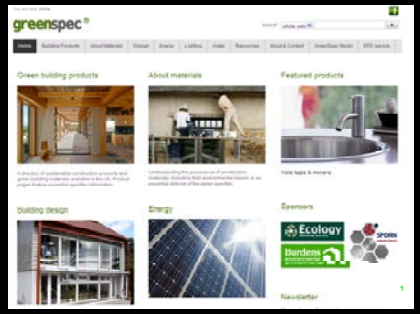

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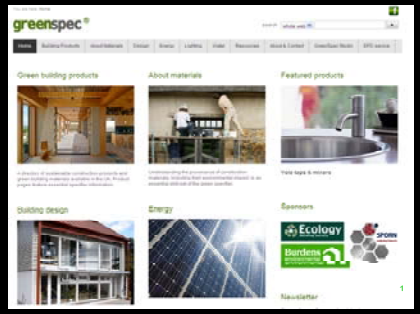
Waste Hierarchy in Refurbishment

Existing Buildings, Alteration, Deconstruction, Demolition



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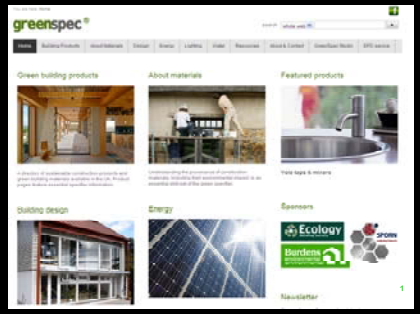
Other Hierarchies

Run down areas, Brownfield sites, Remediate fill sites, Existing Buildings, Demolition, Landscape, New-build

Other Waste Hierarchies

- Run down areas
- Brownfield Sites
- Remediate Fill sites
- Existing Buildings
- Demolition
- Landscape
- New-build



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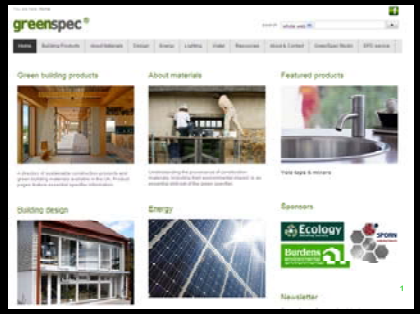
Area Hierarchies

Run down area:

- Regentrify at expense of existing community
- Renegades to be Decanted
- Regenerate areas sustainably
- Renewal
- Re-house existing community
- Refurbish under Decent Homes
- Reoccupy refurbished property



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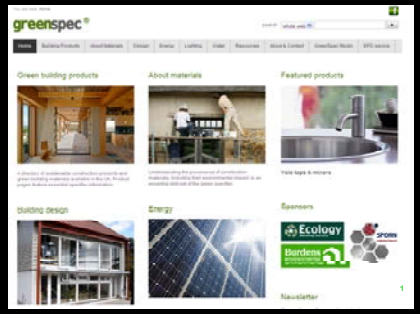
Site Hierarchies



Brownfield site:

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- Reuse or Recycle site
- Reuse site to help Regenerate area

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Brownfield site: Wildlife

- Record Wildlife Biodiversity to be maintained or enhanced
- Recreate wild life habitat on Roof
- Recycle gravel from site as Brownfield roofs

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Brownfield site: Remediate

- Resist Removing polluted fill to landfill,
- Resist Removing fill to landfill,
- Retain fill on site
- Remediate soil insitu
- Raise floor level, cover and vent
- Raise to vent Radon Radioactive gas
- Reduce ODP collect/burn methane

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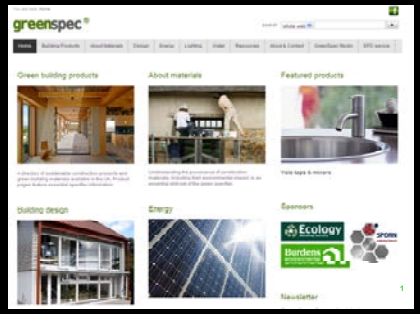

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Existing Building Hierarchies

Exiting buildings: Preparation

- Remove Remains of vermin bird & animals
- Remove Recreational drug paraphernalia and sharps carefully
- Record details to Repeat
- Remove infected structure and fabric to incinerate off site

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Exiting buildings: Refurbishment

