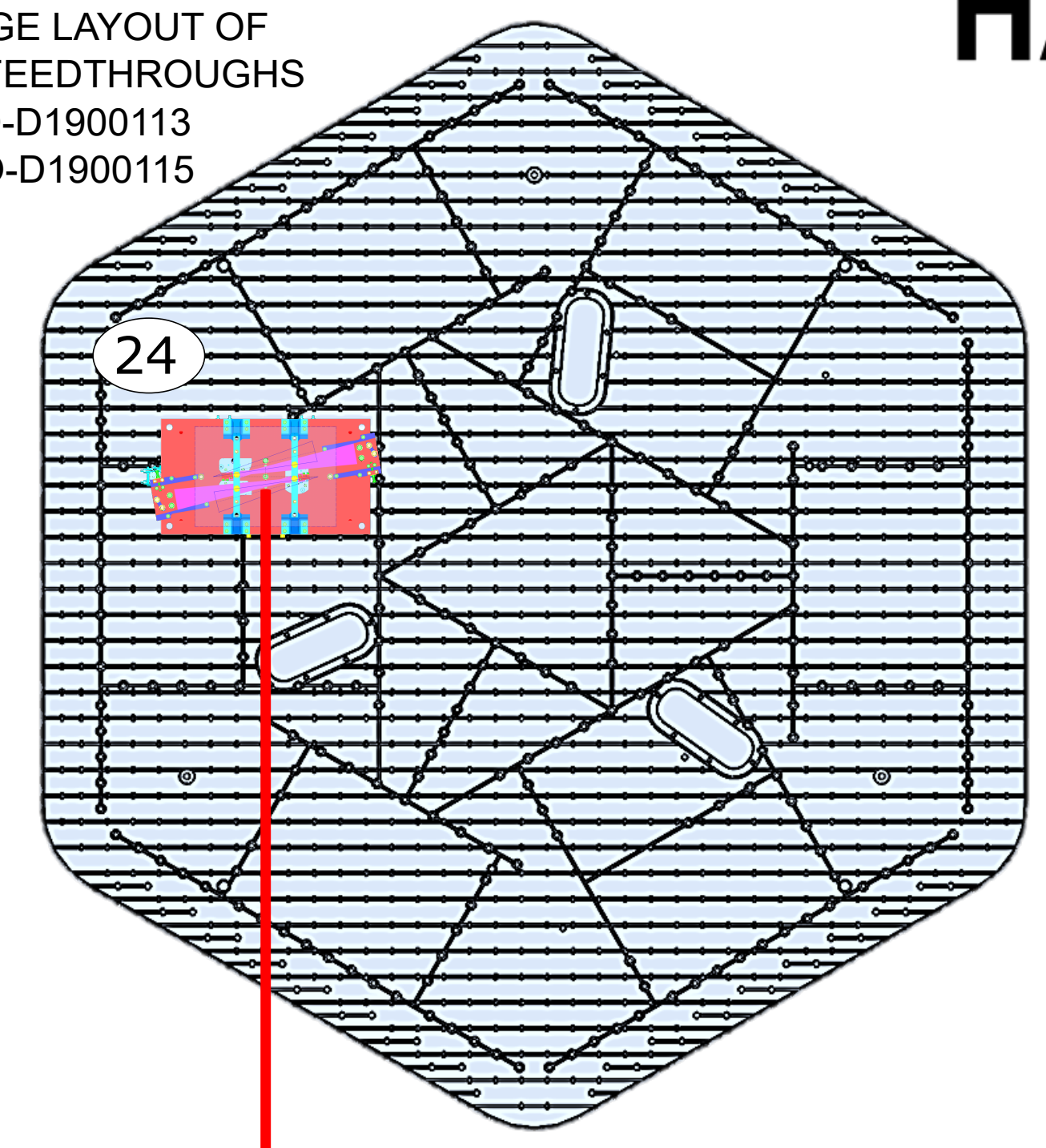
