

DETAILED Site Waste Management Plan Example for Project Y

VERSION NUMBER: v1

DATE:

AUTHOR: Build It Ltd

1. PROJECT TITLE: Project Y

2. LOCATION: High Street, London

3. NATURE OF PROJECT:

- Large modern secondary school in urban area
- Scope of project:
 - demolition of existing buildings and re-levelling of site
 - construction of new school
 - facilities management
- Asbestos survey has been carried out: no asbestos found on premises
- Contract period should be assumed as 24 months (starting in July)
- Situated on a main road, therefore access to site is limited with deliveries and vehicle movements carefully controlled
- Use of a consolidation/bulking up centre, 10 miles away
- Limited space on site for storage and segregation of materials

4. PROJECT AIM

At Project Y we are committed to implement the project environmental plan and the SWMP so that it is effective, accurate and economical, we are expending time and a lot of effort to ensure that the procedures put into place are working and are maintained.

5. MANAGEMENT

The Senior Construction Manager is environmental co-ordinator of the project and as such is responsible for instructing workers, overseeing and documenting results of the SWMP. The Environmental Department will monitor the effectiveness and accuracy of the documentation during the routine site visits.

Position	Name	Contact Details
Client		Head Quarters
Client WM Representative (if applic)		
Project Manager		Project Office
Project Environmental Co-ordinator		Project Office
Waste Management Co-ordinator		Project Office
Document Controller	TBA	Project Office

6. DISTRIBUTION

The contractor shall distribute copies of this plan to the Planning Supervisor, Client, Site Manager and each Subcontractor. This will be undertaken every time the plan is updated.

7. INSTRUCTION and TRAINING

The contractor will provide on-site instruction of appropriate separation, handling, recycling, reuse and return methods to be used by all parties at all appropriate stages of the Project.

Toolbox talks will be carried out every month on waste issues and all subcontractors will be expected to attend. The SWMP will also be mentioned in the site induction process. This will ensure that everyone feels they are included and that their participation is meaningful.

8. WASTE MANAGEMENT ON SITE

Surplus or waste materials arise from either the materials imported to site or from those generated on site. Imported materials are those, which are brought to the project for inclusion into the permanent works. Generated materials are those, which exist on the project such as topsoil, sub-soil, trees and materials from demolition works etc.

However, there are other considerations to waste management such as waste reduction, segregation of waste, disposal of waste, financial impacts of waste disposal and recording, monitoring, education and reviewing. This plan outlines the procedures that have been put in to place and demonstrate how they benefit the environment, how we can measure the effects and how these procedures and practices are sustainable.

Forecast Volumes (m³) of Potential Waste on Site

WASTE Category & Types	ENABLING WORKS (including DEMOLITION)			CONSTRUCTION WORKS		
	Tick	Estimated (m ³)	Quantity	Tick	Estimated (m ³)	Quantity
e.g. concrete	✓	400		✓	50	
Inert Waste						
Rock						
Gravel				✓	250	
Sand				✓	250	
Aggregates				✓	250	
Concrete	✓	10		✓	115	
Tarmac	✓				500	
Brick / Blocks	✓	1060		✓	Block 100 Brick 200	
Top soil (uncontaminated)	✓	30			12000	
Sub soil (uncontaminated)	✓				9000	
Bulk excavated (uncontaminated)	✓					
Glass	✓	10				
Polystyrene					30	
Plastics (non biodegradable)	✓					
Other:						
Other:						
Other:						
Sub TOTAL			2010m ³			22405m ³
Active/ biodegradable Waste						
Plasterboard	✓	2		✓	150	
Gypsum products					(Incl in above)	
Metals – reinforcement	✓			✓	145	
Metals – steel	✓			✓	50	
Metals - offcuts				✓	71	
Timber	✓	3		✓	335	
Cardboard				✓	50	
Paper				✓	30	
Biodegradable plastic				✓	5	
Canteen waste				✓	250	
Trees	✓	60		✓	20	
Vegetation (shrubs, bushes)	✓			✓	(incl in above)	
Other:						
Other:						
Other:						
Sub TOTAL			65m ³			1106m ³
Hazardous Waste						
Topsoil (contaminated)						
Sub soil (contaminated)						
Bulk excavated (contaminated)						
Asbestos	✓	1				
Explosive					13m ³	
Flammable	✓					
Toxic	✓					
Other:						
Other:						
Other:						
Sub TOTAL			1m ³			13m ³
TOTAL VOLUMES			2076m ³			23524m ³

