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Responsible: Einar Friðgeir Björnsson



## *00-General Drawings*

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Doc. no.: NA-00-STS002

**This standard technical specification is subject to change without prior notice. The most current issue will at all times be located on the Norðurál web site, [www.nordural.is](http://www.nordural.is).**

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# 1 Responsibility

This Standard Technical Specification (STS) is of responsibility of the Owner. The revision and date of issue are on the front page.

All deviations from the specifications must be approved in writing by the Owner.

## 2 Scope and Field of Application

### 2.1 Scope Definition

To define the requirements for preparation, work, review, approval, and control of drawings. It establishes the minimum requirements.

This Standard Technical Specification details the minimum technical requirements including but not limited to:

- Sketches,
- Preliminary design drawings,
- Technical and engineering drawings (collectively drawings)
- Reference drawings.
- Construction Drawings.
- As-Built Drawings.

The provision of this Standard Technical Specification applies to the production area of Norðurál aluminum smelter.

### 2.2 Document Conflicts

Eventual conflicts between referenced documents shall be reported, without delay, to the Owner in writing for resolution.

## 3 References and Definitions

### 3.1 References

All drawings shall be created in compliance and read in conjunction with the standard technical specification General Technical Standard (NA-00-STS001) and other relevant standards.

Building related drawings must comply with all relevant requirements set by the Icelandic Building Code, found at <http://www.byggingarreglugerd.is>.

The relevance order of standards shall be according to NA-00-STS001.

The following referenced standards shall be considered for the application of this document. For dated references, only the edition cited applies. For all references, dated and undated, the latest edition of the referenced document (including any amendments) applies.

Standard Nr.	Subject/Name
ISO 128	Technical Drawings – General Principles of Presentation
ISO 129-1:2018	Technical product documentation (TPD) – Presentation of dimensions and tolerances – Part 1: General principles
ISO 216:2007	Writing Paper and Certain Classes of Printed Matter-Trimmed Sizes-A & B Series, and indication of Machine Direction
ISO 406:1987	Technical Drawings – Tolerancing of linear and angular dimensions
ISO 3098-1:2015	Technical product documentation – Lettering – Part 1: General requirements
ISO 4172:1991	Technical Drawings – Construction drawings -- Drawings for the assembly of prefabricated structures
ISO 5455:1979	Technical Drawings – Scales
ISO 5457:1999	Technical product documentation – Sizes and layout of drawing sheets
ISO 6410-1:1993	Technical drawings – Screw threads and threaded parts—Part 1: General conventions
ISO 6412-12017	Technical product documentation – Simplified representation of pipelines – Part 1: General rules and orthogonal representation
ISO 6433:2012	Technical product documentation – Part references
ISO 7200:2004	Technical product documentation – Data fields in title blocks and document headers
ISO 7437:1990	Technical drawings – Construction drawings -- General rules for execution of production drawings for prefabricated structural components
ISO 7519:1991	Technical drawings – Construction drawings -- General principles of presentation for general arrangement and assembly drawings
ISO 8560:2019	Technical drawings – Construction drawings -- Representation of modular sizes, lines and grids
ISO 10209:2022	Technical product documentation – Vocabulary – Part 1: Terms relating to technical drawings: general and types of drawings
ÍST EN ISO 5456-3:1999	Technical drawings – Projection methods – Part 3: Axonometric representations

This list shall be considered representative of the quality of the drawings to be produced. It is not exhaustive.

### 3.2 Abbreviations

- ÍST Prefix for European Standards adopted by the Icelandic Standard Institute

## 4 Requirements

Manual annotation of drawings with numeric revision is not allowed. Detailed original engineering drawings pertaining to Contracts shall be in English or Icelandic only. However, standard drawings may be submitted with texts in both the native language and correct interpretation in the English language directly below the native text.

