# *Instructions*

*Use this template to quickly develop a pre-read document to share with attendees in advance of your design charrette. The template provides a framework and standard language where possible but must be customized with your project’s details before sending it to attendees.*

*This template is the first of three templates developed to support the charrette process: pre-read, slides, post-charrette report. The three are designed to work together. To maximize benefit from the charrette it is important that attendees arrive with a solid understanding of the information provided in the pre-read. Therefore, it is recommended the document remain as concise as possible and is sent to attendees with sufficient time for them to review.*

*There are three formats of text used in this template:*

* *Instructions: Italicized grey text (such as this) provides guidance for customizing the pre-read template for your project. This text is intended to be deleted prior to distribution to charrette attendees.*
* *Placeholder text: Content in square brackets and blue font is a place holder that should be updated with project-specific information prior to distribution.*
* *Standard language: The remainder of the text can be customized or retained as-is.*

Pre-Read: [Building Name] Design Charrette

# Intro

Thank you for taking the time to review this document in preparation for the [building name] design charrette scheduled for [weekday, mmm dd]. The charrette will be a focused workshop with a diverse set of stakeholders. Attendees will have an opportunity to provide feedback on the design team’s understanding of project goals and retrofit trigger events as well as feedback about the initial decarbonization plan.

# Logistics

*When feasible, convene in-person to maximize collaboration. If the charrette will be in-person use the content below. Otherwise, delete this content.*

|  |  |
| --- | --- |
| Charrette Location | [Address][Floor, Room]  |
| Accessing the Meeting Room | [Additional instructions that attendees will need to easily find the meeting room] |
| Meals, Refreshments, and Dietary Restrictions | [Summary of any meals or refreshments and when they will be provided][Details about addressing dietary restrictions and contact information for attendees to provide information about their dietary restrictions]  |
| Event Contact Information | [Name, email, phone number] |

[As needed include a map (e.g., campus map, room in building map]

*If the meeting will be virtual use the content below. Otherwise, delete this content.*

The charrette will be held over [video conference service].

[link, passcode, and any other information required for attendees to join the meeting]

# Event Agenda

*Charrettes focused on preliminary retrofit plan feedback commonly take between two and three hours but adjust this guideline relative to your project team’s needs.*

The design charrette is scheduled to take place on [weekday, mm dd, yyyy] from [hh am/pm] to [hh am/pm] [time zone].

|  |
| --- |
| **Agenda** |
| Introductions and overview |
| Clarifying Q&A on the Charrette Process + RED Approach |
| Holistic Building Goals - review and feedback |
| “Trigger events” – review and feedback |
| Preliminary Retrofit Plan and Project Priority List – overview |
| Reduce - feedback |
| Reconfigure - feedback |
| Recover - feedback |
| Replace - feedback |
| Key Takeaways and Next steps |

# Status of Retrofit Planning

The diagram below provides a high-level overview of where we are in the retrofit planning process. The orange dot represents the current project step, with all steps to the left being completed and to the right yet to be done. The preliminary retrofit plan scope is developed based on high-level calculations and the team’s expertise and prior project experience. Having a charrette at this point in the process allows for early feedback about the practicality of the retrofit scope and alignment with goals. Detailed energy and financial analysis will occur after the charrette and may drive scope change as the analysis team uses the results to optimize the retrofit scope (especially in regard to achieving both decarbonization and financial return on investment goals).

# Desired Charrette Outcomes

We hope to leave the charrette with holistic feedback on:

* If currently documented project goals are accurately defined and if goals should be added or subtracted.
* If currently documented retrofit trigger event dates are accurately defined and if there are events that should be added to the business-as-usual scenario.
* Initial feedback on the proposed retrofit plan including preferred alternatives and practicality limitations (e.g., tenant disruption, impact on O&M).

# We will not focus on making decisions on the topics above during the charrette. Instead, we will distribute a post-charrette report memorializing the charrette. We will use this report as a vehicle to come to consensus regarding refinements to goals, retrofit triggers, and the preliminary retrofit plan and use this as a basis for moving into the detailed analysis phase. Charrette outcomes include advice and suggestions to improve on proposed retrofits basis of design, to incorporate previously unknown technology or design approaches, examine different scenarios, and to more holistically consider the needs of the building owner.

# Charrette Attendees

*Aim to assemble a holistic group of stakeholders to ensure sufficient expertise and diversity of thought. The example roles in the table provide a starting point, but do not be limited by the examples.*

