**REPORT RD1**

**RISK DEFINITION**

**TECHNICAL SOIL RISK ANALYSIS**

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| **REFERENCE:** ${REF} | | | **TIS AGENCY:** ${TIS\_AGENCY} |
| **TECHNICAL/S RESPONSIBLE/S:**  **Design:** ${DESIGN}  **Project Control:** ${PC}  **Design review manager:** Mahmoud Elmasry | | | |
| **Revision:** ${REVISION} | | **CONTACT:** ${CONTACT} | |
| **DATE OF ISSUE:**  ${DATE\_OF\_ISSUE} | **FAX:** ${FAX} | **PHONE:** ${PHONE} | **EMAIL:** ${EMAIL} |

**TITLE I**

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| **PRINCIPAL/OWNER:** ${OWNER}  **PROPOSER (IF DIFFERENT):** ${PROPOSER}  **PROJECT TITLE:** ${PROJECT\_TITLE}  **ADDRESS:** ${ADDRESS}  **PROPOSED USE/OCCUPATION:** ${OCCUPATION}  **NUMBER OF BUILDINGS:** ${NUMBER\_OF\_BUILDINGS} |
| **PARTIES INVOLVED** |
| **DESIGN:**   * **ARCHITECT:** ${**ARCHITECT**} * **STRUCTURAL DESIGNER**: ${**STRUCTURAL\_DESIGNER**} * **SOIL REPORT:** ${**SOIL\_REPORT**}   **CONSTRUCTION:**   * **MAIN CONTRACTOR: ${CONTRACTOR****}** * **SUBCONTRACTORS:** **${SUBCONTRACTORS}** * **PROJECT SUPERVISOR**: **${Project\_SUPERVISOR}** * **QUALITY TESTING FIRMS:** * **OTHER (SPECIFY):**   **COMMENTS ON REFERENCES OF ARCHITECTS, ENGINEERING CONSULTANTS, AND CONTRACTORS OF THE OPERATION, PURPOSE OF THE INSPECTION, IF ANY:** |

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| This report will be filled in if one of the following cases is chosen.1- Existence of collapsible soils, expansive layers, or improved soil. ${S120\_YES}2- Shaft foundations with a depth greater than 3.00 m, piles, micro piles, diaphragm walls. ${S121\_YES}3- Lands with slopes greater than 30% ${S122\_YES}4- Soil review or sabkha soil ${S123\_YES} |
| Is the building likely to be flooded (river, lake or sea, ground water level)? ${N200} YES ${N201} NO  Has a geotechnical engineer been involved in the design? ${O941\_YES} YES ${O941\_NO} NO  Please indicate the scope, number, and type of geotechnical tests and describe the layers including thickness.  Number of boreholes: ${nBoreholes}  ${BH}  What are the tests existing in the geotechnical report?  ${cos2}  Is additional research needed? ${O942\_YES} YES ${O942\_NO} NO  If yes, indicate:  ${Q942}  Reason?  ${Q943} |
| Description:Soil description: ${D55}Active layer thickness: ${Q944} mFoundation level from street level: ${D88} m ${D885e}${B202}${B268}${D64e} ${D64d}${D64t} ${D64i} |

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| |  | | --- | | ${Page120} **Has the swelling pressure in the oedometer been calculated?** ${O955\_YES} YES ${O955\_NO} NO  **Swelling pressure value:**  ${Q955} kg/cm2  **The swelling pressure exceeds the minimum pressure (permanent loads) transmitted by the structure?** ${Q956}  ${O956\_YES} YES ${O956\_NO} NO  **Precautions taken against swelling pressure:**  ${Q957}  **Free swell index value:**  ${Q958} |  |  | | --- | | ${Page121} **Attach sketch (plan and section) indicating the position of the work in the context of the slope:** ${Q1102} |  |  | | --- | | ${B1103} |  |  | | --- | | ${Page1211} **Geological nature of the land layers:** ${Q1099} |  |  | | --- | | ${B1104} |  |  | | --- | | ${Page1212} **Are the geotechnical parameters of the different layers known that may affect the landslide?**  ${O963\_YES} YES ${O963\_NO} NO  **If yes, list at least: (friction angle, cohesion, and density of each of the layers):**  ${Q963}  **Is a landslide report necessary?** ${O965\_YES} YES ${O965\_NO} NO  **If yes, the reason:**  ${Q965}  **Is there a calculation of factor of safety?**  ${Q966}${O966\_YES} YES ${O966\_NO} NO  **The Recommendation:** ${Q9678}  **Value of the maximum slope in the project:** ${Q969}  **Has a generalized landslide study been carried out?** ${Q970}${O970\_YES} YES ${O970\_NO} NO  **Study conclusions: Does the site include similar constructions in proximity?** ${Q971}${O971\_YES} YES ${O971\_NO} NO  **The climate, the nature of the soil, do they give rise to an intense circulation of surface and / or underground water?** ${Q972} ${O972\_YES} YES ${O972\_NO} NO |  |  | | --- | | ${Page122} **Foundation type:**  ${Q973}  **Pile type:**  ${Q974}  **Pile Depth:**  ${Q975} m  **Total number of piles:**  ${Q976}  **Piles Diameters:**  ${Q977} m  **Number of piles per pile cap:**  ${Q978}  **Possibility of negative friction:** ${Q979}${O979\_YES} YES ${O979\_NO} NO  **Company responsible for the piling execution:**  ${Q980} | |

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| Common issues:Projected sanitation system:${Q945}Does the system envisaged in the project ensure its watertightness? ${O946\_YES} YES ${O946\_NO} NO |
| Values of the maximum settlements predicted in the geotechnical report:  Total settlement as soil report: ${Q947}mm.  Actual settlement as soil report: ${Q948}mm .  Differential settlement as soil report: ${Q949}mm .  Differential settlement by CPV engineer: ${Q950}mm.  The estimated settlement value by CPV engineer: ${Q951}mm. |
| Are the calculation and control recommendations provided with SBC? ${Q953\_YES} YES ${Q953\_NO} NOIf not, please specify:${Q953} |
| Calculations: (By CPVian Engineer)${Q954} |

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| **Identified aggravating risks and additional information:**  **Design (RD5):**  ${RD5}  **Inspection (RD5):**  ${RD5in}  **Technical reservations:**  ${TR}  **Notes:**  ${NOTE} |

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| Riyadh, ${DATE\_OF\_ISSUE}  The Technician/S In Charge Of The Control  ${B4770}  Eng. ${curusernameRD0}  Civil Engineer  Soil Specialist  ${B477}  Eng. ${curusername}  Civil Engineer  Quality Control Manager  ${B4771}  Eng. ${curusernameQC}  Civil Engineer  Project Analysis Department Manager    Eng. Mahmoud Elmasry  Civil Engineer |