

LAND OFF FALKLAND WAY, BARTON UPON HUMBER  
NORTH LINCOLNSHIRE, DN18 5RP

**FLOOD WARNING AND EVACUATION PLAN**

**Final Report v1.0**  
March 2022

Report Title                    **Land off Falkland Way, Barton Upon Humber, North Lincolnshire, DN18 5RP**  
Flood Warning and Evacuation Plan  
Final Report v1.0

Client                            Wren Kitchens

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This document has been prepared solely as a Flood Warning and Evacuation Plan for Wren Kitchens. This report is confidential to Wren Kitchens and Weetwood Services Ltd accepts no responsibility or liability for any use that is made of this document other than by Wren Kitchens for the purposes for which it was originally commissioned and prepared. Every reasonable effort has been made to ensure that the information upon which this Flood Warning and Evacuation Plan has been based is accurate and comprehensive at the date of production. It is the responsibility of Wren Kitchens to ensure that the Flood Warning and Evacuation Plan is subsequently maintained and up to date.

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## 1 INTRODUCTION

### 1.1 Purpose of Report

Weetwood Services Ltd ('Weetwood') has been instructed by Wren Kitchens to prepare a Flood Warning and Evacuation Plan for the proposed lorry park off Falkland Way, Barton Upon Humber ("the site").

The Flood Warning and Evacuation Plan has been produced to ensure that users of the facility are aware of the potential for flooding and to enable the operator to implement appropriate flood risk management procedures in the event that flooding is expected or has occurred.

### 1.2 Structure of the Report

The report is structured as follows:

- Section 1** Introduction and report structure
- Section 2** Provides background information relating to the site and the potential risk of flooding
- Section 3** Summarises the roles and responsibilities for flood response and management
- Section 4** Sets out how to receive flood messages and warnings
- Section 5** Sets out how to respond safely to a flood event

### 1.3 Relevant Documents

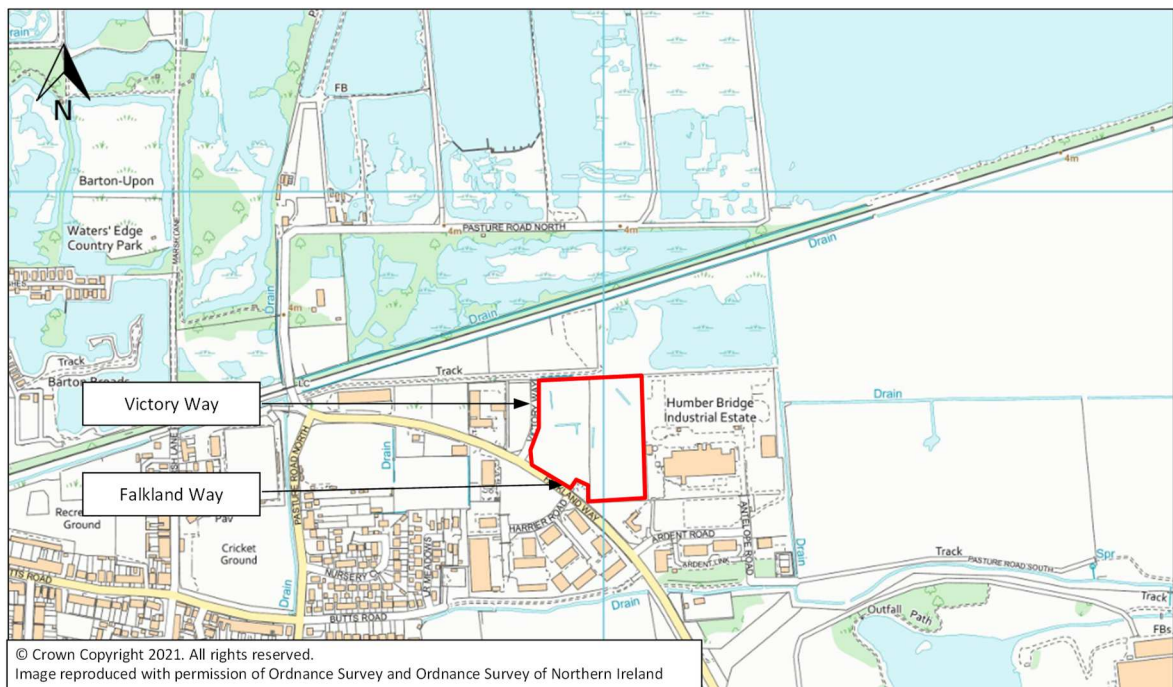
This document has been informed by a site-specific Flood Risk Assessment report ("the submitted FRA report") prepared by Weetwood in December 2021 (ref: "Flood Risk Assessment – Land off Falkland Way, Barton upon Humber, North Lincolnshire, DN18 5RP, Final Report v1.1, December 2021, Weetwood Services Ltd").