- Record survey building and details
- Repeat details from record surveys
- Recover for Repair and Refix
- Reclaim for Reuse
- Refurbish not Replace
- Refix Reclaimed
- Reclaim collapses, Reuse materials in original form in original positions
- Redecorate

Exiting buildings: Refurbishment

- Reinvent
- Repair instead of Replace
- Refurbish existing bath with enamel coating
- Reclaim all Resources
- Revalue all Reclaimed
- Reuse demolition waste in original form

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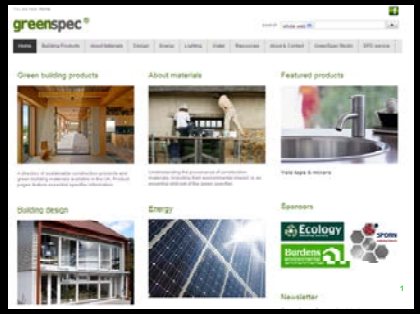

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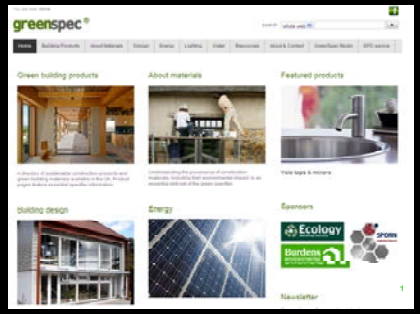
Conservation Hierarchies & Jargon Buster



Conservation

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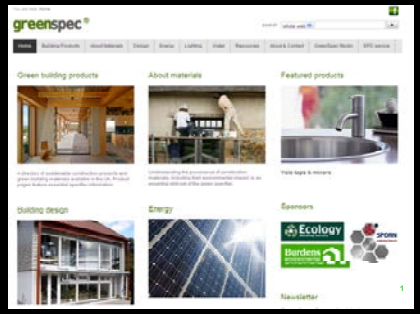
- Renew: Remove an original and install a replica, exactly matching the original (see also Replace).
- Renovate: Repair; restore by replacing lost or damaged parts.
- Renovation: Bringing an existing building or structure back to its former or original condition (by repairing or remodelling).
- Repair: Restore to unimpaired condition by replacing or fixing worn or damaged parts; mend.



Conservation

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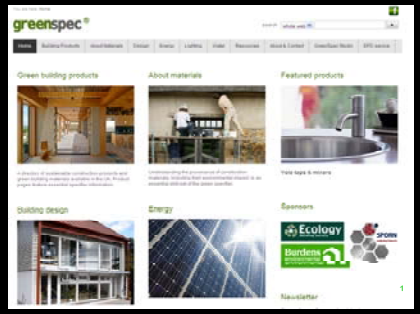
- Replace (1): Remove an original and install a modern substitute that does not exactly match the original (see also Renew).
- Replace (2): To put back in a previous place or position.
- Restore: Repair and alter a building so as to bring it back as close as possible to its original form or condition.
- Restoration: Accurately recovering the form and details of a property as it appeared at a particular period of time by removing later work and/ or replacing missing earlier work.



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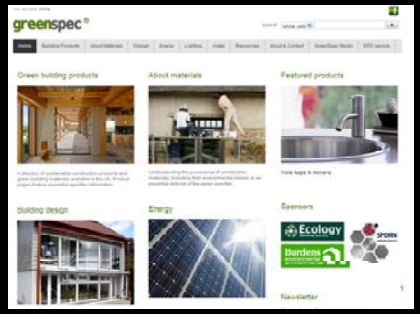
Demolition & Deconstruction Hierarchies

Demolition: Soft strip & Deconstruction

- Record pre-demolition audit and post on Websites
- Reclaim FF&E by soft strip
- Reuse FF&E in building or elsewhere
- Remove finishes which would become impurities in Recipe preventing Recycling:
  - (plaster, plasterboard or timber in hardcore)



Deconstruct:

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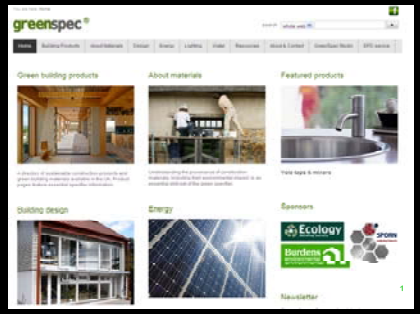
- Separate demolition for Construction programme
- Reprogramme to permit slow deconstruction
- Reclaim materials for Reuse
- Remove, segregate, clean, sort, package, protect and label
- Record Salvaged/Reclaimed materials on material exchange websites
- Resell the Salvaged/Reclaimed
- Recover the value of the Reclaimed
- Reuse the Reclaimed
- Reuse Reclaimed by others



