

# Gillmoss Materials Recovery Facility Gillmoss, Liverpool



Design and Access Statement December 2008

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ii

### List of Contents

1	INTE	INTRODUCTION		
2	SITE	2		
3	CONTEXT		6	
4	DESIGN		7	
	4.1	Design considerations	7	
	4.2	Design development	8	
	4.3	Sustainability	15	
	4.4	Materials and finishes	16	
	4.5	Landscape and Biodiversity proposals	17	
5	PRC	PROPOSAL		
6	ACCESS		24	
	6.1	Existing access arrangements	24	
	6.2	Proposed access arrangements 6.2.1 Process access 6.2.2 Staff access 6.2.3 Visitor access	24 25 25 25	
7	CONCLUSION		25	

Page

## List of Images

## Page

Figure 2.1:	Location of the Gillmoss MRF site	2
Figure 2.2:	Aerial photograph of the site	3
Figure 2.3:	Aerial view looking south	3
Figure 2.4:	View from A580 looking north west	4
Figure 2.5:	View from Stonebridge Lane looking south east	4
Figure 2.6:	Existing WTS viewed from the NW	5
Figure 2.7:	Existing WTS viewed from the SW	5
Figure 4.1:	Preliminary MRF site layout	9
Figure 4.2:	Revised MRF site layout	10
Figure 4.3:	Final MRF site layout	11
Figure 4.4:	MRF floor plans	12
Figure 4.5:	Preliminary architectural study MRF 3D view	13
Figure 4.6:	Preliminary architectural study MRF 3D view	14
Figure 4.7:	Landscape Mitigation Measures	18
Figure 5.1:	Proposed floor plan of MRF	20
Figure 5.2:	Proposed elevations of MRF	21
Figure 5.3:	View of proposals from north west	22
Figure 5.4:	View of proposals from north east	22
Figure 5.5:	Aerial view of proposals from north	23
Figure 6.1:	Proposed layout showing access routes	24

#### 1 INTRODUCTION

This Design and Access Statement has been prepared by Studio E Architects in support of the application by Merseyside Waste Disposal Authority (MWDA) for planning permission for a Materials Recovery Facility (MRF), incorporating a Visitor and Education Centre, and associated landscaping and car parking, at land adjoining Stonebridge Lane, Gillmoss, Liverpool.

#### 2 SITE

The site of the proposed Gillmoss MRF lies in the eastern Liverpool suburb of Fazakerley, between the A506, to the north, and the A580, to the south, approximately 1km from the M57. Croxteth lies approximately 1km south east of the Site, and the centre of Liverpool is approximately 7km to the south west (see Figure 2.1).



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The application site is currently on undeveloped brownfield land. It forms part of a larger site owned by MWDA which covers an area of 8.8 hectares (or 22 acres) and contains an existing waste transfer station (WTS) at its north-eastern corner.

The site is bounded by Stonebridge Lane to the west of the site. Further to the south west, beyond a woodland belt, lies a effluent treatment works.; The site is bounded by existing brownfield land to the southeast, where a new link road has been constructed; and the existing Waste Transfer Station (WTS) lies to the north east beyond a landscaped bund. To the north west, and beyond the existing WTS access road, there is residential development.

Figure 2.2: Aerial photograph of the site



The site is screened from the WTS site by a planted landscaped bund running along the north eastern boundary. The WTS itself is screened from the housing to the northwest by a similar landscaped bund which has also been extensively planted thereby providing the residential properties with a visual and acoustic buffer zone. This existing bund extends southwest partway beyond the boundary of the WTS site and establishes part screening of the houses to the application site (see fig 2.3).

![](_page_8_Picture_3.jpeg)

Figure 2.3: Aerial view looking south

Due to the screening of the site along the north eastern boundary by a landscaped bund, views from the east are very restricted. Distant views are currently available from the south, beyond the new link road and the A 580. A typical distant view from this road looking towards the site is shown below. It should be noted that the development of the adjacent sites will significantly screen these current views upon completion of the intended developments.

