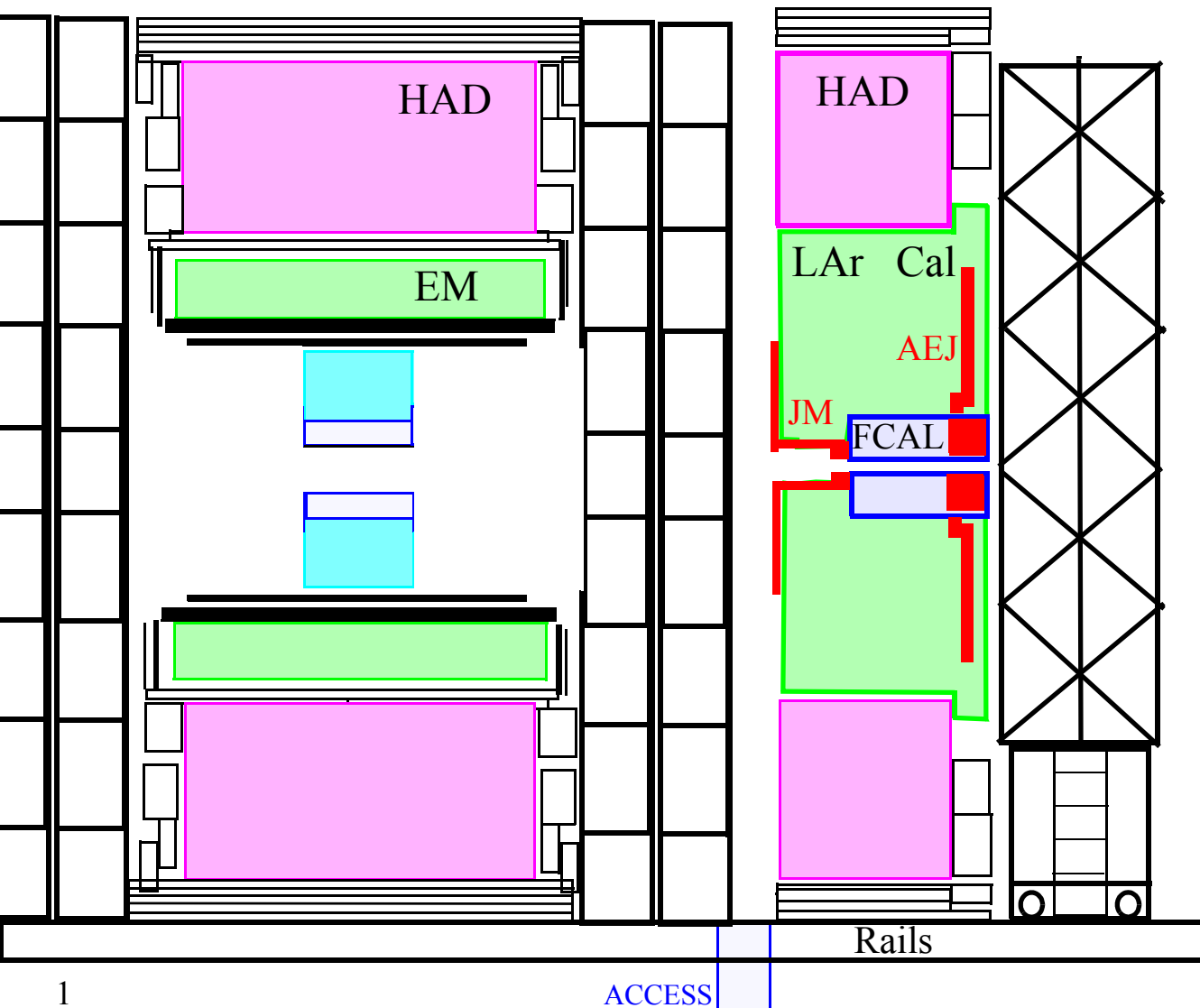
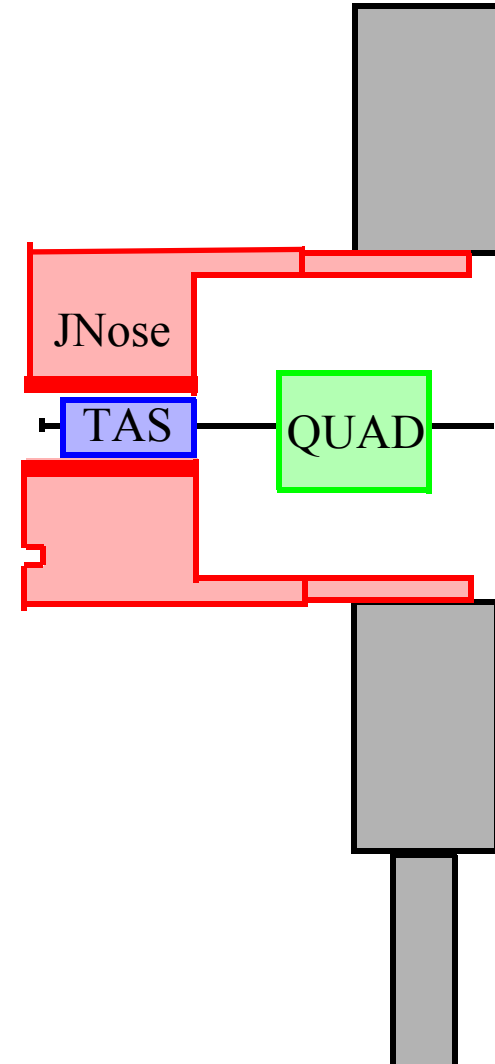


Side C

The scenario starts with the installation of the
MDT BW in November 2006 !

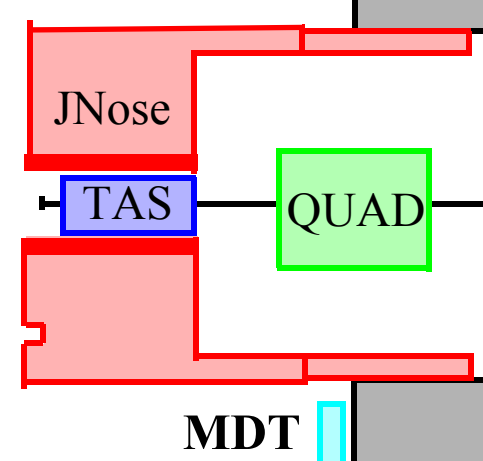
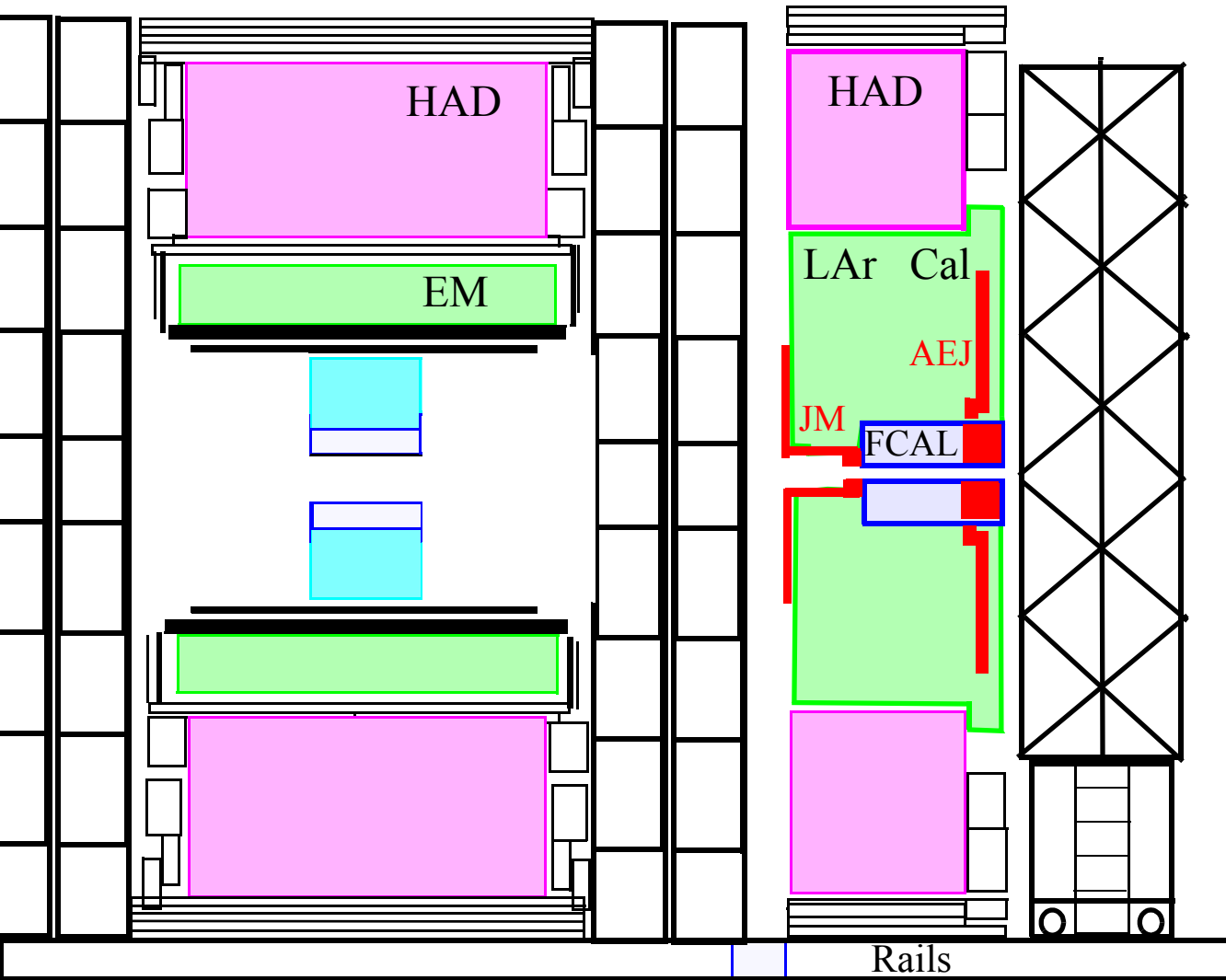


TGC 1



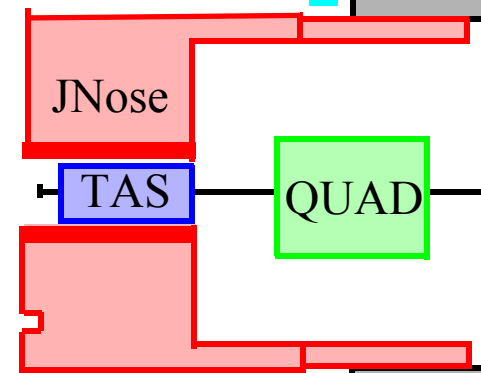
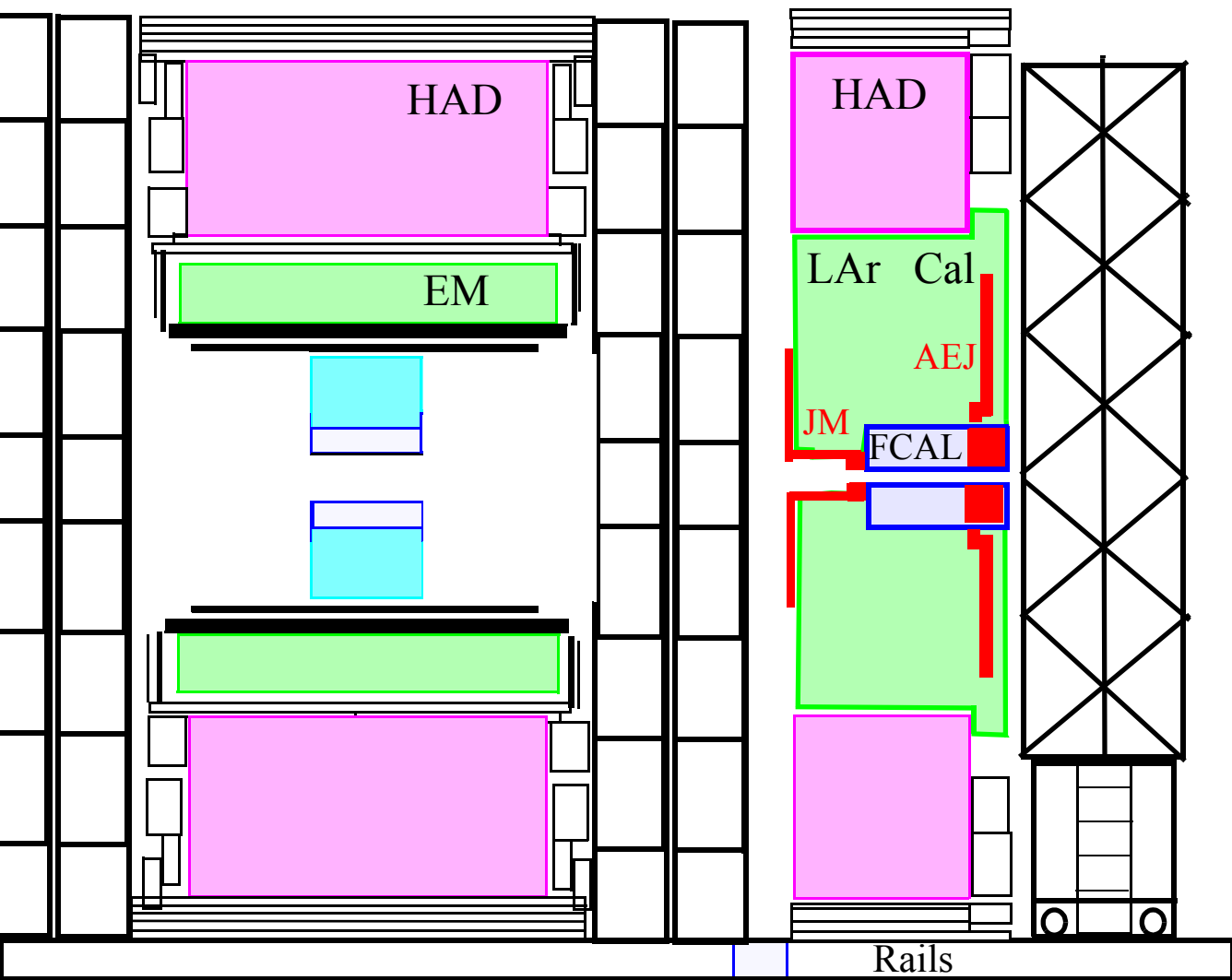
Build BW MDT

TGC 1



TGC 1

MDT



HAD

HAD

EM

LAr Cal

AEJ

JM

FCAL

JNose

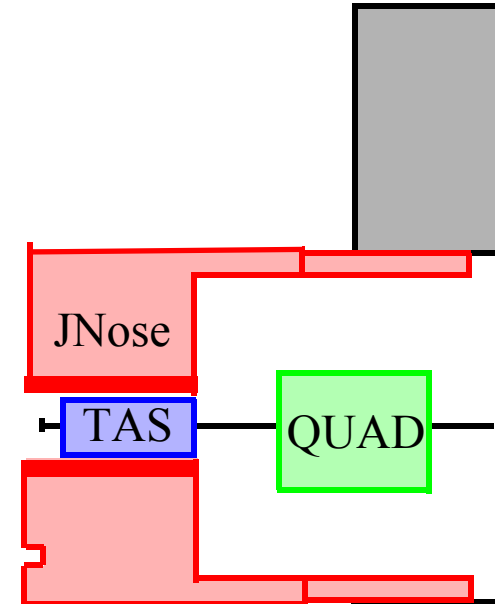
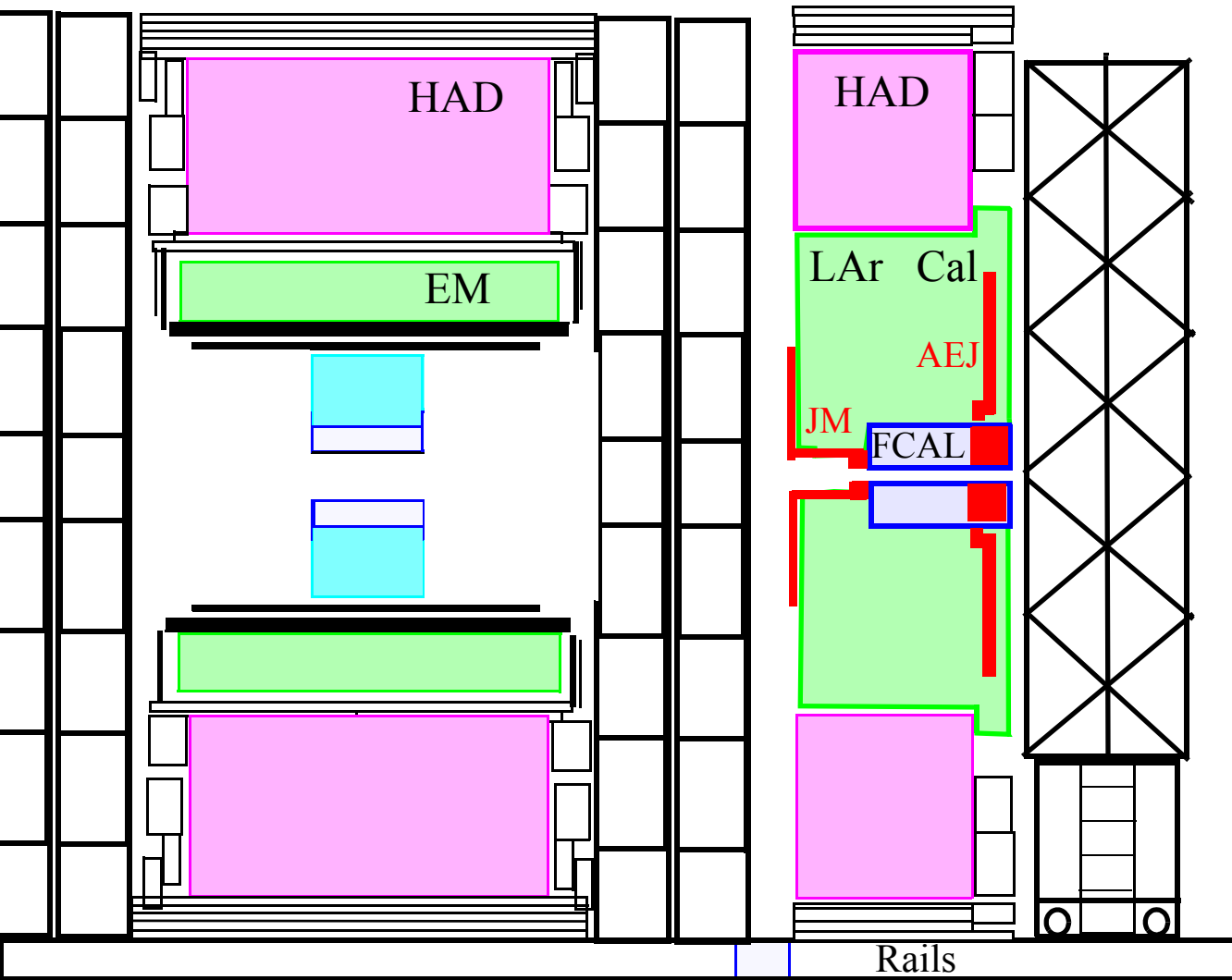
TAS