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- Raze to the ground
- Reduce and Reuse insitu
- Recycle, downcycle and upcycle
- Recycle the materials in new uses
- Release waste's potential as Resource

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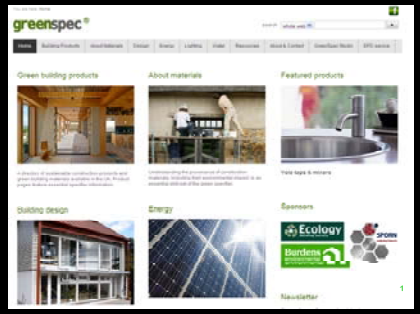

Remanufacture

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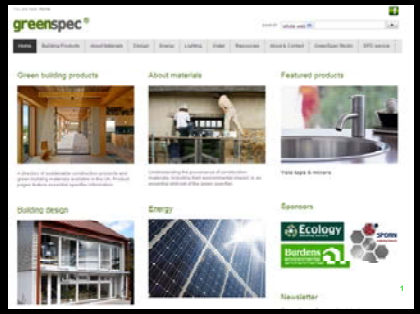
- Centre for Reuse and Remanufacture
  - Furniture a current focus
- Defre:
  - OGC and GPP procurement requirements
  - Central and Local Government
  - 2010 Public consultation
  - % reused/refurbished/remanufactured in all contracts
  - 5% likely minimum



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Landscape Hierarchies

Landscape: Wild turf

- Set-up composting areas on site
- Collect seeds and dry
- Rake grass and compost leaves
- Retain grass cuttings and compost
- Recover nutrients for green waste
- Replenish the land with compost
- Reclaim wild turf and flowers
- Post notice on exchange Website

Landscape: Topsoil & Subsoil

- Retain topsoil in stockpiles
- Relay turf on topsoil stockpiles
- Retain subsoil in stockpiles
- Reset seeds on stockpiles to discourage weeds
- Recipe for topsoil: Subsoil+Compost
- Recycle excess turf as loam

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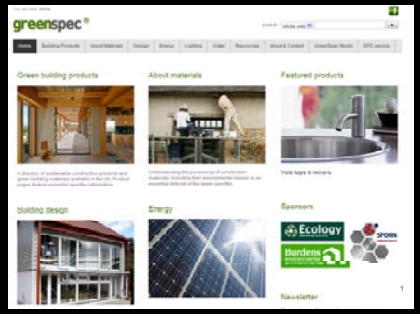

Hard Landscape

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- Retain hard materials for hardcore
- Retain concrete to crush for aggregate
- Reuse aggregate in concrete mix to foundations and haunches
- Reuse hard materials as permeable draining hardcore base to new paths and roads

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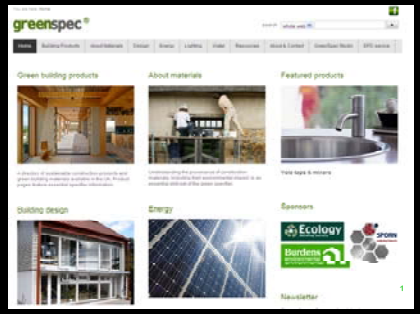

Soft Landscape

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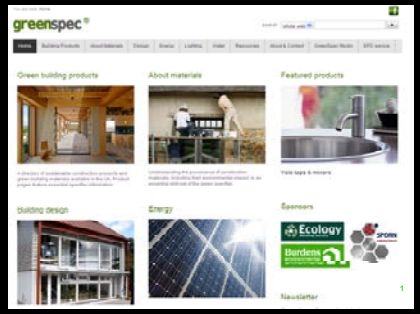
- Spread subsoil below topsoil over whole site to lose it
- Cut turf from topsoil stockpile
- Relay topsoil over subsoil
- Rejuvenate topsoil with Compost
- Relay turf on topsoil
- Recreate topsoil with subsoil & compost
- Relay any seeds



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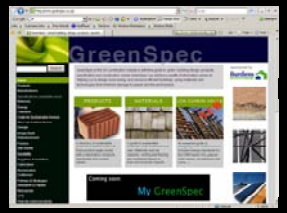
New Build Hierarchies



