JOB NAME	BUCK STREET MARKET, LONDON NW1
JOB No.	5474
	STRUCTURAL STATEMENT
	JULY 2018

REPORT

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Contents

1 Introduction

Furness Partnership has been appointed by Urban Space Management to provide structural engineering consultancy services on the proposed scheme at Buck Street Market, Camden, London NW1.

This report provides a description of the existing site and proposed structural works. These preliminary structural comments would need to be confirmed and finalised following the relevant site investigation works.

2 Existing Site

The site is an open space on the corner of Camden High Street and Buck Street in north London, between Dewsbury Terrace and a building designated as an Air Shaft belonging to London Underground. The site is currently occupied by a series of outdoor retail stalls collectively known as “Camden Market”.

A survey of the site (see Fig. 1 below) shows that a concrete slab covers the whole area. The slab is relatively flat, with a slight fall towards the southwest corner of the site at Camden High Street. During World War II the LU Air Shaft building served as an entrance to a deep-level shelter lying below the site. Consultations with London Underground also show that there are underground tunnels below the site which extend from Camden Town LU Station, on Camden High Street about 50m further south.

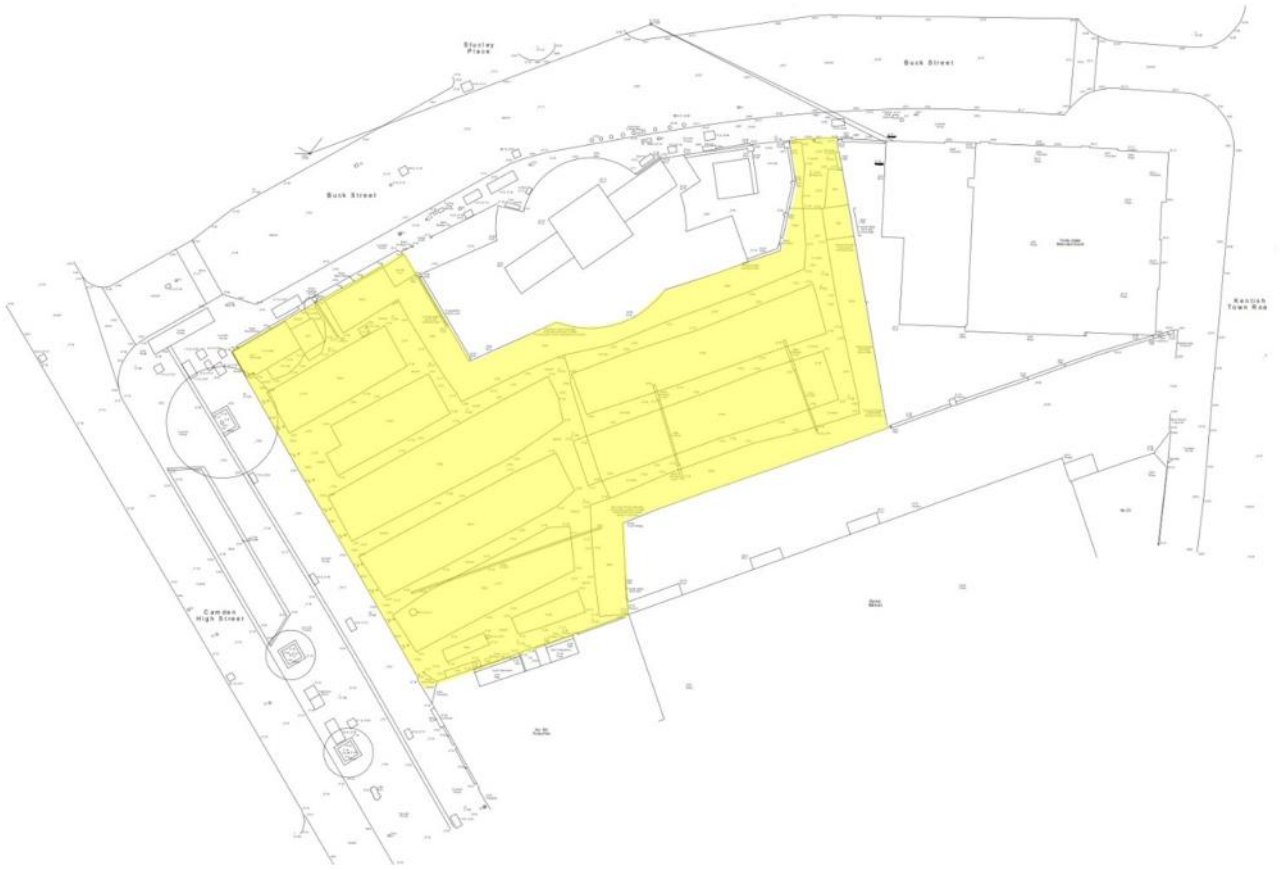

Fig. 1 – Site Location Plan

3 Proposed Scheme

An outline of the proposed scheme is shown in Fig. 2 below. All the existing stalls will be removed and the area will be redeveloped with new 2 to 3-storey structures housing a series of new retail and food stalls connected by walkways.

