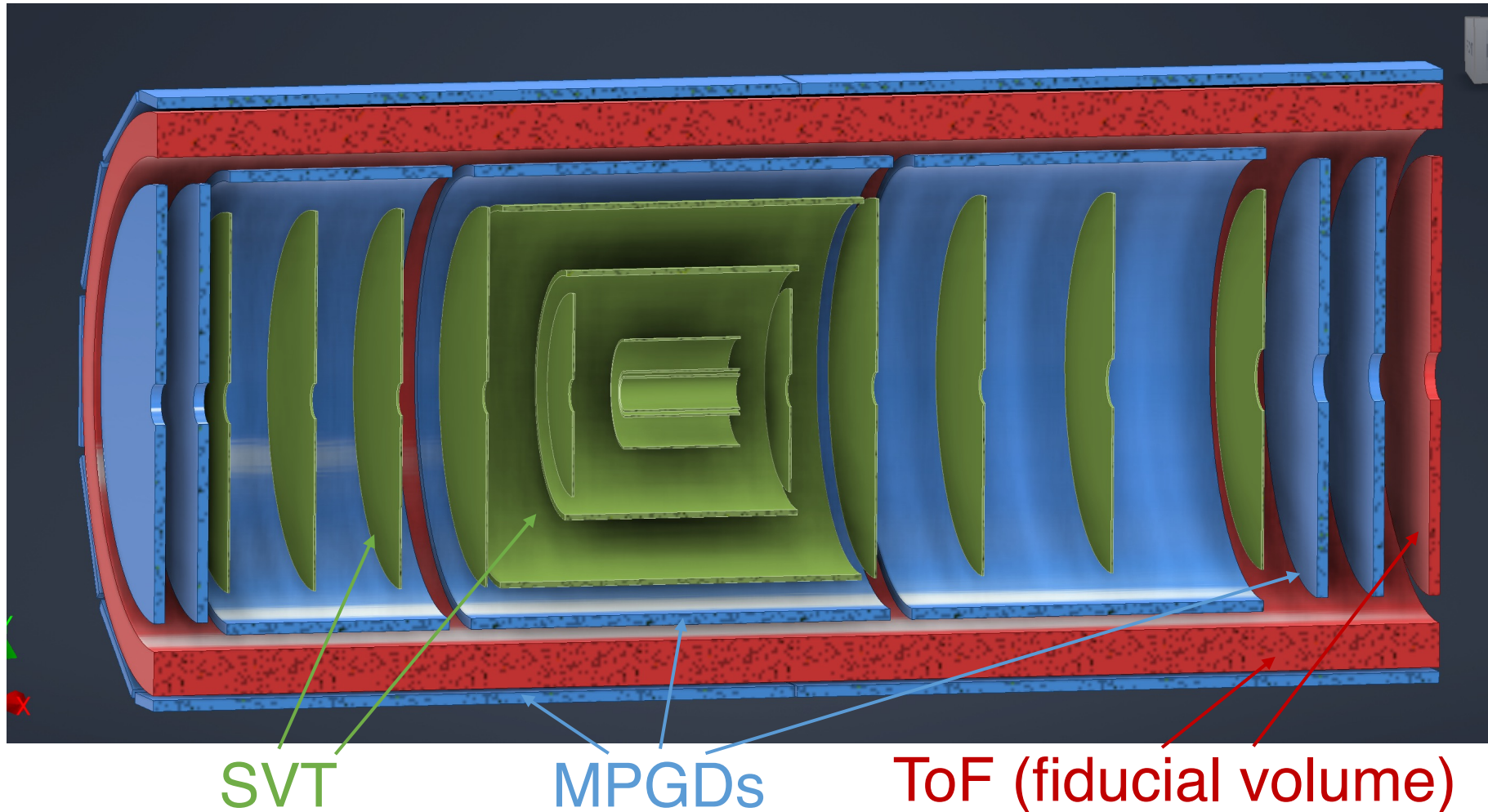


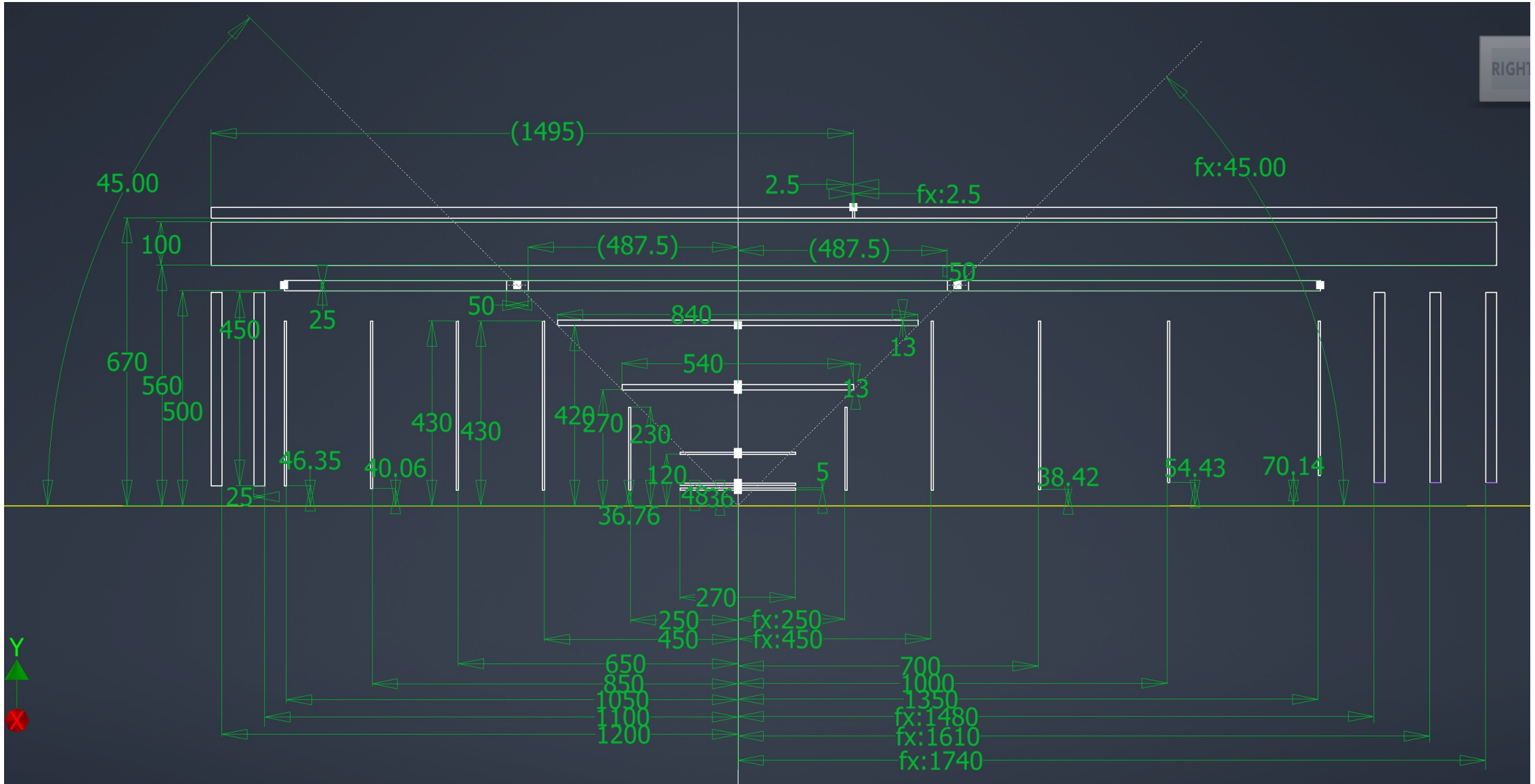
Outer Tracking Configuration

Outer Tracker Configuration



