



Cut & Fill Balance Verification Checklist

Project Information & Scope

Details about the project and the specific areas/drawings included in this verification.

Project Name

Write something...

Project Number

Write something...

Date of Verification

Enter date...

Area Covered (Acres/Hectares)

Enter a number...


Description of Area Verified (e.g., specific drawings/plans)

Write something...

Phase of Work

- ☐ Preliminary Design
- ☐ Detailed Design
- ☐ Construction
- ☐ Post-Construction

Reference Drawings/Plans

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Revision Number of Verified Drawings

Write something...

Data Sources & Assumptions

Documentation and clarity around the data used for calculations (survey data, geotechnical reports, design drawings) and any key assumptions made.

Geotechnical Report(s)

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Survey Data Files (e.g., .csv, .dxf)

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Design Drawings (Grading Plans, Cross-Sections)

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Description of Survey Methodology

Write something...

Assumptions Regarding Ground Density & Moisture Content

Write something...

Unit Weight of Soil (pcf/kN/m³)

Enter a number...

Datum Used for Elevations

- ☐ NGVD
- ☐ NAVD
- ☐ Project Specific Datum

Description of any assumed slopes or grades

Write something...

Volume Calculations - Cut

Verification of cut volume calculations for each area/section. Includes checks on methodology and accuracy.

Area/Section Identification

Enter a number...

Description of Cut Area/Section

Write something...

Cut Depth (Maximum)

Enter a number...

Average Cut Depth

Enter a number...

Area of Cut (m^2 or ft^2)

Enter a number...

Calculated Cut Volume (m^3 or yd^3)

Enter a number...

Supporting Calculations/Spreadsheets



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Calculation Methodology Used

- ☐ Grid Method
- ☐ Contour Method
- ☐ Cross-Section Method
- ☐ Other

Volume Calculations - Fill

Verification of fill volume calculations for each area/section. Includes checks on methodology and accuracy.


Area 1 - Fill Volume (CY)

Area 2 - Fill Volume (CY)

Area 3 - Fill Volume (CY)

Methodology Used for Fill Volume Calculation (e.g., Grid Method, Cross-sections)

Spreadsheet/Calculations Supporting Fill Volume Determination

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Were Ground Improvements Required for Fill Placement?

☐ Yes

☐ No

Average Fill Density (PCF)

Enter a number...

Details of any adjustments made to fill volumes (e.g., compaction factors)

Write something...

Cut & Fill Balance Comparison

Direct comparison of calculated cut and fill volumes to identify discrepancies and potential over/under excavation.

Total Calculated Cut Volume (m³)

Enter a number...

Total Calculated Fill Volume (m³)

Enter a number...

Net Difference (Cut Volume - Fill Volume) (m³)

Enter a number...

Percentage Difference ((Net Difference / Total Cut Volume) * 100)

Enter a number...

Is the Net Difference within acceptable tolerance?

☐ Yes

☐ No

Explanation of any discrepancies exceeding tolerance

Write something...

Are discrepancies documented in the project log?

☐ Yes

☐ No

Attach spreadsheet or calculations supporting the comparison.

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Tolerance & Acceptable Variance

Definition of acceptable variances and tolerances for cut and fill volumes, and evaluation against those limits.

Allowable Overall Cut Volume Variance (\pm)

Enter a number...

Allowable Cut Volume Variance per Section (\pm)

Enter a number...

Allowable Fill Volume Variance per Section (\pm)

Enter a number...

Variance Calculation Method

- ☐ Percentage
- ☐ Absolute Volume (cubic meters/yards)

Justification for Chosen Variance Limits

Write something...

Units of Volume Used for Tolerance

- ☐ Cubic Meters
- ☐ Cubic Yards

Explanation of Variance Acceptance Criteria

Write something...

Addressing Discrepancies & Remedial Actions

Documentation of any discrepancies found, proposed remedial actions, and approvals for those actions.

Description of Discrepancy

Write something...

Volume Difference (m³ / cu yd)

Enter a number...

Root Cause of Discrepancy

- ☐ Design Error
- ☐ Survey Error
- ☐ Geotechnical Variation
- ☐ Construction Error
- ☐ Other (Specify)

Explanation of 'Other' Root Cause (if selected)

Write something...

Proposed Remedial Action

Write something...

Remedial Action Approval

- ☐ Approved
- ☐ Rejected
- ☐ Requires Modification

Comments/Justification for Approval/Rejection/Modification

Write something...

Remedial Action Implementation Date

Enter date...

Signature of Person Responsible for Remedial Action

Review & Approval

Record of review and approval by qualified personnel, confirming the validity of the cut and fill balance verification.

Review Date

Enter date...

Review Status

- ☐ Approved
- ☐ Rejected
- ☐ Needs Revision

Reviewer Name

Write something...

Reviewer Title/Role

Write something...

Review Comments/Notes (if applicable)

Write something...

Reviewer Signature

Revision Number (if applicable)

Enter a number...