![](_page_9_Picture_1.jpeg)

Figure 2.4: View from A580 looking north west

Morning – 17<sup>th</sup> March 2008

The site's front is approached and is clearly visible from Stonebridge Lane. A typical view from this road looking towards the site is shown below:

![](_page_9_Picture_5.jpeg)

Figure 2.5 View from Stonebridge Lane looking south east

Morning – 17<sup>th</sup> March 2008

The site is also viewed from residential property to the northwest.

The WTS building, and those buildings immediately adjacent in the business park to the east, are predominantly steel framed utilitarian industrial buildings with profiled metal cladding. There is security lighting around these properties.

![](_page_10_Picture_1.jpeg)

Figure 2.6: Existing WTS viewed from the NW

Morning - 11<sup>th</sup> September 2007

![](_page_10_Picture_4.jpeg)

Figure 2.7: Existing WTS viewed from the SW

Morning - 11<sup>th</sup> September 2007

## 3 CONTEXT

The proposed Materials Recovery Facility (MRF) will be capable of processing 100,000 tonnes of recyclable material a year and, together with an integrated Visitor and Education Centre, forms part of the Merseyside Waste Disposal Authority's (MWDA) plans to deliver new facilities to help raise recycling rates and divert waste from landfill.

The new MRF will be capable of mechanically and manually sorting the contents of comingled kerbside recyclate collections from Merseyside homes into separate glass bottles and jars, cardboard, plastic bottles, steel and aluminium cans and paper streams.

The new facility will only accept dry recyclable materials and these will be delivered by collection vehicles into a reception hall. These materials will then be fed into machinery to be sorted. These recyclable materials are not 'black bag waste' and have a very low odour and dust level. The facility will be designed to ensure that the low amounts of dust and odour produced are managed. The building will be self contained and insulated to minimise noise generated by the facility. Operation of the site will be in accordance with the Environmental Permit needed to run the facility.

## 4 DESIGN

#### 4.1 Design considerations

Key design considerations in this development are Site Context, Site Layout, Access, Visual Impact, Environmental Impact, and Process Flows.

- **Site Context:** The site is located on an existing waste transfer site, but close to existing residential areas, the nearest of which is within approximately 130m of the application boundary (excluding the bund and screening mitigation measures); the interface between these environments is an important consideration. How the proposed design responds to this is clearly a challenge, but one which, if embraced and carefully considered throughout the design process, can lead to an exciting architectural solution.
- **Site Layout:** The extent and plan form dictated by the site's boundaries have been taken into consideration in developing an efficient layout. These constraints are considered a key driver in generating a dynamic arrangement and massing of the proposal, and afford the opportunity for the facility's design to respond specifically to its location on the site.
- **Access:** The main vehicular access to the site is from the spine road which junctions with Stonebridge Lane and serves the existing WTS on the western side of the site. This, together with the need to segregate operational traffic from staff and visitor access, has a significant impact on the way that the proposed layout has developed
- **Visual impact:** The visual impact of the proposed facility has been addressed in the design, with the views from Stonebridge Lane and the A580, and the residential area immediately to the northwest being considered as key interfaces with which the architecture of the facility has to respond.
- **Environmental impact:** MWDA recognises the environmental sensitivity of projects of this type and have undertaken a thorough consultation on the proposals with the planning authority, and through engagement with the public which is detailed within the Statement of Community Engagement in Volume 1 of the Planning Application. Further information on any environmental impact is included in Volume 2: Supplementary Environmental Information.
- **Process flows:** The sorting equipment dictates the minimum building envelope required for the main building structure. The design of the facility, by its industrial nature, is therefore partly process driven. The facility will sort annually up to 100,000 tonnes of dry recyclates, and traffic will be generated by delivery of recyclates and the removal of recovered materials.

#### 4.2 Design development

The brief from Merseyside Waste Disposal Authority (MWDA) was to provide a high quality architectural solution for this new 'state of the art' MRF which was to incorporate the following key components:

- administration/operations area
- visitor/education centre
- process area
- circulation
- sustainability

The design approach adopted has been to provide a facility which embraces the key design considerations identified in Section 4.1.

