Pre-demolition Screening Procedure

CDW

Description

This procedure explains how a pre-demolition inventory and material audit can be conducted to identify building components and materials with reuse or recycling potential. It can be applied when planning demolition projects, with sufficient time and coordination among actors, such that the pre-demolition screening (and subsequent selective demolition) be required in the procurement of a demolition contractor. The screening procedure details how to identify and evaluate the residual value of a component or material. Identification of materials (as containing harmful substances, or as having residual value and potential for other uses) is the key first step to preventing their treatment as waste.

Keywords:
- #Demolition; #Renovation
- #Planning
- #Procurement
- #Recover

Complementary tools:
- Selective demolition procedure, CDW Quality Assessment, LCA tool, Material passport/databank, Material marketplace

Target user:
- Local governments - (e.g. departments of buildings & infrastructure, environment, urban development, procurement)
- Businesses - (e.g. demolition contractors, building owners)

Format:
- Guide on pre-demolition screening procedure (document in English)
Selective Demolition Procedure

CDW

Description

This procedure explains how a selective demolition can be conducted to select and preserve value of building components and materials with reuse or recycling potential, following a series of chronological steps to dismount components or materials without damaging them. It can be applied when planning demolition projects, with sufficient time and coordination among actors, such that selective demolition be required in the procurement of a demolition contractor. The selective demolition procedure guide gives recommendations to manage material removal and treatment. By removing harmful substances and salvaging construction materials with recoverable value, a more circular demolition can take place, thus reducing the total CDW generated on site and creating secondary construction material supply.

Keywords:
- #Demolition; #Renovation
- #Planning
- #Procurement
- #Recover

Complementary tools:
- Pre-demolition screening procedure, CDW Quality Assessment, LCA tool, Material passport/databank, Material marketplace

Target user:
- Local governments - (e.g. departments of buildings & infrastructure, environment, urban development, procurement)
- Businesses - (e.g. demolition contractors, building owners)

Format:
- Guide on selective demolition procedure (document in English)

Deployment

In CityLoops, the pre-demolition screening and selective demolition procedure will be used in several pilots:
- In Roskilde, on the Hall 12 building of the Musicon development
- In Mikkeli, on the Pankalaampi building
- In Høje-Taastrup, on the old city hall
- In Bodø, on selected structures in the area of the old military airport
Development

The pre-demolition screening procedure builds upon the EU Guidance for Pre-demolition Audits, and the Finnish Ministry of Environment Guide on Pre-demolition Audits. In CityLoops, Finnish and Danish partners with industry experience exchanged to develop the guidance.

Barriers:

Selective demolition can be significantly more expensive than traditional demolition – however, the cost savings are in waste management and material recovery. Financial and management models should account for the redistribution of costs and savings accordingly.

It is important that the screening and selective demolition both be planned for well in advance, and are incorporated into the tendering approach. Once contracted, contractors will not voluntarily carry out the screening – so any foreseen use should be clearly intended in the demolition planning phase.

Replication

Anyone interested in following the two procedures can read the guidance documents and follow the steps detailed therein. Screening for hazardous waste is already a requirement, but this procedure also includes screening for salvageable materials and how to selectively disassemble them, preserving their value and utility for future uses.

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