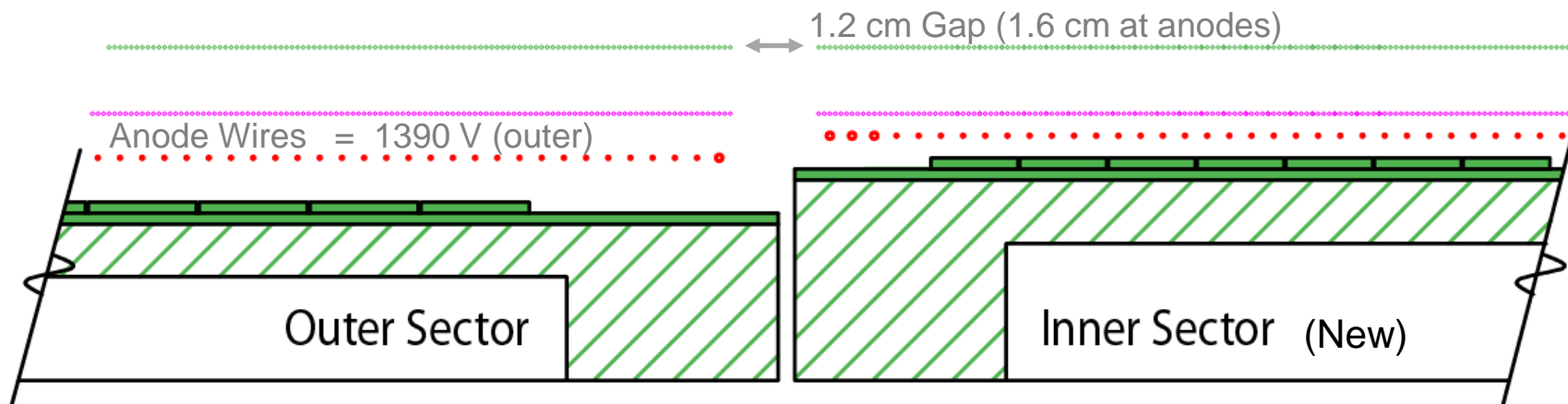
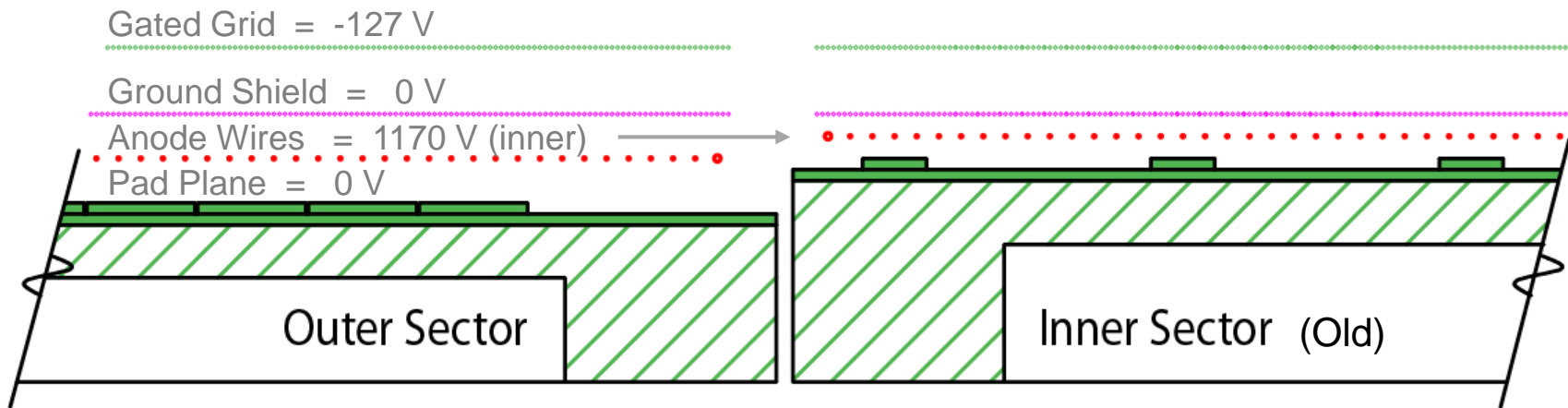
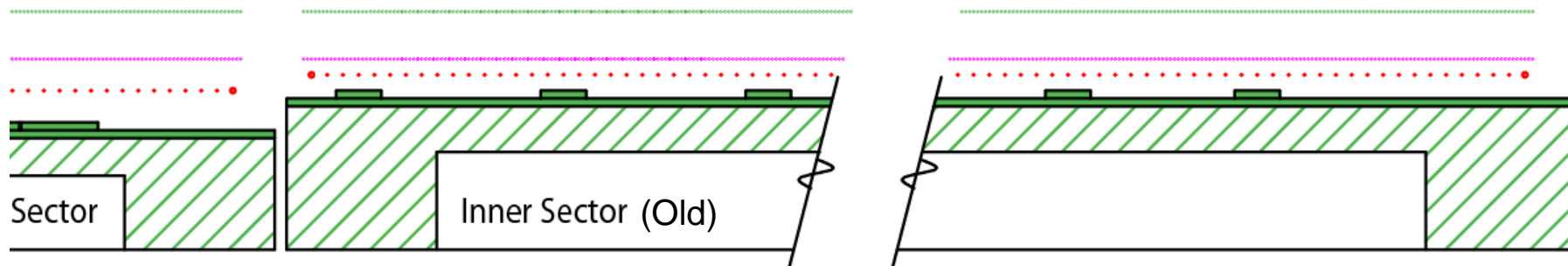


