RESILIENT DESIGN PERFORMANCE STANDARD
Score Sheet

BOULDER COUNTY INDICATOR	POINTS	ENTER SCORE	DESCRIPTION
1. Co-Benefits. Provide solutions that address problems across multiple sectors creating maximum benefit.			
Indicator 1.1. Apply a business case format that includes consideration of alternatives and robust analysis of those alternatives across the triple bottom line of economics, community, and the environment.	*Required*	*Required*	Prepare a business case that takes an analytical look at the project element alternatives, the costs, and the return on investment both in terms of the economy and in value creation to the community and the environment.
Indicator 1.2. Use multi-disciplinary design team to develop and consider a range of integrated solutions that provide enhanced value across the triple bottom line.	*2*		Document the project design charrette process, integrated design team in Business Case.
2. High Risk and Vulnerability. Ensure that strategies directly address the reduction of risk to human well-being, physical infrastructure, and natural systems.			
Indicator 2.1. Satisfy the time-to-recovery performance goal.	*Required*	*Required*	Refer to Time-to-Recovery Performance Goals Matrix (Design team estimate the damage from hazard and the time-to-repair.)
Indicator 2.2. Identify gaps and find solutions for moving forward.	*Required*	*Required*	If the project cannot meet the performance goals, then the project team must develop temporary work-arounds or programmatic strategies to meet the required Operational time-to-performance goal.
Indicator 2.3. Consider project alternatives that augment capacity and increase buffers from high risk locations such as floodplains, landslide and urban wildfire interface when applicable.	*Required*	*Required*	Provide business case that documents consideration and analysis of alternatives considered for the project. (Can include temporary repairs to meet the minimal or operational phase.)
3. Economic Benefit Cost. Make good financial investments that have the potential for economic benefit to the investor and the broader community both through direct and indirect returns			
Indicator 3.1. Evaluate benefit of programmatic solutions when developing alternatives for capital projects.	*Required*	*Required*	Conduct triple bottom line analysis in the Business Case that quantifies economic, community, and environmental impacts of the project.
Indicator 3.2. Consider if project can increase nearby land and property values and encourage local business opportunities.	*1*		Include in Business Case
Indicator 3.3. Consider if project can create opportunities for local jobs and training	*1*		Include in Business Case
4. Social Equity. Provide solutions that includes consideration of populations that are often most fragile and vulnerable to sudden impacts due to the continual state of stress			
Indicator 4.1. Avoid disproportionate negative impacts to vulnerable populations.	*Required*	*Required*	Identify location-based demographics of populations that might be disproportionately impacted by the project. Provide triple bottom line analysis in the business case that evaluates economic, community, and environmental impacts of the project to vulnerable populations.
Indicator 4.2. Encourage diversity of actors and processes at each scale.	*1*		Document public outreach and consultation process and findings report in Business Case.
Indicator 4.3. Maintain and enhance social connectedness up, down, and between community groups, civic groups, religious and cultural communities, as well as opinion leaders in business and environment to foster understanding of complex adaptive systems and to reinforce the social connections and identity of residents, employers, and employees.	*1*		Document public outreach and consultation process and findings report in Business Case.
Indicator 4.4. Incorporate monitoring and feedback loops to enable project managers to moderate behavior, be accountable, and adapt as conditions change.	*1*		Document public outreach and consultation process and findings report in Business Case.
Indicator 4.5. Create places that foster community identity and that enhance the experience of neighbors and visitors.	*1*		Document public outreach and consultation process and findings report in Business Case.
5. Technical Soundness. Identify solutions that reflect best practices that have been tested and proven to work in similar regional contexts			
Indicator 5.1. Design project to meet existing engineering and building code standards.	*Required*	*Required*	Project must comply with local code and building standards.
Indicator 5.2. Consider how well project will perform in uncertain times.	*2*		Uncertainties from climate change, technological shifts, population growth, and resource scarcity make it difficult-to-impossible to accurately determine the appropriate capacity for a system to absorb an uncertain range of stresses, shocks, and disturbances. Testing how alternative solutions respond across a range of possible future conditions can help the project team to determine which project design performs the best. Apply a sensitivity analysis to project alternatives to determine vulnerability to uncertainties and risks to success. Include the results in the sensitivity analysis in Business Case.
6. Innovation. Advance new approaches and techniques that will encourage continual improvement and advancement of best practices serving as models to others in Colorado and beyond.			
