

BRIDGE DESIGN

TEMPLATE ANALYSIS REPORT

Comprehensive Analysis of Design Templates

Report Generated: 11/26/2025, 1:26:44 PM

Templates Analyzed: 14

EXECUTIVE SUMMARY

- Total Templates Analyzed: 14
- Total Sheets Across All Templates: 644
- Total Storage Size: 15.31 MB

TEMPLATE DETAILS

Template 1: TEMPLATE_1.xls

Path: TEMPLATE_1.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 2: TEMPLATE_2.xls

Path: TEMPLATE_2.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 3: TEMPLATE_3.xls

Path: TEMPLATE_3.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 4: TEMPLATE_1.xls

Path: attached_assets/TEMPLATE_1.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 5: TEMPLATE_2.xls

Path: attached_assets/TEMPLATE_2.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 6: TEMPLATE_3.xls

Path: attached_assets/TEMPLATE_3.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 7: IDENTIFY VARIABLES_master_bridge_Design.xlsx

Path: attached_assets/IDENTIFY VARIABLES_master_bridge_Design.xlsx

File Size: 579.43 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 8: master_bridge_Design.xlsx

Path: attached_assets/master_bridge_Design.xlsx

File Size: 582.39 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 9: TEMPLATE_1.xls

Path: Bridge_Slab_Design/TEST_INPUT/TEMPLATE_1.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 10: TEMPLATE_2.xls

Path: Bridge_Slab_Design/TEST_INPUT/TEMPLATE_2.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 11: TEMPLATE_3.xls

Path: Bridge_Slab_Design/TEST_INPUT/TEMPLATE_3.xls

File Size: 1577.50 KB

Sheet Count: 46

Key Sheets:

- INDEX
- INSERT- HYDRAULICS
- afflux calculation
- HYDRAULICS
- Deck Anchorage
- CROSS SECTION
- Bed Slope
- SBC
- ... and 38 more sheets

Template 12: 01_SMALL_BRIDGE_10x5m.xlsx

Path: attached_assets/40-SHEET-WORKBOOKS/01_SMALL_BRIDGE_10x5m.xlsx

File Size: 107.63 KB

Sheet Count: 46

Key Sheets:

- PROJECT
- HYDRAULICS
- PIER_DESIGN
- ABUTMENT_DESIGN
- SLAB_DESIGN
- FOOTING_DESIGN
- STEEL_DESIGN
- LOAD_CASES
- ... and 38 more sheets

Template 13: 02_MEDIUM_BRIDGE_15x7m.xlsx

Path: attached_assets/40-SHEET-WORKBOOKS/02_MEDIUM_BRIDGE_15x7m.xlsx

File Size: 107.70 KB

Sheet Count: 46

Key Sheets:

- PROJECT
- HYDRAULICS
- PIER_DESIGN
- ABUTMENT_DESIGN
- SLAB_DESIGN
- FOOTING_DESIGN
- STEEL_DESIGN
- LOAD_CASES
- ... and 38 more sheets

Template 14: 03_LARGE_BRIDGE_20x10m.xlsx

Path: attached_assets/40-SHEET-WORKBOOKS/03_LARGE_BRIDGE_20x10m.xlsx

File Size: 107.64 KB

Sheet Count: 46

Key Sheets:

- PROJECT
- HYDRAULICS
- PIER_DESIGN
- ABUTMENT_DESIGN
- SLAB_DESIGN
- FOOTING_DESIGN
- STEEL_DESIGN
- LOAD_CASES
- ... and 38 more sheets

DEVELOPER NOTES & INCLUDES

1. Template Integration Status:

- Phase 1 Variables (magenta-colored) successfully integrated into abutment and estimation modules
- All concrete grades (M15-M35) and excavation types supported
- Pier stability and design modules updated with Phase 1 variables
- Complete design engine now processes all template variables

2. Key Implementation Files:

- Bridge_Slab_Design/abutment-design.ts - Updated with Phase 1 variables
- Bridge_Slab_Design/estimation-module.ts - Enhanced BOQ generation
- Bridge_Slab_Design/bridge-excel-generator/types.ts - Updated type definitions
- Bridge_Slab_Design/bridge-excel-generator/design-engine.ts - Enhanced processing

3. Template Coverage:

- TEMPLATE_1.xls, TEMPLATE_2.xls, TEMPLATE_3.xls - Fully analyzed and integrated
- master_bridge_Design.xlsx - Located and verified structure
- 40-SHEET-WORKBOOKS - Additional template variations included

4. Validation:

- All Phase 1 variables identified and mapped
- Type definitions updated for complete data flow
- Design engine calculations enhanced
- Output structures verified for completeness