Proposed Changes to Inner Sector Design

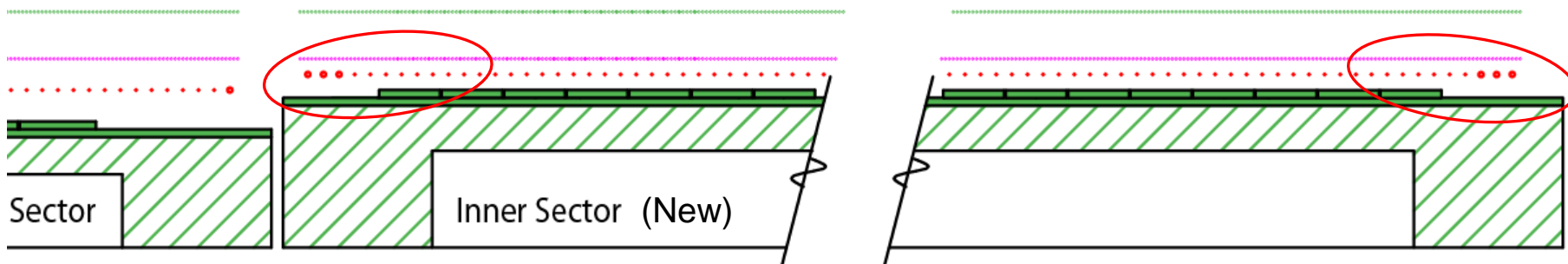


- Increase the size of the inner sector pads
- Add more pad rows
- Add more low gain wires on ends of anode grid

40 Pad Rows fit perfectly with the existing grid

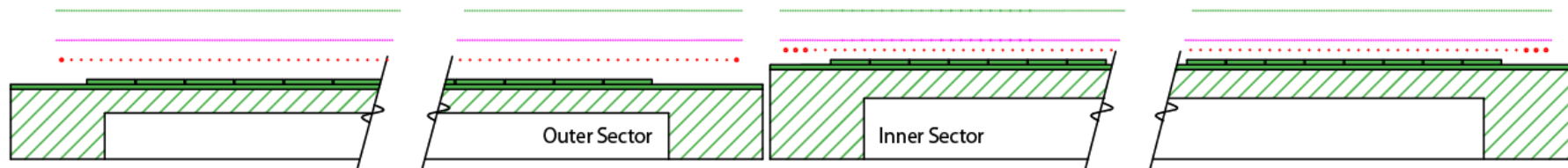


Anode wires spaced 4 mm apart (horizontally), Ground Shield and Gated grids spaced 1 mm apart



- Identical pad response function on both ends of grid
- No need to change grid; wire locations remain the same!
- No need to add more ABDB or wire mount channels (good!)

Pad Location & Tracking Performance



Anode wires spaced 4 mm apart (horizontally), Ground Shield and Gated grids spaced 1 mm apart

- Extra “fat” (low gain) wires change the location of the pad rows
- Tracking over the inner/outer sector gap is not a problem
 - It will work better than ever ...
- 40 Pad rows on inner sectors compared to 13 in original design
- Pad Row 40 (closest to the gap): centerline for the row has moved down 14 mm compared to original STAR design
 - Top edge of pad row 40 has moved away from an area of high distortion
 - Top edge has moved 12 mm away from gap when comparing old .vs. new
 - centers move 14 mm but top edge moves 12 mm due to different length of pads

Wires aligned with pads

- Note that Ground Shield and Gated Grid wires lie directly above the Anode wires
 - This helps to guide sparks & breakdown to the Ground Shield wires and not to the pad plane
- Anode wires phase locked in groups of 4 with pad rows to ensure every pad row has the same pad response function

