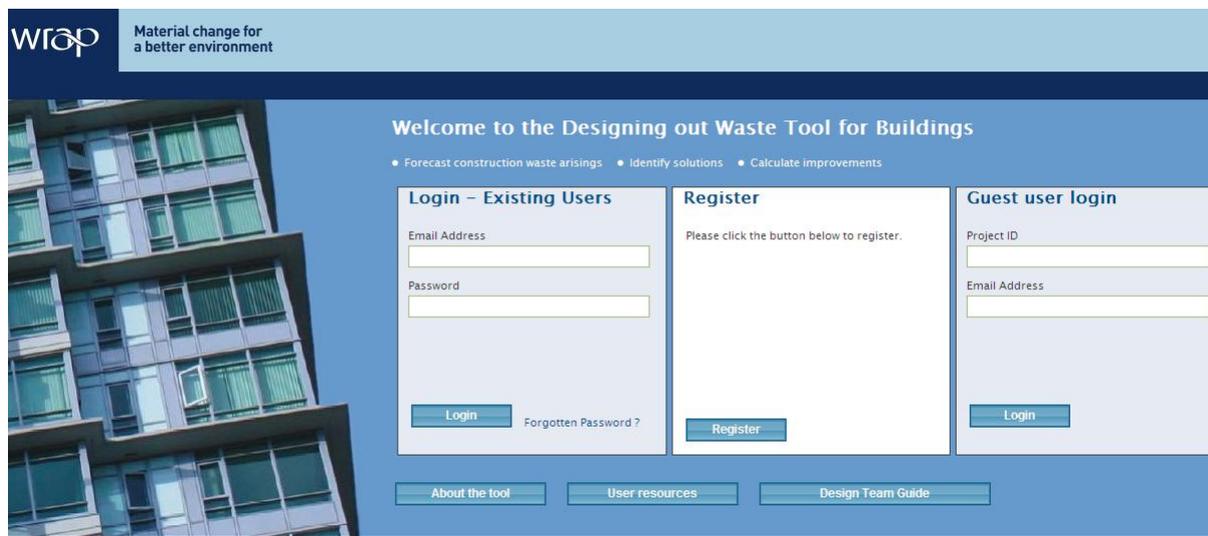


# Designing out Waste Tool for Buildings workbook



The screenshot shows the user interface of the 'Designing out Waste Tool for Buildings'. At the top left is the WRAP logo and the tagline 'Material change for a better environment'. The main header reads 'Welcome to the Designing out Waste Tool for Buildings' with three bullet points: 'Forecast construction waste arisings', 'Identify solutions', and 'Calculate improvements'. Below this are three columns: 'Login - Existing Users' with fields for 'Email Address' and 'Password', a 'Login' button, and a 'Forgotten Password?' link; 'Register' with the text 'Please click the button below to register.' and a 'Register' button; and 'Guest user login' with fields for 'Project ID' and 'Email Address', and a 'Login' button. At the bottom are three buttons: 'About the tool', 'User resources', and 'Design Team Guide'. A photograph of a modern building is visible on the left side of the interface.

Learn to use the Designing Out Waste Tool for Buildings by setting up your own project, or using example data.

WRAP's vision is a world without waste,  
where resources are used sustainably.

We work with businesses and individuals  
to help them reap the benefits of reducing  
waste, develop sustainable products and  
use resources in an efficient way.

Find out more at [www.wrap.org.uk](http://www.wrap.org.uk)

**Written by:** Tya Shannon of Cyril Sweett

---

**Front cover photography:** Designing out Waste Tool for Buildings login screen

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# How to use this workbook

This workbook will take you through the process of setting up and analysing a project in the Designing Out Waste Tool for Buildings, step-by-step.

You can use your own project data to set up your own project. Simply work through the instructions provided.

**Task box:** This provides instructions. Follow the instructions to perform tool functions

**Information box:** This provides information. See these boxers for a description of the tool screens and/or background information relating to the tasks.

