01 / PARAMETER IDENTITIES

Use the existing definitions

The finished families already contain their shared parameters. The TXT is for compatible authoring and tags.

1 **Place families without importing the TXT**

Load and use the RFAs normally. Shared definitions are already embedded in them. The shared-parameter TXT is separate from the TXT catalogues beside some RFAs.

2 **Select the canonical definitions when authoring**

In Revit choose Manage > Shared Parameters and select **Parameters/RyanFireSharedParameters.txt** from the library's root folder. Preserve the supplied GUIDs and file encoding.

3 **Build a compatible tag**

Use the appropriate tag category and add label parameters by selecting the existing shared definition. Load the tag into a trial project and verify it against a placed parent.

4 **Schedule existing family fields**

Create a schedule for the actual family category, commonly Generic Models. Add existing shared fields. Add a project binding only where your template/category workflow requires it; do not recreate an identical-looking field with a different GUID.

Same name does not mean same parameter

The GUID is the identity. Deleting a definition and recreating its name produces a different parameter. Keep the supplied **UTF-16 LE with BOM** definition file intact. The current file contains **60 definitions**.

Definition groups versus Properties groups

The TXT groups organise the definition list. Revit's "Group parameter under" setting controls where a bound field appears in Properties. A definition group does not prescribe the Properties group, instance/type binding or whether a value has a formula.

Autodesk Help: "Add Shared Parameters to Families", "View, Move, and Delete Shared Parameters" and "About Setting Up Shared Parameter Files". help.autodesk.com. Identity register on pages 4-6 is read directly from the supplied definition TXT.

02 / INPUTS AND OUTPUTS

Know which value to change

Instance values belong to one placement. Type values affect all placements of that type; duplicate a type before creating a variant.

Group / fields	Use in this library
Identity Product Range, Product Code, Component Role	Usually type metadata; filter schedules to intended products. RF_Penetration ID identifies the project installation per instance.
System System Ref, System Revision, Fire Rating, Substrate	Project inputs where supplied. RF_Fire Rating is instance text for the selected assessed system; preset names do not assign it.
Host and opening Host Thickness, Opening Width / Length, Core Ø	Geometry inputs where provided. RF_Host Thickness and opening sizes are instance controls in rectangular 502/collars.
Board Width, Length, Thickness, Arrangement, Layers, Overlap	Mostly reported geometry/arrangement. Rectangular 502 values derive from its opening and type controls. Composite dimensions report its envelope and 50 mm stock thickness.
Service / section Service dimensions, material, shape, size	Type-selected service envelope and descriptions in wrap families. Check the actual binding and formula; not every family carries every definition.
Collar / wrap / strap quantities	Formula outputs from side controls and dimensions. Use the driving checkbox or input rather than trying to type over a greyed-out output.
Verification Notice	Shared type Text with a constant formula, under Data. Use Type Comments for editable project notes.

Important local controls are not shared definitions

Wrap Length, **Penetration Depth**, **Opposite Collar Vis** and composite **Infill Length / Profile...** controls are ordinary family parameters. The rectangular 502 **Opposite Batt Vis** is a type control. A control can drive a shared schedule output without being shared itself.

The GUID register describes definition identity and data type. Use the actual family Properties/Edit Type and its formulas to establish editability and scope. Existing project definitions can retain their Properties grouping after a reload.

03 / BIM SCHEDULES AND QA

Scheduling Products

Build schedules around the required quantity, and check the fields with a simple one-side/two-side example.

Measure	Recommended field / interpretation
Assemblies / composite infill pieces	Native Count, filtered to the intended parent family. Joined infills still count separately.
Physical collars	Sum RF_Collar Qty; one parent may represent two collars.
Active wrap sections	Sum RF_Wrap Quantity. It counts active sides, not purchased rolls or individual radial layers.
Axial wrap length	RF_Wrap Length Front + Back = RF_Wrap Total Length. Include the length units in the schedule.
Graphite Strap	RF_Strap Qty and RF_Strap Total Length describe the separate strap product. Allow for procurement rules outside these geometric outputs.
Board material take-off	Board dimensions describe represented geometry. Composite envelope depth is not stock-board thickness or an approved layer count.

Legacy RF_Service Qty is a Length definition

Its canonical data type is **LENGTH**, despite its name. Do not treat it as a reliable integer service/product count or change its GUID/type in place. Use native Count for the intended instances and the specific collar/wrap/strap quantity outputs.

Trial schedule before template rollout

Add Family, Type, RF_Penetration ID, RF_System Ref, RF_System Revision, RF_Fire Rating and the relevant quantities. Create one one-sided and one two-sided placement. Verify Count and physical quantity separately, then enable totals only for suitable numeric fields.

