

Site Waste Management Plans (SWMP)

Overview

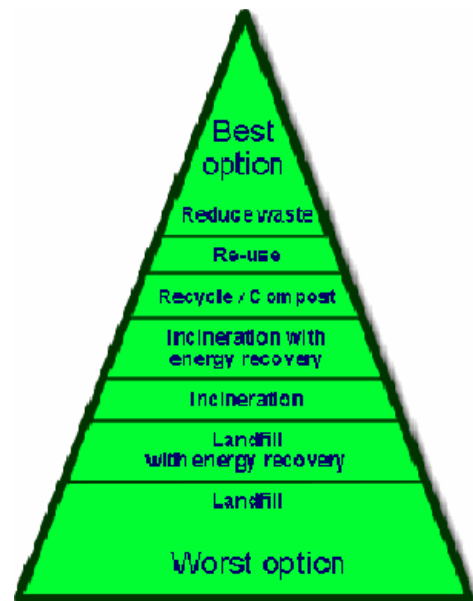
A plan for a demolition / construction or refurbishment site (over £250,000) which states what is to happen to all materials likely to be removed from, brought onto & used on the site. It aims to reduce the environmental & financial impacts of the works. To be introduced by the client & design team & progressed by the main contractor on site.

Why Introduced

- The construction industry is the UK's largest consumer of natural resources, using over 400 million tonnes of material annually.
- It generates more than a third of the UK's waste arisings, of which only half is reused or recycled (mostly aggregates & metals).
- Over 60 million tonnes of construction sector waste is sent to landfill / for disposal every year.
- Good practice waste minimisation & management (WMM) on construction, refurbishment (& demolition) projects will help to reduce the vast quantities of construction waste going to landfill every year. More efficient use of materials will make a major contribution to reducing environmental impacts of construction including effects linked to depletion of resources & disposal.
- The true costs of waste disposal are often not considered. As well as the cost of a waste contractor & skips there is the time taken on site sorting & handling the waste, poor packing or overfilling of skips & the cost of wasted materials.
- These costs will increase every year due to increases in disposal costs, taxes / levies on primary materials & landfill tax increases.

History

- The principle of good WMM is the waste hierarchy;
- The Clean Neighbourhoods and Environment Act 2005 included regulations requiring site waste management plans (SWMP) for works involving construction or demolition waste.
- Following a voluntary code of practice developed from this & launched by the Department for Trade & Industry (DTI) in 2004, Defra has developed proposals for compulsory site waste management plans in England. SWMPs aim both to reduce fly-tipping and to promote the potential resource savings from minimising waste.



Action

- Three areas where the construction industry needs to improve efficiency are energy, water & material usage. Projects will have materials coming in & materials going out. All the constituent parts of these aspects have an impact on the ability to minimise environmental damage & conserve natural resources.
- To realise the benefits of good WMM a SWMP should be developed & implemented to at least good practice standards.
- The SWMP should begin development with the client & design team, & be fully developed & implemented by the principle contractor on site.

- Key features of WMM include;
 - Demolition – avoid the disposal of as much of the reusable materials as possible & maximise the use of reclaimed materials on site.
 - Design solutions – over specification should be avoided & as much as possible should be reused or recycled. The building should be flexible with regards to future adaptations & the materials required.
 - Logistics – this includes the use of just in time deliveries & improving the movement of materials to & within from the site alleviating storage & congestion.
 - Modern Methods of Construction – improvements in the products & processes used in the construction industry, from innovative components used on site through to whole building systems manufactured off site. In part this enables waste minimisation in the construction line where there is repeatability in the production line.
 - Materials procurement – by ordering the correct amount at the right time surplus material is avoided, storage should be safe & secure to avoid weather damage or theft & take-back schemes should be set up so surplus materials are returned to the supplier rather than being left on site or disposed of.
 - Packaging – use materials with minimal packaging & encourage take-back of the packaging or segregate it for re-use.

- Key features of a SWMP include;
 - A person is identified as being responsible for the SWMP who may also be given responsibility for compliance with Duty of Care.
 - A register is produced on a clearly set out form, of the likely types & quantities to be generated.
 - Training is formalised for all personnel on site so waste awareness improves. All contractors must sign & agree to the SWMP.
 - Target recovery & recycling rates for each waste are identified, along with formal measurements to demonstrate compliance with the SWMP.

- Key benefits of a SWMP include;
 - Cost savings by improved management of materials on & off site, decreased disposal costs & labour time.
 - Increased competitive advantages through differentiation.
 - Lower CO₂ emissions.
 - Compliance with environmental legislation.
 - Better working practices on site – tidier, cleaner site means better health & safety on site. (improved housekeeping).
 - Improves CSR performance.
 - Meet planning requirements.

- ❖ Constructing excellence estimates that a well implemented SWMP can give savings of at least 3% on build costs & 20% of materials on site & the segregation of different wastes can result in a saving of at least 0.2% of a total project cost.

Future

- Not just a tool for managing waste on site, the SWMP should be used during early project phases to identify potential waste streams, minimising & targeting appropriate

rates of recovery. Planning & developing the plan before work begins highlights the benefits of good practice WMM.

- SWMP are expected to become a mandatory requirement for projects with values greater than £250,000 from April 2008.
- More information available at;
 - o <http://www.envirowise.gov.uk/GG642>
 - o <http://www.envirowise.gov.uk>
 - o <http://www.wrap.org.uk/construction/>

Action

- Produce a generic SWMP template for Newcastle College / Skelmersdale & Ormskirk College to be used in all works.
- Begin to integrate this into existing plans & procedures, in addition to all new works.
- Compare performance & set on-going benchmarks & targets for waste.
- Develop SWMP formats over time.
- Integrate demolition & construction as much as possible to save financially & contribute to the environmental performance & CSR of the college.
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