## 2 SITE DETAILS AND PROPOSED DEVELOPMENT

### 2.1 Site Details

The site is located to the north of Falkland Way, the west of the Humber Bridge Industrial Estate and the south of the Barton to Cleethorpes/Gainsborough railway line (refer **Figure 1**). The site is access from Victory Way which runs along the western boundary of the site.

The development comprises of a lorry park with parking for up to 156 HGVs and 50 cars for use by Wren Kitchens (**Appendix A**). It is anticipated that six staff will work permanently at the site.



**Figure 1: Site Location**

### 2.2 Watercourses in Proximity to the Site

There are a number of watercourses within the vicinity of the site:

- The River Humber/Humber Estuary is located approximately 1.55 km north of the site.
- Barton Haven flows in a westerly then northerly direction approximately 360 m west of the site.
- There are a number of land drains in the vicinity of the site including to the south/east of the site and along the northern and western boundaries of the site.

### 2.3 Potential Sources of Flood Risk

The site benefits from formal flood defences comprising of earth embankments and concrete walls along the shoreline of the River Humber. However, the defences only provide a 1 in 20 standard of protection and may be overtopped should an event exceeding a 1 in 20 annual exceedance probability (AEP) occur. In addition, structural failure of the defences, leading to a breach, may also result in flooding.

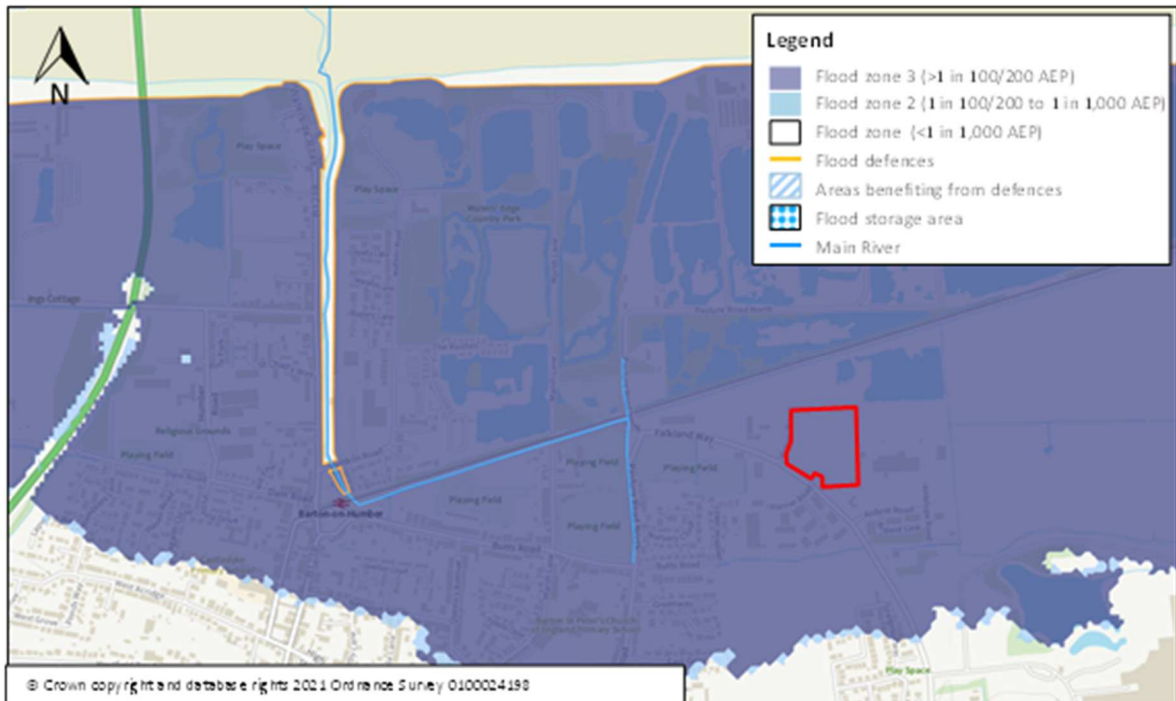
The Environment Agency Flood Map for Planning (Rivers and Sea) (**Figure 2**) indicates the site to be located in flood zone 3, i.e. at a high probability of flooding (1 in 100 or greater annual probability of flooding from non-tidal rivers/watercourses and a 1 in 200 or greater annual probability of flooding from the River Humber).

