System Requirements Review (SRR)

The following material was extracted from Section 10 of Mil. Std. 1521 (now withdrawn) to provide additional definitions for the format and content of the System Requirements Review (SRR).

10 System Requirements Review (SRR)

10.1General.
The System Requirements Review is normally conducted after the completion of functional analysis and preliminary requirements allocation to Hardware Configuration Items (HWCI's), Computer Software Configuration Items (CSCI's), facility configuration items and personnel to determine initial direction and progress of the System Engineering Management effort and convergence upon an optimum and complete configuration.

10.2 Purpose.
The total Systems Engineering Management activity and its output shall be reviewed for responsiveness to the Statement of Work and system/subsystem requirements.

10.3 Items to be Reviewed.
Representative items to be reviewed include the results of the following, as appropriate:

a. **Mission and Requirements Analysis (Mandatory)**
What's the purpose of your project and what requirements does it have to meet?

- b. **Functional Flow Analysis**
  - What are the functions your project will perform and how do they interface with each other
- Briefly describe how your system will be used, and how it will interface with the user and the external world.

.

c. **Preliminary Requirements Allocation (Mandatory)**
How do your requirements map to your functions? Which functions satisfy which requirements.

- d. System/Cost Effectiveness Analysis (optional)

- e. **Trade studies (e.g. system functions implemented in HW/SW).**
  - Did you do any tradeoffs? Consider different functions? Consider HW or SW implementations? Why did you choose your particular functional partitioning?

- f. **Architectural Synthesis**
  - The architecture is what implements the functions (the hardware and software). If you had to build it today, what would your hardware and software look like? This is expected to be a very preliminary look at things; there will be no penalty if your PDR synthesis presentation varies significantly from your SRR approach.

- i. **System Interface Analysis**

    - Internal and external interfaces? Have you defined the protocols? Do you even know what you don't know? How will get everything defined?
- j. **Specification Development**
    - Where do you stand on your specifications? Are they in good shape (few changes) or are they still mushy? If they're mushy how (and when) will you have them nailed down?

k. **Program Risk Analysis (Mandatory)**
What's the riskiest part of your project? What keeps you up at night worrying? How will you reduce this risk by demonstration before 12/18/2017?

- l. Integrated Test Planning (do not provide)

- m. **Technical Performance Measurement Planning**
    - How are you measure compliance with your requirements? Do you need any special test facilities or equipment? How do you know? What testing will you do by 12/18/2017?

x. Milestone Schedules (Mandatory)
Milestones for the remainder of this semester and draft milestones for next semester? What (if anything) needs to happen in January? How does your plan play out in Spring 2017?

10.3.1 The contractor shall describe his progress and problems in:

10.3.1.1 Risk identification and risk ranking. (do not provide)

10.3.1.2 Risk avoidance/reduction and control. (do not provide)

10.3.1.3 Significant trade-off analyses among stated system/subsystem specification requirements/constraints and resulting engineering design requirements/constraints, development methods/process constraints, and logistics/cost of ownership requirements/ constraints and system production cost/design-to-cost objectives.

10.3.1.4 Identifying system computer resources and partitioning the system into HWCI's and CSCI's. Include any trade-off studies conducted to evaluate alternative approaches and methods for meeting operational needs and to determine the effects of constraints on the system. Also include any evaluations of logistics, technology, cost, schedule, resource limitations, intelligence estimates, etc., made to determine their impact on the system. In addition, address the following specific trade-off analyses related to computer resources:

- a. Candidate programming languages and computer architectures
- b. Alternative approaches evaluated for implementing security requirements.
- c. Alternative approaches for achieving the operational and support.

10.3.1.5 **Contraints**

We talked about constraints in CMPE349. What are the real constraints (size, weight, speed, complexity, etc. that have been imposed by your customer, or by the nature of your product.

This is a good place to include any external specs that you have to comply with (e.g. 802.11 for WiFi or USB x.x for USB ports).