This workbook has been designed for use with an explanatory demonstration of the Tool, either through formal training or the Designing out Waste Tool for Buildings video modules: [www.wrap.org.uk/constructiontutorials](http://www.wrap.org.uk/constructiontutorials)

Information explaining the Tool's functionality is also available from the Tool's login screen, including:

- [The Designing Out Waste Tool for Buildings User Guide](#)
- [The Designing Out Waste Tool for Buildings Quick Start Guide](#)
- [The Designing Out Waste Tool for Buildings Data Report](#)

The Designing out Waste Tool for Buildings should be used in conjunction with WRAP's 'Designing out Waste: A design team guide for buildings'. The Tool responds to the principles and processes set out in the guide. The Guide is available on WRAP's website: <http://www.wrap.org.uk/dowtb>

# User Journey

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- 4.0 View/edit project specification ..... 7**
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## 1.0 Registration / login

**Task 1.1** Access the Tool at <http://dowtb.wrap.org.uk>. Click 'Register'.

Material change for a better environment

### Welcome to the Designing out Waste Tool for Buildings

- Forecast construction waste arisings
- Identify solutions
- Calculate improvements

**Login – Existing Users**

Email Address

Password

Login Forgiven Password?

**Register**

Please click the button below to register.

Register

**Guest user login**

Project ID

Email Address

Login

About the tool User resources Design Team Guide

**Task 1.2** Fill in the form and click 'Register'. Remember your password.

### Information

Your email address and password will be required to log on in future.

## Register

Please complete the form below to register for the tool. Required fields are highlighted with \*

* Forename	<input type="text"/>
* Surname	<input type="text"/>
* Address Line 1	<input type="text"/>
Address Line 2	<input type="text"/>
* Town / City	<input type="text"/>
County	<input type="text"/>
* Postcode	<input type="text"/>
* Telephone number	<input type="text"/>
* Email address	<input type="text"/>
* Choose a password	<input type="password"/>
* Confirm your password	<input type="password"/>

Register

## 2.0 Add new project

### Task 2.1 Click on 'Add new project'

#### Information

Immediately after registering or logging in, the Tool takes you to your own account screen. From this screen you can access existing projects or add new projects.

When you set up new projects, you will see the project listed on this screen, under the 'My projects' tab. Other tabs include:

- **My guest user projects** – as other users give you guest user access to their projects you will find the projects listed here.
- **Example projects** – WRAP has provided a list of example projects. You can access these by selecting 'use project as template' and creating your own version (like a 'save as').
- **Archive** – you can move projects to the archive, where they can be kept or deleted.

To set up a new project from scratch click 'Add new project'. Alternatively, to use an existing project as a template, click 'Example projects' and select from a range of pre-programmed examples.

The screenshot shows the WRAP Designing out Waste Tool for Buildings interface. The header includes the WRAP logo and the text 'Material change for a better environment' and 'Designing out Waste Tool for Buildings'. The user is logged in as 'Jane Smith' and is viewing the 'My projects' page. A red arrow points to the 'Add new project' button. The page also shows a table with columns for project details and a 'Compare Projects Report' button.

WRAP Material change for a better environment Designing out Waste Tool for Buildings

Welcome > My projects  Display auto help

Add new project Download options User options Logout

### Jane Smith's projects

[Add new project](#)

My projects My guest user projects Example projects Archive

Type	Project name	Project ID	Created	Modified	View reports	Waste arising	Waste to landfill	Cost of waste	Embodied CO <sub>2</sub>	Archive	Use project as template	Compare projects
No records to display.												

[Compare Projects Report](#)

### 3.0 Enter basic project details

#### Task 3.1 Select 'no' to adding a housing project.

##### Information

The Tool requires a different set of project details for housing projects, therefore housing projects use a different project details screen.



#### Task 3.2 Enter the basic project details on the form shown. Remember to scroll down and complete all the data entry fields. You can use example data from Appendix 1 if you wish.

##### Information

The Tool was developed to require only project details likely to be known at the outline design stage. Enter the project data as best you can, you can always revisit this screen when more is known about the design. Remember you are aiming to create an indicative, rather than a detailed waste forecast. This indicative forecast will help the design team understand where to focus their efforts to design out waste. When the design and specification have been finalised, you can use WRAP's Net Waste Tool to produce a detailed waste forecast.

If you select the 'brownfield' or 'inner city' option from the Site Conditions drop-down, the Tool will give you access to the Demolition Quantities Estimator. You can use this to generate an indicative forecast of demolition waste. Demolition waste will then be included in your overall waste forecast.

Hover the cursor over fields to see Help text. You can switch off the auto-help by unselecting 'Display auto help'.