The Environment Agency does not hold any records of historic flooding of the site from the River Humber, although land to the north of the railway line flooded in January 1953 and more recently in December 2013.

Groundwater flood hazard mapping indicates that the site is at a low risk of groundwater flooding. However, the eastern half of the site is located within the “Groundwater flooding in Barrow Upon Humber and Barton Upon Humber” groundwater flood warning area due to some instances of localised groundwater flooding in 2019.

The site is at a low risk of surface water flooding and from reservoirs, canals and other man-made impounding structures.

Based on the above, and on a detailed assessment of flood risk presented in the site specific Flood Risk Assessment report, the principal source of flood risk to the site is from the River Humber.



**Figure 2: Flood Map for Planning**  
Source: gov.uk website; Accessed: March 2022

According to tidal hazard mapping undertaken by the Environment Agency (full details provided in the submitted FRA report) no flooding of the site would be expected during the present day 1 in 200 and 1 in 1,000 AEP event. As such, the risk of flooding from the River Humber at present is statistically unlikely.

The modelling does indicate that the site and adjacent land, including Falklands Way could flood to a depth exceeding 1.6 m if increased sea levels due to climate change to the year 2215 (i.e. 93 years at the time of writing) are taken into account. However, the maximum flood depth would be significantly less if the period over which climate change is taken into account is reduced. For example, the maximum flood depth if climate change is considered to the year 2065 (43 years from the time of writing) would be approximately 560 mm.

The modelling also indicates that some, but not all, of the site may flood in the event of a breach in the flood defences during a present day 1 in 200 or 1 in 1000 AEP event, with the depth and extent of flooding increasing significantly when climate change is taken into account.

## 3 PLANNING AND PROCEDURES

### 3.1 Roles and Responsibilities

Details regarding the roles and responsibilities of the emergency responders are provided in **Appendix B**.

Responsibility for flood preparedness and response at the site rests with a Flood Warden appointed by the car park operator. A Flood Warden will be appointed once planning permission is granted.

The specific responsibilities of the Flood Warden are to:

1. Register with the Environment Agency Floodline service.
2. Review the Flood Warning and Evacuation Plan quarterly and following any flood event (post event review) to ensure details are up to date. This should specifically include a review of the flood checklist (**Appendix C**) to ensure that all details are correct, particularly contact names and telephone numbers.
3. Check and maintain Flood Warning Notices (refer **Section 5.3** and **Appendix D**) quarterly to ensure these are legible and free from obstruction. Flood Warning Notices should be placed around the car park including at a point upon entrance to the car park and upon leaving.
4. Respond to flood warnings as detailed in **Section 5**.

The specific actions to be taken by the Flood Warden when a flood is expected are outlined in **Section 5**.

### 3.2 Signing up to Receive Flood Warnings

The Flood Warden should sign up to receive flood warnings from the Environment Agency via its Floodline service (<https://www.gov.uk/sign-up-for-flood-warnings> or 0345 988 1188).

Current flood warning information is provided at <https://www.gov.uk/check-flood-risk>. The site also provides a live flood warning map and five day forecast flood forecast information.

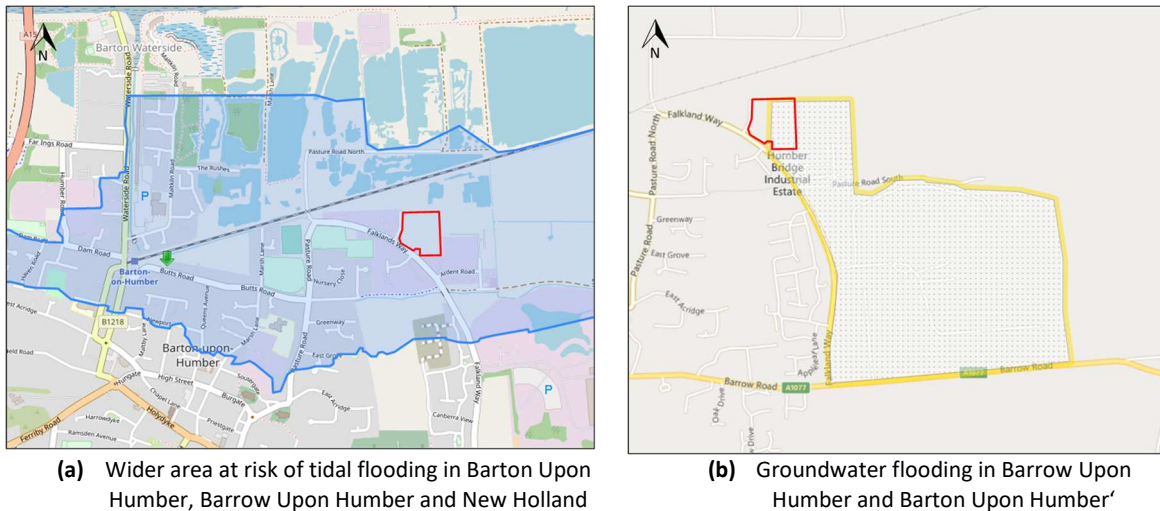
In addition, the above website also provides up to date river and sea levels at a number of monitoring stations across the country. Each monitoring station has a 'typical level' which gives an indication of when levels are high.