#### Site Layout and Massing

There were two principle factors which influenced the site layout and massing of the design:

#### Site Context

Access to the site could not be taken directly off Stonebridge Lane but had to be taken from the spine road which bisects the overall site and also serves the existing WTS facility.

#### Process Requirements

The principle volume forming the facility had to be sized to accommodate the required MRF processing equipment. This dictated minimum floor area as well as minimum internal clearance height to underside of roof structure. In addition one side of this volume would have to allow for the delivery of recyclates and collection of sorted material by operational vehicles. This would require a series of industrial doors on this elevation and extensive hardstanding turning areas in front.

#### Vehicle Circulation

A key aspiration which significantly influenced the development of the site layout was the desire to segregate as far as possible staff/visitors' vehicles from process vehicles.

Initial site layout studies considered various options for orientating the process volume on the site. As direct access was not available from Stonebridge Lane this dictated that the 'operational' elevation would have to be orientated either northwest or northeast. The studies were reviewed in relation to visual impact and traffic flows and an early proposal illustrated (see Figure 4.1) shows a layout with the principle process elevation orientated northwest.

#### 4.1: Preliminary MRF site layout

![](_page_14_Figure_1.jpeg)

This study raised various concerns:

- The orientation to the northwest of the process elevation and operational vehicle hardstanding forecourt was considered unsatisfactory as it faced directly towards the existing housing.
- The desired segregation of staff/visitor vehicles from operational vehicles was not clearly defined.
- The location of the administration and Visitor and Education Centre on the eastern side of the process volume was substantially hidden from public view.
- Whilst the planting margin between the facility and Stonebridge Lane would allow the visual impact of the building on Stonebridge Lane to be 'softened' the elevation itself would require further articulation.
- Architecturally the form of the building could be improved if the administration and Visitor and Education Centre was integrated with the process areas such that the building read as a single form rather than being an extension to the process volume.

A further study (see Figure 4.2) was then undertaken to orientate the process elevation to the east in order to try and resolve the concerns raised on the initial layout.

#### 4.2: Revised MRF site layout

![](_page_15_Figure_1.jpeg)

This proposal had several benefits:

- It incorporated the administration and Visitor and Education Centre accommodation with the process areas in one single volume and located them in a key position at the entrance to the site.
- The location of delivery vehicles' access, manoeuvring area and loading bays at the eastern end of the site minimised their impact on the housing to the northwest, but also allowed the mass of the new MRF building to shield these areas from Stonebridge Lane.
- The segregation of staff/visitor vehicles from operational vehicle was better defined.

However, some concerns remained:

- The elevation fronting Stonebridge Lane still required further articulation
- Segregation of staff/visitor traffic from operational traffic could be further improved.

Adjustments were subsequently made to the design of the site layout to improve the segregation of staff/visitor and operational vehicles traffic flows (see Figure 4.3). This was achieved by including for two distinctly separate vehicular accesses from the spine access road.

#### 4.3: Final MRF site layout

![](_page_16_Figure_1.jpeg)

Another study undertaken during this period of design development was to consider measures to mitigate any impact the facility might have on the housing to the northwest of the site. An existing planted bund on the northern boundary currently screens the housing from the WTS. As a result, it was decided that as part of the new MRF development this planted bund would be extended westwards along the MWDA site boundary until it meets Stonebridge Lane. This would offer the housing visual and acoustic screening from the proposed MRF facility.

The Noise and Vibration report (Appendix B in Volume 2) concludes that to achieve insignificant noise levels around the site it will be necessary to install an acoustic barrier along the eastern perimeter of the site.

#### Architectural Design

The architectural design was developed alongside the studies being considered for the site layout.

In summary, the following aspects were identified prior to developing the design, and have been key objectives during the design process:

- Exciting design statement develop a strong and dynamic architectural 'theme'
- Scale consider the relationship between buildings/structures on and off the site
- Proximity recognise relationship and impact on adjoining sites and buildings
- Materials and textures explore opportunities and consider contrast
- Contemporary aesthetic to reflect the modern technology of the facility

Internal planning of both process and the staff and visitor accommodation had to be developed to ensure the building footprint was fixed. The incorporation of all the MRF functions within a single form was a key architectural aspiration but it also offered more opportunities to develop an efficient site layout.

