

**Cranswick
Convenience Foods**

Context

Cranswick plc is one of the largest food producers in the UK, the works taking place are in relation to the factory located in Barnsley.

Cranswick convenience foods is located at Valley Park Industrial Estate, Meadowgate, Barnsley, S73 0UN. There are a number of existing industrial units within this estate along with a Premier Inn Hotel opposite.

Overview-

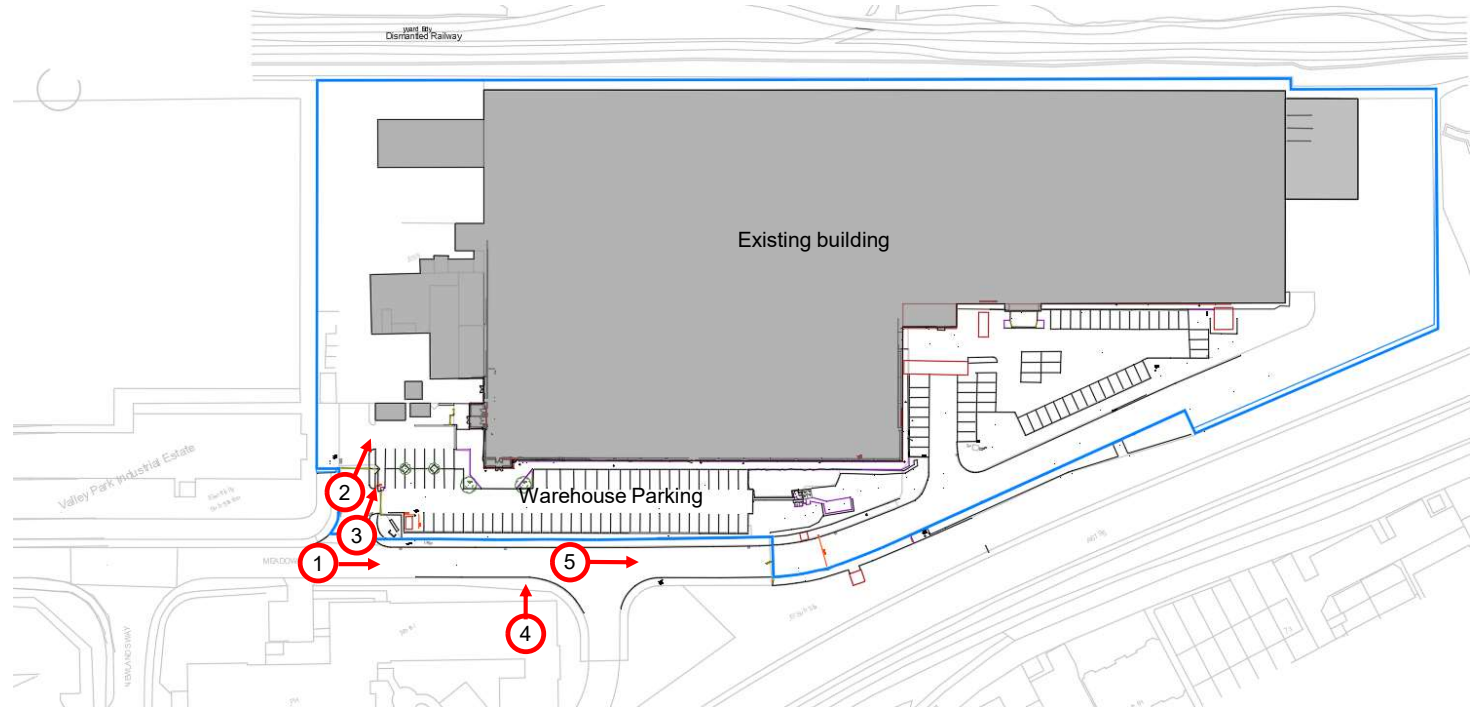
The existing Cranswick site in Barnsley includes:

- Site area (Blue line) - 27102m² 2.71Ha
- Built form area - 15130m²
- Number of staff - Office - 200
- Warehouse - 1000
- Car parking - 125

Previous applications-

2020/0781 - Variation of condition 2 of planning application 2019/0561 relating to layout

Cranswick purchased some land off Meadow Gate to create an additional 316 car parking spaces for employees at Cranswick to utilise; this application was approved and the car park has been implemented.