### 3.3 Reviewing and Updating the Plan

Aside from the routine checking, it is recommended that the Flood Warning and Evacuation Plan is independently reviewed annually to ensure that it is effective and includes any updates to the procedures which may be required. For example, due to changes in the Environment Agency's flood warning procedures for the local area.

## 4 FLOOD ALERTS AND WARNINGS

The site is included within the Environment Agency ‘Wider area at risk of tidal flooding in Barton Upon Humber, Barrow Upon Humber and New Holland and ‘Groundwater flooding in Barrow Upon Humber and Barton Upon Humber’ flood warning area (**Figure 3**).






**Figure 3: Environment Agency Flood Warning Areas**

If flooding is forecast, the Environment Agency issues warnings using the set of codes presented in **Table 1** and summarised below.

- **Flood Alert (Flooding is Possible – Be Prepared)** - A Flood Alert is issued when flooding of recreational land, car parks and minor roads from rivers is possible. The purpose of a Flood Alert is to alert people that flooding is possible and that people residing in and businesses located in areas at risk should be prepared to act on their Flood Warning and Evacuation Plan. The Environment Agency aims to issue Flood Alerts anything between 2 days to 2 hours before the onset of flooding and are only issued during waking hours, between 6am and 9pm.
- **Flood Warning (Flooding is Expected – Act Now)** - A Flood Warning is issued when flooding of homes and business, rail infrastructure and roads from rivers is forecast. Flood Warnings cover smaller geographical areas. The Environment Agency aims to issue a Flood Warning 2 hours before it expects at risk properties to flood and are issued at any time of the day.
- **Severe Flood Warning (Severe Flooding – Danger to Life)** - Severe Flood Warnings cover the same geographical area as a Flood Warning. A Severe Flood Warning is issued when actual flooding has occurred posing a significant risk to life and/or widespread disruption to communities. The conditions on the ground expected during a Severe Flood Warning are deep and fast flowing water, potentially with debris.
- **Warning No Longer in Force (No Further Flooding Expected)** - The Environment Agency uses a Warnings No Longer in Force code when a Flood Warning or Severe Flood Warning is no longer in force. The Warnings No Longer in Force code is issued when the risk of flooding has passed, and when river levels have dropped back below the Flood Warning trigger level. The decision to issue the code may also be informed by discussions between the Environment Agency and Flood Warden. It may be the case that there may still be standing floodwater or property flooding, so care will still need to be exercised.

The specific actions that the Flood Warden should undertake in the event that a Flood Warning is received are set out in **Section 5** of this document.

**Table 1: Flood Warning Codes**

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Code</b></p>	 <p><b>FLOOD ALERT</b></p>	 <p><b>FLOOD WARNING</b></p>	 <p><b>SEVERE FLOOD WARNING</b></p>	<p><b>WARNING NO LONGER IN FORCE</b></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Warning</b></p>	<p>Flooding is possible <i>Be prepared</i></p>	<p>Flooding is expected <i>Immediate action required</i></p>	<p>Severe flooding <i>Danger to life</i></p>	<p>No further flooding in your area is currently expected</p>

## 5 RESPONSE TO FLOODING AND FLOOD WARNINGS

### 5.1 Flood Warning Codes

The Flood Warden's response to a flood warning issued by the Environment Agency via Floodline is set out below. These are based on the flood warning code definitions outlined in **Section 4**.

The Flood Warden should liaise closely with the emergency responders at all times and should advise and assist users of the facility as required. Details regarding the roles and responsibilities of the emergency responders are provided in **Appendix A**.

Communication must be coordinated and consistent.