Troubleshoot a blank or duplicate field

Confirm the field exists in that family, has a populated input or formula, and matches the canonical GUID and category used by the tag. Check instance versus type scope. A name match alone is insufficient. Avoid duplicate project definitions and confirm the result after reloading.

The composite 502 and DHS/timber families reuse the supplied definitions (14 shared fields in composite 502; 20 in DHS/timber). Pages 4-6 list the 60 canonical definitions, including fields absent from some product families.

04 / CANONICAL REGISTER

Parameter identity register

Definitions 1-20 of 60. Exact names, data types and GUIDs from the supplied TXT.

RF_Board Arrangement 54ecfba7-a6ef-4fca-8e8f-81b04ef074dd | RF_05 Board	TEXT
RF_Board Layers af069b45-54a3-457a-8d05-d3cab10a5d85 | RF_05 Board	INTEGER
RF_Board Length f86c87cd-b4e2-41e6-aa31-7de0d82f0643 | RF_05 Board	LENGTH
RF_Board Overlap 3825c123-3770-4473-bd29-4a94a9067232 | RF_05 Board	LENGTH
RF_Board Recess Back 7059b814-fe2d-435b-abb4-d314dfbe2618 | RF_05 Board	LENGTH
RF_Board Recess Front 6c007ecb-9214-4105-a130-dc294d081711 | RF_05 Board	LENGTH
RF_Board Thickness 6d12ae86-9e6c-48ed-afc3-102816bd959b | RF_05 Board	LENGTH
RF_Board Width 3c7b3048-e4f9-4bb6-89e1-88fda591e5de | RF_05 Board	LENGTH
RF_Collar Height b428143f-e484-4907-ae6b-ff8b14c6a7de | RF_04 Collar	LENGTH
RF_Collar Inside Ø fd61bdb3-f97a-4f34-a325-18682944dbe2 | RF_04 Collar	LENGTH
RF_Collar Lugs 6a254f7e-36b1-4b4f-a583-cf793427cc11 | RF_04 Collar	INTEGER
RF_Collar Orientation 8de72439-a692-4222-9fad-883b9fdbe8c3 | RF_04 Collar	TEXT
RF_Collar Outside Ø 27bc1da5-0e92-46fe-a6f2-3e6e77bfe587 | RF_04 Collar	LENGTH
RF_Collar Qty 3cda39fb-84fc-468f-8af4-eb7f972de750 | RF_04 Collar	INTEGER
RF_Component Role 3288caf5-bcab-4e47-a616-1b2c8995be44 | RF_01 Identity	TEXT
RF_Core Ø c1561437-d25e-4793-80d3-d5db94e0575b | RF_03 Opening	LENGTH
RF_Fire Rating fcc20508-ffda-4697-b40b-f3bcbdd6500c | RF_02 System	TEXT
RF_Host Thickness b507cfc7-b22c-4ef1-a846-4104379ad27f | RF_02 System	LENGTH
RF_Installation 2a09dd6b-c6fa-4dda-875b-2f9197700fb3 | RF_02 System	TEXT
RF_Insulated Ø eccab95e-5aa2-4073-ac57-622bffda45c0 | RF_06 Service	LENGTH

The register is an identity reference, not a binding instruction for every family. Preserve GUID and data type. LENGTH values are Revit lengths; display units are set in the project/schedule. YESNO is a checkbox; INTEGER supports whole-number counts; TEXT stores text.

05 / CANONICAL REGISTER

Parameter identity register

Definitions 21-40 of 60. Exact names, data types and GUIDs from the supplied TXT.

