

# Creation of Hilly and Mountainous Road Simulator Model Using a Card System

Team : A.S.Y.

FORUM8<sup>®</sup>  
8<sup>th</sup> CPWC

## Background

In a hilly and mountainous(HM) area like Nagano prefecture, there are many fatal accidents involving individual and mutual vehicles, so accident factor analysis using a driving simulator is essential.

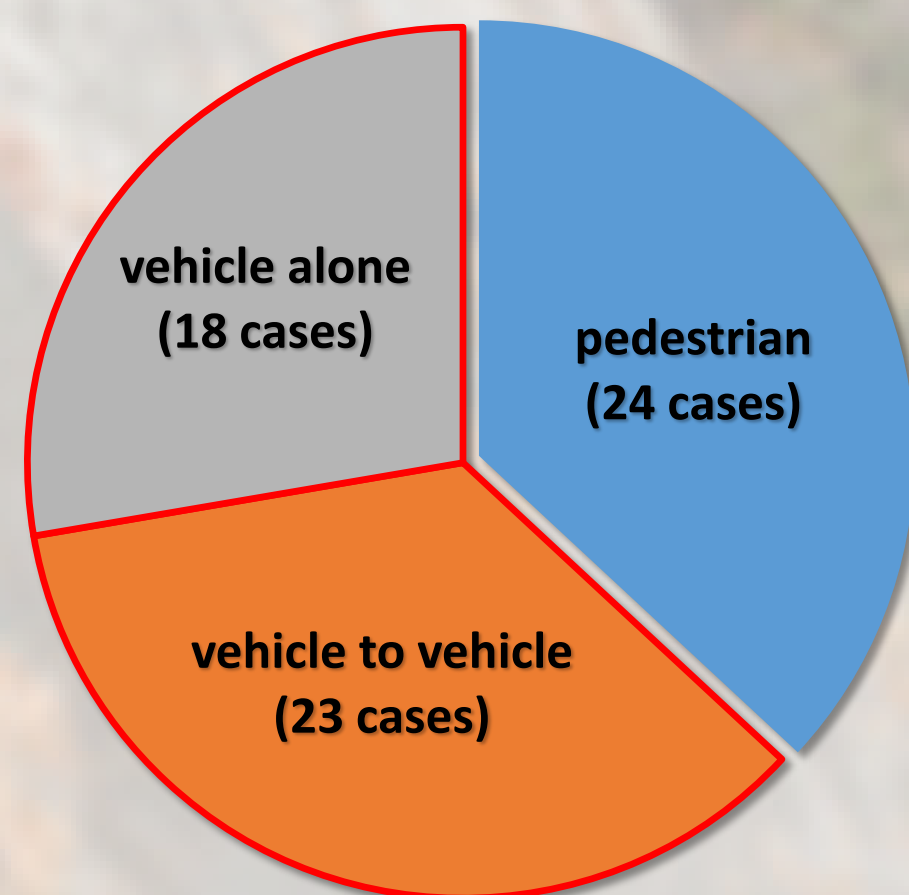


Fig1. Traffic fatal accidents in Nagano  
Cite: Nagano police data in 2019



Fig2. Driving Simulator



Fig3. Sample of HM road model

## Method

Therefore, in order to create a high quality and efficient UC-win/Road road model, a road model template is devised in advance with a card type, and a method to create \* HM road simulator model is constructed.



