

ATTACHMENT D
FACILITY DESIGN

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D.1.a Facility Security Arrangements - (Map D.1.a refers)

The licensed area is fully enclosed, either by fencing or natural hedgerow, to an average height of 2m. The area between the licensed area and the main road, R280, is secured by means of a security fence, 2.4m high, galvanised.

Entry to the facility will be via an electric gate in this fence, operated from the weighbridge office. The area immediately inside this fence will be used in the short term for parking. It is proposed at a later stage to develop a civic amenity site in this area. Natural native hedgerows to an average height of 2m enclose the remainder of the licensed area, other than the boundary to the south.

The entrance from the car park and proposed civic amenity to the site proper will be via an electric gate/barrier, which will also be supervised from the weighbridge office. The need for this barrier will only arise once the civic amenity site is up and running, as currently all unauthorised personnel can be stopped at the main gate.

The fencing to the south of the site will be to a height of 2m and will be constructed of timber uprights and steel fencing. This fence will have two gates for emergency purposes. These gates are to allow egress and access via the plant yard to the main road in case of emergency. This will also allow for fire brigade to access water from Ardcolumn Lake in case of emergency.

The facility is located in a rural setting. The applicant owns the farmland surrounding the facility. The northern and eastern boundary of the waste transfer area is composed of a high bank with a dense hedgerow of hawthorn. The facility is surrounded north and south by property owned by the applicant, and on the west by the public road.

All vehicles entering and leaving the site will report to the weighbridge office. Access to the site proper will not be allowed unless and until all procedures have been complied with, i.e., weighing and waste inspection etc. No unauthorised personnel will have access to site proper.

Outside of operating hours all gates to the facility will be securely locked.

D.1.b Access Roads - (Map D.1.b refers)

Access to the facility is from the main R280 road. The facility is surrounded on the north and south sides by farmland owned by the applicant. Emergency access can also be gained by way of the plant yard owned by the applicant through the emergency gates. These gates are kept closed at all times and are for emergency access/egress only.

D.1.c Design of Hard-Standing Areas - (Map D.1.c refers)

The proposed civic amenity area is tarred and chipped and will be used in the short term for car parking. The design and in depth details of the proposed facility will be reported to the Agency prior to any commencement of activity.

The area between the entrance gate and the proposed barrier to the facility proper is concreted. This area includes the weighbridge and the weighbridge office. The drainage from both this area and the tarred and chipped area of the proposed civic amenity will pass through an 1100 gallon interceptor tank based close to the proposed security gate between the civic amenity site and the site proper.

The remainder of the yard is concreted, which includes the area designated as a waste quarantine area, which is to the north of the site, close to the entrance of the waste acceptance/handling area. All surface water from this area, i.e., yard proper and waste quarantine area will be diverted through a second interceptor tank, which is located in the adjoining plant yard.

D.1.d Weighbridge – (Map D.1.d refers)

A weighbridge has been installed close to the main entrance, over which all vehicles carrying waste to the waste facility will have to travel. The type of weighbridge installed is a Globeweigh Weighbridge, Model CSPM, with capacity 60,000 X 20kg minor weighing increments, with a length of 18m X 3m. This is a surface mounted weighbridge, and fitted with D800 indicator and TM295 ticket printer.

D.1.e Wheel wash

Wheel wash is not currently in place, nor is it intended to install one in the short term.

D.1.f Laboratory facilities

No laboratory facilities at this site.

D.1.g Fuel Storage Areas

There are no fuel storage areas within the licensed area.

D.1.h Waste Quarantine Area – (Map D.1.h refers)

An area will be cordoned off and designated as a waste quarantine area, adjacent to the waste acceptance/handling area. This is a hardstanding area with a concrete surface. Given the type of waste being handled at the facility one would not expect hazardous waste to arise. However, in case of an emergency or accident this is the area identified as to where such waste will be removed and remain until dealt with in a suitable manner.

D.1.i Waste Inspection Area – (Map D.1.i refers)

Waste can be inspected at all areas of the facility at all times as per attached Map D.1 (i).

