

## Circular No. (11-4-1) of 2021

On 23/08/2021 AD

**Concerning/ Tests of piles load, soil bearing capacity, foundation levels and excavation**

**Messrs./ Engineering Consultancy Offices and Construction Companies**

**Greetings,**

- All tests required for piles load (pile load test), and the type of concrete of piles (Concrete compression test) shall be conducted.
- All tests shall be conducted through an independent lab which is licensed by Dubai Municipality and it shall be designated by the consulting office for taking all required readings and present the required technical reports.
- The lab that is designated for the project shall conduct all required tests according to the international standards and according to testing implementation methods approved by Dubai Central Lab of the Municipality.
- A report shall be prepared by piles foundation companies and it shall include record of concrete casting of piles, size of the casted concrete in the piles. A copy thereof shall be delivered to the lab which will conduct (Integrity & Sonic Coring Test and Dynamic Test) which will be designated by the consulting office according to the percentages mentioned in Dubai Code provided that the testing results shall include whether or not the test results are accepted.
- All results of piles testing shall be submitted when submitting application for structural inspection via Dubai Building Permit System (Dubai BPS) to enable the engineers review these results and make sure that they comply with the technical specifications before permitting foundations casting .



- All Contracting companies shall make sure the extent of compatibility of the foundations levels, soil bearing capacity with soil test report or other assumptions on which the design was based before casting the blinding concrete through a lab that is licensed by Dubai Municipality, whose results shall be approved by the consulting.
- All Contracting companies shall enclose results of the tests with the structural inspection application to Dubai Building Permit System (Dubai BPS) provided that it shall include the following:
  - Foundation level
  - Soil bearing capacity
  - Confirmation of any other assumptions which were approved in the foundation design
- All Contracting companies shall adhere to the following:
  - 1- The consultant shall apply for obtaining shoring permit via Dubai Building Permit System (Dubai BPS) while enclosing detailed layout for shoring and it shall include the following:
    - Final excavation levels (according to the approved layouts).
    - Natural land levels.
    - Showing the adjacent buildings in terms of their distance from the excavation, kind and level of their levels, precautions required to be taken for preventing any fall or damage in the adjacent pavements and walls.
    - Showing places and lines of the services in terms of their level and distance from the excavation and precautions required to be taken for preventing any damage to them as a result of the excavation.

- Groundwater level and its relationship with the excavation level and the method suggested for discharge of the ground water taking into consideration not to discharge the soil under the foundations or the adjacent pavements.
- 2- Submission of a detailed clarification about method of implementation of shoring in all of its stages along with a timeline for this, and it shall be approved by the consultant before submission.
- 3- Applying through Dubai Building Permit System (Dubai BPS) to request the review of the excavation works and the relevant shoring in the following stages:
  - After completion of excavation of the first two meters from the natural land level.
  - Upon reaching to Anchors level in case of their presence in the design.
  - Upon completion of the excavation works.
- 4- Reviewing method of the good performance and the necessary inspections according to the used shoring system that is represented in the following:
  - Bearing capacity of Anchors and its compatibility with (force pull out).
  - Inspections related to (Bentonite) , which are (PG, viscosity and Density) pursuant to the British code or the like, shall be carried out by a shoring contractor or under the supervision of the project consultant.
  - Inspections related to concrete and rebar.
  - Any other inspections, if required.
- 5- All above mentioned tests shall be conducted except for (bentonite) tests that shall be carried out by an independent lab which is licensed by Dubai Municipality and it shall be designated by the consultant provided that its method of testing (testing system) shall be approved by Dubai Central Lab.

- 6- The appointed lab shall present a technical report on results of the above-mentioned inspections approved by the consultant and it shall be enclosed with structural inspection application submitted by the contractor via Dubai Building Permit System (Dubai BPS).
  - 7- Reviewing the sizes, verticality, distribution of the sections used in shoring.
  - 8- Use of shoring system that shall be suitable for the soil type, excavation depth, taking into consideration the adjacent buildings.
  - 9- If there are adjacent buildings to the excavation area, a shoring system that consists of Diaphragms Walls, contiguous or Secant piles shall be used in coordination with the engineer of the municipality.
  - 10- In case of designation of a shoring contractor and master contractor, we emphasize the necessity of coordination between the consultant and the shoring contractor till completion of implementation of the shoring works.
  - 11- In case of designation of a shoring contractor only at the beginning of implementation of these works, we emphasize in this case that it is a necessity to have a complete coordination between the consultant and shoring contractor till completion of implementation of these works and handing them over to the master contractor duly.
- The contractor shall develop the excavation program and determine the excavation methods and tools and support means for each stage and the requirements for protecting the neighbors from its results provided that the consultant shall approve the program and supervise its execution in a matter that guarantees safety of the neighbors in each stage.
  - The consulting office shall review the safety precautions and excavation methods for each stage before starting excavation and they shall not give their approval on the excavation



except after making sure its compatibility with the program, the conditions and specifications

which are enough for providing a complete safety for the site and the neighbors.

- The contractor shall not start any excavation stage except after getting a written approval from the consultant supervising the site.
- The contractor and the consultant shall be directly responsible for any damages caused to the site or neighbors due to the excavation or shoring .

**“This is a technical translation, in case of ambiguity Arabic version will prevail “**