Fig4. Concept of Card Game  
Cite: winning moves classic waterworks card game

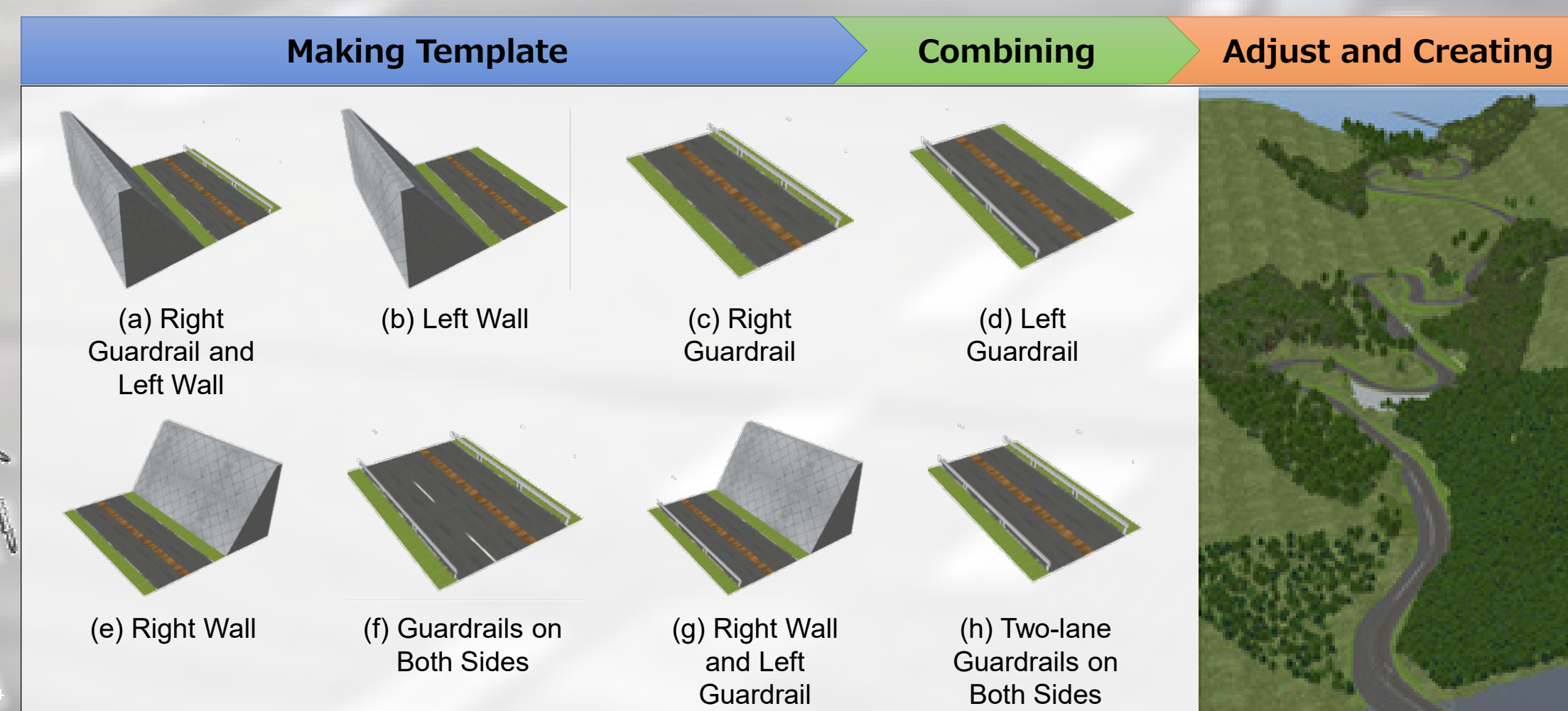


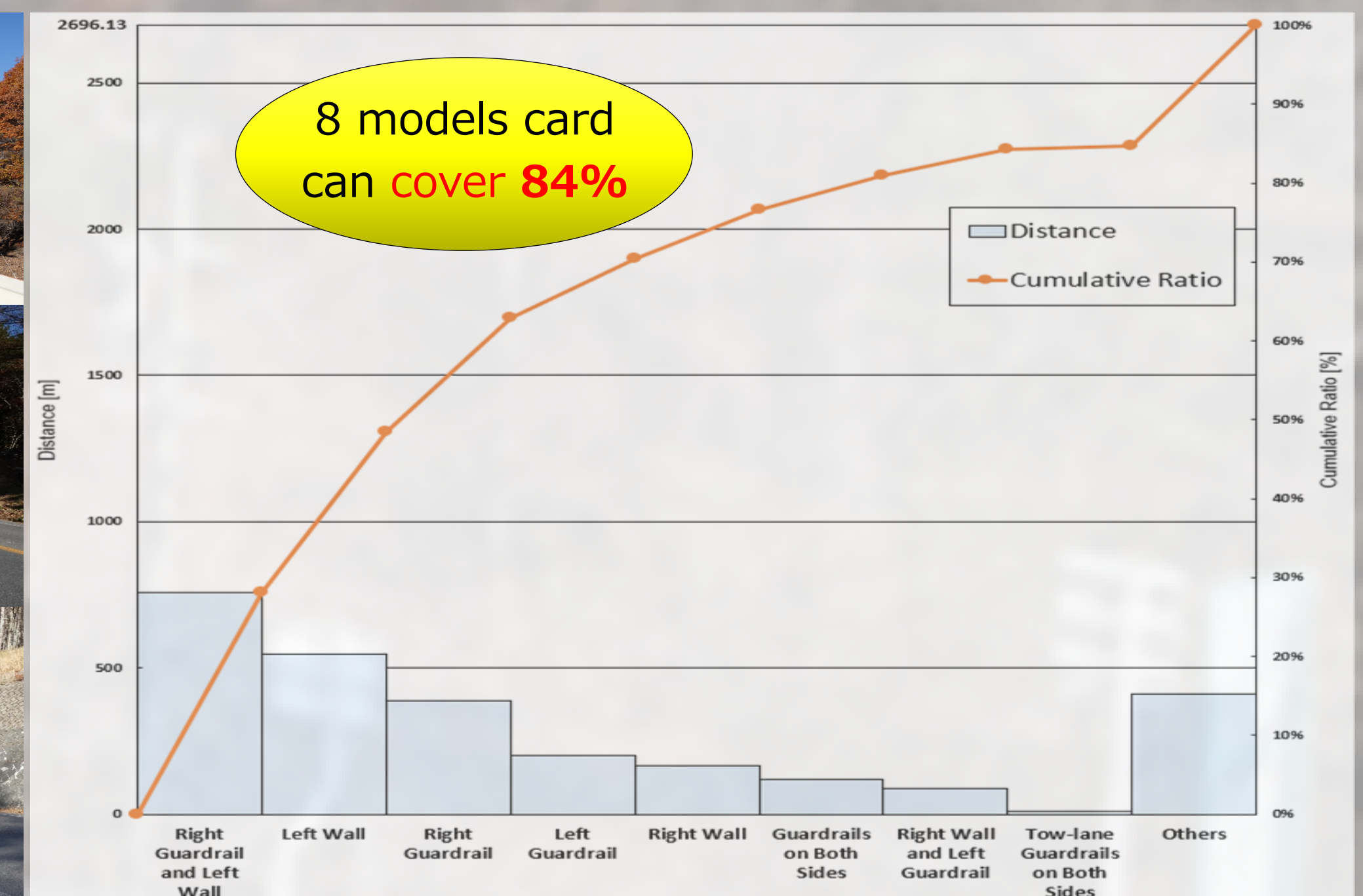
Fig5. Flow of Modeling

## Analysis of road construction

Investigate and analyze what kind of road you want to reproduce in 3D.



