IEA EC BCS Prefab Retrofit of Bu					
Case study build	ing - Properties I		Date: 28.06.2007 Name: Rene Hummer		
<image/>		Registration code   Country   Austria   Period of construction   1950-1960   Standard   Standard   Diffusion of building type   Please note that the basic renovation unit (building or building part) that will be renovated should be described. The repetition of renovation units is acquired under "Building size".			
Basic renovation unit		Building shape			
-	Detached		Rectangular		
	Attached		Square		
	Integrated	<b></b>	Structured		
_	Corner building		Irregular		
Floor plan Apartment access					
	Floor plan layout		Periferal staircase, double flight		
	Building structure		Periveral staircase, single flight		
	Frame construction	Central staircase			
	Panel construction		Access gallery, internal stair		
	Partially massive constr.		Access gallery, external stair(s)		
	Massive construction	Γ	Elevator		
Roof Basement					
Flat roof	🗖 No attic / empty		No basement		
	of C Attic space		Partial basement		
Gable roof	Living space		Full basement		
Gable roof	<ul><li>Living space</li><li>Roof terrasse</li></ul>		Full basement Basement partially underground		
Hipped roof	Roof terrasse		Basement partially underground		

	Date: 28.06.2007				
Case study building - Properties II	Name: Rene Hummer				
Building size	Apartment size				
Number of blocks9Number of staircases per block1Number of floors4Typical room heightmLength/widthLMarkowski0,4	Number         Rooms         Bath         m2           Appartments         54         3,0         1         52           Appartments         27         2,5         1         32           Appartments         18         4,0         1         65           Total (all blocks)         99         10         3         149				
Façades	Windows				
Façade construction masonry   Façade finish plaster	% of     Sun- shading       South     23%     U-value     shading       South     23%     W/(m2K)     2,4       0%     W/(m2K)     2,4     Image: Comparison of the second s				
Floor slabs	Balconies				
Top floor slab       wowden beam slab         Standard floor slabs       hollow brick slab	<ul> <li>none</li> <li>none</li> <li>integrated</li> <li>partially exposed</li> <li>exposed</li> <li>full length</li> <li>full length</li> <li>supported</li> </ul>				
Heating	Ventilation				
Central heating, radiator heating	None, natural ventilation only				
Central heating, floor heating	Exhaust air system, natural (stack ventilation)				
Central air heating	Exhaust air system, mechanical (bathrooms)				
Individual appartment heating	Exhaust air system, mechanical (kitchen)				
Individual room heating (electric)	Exhaust air, mechanical, bath and kitchen				
Individual room heating (oil / gas / wood / coal)	Mechanical ventilation (supply/exhaust aitr)				
Hot water					
Central hot water, single pipe system	Individual boilers (electric)				
Central hot water, circulation pipe system	Individual boilers (gas)				
Individual hot water tanks (electric)	Central solar system				

IEA ECBCS Prefab Retrofit of Buil			
Case study buildi	ng - Urban context		Date: 28.06.2007 Name: Rene Hummer
N ···		Address Diese	elweg 3-19 ;8020 Graz
		Rent	€0
		Orientation	
		N N NO Spec. or N N-S NE-SV	NW-SE
Urban situation		View	
🔷 🗖 🗖 Petac	hed building in	~ +	Front / Back
inhom	hed building in Iogeneous neighbourhood	Flat	Top view only
Detac homo	hed building in geneous neighbourhood		Green Garden
Plack	dovelopment in		view
A A A A A A A A A A A A A A A A A A A	development in geneous neighbourhood		← È D No view
Neighbourhood		Environment	
Public transportation	average 🔽	Quality of neighbourhoo	d acceptable
Shops, services, centre	medium	Air pollution, emissions	acceptable
Play grounds, sport	average	Outdoor noise level	noisy 🔽
Schools	average 🗨		