The following key considerations had to be considered in the planning design of the staff and visitor accommodation:

- Control and safety of those visiting the building
- Proximity of staff facilities to the process areas
- Incorporation of a safe visitor route through the process area
- Maximisation of daylight in occupied rooms
- Control room overview of the process and loading areas

A three storey arrangement was developed which allowed process staff amenity on the ground floor, administration on the first floor, and the visitor facilities self contained on the top floor. The plan form has been kept intentionally shallow with a central corridor feeding into the north facing daylit occupied rooms on one side, and the ancillary/service accommodation on the other (see Figure 4.4).

![](_page_17_Figure_8.jpeg)

#### 4.4: MRF floor plans

Another key component of the internal planning has been the incorporation of a second floor viewing walkway for visitors to safely view the processing areas from an elevated position. The walkway runs along the perimeter of the building and is served by two external fire escape staircases which if located internally would have complicated the flexibility of the process areas on the ground floor. Their location outside the building envelope also offered the opportunity for them to assist in articulating the building's western elevation to Stonebridge Lane.

While site constraints and process flows have been key drivers in the disposition and massing of the main building, the resulting layout and massing offered a range of exciting architectural design solutions to be explored. The MWDA had set a strong sustainable agenda for the MRF and the issues which had to be considered in developing the architectural form included:

- Maximisation of natural daylighting into the process areas
- Ensuring that Photovoltaic (PV) panels could, if required, be installed on the roof

The initial architectural design approach is illustrated (see Figure 4.5). Architecturally the building is treated as a refined contemporary 'box', above which 'hovers' a flat roof above a ribbon of clerestory glazing. The roof is repeatedly punctured by a series of angular rooflights. These are glazed on their north face to allow for daylight to spill into the process areas below, but are also inclined on their southern face to allow for the future installation of PVs.

![](_page_18_Figure_4.jpeg)

#### Figure 4.5: Preliminary architectural study MRF 3D view

The main elevations are simply treated with a rendered plinth topped by a timber clad 'box'. The timber cladding is punctured by a series of horizontal glazed windows which animate the facades. In contrast to the timber clad aesthetic of the process volumes the administration and visitor centre is clad in coloured flat panel cladding and establishes a focal point for those approaching the facility.

In reviewing the visual impact of this design it was concluded that the flat roof did not offer a significant enough presence on Stonebridge Lane and a more dynamic roof form was to be considered.

The resulting design (see Figure 4.6) replaces the flat roof with a dynamic curving roof which establishes a series of three 'barrel vaults' over the building. Each vault is punctured at its crest with a linear glazed rooflight which again allows daylight to pour into the process areas below. The form of the rooflight offers a south facing background for the future installation of PVs. On the north and east elevations the roof oversails to assist in defining the building's visual presence and offering canopied cover above vehicular loading bays.

![](_page_19_Figure_2.jpeg)

Figure 4.6: Preliminary architectural study MRF 3D view

This design is considered dynamic in form, and a positive response to the context of the site and its surroundings. The wave form roof, in conjunction with the sculpture manifestation of the escape stairs towers on the western elevation, offer architectural drama to Stonebridge Lane. It was on the basis of this concept that the facility as designed for the planning application has been based.

Landscape proposals have also been included to provide as much screening and visual enhancement as is practicable, particularly on the northern boundary of the transfer station site; between the MRF and the transfer station; and to provide appropriate ecological mitigation. These are described in detail in section 4.5.

#### 4.3 Sustainability

The main driver for this proposal is the diversion of waste from landfill by improving recycling rates from municipal waste, in accordance with the waste hierarchy, as described in the Waste Strategy for England (2007) and waste management policies, e.g. Merseyside's Joint Municipal Waste Management Strategy (JMWMS). The MWDA has a strong sustainability agenda for the facility and the proposed design of the MRF is intended to reflect this.