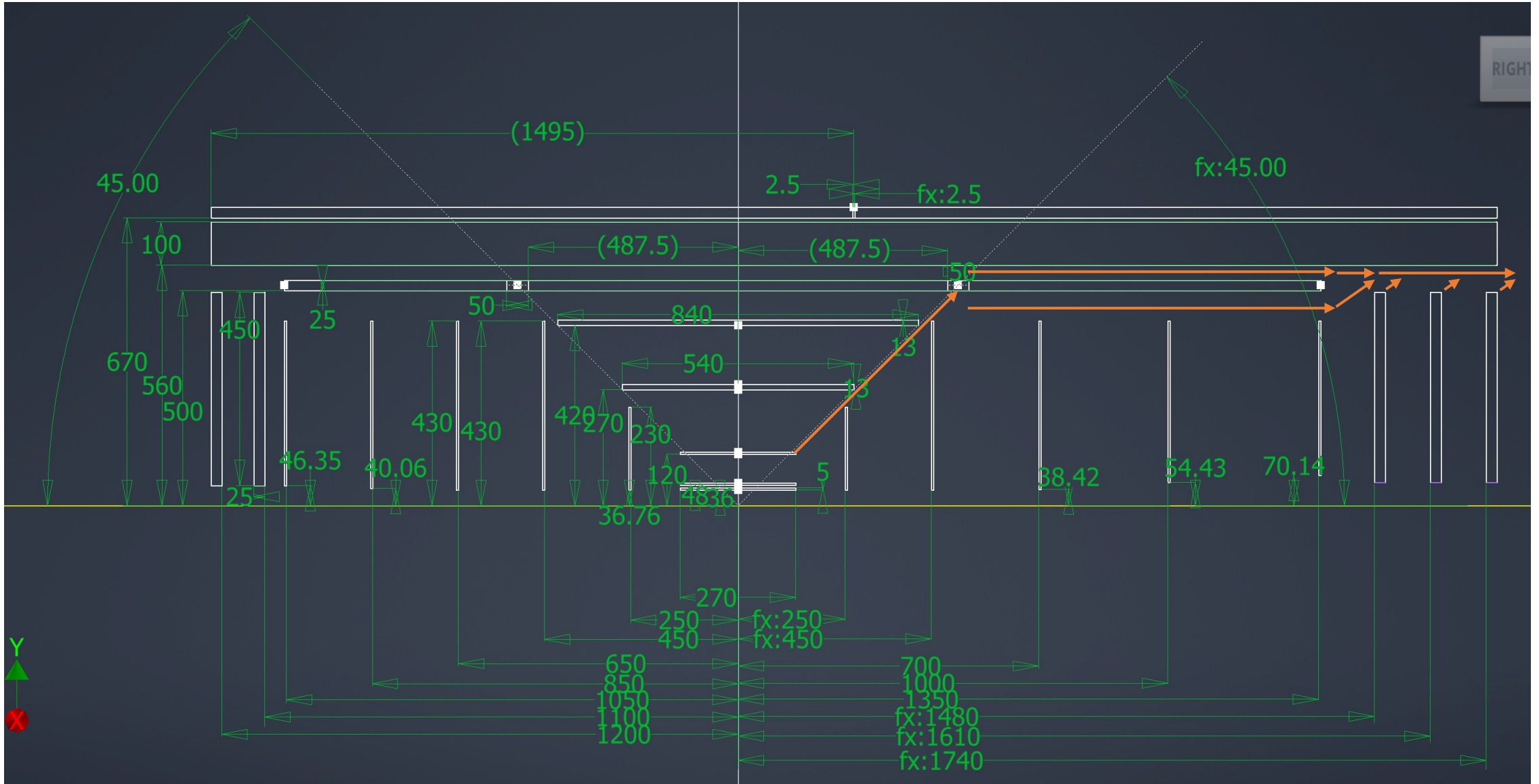
- MPGD split inner barrel, outer barrel, and fwd/bwd disks – pattern recognition, time anchoring, aid tracking into PID,
- SVT unchanged, except for the two outermost disks in the electron direction that are moved slightly inwards,
- ToF unchanged.