1. It is proposed to use this area as a storage area. This is a shed that is already in situ and will be used for the storage of dry recyclables only.
2. Waste quarantine area. Waste will only be stored here in the event of an emergency situation. No hazardous or toxic waste will be handled at the

facility. However, if any waste of such a nature should arise through unforeseen circumstances it will be removed immediately to the waste quarantine area until it is dealt with in a proper and proscribed manner. Such waste if removed to this area will be available for inspection at this point.

3. Roll on/Roll off skips. These skips are kept inside the shed, open topped. These will be used for the storage of recyclables such as scrap metal, wood, and possibly glass. The waste in these skips will be available at all times for inspection.
4. This area is the interior of the upper shed, which will be used as a skip handling area. Skips will be emptied, the recyclables salvaged and the residue disposed of in a bulker at Waste Inspection area 5. MSW coming to the facility of reloading will also be unloaded in this area and transferred to a bulker in Waste Inspection area 5. All waste being handled in this area will be available for inspection at all times. Dry recyclables collected at kerbside will also be emptied here and transferred to a bulker or baler at Waste Inspection area 5.
5. This is the lower shed where bulker trailers will be parked. These trailers will receive MSW prior to transfer to landfill from Waste Inspection area 4. These bulkers may also receive dry recyclables collected at kerbside for transfer to another licensed facility. This area also contains a baler where cardboard and plastic may be baled after transfer by conveyer belt from Waste Inspection area 4. All waste in this area can be inspected at any time.
6. This area is a store reserved in the main for clean cardboard collected on a segregated cardboard collection from commercial premises. This area also contains a baler. Waste can be inspected in this area at any time.
7. This area is for the storage of dry recyclables only and can be inspected at any time.

Waste Inspection areas 4 & 5 are the only areas where MSW will be handled or stored.

D.1.j Traffic Control – (Map D.1.j refers)

Traffic flow will be as show on Map D.1(j). Traffic will enter/exit via the main entrance, travel over weighbridge, through proposed electric barrier/gate to the facility proper. All waste will travel to the waste handling area. In case of emergency access/egress can be obtained to and from main road via plant yard, and emergency gates.

D.1.k All Services

The facility is serviced by three-phase electricity supplied by ESB. Cables within the facility run underground from the pole on the northern boundary to service all buildings. Water is a group water scheme via 100mm class C water main. Telephone lines are connected from main R280 road to administration office. Foul sewer from administration blocks is dealt with by water treatment system installed in plant yard, owned by the applicant, but not within the licensed area.

D.1.1 Sewerage and Surface Water Drainage Infrastructure (Map D.1.1 refers)

Surface area from entrance area and proposed civic amenity is drained to interceptor tank via heavy-duty road gullies and 150mm storm sewer. This interceptor tank has a capacity of 1100 gallons. The surface water from the remainder of the site, other than the waste in/out and wash bay areas, are diverted via heavy duty road gullies and 150 mm storm sewer to a second interceptor tank with a capacity of 1200 gallons, which is located in the plant yard, owned by the applicant, but not within the licensed area. This water flows from here into a storm drain and is discharged to stream. (Both systems shown in green on map D.1 (l)).

The waste water from the interior of the waste in/out area and the wash area is diverted to a three-chamber settlement tank via 150 mm piping. Each chamber is 2.4m x 3.6m x 2.85m. The clear water flows into an interceptor tank, capacity 1200 gallons, for inspection/emergency purposes and from there to the percolation area.

The foul sewer, 150mm pipe, servicing the administration office and weighbridge office is diverted to a water treatment system located in the plant yard adjoining the facility, owned by the applicant, but outside of the licensed area. This water treatment system also services foul sewerage from the machinery and maintenance workshops and the retail unit adjoining the licensed facility. (Shown in blue on map D.1 (l)).

D.1.m Plant Sheds, Garages and Equipment Compound (Map D.1.m refers)

Map D.1 (m) shows the location of sheds and plant and has been labelled A – N.