An exception to language requirements is relevant when preparing drawings bound by clauses of the Icelandic Building Code to be submitted to the Icelandic Building Authorities and/or CE marking standard requirements, in those cases all parts of the relevant drawings are to be in the Icelandic language.

Drawings shall be delivered on drawing template provided by Owner.

Dimensions on drawings shall be based on the SI standard unit system. CAD files shall be based on the millimeter as the smallest length unit.

Vendor shall not submit unchecked drawings for review. Such drawings may be subject to return without review or revision by Owner.

Documents not meeting the above requirements will not be accepted.

Paper copies of all drawings shall be completely legible. Supplied copies shall be clear enough to serve as masters for subsequent reproduction. They shall depict the material as shipped and installed.

Drawings issued as part of a single project are to be grouped by AKS-coding and discipline according to Appendix II and Norðurál Technical Standard AKS NA-00-STS-004 and the following setup implemented:

All multi page shall include at least the following items.

1. Front page.
2. Drawing list that includes Header, revisions, number of sheets, object title, drawing title 1, drawing title 2 and date.
3. Schematic that explains symbols and markings.
4. General arrangement drawing displaying all new equipment and list of all new AKS coding for new equipment.
5. Registration table (in cases of architectural drawings to be submitted to the Building Authorities).
6. Relevant schematics / drawings

Single sheet drawings shall include

1. Relevant schematics / drawings
2. Parts and/or material list (if relevant)
3. Schematic that explains symbols and markings (if relevant)

## 4.1 Types of drawings

The drawing status code is defined as follows:

### 4.1.1 Sketches – S

Presentation of design concepts or study alternatives and shall not be used for fabrication or construction purposes. They should be drawn using standard drawing format with a title block and an assigned number.

Sketches are identified with the status code S within the designated revision box of the Norðurál standard drawing template.

Revisions to sketches shall be identified with numerical designators: 1, 2, 3, etc.

Example: First issue sketch receives status S1 within the revision box in the bottom right corner of the Norðurál drawing header template.

### 4.1.2 Preliminary drawings – P

Design drawings not ready to be issued for construction or for procurement of goods. They may be issued as preliminary design drawings for purposes such as: Internal coordination and Owner's Project review.

Preliminary drawings are identified with the status code P within the designated revision box of the Norðurál standard drawing template.

Revisions to preliminary drawings shall be identified with numerical designators: 1, 2, 3, etc.

Example: First issue preliminary drawing receives status P1 within the revision box in the bottom right corner of the Norðurál drawing header template.

### 4.1.3 Approved for Engineering – A

Approved for Engineering are drawings that are issued for purposes such as: Soliciting Vendor budgetary quote or contractor budgetary quote; purchasing purpose or part of a contract; fabrication and construction or general use.

Approved for Engineering drawings are identified with the status code A within the designated revision box of the Norðurál standard drawing template.

Revisions to engineering drawings shall be identified with numerical designators: 1, 2, 3, etc.

Example: First issue engineering drawing receives status A1 within the revision box in the bottom right corner of the Norðurál drawing header template.

### 4.1.4 Approved for Tender Purpose – B

Approved for Tender purpose drawings are drawings that are issued for purpose of soliciting Vendor firm bids.

Approved for Tender Purpose drawings are identified with the status code B within the designated revision box of the Norðurál standard drawing template.

Revisions to tender drawings shall be identified with numerical designators: 1, 2, 3, etc.

Example: First issue tender drawing receives status B1 within the revision box in the bottom right corner of the Norðurál drawing header template.

#### 4.1.5 Approved for Construction – C

Construction drawings are drawings that are issued for purpose of physical construction and/or installation work.

Construction drawings are identified with the status code C within the designated revision box of the Norðurál standard drawing template.

Revisions to construction drawings shall be identified with numerical designators: 1, 2, 3, etc.

Example: First issue construction drawing receives status C1 within the revision box in the bottom right corner of the Norðurál drawing header template.

#### 4.1.6 As Built Drawings – D

The As Built drawings representing the as-built and commissioned status of the equipment.

