## STANDARD BRIDGE DRAWINGS

**TERRASSPAN® GRS ARCH™ STRUCTURE**

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**CONCEPT DRAWINGS ONLY - NOT FOR CONSTRUCTION**

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**ASSUME NOT TO SCALE**

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### DRAWING SCHEDULE

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<td>EXAMPLE PROFILE AND ELEVATION FOR PERMANENT RECONSTRUCTED STREAM CHANNEL TYPE INSTALLATION</td>
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1. DESIGN CONCEPT

1.1 DESIGN PHILOSOPHY: The design of the bridge is based on the principles of simplicity, functionality, and aesthetic appeal. The bridge is intended to be a landmark that celebrates the local history and geography, while also serving as a vital transportation link.

1.2 DESIGN BASIS: The design is based on the following assumptions:

- Site conditions
- Geotechnical considerations
- Loadings
- Environmental impact
- Safety and accessibility

1.3 DESIGN OBJECTIVES:

- Achieve structural integrity and durability
- Meet performance criteria for traffic safety and operational efficiency
- Minimize environmental impact
- Comply with regulatory requirements
- Provide aesthetic and cultural significance

2. DEFINITIONS

2.1 Key Terms:

- Bridge: A structure designed to carry vehicles and pedestrians across a natural or man-made obstruction.
- Load: An applied force causing stress in the bridge.
- Span: The distance between supports.
- Deck: The structural element that supports the superstructure.

2.2(Note: Additional definitions may be required based on specific terms used within the project.)

3. DESIGN STUDIES

3.1 Feasibility Studies:

- Site survey
- Material availability
- Legal and regulatory compliance

3.2 Conceptual Design:

- General layout
- Structural system
- Aesthetic considerations

3.3 Detailed Design:

- Structural design
- Material selection
- Execution plan

3.4 Reports and Drawings:

- Progress reports
- Final drawings
- Construction documents

3.5 Review and Approval:

-Peer review
- Code compliance
- Final approval

4. DESIGN CONCEPT

4.1 GENERAL:

- The design concept is focused on creating a visually appealing bridge that harmonizes with the natural surroundings.

4.2 STRUCTURAL SYSTEM:

- The bridge will be a single-span design, utilizing a combination of steel and concrete for structural stability.

4.3 DESIGN ACCOMPLISHMENTS:

- Efficient use of materials
- Minimized environmental impact
- Enhanced driver and pedestrian safety

5. DESIGN REPORTS

5.1 Construction Documents:

- Site plans
- Structural plans
- Elevation drawings
- Section drawings

5.2 Final Reports:

- Cost analysis
- Material specifications
- Performance criteria

6. DESIGN REVISIONS

6.1 Revisions to the design will be made based on feedback from stakeholders and any changes in project requirements.

6.2 Approval Process:

- Design changes will be reviewed and approved by the project team and relevant authorities.

7. DESIGN REVIEW

7.1 Design reviews will be conducted throughout the project to ensure compliance with the design documentation and project specifications.

8. DESIGN SUMMARY

8.1 The design of the bridge is summarized as follows:

- Span: [span length]
- Deck material: [material type]
- Structural system: [system type]

9. REFERENCES

9.1 A list of references and sources used in the design process.

10. APPENDICES

10.1 Additional data and information supporting the design decisions.

11. CONCLUSION

The design of the bridge has been completed with a focus on functionality, safety, and aesthetics. The project team is confident that the bridge will meet all the required specifications and will be a valuable asset to the community.
REINFORCED SOIL SLOPES FOR INLET AND OUTLET ENDS

LEGEND
1. WOVEN GEOTEXTILE FABRIC 50kN/m (min.) MECHANICAL TENSILE STRENGTH (ASTM D4562)
2. NON-WOVEN GEOTEXTILE 400 g/m² GEOTEXTILE STRENGTH (ASTM D4562), 50N MIN. Puncture STRENGTH (ASTM D4563) IN FRONT OF WOVEN GEOTEXTILE
3. SPECIFIED VEGETATION PLANTED ON SLOPE, TYPICALLY 0.25m WIDE, TYPICALLY CONSISTING OF GRASSES, LEGUMES AND WOODY SPECIES AS NOTED ON DESIGN DRAWINGS. MONITOR VEGETATION TO CONFIRM IT IS ESTABLISHED IN GENERAL CONFORMITY WITH THE DESIGN
4. STACKED DURABLE ROCK - Boulders or Broken Rock (RIPRAP)
5. WALL DRAINAGE AS REQUIRED CONSISTING OF PERFORATED PIPE(S) AND/OR GEOSYNTHETIC COMPOSITE DRAIN(S), TYPICAL FOR ALL SECTIONS, OUTLET ONLY
6. MECHANICAL STABILIZATION, SUCH AS DURABLE MESH, NAIL SET BACK DISTANCE TO SUIT SITE REQUIREMENTS, NEGATIVE SET BACKS NOT PERMITTED
7. HDPE BARRIERS (E.G., LID BAR)
8. WOVEN GEOTEXTILE BARRIERS 50kN/m (min.) MECHANICAL TENSILE STRENGTH (ASTM D4562)

RETRACTED HEADWALLS AND WINGWALLS FOR INLET AND OUTLET ENDS

A. DURABLE MATERIALS AT THE FACE FOR PERMANENT TERM FSRs

1. ROCK FILL FACE OPTION
2. METAL FACE OPTION

B. DOUBLE LAYERED GEOTEXTILE FABRIC AT THE FACE FOR TEMPORARY TERM FSRs

1. DOUBLE FABRIC FACE OPTION

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