**The following procedures should only be followed if it is safe to do so. At no time should the Flood Warden put their life or anyone else's life at risk. Any advice provided by emergency responders including the emergency services, Environment Agency and/or North Lincolnshire Council should be adhered to.**

#### **If a FLOOD ALERT is received:**

The Flood Warden should:

- Monitor the situation via Floodline and local radio

#### **If a FLOOD WARNING is received:**

The Flood Warden should:

- Prevent any vehicles from entering the facility
- Arrange for vehicles already parked to evacuate the facility and move to an alternative location via the designated evacuation route (refer **Section 5.2** and **Figure 4**).
- Liaise with the Environment Agency and other emergency responders

#### **If a SEVERE FLOOD WARNING is received, the Flood Warden should:**

- Prevent any vehicles (except emergency vehicles) from entering or leaving the facility, unless otherwise instructed by emergency responders.
- Continue to liaise with the Environment Agency and other emergency responders.
- No evacuation should take place when flooding has occurred or is imminent unless advised otherwise by emergency responders.

### 5.2 Evacuation Route

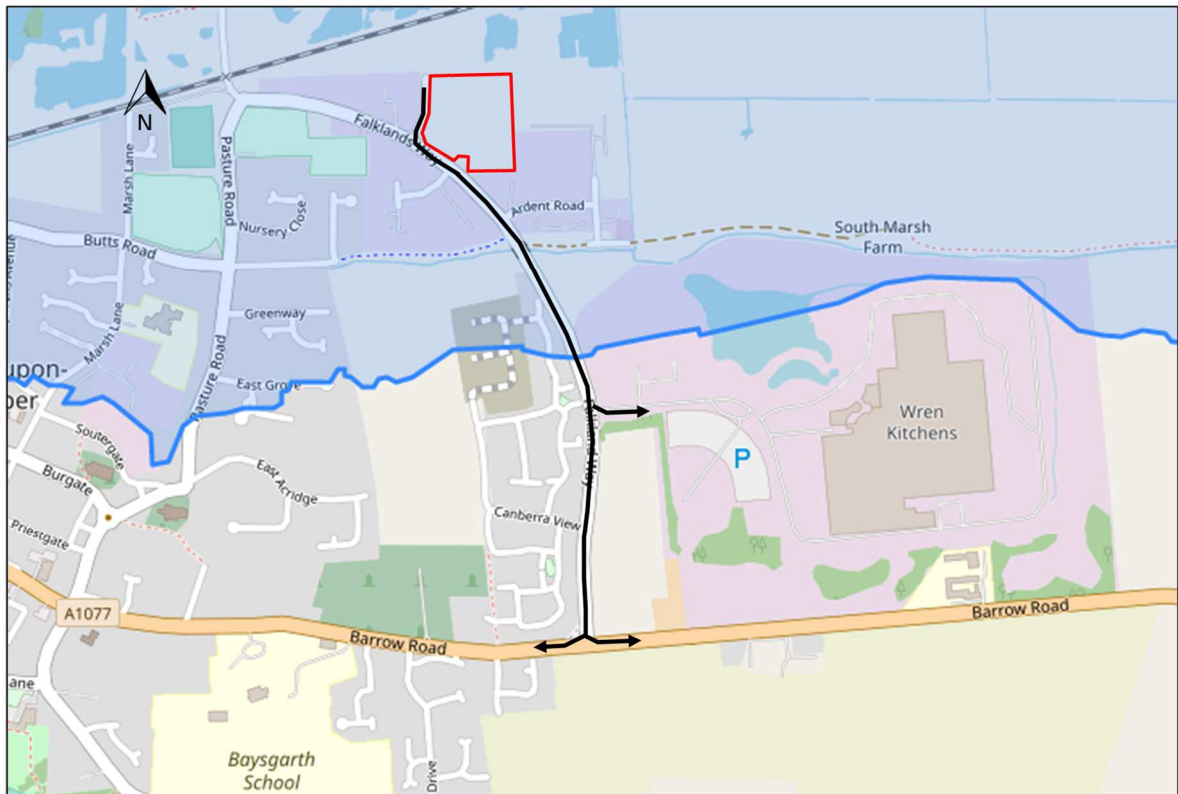
If necessary or as instructed it is recommended that the site is evacuated via the route shown in **Figure 4** and as summarised below:

- Exit the premises via the main entrance and turn right heading west along Globe Road;
- Continue along Globe Road for approximately 400 m until a T-junction is reached;
- Turn left onto Whitehall Road for approximately 200 m past the railway bridge, which is outside of the flood outline and on higher ground.