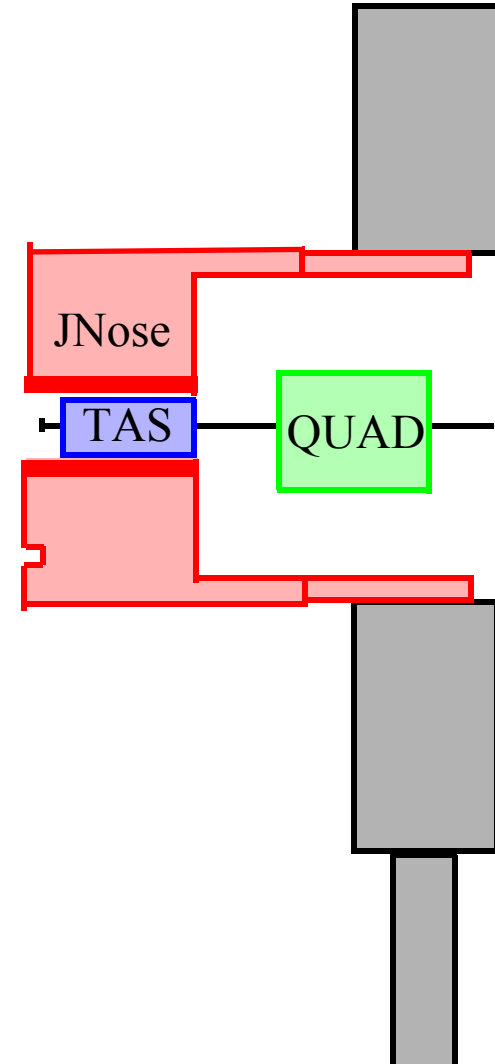
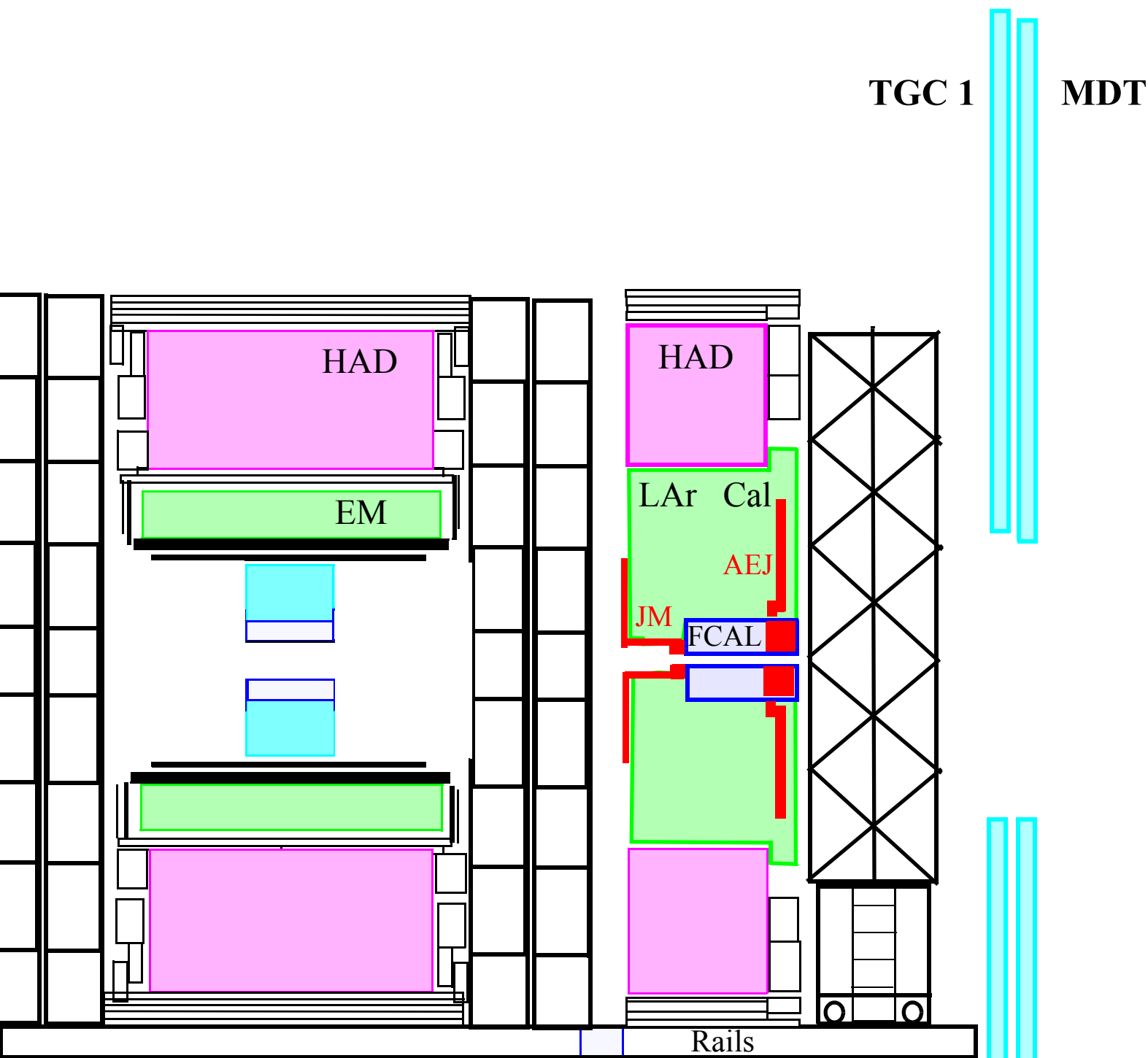
QUAD

