



# Geotechnical Investigation Review Checklist

## Scope of Work & Objectives

Ensuring the investigation's scope aligns with the project's needs and intended use.

**Describe the project's intended use and structural load requirements.**

Write something...

**Summarize the stated objectives of the geotechnical investigation as outlined in the proposal/contract.**

Write something...

**Was the scope of work sufficient to address the project's needs?**

☐

Yes

☐

No

☐

Unsure

**Estimated design loads (e.g., kPa or psf).**

Enter a number...

**Describe any limitations or assumptions stated in the scope of work.**

Write something...

**Which aspects of the project were explicitly covered in the scope?**

- ☐ Foundation Design
- ☐ Slope Stability
- ☐ Earthwork
- ☐ Retaining Walls
- ☐ Seismic Design
- ☐ Pavement Design

# Site Characterization & Geology

Review of site geology, topography, and existing conditions as documented in the report.

**Briefly describe the site's geological setting (e.g., near a fault line, in an area of known landslides).**

Write something...

**Maximum Slope Gradient (in degrees) observed at the site.**

Enter a number...

**Topographic Map (showing contours, drainage patterns, and existing structures)**

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**Was a review of historical aerial photographs/satellite imagery performed?**

- ☐ Yes
- ☐ No
- ☐ Not Applicable

**Describe any visible signs of instability (e.g., cracks in the ground, tilted trees, evidence of past erosion).**

Write something...

**Are there any known geological hazards in the vicinity (e.g., active faults, karst topography)?**

- ☐ Yes
- ☐ No
- ☐ Unknown

**Describe the soil profile at the ground surface based on visual inspection (e.g., topsoil, sand, clay).**

Write something...

## Borehole/Test Pit Locations & Density

Assessment of the adequacy of borehole/test pit locations and the number of explorations performed.

**Number of Boreholes/Test Pits**

Enter a number...

### Justification for Borehole/Test Pit Density

Write something...

### Borehole/Test Pit Location Accuracy (GPS Coordinates)

 [Set My Current Location](#)



### Were Boreholes/Test Pits located to investigate areas of concern (e.g., fills, slopes)?

- ☐ Yes
- ☐ No
- ☐ Not Applicable


### Description of any deviations from proposed borehole/test pit locations

Write something...

**Were borehole/test pit locations representative of the site?**

- ☐ Yes
- ☐ No
- ☐ Uncertain

**Site Plan Showing Borehole/Test Pit Locations**

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## Soil/Rock Properties & Classification

Verification of soil/rock classification, index properties, and strength parameters.

**Soil Classification System Used?**

- ☐ Unified Soil Classification System (USCS)
- ☐ ASTM Soil Classification
- ☐ Other (Specify in LONG\_TEXT)

**Detailed Description of Soil Types Encountered**

Write something...

**Dry Density (lbs/ft<sup>3</sup>)**

Enter a number...

**Moisture Content (%)**

Enter a number...

### Liquid Limit (LL)

Enter a number...

### Plastic Limit (PL)

Enter a number...

### Plasticity Index (PI)

Enter a number...

### Laboratory Tests Performed (Select all that apply)

- ☐ Grain Size Analysis
- ☐ Atterberg Limits
- ☐ Specific Gravity
- ☐ Moisture-Density Relationship
- ☐ Triaxial Test
- ☐ Direct Shear Test
- ☐ Other (Specify in LONG\_TEXT)

### Notes/Comments regarding Soil/Rock Properties

Write something...

## Groundwater Conditions

Evaluation of groundwater levels, flow patterns, and potential impact on construction.

### Highest Recorded Groundwater Level (ft below ground surface)

Enter a number...

### Lowest Recorded Groundwater Level (ft below ground surface)

Enter a number...

### Groundwater Flow Direction (based on piezometers/field observations)

- ☐ North
- ☐ South
- ☐ East
- ☐ West
- ☐ Uphill
- ☐ Downhill
- ☐ Uncertain/Not Determined

### Groundwater Flow Rate (estimated)

- ☐ Low
- ☐ Moderate
- ☐ High
- ☐ Not Determined

### Description of any observed groundwater quality (e.g., color, odor, presence of contaminants)

Write something...

**Attach any piezometer data logs or monitoring records**

 Upload File

**Was a drawdown test performed?**

- ☐ Yes
- ☐ No
- ☐ Not Applicable

## Seismic Design Parameters

Review of seismic hazard assessments and ground motion parameters, if applicable.

**Peak Ground Acceleration (PGA) - Horizontal**

Enter a number...

**Peak Ground Acceleration (PGA) - Vertical**

Enter a number...

**Design Response Spectrum Period (T)**

Enter a number...


### Seismic Design Category (SDC)

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E
- ☐ F

### Description of Seismic Hazard Assessment Methodology

Write something...

### Seismic Hazard Maps or Data

 Upload File

### Site Class (per relevant code)

- ☐ A - Hard Rock
- ☐ B - Medium Rock
- ☐ C - Soft Rock
- ☐ D - Medium Soil
- ☐ E - Soft Soil

## Recommendations & Design Considerations

Assessment of geotechnical recommendations and their impact on structural design and construction methods.

### Evaluate Adequacy of Foundation Recommendations

Write something...

### Assess Slope Stability Recommendations (if applicable)

Write something...

### Verify Recommended Bearing Capacity (psf/kPa)

Enter a number...

### Review Retaining Wall Design Recommendations

Write something...

### Recommended Ground Improvement Techniques (Select all that apply)

- ☐ Vibro Compaction
- ☐ Dynamic Replacement
- ☐ Soil Mixing
- ☐ Stone Columns
- ☐ None Required

### Describe any concerns regarding settlement predictions

Write something...

### Foundation Type Recommended?

- ☐ Shallow Foundations
- ☐ Deep Foundations (Piles/Caissons)
- ☐ Other - Specify in Long Text

### Notes regarding recommendations for Dewatering (if required)

Write something...

## Reporting & Documentation

Verification of data accuracy, clarity, and completeness of the geotechnical report.

### Overall Clarity and Readability Assessment

Write something...

### Report Date Verification

Enter a number...

### Original Geotechnical Report

 Upload File

### Units of Measurement Consistency

- ☐ Consistent
- ☐ Inconsistent - Requires Review

## Summary of Key Findings & Assumptions

Write something...

## Report Accuracy - Data Validation

- ☐ Verified and Accurate
- ☐ Requires Further Verification

## Notes on any missing information or potential errors

Write something...

# Compliance & Regulations

Confirmation that the investigation adheres to relevant codes, standards, and regulations.

## Were applicable local building codes consulted?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

## Was the investigation performed in accordance with ASTM standards?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

**ASTM Standard Version Used (e.g., ASTM D420-21)**

Enter a number...

**Describe any deviations from standard practices or regulations and justification.**

Write something...

**Upload any permits or approvals related to the geotechnical investigation.**

 Upload File

**Was the investigation performed by a licensed geotechnical engineer?**

- ☐ Yes
- ☐ No
- ☐ Not Applicable