You can navigate around your project using the 'save' and 'next' buttons, or using the breadcrumbs at the top left of the screen. The breadcrumbs show 5 steps, each of which has its own screen. Project Details is highlighted in bold to show that you are currently in the Project Details screen.

Welcome > My projects > New project Display auto help

Add new project Download options User options Logout

Project details > View / edit assumptions > Performance > Solutions & impacts > Reporting

## Project details

Save Save & next Cancel

**Project description**

Project name

Project description

Building type

Project type

**Design details**

Gross internal floor area  m<sup>2</sup>

**Number of storeys**

Above ground  nr

Basement  nr

Occupied floors  nr

Average floor to floor height  m

Building footprint  m<sup>2</sup>

Basement footprint  m<sup>2</sup>

Building perimeter length

**Site details**

Site area  m<sup>2</sup>

Building site coverage  %

Landscaping hard  %

Landscaping soft  %

Site conditions

**Estimated qty of excavation**

Enter excavation in

Basement and substructure  t

Site works  t

Demolition of existing structures

Give your project a meaningful name

**Task 3.3** When you have finished entering project details, click on 'Save & next'

Welcome > My projects > New project Display auto help

Add new project Download options User options Logout

Project details > View / edit assumptions > Performance > Solutions & impacts > Reporting

## Project details

Save Save & next Cancel

**Project description**

Project name

**Site details**

Site area  m<sup>2</sup>

Give your project a meaningful name

## 4.0 View/edit project specification

**Task 4.1 Review your project specification and edit where required by putting a tick in the correct box.**

### Information

This screen shows the default specification the Tool has selected for your project. The Tool will apply wastage rates to this specification to calculate the indicative waste forecast. With the exception of services, only one selection can be made for each building element.

**WRAP** Material change for a better environment

Designing out Waste Tool for Buildings

Welcome > My projects > Office example  Display auto help

Add new project Download options User options Logout

Project details > View / edit assumptions > Performance > Solutions & impacts > Reporting

### Office example

You specified your project type as Office. Please review the components in the table below.

Back Save Next

Substructure	Superstructure	Finishes	Services
<input type="checkbox"/> Suspended Block & Beam / Strip foundations / Screed / Insulation	<input type="checkbox"/> Masonry (no frame)	<input type="checkbox"/> Plaster to masonry	<input type="checkbox"/> Heating - Radiator system
<input checked="" type="checkbox"/> Ground beam / Pads / Insulation / Slab on Ground / Screed	<input checked="" type="checkbox"/> Steel frame medium weight 1	<input checked="" type="checkbox"/> Plasterboard	<input type="checkbox"/> Heating and ventilation
<input type="checkbox"/> Piles / Ground Beam / Insulation / Slab / Screed	<input type="checkbox"/> Steel frame heavy weight 2	<input type="checkbox"/> Tiling	<input checked="" type="checkbox"/> Heating and cooling
	<input type="checkbox"/> Steel frame in-situ	<input type="checkbox"/> No finishes	<input checked="" type="checkbox"/> Hot and cold water supplies
	<input type="checkbox"/> Concrete frame in-situ	<input checked="" type="checkbox"/> Carpet tile	<input checked="" type="checkbox"/> Drainage
	<input type="checkbox"/> Timber frame	<input type="checkbox"/> Carpet sheet	<input type="checkbox"/> Electrical Services
	<input type="checkbox"/> Engineered timber frame	<input type="checkbox"/> Vinyl tile	<input checked="" type="checkbox"/> Light and power
	<input type="checkbox"/> Concrete frame pre-cast	<input type="checkbox"/> Vinyl sheet	<input checked="" type="checkbox"/> Fire alarms
	<input type="checkbox"/> Stairs	<input type="checkbox"/> Timber	<input type="checkbox"/> Transportation
	<input type="checkbox"/> Timber	<input type="checkbox"/> Ceramic / stone tiling	<input type="checkbox"/> Passenger and goods lift
		<input checked="" type="checkbox"/> Raised access floor	
		<input type="checkbox"/> No finishes	

**Task 4.2 Click on 'save', then click on 'next'.**

**WRAP** Material change for a better environment

Designing out Waste Tool for Buildings

Welcome > My projects > Office example  Display auto help

Add new project Download options User options Logout

Project details > View / edit assumptions > Performance > Solutions & impacts > Reporting

### Office example

You specified your project type as Office. Please review the components in the table below.