Move BW MDT

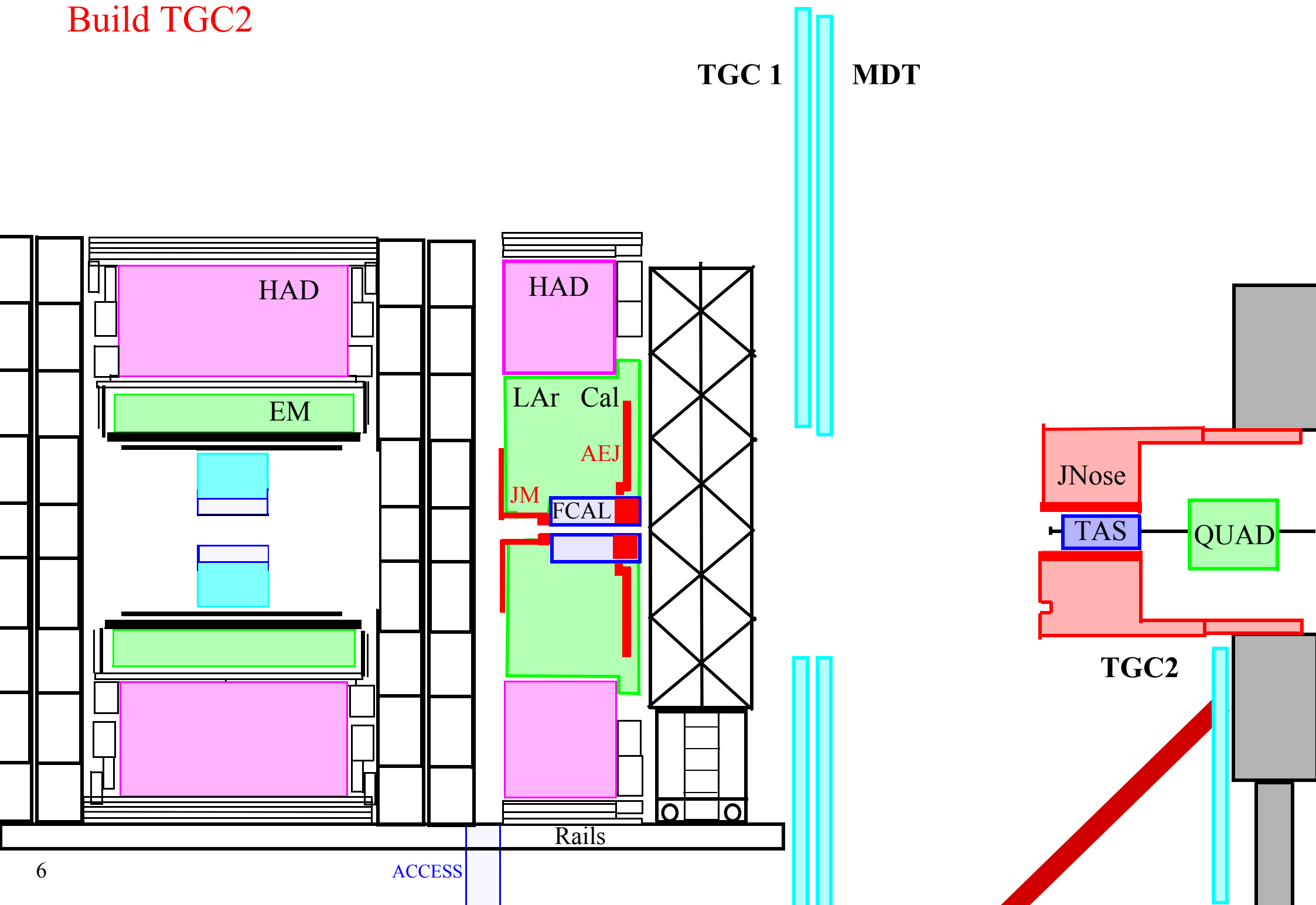
TGC 1

MDT

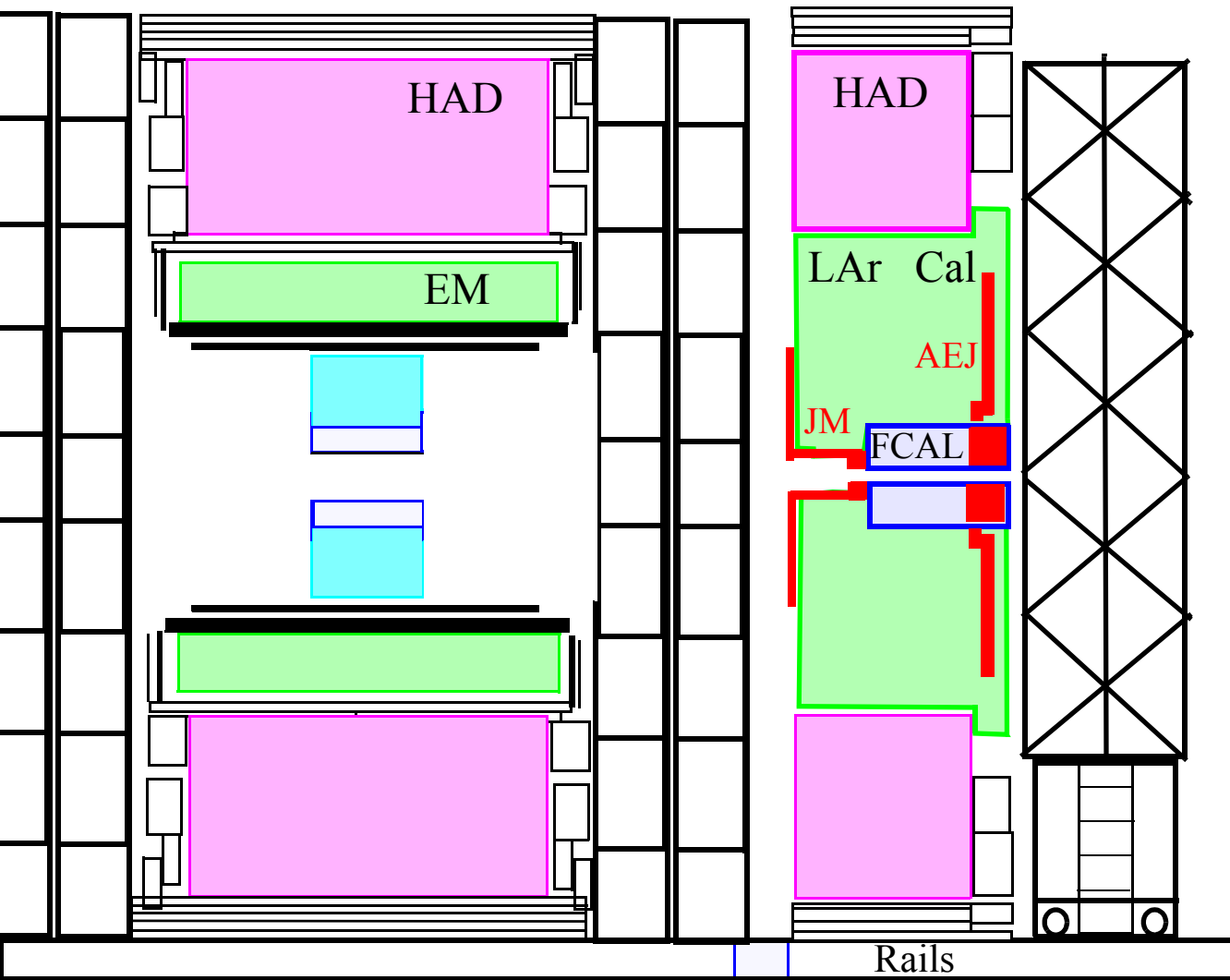




Build TGC2



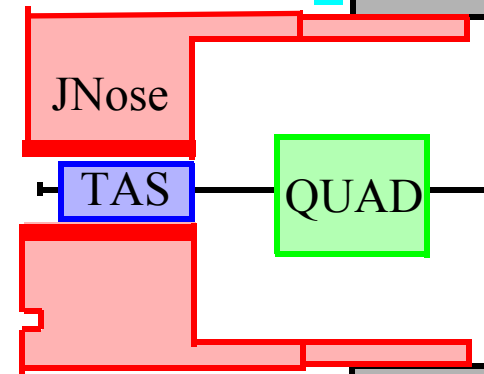
Build TGC2

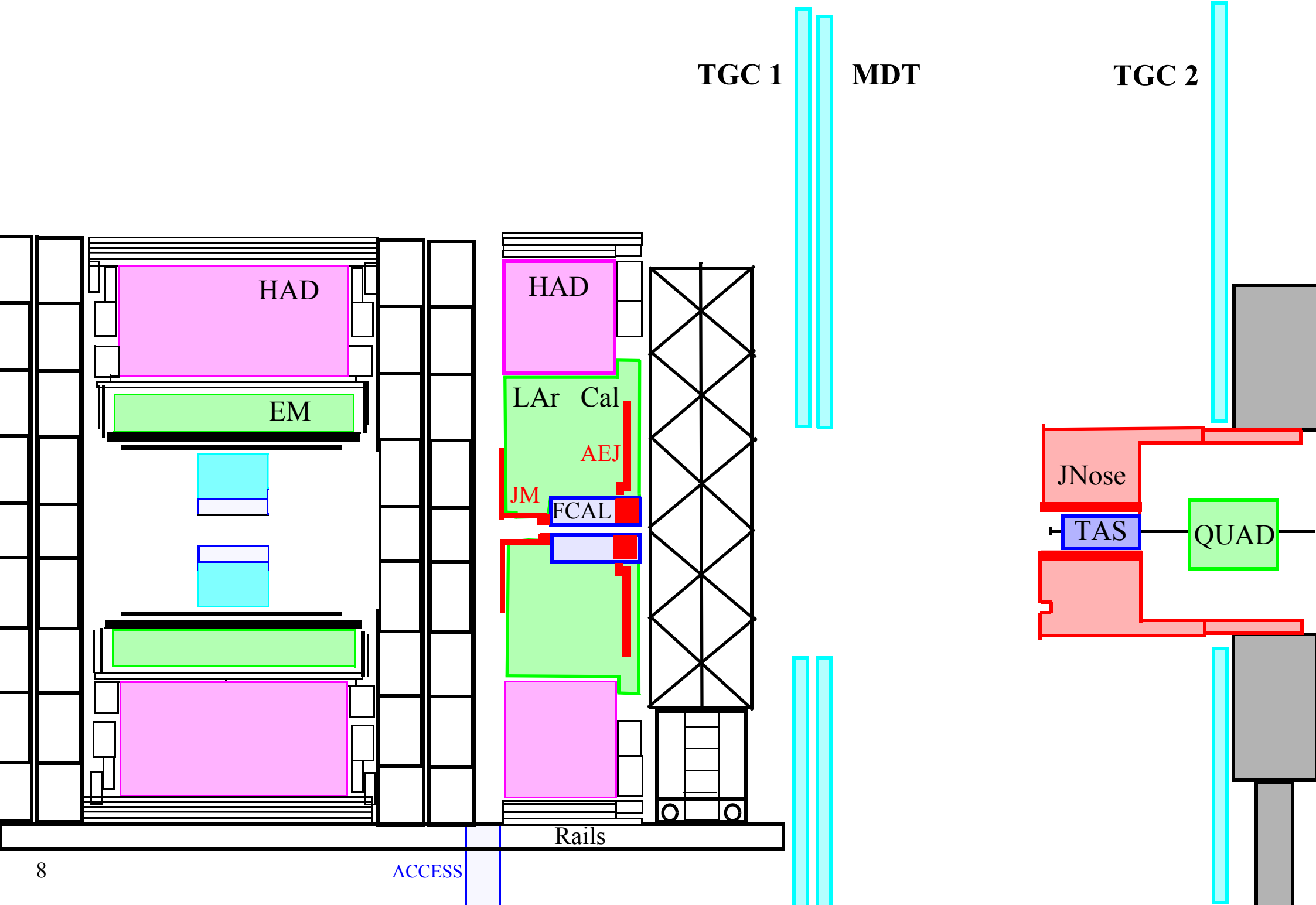


TGC 1

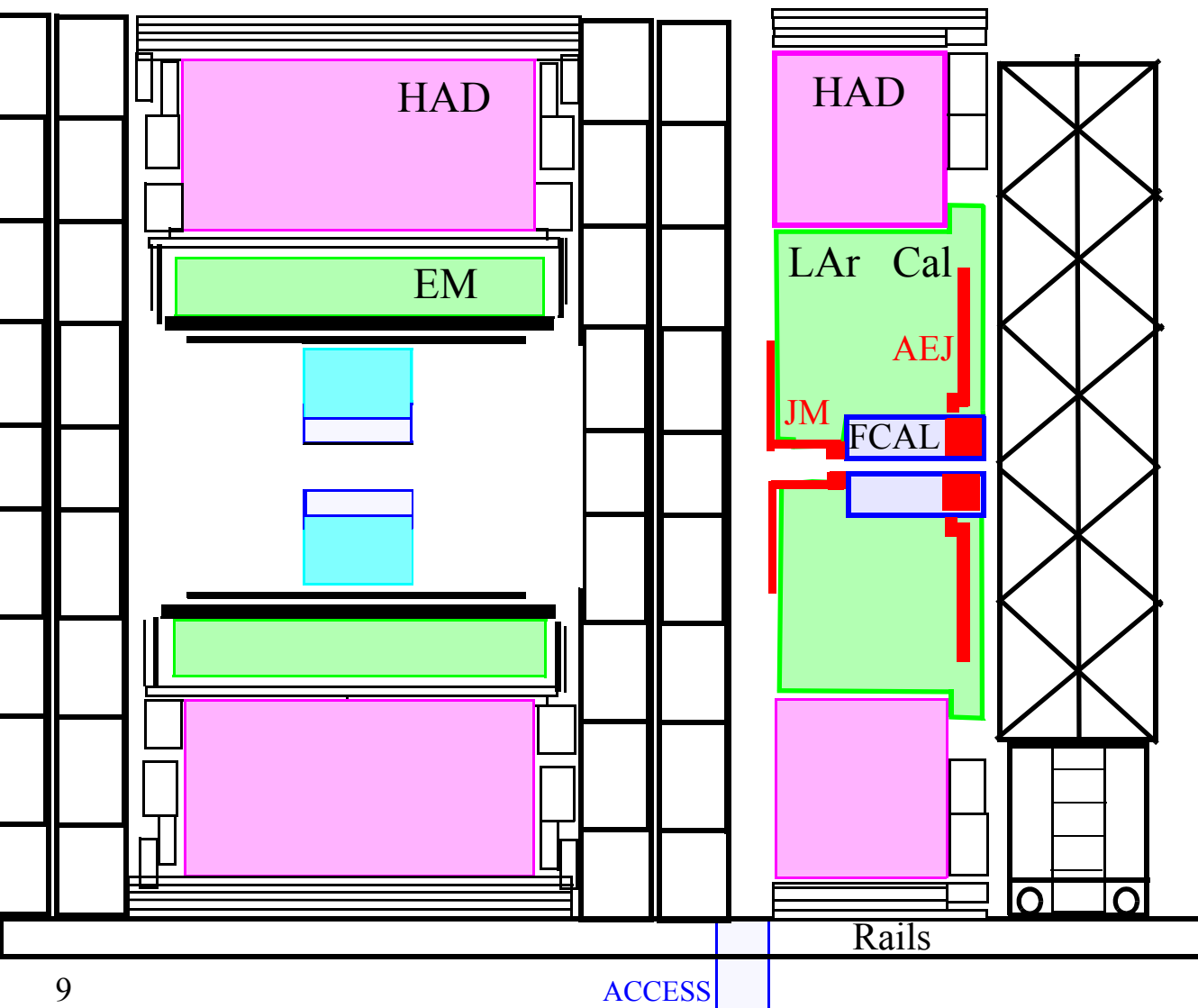
