Procedure PR-PRO-007

Design Control

1. SUMMARY

1.1. The purpose of this procedure is to define the requirements for designing product which meets all requirements.

1.2. The Directors are responsible for implementation and management of this procedure.

2. REVISION AND APPROVAL

Rev.	Date	Nature of Changes	Approved By
1	01/01/16	Original issue.	Kyle Devine
2	24/11/2021	Updated document number and formatting.	Kyle Devine

3. DESIGN PLANNING

3.1. The Safeworking department is responsible for design activities.

3.2. Top management will determine when an assignment warrants controlled design of Safeworking plans.

3.3. The decision to provide a Safeworking plan will be at the discretion of the Director(s).

3.4. This is then provided to Kyle Devine who will begin to plan the design activities to be conducted.

4. DESIGN INPUTS

4.1. Design "inputs" are the requirements for the final product.

4.2. The Operations Manager will ensure the capture of all requirements related to the product. These include:

- Customer requirements
- Network Rules and procedures
- Internal requirements (capabilities, capacities, etc.)
- Safety requirements
- Geographic location
- Human factors, if applicable
- Measurement and inspection methods, acceptance criteria and tolerances
- Works to be undertaken

4.3.   The design inputs will be captured in permanent form.

5. DESIGN OUTPUTS

5.1.   Once design inputs are captured, the production of design outputs may begin. Typically, these are:

- Drawings
- Track diagrams
- Qualification requirements, work instructions etc.

5.2.   The Director(s) will oversee the development of the appropriate design outputs, including those produced by third party providers.

5.3.   All design outputs must be developed so they properly address the applicable design input requirements.

6. DESIGN REVIEWS AND VERIFICATION

6.1.   The design outputs must undergo two types of review. The first is a simple design review performed by the drafter of the design output, who may review his/her own work. Based on the design planning performed earlier, additional reviews may include having the work reviewed and signed off by an objective third party.

6.2.   Next, design verification shall be performed. This is a verification that all design inputs have been addressed satisfactorily in the design outputs. This is conducted by review by the track owner. Records of design verification are maintained on the Pure Rail server.

6.3.   The design process may not proceed until all design outputs are verified as having addressed the design inputs.

7. DESIGN VALIDATION

7.1.   Design validation is done by comparing the design requirements with a practical implementation produced from the design data.

7.2.   This is accomplished by review by the track owner and potentially the Protection Officer in charge.

8. DESIGN CHANGES

8.1.   Where changes are required of design data, these shall be requested by submitting in permanent form to Kyle Devine.

8.2.   The change request will be reviewed by the Director(s) and if approved, shall then be implemented in permanent form by altering the plans.

8.3.   Applicable design data or documents will be revised with their revision indicator incremented.

8.4.   Changed designs must go through the same design review, verification and validation as original releases.