A: Weighbridge: The type of weighbridge installed is a Globewigh Weighbridge, Model CSPM, with capacity 60,000 X 20kg minor weighing increments, with a length of 18m X 3m. This is a surface mounted weighbridge, and fitted with D800 indicator and TM295 ticket printer.

B: Store: Currently being used as a spray shed. It is intended that this store will be used in the future for the storage of clean dry recyclables.

C: Waste Quarantine Area: This area will only be used in the event of waste arising that has to be isolated for whatever reason. The waste will be kept at this location until such time as it can be dealt with in a prescribed manner.

D: Waste Handling Area: All waste coming to the facility will come to this area. Loading shovel will be operational to reload municipal waste immediately on its arrival, into the bulker parked at the lower level. Kerbside dry recyclables will also be reloaded in the same manner at different times. This area will also be used as a skip handling area.

E: Roll on/Roll off Skips: These skips will be used for the storage of dry recyclables, scrap metal, wood, etc, that will be salvaged from skips.

F: Wood Shredder/Grinder (Proposed): In the event of large quantities of wood waste streams becoming available a shredder will be used to decrease the bulk.

G: Conveyor Belt: This conveyor belt will be used to carry dry recyclables from the waste handling area to baler at lower level.

H: Baler: An Excel -2R10/2R10D Baler, 54HP, with fluffer, hopper, extension and photoeyes. It is fed from the conveyor belt directly to the hopper and will produce bales of up to 1 tonne weight.

I: Storage Area: The area marked I is reserved for the storage of dry recyclables prior to transportation.

J: Bulker Trailer: A trailer will be in situ at all times to receive MSW on its arrival or mixed dry recyclables collected at kerbside, as the case may be. Only one or other of these waste types will be handled at any one time.

K: Storage Area: This area is for the storage of high grade cardboard, collected separately from commercial customers and baled in this area.

L: Baler: This is a ½ tonne baler which is fed and operated manually and is reserved for the use of clean cardboard collected from commercial premises. Prior to the collection being put in place the applicant used this baler to bale cardboard which arose in his own retail business. He intends to retain this baler to handle higher grade cardboard in order to maximise value added.

M: Storage Area: This area is to the rear of the administration area that will be used for general storage or dry clean recyclables as required.

N: Wash Bay Area: A power wash will be used in this area for the cleaning of vehicles, receptacles, i.e., wheelie bins and skips.

Other Plant: A loading shovel and grab will operate within the waste handling area (D). A forklift will operate as required within the facility. A mechanical road sweeper will be used as and when required within the facility, and the approach road if necessary. A trommell may be introduced for C & D waste in the event of a significant increase in this waste stream. Consideration will also be given to the introduction of a grinder for the breaking down of glass. However, a market is currently available to the applicant and it is not intended to introduce such plant in the medium term. The Agency will be advised prior to the introduction of any addition plant, and as to plant method to be employed.

D.1.n Facility Accommodation –(Map D.1.n refers)

The facility accommodation consists of the weighbridge check in office and the administration block. The check in office, which is located adjacent to the weighbridge and between the entrance gate, and the proposed second security barrier/gate to the facility proper, Map D.1 (n). The entrance gate and proposed security barrier/gate, and the weighbridge will all be controlled from this office. Toilet facilities and canteen are also available at this location.

The administration block consists of offices, toilets, showers and kitchen facilities.

**D.1.o Fire Control System, Including Water Supply
(Map D.1.o refers)**

Two fire assembly points are situated, one outside of the main gate and one outside of the emergency gates, adjacent to the main road. In the event of fire all occupants of the facility will be directed to these points. Fire officers will be appointed to take control of any potential situation. There are fire points within all buildings on site, where fire extinguishers are located. Two fire hydrant points are located to the front of the waste handling area and the waste out area, marked FP (g) & FP (i) on Map D.1.(o). The power washer, located in the wash bay area can also be utilised as a Fire Point in the event of an emergency situation.

Emergency gates are located on the southern boundary fence. Access to the site can be gained through the plant yard, owned by the applicant, adjacent to the facility. These gates are of special relevance as they give fire brigade access to Ardcolumn Lake, which can be used as a water supply in case of emergency.