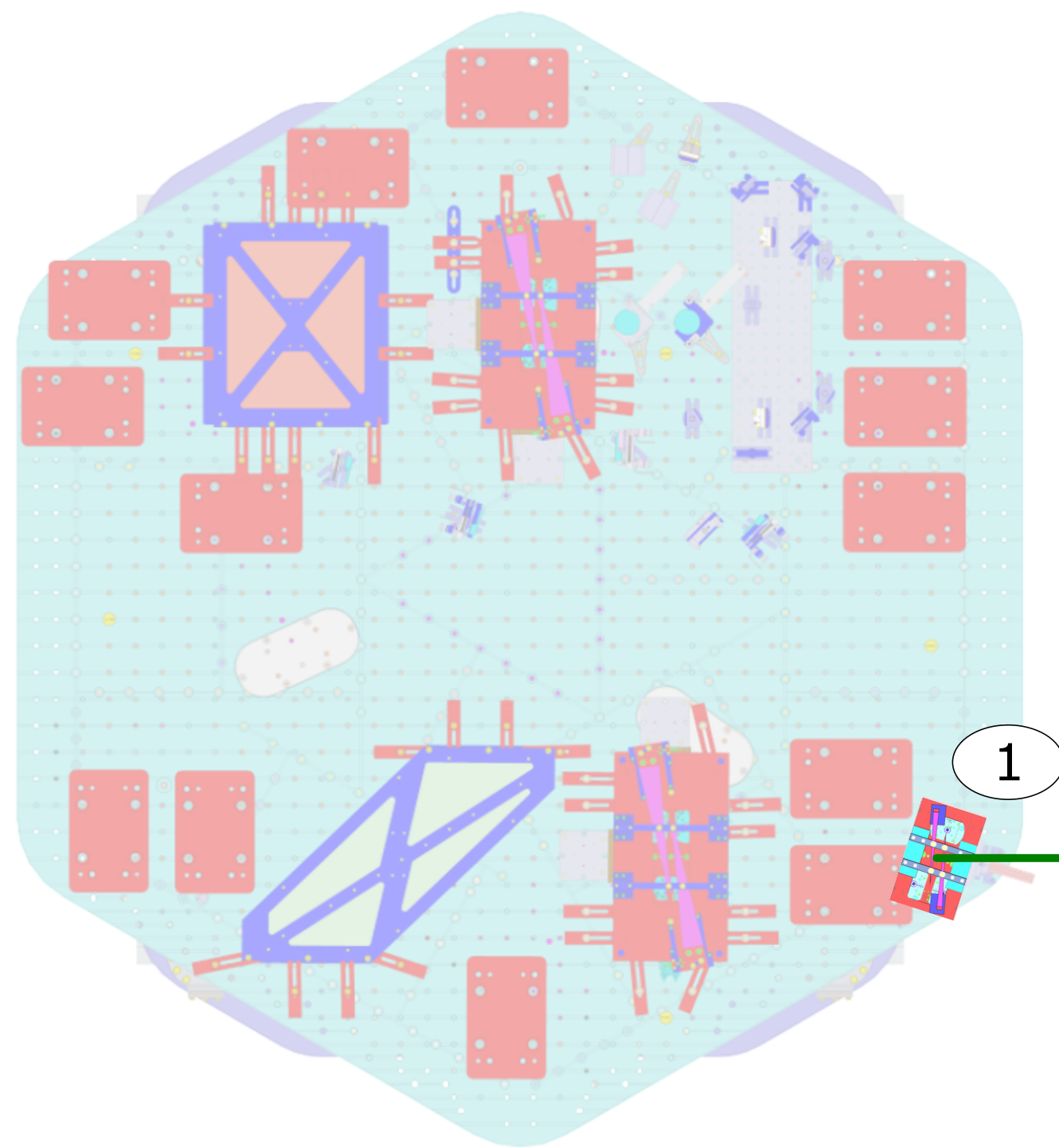