### 5.3 Flood Warning Notice

Flood warning notices detailing the aforementioned evacuation route should be displayed in the lorry park to ensure users are familiar with the evacuation route and the actions to be taken in the event of a flood warning being issued.

The flood warning notice should recommend that regular users of the facility sign up to Floodline. A copy of a flood warning notice is provided in **Appendix D**.



**Figure 4: Evacuation Route**

#### 5.4 Site Re-Occupation

Once floodwaters have subsided and the risk of further flooding has passed, the Environment Agency will issue a “Warnings No Longer in Force” notice. Once floodwaters have receded, and safe to do so, the Flood Warden should undertake an inspection to determine whether it is safe to reopen the facility.

#### 5.5 General Advice

- Don't walk through flowing water - currents can be deceptive, and shallow, fast moving water can knock you off your feet.
- If you have to walk in standing water, use a pole or stick to ensure that you do not step into deep water, open manholes or ditches.
- Don't drive through a flooded area - half a metre of floodwater can carry a car away.
- Stay away from power lines - electrical current can travel through water.
- Look before you step - after a flood, the ground and floors can be covered with debris, which may include broken bottles, sharp objects and nails. Floors and stairs covered with mud and debris can be slippery.
- Avoid contact with floodwater.

**APPENDIX A**

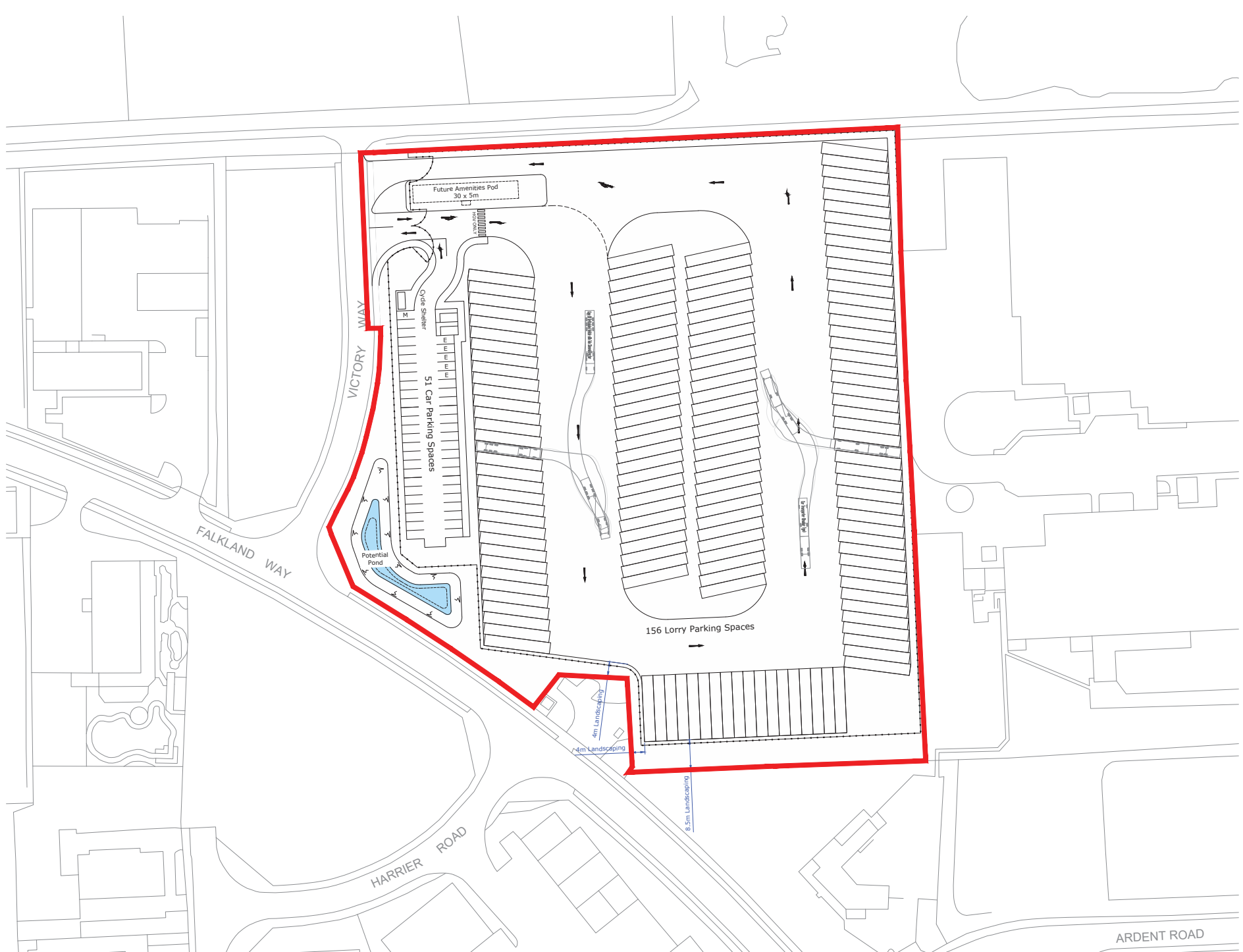
**Lorry Park Layout**

**NOTES:**

1. If this drawing has been received electronically it is the recipients responsibility to print the document to the correct scale.
2. All dimensions are in millimetres unless stated otherwise. It is recommended that information is not scaled off this drawing.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.
4. Drawing is not reflective of the latest design layout



<b>Key</b>
<span style="color: red;">—</span> Planning Boundary (6.30 Ac. / 2.55 Ha.)
<b>Note</b>
Lorry Parking Space size is 3.2m x 18.75m



**Planning**

P01	RB	SJP	SJP	04/11/2023
First Issue				
Rev	Drawn By:	Checked By:	Approved By:	Date:
Amendments				
<b>Project:</b> Falklands Way Logistics Park				
<b>Title:</b> Proposed Site Plan				
<b>Drawing Number:</b>				
Identification / Location:				Sheet Number:
Project Code:	Original:	W/D / Rev:	Level:	Type:
WREN2	BED	ST	ZZ	DR
				A
				0111
Rev Description:	Status Code:	Model Ref:	Rev No:	
Preliminary	S0	ACAD	P01	
Scale:	Sheet:	Discipline:	BED Project Number:	
1:500	A1	Architectural	NWK 210085	
Client:				



Proposed Site Plan  
 (Scale 1:500)



## APPENDIX B

### Roles and Responsibilities of Relevant Agencies

#### Environment Agency

- Issues flood warnings for flooding from rivers, the sea and groundwater