Back Save Next

## 5.0 View project performance

### Task 5.1 Review your project's performance on screen.

#### Information

The first table on this screen provides high-level results for your project at two levels of practice:

- **Baseline** – based on 'typical' industry wastage rates, applied to your project specification
- **Good practice** – based on 'good practice' industry wastage rates, applied to your project specification

The difference between baseline and good practice provides an indication of the improvement that could be made.

The screenshot shows the WRAP Designing out Waste Tool for Buildings interface. The header includes the WRAP logo and the tagline 'Material change for a better environment'. The main title is 'Designing out Waste Tool for Buildings'. The breadcrumb trail is 'Welcome > My projects > Office example'. There are navigation buttons for 'Add new project', 'Download options', 'User options', and 'Logout'. A 'Display auto help' checkbox is checked. The page title is 'Office example'. Below the title, there is a description: 'Use this screen to view your design's performance on material consumption and construction waste. Download a report to help identify areas of opportunity to design out waste.' There are 'Back' and 'Next' buttons. A table is displayed with the following data:

	Waste arisings (t)	Waste to landfill (t)	Value of materials wasted (£)	Cost of disposal (£)	Total cost of waste (£)	Loss of embodied CO <sub>2</sub> (t)	Recycled content (%)
Baseline	241t	121t	£134,333	£10,145	£144,478	68t	25%
Good practice	101t	51t	£49,024	£4,208	£53,232	25t	29%

Note: The figures shown above are for construction materials only and do not account for excavation and demolition.

### Task 5.2 Scroll down the screen and de-select any results you DO NOT want to include in your report. Then click on 'Download Performance Report'.

#### Information

The Tool provides an Excel based Performance Report that includes indicative results calculated at the building element level. The results relate to WRAP's 'Designing out Waste: A design team guide for building'. This document sets out 5 principles of designing out waste. The Performance Report provides results relevant to all 5 principles and lists key questions to prompt the design team to consider how each principle could be addressed.

Good practice	91t	45t	£47,133	£3,901	£51,034	25t	28 %
---------------	-----	-----	---------	--------	---------	-----	------

**Note:** The figures shown above are for construction materials only and do not account for excavation and demolition.

### Performance by element

Compare the performance of building elements

Demolition and excavation materials available for reuse

The chart displays a single bar for 'Excavation' with a value of approximately 1500 tonnes. The y-axis is labeled 'Tonnes' and ranges from 0 to 1600 in increments of 200. The x-axis is labeled 'Excavation'.

### Generate a report

Select the results you would like to include in your report:

- The project's potential improvement in waste arisings, cost of waste and CO<sub>2</sub>
- Demolition and excavation materials available for reuse
- Quantity of materials consumed (by building element)
- Potential reduction in waste arisings (by building element)
- Potential reduction in value of materials wasted (by building element)
- Potential increase in recycled content (by building element)
- Potential carbon reduction (by building element)

**Download Performance Report**

Back
Next

**Task 5.3 Click on 'next' to add impacts (design solutions) to your project.**

## 6.0 Record actions and impacts

### Task 6.1 View the first table on the screen.

#### Information

The first table on this screen provides a record of the actions and impacts that have been entered against each building element. The table shows the materials consumed and wasted for each building element. These figures will update as you add impacts. The table also shows the number of 'solutions' (actions) and the number of impacts you have entered against each building element, and the date the element was last modified.

	Demolition	Excavation	Substructure	Frame	Stairs	Upper Floors	Roof Structure	Roof Finishes	Roof Insulation	External Walls	Party Walls	External Walls Inner Skin	Glazing	External Doors	Internal Walls and Partitions	Internal Doors	Wall Finishes	Floor Finishes
Consumed	0t	0t	£232,093	£590,400	£6,060	£282,364	£122,400	£99,974	£10,331	£47,795	£0	£21,463	£523,021	£2,554	£13,880	£612	£11,340	£196,000
Wasted	0t	1,600t	£11,488	£0	£60	£9,812	£0	£990	£1,348	£7,966	£0	£3,577	£5,178	£122	£2,313	£0	£2,083	£9,300
Solutions																		
Impacts																		
Modified																		

### Task 6.2 Scroll down the screen, then select the element and design principle that relate to your solution. Three example solutions that you can use are provided in the Information box below.

