

Appendix A

Background information on Stadstuin Overtoom:

<http://www.rvo.nl/actueel/praktijkverhalen/circulair-re-bouw-leidt-tot-klimaatneutrale-wijk>

Circular housing redevelopment results in a climate-neutral neighbourhood

In Amsterdam New-West, a consortium with, among other parties, housing association *Eigen haard* and construction company *ERA Contour* develops the climate neutral neighbourhood *Stadstuin Overtoom* ('City Garden Overtoom'). Here, 360 outdated apartments are replaced by 480 new-build dwellings. Demolition and new construction takes place according to the *Co-Green* concept.

Stadstuin Overtoom is part of the restructuring of the Amsterdam district of *Overtoomse Veld*. Jurgen van de Laarschot, real estate developer at Eigen Haard stated that this neighbourhood

"was once one of the national government's priority neighbourhoods [because of the housing deprivation and social and economic problems]. Now the area is booming".

The Stadstuin Overtoom project consists of six residential buildings, with a mix of ownership homes, and rental housing in the social and full market sectors.

98 percent recycled

Housing association Eigen Haard opted for a circular approach. Van de Laarschot: "We recycle as much as 98 percent of the demolition material, of which 30 percent is reused in Stadstuin Overtoom. Except for asbestos and tar materials, we can reuse everything. Bricks are partly remanufactured into new bricks, concrete reused for new construction and calcareous sandstone goes back to the factory."

First dismantle, then demolish

According to Van de Laarschot, separation of demolition materials is crucial if you want to build circular. "You must dismantle a building



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step by step. All too often, buildings are demolished and materials dumped. This practice is partly due to ignorance and partly to fear. Suppliers are very cautious to assure the quality of reused materials. That is why in Stadstuin Overtoom we consulted building materials suppliers and made clear agreements. If you invest in a long-term relationship with supply-chain partners in, trust comes naturally. Supply-chain cooperation is one of the goals of our Co-Green concept."

Co-Green

Eigen Haard initiated the concept Co-Green together with developer and builder ERA Contour, architect KOW and demolition company Orange. "A repeatable concept in which we challenge the construction industry to deliver the most durable, innovative solutions for demolition, building and living," said Van de Laarschot. "By collaborating and innovating building processes, we believe that you can achieve climate-neutral and sustainable real estate without additional costs for residents."

Circularity start with a question

"The social responsibility for circular construction currently lies with the developing party," continues Van de Laarschot. "If there is no demand, no circular approach will emerge. As a housing association, we see it as our job to articulate that demand. The ambition for circularity must be voiced by the professional, because residents will not demand it, yet. They just want a comfortable home with rents as low as possible. Our ambition is to combine circularity and energy use. Through reuse of materials and energy-efficient installations, we

have already made a good start with Stadstuin Overtoom."