MDT

TGC 2

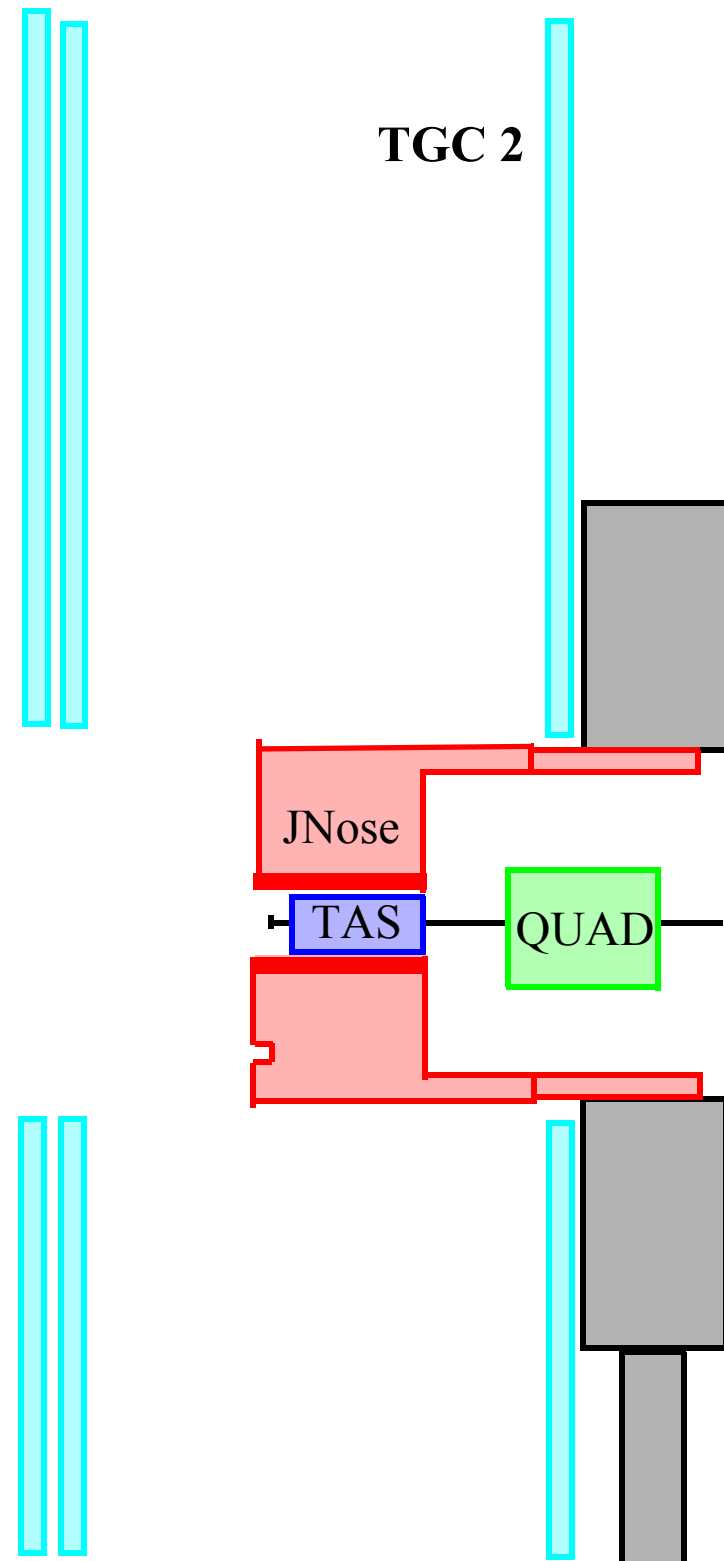




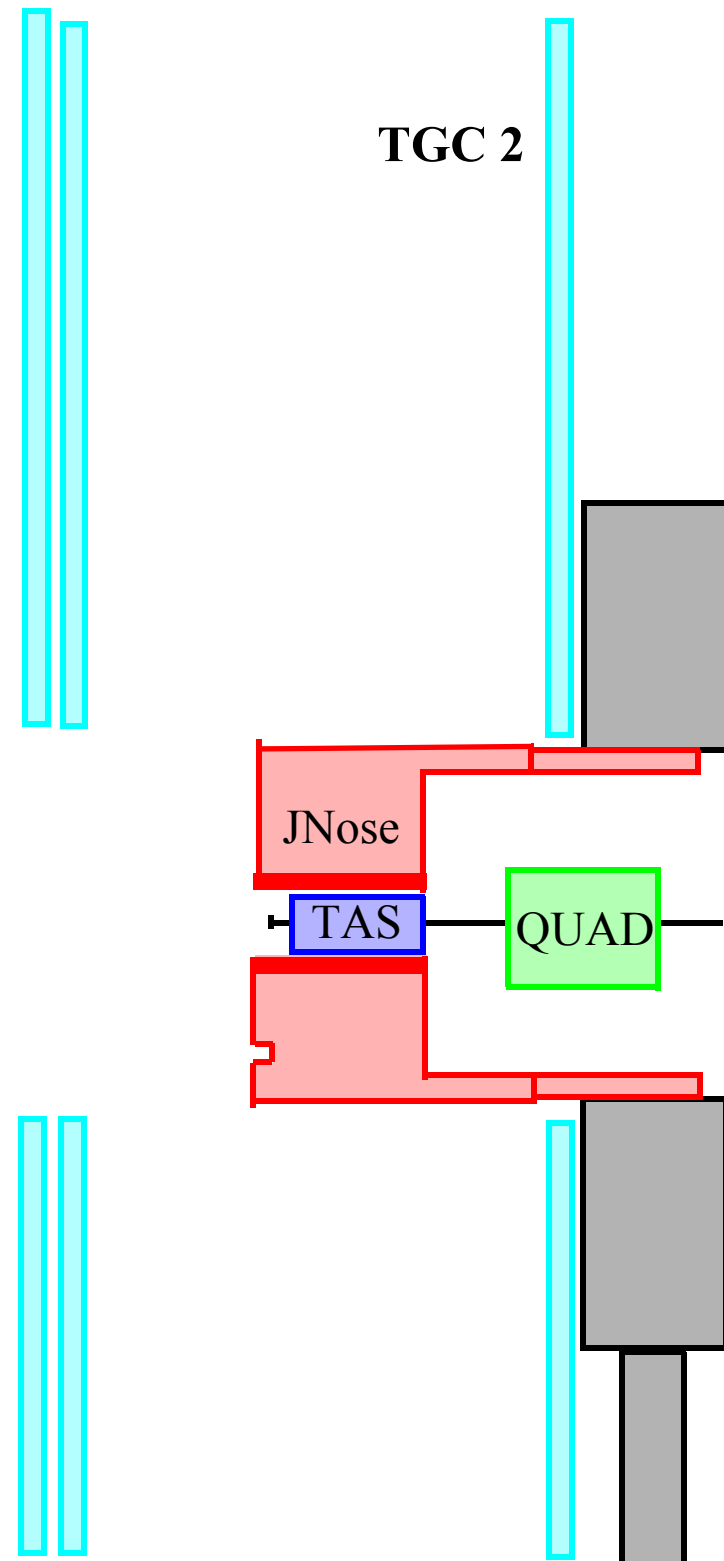
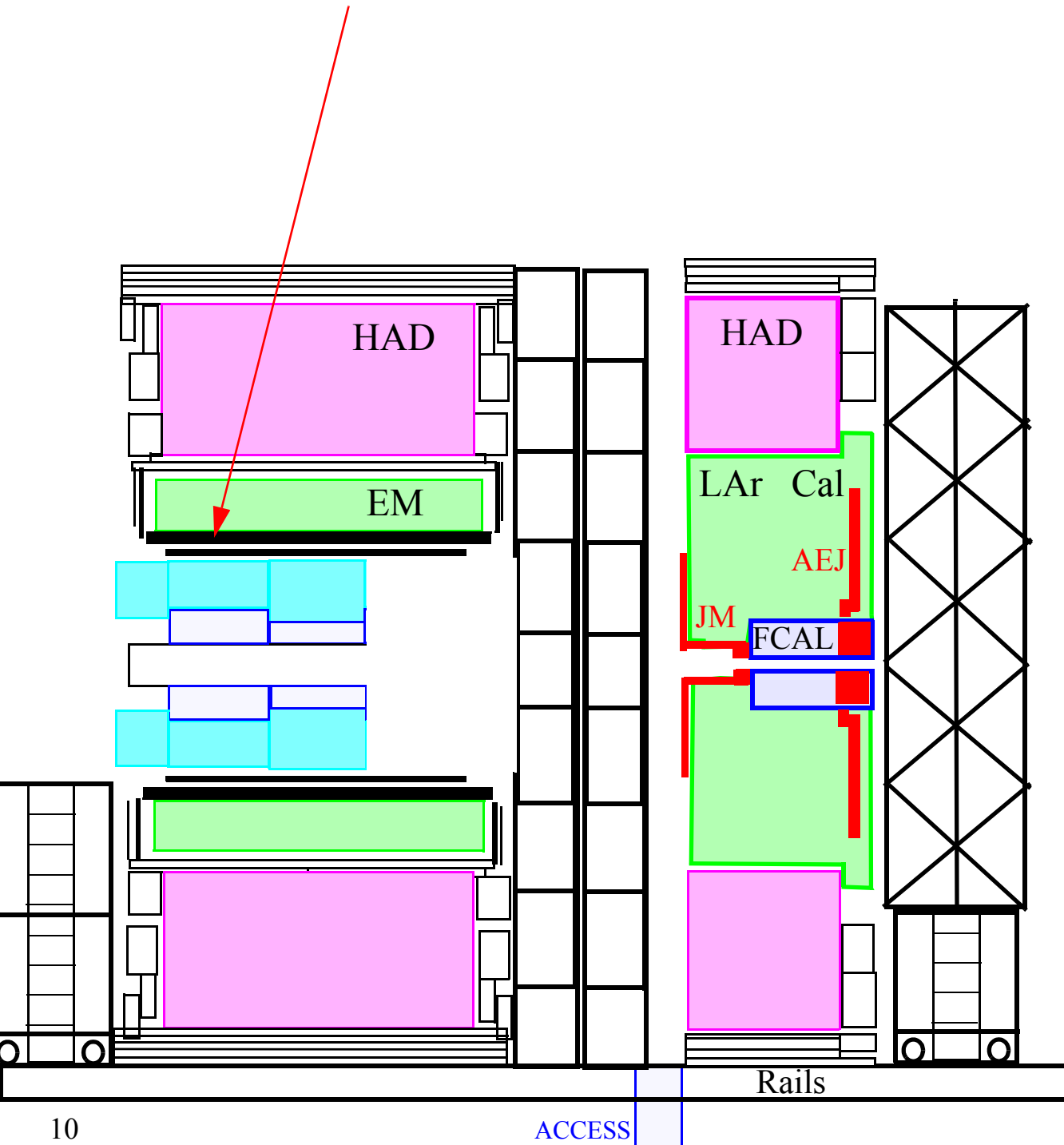
Move BW to garage position

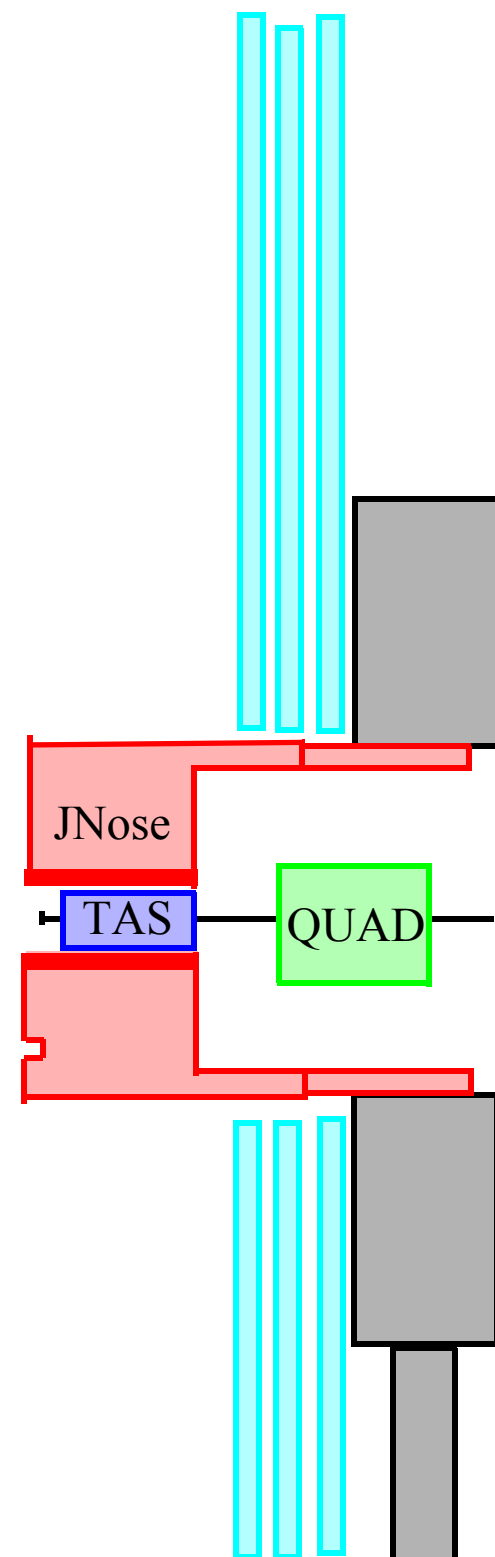
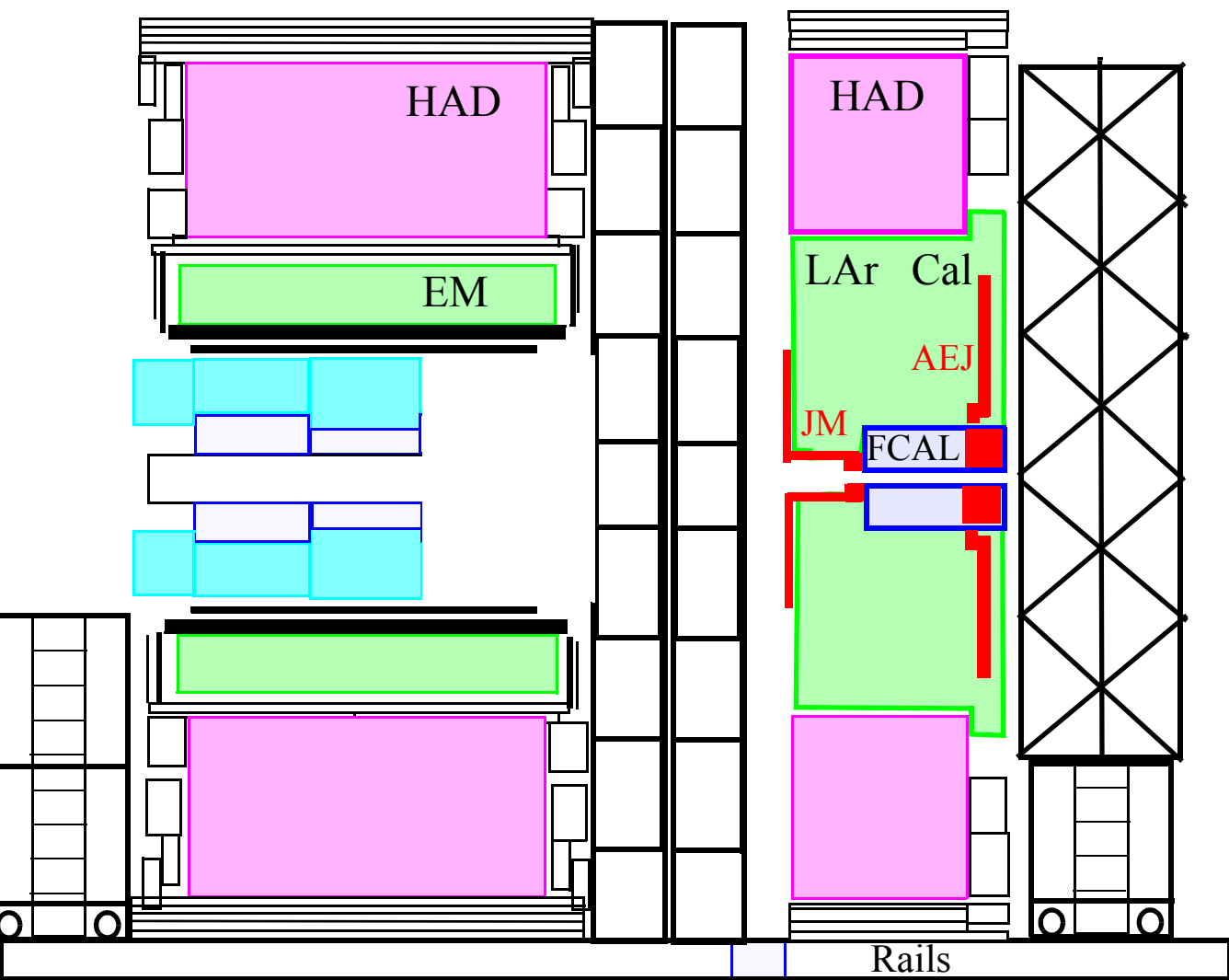