HAM8 FLANGE LAYOUT OF ELECTRICAL FEEDTHROUGHS
L1: LIGO-D1900113
H1: LIGO-D1900115

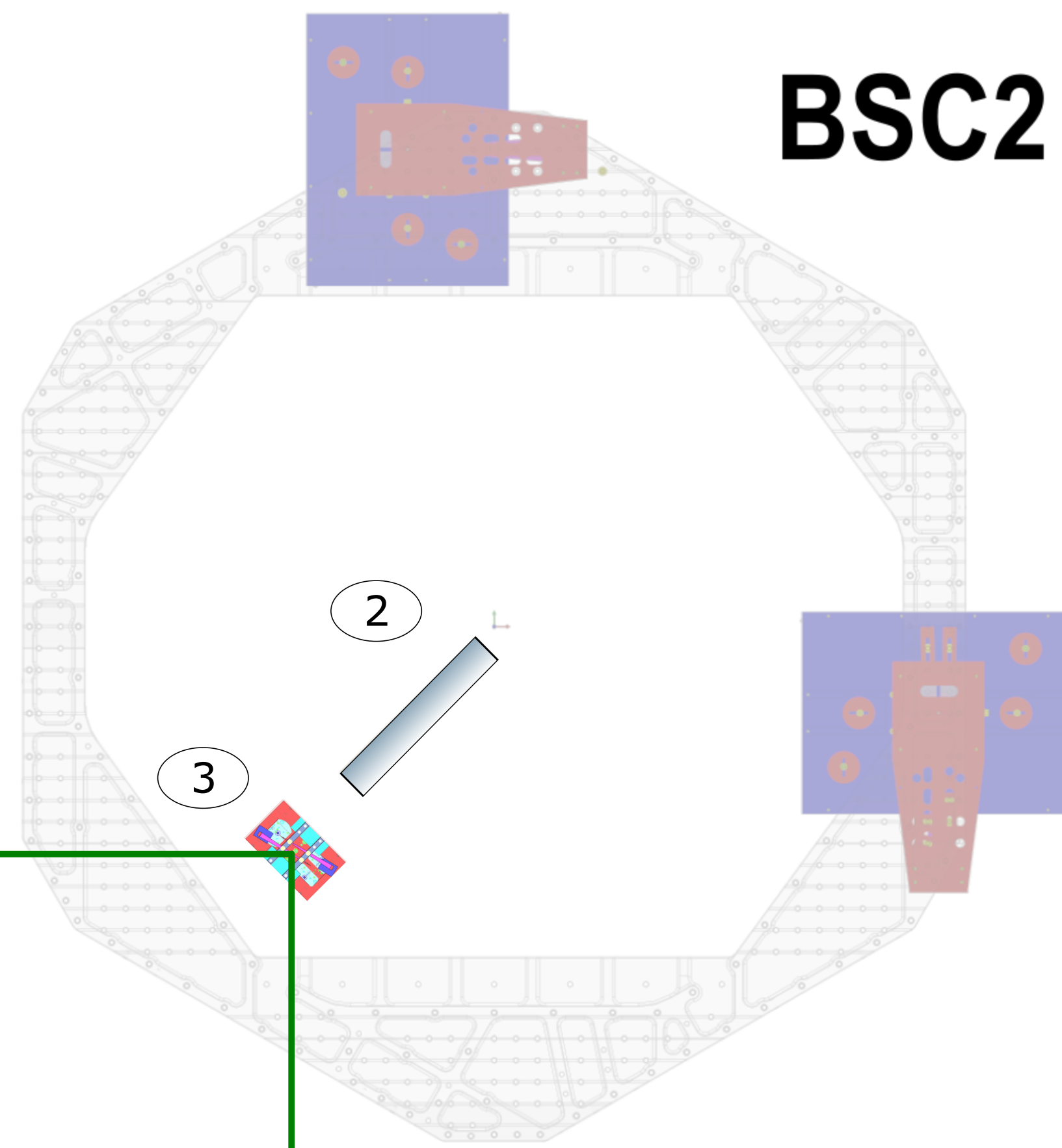


~300m long filter cavity

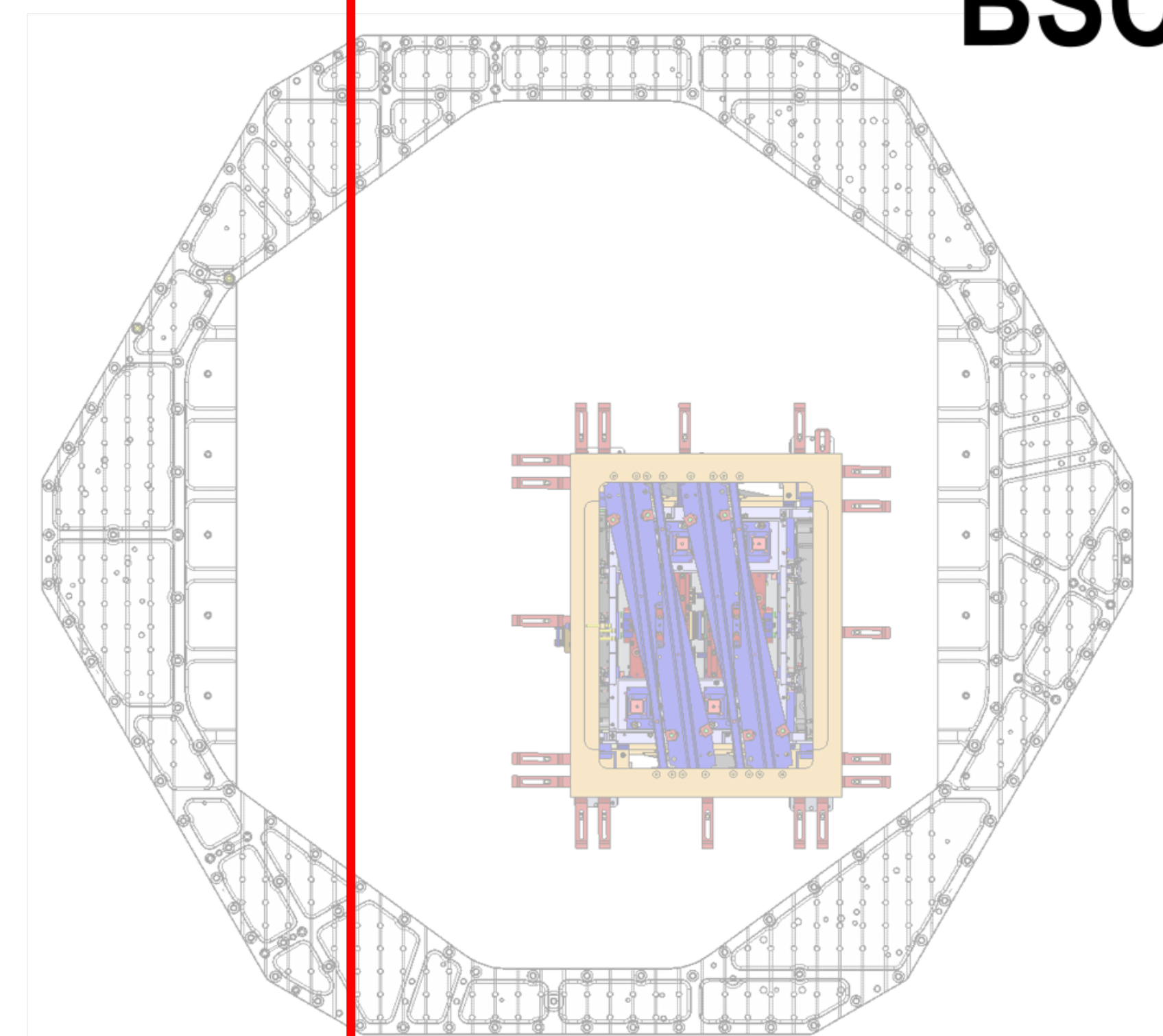
HAM3



BSC2



BSC3



LIGO-D1800027-v18

A+ CONCEPTUAL DESIGN

OPTICS/SITE

SUMMARY:

- 5X SIMPLER TRIPLES (HRTS)
- 1X LARGER BS
- 2X HSTS TRIPLES (FILTER CAVITY)
- 7X HAM DOUBLE SUSPENSIONS (HDS) WITH 4 OF 7 INCLUDING ACTIVE MODE MATCHING STMS (SAMS)
- 1X OMC PLATFORM (WITH 2 OMC'S)
- 6X EXISTING TIP-TILTS (2 OF 6 WITH ACTIVE MODE MATCHING)
- 1X LOW LOSS FARADAY ISOLATOR

DETAILS:

HAM3

- ① BHDBS1 (HRTS WITH BS, LO BEAM)

BSC2

- ② BS (BS 450mm DIAMETER)
- ③ BHDM1 (HRTS WITH MIRROR, LO BEAM)

