traveled daily per capita.
		Mode split of daily person trips.
		Household car ownership rate.
		Number of "first and last mile" options at major transit stops.
	Shared mobility options are increased.	Number of bike and car share stations.
		Percentage of population using shared cars and bikes annually.
DIGITAL NETWORK	Quality wire and wireless connectivity is available throughout the district.	Percentage of residential and nonresidential users with Internet download speeds of at least 1 gigabyte.
		Number of free Wi-Fi hotspots per square mile or kilometer.
		Percentage of public spaces with free Wi-Fi.
	Local government data is open and accessible for public consumption.	Percentage of local government services that can be accessed by citizens via the Internet or mobile phone.
		Number of technology hubs for low-income residents to access the Internet.

PRIORITY: LIVING INFRASTRUCTURE - BUILD AND FOSTER VIBRANT ECOSYSTEMS.

OBJECTIVE CATEGORIES	OBJECTIVES	ILLUSTRATIVE PERFORMANCE METRICS
NATURAL FEATURES	The quality and functions of habitat are enhanced.	Improvement in functional habitat performance.
		Percentage of nonfunctional habitat restored annually.
	Natural features are protected.	Percentage of steep slope areas designated as non-buildable.
		Average buffer distance protecting wetlands and water bodies.
ECOSYSTEM HEALTH	Rainwater is managed in the district.	Percentage of 50-year storm events managed within the district.
		Ratio of pervious to impervious surfaces.
	Soil fertility and farmland are protected.	Annual compaction, erosion, and chemical treatment rates.
	Contaminated land is remediated for productive reuse.	Area of contaminated land remediated for reuse annually.
CONNECTION WITH NATURE	Access to nature is improved.	Percentage of residents within a 1 mile (1.6 km) walk to natural open space.

PRIORITY: RESOURCE REGENERATION - STRIVE FOR UNIVERSAL EFFICIENCY AND SUSTAINABILITY

OBJECTIVE CATEGORIES	OBJECTIVES	ILLUSTRATIVE PERFORMANCE METRICS
AIR & CLIMATE	Air quality is protected from criteria pollutants.	Annual air quality index.
	Electricity generation is decarbonized.	Percent of annual electricity demand met by district-based renewable power generation.
		Carbon content of local grid-delivered electricity (CO2 pounds/ megawatt-hour)
	All sectors shift to renewable power and carbon-free fuels.	Carbon and carbon-free fuel shares for household vehicles, e.g. percent clean electric vehicles.
	All sectors improve energy efficiency, reduce waste, and increase natural carbon sinks.	Average energy use index for new building construction.
		Percent of district with tree canopy.
WATER	Potable water is used efficiently.	Gallons of water used daily per capita, indoors and outdoors.
	Alternative water sources are used for non-potable purposes.	Percentage of buildings connected to non-potable water sources.
	Water quality is protected from pollutants.	Annual water quality index score.
WASTE	Waste is diverted from landfills through reduction, reuse, and recycling.	Percentage of nonhazardous waste diverted from landfills annually.
	The residual value of organic waste is captured.	Percentage of organic waste diverted for energy recovery or composting annually.

APPENDIX C: ROADMAP STRATEGIES

Strategies are a Roadmap's implementation measures. They are used to achieve performance targets through projects and programs that improve conditions and help attain community goals and objectives. For certification, strategies are classified in three ways:

- **APPLICABLE OBJECTIVE.** The objective addresses community hopes.
- **IMPLEMENTATION SCALE.** The scale of strategy implementation: building, block, community, or citywide. This refers to social and economic elements as well as the built environment. The citywide scale refers to enabling authorities that may have to be enacted citywide to allow a strategy, e.g. zoning standards for wind turbines, or citywide operational changes, e.g. use of renewable power for municipal infrastructure.
- **PROJECT OR PROGRAM.** The type of strategy: either a one-time improvement or service project or an ongoing program. Ongoing programs may provide services and/or execute several projects.

Table C.1 provides a set of illustrative strategies drawn from experience with neighborhood sustainability generally and Priority subject areas specifically. To create a palette of potential strategies for consideration in meeting community targets, use Table C.1 as a beginning point and consult the following sources:

- **BEST PRACTICES COMPILED BY COMMUNITYS.** Review Appendix B.
- **INNOVATIONS COMPILED BY SUSTAINABILITY PRACTITIONERS.** A searchable compendium of sustainability innovations is maintained online by the Urban Sustainability Directors Network.
- **URBAN SUSTAINABILITY MEASURES IN RATING TOOLS.** Rating tools, such as Enterprise Green Communities, LEED ND, SITES, Envision, and STAR Community, provide the functional equivalent of strategy compendiums in their catalogs of rating measures.
- **PRIORITY-RELATED SUBJECT MATTER GUIDES.** A sampling of such sources is given in Table C.2. Table C.2 is linked here, Strategy Information Sources by Subject Matter: https://drive.google.com/file/d/15JtrW0WjZD0-EyCYrBv90LclMUxVLUaC/view?usp=sharing
- **PRIORITY-RELATED ACADEMIC RESEARCH.** Academic research often provides comparative assessments of alternative strategies in Priority-related subject areas.

