

**STATE PIER WAREHOUSE
STRUCTURAL ENGINEERING SERVICES REPORT**

16 October 2015

1.0 INTRODUCTION

The purpose of this report is to provide a guideline towards the current dead-loads of the warehouse emitted by the structural steel elements.

Site inspection and visual inspections were carried out to estimate and tentatively arrive at an order of magnitude dead load combination.

2.0 STANDARDS

All the structural engineering designs shall comply with the latest revisions of SANS 10162:1-2005 covering Structural Steel works as well as SABS 1200G covering reinforced concrete and shall be in accordance with the relevant SANS standards.

3.0 METHOD OF ANALYSIS

The structural steel elements were visually inspected and self-weights collated through referencing the South African Steel Handbook.

4.0 METHOD STATEMENT AT CONSTRUCTION STAGE

The existing roof elements will be removed one by one by the successful contractor and will be stored safely for reuse within the building footprint after modifications are done

5.0 REINFORCED COLUMNS

The existing columns are being improved by additional columns located around the perimeter of the building and created in such a way that they butt against the existing columns. These columns are being founded on new bases and their purpose is to cater for new loads anticipated from the new levels to which the roof is being extended to.

There are further new columns which have been introduced within the facility to provide support to the new mezzanine

6.0 GEOTECHNICAL INVESTIGATIONS

Further geotechnical investigations have been undertaken to ascertain the overall loading capacity of the in-situ material. The outcomes of these investigation have served as a guideline to frame the structural engineering philosophy adopted and this complies with all the necessary standards governing structural engineering works.

7.0 STRUCTURAL STEEL-ROOF DEAD LOAD

It is estimated that the current dead load combination is in the order of **70 Tons**. It is therefore expected that the successful contractor should provide us with a method statement prior to removal of the existing steel members.