**PRIORITISING WASTES REQUIRING WASTE MANAGEMENT
ENABLING WORKS (including DEMOLITION): Waste Type, Category and Origin**

Waste Types	Waste Category	Origin of Waste
e.g. <i>Bricks</i>	<i>inert</i>	<i>Demolition of existing buildings and walls.</i>
1 Concrete	Inert	Site Strip & Demolition
2 Tarmac	Inert	Site Strip
3 Brick/block	Inert	Site Strip & Demolition
4 Timber	Active/Bio	Demolition Works
5 Subsoils	Inert/Hazard	Site Strip
6 Metals	Active/Bio	Site Strip & Demolition
7 Asbestos	Hazardous	Demolition Works
8 Plasterboard	Active/Bio	Demolition Works

9. WASTE MINIMISATION

At Project Y we have, from a very early stage, looked at how we can minimise the waste produced, thereby reducing the amount of waste to be removed from the project. Trade Contractors, Design Team and Suppliers are all being encouraged to look at ways to minimise the amount of waste produced at the work face. Up to date actions are recorded in the table below:

Action	Responsibility	Date Action Commenced
The wash down point for the concrete wagons is in a suitable location so that the washed out aggregates formed part of the fill.	Site Manager	06/06/05
Substructure - when the bases are being poured that we had other bases excavated so that any surplus concrete could be utilised as blinding.	Construction Manager	01/05/05
Materials, which arrive on pallets, are unloaded and the pallets are stored neatly and removed from site once the numbers are sufficient to make collection economical.	Site Foreman	01/05/05

Plasterboard sheets are made to standard sizes to suit the wall heights and to reduce the amount of off cuts.	Design team	23/03/05
---	-------------	----------

All of the above act to reduce the amount of waste and surplus materials, which traditionally would be skipped and sent to landfill. We are continually identifying waste minimisation actions and these will be updated in the above table.

10. SEGREGATION

An specific area shall be laid out and labelled to facilitate the separation of materials for potential recycling, salvage, reuse and return. Recycling and waste bins are to be kept clean and clearly marked in order to avoid contamination of materials. The labelling systems shall be the Waste Awareness Colour Coding Scheme. If the skips are clearly identified the bulk of the workforce will deposit the correct materials into the correct skip. Skips for segregation of waste identified currently are:

- Wood
- Metal
- Brick/rubble
- Canteen waste

As works progress and other trades come to site other skips will be placed to enable certain waste to be removed from site. This is likely to include:

- Plasterboard
- Paper and cardboard (bagged up)

11. MANAGEMENT

Disposal of Waste

All surplus or waste materials fall into three categories for management, these are:

- Re-used
- Recycled
- Landfill

a. Re-used

If surplus materials can be used in the permanent works they are classified as materials, which have been **re-used**. If they are surplus to requirements and need to be removed from site and they can be removed and used in their present form, they can be removed from site for **re-use**.

b. Recycling

If the surplus material cannot be re-used in its present form but could be used in a different form, it is sent for **recycling** such as 50x50 timber to make chipboard.

c. Landfill

If either of the above cannot be satisfied then the only option left is to send the surplus materials to **landfill**. At Project Y landfill is a last resort.