### Classification



## Reduction of road construction time

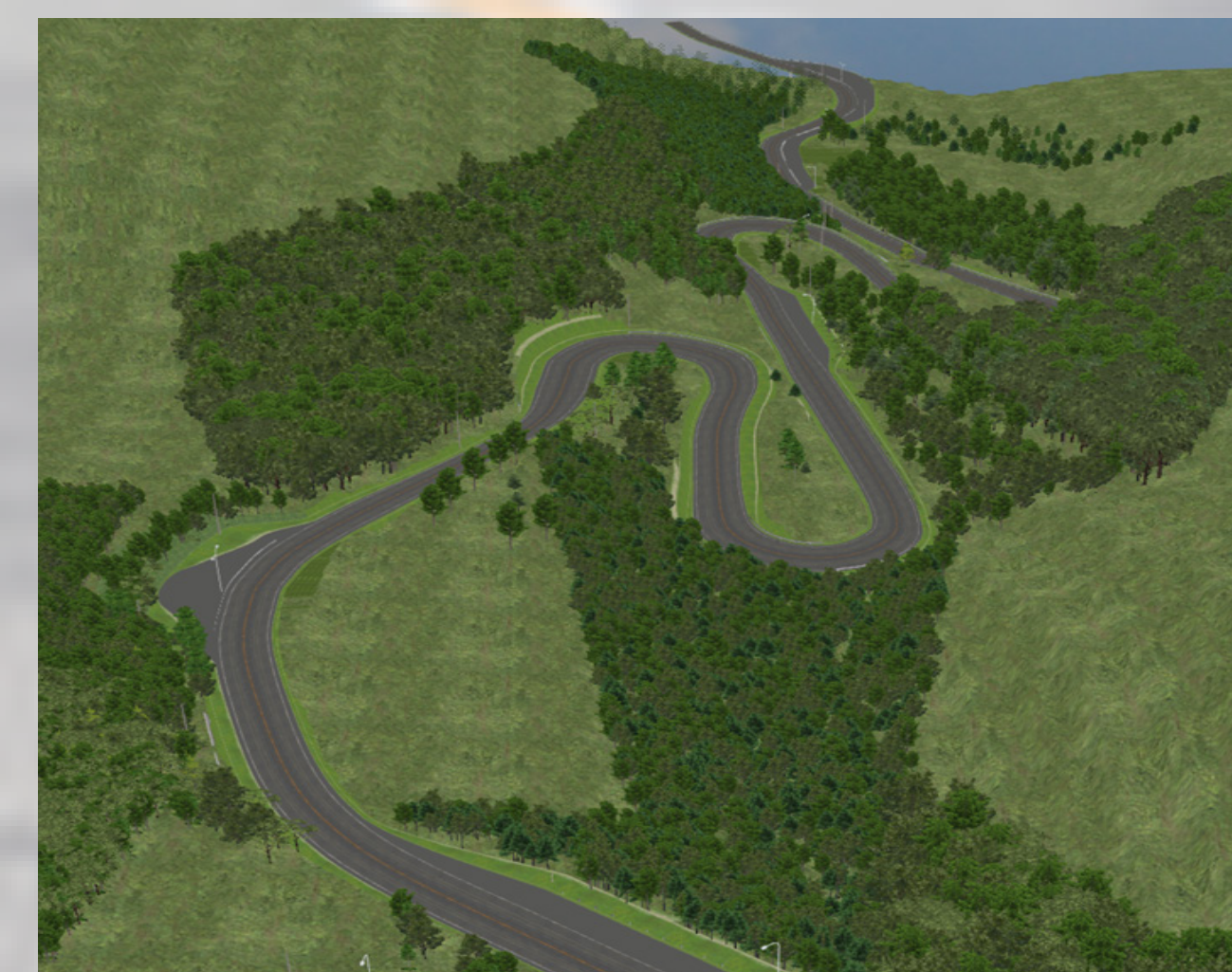


Fig6. Sample of HM\* road model

