

# 14. School facility built with a steel structure (Multipurpose institution)

A building enable to convert easily into various uses.

## ■ Creation of flexible space

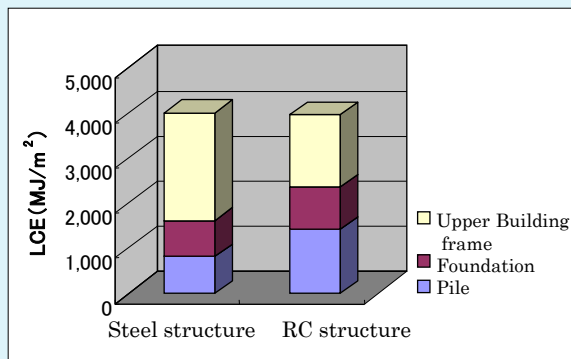
- ✓ It has flexibility in dealing with future changes of space usage because a large space without column can be provided.
- ✓ Flexible layout planning of a room is possible by movable partitions.



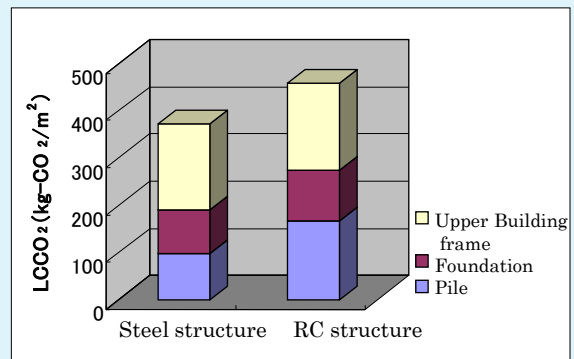
## ■ Consideration to environmental preservation

- ✓ This construction material can be recycled to eliminate construction waste and considered to be sustainable material.

Comparative examples of LCA (life-cycle assessment) by structure

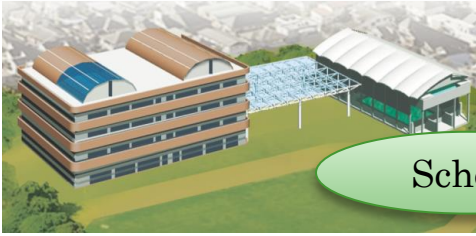


Comparison of energy amount consumed



Comparison of amount of CO<sub>2</sub> generated

## Applicable sector



School

## Feature

### Robust building structure resistant to earthquake and disaster events

- ✓ It is superior in earthquake resistance and can be used as a disaster protection center or a stockpiling base.
- ✓ Buildings with less quaking and improved habitability are achieved by using CFT columns or damper steel materials.

### Creation of flexible space

- ✓ It has flexibility in dealing with future changes of space usage because a large space without column can be provided.
- ✓ A structure with no wall and large openings is possible.
- ✓ Flexible layout planning of a room is possible by movable partitions.

## Track Record

Overseas: **Uncertain**

Japan: A lot of results

## Standard Condition of application

### Ample design selectivity

- ✓ Since iron is a high strength material, designing a space with buoyant feeling having slender columns and girders is possible.
- ✓ Due to good workability, expressions such as curves are easily implemented.

### Stabilized quality and reduced construction period due to industrialization

- ✓ Since it is shop-fabricated to reduce operation at construction site, and since advanced techniques and skills are not required, the quality is stable.
- ✓ Due to superior workability and shorter construction period, the relocation time spent in temporary schoolhouses can be shortened.

## Cost

For particulars, please contact us using the contact information below.

## Contact

The Japan Iron and Steel Federation  
Market Development Group

MAIL:sunpou@jssf.or.jp  
TEL:+81-3-3669-4815

FAX:+81-3-3667-0245