TGC 2

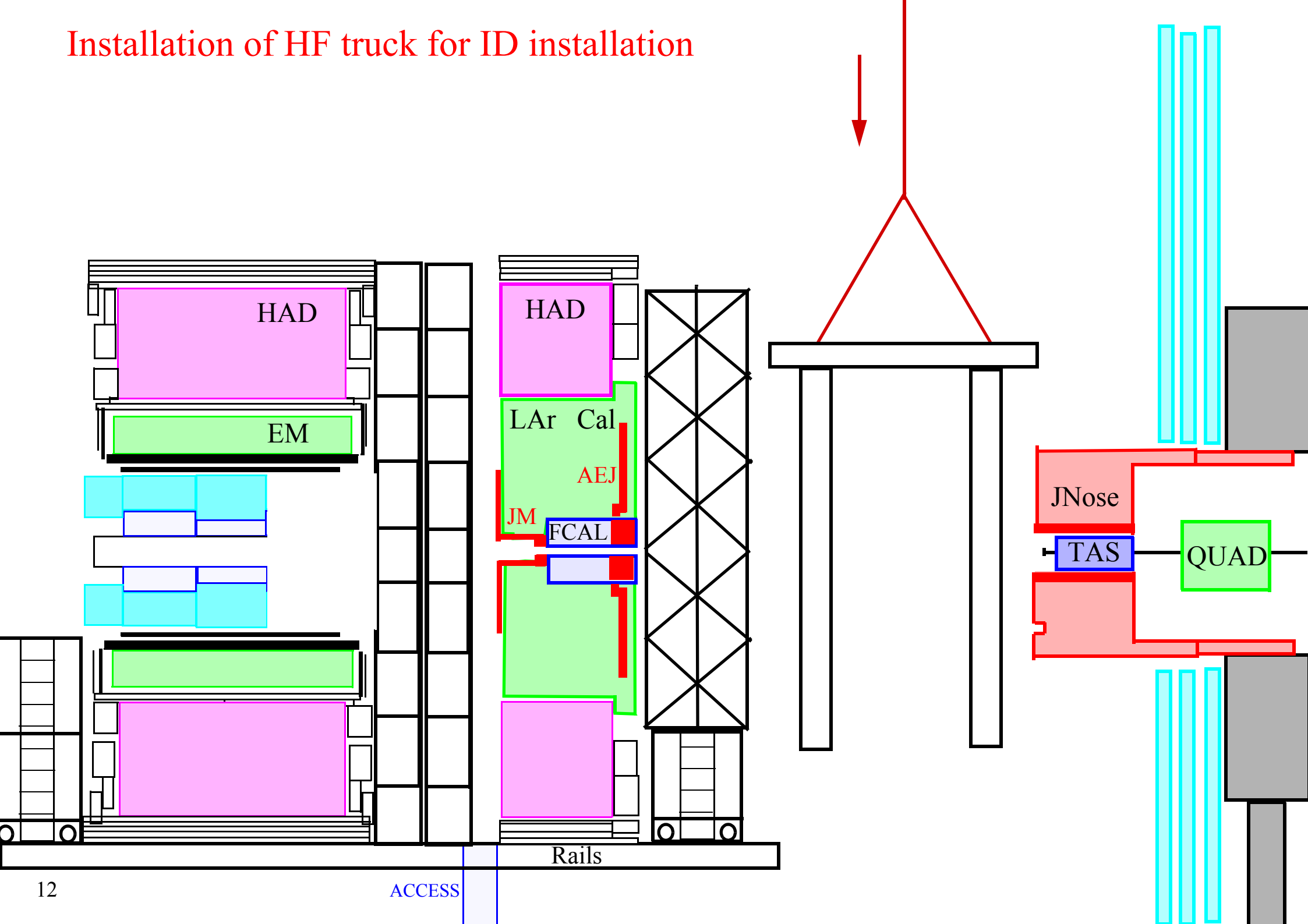


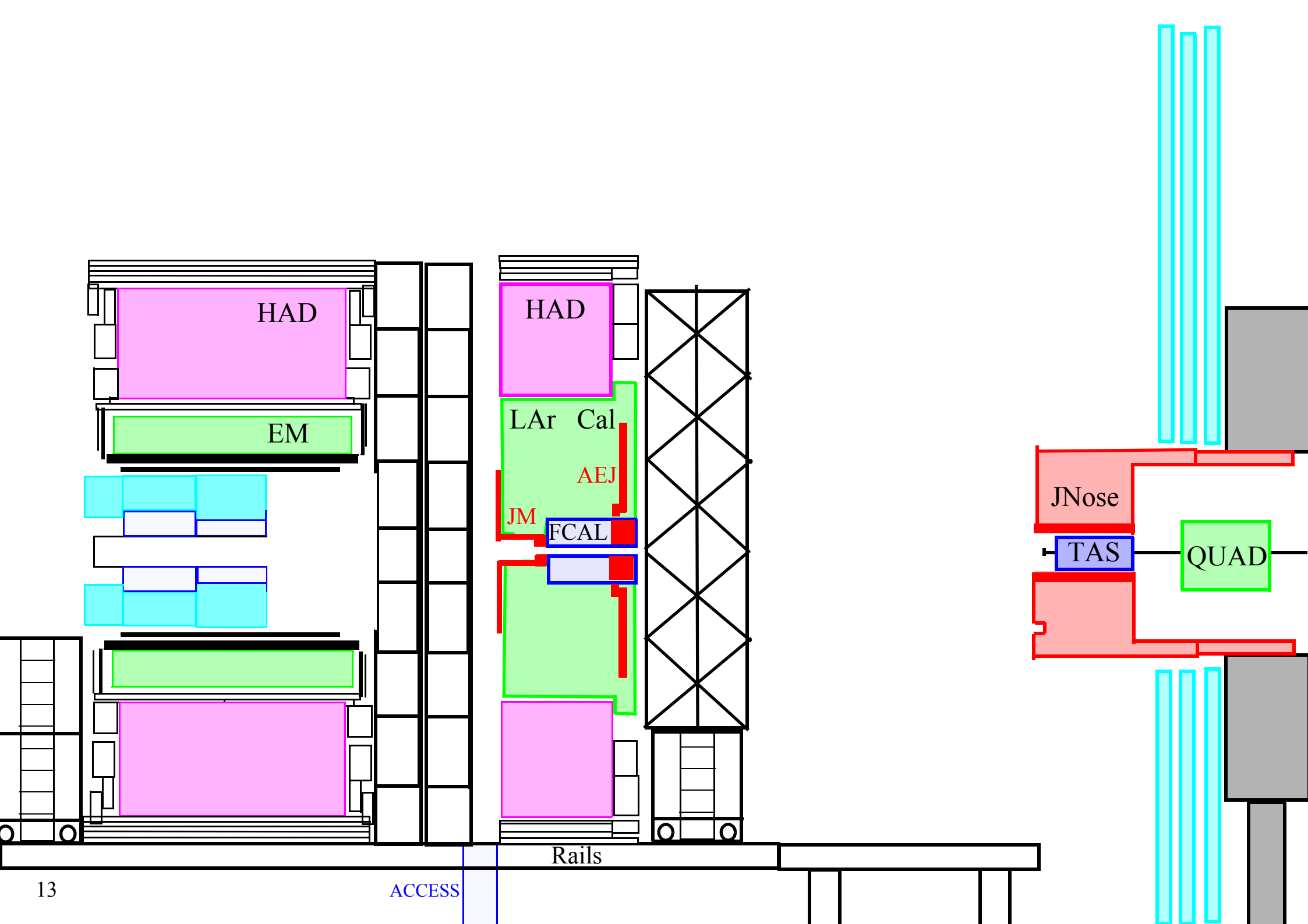
The ID endcap A is installed during this period.





