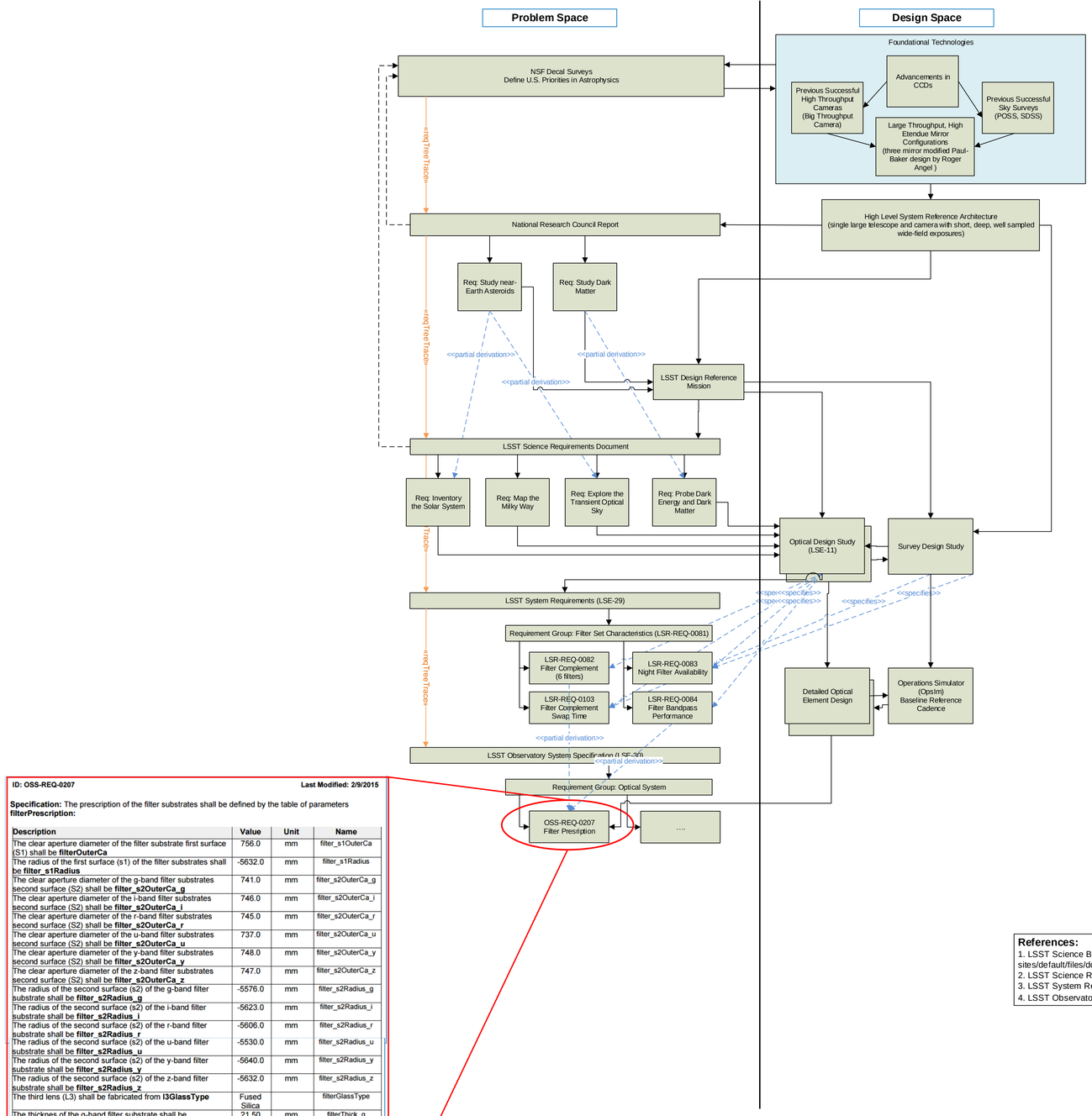

ID: OSS-REQ-0207 **Last Modified: 2/9/2015**

Specification: The prescription of the filter substrates shall be defined by the table of parameters **filterPrescription:**

Description	Value	Unit	Name
The clear aperture diameter of the filter substrate first surface (S1) shall be **filterOuterCa**	756.0	mm	filter_s1OuterCa
The radius of the first surface (s1) of the filter substrates shall be **filter_s1Radius**	-5632.0	mm	filter_s1Radius
The clear aperture diameter of the g-band filter substrates second surface (S2) shall be **filter_s2OuterCa_g**	741.0	mm	filter_s2OuterCa_g
The clear aperture diameter of the i-band filter substrates second surface (S2) shall be **filter_s2OuterCa_i**	746.0	mm	filter_s2OuterCa_i
The clear aperture diameter of the r-band filter substrates second surface (S2) shall be **filter_s2OuterCa_r**	745.0	mm	filter_s2OuterCa_r
The clear aperture diameter of the u-band filter substrates second surface (S2) shall be **filter_s2OuterCa_u**	737.0	mm	filter_s2OuterCa_u
The clear aperture diameter of the y-band filter substrates second surface (S2) shall be **filter_s2OuterCa_y**	748.0	mm	filter_s2OuterCa_y
The clear aperture diameter of the z-band filter substrates second surface (S2) shall be **filter_s2OuterCa_z**	747.0	mm	filter_s2OuterCa_z
The radius of the second surface (s2) of the g-band filter substrate shall be **filter_s2Radius_g**	-5576.0	mm	filter_s2Radius_g
The radius of the second surface (s2) of the i-band filter substrate shall be **filter_s2Radius_i**	-5623.0	mm	filter_s2Radius_i
The radius of the second surface (s2) of the r-band filter substrate shall be **filter_s2Radius_r**	-5606.0	mm	filter_s2Radius_r
The radius of the second surface (s2) of the u-band filter substrate shall be **filter_s2Radius_u**	-5530.0	mm	filter_s2Radius_u
The radius of the second surface (s2) of the y-band filter substrate shall be **filter_s2Radius_y**	-5640.0	mm	filter_s2Radius_y
The radius of the second surface (s2) of the z-band filter substrate shall be **filter_s2Radius_z**	-5632.0	mm	filter_s2Radius_z
The third lens (L3) shall be fabricated from **l3GlassType**	Fused Silica		filterGlassType
The thicknes of the g-band filter substrate shall be **filterThick_g**	21.50	mm	filterThick_g
The thicknes of the i-band filter substrate shall be **filterThick_i**	15.70	mm	filterThick_i
The thicknes of the r-band filter substrate shall be **filterThick_r**	17.90	mm	filterThick_r
The thicknes of the u-band filter substrate shall be **filterThick_u**	26.60	mm	filterThick_u
The thicknes of the y-band filter substrate shall be **filterThick_y**	13.60	mm	filterThick_y
The thicknes of the z-band filter substrate shall be **filterThick_z**	14.4	mm	filterThick_z

Some concepts for types of flow down:

- Traceability flow down
- Feasibility flow down

Note: Assumptions may have to be made on the feasibility side that have to be validated later on

References:

1. LSST Science Book, Version 2.0, November 2009, https://www.lsst.org/sites/default/files/docs/sciencebook/SB_Whole.pdf
2. LSST Science Requirements Specification (SRD), LPM-17,
3. LSST System Requirements (LSR), LSE-29
4. LSST Observatory System Specification (OSS), LSE-30