HAM4

- ④ BHDL1 (HRTS WITH LENS, LO BEAM)

HAM5

- ⑤ SQZR3 (TIP-TILT, SQUEEZER)
- ⑥ LOW LOSS FARADAY ISOLATOR

HAM6

- ⑦ BHDBS2 (HRTS)
- ⑧ OM0 (HRTS)
- ⑨ OMA1 } HAM DOUBLE SUSPENSION (HDS) +
- ⑩ OMA2 } ACTIVE MODE MATCHING STAGE (SAMS)
- ⑪ OMA3 } HAM DOUBLE SUSPENSION (HDS)
- ⑫ OMAS }
- ⑬ OMB1 } HDS + SAMS
- ⑭ OMB2 }
- ⑮ OMB3 (HDS)
- ⑯ OMCA } ON SINGLE OMC PLATFORM
- ⑰ OMCB }

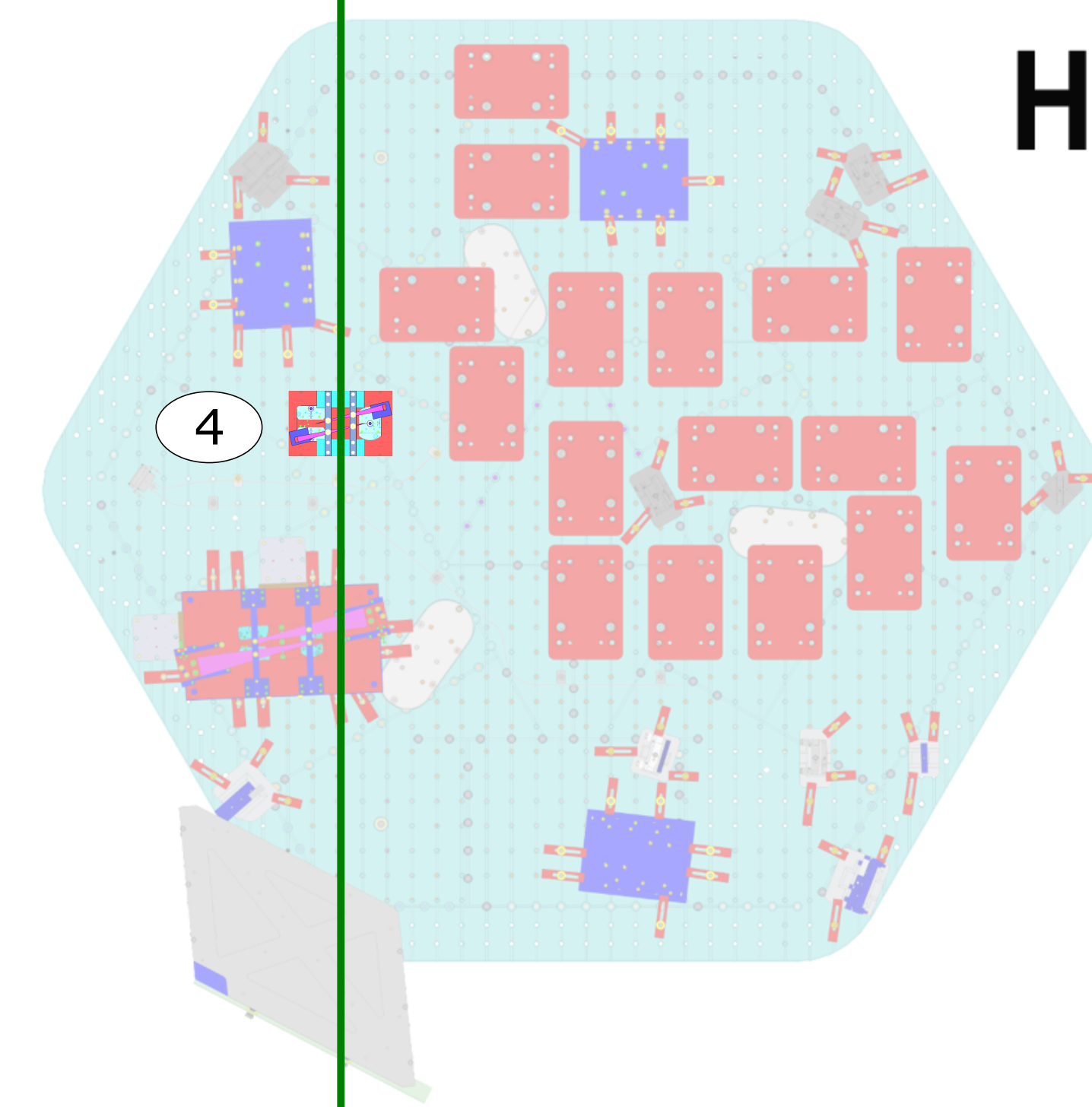
HAM7/9

- ⑱ FCR1 (TIP-TILT, SQUEEZER)
 - ⑲ FCR2 (TIP-TILT, SQUEEZER)
 - ⑳ FCR3 (TIP-TILT, SQUEEZER)
 - ㉑ SQZR1 (TIP-TILT, SQUEEZER)
 - ㉒ SQZR2 (TIP-TILT, SQUEEZER)
 - ㉓ FC1 (HSTS TRIPLE, FILTER CAVITY)
- 2 OF THE 6 TIP-TILTS WILL REQUIRE ACTIVE MODE MATCHING + PERHAPS EVEN A HDS WITH SAMS.

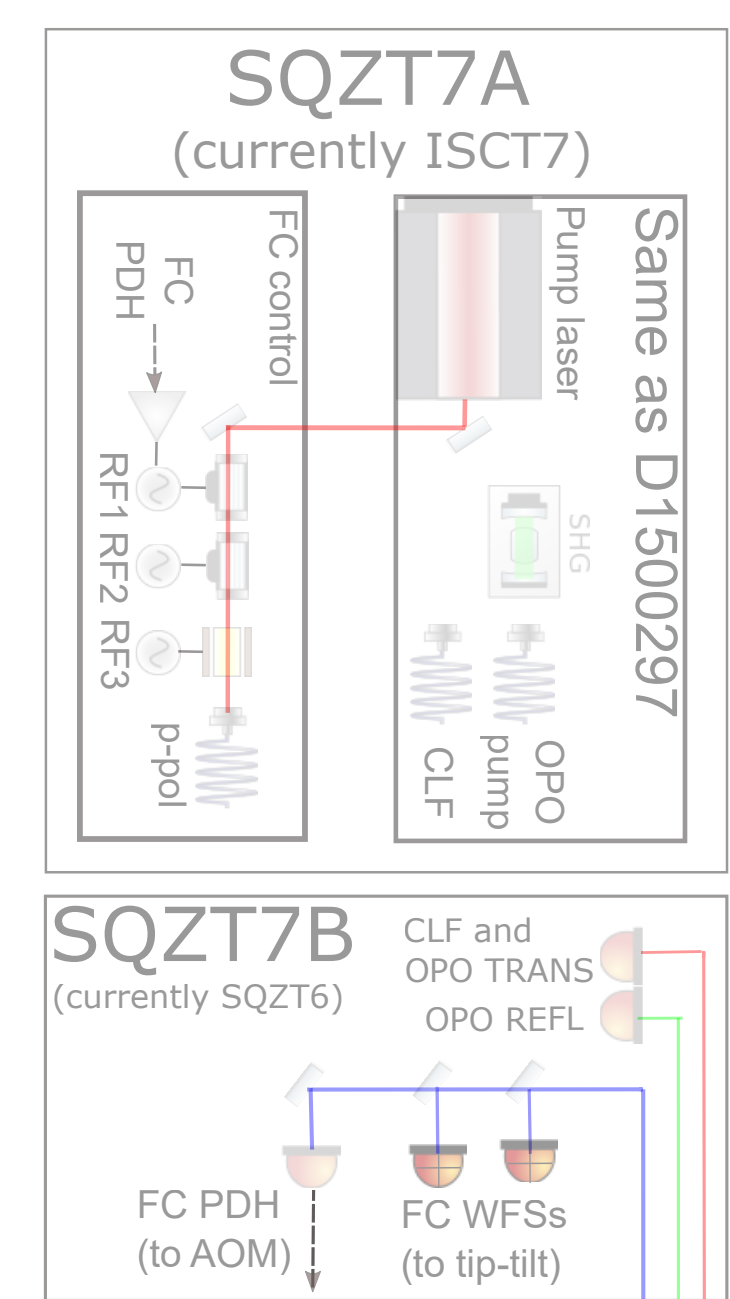
HAM8/10

- ㉔ FC2 (HSTS TRIPLE, FILTER CAVITY)