Installation of HF truck for ID installation





JNose

TAS

QUAD

HAD

EM

HAD

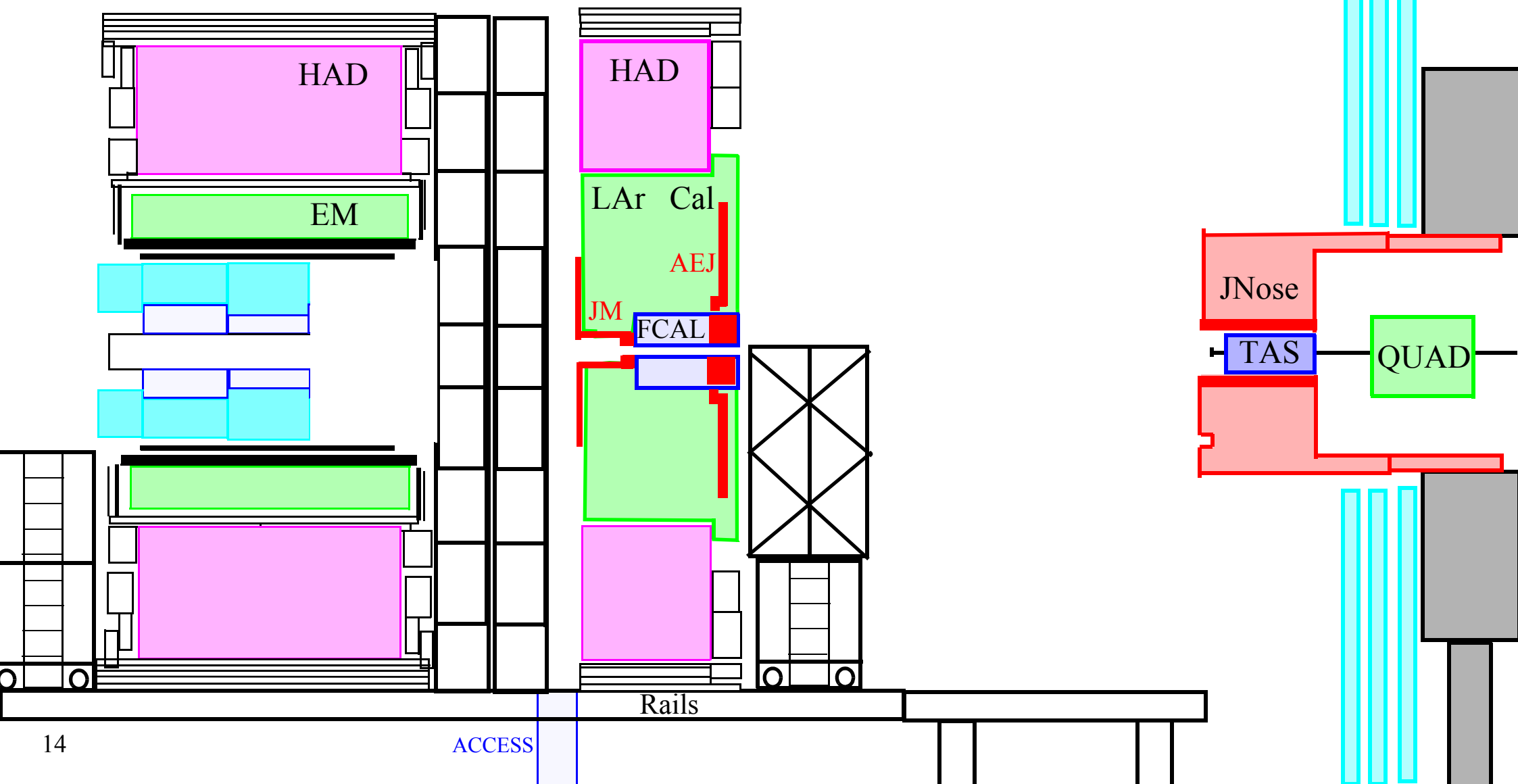
LAr Cal

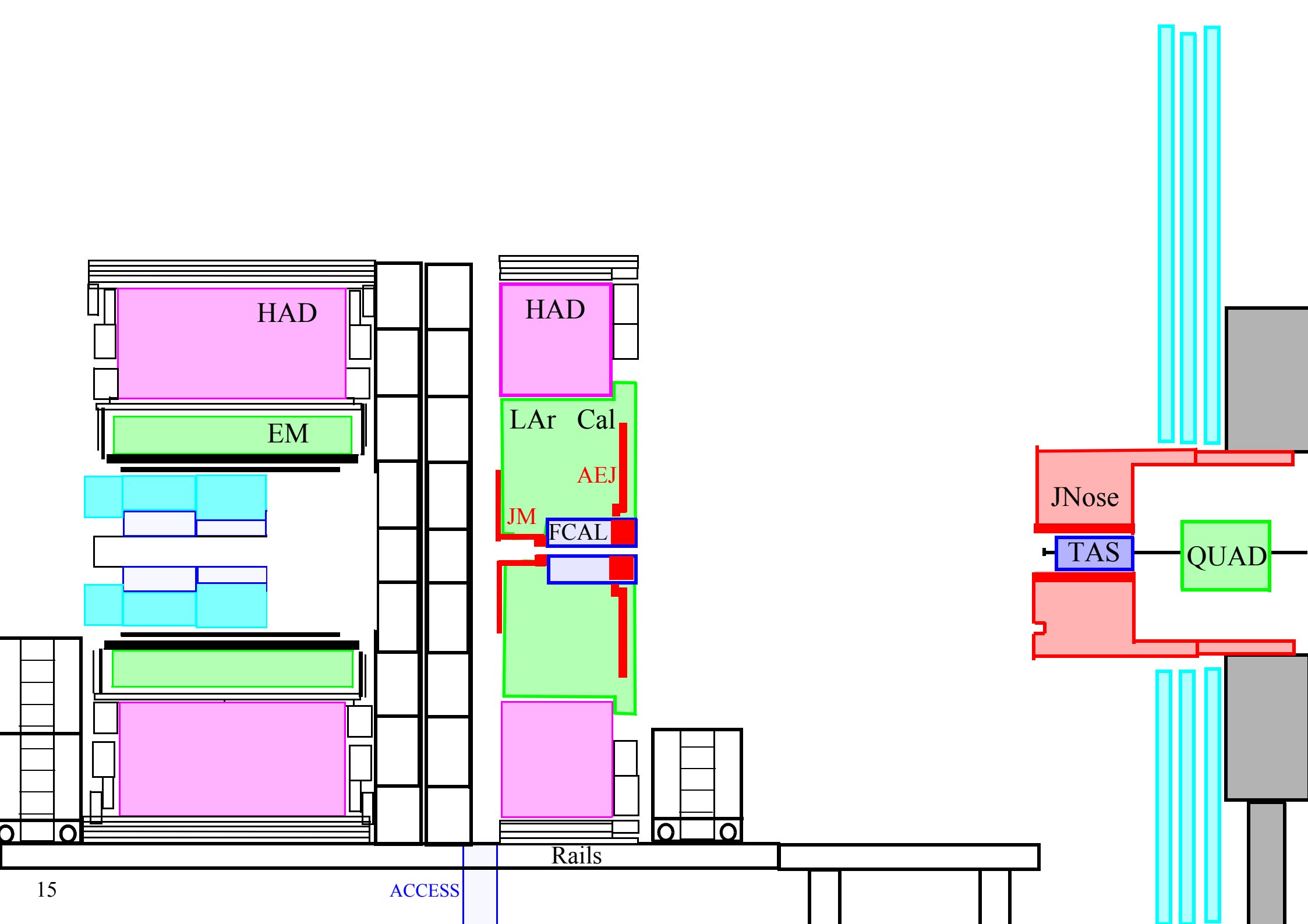
AEJ

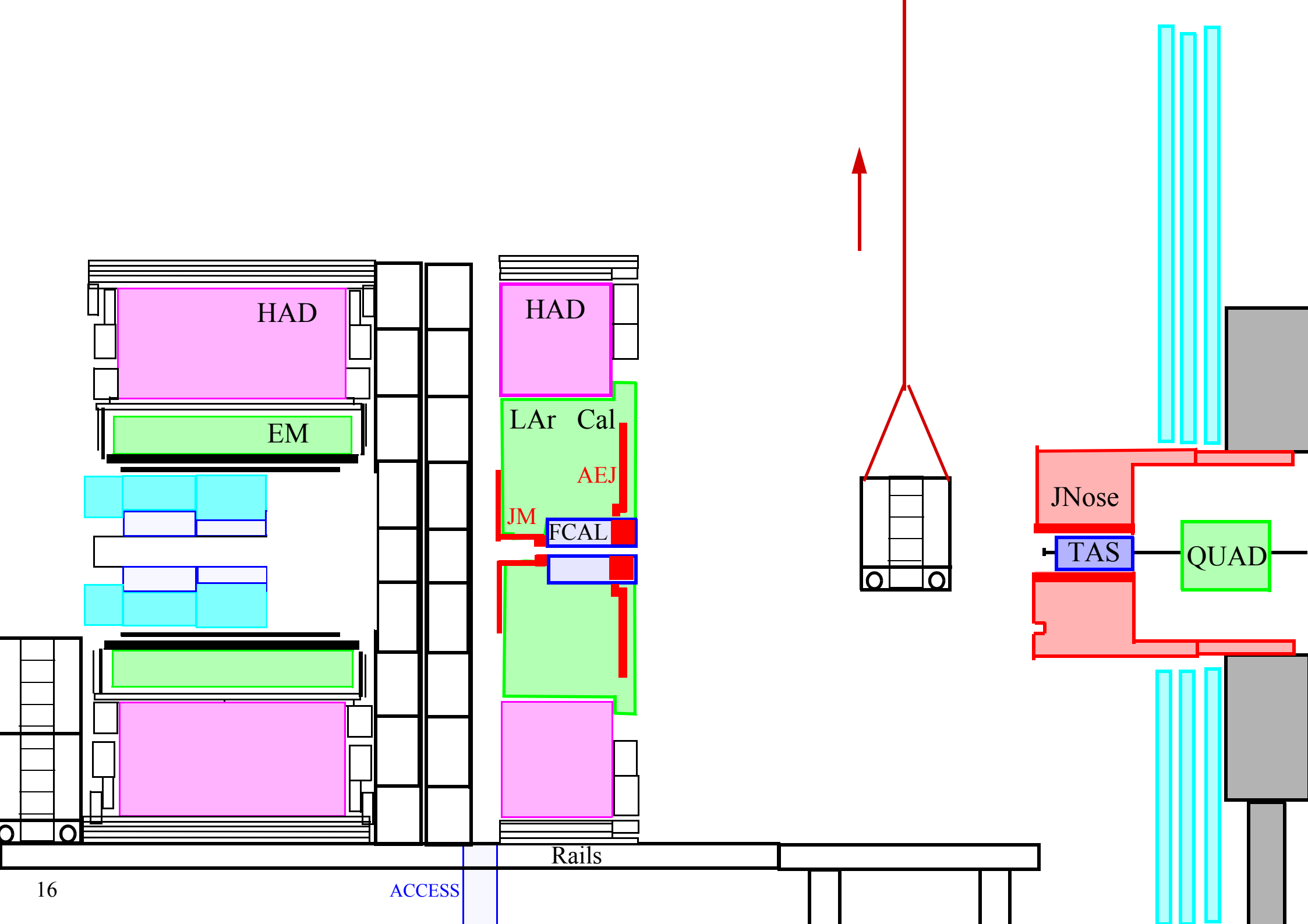
JM

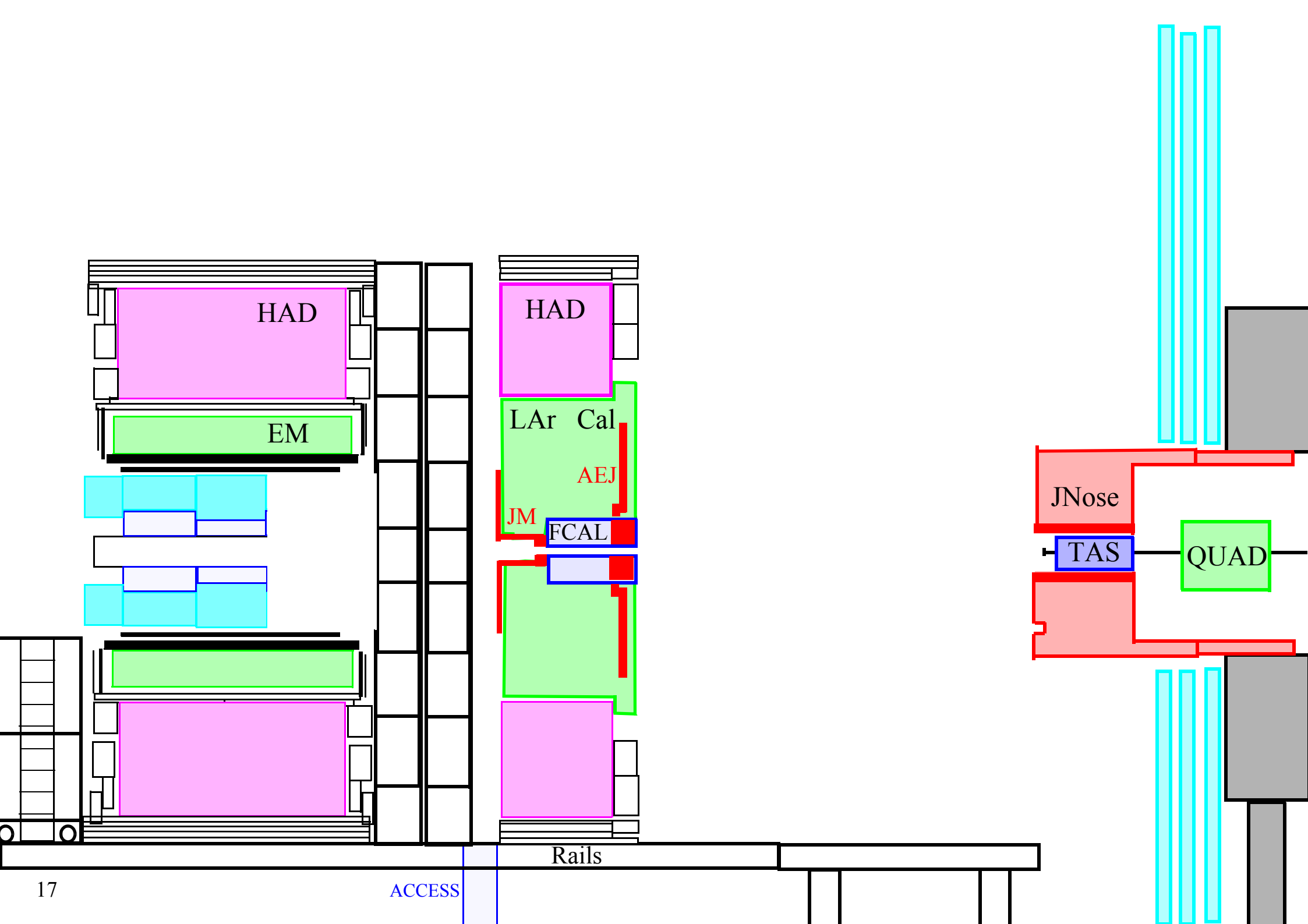
FCAL

Removal of scaffolding









HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

TAS

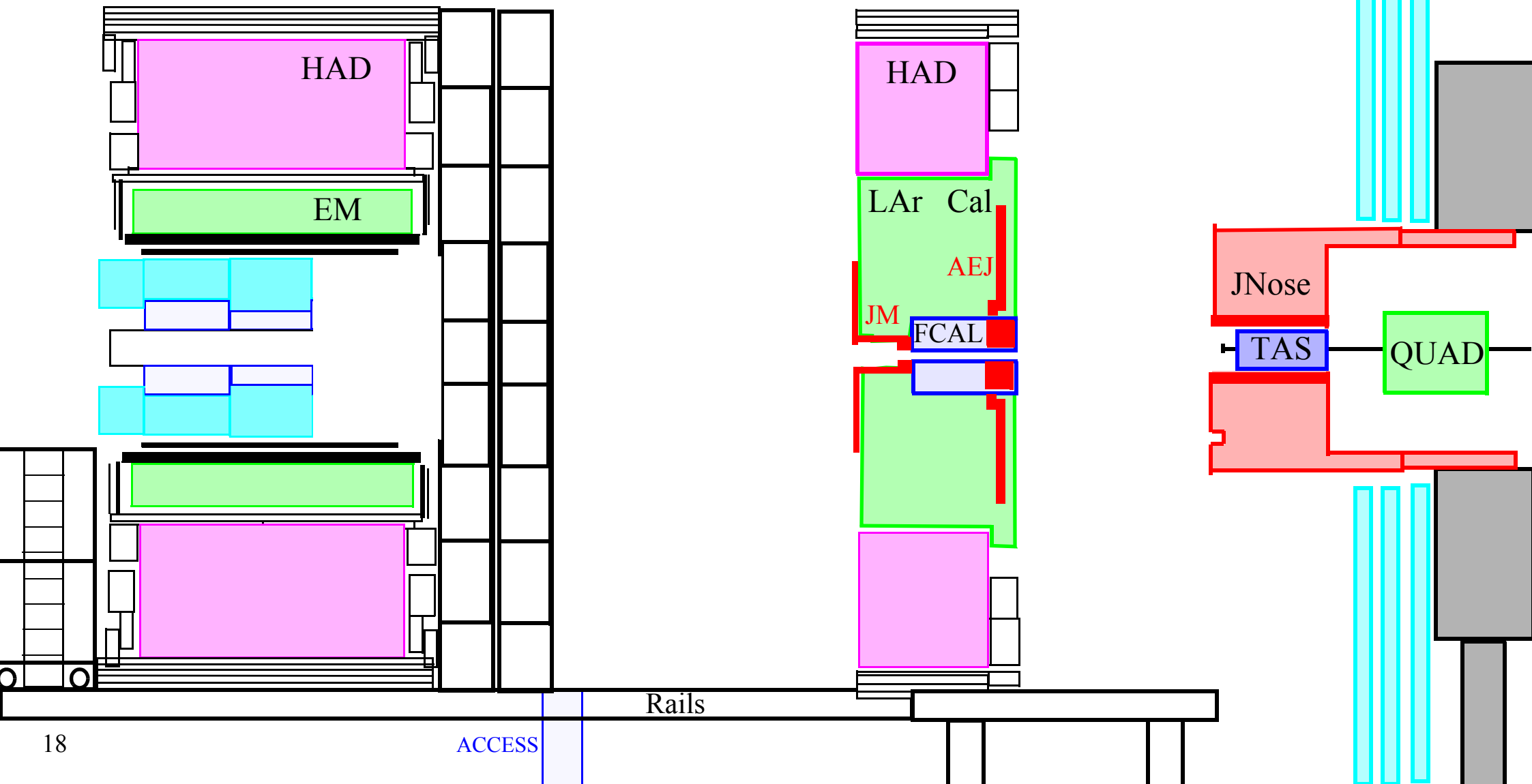
QUAD

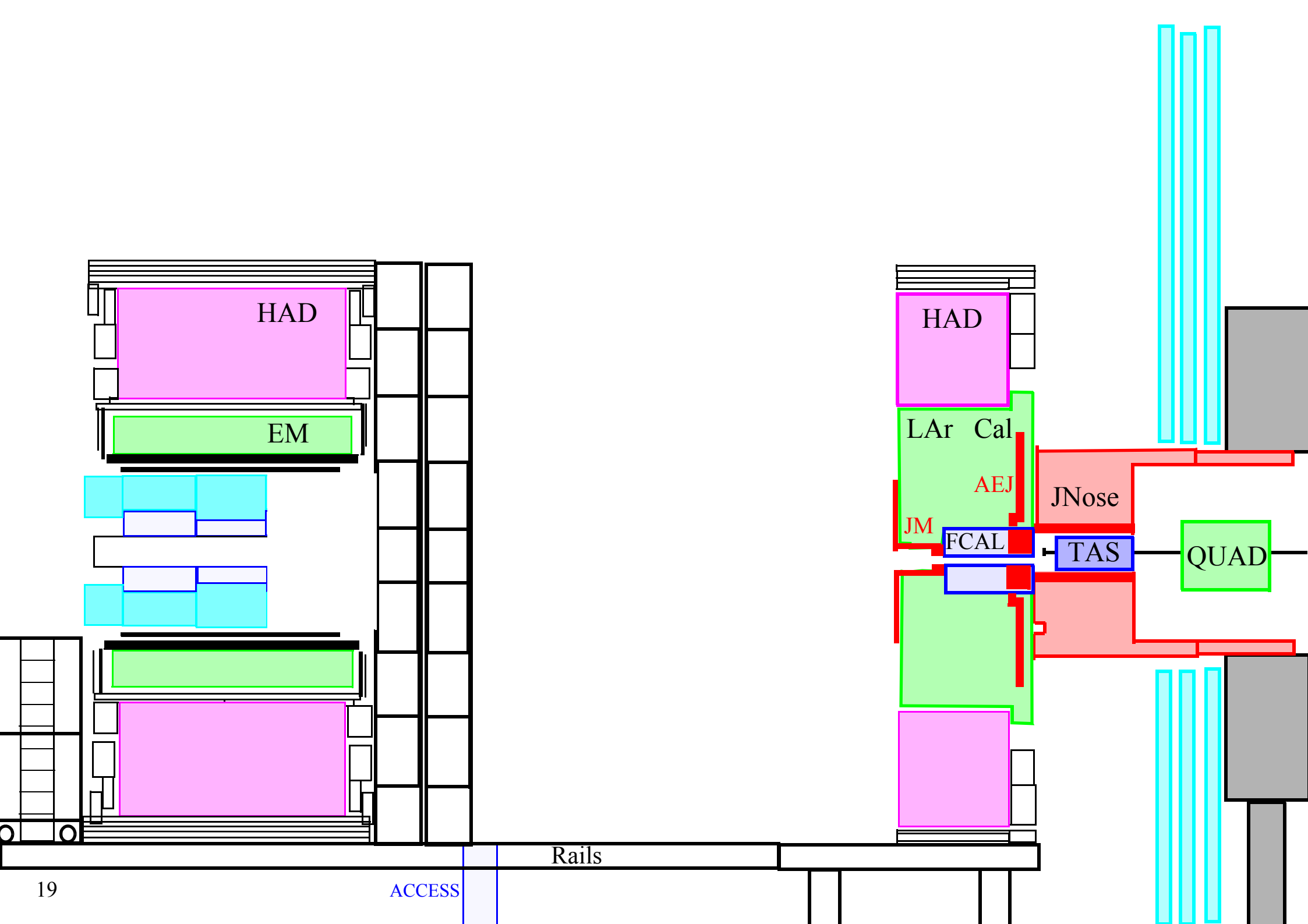
Rails

ACCESS

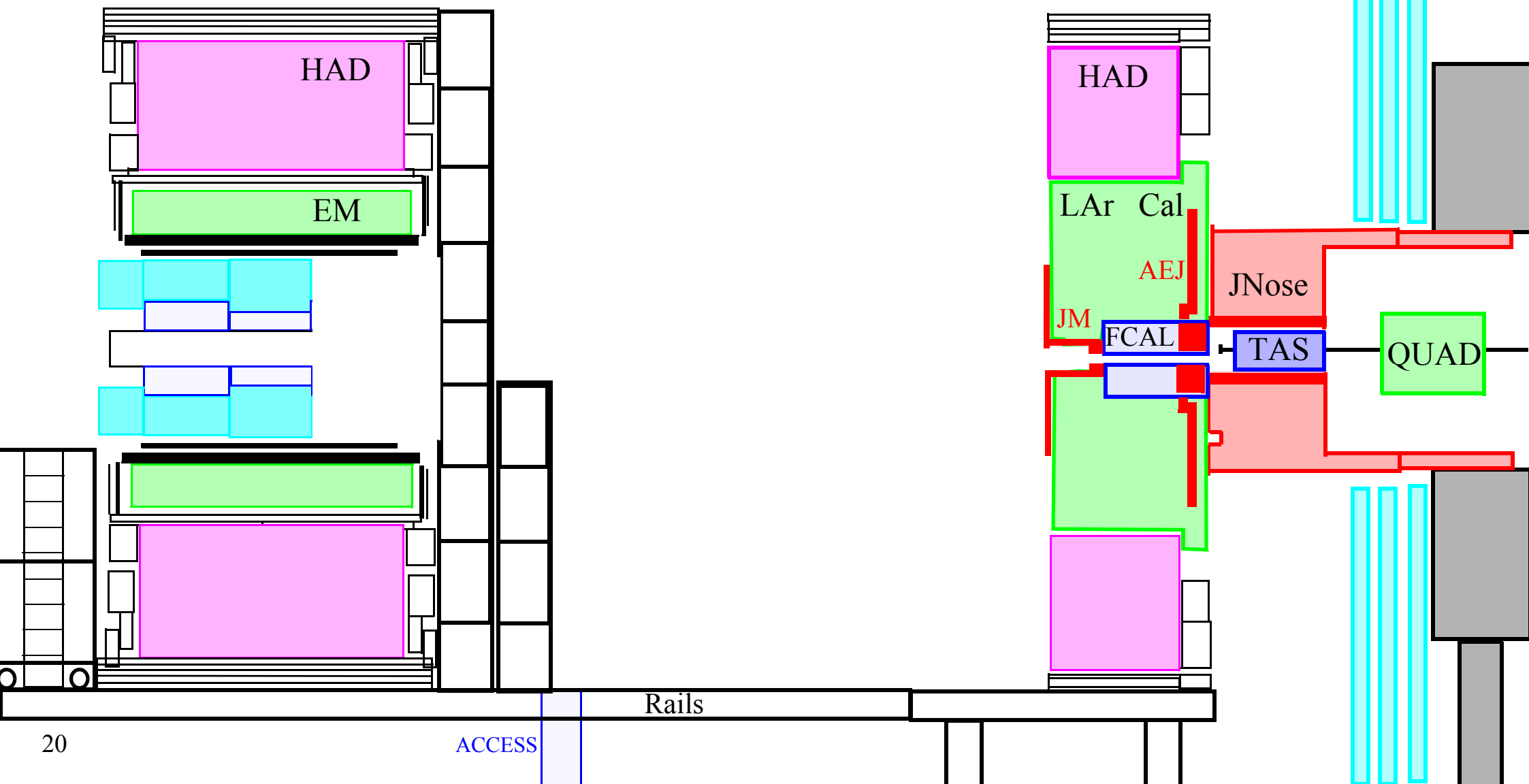
17

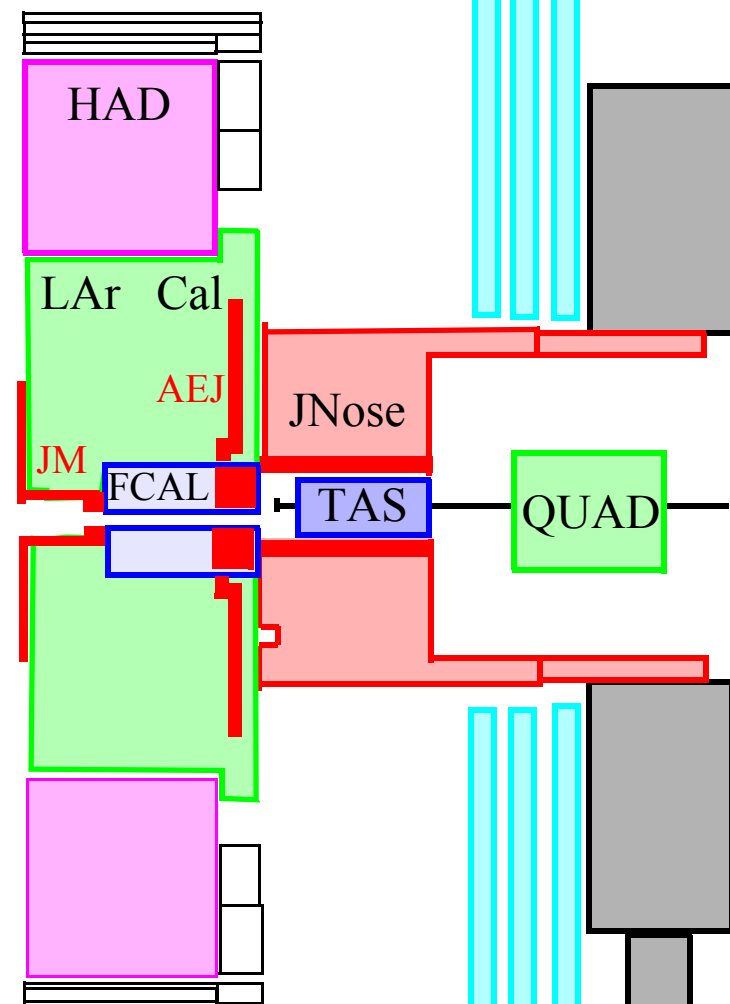
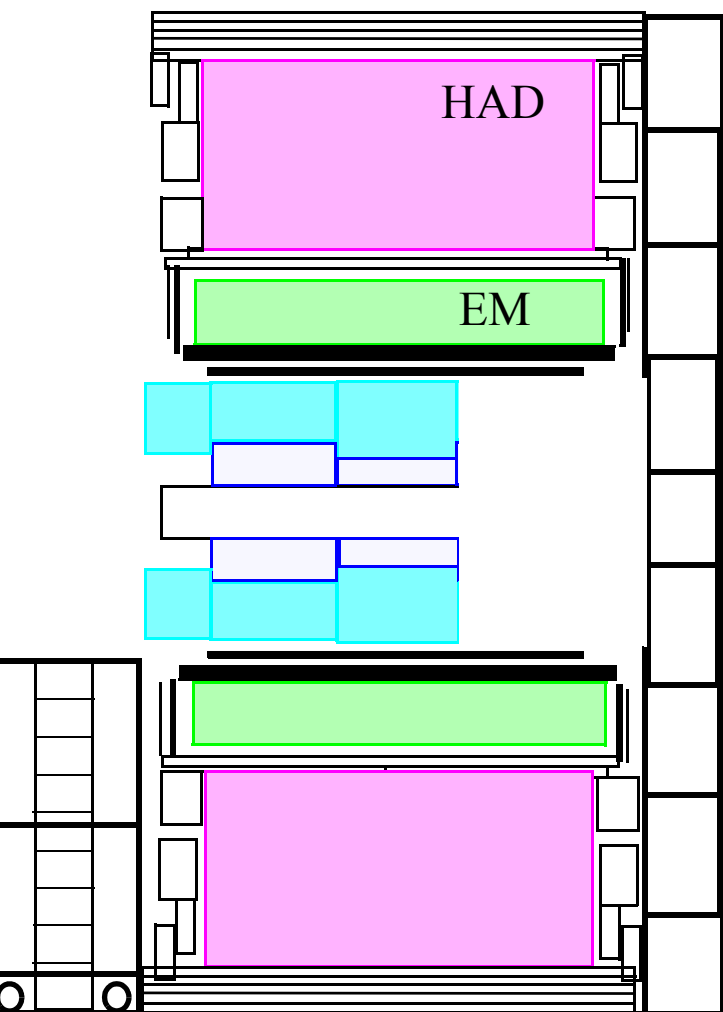
Move calorimeter