#### Information

This screen is where you tell the tool what actions (solutions) the design team is pursuing to improve materials resource efficiency on the project. Actions can include solutions that reduce material consumption, reduce wastage, or increase reuse or recycled content.

Example solutions (actions):

1. Design openings to match brick courses to reduce the need to cut bricks (external walls, design for materials optimisation)
2. Exposed soffits instead of suspended ceilings (ceiling finishes, design for materials optimisation)
3. Re-use bricks from demolition as feature bricks at building entrance (external walls, design for reuse and recovery)

### Performance for External Walls

Quantity of materials consumed

Waste arisings - Standard practice vs good practice

Standard practice: 45 tonnes  
Good practice: 22 tonnes

### Solutions for External Walls

Selected element: External Walls | Select a design principle: Design for Material Optimisation (DfM) | **Add solution**

Principle	Design solution	Date	Delete
No records to display.			

### Impacts for External Walls

When you have described and saved your design solutions, enter the combined impact of these solutions below:

**Will your solution result in less material being used in the design? Will your solution result in less waste? If yes, enter your proposed material quantities and wastage rates for this element, below.**

Component	Total quantity of material required (t)	Reduce qty required by (t)	Standard wastage rate (%)	Good practice wastage rate (%)	Proposed wastage rate (%)
Half brick thick facing brickwork £300 / 1000	212.93t		20.00 %	10.00 %	20.0 %

**Task 6.3 Click on 'Add solution'.**

### Solutions for External Walls

Selected element: External Walls | Select a design principle: Design for Material Optimisation (DfM) | **Add solution**

Principle	Design solution	Date	Delete
No records to display.			

**Task 6.4 Select an 'area of opportunity' that relates to your chosen solution, from the drop-down options, then add a description of your solution.**

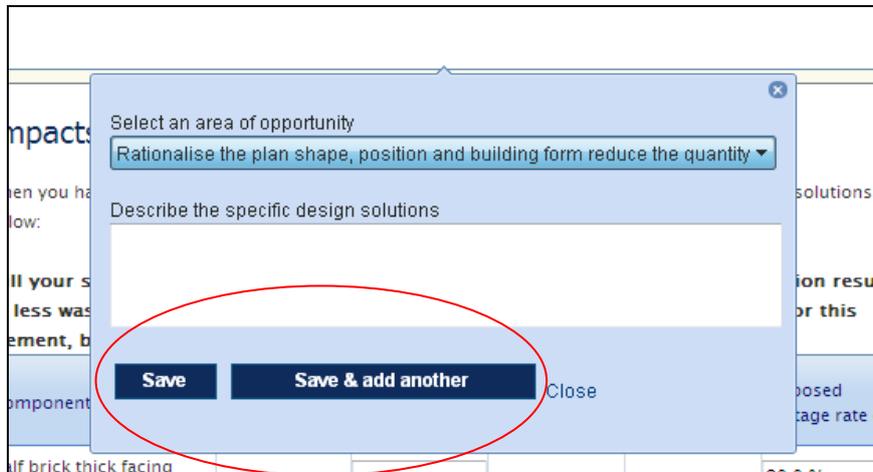
Select an area of opportunity

Rationalise the plan shape, position and building form reduce the quantity

Describe the specific design solutions

**Save** | **Save & add another** | Close

**Task 6.5** Select 'save' to close the pop-up box. Alternatively, select 'save & add another' if you want to add another solution relating to the same building element and principle.



**Task 6.6** Add the impact your solution (or solutions) will have on this building element.

**Information**

The Tool will ask for impacts that relate to your chosen principle. The image below shows impact options relating to 'design for material optimisation'. If you chose 'design for reuse and recovery' you will be asked to indicate the quantity or reused material.

Let's look at this example solution:

- Design openings to match brick courses to reduce the need to cut bricks (external walls, design for materials optimisation)

In this instance, the need to cut bricks would be reduced, which would reduce the wastage rate for bricks. Therefore, we could add a reduced wastage rate as an impact.

### Impacts for External Walls

When you have described and saved your design solutions, enter the combined impact of these solutions below:

**Will your solution result in less material being used in the design? Will your solution result in less waste? If yes, enter your proposed material quantities and wastage rates for this element, below.**

Component	Total quantity of material required (t)	Reduce qty required by (t)	Standard wastage rate (%)	Good practice wastage rate (%)	Proposed wastage rate (%)
Half brick thick facing brickwork £300 / 1000	212.93t		20.00 %	10.00 %	

Total project savings (design and construction) **Save**

#### Task 6.7 Click 'Save' and review the impacts.

##### Information

The impacts listed on this screen show the cumulative total impact for the project as a whole. As you add actions and impacts, you will see the project impacts increasing.