- Receives and records details of flooding incidents
- Monitors the situation and advises other organisations
- Deals with emergency repairs and blockages on main rivers and own structures.

#### North Lincolnshire Council

- Manages surface water and groundwater flooding
- Co-ordinates emergency arrangements
- Maintains safe conditions on the roads including clearing blockages on highway drainage systems, puts flood warning signs on the highway and organises road closures and traffic diversions
- May take action to protect property from flooding by water from the highway where there is a failure of the highway drainage system.

#### Humberside Police

- Takes an overall co-ordination role during a flooding incident.

#### Humberside Fire & Rescue Service

- Responds to emergency flooding incidents as required
- Assists the public where a need is identified and the use of fire service personnel and equipment is required.

#### Yorkshire Water

- Clears blockages in public sewers
- May take action to protect property from flooding by water from the public water mains or discharges from the public sewerage systems.

#### Electricity, Gas and Telecommunication Companies

- Attends to emergencies relating to its service at properties where life is at risk as a result of flooding
- Attends to flooding emergencies at its own serviced installations.

**APPENDIX C**

**Flood Checklist**

## Flood Checklist

<b>Address:</b>
<b>Date:</b>

### PART 1 – CONTACT DETAILS

#### Flood Warden(s)

Name	Contact Number(s)	Other Information

#### Category 1 Responders

Responder	Telephone
North Lincolnshire Council	01724 297000
Humberside Police (non-emergency calls)	101 / 01482 220393
Humberside Yorkshire Fire & Rescue Service	01482 565333
Floodline	0345 988 1188

#### General Contact List

Contact	Name	Telephone
Electricity Provider		
Insurance company		
	Insurance policy number:	

#### Useful Contacts

Identify people who can help you before, during and after a flood. For example:

- Provision of flood products; provision of water pumping services
- Provision of emergency storage
- Building services

Company	Contact Name	Telephone

**APPENDIX D**

**Flood Warning Notice**

# FLOOD WARNING NOTICE

## Wren Lorry Park, Falkland Way, Barton-upon-Humber




This site lies within an area at risk of flooding. If flooding is expected, the Environment Agency will issue a flood warning. It is recommended that you sign up to receive flood warnings from the Environment Agency via its Floodline service (<https://www.gov.uk/sign-up-for-flood-warnings> or 0345 988 1188). If advised to do so, please vacate the facility as soon as possible via the evacuation route shown below. No vehicles will be permitted to leave the facility if the Environment Agency issues a Severe Flood Warning cars unless instructed to do so by emergency responders..

