

Outline:

1. Introduction (~2 p.)
 - Physics requirements and background conditions
 - Evolution since the TP
2. Detector Specifications (~5 p.)
 - Muon System Overview
 - Detector Technologies
 - Rate Capability, Time resolution, Cross-talk, Aging Properties
 - FE-chip requirements
3. Physics Performance (~8 p.)
 - Performance of the LO muon trigger
 - Reconstruction of muonic final states
 - $B_d \rightarrow J/\psi K_s$; $B_s \rightarrow \mu\mu$
4. Prototype Results (~15 p.)
 - Beam test results of MWPCs
 - Beam test results of RPCs
 - Test of FE-chip candidates

Outline (ctd.) :

5. Technical Design (~25 p.)

- MWPC Detector
 - Chamber design and construction
- RPC Detector
 - Chamber design and assembling
- Support Structures and Installation
- Readout Electronics
 - FE-board
 - "channel reduction"
 - ODE-board, Synchronization
- Power and Control Systems
 - Gas and HV-System
 - Monitoring and Controls
- Safety aspects

6. Project Organization (~4 p.)

- Schedule and Milestones
 - Distribution of responsibilities
 - Cost
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Muon TDR Preparation

Editorial Panel:

An editorial Panel should be formed, charged with steering the preparation of the Muon TDR

Muon TDR schedule:

- Outline of TDR Contents December 2000
- List of Support Documents and Authors Mid January 2001
- Draft of support documents Begin of March 2001
- Draft of TDR distributed to muon group Begin of April 2001
- Technical Board meeting to discuss draft Mid April 2001
- Final Draft: Release to LHCb End of April 2001
- Technical Board meeting to discuss final draft LHCb week 7-11 May 2001
- Submission to LHCC End of May 2001
- Presentation to LHCC 4 July 2001

Outline:

1. Introduction

- Overview Note 2000-089
- Background conditions Notes 1998-059, 1999-036, 2000-11, + note to be prep.
- Technology Proposals Notes 1999-049, 2000-53, + TGC and MWPC Prop. t.b.
- Optimization Note Note 2000-016

2. Detector Specifications

- MWPC simulation notes Notes 2000-060, -061
- RPC simulation notes Notes 2000-111, -2000-112
- FE-chip requirements Notes 2000-060, + ?

3. Physics Performance

- LO muon trigger Notes 2000-16, 2000-101, +notes with new soft. results
- $B_d \rightarrow J/\psi K_s$ Yellow report -> update (Paul)
- $B_s \rightarrow \mu\mu$ and MuID -> Erica/Rio (2-3 Notes)

4. Prototype Results

- MWPC Notes Notes 2000-003,-102, M2R2-Note, M5R2-Note ?
- RPC Notes Notes 1999-049, 2000-053
- FE-chip tests Note 2000-062 (ASDQ++), CMS-note, Carioca Note, + ?



Muon TDR Support Notes

5. Technical Design

- MWPC Detector Design

Notes 2000-060,-061

Cempir Note -> Potenza

Honeycomb Note -> CERN, Potenza

Construction Notes (various groups)

LHCb 2000-112

-> Rome II, Firenze

- RPC Detector

-> CERN, LNF

- Support Structures and Installation

- Readout Electronics

Note 2000-017

- FE-chip and board

Note 2000-093, CARIOCA Note, OR-note

- ODE-board, Synchronization

-> Cagliari, LNF

- Power and Control Systems

Gas System Note -> Rolf

ECS Note -> Valerio

- Safety aspects

Safety Document

6. Project Organization

"Muon MoU"