If you would like to see the impact of your solutions at the building element level, Section 7 of this workbook explains how to generate an Excel report that includes a list of waste prevention actions and their impacts. This list can be added to the project's site waste management plan.

The image below shows the impacts generated after adding just one solution to an example project. The solution is 'design openings to match brick courses' (described in previous information box under Task 6.6).

Will your solution result in less material being used in the design? Will your solution result in less waste? If yes, enter your proposed material quantities and wastage rates for this element, below.

Component	Total quantity of material required (t)	Reduce qty required by (t)	Standard wastage rate (%)	Good practice wastage rate (%)	Proposed wastage rate (%)
Half brick thick facing brickwork £300 / 1000	212.93t	30.00	20.00 %	10.00 %	10.0 %

<b>Total project savings (design and construction)</b>		Save
Material saving (£)	£10,154	
Material saving (t)	54t	
Disposal cost saving (£)	£1,039	
Total cost saving (£)	£11,193	
Materials avoiding landfill (t)	12t	
CO <sub>2</sub> saved through avoided extraction (t CO <sub>2</sub> eq)	85t	
<b>Future savings (deconstruction)</b>		
Potential future CO <sub>2</sub> saving (t CO <sub>2</sub> eq)	0t	

**Task 6.8 Click 'Next'.**

## 7.0 Generate a report

### Task 7.1 Review the reporting options on this screen.

#### Information

The Reporting screen provides three options:

1. **Download performance report** – this report provides performance results, and optional waste forecast and waste prevention action outputs that can be added to the project's site waste management plan
2. **Use this project as a template** – create a new version of your project (like a 'save as'). You might want to do this if you wanted to compare designs or specification options.
3. **Compare project** – this option takes you back to your My Projects screen, from where you can select which projects you want to include in a comparison report.

The screenshot shows the 'Reporting' interface for an 'Office example' project. At the top, there's a navigation bar with 'Welcome > My projects > Office example' and a 'Display auto help' button. Below that are links for 'Add new project', 'Download options', 'User options', and 'Logout'. The main content area has a breadcrumb trail: 'Project details > View / edit assumptions > Performance > Solutions & impacts > Reporting'. The title 'Office example' is followed by the instruction 'Please choose one of the three options below:'. Three cards are displayed: 1. 'Download performance report' with a description, a 'Download Performance Report' button, and an unchecked checkbox 'Include outputs for SWMP Template'. 2. 'Use this project as a template' with a description and a 'Use Project as a Template' button. 3. 'Compare project' with a description and a 'Compare My Projects' button.

### Task 7.2 Download a performance report. Select to 'include outputs for SWMP Template'.

This is a close-up of the 'Download performance report' card. It shows the title, a description, a 'Download Performance Report' button with a document icon and a green checkmark, and a checkbox labeled 'Include outputs for SWMP Template'. A red circle is drawn around the checkbox.

## Task 7.3 Open the report and review the information provided on each tab.

### Information

The report contains the following tabs:

- **Project Details** – overview of project specification and quantities selected by the Tool for your project.
- **Project Performance** – overview of your project’s performance against waste, cost, etc (the same as the report downloaded from the Performance screen).
- **Combined Impact of Solutions** – project-level impacts of solutions on cost savings, environmental impact, etc.
- **Design Stage Actions** – a list of actions and impacts (at the building element level) that can be cut and pasted into WRAP’s Site Waste Management Plan Template.
- **SWMP Waste Forecast** – a waste forecast at the waste stream level, that can be cut and pasted into WRAP’s Site Waste Management Plan Template.

Subsequent tabs present impacts separately for each building element.