As Built drawings are identified with the status code D within the designated revision box of the Norðurál standard drawing template.

Revisions to as-built drawings shall be identified with numerical designators: 1, 2, 3, etc.

As construction of various facilities is completed, Vendor shall revise all Construction drawings to reflect “as-built” status based on mark-ups provided by the Construction and the Preoperational Verification teams.

All notes and items directly related to the construction for which the drawing is being “as-built” shall be removed. Words such as “existing” and “for field verification” shall be removed. If a draftsman is not sure of what to keep or remove on a drawing, a more senior person of the particular discipline is to be consulted.

Example: First issue as-built drawing receives status D1 within the revision box in the bottom right corner of the Norðurál drawing header template.

## 4.2 Drawing Submission Details

Method of transferring electronic files shall be consulted with Owner.

The following table describes the submission details for Drawings and the five types of drawings applicable for submission to Owner:

Table 2 - Submission details for drawings

Type	Content Requirements	Media Format and Copies
Sketches	Drawings containing e.g. preliminary General Arrangement and are submitted as part of a Solution Analysis report.	Electronic file-PDF format
Preliminary	These drawings require the necessary detail to define equipment/construction and also allow Owner’s engineering/design to proceed.	Electronic file-PDF format
Approved for Engineering	These are the first submittal of requested drawings and will contain information relevant to the Drawing requested	Electronic file-PDF format
Approved for Tender Purpose	Bid drawings should include indicative equipment arrangements and data to permit Owner to complete the bid analysis process.	Electronic file-PDF format

Type	Content Requirements	Media Format and Copies
Construction Drawings	Final design drawings.	Electronic file-PDF format
As-Built Drawings	These drawings are the “As Built” document representing the commissioned status of the equipment.	Electronic file-pdf, native file, AutoCAD format

As-Built Drawings are to be submitted to Owner in AutoCAD format in addition to the software format they are prepared in. Drawings shall be submitted in software of version not older than two years.

In addition, all drawings are submitted to Owner in PDF format.

### 4.3 Stamps and Signatures by Licensed Engineer

When required by the Icelandic Building Code, CE requirements or other relevant Standard requirements, drawings and/or data, ready for issue, shall be stamped and/or signed on paper or electronic medium by a professional, licensed engineer.

His signature shall imply explicitly and implicitly that the engineer is licensed to sign such drawings and data, that the engineer is responsible for the engineering and/or the architectural work or he has been supervised to do so. By the engineer’s statement Owner expressly assumes that the following statement is being made by the engineer signing the drawing:

*I hereby certify that the drawing was prepared or approved by the under signee, and that I as the undersigned am a duly licensed professional engineer under applicable laws to sign this drawing.*

## 5 Method of Application of the Standard

### 5.1 Title Blocks

Drawing title block shall be in accordance with instruction in Appendix I. Copies of the title blocks are available in AutoCAD, DWG, format from Owner’s Document Control.

#### 5.1.1 Drawing Sheets

The accepted sizes for drawings are as follows, all defined in ISO 216:2007.

Table 3- Accepted sizes for drawings

A4:	210 mm × 297 mm
A3:	297 mm × 420 mm
A2:	420 mm × 594 mm
A1:	594 mm × 841 mm
A0:	841 mm × 1189 mm (However, before submitting A0 document, prior and expressed agreement of the Owner is required).

When a specific drawing sheet size is not outlined by either the Icelandic Building Code and/or European Norms, the Owner is to be consulted with regards to preferred sheet sizes.

### 5.2 Drawing Numbering and Filename System

Drawing numbers are issued by Owner to Vendor following Vendor submitted request.

#### 5.2.1 Drawing number

Norðurál drawing numbers are based on System Area code related to the drawing (see appendix III), discipline of work and NA unique number provided by Owner.

Area code - NA Discipline - NA unique Number

Example of drawing number: 50-04-38043.