### Flood Warning Information

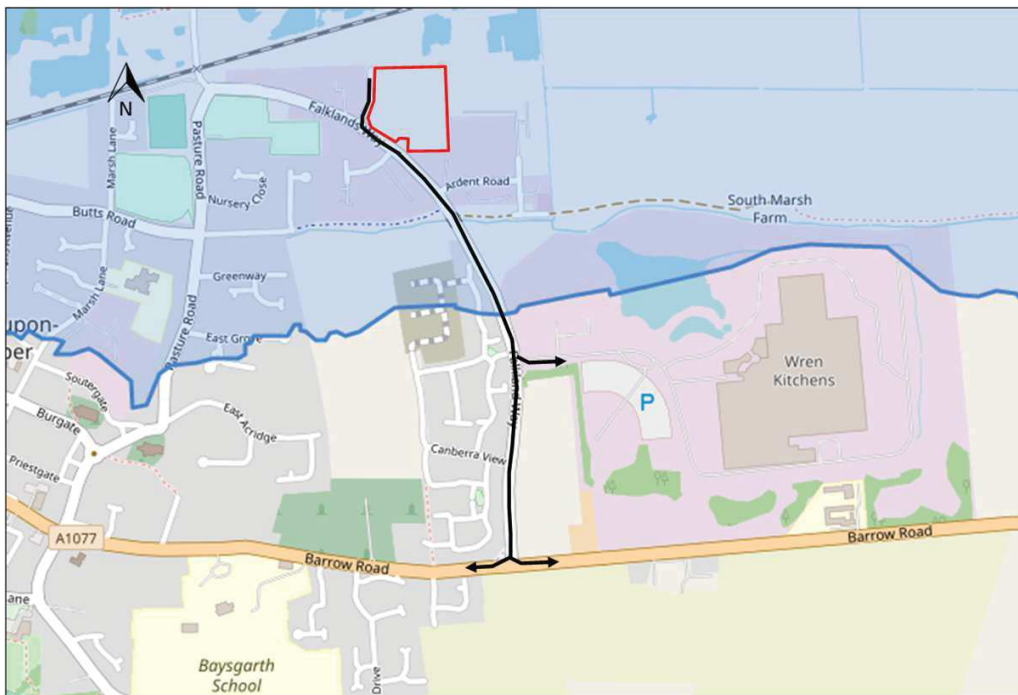
- Call Floodline on 0345 988 1188
- Download the Flood Alert app
- Visit [www.gov.uk/check-if-youre-at-risk-of-flooding](http://www.gov.uk/check-if-youre-at-risk-of-flooding)

### Site Contact

**Flood Warden**  
Name:  
Telephone:

 <p><b>FLOOD ALERT</b></p> <p>Flooding is possible - be prepared.</p>	 <p><b>FLOOD WARNING</b></p> <p>Flooding is expected - immediate action required.</p> <p>Evacuate the site if instructed to do so by the Flood Warden or emergency responders, via the recommended evacuation route.</p> <p><u>No vehicles will be allowed to enter the facility.</u></p>	 <p><b>SEVERE FLOOD WARNING</b></p> <p>Severe flooding – danger to life.</p> <p>Co-operate with the Flood Warden and emergency responders.</p> <p><u>Facility will close – no vehicles allowed to enter or leave.</u></p>	<p><b>WARNING NO LONGER IN FORCE</b></p> <p>No further flooding is currently expected in your area.</p> <p>Be careful, areas of flood water may still be present on site.</p>
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### Recommended Evacuation Route



### General Advice

- Always follow the advice of the Emergency Services
- Don't walk through flowing water – hallow fast moving water can knock you off your feet.
- If you have to walk in standing water, use a pole or stick to ensure that you do not step into deep water, open manholes or ditches
- Don't drive through flooded areas – half a metre of floodwater can carry a car away
- Stay away from power lines – electrical current can travel through water
- Look before you step - after a flood the ground and floors can be covered with debris, which may include sharp objects. Floors and stairs covered with mud and debris can be slippery.

This is a summary of the information contained in the Flood Warning and Evacuation Plan (March 2022).

Delivering client focussed services nationally

Flood Risk Assessments  
Flood Consequences Assessments  
Surface Water Drainage  
Foul Water Drainage  
Environmental Impact Assessments  
River Realignment and Restoration  
Water Framework Directive Assessments  
Environmental Permit and Land Drainage Applications  
Sequential, Justification and Exception Tests  
Utility Assessments  
Expert Witness and Planning Appeals  
Discharge of Planning Conditions

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