The following features summarise the sustainability of the design, construction and operation of the facility:

- The re-use of previously developed land
- The diversion of waste from landfill and consequent reduction in methane production, which is 21 times more damaging than carbon dioxide.
- The environmental performance of the materials to be specified for the construction of the facility will be taken into account during procurement, and will be selected as far as possible to achieve a BRE Green Guide 'A' Rating
- High insulation and airtight construction to accommodation areas
- Maximisation of natural daylighting to process and accommodation areas;
- Roof design to allow for installation of photovoltaic panels
- Site waste management plans will be required from the contractor to demonstrate that construction waste is being minimised and that sustainable practices are followed during construction
- Wherever possible, construction contracts will encourage the re-use and recycling of salvageable materials.
- A Construction Environmental Management Plan will include sustainability and environmental issues and be linked to a design and construction sustainability register to ensure that the project delivers environmental objectives
- Benchmarking the sustainability of the facility: It is intended that a BREEAM Industrial 'Excellent' rating will be achieved
- Creation of new habitats to enhance conservation and biodiversity value. Further details of biodiversity improvements are provided in section 4.5 (Landscape)
- The Visitor and Education Centre will be used to help promote an understanding of waste management, along with an appreciation of environmental enhancement and biodiversity issues
- Rainwater harvesting, for toilet flushing and process requirements, will where possible, reduce the demand for mains water supply.
- Creation of employment opportunities for local people, helping to promote social inclusion.

#### 4.4 Materials and finishes

This section identifies some of the materials which have been reviewed and considered in developing the architectural concept presented. Key to the assessment has been to consider a range of compatible materials which:

- offer a high visual quality which is in keeping with the design concept
- are low maintenance and/or naturally weathering
- are environmentally responsible

Key to the design concept is the relationship between the rectangular form and the curved roof profile over.

In considering alternative wall cladding materials for the facility, we have reviewed both timber and metal cladding.

To achieve both a clean, angular form, and demonstrate sustainability of material sourcing, timber has been specified for the majority of the wall cladding, covering process areas. This is interspersed with intermittent strip glazing. Metal cladding has been specified in contrast to provide separate identity to the entrance and accommodation areas.

In contrast to this 'pristine' form, it is proposed to use an aluminium standing seam profile for the roof. This will allow for the curvature of the 'barrel' roof forms, achieve minimum roof pitches, and also facilitate if required the addition of a future photovoltaic panel installation.

Principle materials being proposed include:

#### **External Walls**

Low Level Walls	Rendered blockwork plinth
Upper Level Walls	Cedar timber weatherboarding
Clerestory	'Reglit Profilit' glass planks
Admin Cladding	Coated aluminium composite profiled panel
Wall Glazing	PPC Aluminium
Flashings	PPC Aluminium

#### Roof

Metal Roofing	Mill finished aluminium standing seam
Gutter Zones	Sarnafill single ply PVC-free flat roofing membrane

#### 4.5 Landscape and Biodiversity proposals

The landscape design for the Gillmoss Materials Recovery Facility seeks to bring together the structure's dynamic design concept within a strong landscape framework.

The prime objective of the landscape design proposals is to integrate the proposed development into the wider townscape setting, taking into consideration the expanding business park to the south and east and the wider setting within the effluent treatment works development to the west and residential development to the north.

The landscape treatment also seeks to mitigate the identified visual impacts on local residents and passers-bys whilst complementing the theme of the architect's concept. In so doing, the landscaping will provide a positive counterpoint to the built structure.

The new development and associated landscape design will demonstrate good practice in architectural and landscape architectural design and be attractive to residents and visitors at a local level.

#### Present Landscape Conditions.

The site is currently undeveloped with grass species and self seeded shrubs and trees. The site is well screened adjacent to the WTS by a planted landscaped bund running along the north-eastern boundary. The WTS itself is screened from the housing to the northwest by a similar landscape bund which has also been extensively planted thereby providing the residential properties with a visual buffer. The existing bund extends westwards along this northern boundary of the WTS site and establishes partial screening of the houses to the north of the application site.

To the western and southern boundaries a chain link fence enables open views of the development site on approaching from the south and the north along Stonebridge Lane.