The table below provides information about individuals that have confirmed attendance for the charrette.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Organization** | **Role** | **Email** |
| [Name] | [Org name]  | [Facilitator] | [Email address] |
| [Name] | [Org name]  | [Facility Manager] | [Email address] |
| [Name] | [Org name]  | [Asset Manager] | [Email address] |
| [Name] | [Org name]  | [Building Chief Engineer] | [Email address] |
| [Name] | [Org name]  | [Sustainability Manager] | [Email address] |
| [Name] | [Org name]  | [Architect] | [Email address] |
| [Name] | [Org name]  | [Mechanical Engineer] | [Email address] |
| [Name] | [Org name]  | [Electrical Engineer] | [Email address] |
| [Name] | [Org name]  | [Structural Engineer] | [Email address] |
| [Name] | [Org name]  | [Energy Modeler] | [Email address] |
| [Name] | [Org name]  | [Controls Contractor] | [Email address] |
| [Name] | [Org name]  | [Commissioning Agent] | [Email address] |
| [Name] | [Org name]  | [Utility Representative] | [Email address] |
| [Name] | [Org name]  | [Thermal Energy Network Representative] | [Email address] |
| [Name] | [Org name]  | [Tenant] | [Email address] |
| [Name] | [Org name]  | [Tenant] | [Email address] |
| [Name] | [Org name]  | [External Expert – Heat Pumps, Thermal Storage, Energy Recovery, etc.] | [Email address] |
| [Name] | [Org name]  | [External Expert – Building Envelope] | [Email address] |
| [Name] | [Org name]  | [External Expert – Case Studies] | [Email address] |

# Project Goals

*The charrette templates (this pre-read template in addition to the slides and post-charrette report template) assume goals have been defined prior to the charrette. If this isn’t the case, consider working with the team to define them prior to the charrette or extending the charrette and adding a goal setting session. Summarize project goals in the table below.*

Project goals are summarized in the table below [add details about goal setting process as helpful]. The charrette agenda provides time for attendees to provide feedback about modifying the goals below or adding goals.

|  |  |  |
| --- | --- | --- |
| **Goal** | **Metric** | **Target** |
| [Reduce CO2 emissions] | [Scope 1 Emissions] | [50% reduction by 2030] |
| [Reduce CO2 emissions] | [Scope 1 Emissions] | [100% reduction by 2025] |
| [Return-on-investment] | [Overall retrofit package NPV] | [Positive, 8% discount rate] |
| [Improved asset value] | [Net Operating Income (NOI) ] | [5% increase] |
| [Indoor Environmental Quality] | [Outdoor Air Ventilation Rate] | [30% above code compliance] |
| Goal | Metric | Target |
| [Reduce CO2 emissions] | [Scope 1 Emissions] | [50% reduction by 2030] |
| [Reduce CO2 emissions] | [Scope 1 Emissions] | [100% reduction by 2025] |
| [Return-on-investment] | [Overall retrofit package NPV] | [Positive, 8% discount rate] |
| [Improved asset value] | [Net Operating Income (NOI) ] | [5% increase] |
| [Indoor Environmental Quality] | [Outdoor Air Ventilation Rate] | [30% above code compliance] |

# Retrofit Trigger Events

*The charrette templates (this pre-read template in addition to the slides and post-charrette report template) assume retrofit trigger events have been documented prior to the charrette. If this isn’t the case, consider collecting this data before sending the pre-read. Summarize retrofit trigger events in the table below.*

Retrofit trigger events are conditions, requirements, or events at your building or real estate company prompting you to undertake a decarbonization effort. They will be used to develop a business-as-usual investment scenario as a comparison for the decarbonization retrofit plan’s timing and financial analysis.

Retrofit trigger events are summarized in the table below [add details about how they were collected as helpful]. The charrette agenda provides time for attendees to provide feedback about the accuracy and scope of the events.

|  |  |  |
| --- | --- | --- |
| **Event Scope** | **Event Type** | **Anticipated Date** |
| [Steam boilers 1 & 2] | [End-of-life] | [2040] |
| [Roof top unit – ACME tenant] | [End-of-life] | [2028] |
| [Cooling towers 1 & 2] | [End-of-life] | [2030] |
| [Emergency diesel generator 1] | [End-of-life] | [2032] |
| [Building controls maintenance contract] | [Contract end] | [2030] |
| [Windows – All] | [End-of-life] | [2035] |
| [Roof membrane] | [End-of-life] | [2028] |
| [ACME - tenant] | [Tenant turnover] | [2027] |
| [Prodigy - tenant] | [Lease end] | [2027] |
| [Lobby and 1st floor common areas] | [Gut rehab] | [2029] |

# Preliminary Retrofit Plan Summary

*The format of this section has intentionally been left open due to the variety of source information best describing the retrofit plan. To maximize the benefit of the charrette, provide a concise but holistic view of the proposed retrofit scope, so attendees will have the opportunity to evaluate it prior to arriving at the event.*

*Consider including tables, diagrams, photos, and links to relevant case studies to accurately describe the retrofit plan.*

# Resource Efficient Decarbonization (RED) Overview

Retrofit plan feedback sessions during the charrette will be structured using [step 2 in the Resource Efficient Decarbonization (RED)](https://retrofitplaybook.org/resource/resource-efficient-decarbonization-guides/) framework. Please read the linked document before attending the charrette. There will be a feedback session organized around each of the following four strategies:

**REDUCE -** Investments that increase the building’s efficiency to directly reduce GHG emissions and cost, but also to reduce heating and cooling loads for additional savings and lower equipment capacity.

**RECONFIGURE -** Modify or replace air, water, and steam distribution systems for direct performance improvements and to facilitate other investments (e.g., transition to heat pump technology).

**RECOVER** - Tap waste heat from within and outside the building to improve efficiency. Store energy to manage peaks.

**REPLACE** - Electrify equipment currently using fossil fuels. Explore near-term partial electrification to improve ROI.