Indicator 6.1. Project teams should consider both traditional and nontraditional alternatives to a proposed project.	*1*		The value of non-traditional approaches is that they tend to be multi-disciplinary and may create benefits and costs sometimes missed in traditional practice. The intent is to compare traditional and non-traditional alternatives that are feasible and provide outcomes with the same or better levels of service. If, however, an alternative has a self-evident fatal flaw or is infeasible, it should be documented as considered and rejected with a rationale for elimination to avoid expending resources on non-competitive alternatives. Document the alternatives consider in the Business Case.
Indicator 6.2. Consider if natural system functions can be included in project design and operations.	*1*		Document the project design charrette process, integrated design team in Business Case.
7. Adaptive Capacity. Include flexible and adaptable measures that consider future unknowns of changing climate, economic and social conditions.			

Indicator 7.1. Consider project solutions at a variety of different scales so that impact at any one scale is less likely to impact similar functioning systems at different scales.	*1*		Design district energy and water systems that nest into larger centralized systems. This adds additional capacity to the system as an impact at any one scale may not impact systems at different scales with different system drivers. Centralized systems continue to provide the backbone levels of service, but district-scale systems can relieve the peak demands on the centralized systems and provide additional buffers against extreme events.
Indicator 7.2. Consider a diversity of sources to add adaptability and flexibility for infrastructure systems during times of stresses, shocks, or loss of access to resources.	*1*		Diversity of sources examples might include water reuse for non-potable uses; multiple water supply sources such as different watersheds and/or groundwater; multiple energy sources such as grid and onsite renewables; more than one critical facility to handle essential functions post-disaster; diversity of food supply from both imported and locally available sources; etc. Apply the consideration of diversity of sources in the project design process and document results in the Business Case.
Indicator 7.3. Consider cost-effective modular, repeatable strategies.	*1*		Use of modularity can provide quick repairs for replaceable parts that can be replicated as needed in similar circumstances. Modular systems provide enhanced multi-scale functionality where different drivers and over-lapping functions can serve to increase the resilience of larger centralized systems. Apply the consideration of modularity in the project design process and document results in the Business Case.
Indicator 7.4. Consider if the project can maintain and enhance connectivity between habitat systems and provide appropriate buffers to allow habitat to serve beneficial functions for plants and wildlife.	*1*		Species have greater options to find required food, shelter, and breeding options within connected habitat systems. Apply the consideration of connectivity of habitat in the project design process and document results in the Business Case.
Indicator 7.5. Consider if the project can enhance the range of mobility connections.	*1*		Choices in modes to increase adaptive capacity of the community during sites of stress, shock, or loss of access to other modes. Apply the consideration of connectivity of modes of mobility in the project design process and document results in the Business Case.
Indicator 7.6. Consider if project can store and restore capacity of reserves at each scale so isolated elements can survive for a period on their own.	*1*		Consider storage in the project design process and document results in the Business Case.
Indicator 7.7. Evaluate potential of creating semi-autonomous systems at the building, neighborhood, and district scale.	*1*		Semi-autonomous systems are self-organizing and have the capacity to self-correct given new insight and information. They do not require extensive command and control and are the source of innovation that can create novel adaptations to variability. This innovation provides increased capability for all systems to adapt to fast and slow change. Apply the consideration of semi-autonomous systems in the project design process and document results in the Business Case.
8. Harmonize with existing activity. Expand, enhance, or leverage work being done to build on existing efforts. Assure outcomes that are environmentally friendly, sustainable, and complementary to the natural setting			
Indicator 8.1. Identify project design solutions that leverage and enhance the function of existing natural, social, and infrastructure systems.	*2*		A project that can provide multiple benefits to community will be more highly ranked than one that only serves a single purpose. Reviewing existing plans can identify opportunities for mutual support. Cost effectiveness can increase if multiple objectives can create synergies.
9. Long Term Lasting Impact. Create long term gains to the community with solutions that are replicable and sustainable, creating benefits for present and future generations.			
Indicator 9.1. Account for value of benefit to future generations when identifying preferred project designs.	*2*		To better reflect the multi-generational investments OMB Circular A-4 recommends applying a 1% discount rate in the economic analysis for future generations, 3% for a consumption perspective, and 7% discount rates to model an investment perspective. Document findings in the Business Case.
Total Possible Points	**23**	**0**	**Project TOTAL**
In meeting or exceeding the resilience performance standard of 18 points the project is contributing towards resilience by meeting the Time-to-Recovery goal			