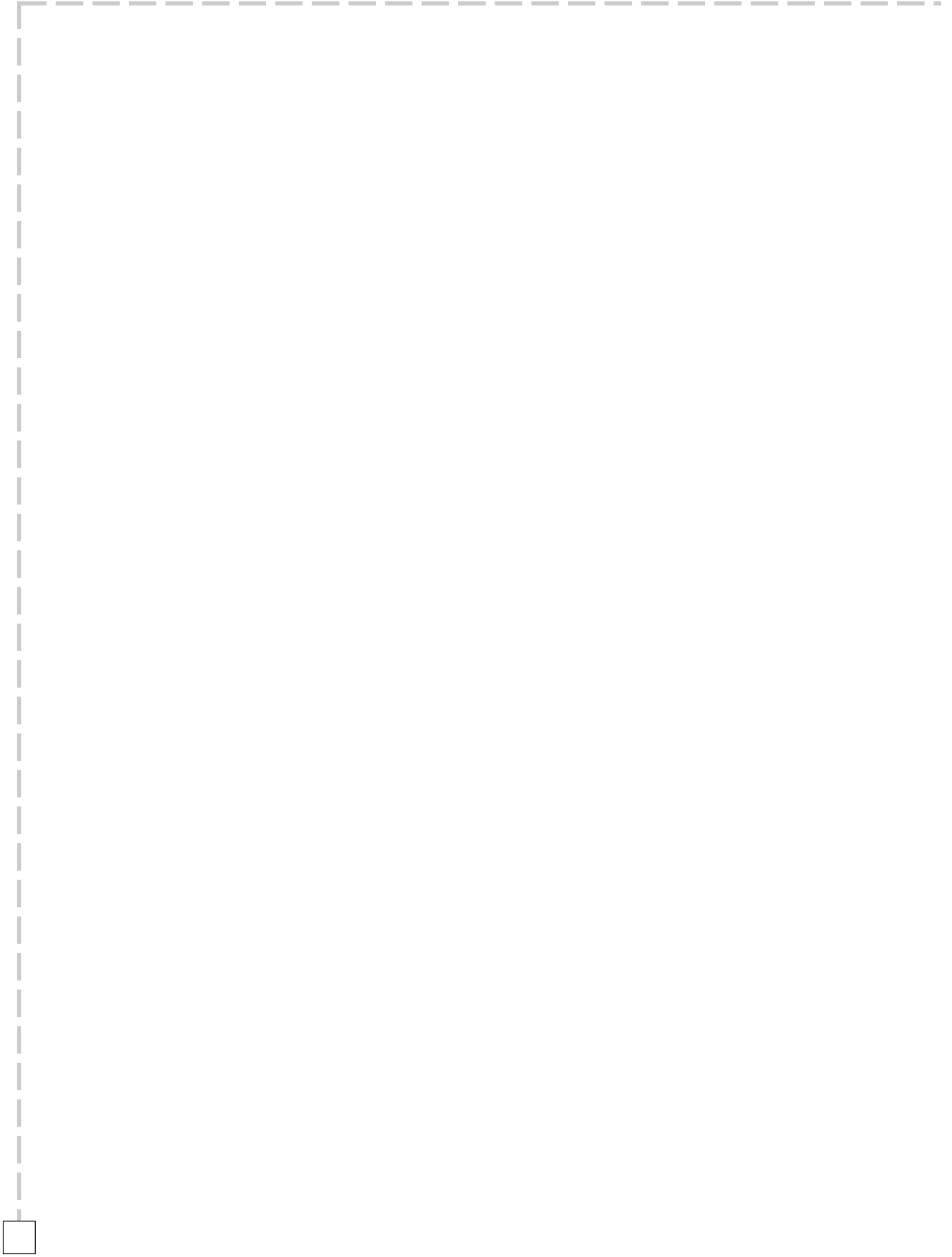


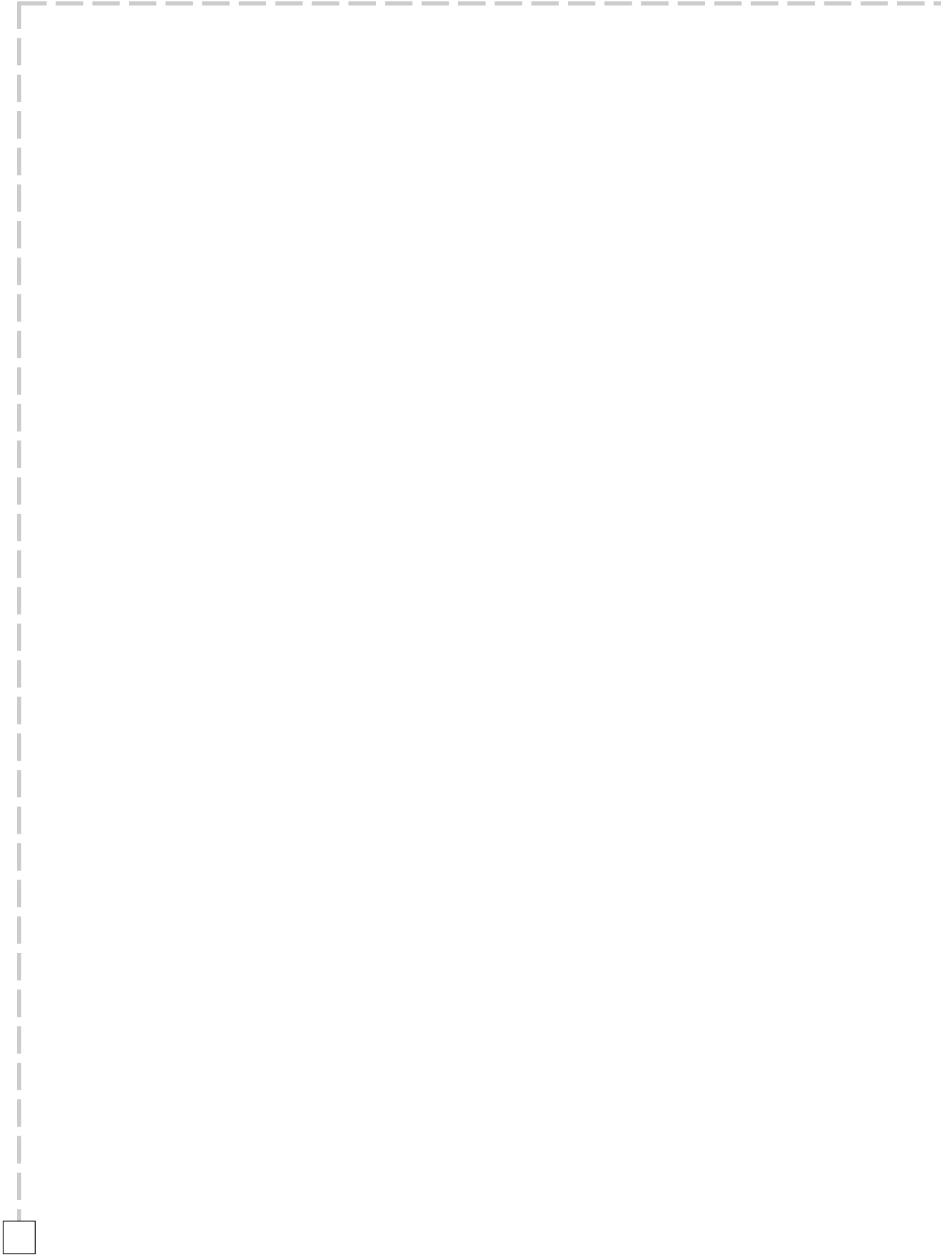


This document, *PATH Technology Roadmap: Advanced Panelized Construction*, is one in a series of technology roadmaps created to serve as guides to help the housing industry make decisions about research and development investments.

The Partnership for Advancing Technology in Housing (PATH), administered by the











The objective of PATH technology roadmapping is to identify technology areas for imme-







Many of the challenges for achieving advances in panelized construction are similar to those noted in other roadmapping papers (i.e., regulatory, education and training, and industry