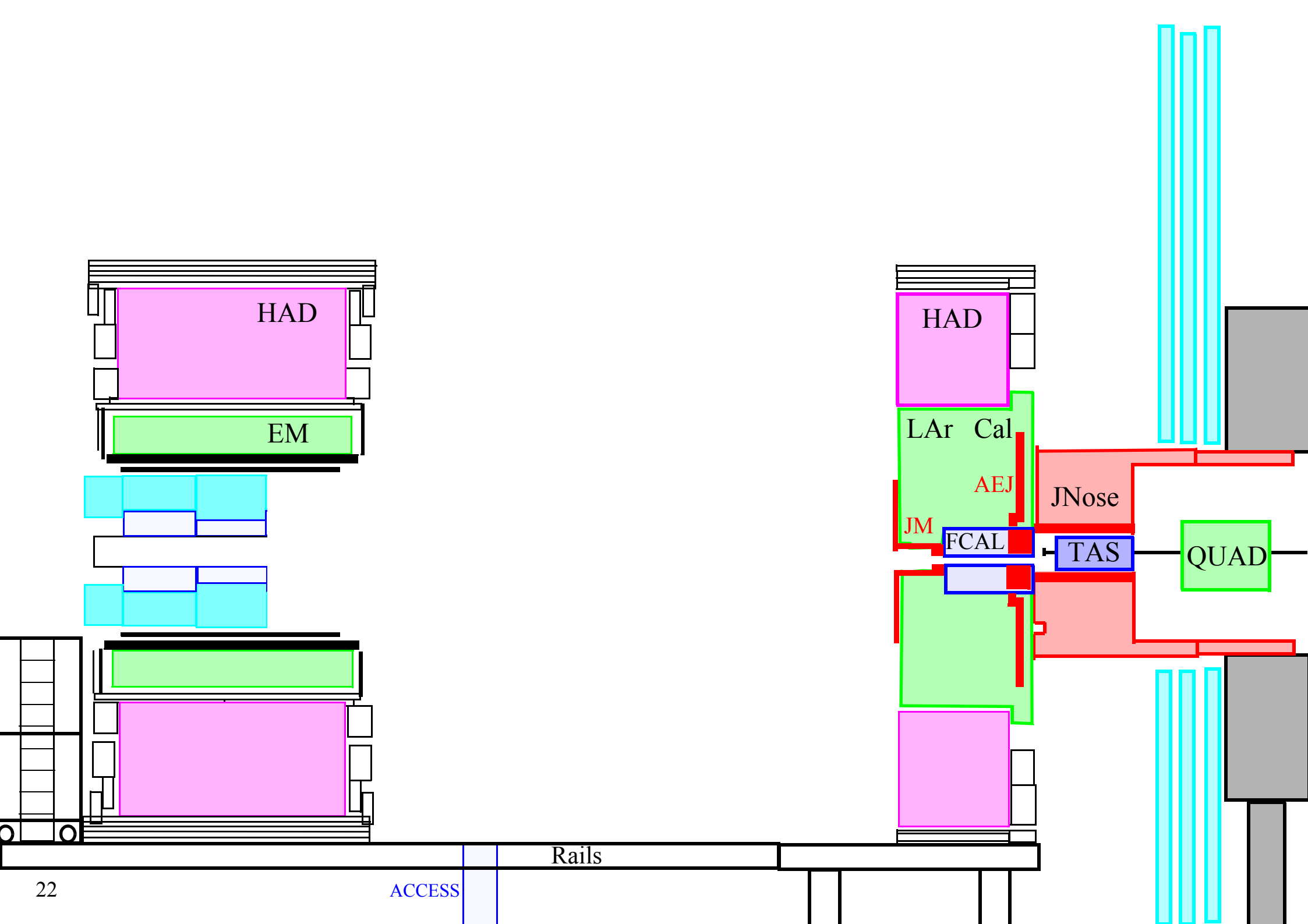




Remove scaffolding







HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

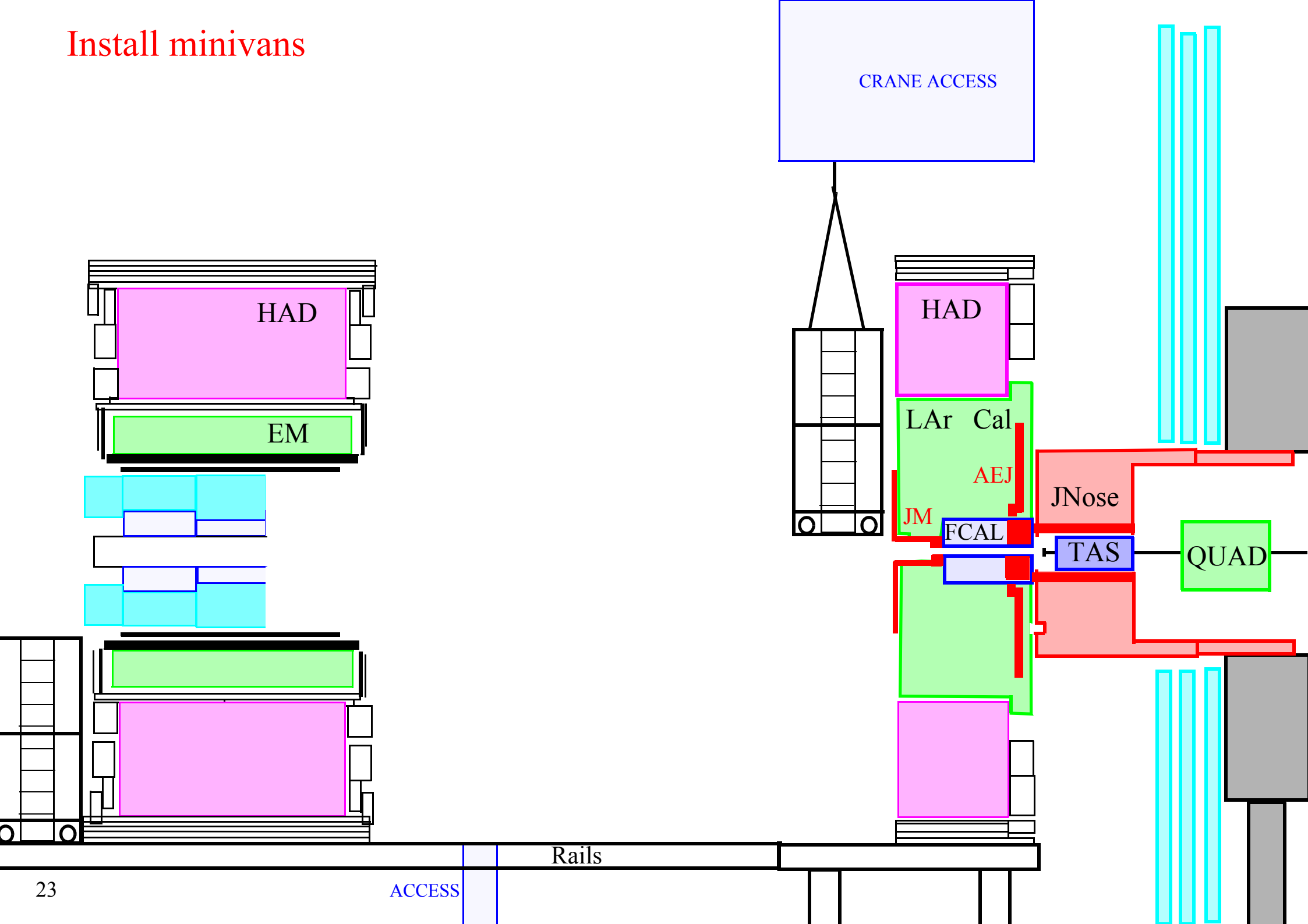
TAS

QUAD

Rails

ACCESS

Install minivans



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

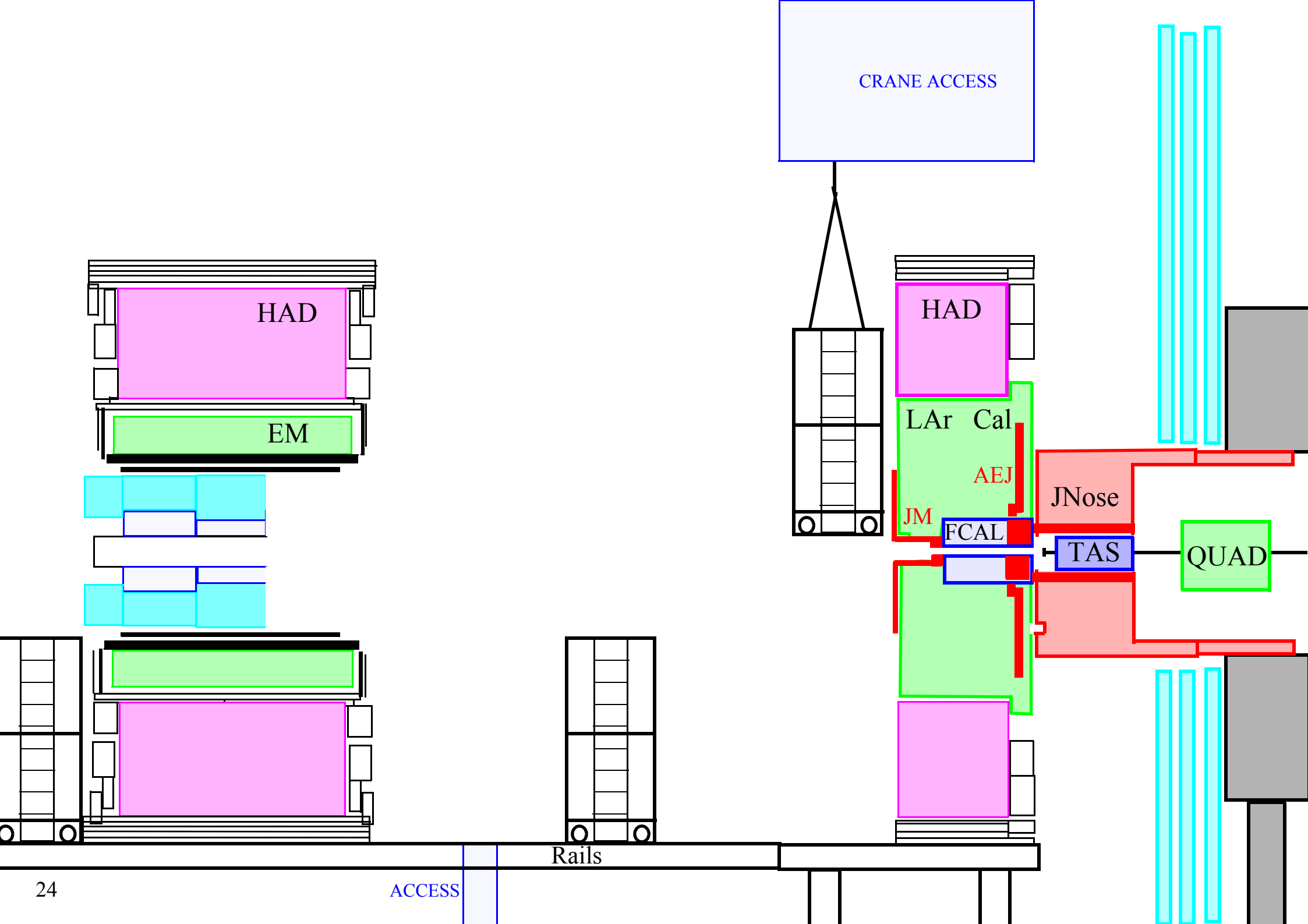
JM

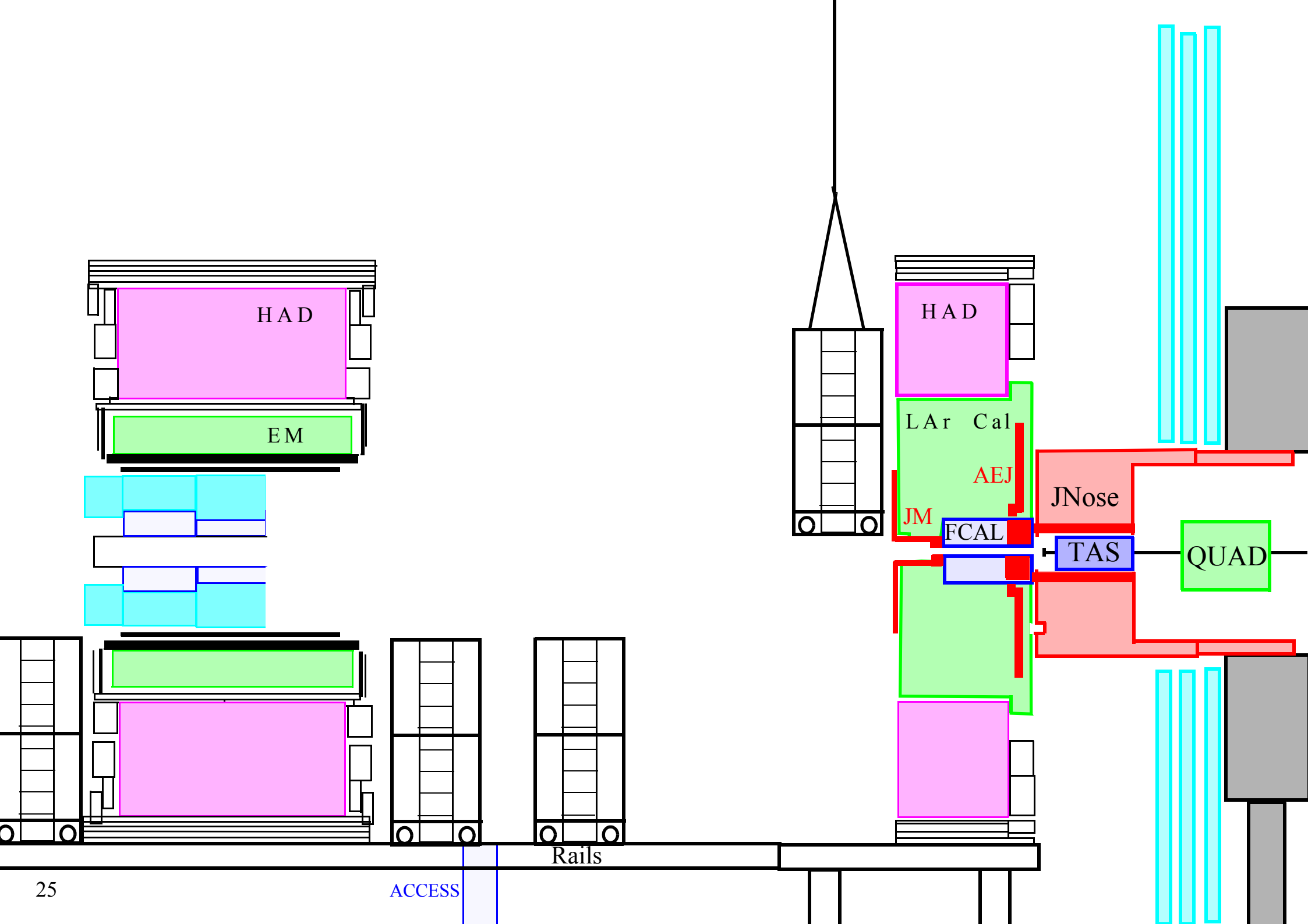
FCAL

JNose

TAS

QUAD





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

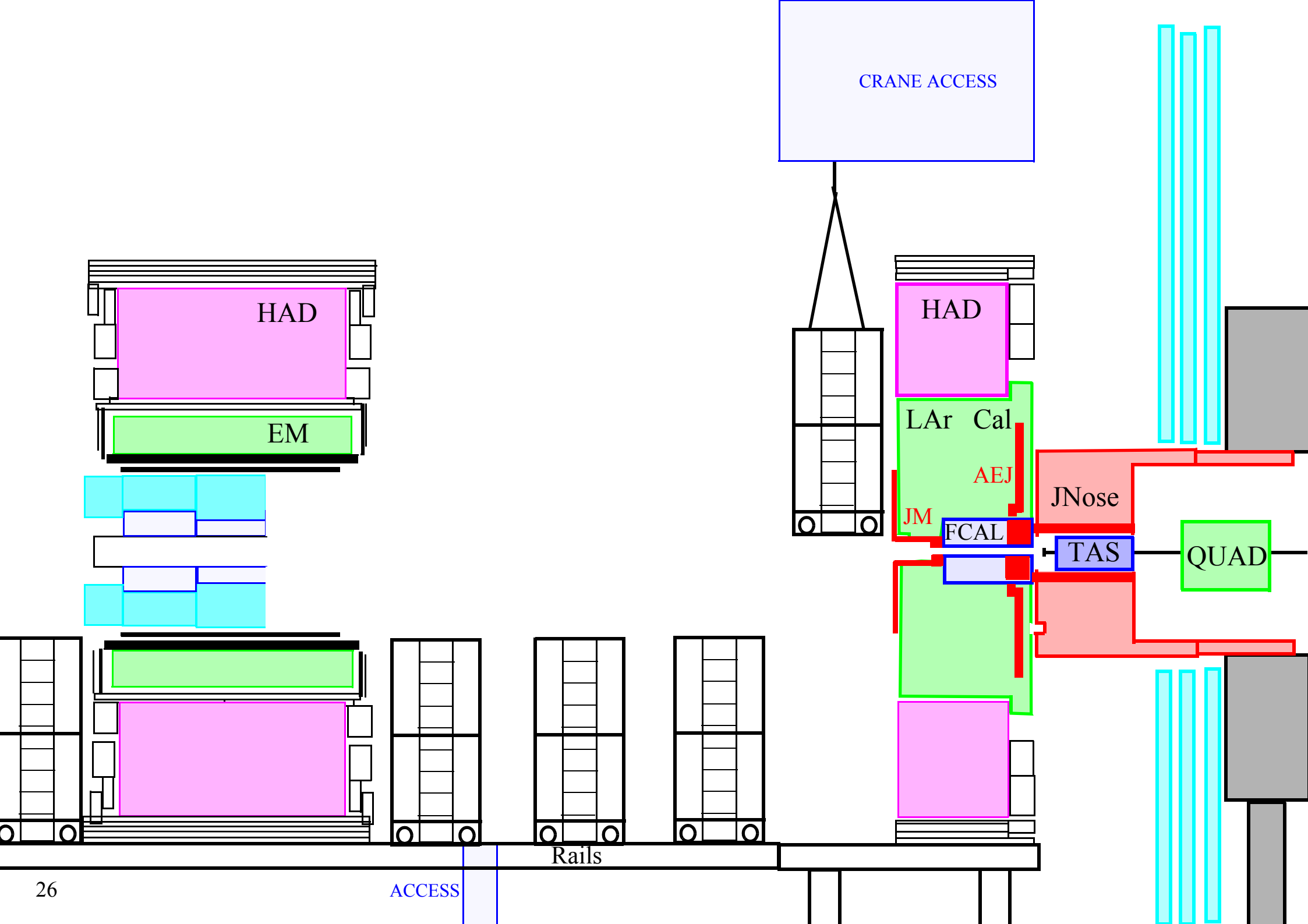
TAS

QUAD

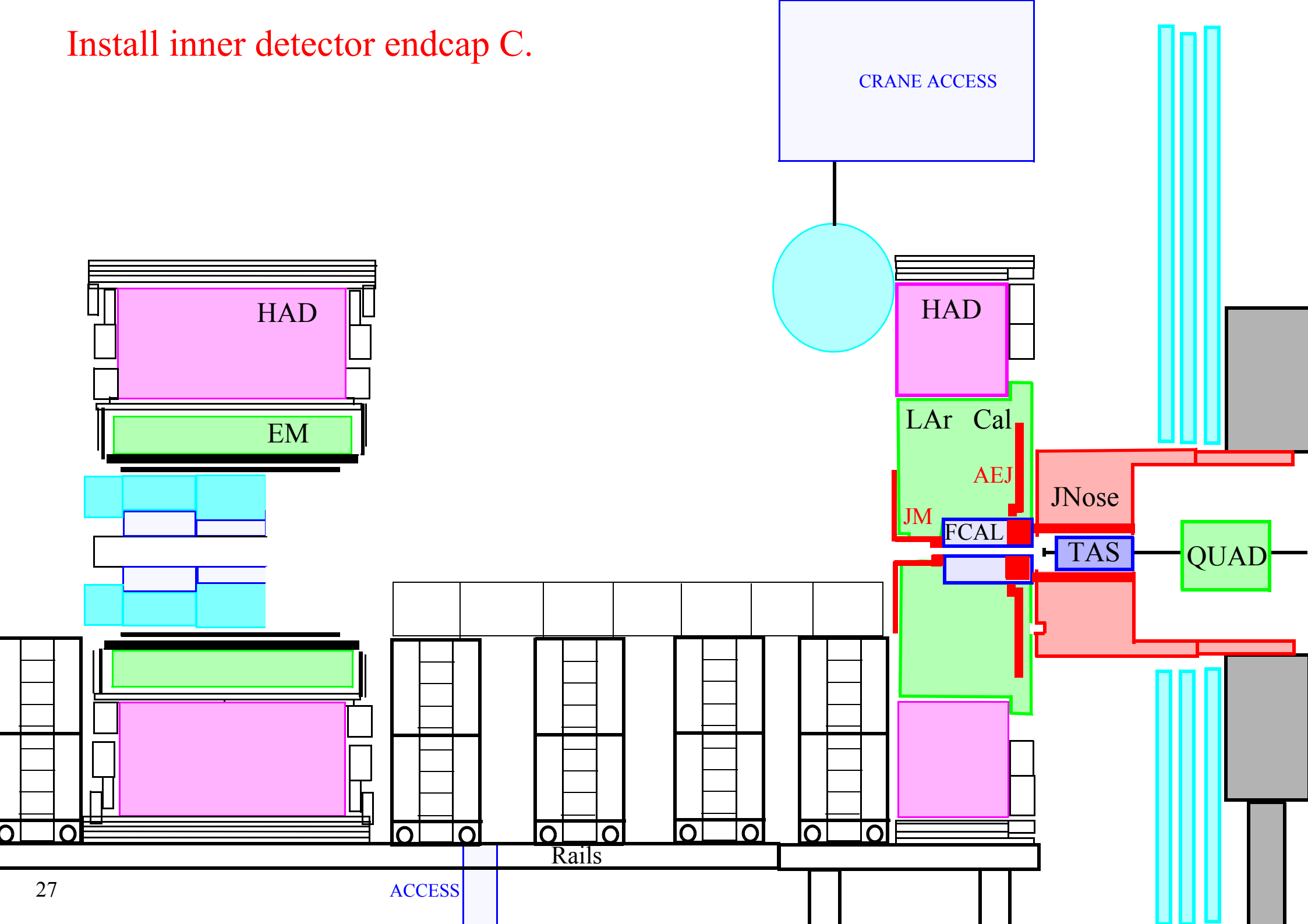
Rails

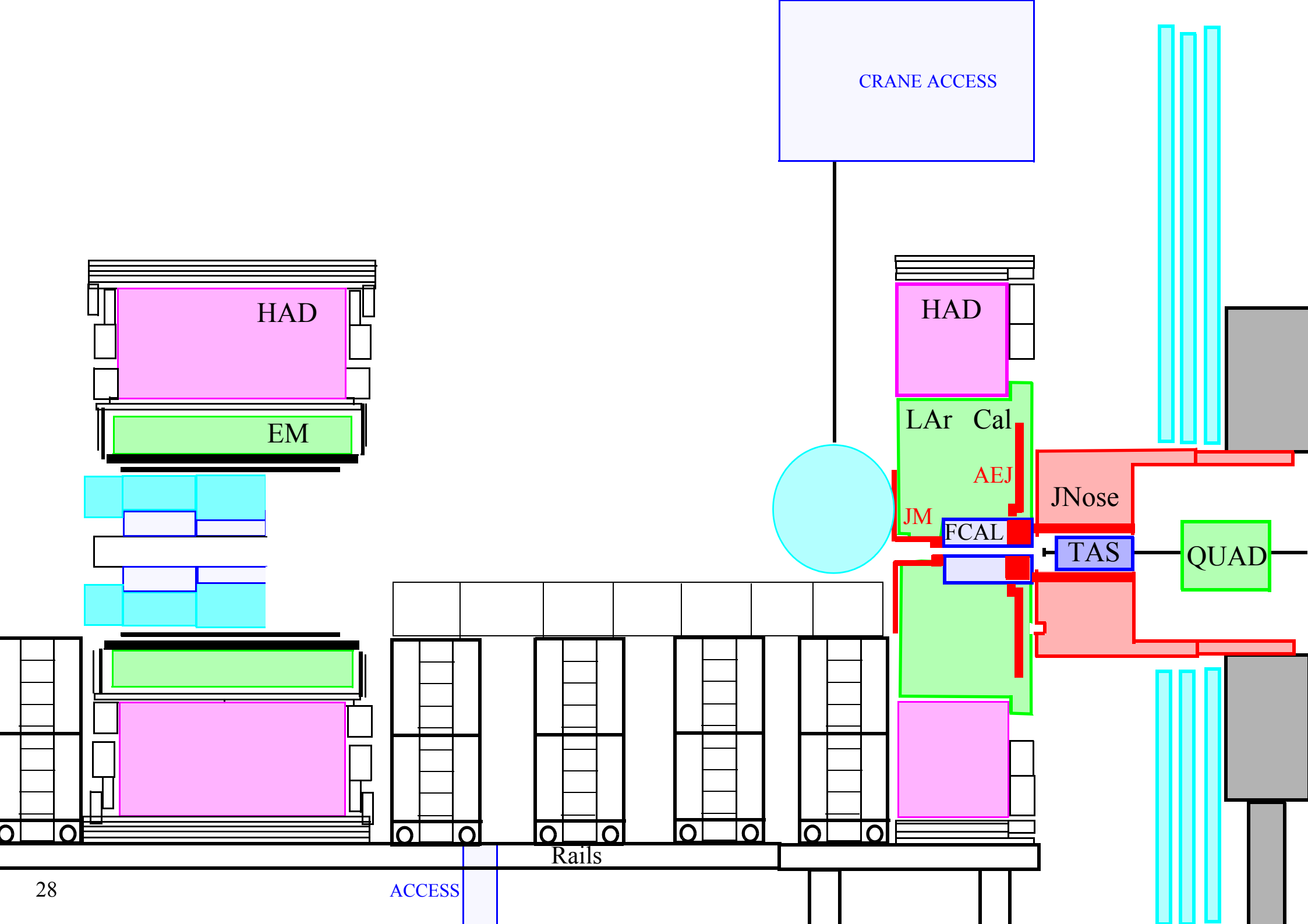
25

ACCESS



Install inner detector endcap C.