D.1.p Civic Amenity Facilities – (Map D.1.p refers)

An area has been identified at which it is intended to develop a civic amenity site, once it becomes viable to do so. This area is currently being used for parking. A charge would have to be levied on the general public for the use of such a facility. The current cultures whereby County Councils supply a service at bring banks and civic amenity sites free of charge has arisen. It is not believed that the general public would be willing to pay for such a facility at this time, and therefore it would not be economically viable to develop such a civic amenity site at this stage.

The facility's rural location mitigates against such a facility being put in place. However, it is understood that Leitrim County Council intends to cut back this service to the public, and with the advent of the WEEE Goods Regulations, it is believed that such sites will become viable in the medium term. The shape and type of such a civic amenity will only become apparent at that stage. The Agency will be notified of any such development.

D.1 q Any other waste recovery infrastructure

Not applicable

D.1.r Any other infrastructure

Not applicable

D.2. Facility Operations

The facility is for the handling of general waste produced by householders, commercial premises and industry. No hazardous waste will be taken to the facility.

All waste entering the facility will pass over the weighbridge, and will go directly to the Waste Handling area. It will then be either reloaded, segregated, and/or baled. It will then be stored, and when sufficient amounts accumulated sent to landfill or for further processing as appropriate. See flowchart D.2.a

The waste streams to be handled will be in the main MSW. This waste is taken to the plant, weighed in, unloaded, bulked, and sent for land filling. See chart D.2.b.

The other main waste stream being handled at the plant are dry recyclables collected from kerbside. The flowchart D.2.c sets out how this waste is handled at the facility. It will be noted that this waste stream is handled in a similar manner to MSW, with the proviso that some may be baled, and that this stream will be sent for further processing and not for landfill.

The handling of commercial packaging waste will be developed. The flowchart at D.2.d sets out how this waste stream will be handled. This waste in the main will be segregated prior to arrival and will be delivered to designated storage areas. Some such as cardboard will be baled. Some such as glass and wood will be stored in roll on/roll off skips. This stream will be sent for further processing and not for landfill.

Commercial skips will also be handled at the facility. The flowchart at D.2.e sets out how this waste stream will be handled. The segregation of these skips will be done by hand and the recyclables will be sent for further processing. Any residue from these skips will be sent to landfill.

All contaminated waste, not suitable for recycling or further processing will be sent to landfill. This applies to waste collected by the firms own vehicles. In the event where waste classed as recyclables are brought in by third parties to the facility, and such waste is found to be unsuitable for recycling due to contamination, the load will be rejected as recyclables and the details recorded. The handler of the waste will then have the option of taking the waste away or may deposit at the facility, for transfer to landfill, as contaminated recyclables.

History of the Facility

The applicant has operated a waste management business alongside his plant hire and auto factor retail outlet for the past twelve years. The waste management business came into being as a result of Leitrim County Council's decision to privatise the refuse collection service in County Leitrim. The business consisted, until 2002, of the collection of waste, which was then transported directly to Leitrim County Council's landfill sites at Mohill and nearby Carrick-on-Shannon. The only activity connected with waste management that took place at the facility at Ardcolumn consisted of the parking of the refuse and skip trucks.

With very short notice, in early 2002 the landfill at Mohill closed. This was followed in June 2002 with the closure of the landfill at Carrick-on-Shannon by Leitrim County Council. In order for the applicant's business to remain viable and for him to continue to provide a service to his customers he was forced to reload waste into bulker carriers for the transportation to landfills at Ballaghaderreen, Co Roscommon and Ballinasloe, Co Galway. In order to implement best available practice with regard to the transfer of waste the applicant installed concrete slabs and drainage systems.

Prior to the closure of the landfill at Carrick-on-Shannon the applicant made an application to Leitrim County Council for a waste permit, which would allow him to reload and transfer up to 5,000 tonnes of waste from his facility. Leitrim County Council declined to handle this application as the relevant planning permission was not in place. Retention of planning permission was applied for, and has since been granted.

