



Dryden Organizational Procedure

Code M

SYSTEMS ENGINEERING SYSTEM DESIGN AND REVIEW

CONTENTS

1.0	Purpose of Document	2
2.0	Scope & Applicability	2
3.0	Procedure Objectives	2
4.0	Relevant Documents	2
5.0	Waiver Authority	2
6.0	Abbreviations, Acronyms, Definitions	3
7.0	Flowchart	4
8.0	Metrics & Trend Analysis	8
9.0	Management Records & Records Retention	8

Electronically approved by
Director, Research Systems Directorate

Check Master List at <http://xnet.dfrc.nasa.gov/iso9000/>.
Before use, verify that this is the current version.

1.0 PURPOSE OF DOCUMENT

The purpose of this document is to provide guidelines for the design and review of new systems being introduced into the Research Systems Directorate (Code M).

2.0 SCOPE & APPLICABILITY

This document applies to the engineering staff of the Research Systems Directorate (Code M).

3.0 PROCEDURE OBJECTIVES

- Control the engineering design process
- Ensure consistent documentation is generated for all design efforts

4.0 RELEVANT DOCUMENTS

4.1 Authority Documents – None

4.2 Referenced Documents

[DOP-M-005](#) Research Facilities Parts Control and Tag Requirements Process

5.0 WAIVER AUTHORITY

The Engineering Branch Chiefs and the Director for Code M have the authority to waive the use of this document or to alter the procedures defined within this document. The waivers to this document will be in the form of an email addressed to all affected parties.

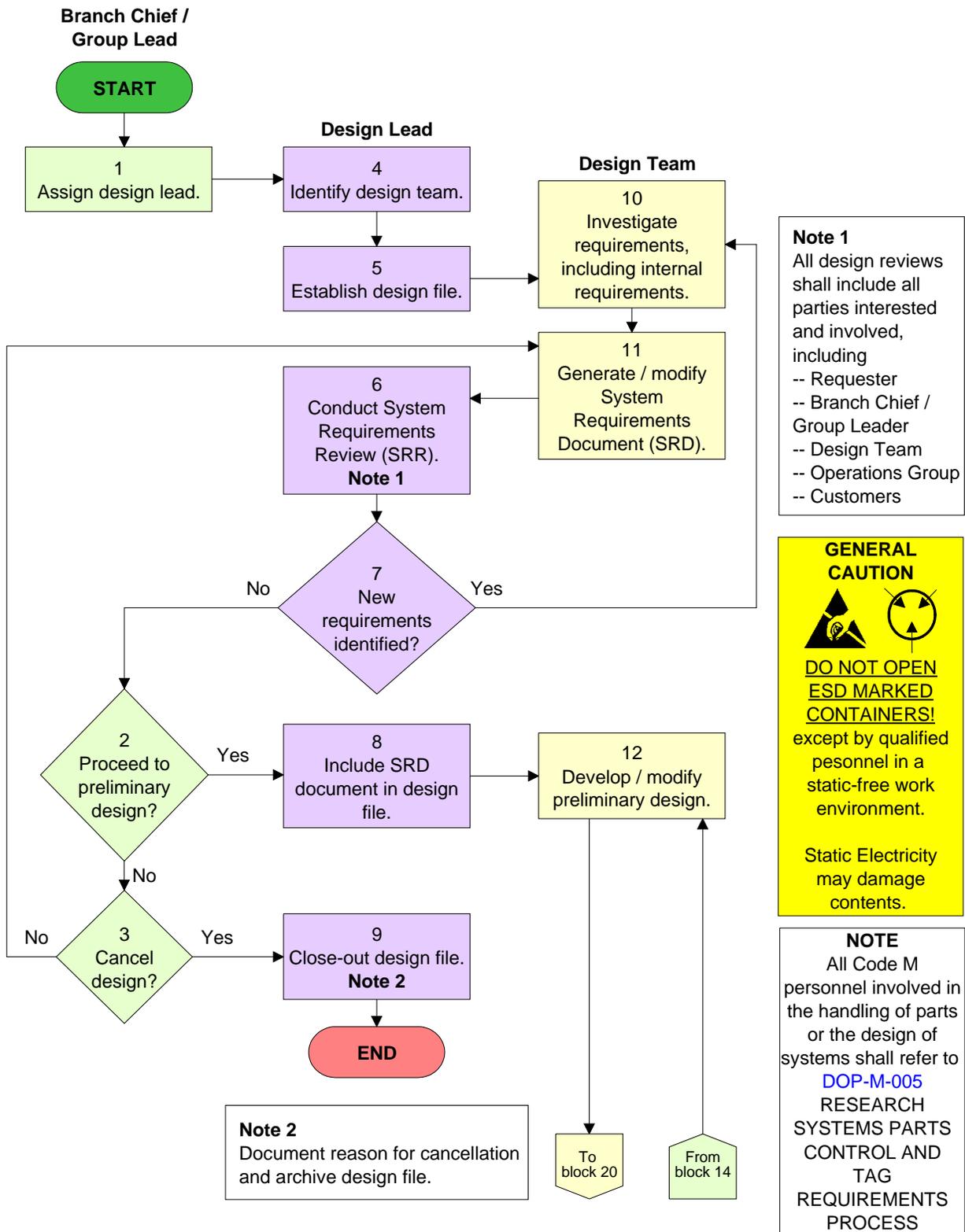
6.0 ABBREVIATIONS, ACRONYMS, & DEFINITIONS