Internal Walls and Partitions	New Build (including flats) (Office)	Single blockwork 100mm thick partition	1080	m <sup>2</sup>
Internal Doors	New Build (including flats) (Office)	Half hour fire res.; single to W/C, Lobbies, Wet Areas and Stores etc inc frame & basic ironmongery	2	nr
Wall Finishes	New Build (including flats) (Office)	12.5mm plasterboard, paint finish	1102	m <sup>2</sup>
Floor Finishes	New Build (including flats) (Office)	500mm x 500mm carpet tiles	8400	m <sup>2</sup>
Mechanical Services	New Build (including flats) (Office)	Heating System inc Heat Source Offices with Air Con	9670	m <sup>2</sup>

[Project Details](#) / 
 [Project Performance](#) / 
 [Combined Impact of Solutions](#) / 
 [Design stage actions](#) / 
 [SWMP waste forecast](#) / 
 [Substructure](#) / 
 [Frame](#) / 
 [Stairs](#)

## 8.0 Use your project as a template

**Task 8.1** Return to the My Projects screen by selecting 'My projects' from the options above the breadcrumbs (see image below Task 8.2).

### Information

For the project you wish to use as a template, click the icon in the 'Use project as template' column.

**Task 8.2** From the My Projects screen, select 'Use project as template'

### Information

For the project you wish to use as a template, click the icon in the 'Use project as template' column.

Material change for a better environment

Designing out Waste Tool for Buildings

Welcome > My projects

■ Display auto help

Add new project Download options User options Logout

Jane Smith's projects

Add new project

My projects		My guest user projects		Example projects		Archive						
Type	Project name	Project ID	Created	Modified	View reports	Waste arising	Waste to landfill	Cost of waste	Embodied CO <sub>2</sub>	Archive	Use project as template	Compare projects
Office	Office example	10943	07/10/2010 10:55:05	07/10/2010 11:56:08		201t	101t	£135,597	202,581			

Compare Projects Report

**Task 8.3** Give your new project a name

### Information

A dialogue box will pop up, inviting you to enter a name for your new project. It can be useful to enter a name that reflects the nature of the changes you will make, for example, if the template project was simply entitled 'Concrete frame office', and you now wish to create a steel frame option, then you may decide to call it 'Steel frame office'.

Please enter a name for the new project and click Ok.

New project name

Office example 2

Ok Cancel

Privacy Policy

**Task 8.4** Edit your new project

### Information

Your new project will then appear in the 'My projects' list. You can now click on it and edit it to meet your new specification. For example, you could change the project details or edit the specification.

My projects		My guest user projects		Example projects		Archive						
Type	Project name	Project ID	Created	Modified	View reports	Waste arising	Waste to landfill	Cost of waste	Embodied CO <sub>2</sub>	Archive	Use project as template	Compare projects
 Office	Office example	10943	07/10/2010 10:55:05	07/10/2010 11:56:08		201t	101t	£135,597	202,581			<input type="checkbox"/>
 Office	Office example 2	10946	07/10/2010 13:52:31	07/10/2010 11:56:08		225t	113t	£141,180	202,666			<input type="checkbox"/>

[Compare Projects Report](#)

## 9.0 Project comparison

**Task 9.1** Return to the 'My projects' screen by selecting 'My projects' above the breadcrumbs.

### Information

When you have created your alternative specifications, and added in your different options for solutions and impacts, you may want to compare these.

Material change for a better environment

Designing out Waste Tool for Buildings

Welcome > My projects Display auto help

Add new project Download options User options Logout

Jane Smith's projects

Add new project

My projects												My guest user projects	Example projects	Archive
Type	Project name	Project ID	Created	Modified	View reports	Waste arising	Waste to landfill	Cost of waste	Embodied CO <sub>2</sub>	Archive	Use project as template	Compare projects		
Office	Office example	10943	07/10/2010 10:55:05	07/10/2010 11:56:08		201t	101t	£135,597	202,581			<input type="checkbox"/>		

Compare Projects Report

**Task 9.2** Select the projects you want to compare in the 'Compare projects' column on the right, then click the 'Compare projects' button

My projects												My guest user projects	Example projects	Archive
Type	Project name	Project ID	Created	Modified	View reports	Waste arising	Waste to landfill	Cost of waste	Embodied CO <sub>2</sub>	Archive	Use project as template	Compare projects		
Office	Office example	10943	07/10/2010 10:55:05	07/10/2010 11:56:08		201t	101t	£135,597	202,581			<input type="checkbox"/>		
Office	Office example 2	10946	07/10/2010 13:52:31	07/10/2010 11:56:08		225t	113t	£141,180	202,666			<input type="checkbox"/>		

Compare Projects Report

**Task 9.3** View the Excel comparison report

### Information

After you click 'Compare Projects Report', an Excel document will automatically open. This provides results for each project side-by-side so you can compare the performance of your selected projects.