However, in the interim, the business grew to the extent that a permit would not be sufficient to cover the activities taking place, and therefore this application is being lodged. In the meantime, a temporary permit was granted by Leitrim County Council, Permit No: S807/19/D to allow the applicant to operate while this application was being formulated and lodged with the Agency for consideration.

D.3 Materials Management

Currently no waste is processed on site. As can be seen from all of the flowcharts waste arrives on site and is taken to the waste handling area, is either reloaded, segregated/baled, stored and sent for reprocessing or land filling.

The waste currently being handled, as per flowchart D.2.b is listed in the European Waste Catalogue as follows:

20 03 01	Non Hazardous	MSW
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This waste is non recyclable waste collected from households and commercial premises, and includes hotel and canteen wastes. At some stage in the future biodegradable kitchen and canteen waste, non hazardous, 20 01 08, may be collected in a separate bin and sent for composting.

Flowchart D.2.c refers to kerbside recyclables, which currently includes:

15 01 06	Non Hazardous	Mixed packaging
20 01 01	Non Hazardous	paper and cardboard

These materials are currently collected at kerbside from domestic households, are brought to the facility, bulked/baled, stored and sent to a licensed facility for processing.

Flowchart D.2.d refers to packaging waste collected in the main from commercial customers.

15 01 01	Non Hazardous	Paper and cardboard packaging
15 01 02	Non Hazardous	Plastic packaging
15 01 03	Non Hazardous	Wooden packaging
15 01 04	Non Hazardous	Metallic packaging
15 01 05	Non Hazardous	Composite packaging
15 01 07	Non Hazardous	Glass packaging

These wastes are generally segregated at source and brought to the facility, they are bulked/baled, stored and sent to a licensed facility for processing. In the future glass may be processed on site, in so far as it may be ground and mixed with aggregate for use in the construction industry. See flowchart D.3.a.

Skips entering the facility as per flowchart D.2.e, can contain a variety of materials. They could contain the recyclable materials listed above, or contain C & D waste such as:

17 01 01	Non Hazardous	Concrete
17 01 02	Non Hazardous	Bricks
17 01 03	Non Hazardous	Tiles and ceramics
17 01 07	Non Hazardous	mixture of concrete, bricks, tiles
and ceramics other than those mentioned in 17 01 06		
17 02 01	Non Hazardous	Wood
17 02 02	Non Hazardous	Glass
17 02 03	Non Hazardous	plastic

Flowchart D.3.b depicts how C & D waste may be dealt with in the future. In general it will arrive at the facility in trucks or skips. Having been checked in and weighed it will be moved to the waste handling area, where recyclables such as plastic, tin, and wood will be removed, put in storage skips, prior to being sent for processing. The remainder, bricks, mortar and general rubble, will be tumbled, graded into various sizes, sent for reuse in the construction industry, mainly as dry filling.

At no time will any hazardous waste streams be handled at the facility.

The applicant will inform the Agency as to any new process being introduced.