#### Design Consideration.

The architects design statement was to develop a strong and dynamic architectural 'theme' for the building. The scale of the structure was considered in relation to the adjoining buildings and landscape settings to recognise similar and existing landscape works which could be emulated. The opportunity to explore the contrast of materials and textures within the structure could also be considered in terms of landscape and planting types. The newly constructed ecology park and associated linear waterways to the south is in contrast to the surrounding landscape but provides a strong landscape framework within which further development is taking place that reflects current technology and sustainable design, demonstrated by the proposed facility.

Whilst site processes in combination with site constraints have defined the orientation and massing of the main building, the resulting layout offered a range of exciting architectural design solutions to be explored. The landscape setting within which the buildings are contained also offers an opportunity to assist in articulating the buildings elevations into its surroundings. The roof has been designed with dynamic curving forms, which establishes a series of three 'barrel vaults' over the building. Tree planting towards the boundaries of the site must meet a number of criteria in that they mitigate its impact from outside of the site, enhance and reflect the under lying theme of the structure whilst not over powering or dominating the building or reduce the opportunity for natural light entering its interior.

![](_page_23_Figure_0.jpeg)

#### Figure 4.7: Landscape Mitigation Measures

#### **Proposed elements**

#### Greening strategy

Trees will be used to create, where possible, a favourable microclimate, providing shelter to the main building and external spaces, particularly along the more exposed southern and western boundaries and within close proximity of the building.

The opportunity to create strong lines of native tree planting would create visual movement between the building and the landscaping providing screening to the low level clutter associated with vehicle movements and storage areas. These avenues will create lines of containment directing you through the site. The planting will create vertical forms which will balance the façade and scale of the building breaking the horizontal elevation form outside of the site.

#### Colour and form.

Broad leafed native planting offers the advantage of longevity and sustainability, the use of strong linear avenues of similar species will echo the surrounding landscape elements and over time bring a balance to the surroundings. The use of smaller tree species which offer autumn colour, in contrast to evergreen species, will enhance interest in the planting. The careful selection of species and manipulation of colours could be used very effectively to balance or contrast with the building to add an extra dimension to the landscaping. The selection of well balanced trees would in the long term provide strong growing specimens that require lower levels of management.

#### Landscape maintenance.

The use of varied grass mixes throughout the site can be used to control the amount of required maintenance. A meadow grass mix of sedges, fescues and wildflowers on the bunds will reduce maintenance to one or two cuts per year and provide greater interest and wildlife habitat value. In contrast, mown grass next to the building and access road will require regular cuts but provide a cleaner visual appearance. Shrub planting will be kept to species which have rounded and compact forms with a mixture of evergreen and deciduous types reducing potential maintenance.

## 5 PROPOSAL

The proposed Materials Recovery Facility (MRF) will be capable of mechanically and manually sorting 100,000 tonnes of recyclable material a year.

The new building is necessarily compact, and all accommodation is housed within one restrained rectilinear form sitting centrally on the site. The large volume of the delivery, process and loading area is a major determinant in the organisation of the plan. To maximise the process area other supporting accommodation is contained within a three storeys block on the northeast corner of the building. This contains the staff amenity accommodation on the ground floor, administration accommodation and control room on the first, and the Visitor and Education Centre and associated accommodation on the top floor. From the Visitor and Education Centre a high level internal walkway runs around the building's perimeter, allowing safe access and a high level vantage point for visitors to tour the facility and view the process areas below. It is served by two escape stairs, each of which have been designed as elliptically shaped towers freestanding in the landscaped zone between the MRF building and Stonebridge Lane. Sitting outside of the main MRF building's footprint they avoid restricting the layout of the process area and architecturally generate visual interest to the building's public face on Stonebridge Lane.

![](_page_25_Figure_3.jpeg)

Figure 5.1: Proposed site and floor plan of MRF

![](_page_26_Figure_0.jpeg)

Figure 5.2: Proposed elevations of MRF

Architecturally the building itself is essentially a refined contemporary 'box' above which 'hovers' a 'wave form' roof that flows from north to south. This curving roof establishes a series of three 'barrel vaults' over the building each of which are punctured at their crest with a linear glazed rooflight allowing daylight to pour into the process areas below. On the north and east elevations the roof oversails to assist in defining the building's entrance for pedestrians and offering canopied cover above vehicular loading bays.