The report provides a comparison on key performance indicators, such as waste arisings, waste to landfill and cost of waste. In addition it compares recycled content, embodied CO<sub>2</sub> and other useful factors.

It also provides a series of useful graphs, comparing performance on the amount of recycled aggregate incorporated, the waste arisings and the cost of waste for each element. You can then use this information in selecting the best design options for your project.

Project details				
Project name	Office example (ID 10943)			
Project description	new build steel frame office			
Building type	Office			
Project type	New Build			
Mixed use?	No			
Site Area	5,000 m2			
Atrium	Yes			
Basement	Yes			

Potential cost savings				
	Material purchase requirement (£)	Value of materials wasted (£)	Cost of disposal (£)	Total cost of waste (£)
Baseline	£4,705,324	£131,496	£9,684	£141,180
Good practice	£4,620,962	£47,133	£3,901	£51,034
Targeted practice	£4,695,171	£126,952	£8,645	£135,597
Targeted improvement	£10,154	£4,544	£1,039	£5,583

Potential environmental benefits				
	Waste arisings (t)	Waste to landfill (t)	CO <sub>2</sub>	Recycled content
Baseline	225	113	202,657	25%
Good practice	91	45	196,894	25%
Targeted practice	201	101	202,581	25%
Targeted improvement	24	12	76	0%

Potential reduction in waste arisings	
1. Office example /	2. Office example 2 /

# Appendix 1 Example project details

<p><b>Project description</b></p> <p><b>Project name</b> <input type="text" value="Office example"/></p> <p><b>Project description</b> <input type="text" value="new build steel frame office"/></p> <p><b>Building type</b> <input type="text" value="Office"/></p> <p><b>Project type</b> <input type="text" value="New build"/></p>	<p><b>Site details</b></p> <p><b>Site area</b> <input type="text" value="5,000"/> <input type="text" value="m2"/></p> <p><b>Building site coverage</b> <input type="text" value="40.00"/> %</p> <p><b>Landscaping hard</b> <input type="text" value="80"/> %</p> <p><b>Landscaping soft</b> <input type="text" value="20"/> %</p> <p><b>Site conditions</b> <input type="text" value="Green field"/></p> <p><b>Estimated qty of excavation</b></p> <p>Enter excavation in <input type="text" value="m3"/></p> <p><b>Basement and substructure</b> <input type="text" value="2,000"/> m3</p> <p><b>Site works</b> <input type="text" value=""/> m3</p> <p><b>Demolition of existing structures</b> <input type="text" value="No"/></p>
<p><b>Design details</b></p> <p><b>Gross internal floor area</b> <input type="text" value="9,000"/> m<sup>2</sup></p> <p><b>Number of storeys</b></p> <p>Above ground <input type="text" value="4"/> nr</p> <p>Basement <input type="text" value="1"/> nr</p> <p>Occupied floors <input type="text" value="4"/> nr</p> <p><b>Average floor to floor height</b> <input type="text" value="3.00"/> m</p> <p><b>Building footprint</b> <input type="text" value="2,000"/> m<sup>2</sup></p> <p><b>Basement footprint</b> <input type="text" value="1,000"/> m<sup>2</sup></p> <p><b>Building perimeter length</b></p> <p>Exposed walls <input type="text" value="180"/> m</p> <p>Party walls <input type="text" value="0"/> m</p> <p>Basement perimeter length <input type="text" value="140"/> m</p> <p><b>Glazing ratio to external walls</b> <input type="text" value="80"/> %</p> <p><b>Internal atrium</b> <input type="text" value="Yes"/></p> <p>Width <input type="text" value="20.00"/> m</p> <p>Length <input type="text" value="10.00"/> m</p> <p>Enclosed / open <input type="text" value="Enclosed"/></p> <p>Glazing ratio to atrium walls <input type="text" value="90"/> %</p>	<p><b>If you have edited the project details press SAVE. If you want to recalculate your results you can either:</b></p> <ol style="list-style-type: none"> <li>1. Re-confirm your selected specification (click 'save' on the View/edit assumptions screen)</li> <li>2. Re-apply the default specification (tick box below)</li> </ol>

**Waste & Resources  
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