Existing Cranswick building

Phased Development

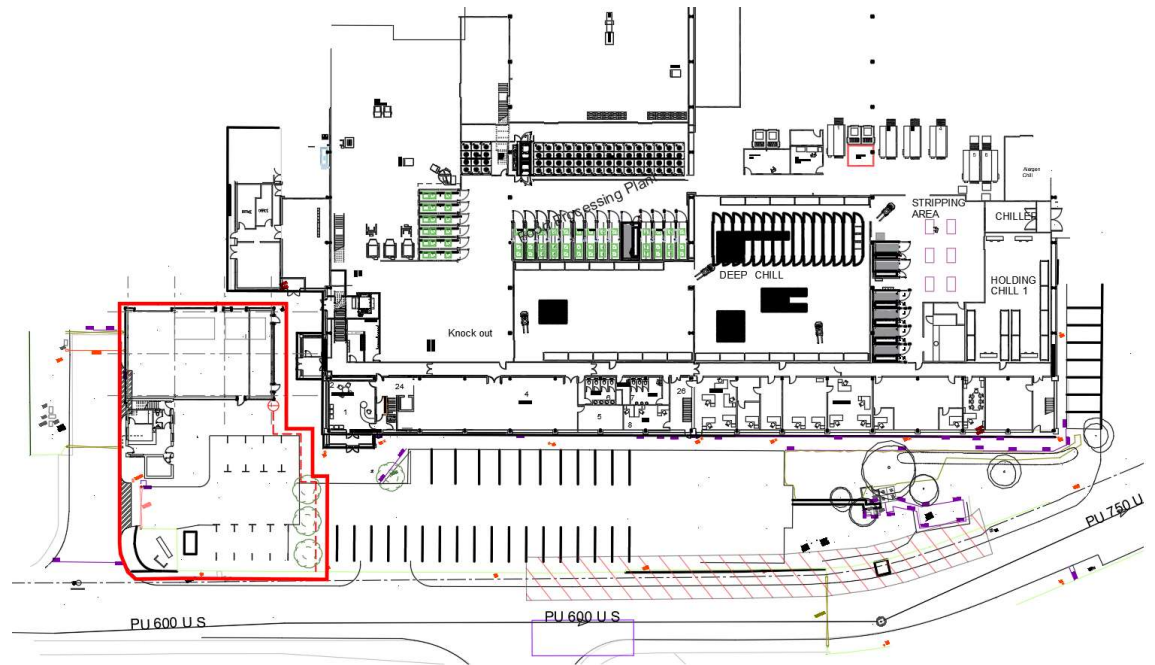
Use

This proposal involves the creation of a new ammonia plant room and reception building.

The basis for our proposal will be an ammonia / glycol refrigeration system, with a series of dual temperature functions. We will propose to install our equipment in a new plantroom adjacent to the factory as per the drawings. In the plantroom we will install 4No. industrial compressors, 2No. serving the glycol and MT (Medium Temp) pumped ammonia systems, 1No. serving the LT (Low Temp) pumped ammonia system and 1No swing compressor which will be capable of providing back up to each system. The LT (Low Temp) Ammonia system will serve the Impingement and Cabinet Freezers, the MT Ammonia system will serve the Oven and Roaster Blasts whilst the HT glycol system will be piped to various room coolers and AHU's. All compressors will be VSD as standard with high efficiency motors. Defrosting of the chill temperature air coolers will use 'free energy' recovered from the refrigeration oil cooling system. The higher temperature air coolers will have 'Off Cycle' defrost. All air coolers fed via pumped ammonia will be Hot Gas as standard.

Ammonia as a refrigerant has an Ozone Depletion Potential (ODP) and Global Warming Potential (GWP) of zero meaning compared to other forms of refrigeration it is particularly climate friendly and efficient. It has excellent thermodynamic properties, reflected in very low operating costs for refrigeration technology. It has consistently been used in food processing plants, the beverage and dairy industries, as well as in breweries and cold stores. Globally, ammonia is widely acknowledged as the best refrigerant both on efficiency and environmental impact, hence it is given the 'benchmark' GWP rating of 0 (zero). Co2 has a GWP rating of 1 (one) as it is perceived to be the next best refrigerant.