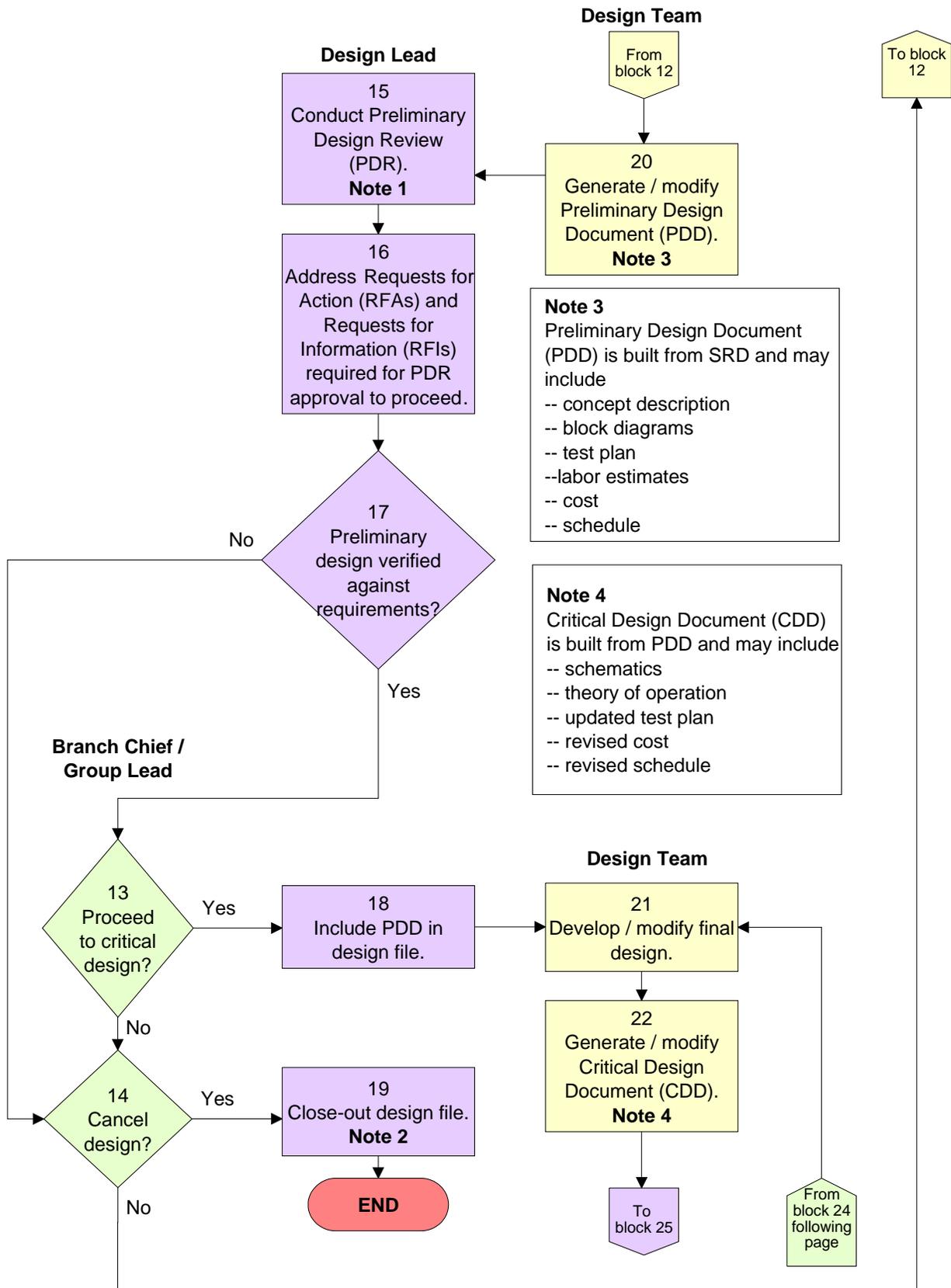
6.1 Abbreviations – None

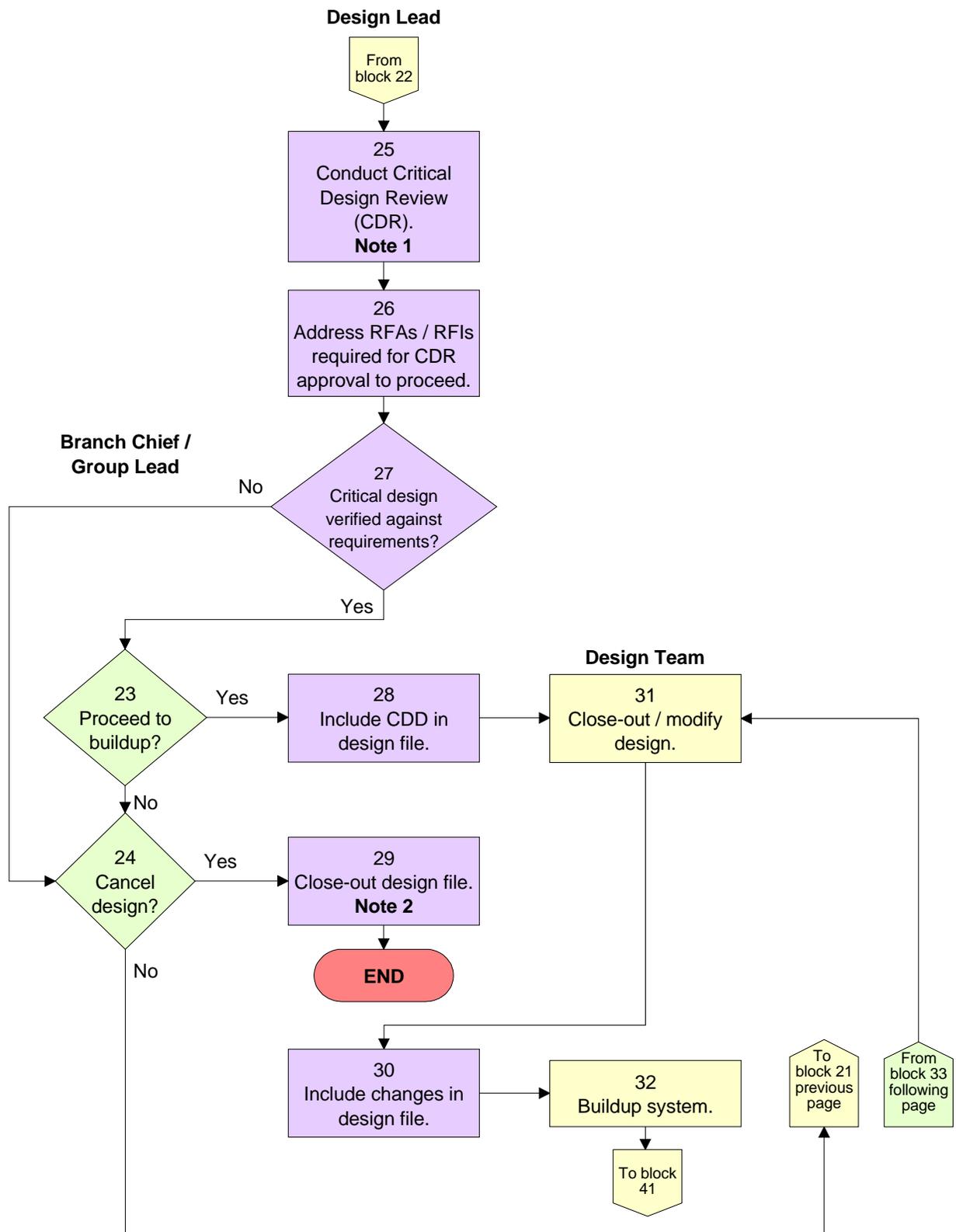
6.2 Acronyms

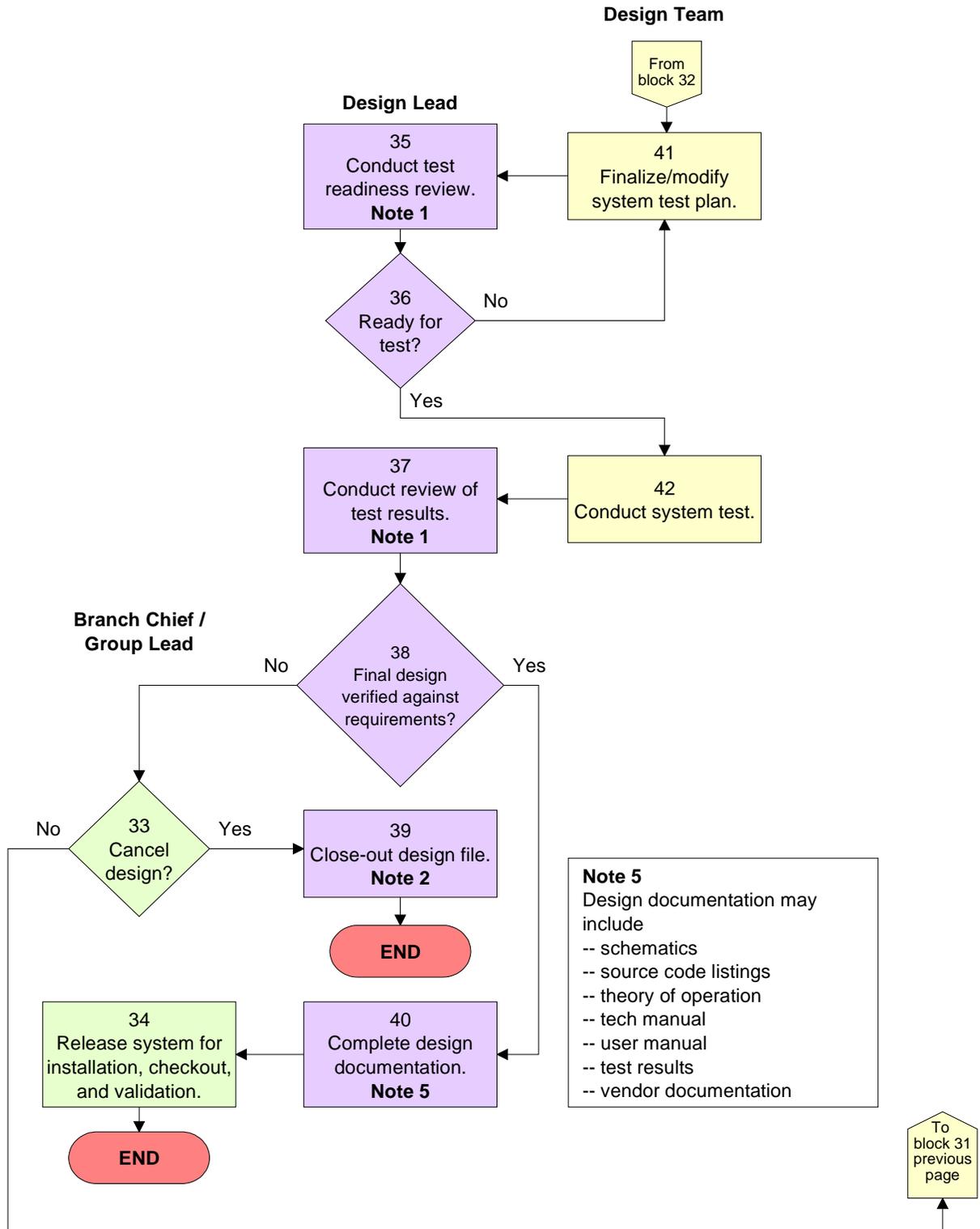
CDD	Critical Design Document
CDR	Critical Design Review
PDD	Preliminary Design Document
PDR	Preliminary Design Review
RFA	Request for Action
RFI	Request for Information
SRD	System Requirements Document
SRR	System Requirements Review

7.0 SYSTEMS ENGINEERING SYSTEM DESIGN & REVIEW









8.0 METRICS & TREND ANALYSIS

The selected metrics are established to assist in managing design projects, assuring quality, and improving systems engineering practices. The data provided through these metrics are to:

- Track progress within the process
- Provide indicators of design process quality
- Provide baseline information for future process improvement activities

The specific metrics used for each of the above objectives are:

- Design progress tracking
 - Amount of time spent in each stage of the design process
 - Where applicable, the number of time that a particular stage in the design process had to be repeated and why
- Indicators of design process quality
 - The number of new requirements that appear after the System Requirements Review
 - The number of Requests for Information or Requests for Actions resulting from a review and their points of origin
- Future process improvement activities
 - The number of waivers submitted and approved to:
 - Bypass the entire process
 - Bypass steps within the process

9.0 MANAGEMENT RECORDS & RECORDS RETENTION

All design files are retained/maintained by the Engineering Branch Chiefs.

Document History Log

This page is for informational purposes and does not have to be retained with the document.

Status Change	Document Revision	Effective Date	Page	Description of Change
Baseline		8-16-04		<ul style="list-style-type: none">• Replaces DOP-M-204 and DOP-M-306 as a Code M process.• Rebuilt flowchart. Embed in DOP template.• Added Sections 1.0 – 9.0. Flowchart is Section 7.0.