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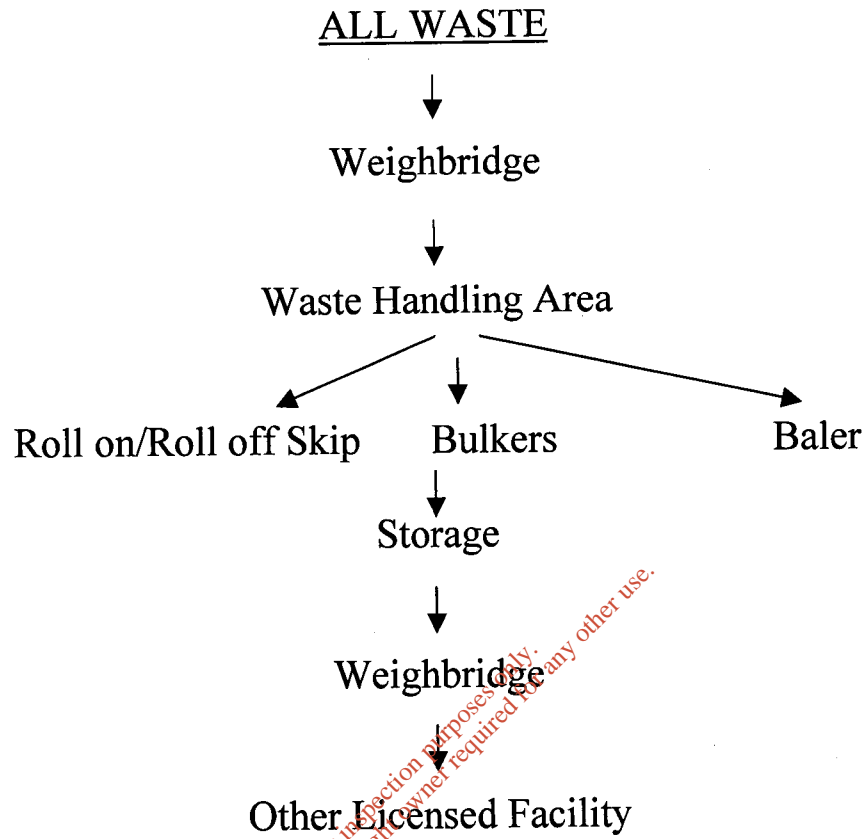
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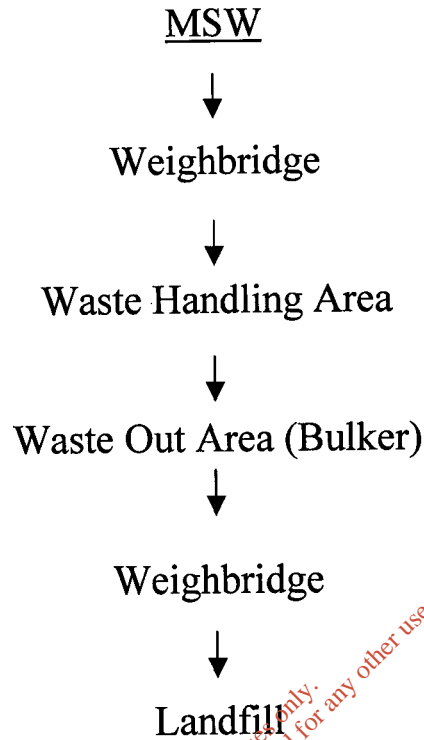
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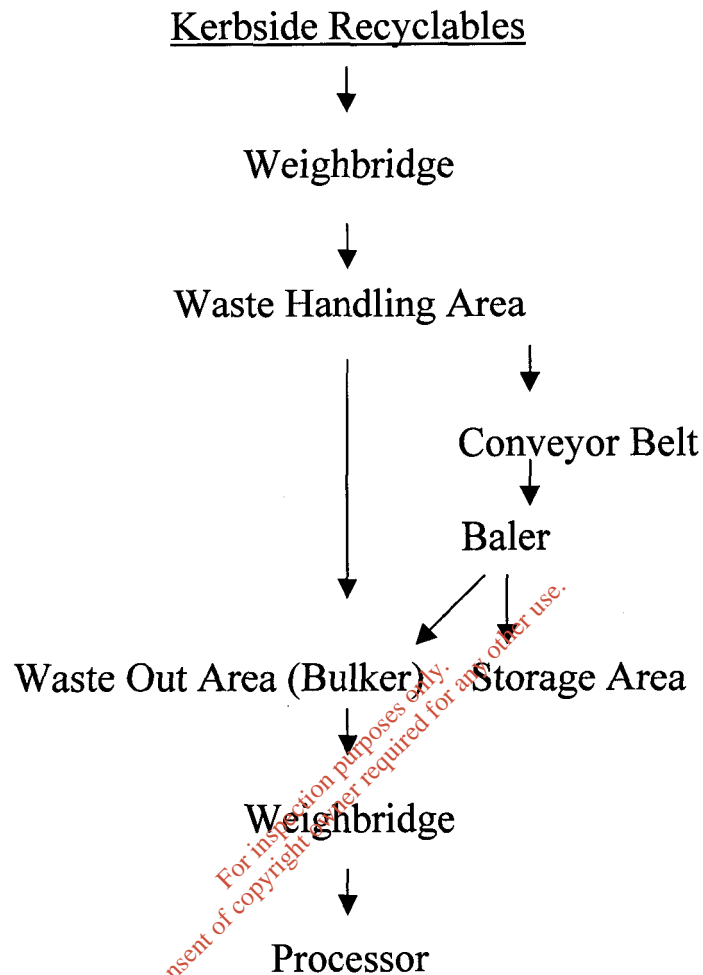
D.2.a Flowchart All Waste