- NA Area code is shown in Appendix III
- NA Discipline code is shown in Appendix III
- NA unique Number is issued by Owner.

### 5.2.2 File naming

Norðurál drawing file name is based on System AKS code related to the drawing, discipline of work and NA unique number provided by Owner followed by short explanation (max 15 letters) from the Vendor.

System AKS code-Equipment AKS code - NA Discipline - NA unique Number

Example of drawing number: UL021-AH10-04-38043 – Short explanation

- System AKS code-Equipment AKS code is delivered by Owner based on Norðurál Asset Centre structure.
- NA Discipline code is shown in Appendix II
- NA unique Number is issued by Owner (same number as the drawing number).

### 5.2.3 Single and multi-page Drawings

All pages of a multi-page design drawing (including cover page) shall have the same drawing number and pages of the drawing shall be numbered sequentially. Text box no. 10 on Norðurál's standard drawing header template (Appendix I) shall be used to indicate number of each page of a multi-page drawing. All sheets shall bear the same revision designator (chapter 4.1), upon initial issue.

Each sheet of a multi-page drawing to be issued shall be signed by the originator, the checker, and the responsible engineer.

The Vendor shall take care and insert the correct number of sheets in the Vendor Document List, refer to section 5.6 of this Standard.

When submitting drawings to Owner in native drawing software format all related files shall be delivered.

When a multi-page drawing is submitted in AutoCAD format, each page shall be submitted as a sheet within the drawing file.

If drawing submitted is a single page, the file shall solely include the single drawing.

Drawings submitted in native drawing software format are to be clean of all excess information.

### 5.2.4 Electrical drawing set – Multi page drawings

When delivering electrical drawings in sets, it's required that each drawing set shall be limited to each panel or connection box of the equipment or facility.

## 5.3 Drawing Revisions

The revision number of a drawing is a combination of a designator (explained in chapter 4.1) and by numbers in sequence.

### 5.3.1 Revision numbering when a drawing is changed

When a single drawing is changed it shall receive the next revision sequence number.

When one or more pages in a multi-page drawing are changed, every page shall receive the same new revision sequence number.

The document management system does not allow individual pages of a drawing to be reissued as a stand-alone document at later revisions; thus, the Vendor shall resubmit the collection of pages with new revision sequence number to every page. This applies even though only one or some of the pages need revision, all pages shall have the same revision number.



### 5.3.2 Revision clouds

The drawing revision shall be clearly identified by placing a Revision Triangle and Revision Letter or Number, in the revised area of the drawing. A brief but informative statement of the revision made, and where applicable the appropriate, project or other reference code, shall be shown in each revision block.

To highlight a revision, revision “cloud” shall be placed around the revision area and the Revision Triangle placed within or adjacent to the cloud.

If the drawing is revised again at a later date, the previous revision “clouds” and revision triangle shall be removed, but details in the revision block shall remain. When a Multi-page drawing is revised all former revision “clouds” shall be removed.

AVOID THE USE OF THE WORDS “GENERAL REVISION” since it leads to Contractor interpretation problems and is used as reason to request an “extra”.

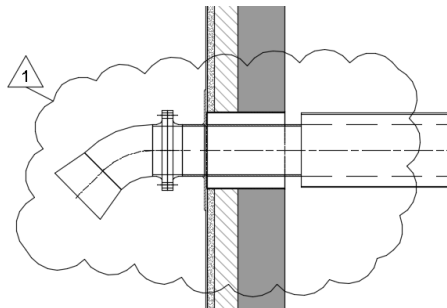


Figure 1 - Typical Revision Cloud

### 5.4 Drawing Holds

When details of a pending drawing change have not been finalized, but issue of the drawing is required for other purposes, the area of the drawing not finalized shall be clearly circled and identified as “HOLD”. The details to which the hold applies shall be circled with HOLD “clouds” (Effectively reversed version of the concave shape of the standard revision “cloud”). HOLD clouds shall be used to segregate tentative information so that any drawing can be issued for tender or construction prior to the drawing being completed. The word “HOLD” and the reason for the hold shall be shown inside the cloud. Clouds shall not be drawn through text or detailed information where legibility of the information will be compromised.

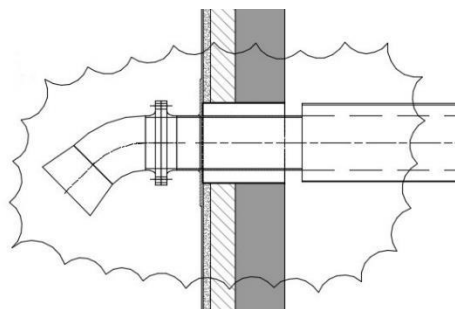


Figure 2 - Typical Hold Cloud

Upon removal of a “HOLD” cloud, the design drawing revision number shall be updated.

#### 5.4.1 Copyright and Confidentiality Statement

All drawings produced by the Vendor shall bear the following note in the Title Block:

*“This drawing is confidential and legal title to and copyright in this drawing is and remains vested in Norðurál Grundartangi ehf. It must not be copied, used or disclosed to third parties without the prior written permission of Norðurál Grundartangi ehf and must be returned upon request.”*

In addition, the derived drawings containing Technology Licenser Information shall be controlled as per Norðuráls directions.

## 5.5 Key Plan and North orientation

All arrangement drawings produced by the Vendor shall bear the following information:

- 1) A general key plan of the project that identified the part cover by the drawing
- 2) A north arrow that is pointing up or to the right.

## 5.6 Drawing Controls – Metadata – VDL

All Drawings shall be recorded and monitored through an electronic list of deliverables, the VDL (Vendor Data List). The VDL is used to collect needed Metadata for all documents and is a preparation for import of the documents into Meridian, the technical file archive systems at the Owner.

### 5.6.1 Instructions for completing the Vendor Data List

Vendor shall complete columns two (2) through eighteen (18). In appendix II there is thorough explanations on each item in the table.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14	Column 15	Column 16	Column 17	Column 18
Item ID	Meridian Document ID	Drawing Number	Revision	Page	Page Count	Functional location	area	Discipline	Classification	Title 1	Title 2	Title 3	Title 4	Contractor company	Alternate Document id	Alternate Version	Spare Part Number

Each row in the template represents one (1) Vendor Document. Use only one row per document and do not skip any rows. For each row, all cells in columns two (2) through eighteen (18) must be populated with the required data, according to instructions in appendix II. Column one (1) is populated during the import phase, see appendix II.

Vendor shall electronically submit the EXCEL file to the Owner when drawings are delivered.

Owner requires up to ten (10) working days at project office to review and comment on drawings. Vendor shall revise (as necessary) drawings with comments and resubmit to Owner within ten (10) working days of receipt of reviewed drawings.

## 6 Reviews and Resubmittal of Drawings

Vendor drawings will be reviewed only as to overall compatibility and conformance with interface requirements and related documentation and such review shall not be construed to relieve Vendor’s responsibility for accuracy or adequacy and suitability of materials and/or equipment represented thereon.

Vendor drawings submitted for review by Owner will be returned to Vendor with markups of comments if applicable and instructions on whether work can proceed prior to resubmittal of documents by Vendor.

Drawings returned to Vendor for revision shall be resubmitted within ten (10) working days after receipt. Resubmittals shall retain the original document number and be clearly marked with revision triangles enclosing the revision number and a description of the revision in the drawing title block.

Drawings with multiple sheets must be resubmitted as a complete document. Revised single sheets will not be acceptable.

## Appendix I - Norðurál Drawing Title Block

<p><b>(18)</b></p> <p><b>COPYRIGHT</b> This drawing is confidential and legal title to and copyright in this drawing is and remains vested in Norðurál Grundartangi ehf. It must not be copied, used or disclosed to third parties without the prior written permission of Norðurál Grundartangi ehf and must be returned upon request.</p> <p>Project: <b>(11)</b></p> <p>Des.: <b>(12)</b> Dr.: <b>(14)</b></p> <p>Chk.: <b>(13)</b> Date: <b>(15)</b></p> <p>Appr.: <b>(16)</b></p>			<p style="text-align: center;"><b>NORÐURÁL GRUNDARTANGI</b></p> <p><b>(1)</b></p> <p><b>(2)</b></p> <p><b>(3)</b></p> <p><b>(4)</b></p> <p>NA file name: <b>(5)</b></p> <p>Appr. _____ Date: _____</p>	<p>Size: <b>A3</b></p> <p>Scale: <b>(7)</b></p> <p>Page: <b>(8)</b></p> <p>Next Page: <b>(9)</b></p> <p>Drawing No. <b>(6)</b></p> <p>Rev. <b>(10)</b></p>
	<p><b>(25)</b></p> <p><b>REFERENCES</b></p> <p><b>(26)</b> Dwg. No. <b>(19)</b> No. <b>(20)</b> Date <b>(21)</b></p> <p><b>REVISION</b></p> <p><b>(22)</b> Des. <b>(23)</b> Chk. <b>(24)</b> Appr.</p>			

### Explanation of title block components:

- 1) Area location and description followed by AKS-code => Electrical Power distribution – CA-NA-SWYD-BD210
- 2) Discipline Code and description => 06 Electrical
- 3) System/Equipment name => 6kV Power panel
- 4) Description of drawing content => Single line drawing
- 5) See Chapter 5.2.2 “File naming”
- 6) See Chapter 5.2.1 “Drawing number”
- 7) Scale
- 8) Page number
- 9) Next page number
- 10) Revision

- 11) **Vendor's project number**
- 12) **Initials for Designer**
- 13) **Initials for Checked by**
- 14) **Initials for Drafter**
- 15) **Date of first issue**
- 16) **Approver's wet signature**
- 17) **Vendor's drawing/doc number**
- 18) **Vendors' logo**
- 19) **Revision issue**
- 20) **Date**
- 21) **Revision text**
- 22) **Initials for Designer**
- 23) **Initials for Checked by**
- 24) **Initials for Approver**
- 25) **For external use in case of references**
- 26) **For external use in case of references**

## Appendix II

### 1. Metadata information to template – Meridian PORTAL

An Excel sheet is used to collect Metadata for documents that are to be imported to Nordural technical document archive, Meridian through the cloud solution Portal.

#### 1.1. Metadata into template

A template is copied and saved at the same place as the documents that are to be imported to Portal. There are 18 different types of metadata that needs to be defined for each and every document. Following is description on how each metadata type is defined.

- 1.1.1. Item ID is not filled in at this stage. It is done at the Import phase in the Portal process. The purpose of Item ID is to connect right information in the Excel sheet to the right document in Portal.
- 1.1.2. Meridian Document ID is the filename that will be stored in Meridian. The filename is put in **without** the extension (dwg, pdf,..). The revision number of a document shall **not** be part of the filename.
- 1.1.3. Drawing Number is the drawing number for a certain drawing.
  - A drawing number shall be unique.
  - The drawing number is not necessarily the same as the filename.
  - The revision number of a drawing shall **not** be part of the drawing number.
  - Drawing number shall be in accordance with Nordural technical documents.
  - If the technical document is not a drawing the drawing number is not required.
- 1.1.4. Revision indicates the revision number of the drawing.
  - The revision number of a drawing is collected from the drawing head like it is written there, for example D1.
  - New drawings shall be approved as As built before they are imported in Meridian.
  - If a drawing isn't made on Nordural drawing template or doesn't have revision number according to Nordural standard the visible written revision number on the drawing shall be used.
- 1.1.5. Page gives information about page number of the sheet.
  - This applies if each page of a drawing set is a single file.
  - Á við ef hver blaðsíða í teikningasetti er vistuð sem sér skjal.
  - If a drawing is only one (1) page this is to be registered here.
  - If the technical document is not a drawing it is not needed to indicate anything here.
- 1.1.6. Page Count informs about total number of pages/sheets in a drawing set.
  - Applies to drawing set to indicate the total number of pages/sheets.
  - If a drawing is only one (1) page this is to be registered here.
  - Total number of pages in a document is registered here.
- 1.1.7. Functional location is a reference to connect the drawing/document to an equipment in the Nordural asset registry.
  - Location of a system, equipment and/or buildings in Nordural asset registry.
  - If possible a position of the break down level 2 (equipment) shall be indicated according to Nordural AKS standard.
    - CA-NA-BLDG-UL-010-GG10

- If the same drawing or document applies to more than one equipment in the asset tree it is possible to indicate positions for up to 10 different Functional locations in the metadata template.

1.1.8. area is the code for each area according to Nordural system.

*Tafla 1 - Norðurál Area code*

AreaCode	Area Code Text	Description
0	General	General / outdoor area
10	Utilities	Utilities other than electricity
20	Administration	Offices
30	Material handling	Conveying and process of material
40	Power	Power and electricity
50	Reduction	Reduction in potrooms
60	Anode production	Anode production
70	Casting	Casthouse
80	Environmental	Environmental equipment
90	New projects	New projects

- In the template the choose is made from drop down list.

1.1.9. Discipline describes the profession of each document

*Tafla 2 - Norðurál Discipline code*

DisciplineCode	Discipline text	Útskýring
0	General	General drawings
1	Project	Project
2	Civil	Buildings – foundation, floor and concreted walls
3	Structural	Buildings – steel structure and cladding
4	Piping	Piping
5	Mechanical	Mechanical drawings
6	Electrical	Electrical, high voltage, low voltages, PLC
7	Instrumentation	Instrumentation, communication system
8	Building services	Building indoor finish
9	Architectural	Architectural drawings
10	Process	Process
11	Generic Doc.	Technical documents other than drawings

- Nordural numbering system used as reference.
- In the template the choose is made from drop down list.
- Handbooks and other technical documents that are not drawings apply to the discipline Generic Doc.

1.1.10. Classification describes the type of the document, i.e. what kind of document is to be saved.

- Classification is chosen from Nordural system shown in Appendix III.
- For each Discipline there are available certain number of classification categories.
- In the template the choose is made from drop down list.
- If the same drawing or document applies to more than one classification type it is possible to indicate up to 4 different classifications for each discipline in the metadata template.

1.1.11. Title 1 is information text from the drawing head.

- In Nordural drawing template this is the first Information text line, see point 1 in appendix I.
- If the document is not a drawing the text should explain the functional location and placement of the equipment in the operation.

1.1.12. Title 2 is information text from the drawing head.

- In Nordural drawing template this is the second Information text line, see point 2 in appendix I.
- Explains the Discipline of the drawing.
- If the document is not a drawing, there is not need to add text to this field.

1.1.13. Title 3 is information text from the drawing head.

- In Nordural drawing template this is the third Information text line, see point 3 in appendix I.
- Description of the equipment the drawing is showing.
- Use naming in accordance with Nordural functional location.
- If the document is not a drawing this text should explain the function of the equipment.

1.1.14. Title 4 is information text from the drawing head.

- In Nordural drawing template this is the forth Information text line, see point 4 in appendix I.
- Explains the classification of the drawing.
- Possible to write additional information about the document.
- If the document is not a drawing this text should explain the type and function of the document.

1.1.15. Contractor Company informs about what company is the designer of the drawing.

1.1.16. Alternate Document id is information about document naming from the designer of the drawing or technical document.

- Registered here if the document number is different from Nordural drawing number.
- If the filename from the supplier is the same as will be stored in Meridian (Meridian Document ID) it is not necessary to register it here.

1.1.17. Alternate Version explains the revision of the drawing produced by the supplier of the drawing. This is not the Nordural revision.

1.1.18. Spare Part Number is the spare part number in Nordural SAP system.

## Appendix III – Norðurál Area, Discipline and Classification

Area Code	Area Code Text
00	General
10	Utilities
20	Administration
30	Material handling
40	Power
50	Reduction
60	Anode production
70	Casting
80	Environmental
90	New projects

Discipline Code	Discipline Code text
00	General
01	Project
02	Civil
03	Structural
04	Piping
05	Mechanical
06	Electrical
07	Instrumentation
08	Building services
09	Architectural
10	Process
11	Generic Doc.



Discipline Code	Discipline Code Text	Classification Code	Classification Code Text
00	General	1000	Detail
00	General	1001	Diagram
00	General	1002	Layout
00	General	1003	List
00	General	1004	Site Plan
00	General	1005	Underground Layout
00	General	1006	Underground Detail
00	General	1007	Waste water and sewer
00	General	1008	Template
02	Civil	1009	Earthwork
02	Civil	1010	Foundation
02	Civil	1011	Concrete construction
02	Civil	1012	Precast element
02	Civil	1013	Bill of Material
03	Structural	1014	Cladding
03	Structural	1015	Steel construction
04	Piping	1016	Isometric
04	Piping	1017	Pipe Support
04	Piping	1018	Piping Detail
04	Piping	1019	Piping Layout
04	Piping	1020	Bill of Material
05	Mechanical	1021	Equipment Detail
05	Mechanical	1022	Equipment Arrangement
05	Mechanical	1049	Equipment Assembly
05	Mechanical	1023	Bill of Material
05	Mechanical	1048	Hydraulic
05	Mechanical	1050	Pneumatic
05	Mechanical	1067	3D Model
06	Electrical	1051	Circuit diagram
06	Electrical	1024	Single line Drawing
06	Electrical	1025	Power Distribution Panels
06	Electrical	1026	Control Panel (PLC panels)
06	Electrical	1027	MCC Panel
06	Electrical	1028	Panel Layout
06	Electrical	1029	Grounding and conduit Layout
06	Electrical	1030	Ground Power Cable Layout
06	Electrical	1031	Building Layout - Cable and ladder
06	Electrical	1032	Building Layout - Lighting Plan
06	Electrical	1033	Specific Wiring Diagram (Manufactures drawing)
06	Electrical	1058	PLC List (I/O, Tag and Alarm)
07	Instrumentation	1034	System Single Line
07	Instrumentation	1035	System Cable Layout
07	Instrumentation	1036	Network Panel (Schematic)
07	Instrumentation	1037	Network Panel Layout
07	Instrumentation	1066	Tag List
08	Building services	1038	Building fitout

08	Building services	1039	Floor plan
08	Building services	1040	Domestic Water
08	Building services	1041	Heating
08	Building services	1042	Waste water and sewer
08	Building services	1052	HVAC system
09	Architectural	1043	Architectural detail
09	Architectural	1044	Architectural layout
10	Process	1045	Flow Diagram
10	Process	1046	P&ID
10	Process	1047	FDS
11	Generic Doc.	1053	User-Operation Manual
11	Generic Doc.	1054	Maintenance Manual
11	Generic Doc.	1055	Part List
11	Generic Doc.	1056	Technical Data Sheet
11	Generic Doc.	1057	Analysis
11	Generic Doc.	1059	PLC List (I/O, Tag and Alarm)
11	Generic Doc.	1060	Report
11	Generic Doc.	1061	Schedule
11	Generic Doc.	1062	FDS (Functional Design Specification)
11	Generic Doc.	1063	Declaration of conformity
11	Generic Doc.	1064	Standard Operating Procedures
11	Generic Doc.	1065	Risk assessment