

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

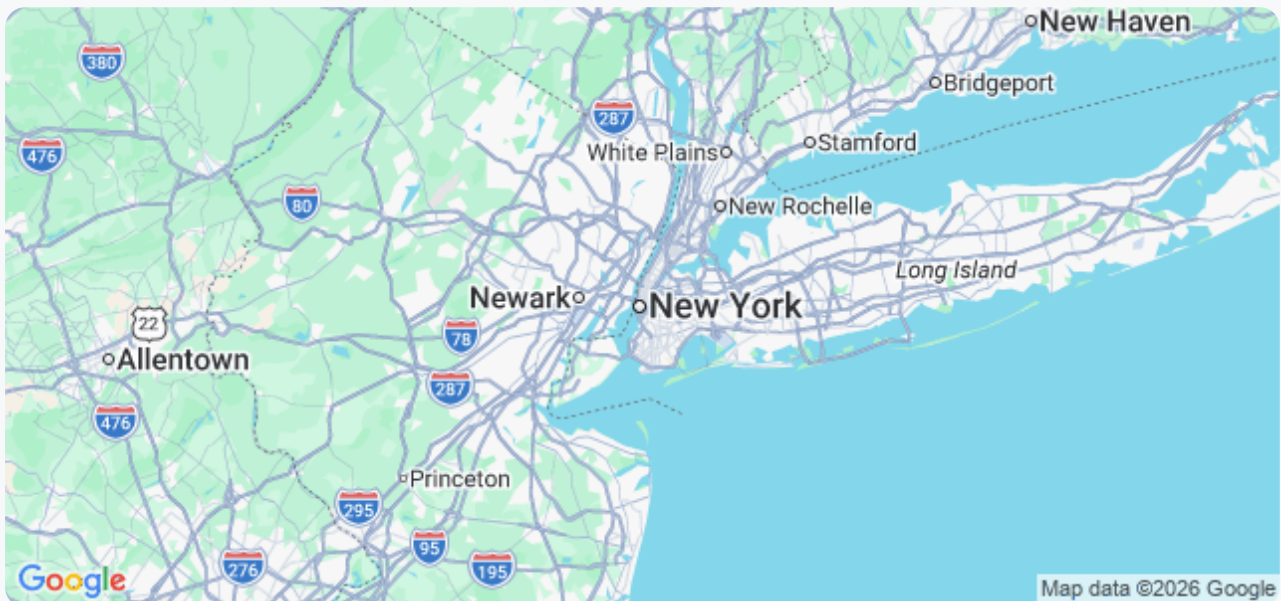
Enter a number...

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/ft³)

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

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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