

Question posed - Reason for discrepancy in magnitude of loading stress on Fig 2 (Sept. 14 report) & info on Table 4-1A & Table 2.5-14?

Table 2.5-14

Stress used in bearing capacity determination (Response to Q35)

Indicates 4.5 Kip/ft² for DGB.
This is LARGEST contact stress @ fdm. elevation

$DL(\text{mat grade slab}) + LL(\text{full design}) = 4.5 \text{ KSF}$

Bachtel indicates the LL in above equation is larger than expected because actual building occupancy will not impose the full live load structures are required to be designed for. They arbitrarily indicate the LL to reach the fdm. soils will be 25% of full LL.

Table 4-1A

Table prepared for settlement study based on measured (i.e. field) settlement data during surcharge

- Not on Approximate load shown on Table 4-1A

Value of stress in Table 4-1A is AVERAGE pressure & is based on total load divided by building area. Thus AVG pressure was not used in settlement prediction nor to verify the adequacy of the preload

The LL indicated in Table 4-1A (during stages V & VI) is full design live load & includes piping & eqpt

Fig 2 (Sept. 14, 1980 Rpt.)

Provided to show stress distribution with depth & for comparison of stresses during normal operations is computed footing pressure @ SW corner of DGB

Did not use 4.5 Ksf in Fig. 2
Used 3.4 Ksf which is Net max. dead load

(& Int'l to CHANGE previously submitted bearing capacity calculation (in Sept. 14, 1980 rpt) & Response to Q-40 to ACCOUNT for live loads in next amendment (in the above 4.5 Ksf was NOT used

On Fig. 2

DL = superstructure weight
LL = 25% of full design live load