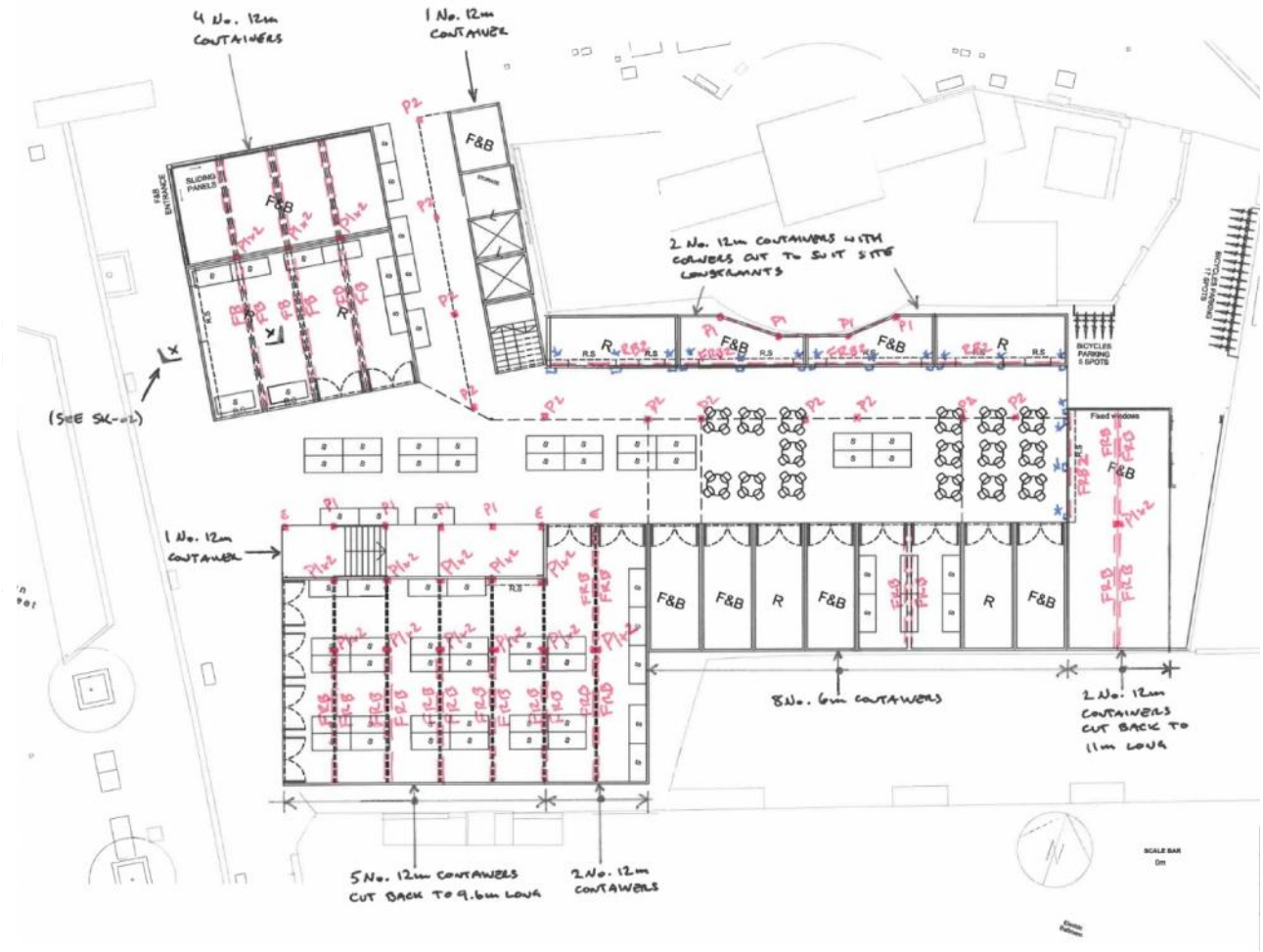

Fig. 2 – Proposed Ground Floor Plan

The structures will be formed by stacking and connecting several 6m and 12m long steel shipping containers side by side, forming structures mostly two storeys high, and in some cases three storeys high. The containers are essentially steel boxes, with an internal steel framework clad in sheets of corrugated steel, all welded together. When stacked upon each other they are connected with bolts at nodes on each corner.

In some cases, and in order to create more open spaces, some of the container side walls will be partly or wholly removed, although the internal framework will remain. Similarly, new window and door openings will be created by cutting the container side or end panels as required. There are various structural measures designed to strengthen each container where these new openings have been created. These include welding new steel plates and steel hollow sections to the internal container framework, as well as introducing new steel posts welded to the internal framework where required.

The standard container loading capacity is well in excess of the loading expected from the retail, restaurant and walkway areas in the proposed scheme. As described above, where container side panels have been cut the various strengthening measures are designed to withstand the new proposed loads.

Walkways will generally be made from standard container floor sections, with strengthened floor beams where required, supported on the stacked containers and on new steel posts.

The containers will rest on the existing concrete slab through a series of steels plates designed to spread the load and limit the bearing pressure on the underlying soil to below 25 kN/m2. This will also ensure that the LU tunnels deep below the site are not unduly loaded.

Once the containers are stacked side-by-side and bolted together they inherently have a relatively large racking capacity to withstand lateral loads, such as wind loading. In this case, as the stacking is limited to 2 or 3 containers only, the capacity of the containers will far exceed the wind load expected on a site in central London.