



GEOTECHNICAL REPORT GUIDE CHECKLIST

For development projects within the City that are not eligible for prescriptive foundation options, submittal of a site-specific geotechnical design report is required. In order to assist the applicant with an approval process the City of West Hollywood has developed this guide checklist of considerations for the preparation of geotechnical reports. The checklist is intended to assist the property owner/developer in the permitting process by identifying key elements to be addressed and thereby reducing the time associated with unfavorable reviews. The checklist is not a prescriptive set of instructions; rather it includes geotechnical items that are often of direct relevance to the project.

City of West Hollywood – Geotechnical Report Checklist		Adequately Described; Satisfactory	Additional Data Needed; Not Satisfactory
NA = not applicable NR = not addressed by consultant and therefore not reviewed at this time			
General Information			
1.	Project name.		
2.	Consultant name and project/job number.		
3.	Report type and purpose (e.g., feasibility, design, hazard, repair, update, as-built/grading).		
4.	Geotechnical references/previous investigations.		
Project Description			
5.	Written description of the project location, including: vicinity map (7.5-minute series USGS Quadrangle), and site location map (appropriate scale) and site plan.		
6.	Type(s) of structure(s) or improvement (e.g., new construction, large addition/remodels, repair, etc.) and list of structures (e.g., buildings, retaining walls, pavements).		
7.	Special construction components (e.g., retaining wall, basement, subterranean parking, temporary support/shoring systems).		
8.	Anticipated cut and/or fill depths, slopes (height, gradient), and, if available, an estimate of earthwork quantity.		
Geotechnical Investigation			
9.	Surface description [e.g., topography, site drainage, adjacent properties that may affect or be affected by the proposed development, site history of relevance to planned use (e.g., buried foundations, on-site waste systems, buried utilities, previous site grading, previous geotechnical studies)].		
10.	Descriptive summary of project-specific subsurface exploration (date, method, type of equipment, depths) ^{1,2} Note that use of downhole hammer for subsurface penetration testing is strongly discouraged and may result in unfavorable review comments.		



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11.	Type, description and results of any surface geophysical surveys (if applicable).		
12.	Descriptive and data summary of laboratory soil testing.		
Engineering Geology/Site Characterization/Geological Hazards Evaluation			
13.	Regional and local geologic maps, sections and regional fault maps. (Geologic map of site at a scale of 1"=40' or larger; must include a proper geologic legend, i.e., symbols, units. Include a minimum of 2 geologic cross sections at local map scale, or larger)).		
14.	Summary of subsurface engineering geologic conditions from surface, subsurface and geophysical (if applicable) exploration. Discussion to include unit descriptions and information pertinent to groundwater seepage conditions.		
15.	Active faulting and coseismic deformation across site – show proposed structures/improvements in relation to current City Safety Element map (KFM, 2010; Figure 3). Discuss site specific exploration performed and results for all improvements planned within the City's <i>Fault Precaution Zones FP-1 and FP-2</i> . (City's Geotechnical Hazard Zone IV). Setbacks for habitable improvements of at least 50 feet will apply in zone FP-1 and may also apply for zone FP-2.		
16.	Discussion of geologic hazard per CGS Open File Report 98-17 and 98-14 and location of proposed structures/improvements in relation to areas zoned for liquefaction hazards (Zone II) and landsliding hazards (Zone III). Discussion of other applicable geologic hazards, e.g., hydrocollapse, non-engineered fill.		
Seismology/Seismic Hazard Evaluation			
17.	Development of design earthquake ground motion parameters (e.g., PGA, magnitude) per the 2013 CBC and CGS special publication SP-117A (CGS, 2008).		
18.	Descriptive summary of historical earthquakes in the region.		
19.	For projects within Geotechnical Development Zone II (potential liquefaction zone), perform liquefaction potential and dynamic settlement analysis for granular soils in strict accordance with CGS SP 117A (CGS, 2008) and sensitivity analyses for fine-grained soils per Los Angeles County GME-03 Memorandum. Perform lateral spreading evaluation and surface manifestation of liquefaction evaluation as applicable.		



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20.	For projects within Geotechnical Development Zone III (landsliding zone), perform static and pseudo-static stability analysis in strict accordance with CGS SP 117A (CGS, 2008); including estimated seismic displacement of the slope per the procedures recommended by Bray and Travasarou (2007) (if applicable).		
Geotechnical Engineering Design Considerations			
21.	Identify governing design considerations, e.g., expansive soils, liquefaction, soft ground, peat deposits, landslide potential, fault rupture.		
22.	Discuss pertinent engineering properties of site soil and/or bedrock materials, including classification of expansion potential and soil corrosivity.		
23.	Discuss engineering aspects of excavation/grading/fill activities, foundation and support of structures. Special design and construction provisions to control settlement and/or foundations founded on weak or expansive soils. Consideration of seismic compression of fills; cut/fill differential settlement.		
24.	Recommendations for shallow foundations/deep foundations/slab-on-grade/post-tensioned slab/retaining walls (if applicable).		
25.	Recommendations for shoring systems for temporary excavation (e.g., basements, subterranean parking structures): <ul style="list-style-type: none"> • Impact of excavations on adjacent off-site structures, street improvements and utilities (include need for construction and post-construction monitoring). • Provisions for temporary stability of excavations, including cantilevered and braced shoring, and/or temporary or permanent tieback anchors, or soil nails. • Consideration of surcharge loads (e.g., traffic, loads from adjacent structures) on temporary shoring systems and permanent walls. • Need for temporary and/or long-term dewatering; evaluation of dewatering impact on the adjacent structures, pavement and underground utilities. • Groundwater quality evaluation and discharge of the groundwater (if applicable). 		



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26.	Active permanent dewatering systems - approved by the Building Official only upon submittal of project specific design data. Systems must be designed with redundant recovery systems in anticipation of power failures and/or maintenance. In addition to the system design, a water quality study must be performed in accordance with the requirements of, and approved by, the Los Angeles Regional Water Quality Control Board.		
27.	Grading considerations.		
28.	Provisions for the control of surface water and on-site storm water disposal, if applicable.		
29.	On-site waste disposal systems are not permitted within the City limits for any new construction ³		

- Notes: ¹ Consultant is responsible for obtaining required subsurface exploration permits through County of Los Angeles.
- ² Subsurface testing where blowcounts are utilized in design shall be performed in accordance with ASTM D1586 -- Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils
- ³ On-site waste disposal systems are prohibited for new construction. Additions to existing improvements involving any water fixtures will necessitate connection to the local municipal sewer system and abandonment of the existing on-site waster system in accordance with the geotechnical engineer’s recommendations.