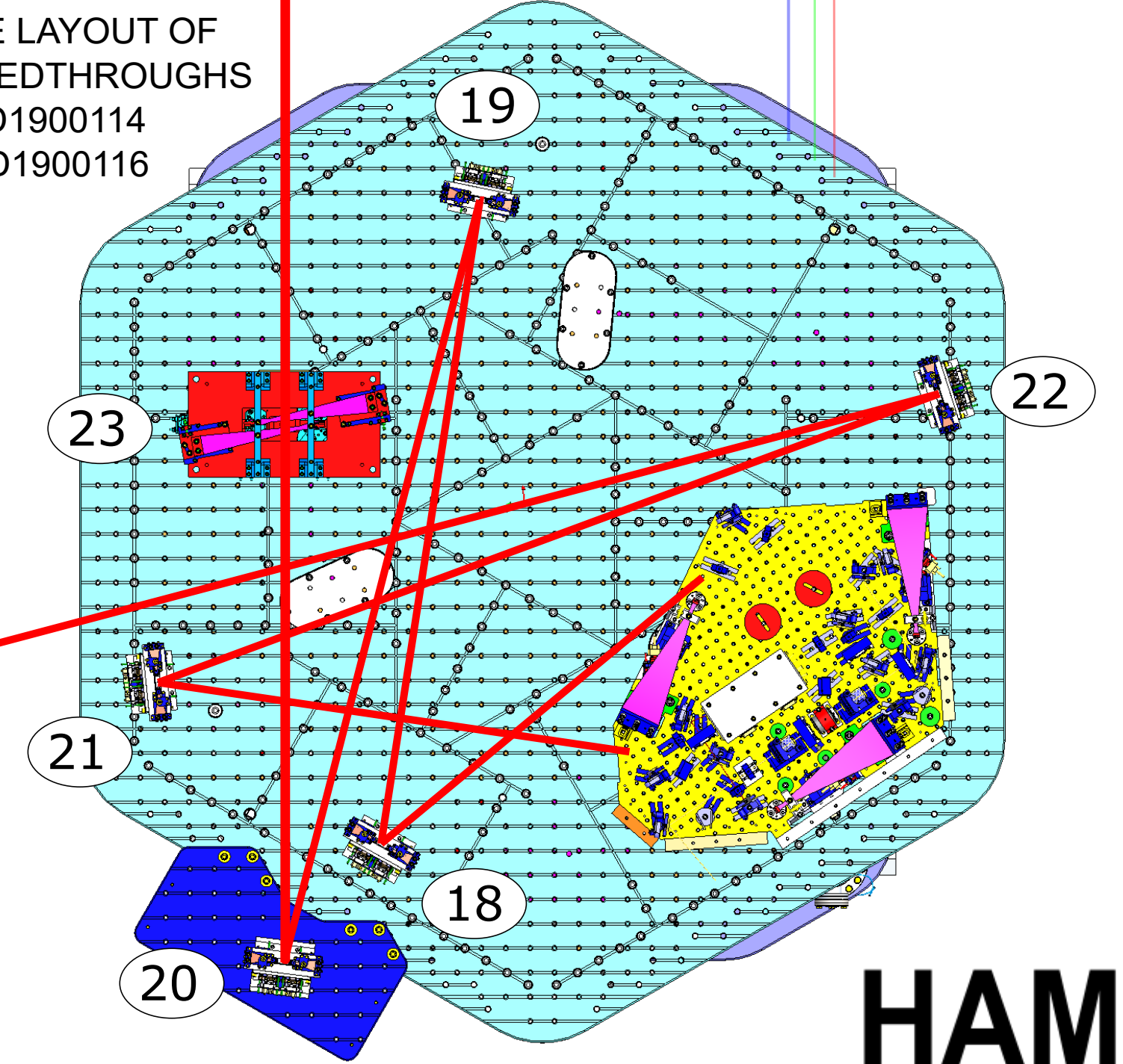
HAM4



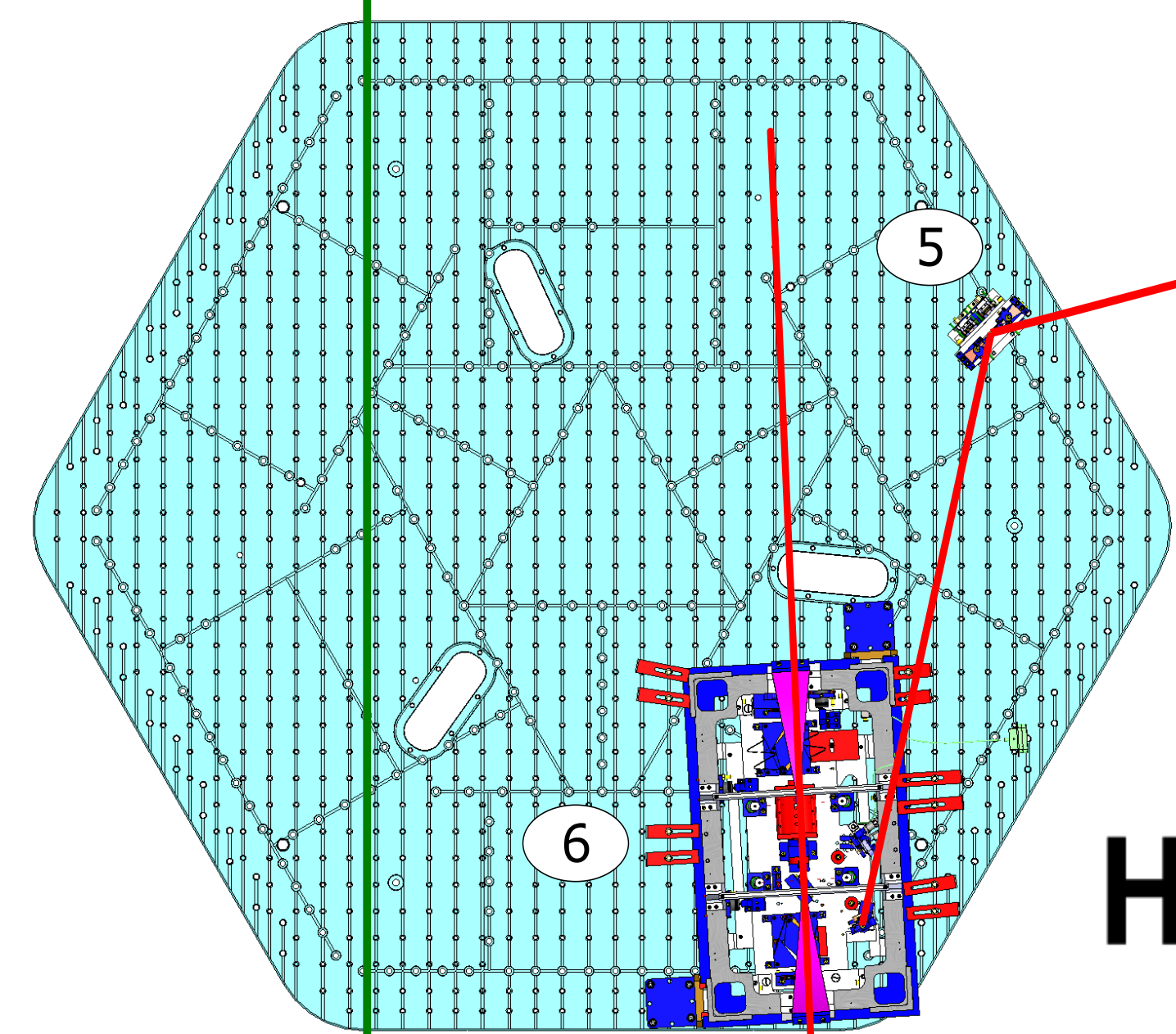
HAM7 FLANGE LAYOUT OF ELECTRICAL FEEDTHROUGHS
L1: LIGO-D1900114
H1: LIGO-D1900116



HAM7



HAM5



HAM6