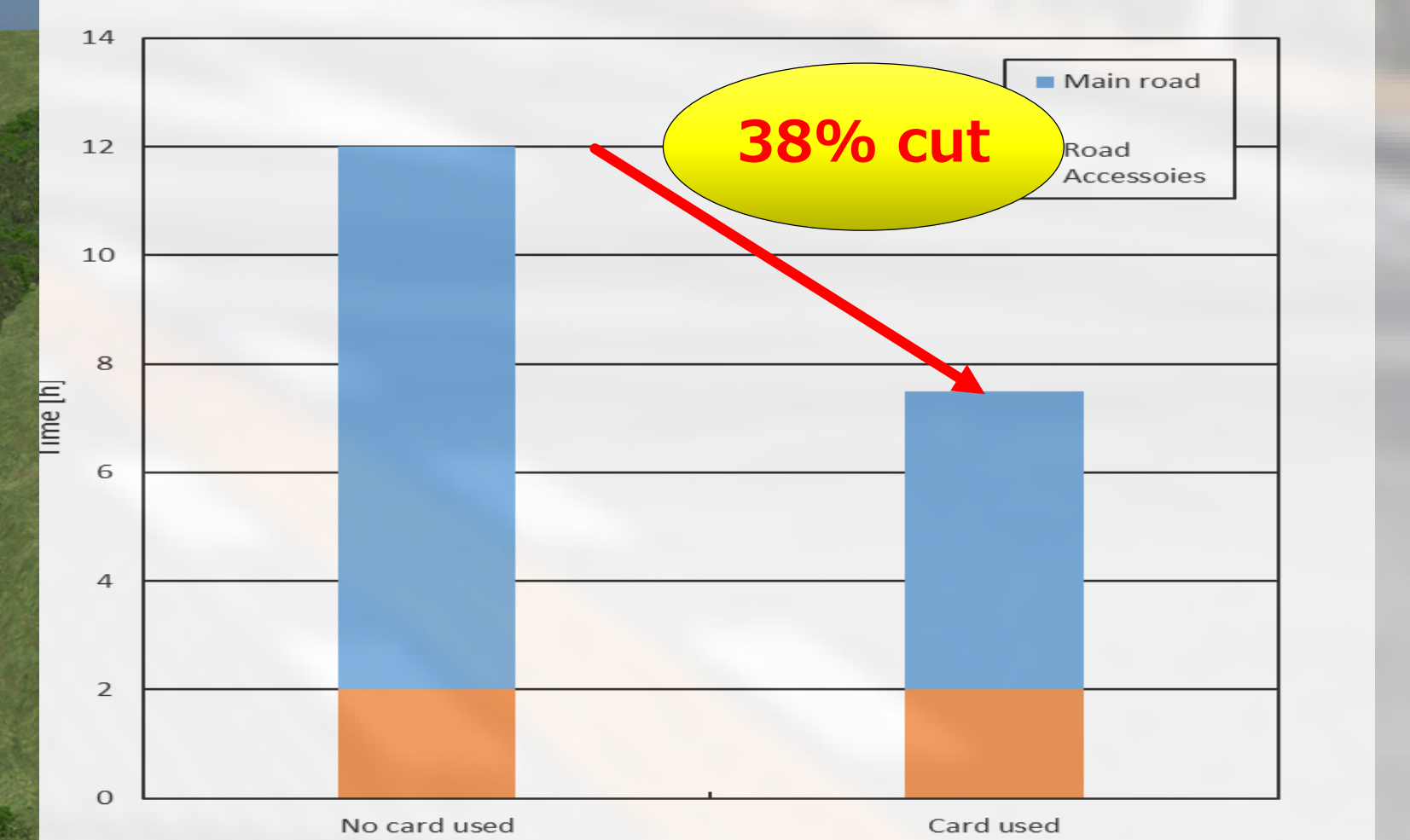


Fig7. Road construction time

Create a simulator model by combining each template model along the HM road **easily and efficiently**.