Outer Tracker Configuration – Nominal Dimensions



- Note: MPGD outer barrel may need to extend to smaller (more negative) z to better cover the DIRC.

Tracker – Service routing



- Note: shown for the hadron side only.

- Next steps:
 - Finalize envelopes of pfRICH and backward tracker – ongoing,
 - Finalize length of the outer MPGD barrel – ongoing,
 - Service estimates for MPGDs – DSC,
 - Geometry implementation in simulations – ongoing for MPGD,
 - Material map(s) – ,
 - ACTS – ,
 - Tests – ,
- Target: readiness for code-freeze first Monday in July and July simulation campaign.
- Goal: demonstrate viability of the ePIC tracking configuration for CD-3A.

SVT update

ITS3 – Sensor Dimensions

ER2 Stitched Sensor



Layer 0: 12 x 3 repeated units+endcaps

Layer 1: 12 x 4 repeated units+endcaps

Layer 2: 12 x 5 repeated units+endcaps



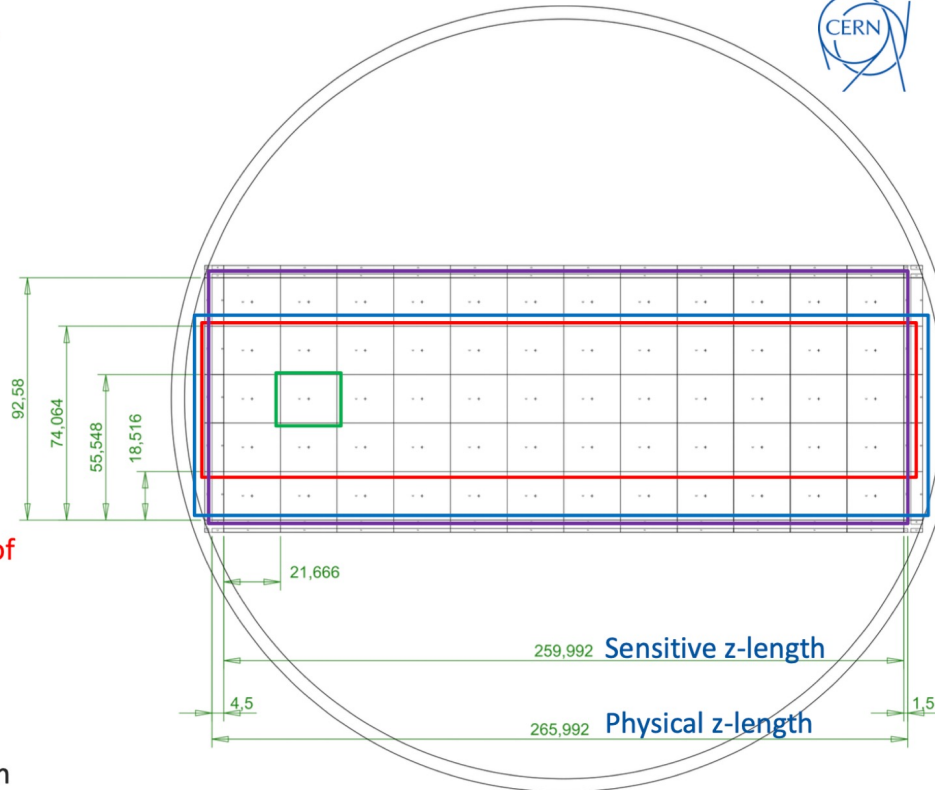
Repeated (Stitched) Sensing Unit

ER2 Stitched Sensor is **not** a direct evolution of MOSS +/- MOST

MOSS and MOST were true exploratory designs for proof of principles and learning methodology and yield

ER2 Sensor aims to satisfy ITS3 requirements

Existing circuits need substantial redesign
New features to be added



- Note: these dimensions are somewhat different from the 18.85 by 30.00 mm RSU size used so far in simulations and layouts.
- Target: propagate the side-effects into the July simulation campaign, ideally including dead areas and layout onto disks. 7