The building elevations are horizontally stratified with the predominant feature being the timber clad 'box' which is punctuated by a series of intermittent glazed ribbon windows. The timber box sits on a rendered plinth, and is topped by a clerestory of vertically orientated glass planks which extends to the underside of the curved roof and reinforces the floating roof concept. This architectural vocabulary is broken by a series of restrained vehicle loading doors on the eastern elevation and on the NE corner of the building where the administration and visitor accommodation manifests itself in the form of a corner tower. Clad in green metal cladding in contrast to the main timber cladding this signifies itself as the focal point and entrance to the facility for staff and visitors.

The MWDA have a strong sustainability agenda for the facility and the proposed design of the MRF reflects this. Incorporated features include high insulation and air tight construction to accommodation areas; maximisation of natural daylighting to process and accommodation areas; rainwater harvesting for toilet flushing and process requirements. The roof has been designed such that if required a photovoltaic installation can be installed.

![](_page_27_Picture_0.jpeg)

Figure 5.3: View of proposals from the north west

Figure 5.4: View of proposals from the north east

![](_page_27_Picture_3.jpeg)

![](_page_28_Picture_0.jpeg)

Figure 5.5: Aerial view of proposals from the north

## 6 ACCESS

#### 6.1 Existing access arrangements

The main HGV route to the existing transfer station site is via the access road from Stonebridge Lane, west of the site. HGV entry to, and exit from, the site is controlled by an existing double weighbridge which currently serves the WTS.

#### 6.2 **Proposed access arrangements**

It is proposed that all vehicular access to the site will be via the existing access road described above, which joins Stonebridge Lane.

Two key principles govern vehicle circulation within the site:

- efficient and safe movement to and from different parts of the facility; and
- segregation of process from non-process traffic.

![](_page_29_Figure_8.jpeg)

On site, a two-way vehicle circulation system will be operated. Segregation of process from staff and visitor traffic has been achieved by locating the car parking area near to the MRF, which is separate from the transfer station, and near to the site entrance.

During construction, it is proposed to form temporary access to the MRF site from the existing access road.

As the access route needs to accommodate the largest articulated HGV, access for emergency vehicles is allowed for, and an emergency access route all around the MRF is provided.

#### 6.2.1 Process access

Deliveries will enter and leave the site via the existing access road and weighbridge from Stonebridge Lane.

On leaving the MRF, HGVs will turn right onto the access road, so ensuring that they leave the site via the existing exit weighbridge (see Figure 6.1). Vehicles will access and leave the site under the same 'right in, left out' principle that is currently in place for the operation of the Waste Transfer Station. All HGV's will access via the A580 and none will be access via Stonebridge Lane to the north.

#### 6.2.2 Staff access

Staff arriving by car will initially share the main access route with process traffic, but will turn right shortly after leaving Stonebridge Lane, to park in the car park, north of the proposed MRF.

Staff travelling by public transport will arrive at the site on foot via the access road from Stonebridge Lane. The nearest rail stations to the site are Fazakerley, approximately 2km to the north west and Kirkby, approximately 3km to the north. Bus routes passing the entrance to the site and stopping in Stonebridge Lane include the 121 and 14A services.

Staff arriving by bicycle will follow the dedicated cycle path on the south side of the access road, and use the cycle store provided adjacent to the main entrance.

Disabled parking bays are located close to the entrance to the main building, and step-free access is provided.

#### 6.2.3 Visitor access

Visitors share the staff access route and parking, including disabled parking, as described above.

It is anticipated that some visitors to the facility, particularly school groups, may arrive by minibus. A dedicated coach drop off area will be provided.

Visitor access within the site will be restricted and visitors will be escorted at all times.

## 7 CONCLUSION

The proposed MRF at Gillmoss to sort recyclable materials represents a key component of MWDA's wider strategy to develop a range of state of the art waste and recycling facilities across Merseyside. It makes a positive response to the context of its site, and it's striking architectural design and environmental credentials are direct responses to MWDA's aspirations to deliver high quality and sustainable facilities to meet its waste disposal needs and comply with European and National legislation.