Waste Management

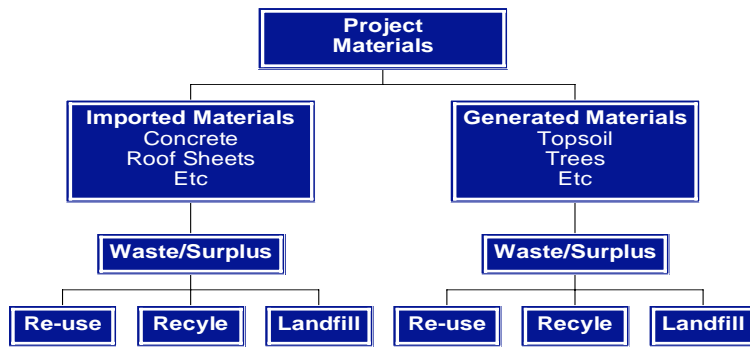


TABLE FOR WASTE TYPES & WASTE MANAGEMENT PACKAGES

Waste types	WM Contractor Contact details	WM Package
Enabling Works (including Demolition)		
e.g. <i>Top soil</i>		<i>Reuse (offsite)</i>
1 Concrete		Re-use on site
2 Tarmac		Re-use on site
3 Bricks/Blocks		Re-use on site
4 Timber		Re-cycle
5 Subsoils		Re-use on site
6 Metals		Scrap value
7 Asbestos		No usage
8 Plasterboard		Recycle/Landfill
Construction Works		
e.g. <i>Timber</i>		<i>Recycle (offsite)</i>
1 Plasterboard		Recycle/Landfill
2 Bricks/Blocks		Re-cycle
3 Timber		Re-cycle
4 Cardboard		Re-cycle
5 Mortar		No usage
6 Metals		Re-cycle
7 Paints		Landfill
8 Soils		Sell-off

12. MONITORING

The Subcontractors will fill in a weekly log of all materials that come on to site, and we will receive a printed sheet from the waste disposal company of the exact amount of waste materials removed from site. This sheet from the disposal company also identifies how much materials went to landfill and how much went for recycling.

Weekly Monitoring of the Waste Management Plan – Data Collection Sheet

	M3	Date					Comments
		Mon	Tue	Wed	Thur	Fri	
Top Soil	Imported						
	Generated On Site						
Sub Soil	Imported						
	Generated On Site						
Brick & Concrete	Imported						
	Generated On Site						
Timber	Imported						
	Generated On Site						
Trees	Imported						
	Generated On Site						
Paper	Imported						
	Generated On Site						
Cardboard	Imported						
	Generated On Site						
Metals – reinforcement	Imported						
	Generated On Site						
Metals – steel/GI Sheet	Imported						
	Generated On Site						
Plastic	Imported						
	Generated On Site						
Tarmac	Imported						
	Generated On Site						
Glass - Ordinary	Imported						
	Generated On Site						
Glass - Glazing	Imported						
	Generated On Site						
Plasterboard	Imported						
	Generated On Site						
Canteen waste	Imported						

	Generated On Site							
Asbestos	Imported							
	Generated On Site							
Explosive/Flammable <i>Oil, Chemicals, Paint etc</i>	Imported							
	Generated On Site							
Toxic	Imported							
	Generated On Site							
General Mixed Waste	Imported							
	Generated On Site							

The skips need to be monitored to ensure that contamination of segregated skips does not occur. Therefore we will hold regular tool box talks on how the waste management system is working and point out that an uncontaminated skip for recycling costs £55 but should it get contaminated then it has to go to landfill at a cost of £89 per skip.

We will continually review the type of surplus materials being produced and change the site set up to maximise on re-use or recycling and the use of landfill will be the last option.

This plan will be included as an agenda item at the weekly construction meetings. In addition, the plan will be communicated to the whole project team (including the client) at the monthly meetings. This will include any updates from the last version.

Date	Organiser	Attendance Record (name and company)	Notes taken by

The plan will also be analysed by the Corporate Environmental Department during their audits (6 monthly) and they will be responsible for transferring any best practice and solutions throughout the company. The Environment Team will also visit the waste transfer facility to ensure that we are effectively discharging our 'duty of care'. They will also periodically follow waste transfer vehicles to their final point of disposal to monitor compliance.

Waste Management Plan Implementation Checklist

Checks (please tick ✓)	Yes	No
Have terms and commercial rates been agreed with WM contractor(s)?	✓	
Have data reporting procedures been agreed with WM contractor(s)?	✓	
For off site WM or disposal are all the waste destination details verified?	✓	
Has a waste segregation / collection area been prepared?	✓	
Has the WM area been adequately sign posted?	✓	
Has a WMP planning meeting been set?	✓	
Has the WM document control / filing system been set up?	✓	
Have all necessary BLL staff and contractors read and signed the WMP?	✓	
Have all the WM training / briefing requirements for staff been met?		
Have all the WM training / briefing requirements for contractor/s been met?	✓	
Have the waste management targets been set?	✓	
Has the WMP been approved by the Project Manager?	✓	
Comments / Further Actions:		
1. Discuss / debate with the Internal Team Members and agree quantities / values etc		
2. Discuss / agree strategy with the Waste Management Subcontractors (Thompsons)		
3. Issue the Weekly Monitoring – “Data Collection Sheet” to Subcontractors		
4. Include Waste Management Plan within Tender Documentation		

RELEVANT SIGNATURES

Contractor:

Date:

Sub-contractors:

Date:

Client:

Date: