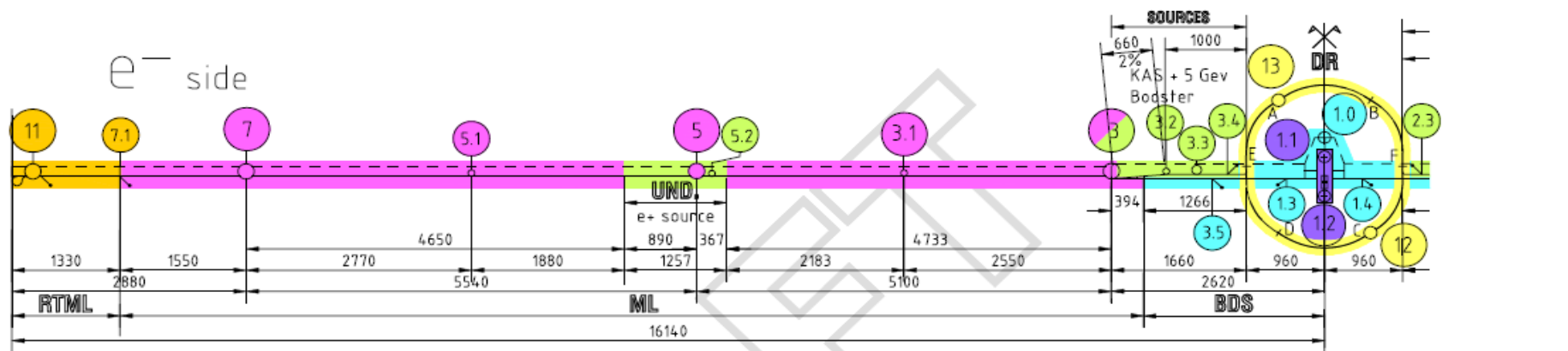


Proposed Naming Convention for ILC Civil Engineering Works

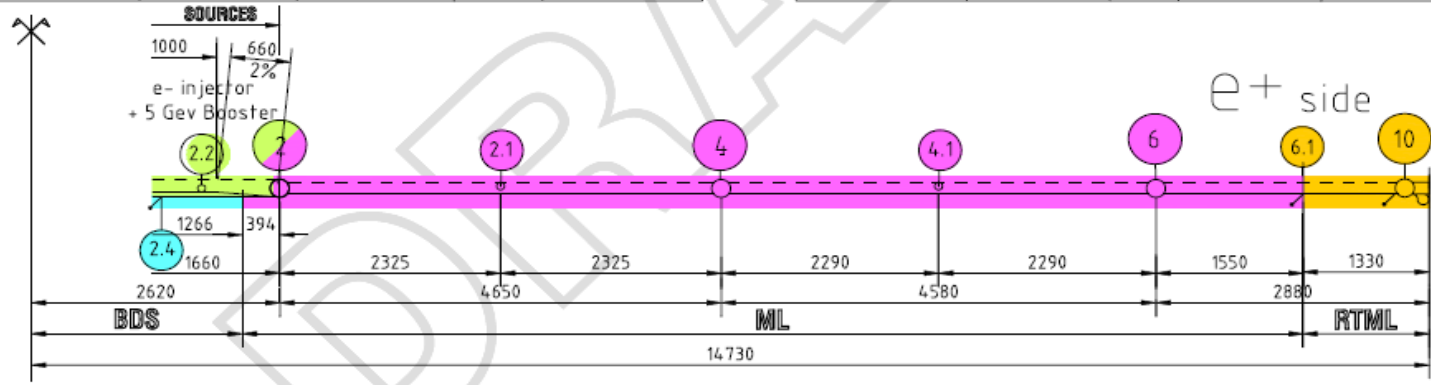


SITE / TUNNEL LENGTHS (m)

e- side + Undulator ML + RTML	e+ side ML + RTML	BDS + sources	DR	TOTAL
13 914 / 27 948	12 504 / 25 128	4 452 / 12 236	0 / 6 704	30 870 / 72 016

TUNNELS

Area	e- inject., KAS beam + serv	DR	RTML beam + serv	ML beam + serv	BDS beam + serv	BDS Survey
φm	4.5	5.0	4.5 + 4.5	4.5 + 4.5	4.5 + 4.5	1.5 x 2.2



- Legend :
- RTML
 - ML
 - DR
 - Sources e- KAS
 - BDS
 - Detectors Area

SHAFTS													BORINGS				SHAFT BASE CAVERNS			MUON WALL WIDENING			
Point	1.0	1.1	1.2	2	3	3.3	5.2	4	5	6	7	10	11	12/C	13/A	Point	2.1, 3.1, 4.1, 5.1	2.2, 3.2	1.3, 1.4, 2.4, 3.5	Point	2, 3, 4, 5, 6, 7, 10, 11	Point	1.3, 1.4
φm	9	16	16	14	14	4	4	14	14	9	9	14	14	9	9	φm	1.50			(LxWxH) m	4.9 x 16 x 18 + 3 storeys	(LxWxH) m	25 x 7 x 6 + 15 x 7 x 6
SOURCES CAVERNS						DR ALCOVES			DETECTORS HALL				BEAM DUMPS CAVERNS (~)			BEAM DUMP SERVICE HALLS (~)							
Point	Undulator 5.2	KAS 3.3	2.2, 3.2			Point	12/C, 13/A	B, D, E, F		Point	1.1, 1.2	1.0		Point	SOURCES 2.3, 3.4	RTML 6.1, 7.1, 10, 11	BDS 1.3, 1.4, 2.4, 3.5		Point	BDS 1.3, 1.4, 2.4, 3.5			
(LxWxH) m	21 161m ³	6 574m ³	7 X 15 X 7.5			(LxWxH) m	75 x 10 x 10 + 1 storey	16 x 8 x 8		(LxWxH) m	120 x 25 x 39	40 x 15 x 15		(LxWxH) m	5 x 4 x 4			20 x 9 x 15 + 1 storey		(LxWxH) m	30x20x 10		

“RDR” Naming convention



ILCEDMS No.: XXXX

International Linear Collider Project

Naming Convention for ILC Buildings and Civil Engineering Works

Abstract

This document provides rules for defining standard abbreviations for ILC surface buildings and the various parts of the underground Civil Engineering works.

These abbreviated names will be of prime importance, as they will be the main key to retrieve all the information of a given building in the different data bases and will provide a common language for all groups involved in the ILC project.

Prepared by :

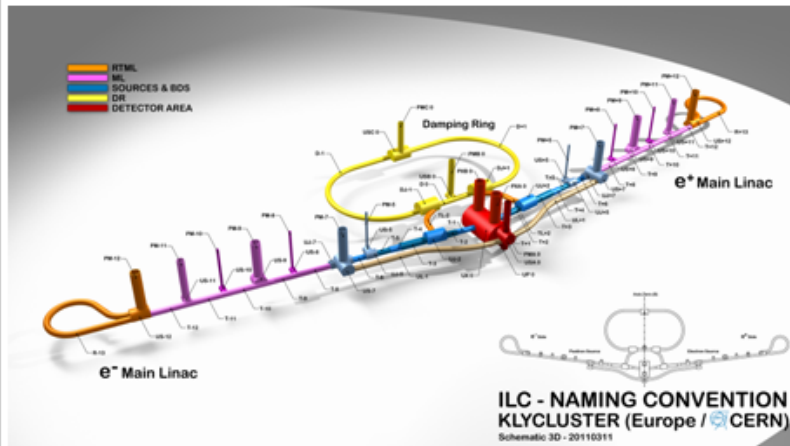
J.Osborne(CERN)

Checked by :

5. CIVIL ENGINEERING WORKS

The ILC will be installed in a bespoke tunnel complex.

The underground civil engineering works for the 500GeV 'Kly-Cluster' scheme on the CERN site is shown below in Figure 1.



Although, Fig 1 is site specific for CERN, the numbering convention can easily be modified for other sample sites.

5.1 ABBREVIATION DEFINITION

Each name is made of up to six alphanumeric characters, split in two groups of three. The first group is alphabetic and defines the **works type** and the second the **works number**.

5.2 WORKS TYPE

5.2.1 FIRST CHARACTER

The first character of the works type determines the kind of Civil Engineering works, according to the following list:

- D = Damping Ring
- P = Pit (shaft)
- R = TurnaRound
- S = Surface buildings

- T = Tunnels on the beam line
- U = Tunnel enlargements, experimental caverns, other Underground works which are not directly on the beam path.

5.2.2 SECOND CHARACTER

It indicates the main usage of the building and underground work, with the following list:

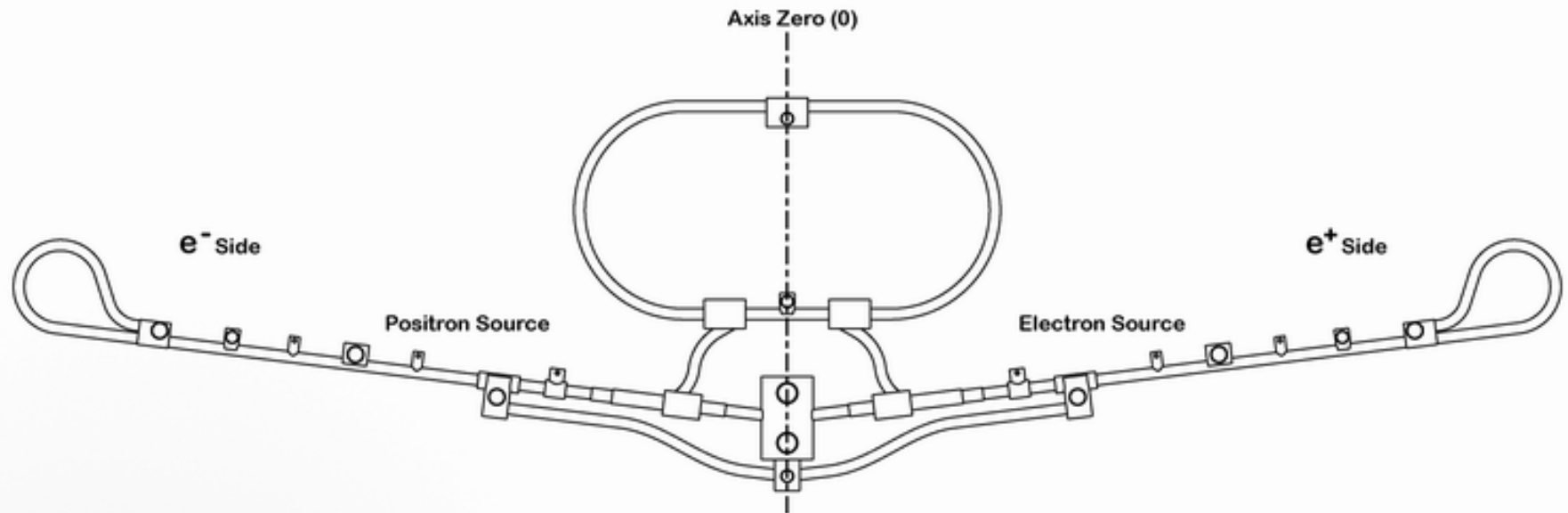
- A = Acceleration and Radio-frequency equipment
- B = Equipment for Low Beta section
- C = Controls and Communications
- D = Material unloading and Dumps
- E = Electricity
- F = Fluids
- G = Gas for detectors
- H = Cryogenics
- I = Injection
- J = Junction caverns
- L = Liaison galleries
- M = Magnets and other machine equipment
- P = Personnel Protection and Fire Brigade
- R = Power Converters
- S = Services
- T = Beam transfer
- U = Ventilation
- W = Water
- X = Experiments
- Y = Access control
- Z = Access

5.2.3 THIRD CHARACTER

This character is optional and is used either to be more precise on the usage of the works concerned or to distinguish between different specific parts of that works or to distinguish two works having a similar usage. Special rules are defined for each case. This facility is mainly used for electrical buildings and for experimental halls or when an existing building has to be extended for ILC.

5.3 WORKS NUMBERING

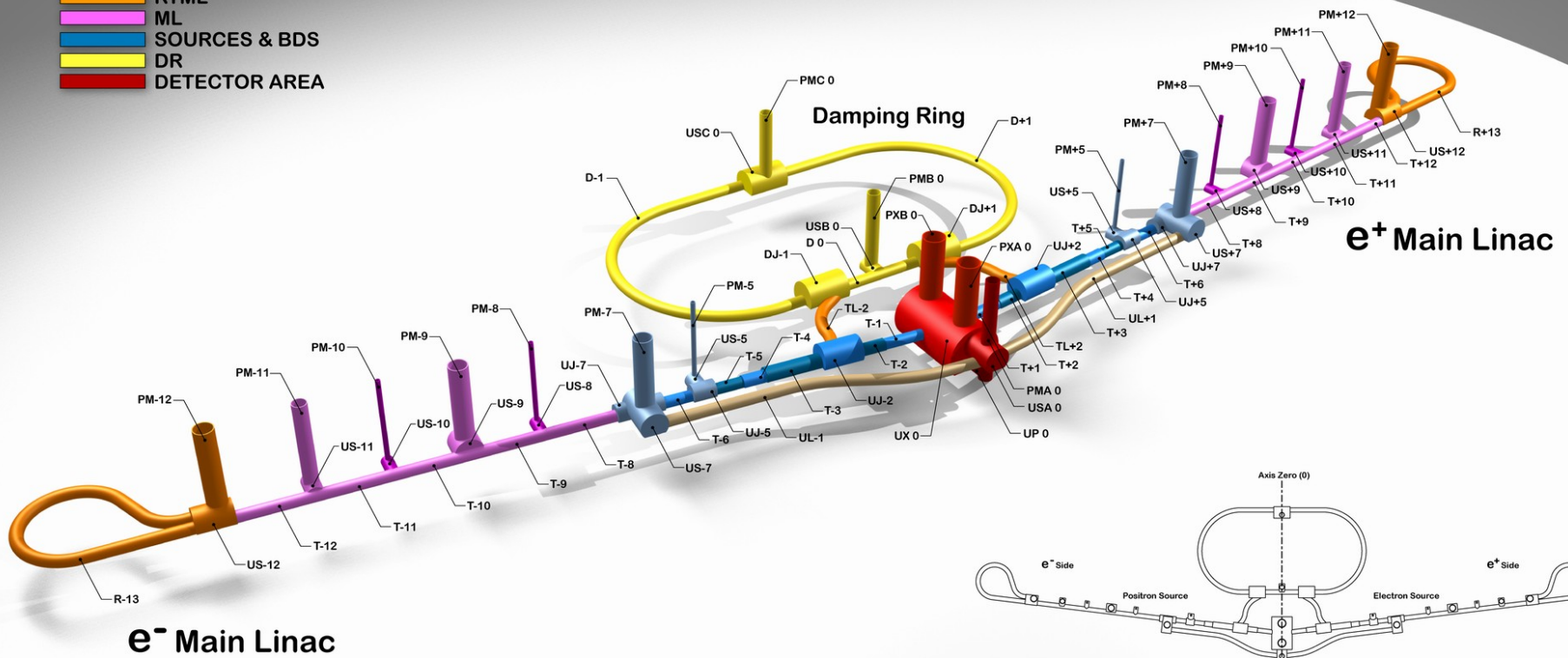
Up to three digits follow the works type and are used to localize the works concerned. The digit 0 is used for the Interaction region (IR) and subsequent shafts 1,2,3 ect are numbered working away from the IR. Works on the Positron Source side of the IR are **negative** - and works on the electron source side are **positive** +. In this way, the numbering can easily be increased to accommodate a 1TeV machine. A second digit allows a more precise localization with respect to the IR.



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Schematic 3D - 20110311

- RTML
- ML
- SOURCES & BDS
- DR
- DETECTOR AREA



ILC - NAMING CONVENTION KLYCLUSTER (Europe / CERN)

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Damping Ring