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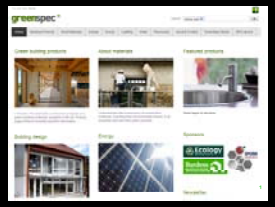
Waste Hierarchy

Ideals & reality
How many Rs in Recycling?
42 Rs so far

1

Another GreenSpec CPD file to download
See www.scribd.com/brianspecman



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Waste Hierarchy 2011

EU and EA definitions & implications

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New-build: Redesign & Respecify

- Redesign to Reduce
- Redesign to minimise waste due to manufacture and designed sizes mismatch
- Redesign to Deconstruct
- Re-specify to Reduce Rejection rate
- Reduce waste by using lower quality grades

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New-build: Protection

- Relocate storage areas of main routes
- Reduce defects by protection

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New-build: Excess to Requirements

- Recheck quantities Required
- Return excess to source or into stock
- Record excess and post on materials exchange websites
- Invite Reuse of excess

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New-build: Excess to requirements

- Remove from waste stream
- Reclaim selected sound unused materials and large off-cuts
- Store for Remedial action: snagging
- Store for Repairs: 6 months defects
- Store for Repairs: life of building
- Retain for Facilities Manager

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New-build: Construction waste

- Segregate to Reuse
- Segregate to Recycle
- Segregate to Reduce: Skip hire and Landfill Tax
- Remove foreign objects to Recycle

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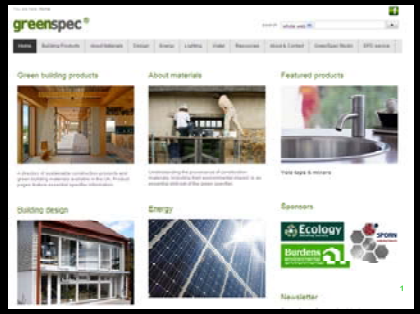

Prefabricated

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- Reduce waste by using offcuts and small sized materials
- Relocate whole buildings
- (WSSBT, Yorkon, Portakabin, Portaloo)
- Reposition (Partitions)

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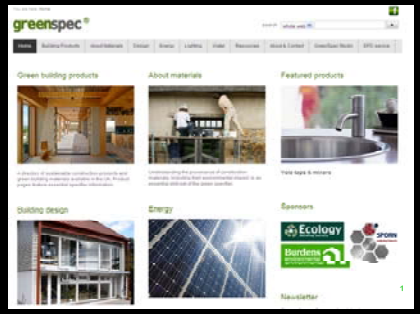

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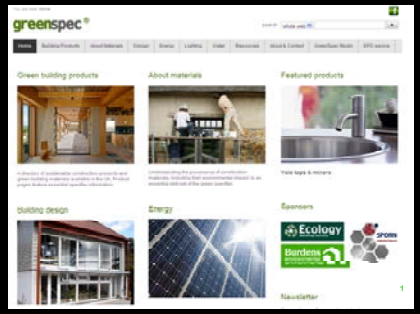

Sampler

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- This is a cut down version of the original file to give you a sample of the whole
- It's the front end of the file with the middle and rear end deleted
- Go to www.GreenSpec.co.uk to down load the whole file
- You will find a large number of other files there too

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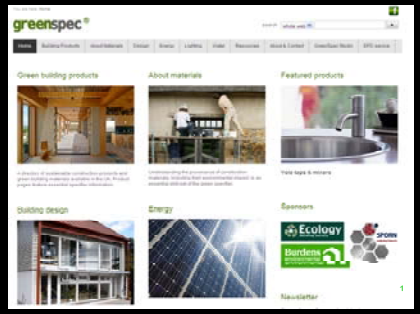

Feedback

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- These files are created by generalists with a big dollop of green flavour
- These files are updated from time to time
- We are not experts so from time to time these file may get out of date or may be wrong.
- If you feel that we have got it wrong please let us know so we can put it right

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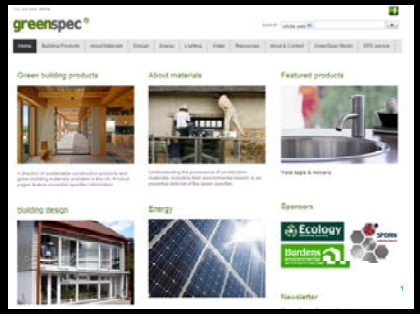

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