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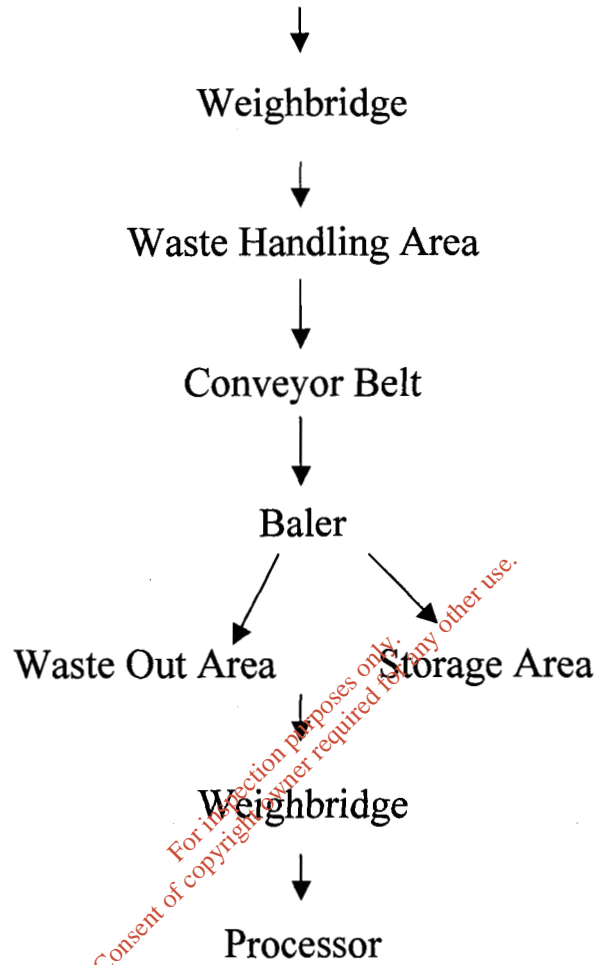
D.2.b Flowchart MSW

MSW arriving at the facility passes over the weighbridge and goes directly to the Waste Handling Area. It is then tipped directly into a bulker located in the Waste Out Area and when the bulker is full it goes directly to landfill.

D.2.c Flowchart Kerbside Recyclables

Kerbside Recyclables arriving at the facility pass over the weighbridge and go directly to the Waste Handling Area. They are then either tipped directly into a bulker located in the Waste Out Area, or are directed via conveyor belt to a baler located in the Waste Out Area. They are then either loaded and sent to another facility for processing or are transferred to a storage area to await transfer.