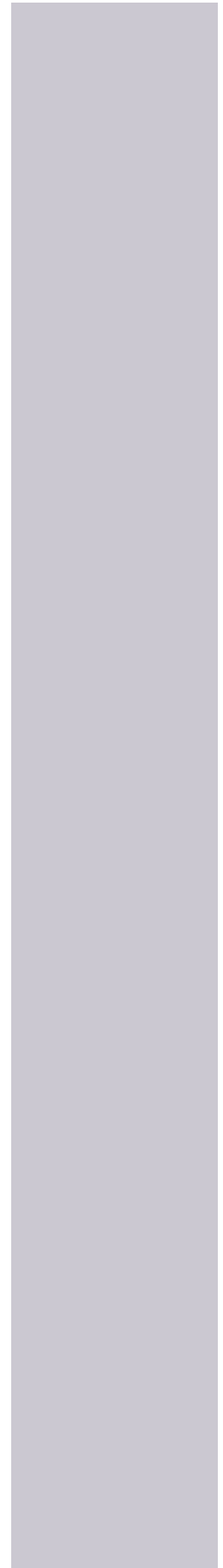


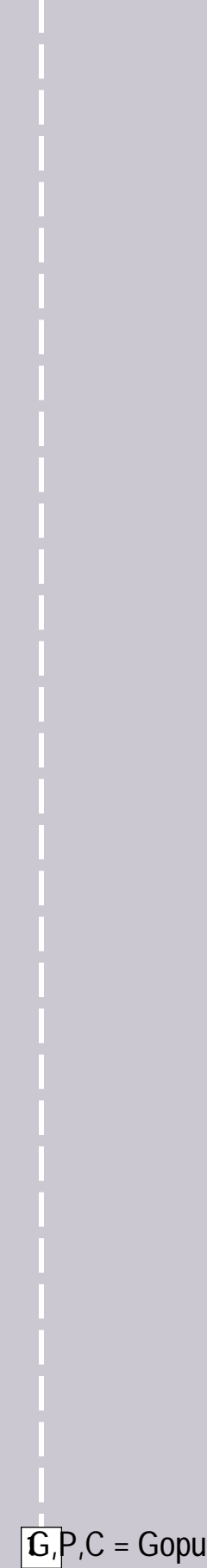


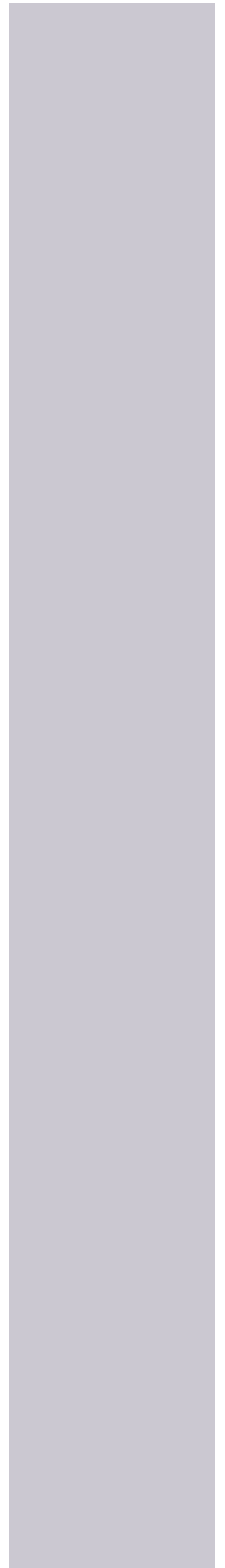




The Advanced Panelized Construction working group identified the primary objective for this Roadmap as to design, engineer, and develop adaptable, standardized, multiple-use panels that achieve multiple functions for walls, floors, or roof surfaces of a building envelope. The working group concluded that in-place costs (materials and labor) for panel systems should be lower than the concluded



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- ◆ Higher insulation wall panels that are designed to take the utility installation out of the critical path of construction;
  - ◆ Wall panels that take materials and trades out of wall manufacturing and assembly in order to speed up cycle time; and
  - ◆ Floor panels that provide structure and sheathing, and possibly finished floor surface and that allow utilities to easily pass through.





## **2.5 Perform Panel Testing and Analysis**

The model developed under the strategy above will be based on the rigid panel flexible connector concepts and will require panel level testing and analysis tools to accurately predict the behavior of individual panels. This will require panel-specific testing and evaluation.

## **2.6 Encourage Standards Development**

Standards for panels, including connections, sizes, performance, and applications, will facilitate the application of panels more broadly across the industry by making them easier to incorporate in designs, and less complicated to distribute. Standards will also make it easier to train assemblers.

Development of standards will require the following actions:

