



**GEOTECHNICAL
REPORT REVIEW
CHECKLIST**

Development Services

Land Development Engineering

1635 Faraday Avenue

442-339-2750

www.carlsbadca.gov

Plan ID: _____ DWG No. _____ GR No. _____

Project Name: _____

Plan Check Number: _____

Location / Address: _____

City Plan Checker: _____

GEOTECHNICAL REPORT - GENERAL

	OK	NOT MET	N/A
Signed by RCE/GE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signed by CEG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project Address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location Index Map with reference north, scale, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site Description (topography, vegetation, existing structures/improvements, drainage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description of Proposed Development (grading, structures/improvements, retaining walls, drainage, foundation type, estimated structural loads)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – FIELD INVESTIGATION

	OK	NOT MET	N/A
Site Specific Subsurface Investigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description of Investigative and Sampling Methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boring/Test Pit Logs (Soil/Bedrock descriptions with depth, type and depth indicated for sampling, real or assumed elevation indicated, groundwater conditions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampling performed to anticipated depth of foundations and/or deepest excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boring/Test Pits located on Geotechnical Map/Plot Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – LAB TESTING

	OK	NOT MET	N/A
Description of lab test performed with referenced test method (ASTM, EPA, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Strength (Shear)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sulfate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gradation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classification of soil in accordance with ASTM D 2487	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moisture/Density	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consolidation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Atterberg Limits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maximum Dry Density/Optimum Moisture Content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – EARTH MATERIALS

	OK	NOT MET	N/A
Description and designation of geologic units (surficial soils and bedrock, including depth, thickness)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic structure (bedding, fracturing, shears, faulting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description of regional geologic conditions (including reported regional trends of bedding and faulting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – SEISMICITY

	OK	NOT MET	N/A
General description of regional and local faulting (including names of faults and distances from site)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site Class (CBC and ASCE 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mapped Spectral Acceleration Parameters (S_s , S_1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site Coefficients (F_a , F_v)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design Spectral Acceleration Parameters (S_{DS} , S_{D1})	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seismic Design Category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – GEOLOGIC HAZARDS

	OK	NOT MET	N/A
Landslide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansive Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surficial Slope Instability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope Creep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total and Differential Settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sulfate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liquefaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effect of liquefiable soils on utilities and lifeline services outside of structural mitigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seismic Induced Landsliding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tsunami Potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – ILLUSTRATIONS

	OK	NOT MET	N/A
Geotechnical Map / Plot Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Existing topography / improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proposed topography / improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of subsurface exploration (borings, test pits, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic Contacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic Structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of fill key / buttress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic Cross-Section	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Existing topography / improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proposed topography / improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Location of subsurface exploration (borings, test pits, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic Contacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic Structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope setbacks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary cuts / shoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fill Key / buttress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope benching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GEOTECHNICAL REPORT – CONCLUSIONS / RECOMMENDATIONS			
	OK	NOT MET	N/A
Statement as to feasibility of project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Statement as to impact on adjacent properties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Statement of the condition of slopes with respect to stability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope stability analysis provided to support conclusion/recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Statement regarding liquefaction potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liquefaction analysis provided to support conclusion/recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grading Recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remedial grading (depth of removal/re-compaction, limits beyond structures/improvements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compaction standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Mitigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary excavation (backcuts, slopes) with time limit recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keys / buttresses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canyon/Key Subdrains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foundation Recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansive soil mitigation (CBC 1803.5.3 and 1808.6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Description of approved embedment material (i.e. compacted fill, terrace deposits, bedrock, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum depth of embedment (into approved material) for foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum width of footings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum diameter of caissons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bearing capacity (end bearing for caissons)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coefficient of friction (skin friction for caissons)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lateral bearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Down drag forces (liquefiable soils,)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lateral Spread forces (liquefiable soils)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foundation slope/trench setback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum reinforcement requirements for foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum slab thickness and reinforcement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slab underlayment/vapor retarder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soluble sulfate exposure mitigation (per CBC and ACI 318)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conventional Retaining Wall Recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Active pressures (level, sloping)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retaining wall backdrain or recommendation of additional hydrostatic pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Backfill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surcharges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSE Wall Recommendations (facing material, geogrid type and length, backfill, stability analysis)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flatwork / Hardscape recommendations including driveways (subgrade preparation, minimum slab thickness and reinforcement, joint spacing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roadway Pavement recommendations (section design, subgrade preparation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swimming Pool recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm water infiltration potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – OBSERVATION/TESTING DURING CONSTRUCTION

	OK	NOT MET	N/A
Footing excavations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subdrains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Caisson / Drilled Pier excavations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pool excavations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keyways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary excavations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geologic mapping of bedrock excavations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retaining wall backfill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility trench backfill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engineered fill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hardscape subgrade (driveways, patios, walkways, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Import soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – REFERENCES

	OK	NOT MET	N/A
Current / City adopted Building Code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grading Code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical reports / publications / geologic maps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aerial photographs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Websites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GEOTECHNICAL REPORT – COASTAL BLUFF

	OK	NOT MET	N/A
Bluff edge designation (presented on geologic map and cross-sections)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arial photograph of site showing bluff edge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bluff retreat rate and total estimated retreat for a minimum 75-year period	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Codified bluff edge setback (presented on geologic map and cross-sections)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope stability analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
References to support bluff retreat rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope Stability Setback presented on geologic map (surface expression of FS=1.5/1.1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Bluff Setback presented on geologic map (greater of A: Slope Stability Setback + 75-year bluff retreat or B: 10-foot buffer + 75-year bluff retreat)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explanation and justification of 40-foot setback deviation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>