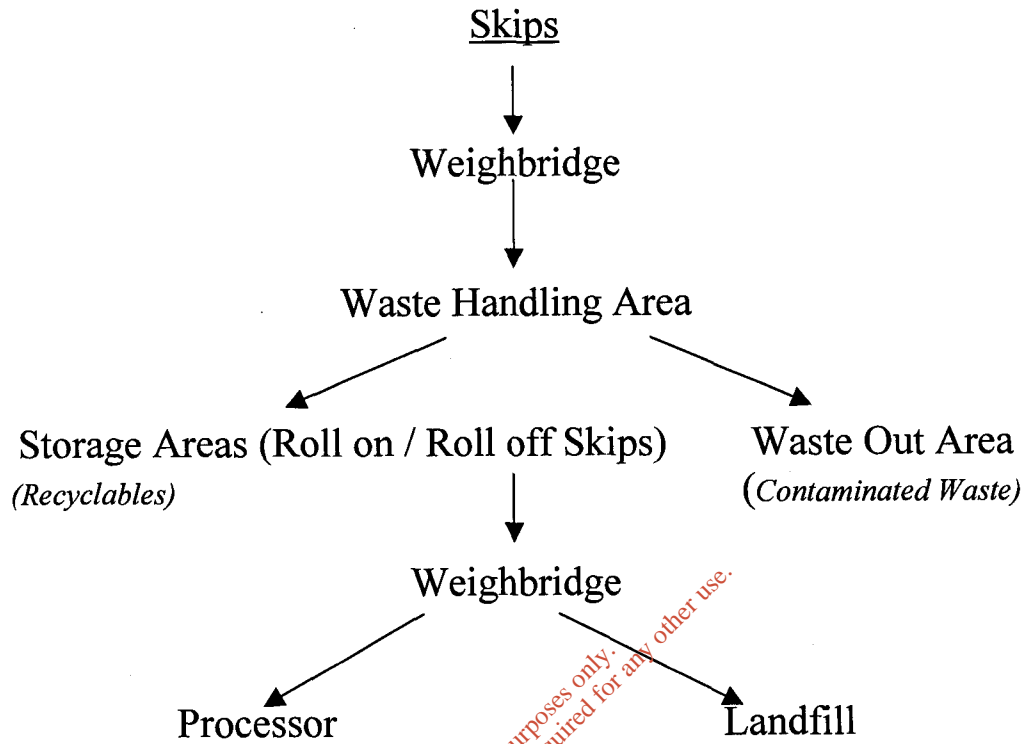
Contaminated recyclables will be removed and temporarily stored in a skip awaiting transfer to MSW bulker and will then be diverted to landfill. (A record will be kept of contaminated recyclables.)

D.2.d Flowchart – Separately Collected Packaging Waste (Commercial)**Separately Collected Packaging Waste (Commercial)**

Commercial Packaging Waste is collected separately from commercial customers and is brought to the Waste Handling Area via the weighbridge. Waste is then either diverted to baler in storage area, and stored in storage area awaiting transfer to licensed facility for processing.

Contaminated packaging waste will be removed and temporarily stored in skip awaiting transfer to MSW bulker and diverted to landfill.

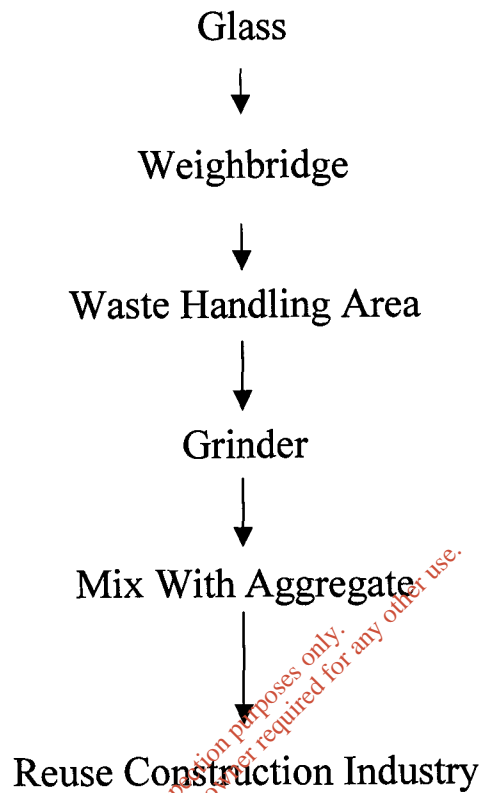
D.2.e Flowchart – Skips



Skips entering the facility will proceed to the Waste Handling Area via the weighbridge where they will be emptied, recyclables transferred to roll on/roll off skips for storage prior to transfer to licensed facility for processing.

Contaminated waste not suitable for recycling will be removed and temporarily stored in skip awaiting transfer to MSW bulker and diverted to landfill.

D.3.a Possible use of Waste Glass



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Ratio of mix will depend on use. Pure ground glass may also be sent for reuse.

D.3.b Possible use of C & D Waste

