

# Geotechnical Investigation Review Checklist

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## 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**

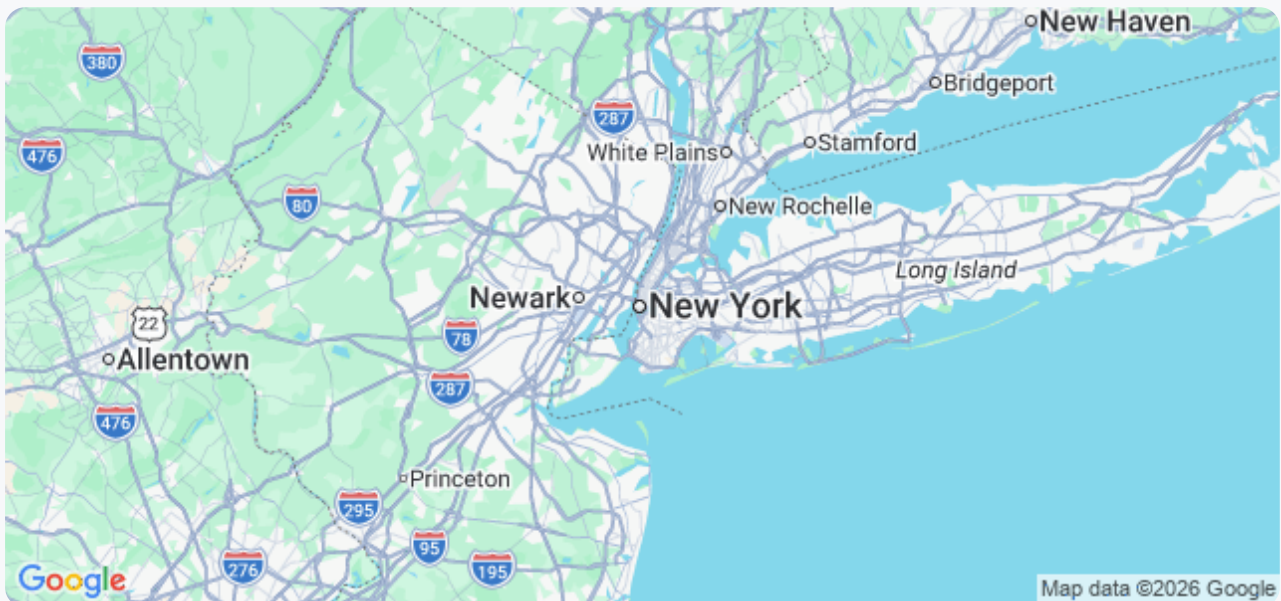
Enter a number...

## 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

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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

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## 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.**

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

- Yes
- No
- Not Applicable