

**DISCLAIMER**

SRC Technical Notes are informal memos intended for internal communication and documentation of work in progress. These notes are not necessarily definitive and have not undergone a pre-publication review. If you rely on this note for purposes other than its intended use, you assume all risk associated with such use.
I am planning to follow the below phases in establishing a reasonably inexpensive and quick cure for the slab movements. I will appreciate if you let me know about any additional or other ideas you might have.

Phase #1:

a. **Studying** the rock and slab foundations and based on my experiences and further readings, I will establish a true/reasonable bearing capacity and most importantly settlements criteria.

b. **Contacting** the various parties involved in the design and construction of the foundations. (DOT, which already been contacted; Warzya Engo; Arnold and O'Sheridan; DMF (nothing helpful so far and; the construction company).

I am quite convinced that considering the settlements requirements for this site there have not been enough engineering evaluations of the situation especially if compared to other structures with similar requirements which have been studied. Simply there have been no lab or field tests.

Phase #2: Monitoring

a. I will try with whatever equipment available to establish a rough idea about the situation. To do this I need to know when the area becomes unaccessible (area inside the ring).

b. I will supply a sketch about the monitoring plan and position of equipment.

c. I have already contacted few companies and they will let me know/send some literature about high accuracy/precision:
   - Slope indicator (slope meter/inclinometer)—will define amount and location of movements against depth.
   - Extensometer will define amount of settlement/heave of each layer (Rock/Grun/Slab).

However if agreed that the above equipment to be purchased, drilling is needed,
and depth of each drill hole must at least be few feet into sound rock layer (i.e. avoiding the fragmented layer beneath the slab).

Phase #3: Remedial Measure

a. Depends greatly on available funds, time, and amount of disturbances allowed.

b. Based on the outcome of both phase one and two one can establish a suitable method. (I can think of 6-7 methods off-hand but of course this is based on imagination!).

Finally, I would like to know about the funds available for this operation.