This outline provides an illustrative set of decarbonization strategies, with their correlating objective categories with recommendations for their perspective project and programs levels. Additional resources while determining your community's climate strategies can be found here: Decarbonization Strategy Considerations (https://drive.google.com/file/d/1MPFmkpbNy_UDJf8ElFGPt_9IZNaMINAY/view?usp=sharing).

Projects and Programs happen at these 3 levels of Society:

a. Individual Households Buildings,
b. Groups of People / Blocks, and
c. Community-wide.

Here you can find access to a blank fillable roadmap: https://docs.google.com/document/d/1ZdAsd1od-TaBl3COyVlEgiurtm53OSRuH/edit

TABLE C.2 EXAMPLE OUTLINE OF ROADMAP PROGRAMS AND PROJECTS

PRIORITIES	OBJECTIVE CATEGORIES	PROJECTS			PROGRAMS		
PLACE	Engagement + Inclusion	Individual Households Buildings	Groups of People / Blocks	District-wide	Individual Households Buildings	Groups of People / Blocks	District-wide
		Annual cleanup participation	Free library lending boxes	Voter registration drive	Bldgs as living labs, performance reporting	Emergency preparedness training	Tool / appliance sharing
	Culture + Identity	Historic event plaques / interpretive signage	Blank wall cultural murals by students	Permanent sites for rotating outdoor art	Historic preservation design assistance	Annual main street fair	Identity and event signage
	Public Spaces	Library expansion	New park entry for improved access	Sidewalk seating	Graffiti removal	Plaza cleaning and maintenance	Plaza events programming
	Housing	Redevelopment of obsolete public housing	Co-housing demonstration	Inclusionary zoning amendment	Low-income repair assistance	Small store retention incentives	Housing conditions affordability survey
PROSPERITY	Access to Opportunity	Student mentor challenge	School upgrade	Job skills gap study	Adult ESL learning	Employer internships	Job training
	Economic Development	Business incubator	Pop-up event for start-ups	Competitive advantage job expansion	Online courses for employers	High value job retention incentives	Business assistance info clearinghouse
	Innovation	Co-working space	Product / service event space	Emerging sectors target study	Capital access counseling	Peer-to-peer entrepreneur network	Start-up awards media campaign
HEALTH + WELLBEING	Active Living	Recreation challenge participation	Connector trail	Walk / bike tours map	Joint use agreements for phys. ed. classes	Employer-clinic partnerships	Senior physical activity events
	Health	Toxic site remediated	Healthy diet workshop	Health hazards survey	Health insurance	Prenatal counseling	Health clinic
	Safety	Household safety workshop	Park visibility improvements	Streetlight upgrades	Merchant security design assistance	Nuisance abatement	Neighborhood police station
	Food PERFORMANCEs	Roof garden demonstration	Food cart space at plaza	Health food outlets promotion	Master gardener classes	Street median gardens	Community supported agriculture

PRIORITIES	OBJECTIVE CATEGORIES	PROJECTS			PROGRAMS		
LIVING INFRASTRUCTURE	Natural Features	Beekeeping support	Restoration of stream corridor habitat	Bird nesting protection	Street slope restoration incentives	Conservation easement acquisitions and mgmt.	Native plant information
	Performance & Health	Rainwater harvesting	Commercial corridor rainwater onsite mgmt.	Soil conservation workshop	Yard habitat certification assistance	Stream water quality monitoring	Annual tree canopy / health survey
	Connection with Nature	Green roof demonstration	Onsite wastewater treatment for mixed-use project	Buried stream daylighting	Landscape art installations	Park space expansion	Integrated pest management
RESOURCE REGENERATION	Air & Climate	High-reflectivity roof retrofit mini-grants	EV charging station at four largest employers	Shade tree planting on walking routes	Solar PV retrofit design assistance	Expand district heating and cooling PERFORMANCE	Greenhouse gas emissions inventory update
	Water	Greywater onsite reuse	Permeable pavement demonstration	Water-efficient landscaping of public buildings	Low-flow plumbing retrofit kits	Wastewater effluent reuse PERFORMANCE	Water efficiency school curriculum
	Waste	Remediation of brownfield site	Hazardous waste collection station	Building-demolition materials salvage	Home composting classes	Commercial sidewalk recycling receptacles	Recycling center

NOTES

CROSS COMMUNITY CLIMATE COLLABORATIVE

For more info and assistance with C4 adoption please contact:

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