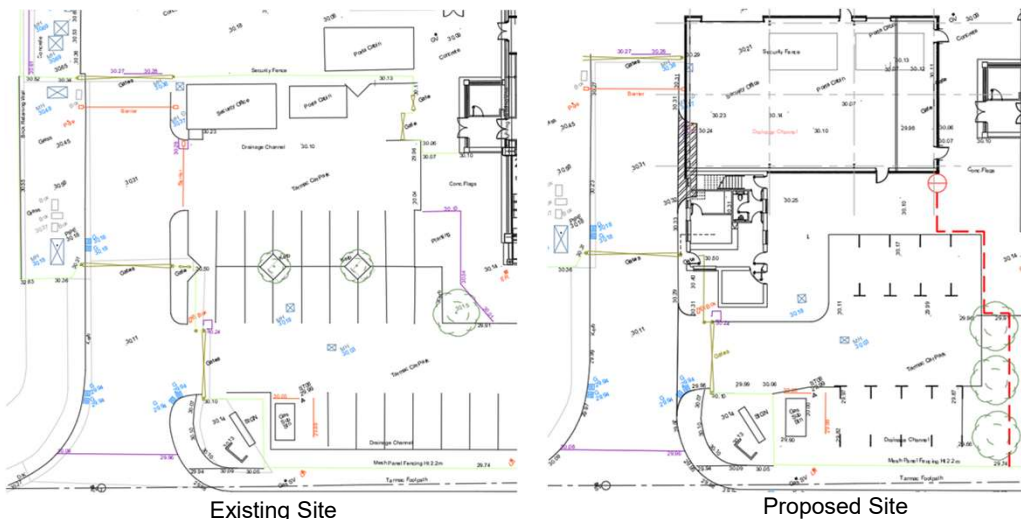
We are also proposing a new reception building adjoined to the ammonia plant. This will be used as a new entrance to the site for visitors who will have to sign in at security. It includes a parcel room for deliveries; a WC and staff room for the security staff and a first floor for both a meeting room and server room.



Access

The existing access to the site is to still be utilised for visitors. We are proposing a new fence (red dashed line shown in right image) to separate staff and visitor parking, there will be a turnstile for pedestrians with permitted access to enter through. Again this is a major improvement on the existing security and means that only persons with permitted access can enter this side of the site or visitors who are accompanied by persons with access.

The existing access by the existing security office is to be blocked off for the new location of the ammonia plant and reception building, this will also mean a reduction in 12 car parking spaces. This reduction won't have a negative effect however due to the previous planning application that has been approved and implemented (2020/0781) which created an additional 316 parking spaces.



Phase 2 Development- Layout and Scale

The ammonia plant layout and size has been carefully considered and designed to house all the equipment needed for the ammonia refrigeration system. There is a main plant room with a switch room off to the side. The switch room has two entrance doors from the outside for usability. The larger ammonia plant room has two external doors; a larger roller shutter so that larger plant machinery can be upgraded if need be with ease through the larger door and a louvered grill for ventilation into this area.

The reception / security office layout has been designed specifically for usability. There is an entrance door that leads directly into reception and an opposite door that leads out into the site, meaning that in order to enter the site the only option is to walk directly through security which helps to minimise security risks on site. The positioning of windows in reception have also been placed specifically so that security staff can have a clear sight to anyone entering the site which is a big factor in minimising security risks also.

Design

The walls for both the plant room and reception building are to be Kingspan mini microrib horizontal; colours proposed are a mix of Merlin Grey RAL 1804005 and Goosewing Grey RAL 0807005. These colours align with the approved planning application 2021/0730 to help this proposal match what will be on site. The doors are proposed to be powder coated steel / aluminium doors colour Bottle Green RAL 6007, this colour is also widely used on the existing site for existing doors and flashing.

We are proposing a living green wall to the front elevation of the reception building, alongside the environmental benefits it will also help to give a more visually pleasing main entrance to the site. This will again align with the previous planning application.

There are large windows to each elevation of the reception building to bring natural light into this area as well as allowing for minimal unobstructed views out which is important. The ammonia plant however will not have any windows as it simply a room to house machinery and plant equipment.