RF_Insulation Thickness 6c77776e-6cf7-4e68-ad57-9e702c74e865 | RF_06 Service	LENGTH
RF_Insulation Type 4e0bbd07-f628-4359-b737-debac7c96611 | RF_06 Service	TEXT
RF_Opening Length 8b36de6c-732b-4e64-bf74-645d61c7f9c1 | RF_03 Opening	LENGTH
RF_Opening Width 36c256b7-6bf0-45bf-b63a-a44206845adf | RF_03 Opening	LENGTH
RF_Penetration ID 03939da6-8d76-4e9a-b3b5-20a287963bc9 | RF_01 Identity	TEXT
RF_Pipe Nominal Ø d5aa6a89-fb0b-431a-802e-0ef5dfa189fe | RF_06 Service	LENGTH
RF_Product Code 78ca1ed8-b3fb-47b6-bfd0-55c804732e67 | RF_01 Identity	TEXT
RF_Product Range 2e411fac-2e08-43de-adee-d0de71dfb221 | RF_01 Identity	TEXT
RF_Section Shape 33f6db29-7b88-42f4-bfdd-62bbf660c10f | RF_07 Section	TEXT
RF_Section Size 173447ed-5696-410b-81fc-1599ce80d888 | RF_07 Section	TEXT
RF_Service Edge Clearance 18e3bb62-d960-4700-a0c6-652387d6291a | RF_03 Opening	LENGTH
RF_Service Height 4772b9c3-c532-414e-811c-dc89835bdda7 | RF_06 Service	LENGTH
RF_Service Material 516e19a6-e06b-499d-a760-da3a18c0017b | RF_06 Service	TEXT
RF_Service Qty a91b24d7-e7f9-4b2e-8081-e4a7293d08d7 | RF_06 Service	LENGTH
RF_Service Type 7d920862-02de-4249-aad9-2ad01e3fadd4 | RF_06 Service	TEXT
RF_Service Width fde4c43c-41ab-439c-83ad-24971838c493 | RF_06 Service	LENGTH
RF_Service Ø 3ec4eda0-f605-41fe-a667-2a2f3383fb76 | RF_06 Service	LENGTH
RF_Strap Both Sides 636dd7a5-9ef9-46bb-ab73-9330404777e5 | RF_03 Opening	YESNO
RF_Strap Cut Length fef2ba4f-dfce-443c-b158-a0737a264116 | RF_03 Opening	LENGTH
RF_Strap Layers d2f335f1-fb0a-4e13-b046-ee27d9ee5bd8 | RF_03 Opening	INTEGER

The register is an identity reference, not a binding instruction for every family. Preserve GUID and data type. LENGTH values are Revit lengths; display units are set in the project/schedule. YESNO is a checkbox; INTEGER supports whole-number counts; TEXT stores text.

06 / CANONICAL REGISTER

Parameter identity register

Definitions 41-60 of 60. Exact names, data types and GUIDs from the supplied TXT.

RF_Strap Outside Ø c408b637-2978-45cf-8071-0c4a6322f26c | RF_03 Opening	LENGTH
RF_Strap Qty 757d06f4-53e4-411b-8851-09ef9ff586c1 | RF_03 Opening	INTEGER
RF_Strap Thickness 77d9e4b4-f867-4dd7-95a8-98a0b9c49dde | RF_03 Opening	LENGTH
RF_Strap Total Length 7ae09cd9-97f4-4111-90a2-c047a6712915 | RF_03 Opening	LENGTH
RF_Strap Width 57f64498-6ae0-47da-9041-555695733de1 | RF_03 Opening	LENGTH
RF_Substrate d82a2570-31c2-458e-ab1a-b1700ac57eb2 | RF_02 System	TEXT
RF_System Ref b8c28eed-e4e5-49bd-888b-2c7c0d18f201 | RF_02 System	TEXT
RF_System Revision 135f1281-5328-4742-a539-b0725c8a103d | RF_02 System	TEXT
RF_Verification Notice 40c79597-1c23-42ca-8899-4b7b9f47477a | RF_09 Verification	TEXT
RF_Wrap Both Sides a59b75d4-a512-4b63-b105-c3cb4ba94ce5 | Servowrap quantities	YESNO
RF_Wrap Layers 4a8ef639-dd4a-448e-81bf-31be1f7f38cb | RF_08 Wrap	INTEGER
RF_Wrap Length Back af7badb7-657c-47e4-bb12-043af51143f5 | RF_08 Wrap	LENGTH
RF_Wrap Length Front b376b518-0fa9-4b37-83fa-6469c99f9b52 | RF_08 Wrap	LENGTH
RF_Wrap Outside Ø c5d50b44-7b40-488b-a2c5-c87025252815 | RF_08 Wrap	LENGTH
RF_Wrap Overall Height e2128fc8-e7fd-4ee1-b314-1effd5fcfc1e | RF_08 Wrap	LENGTH
RF_Wrap Overall Width d0a82930-e79a-4478-904c-bb152a3a34d8 | RF_08 Wrap	LENGTH
RF_Wrap Overlap 7df61dc0-16cb-4211-92ef-a291e3b0eba2 | RF_08 Wrap	LENGTH
RF_Wrap Quantity c270eaba-6cf9-4c95-8c06-425117986da4 | Servowrap quantities	INTEGER
RF_Wrap Thickness 77d9a3e1-d156-4d65-863b-07cfd5904839 | RF_08 Wrap	LENGTH
RF_Wrap Total Length caa7a07b-861d-45de-bfcf-e9951a40c8a6 | Servowrap quantities	LENGTH

The register is an identity reference, not a binding instruction for every family. Preserve GUID and data type. LENGTH values are Revit lengths; display units are set in the project/schedule. YESNO is a checkbox; INTEGER supports whole-number counts; TEXT stores text.