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

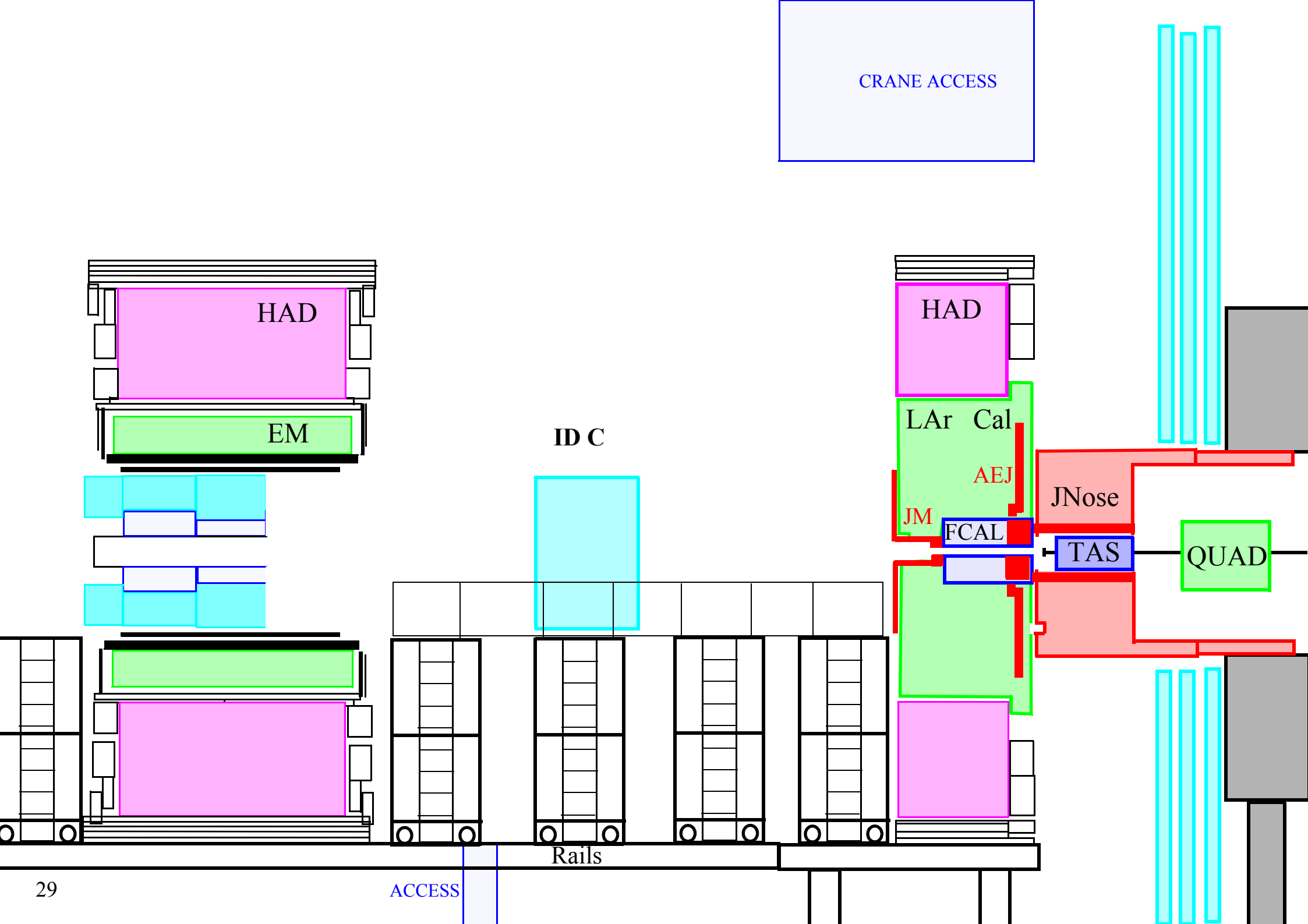
TAS

QUAD

Rails

28

ACCESS



CRANE ACCESS

HAD

EM

ID C

HAD

LAr Cal

AEJ

JM

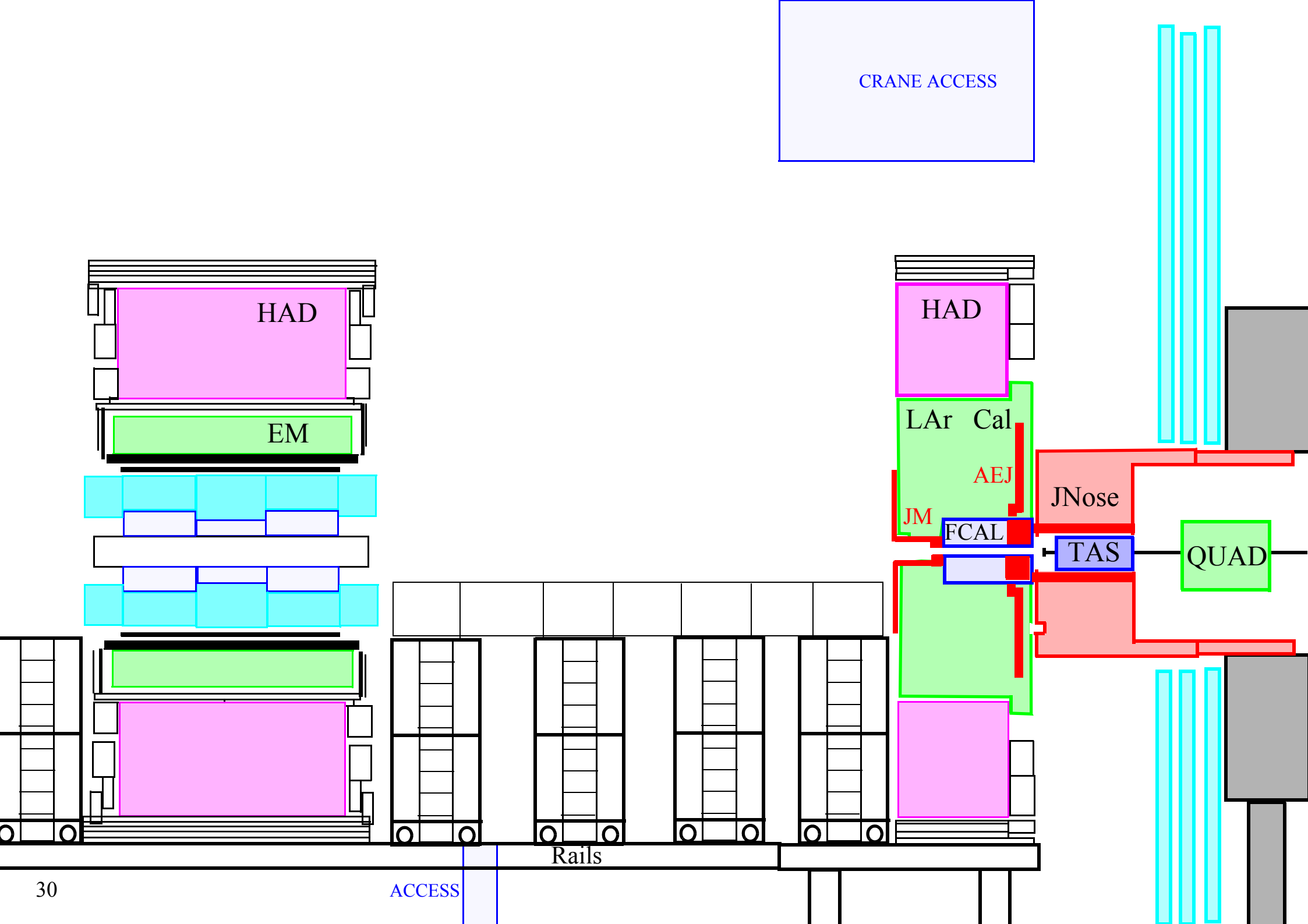
FCAL

JNose

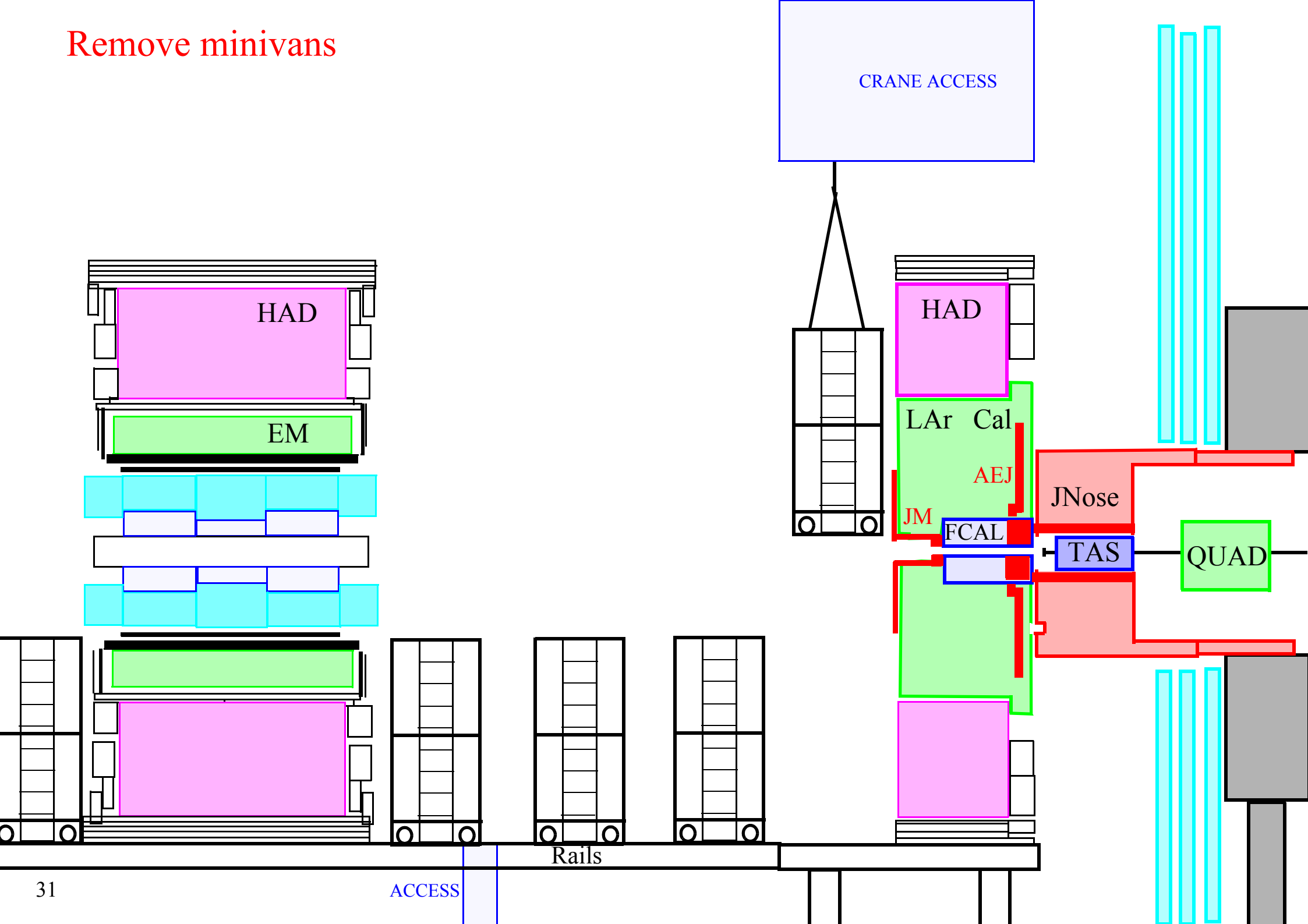
TAS

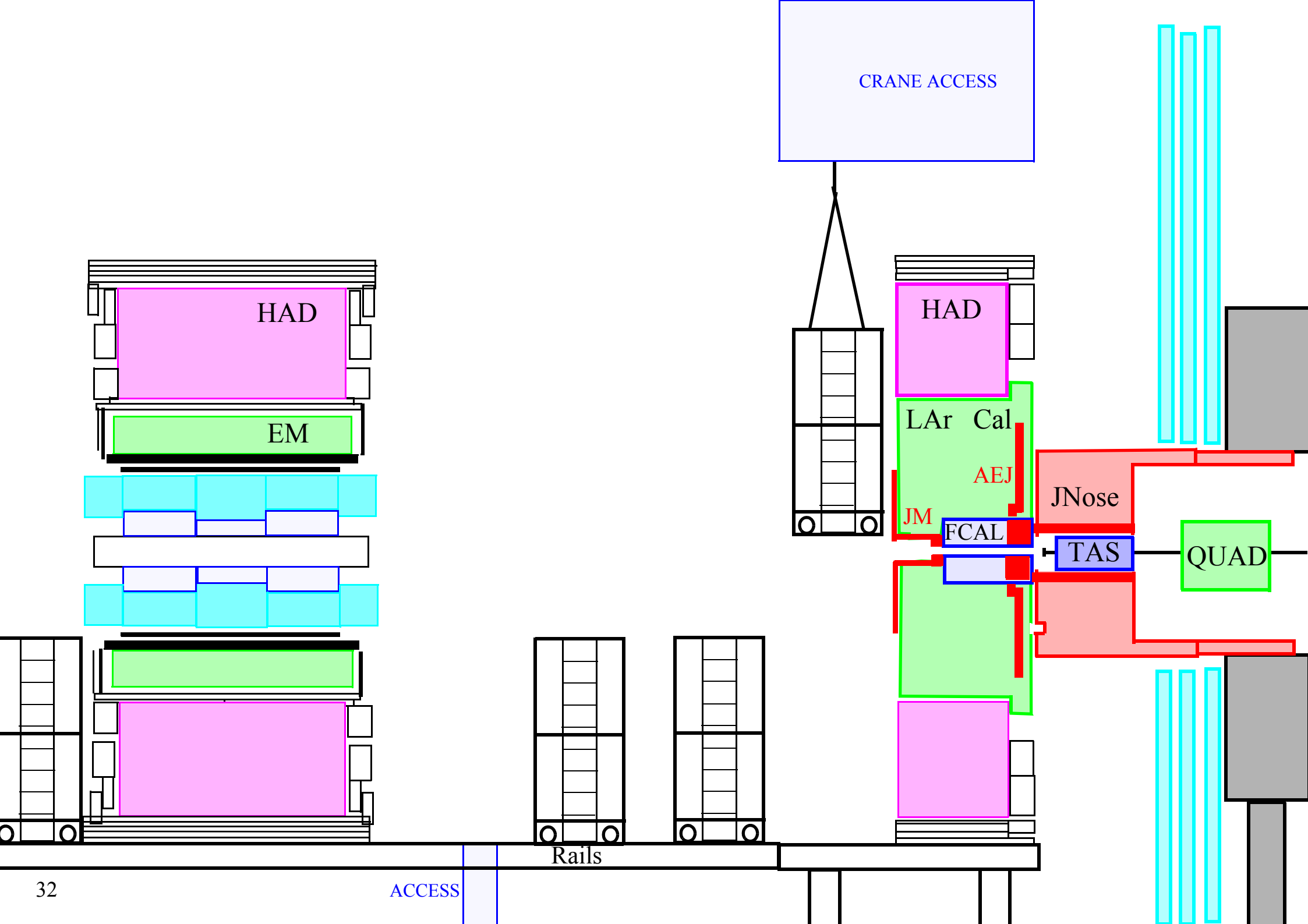
QUAD

RAILS



Remove minivans





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

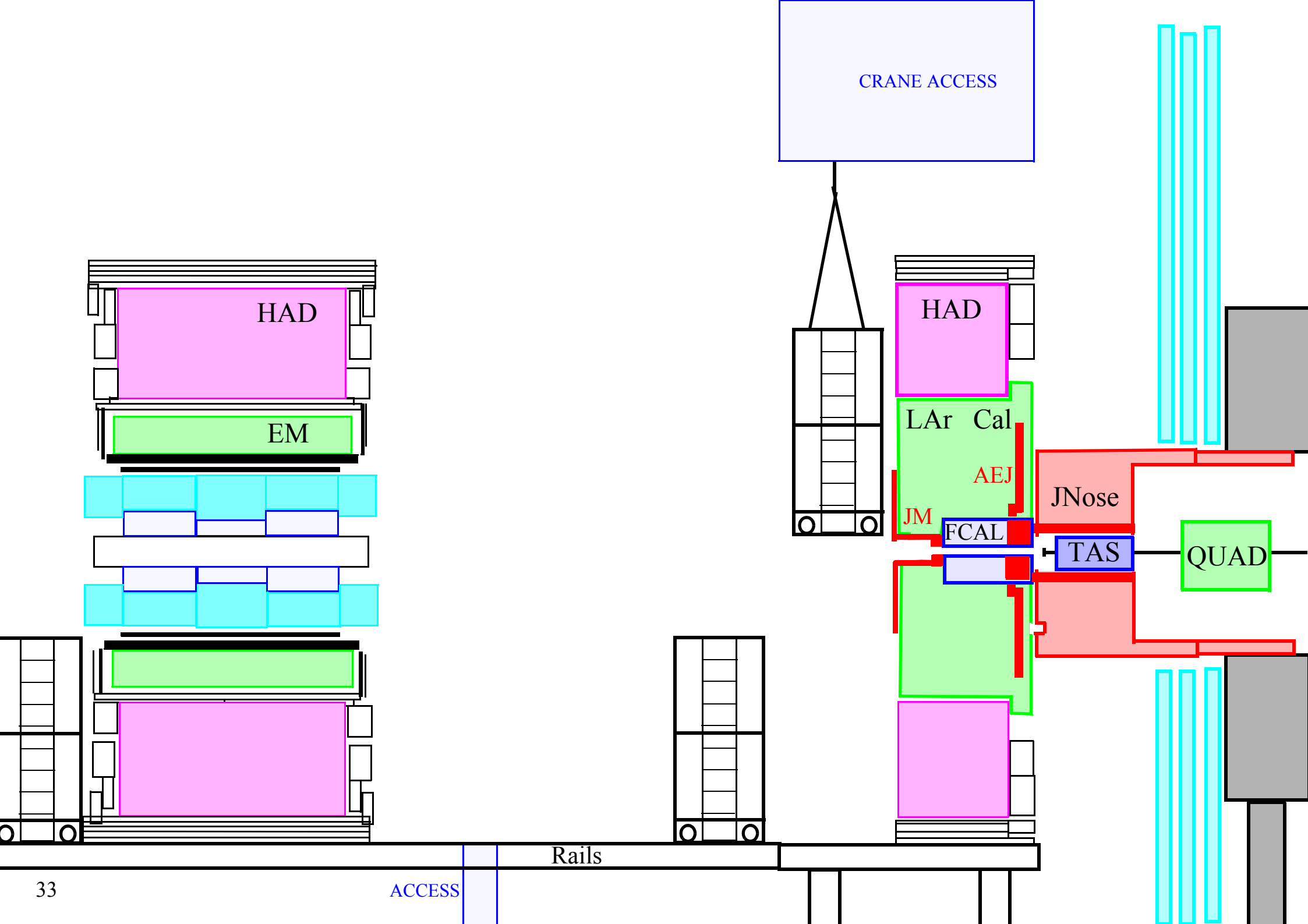
TAS

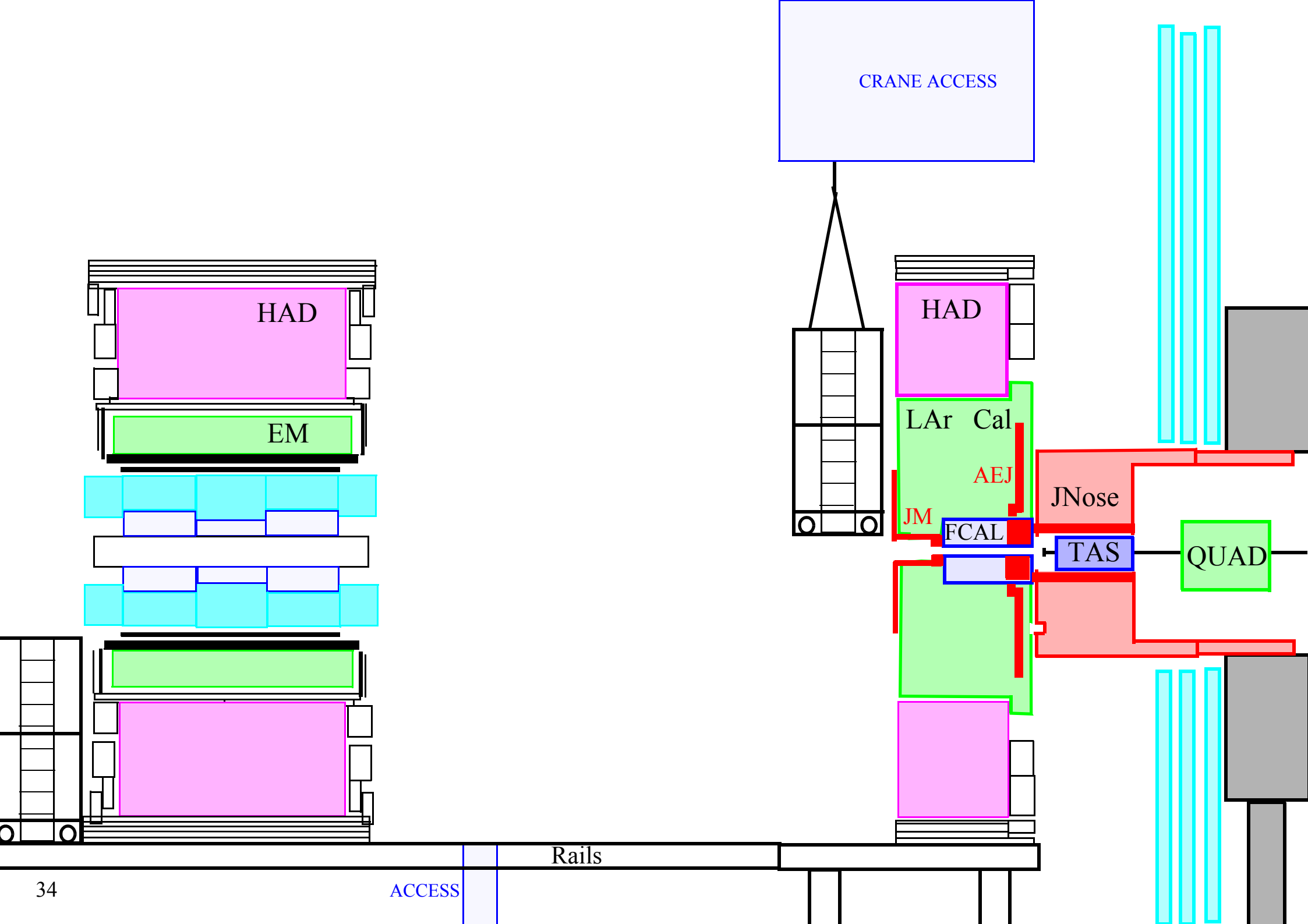
QUAD

Rails

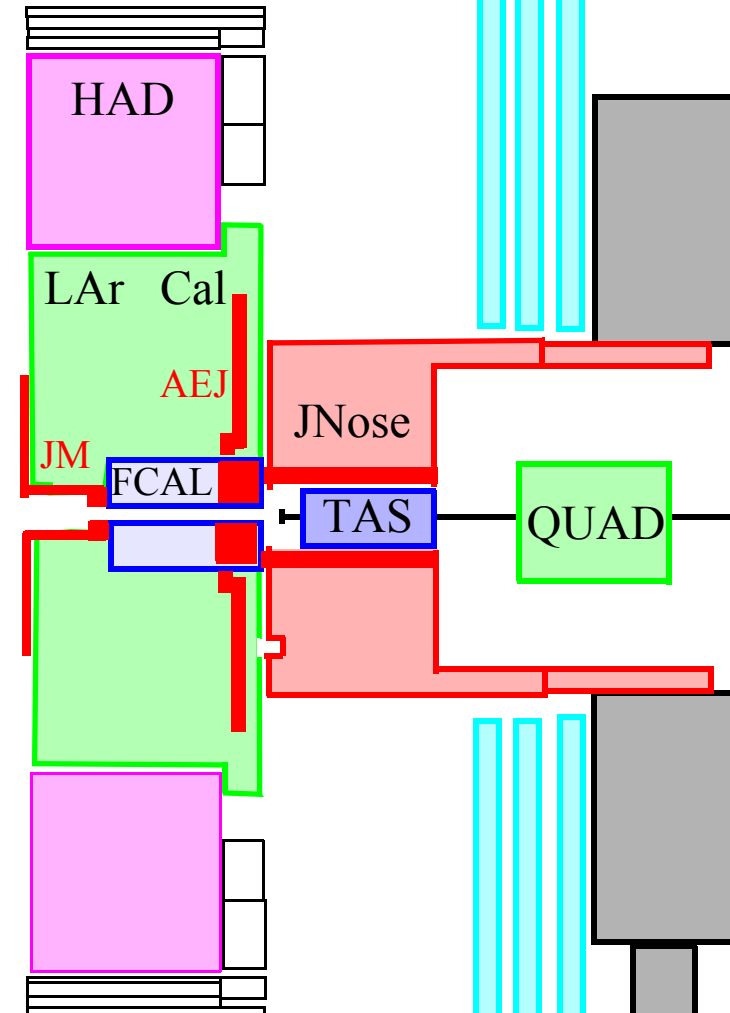
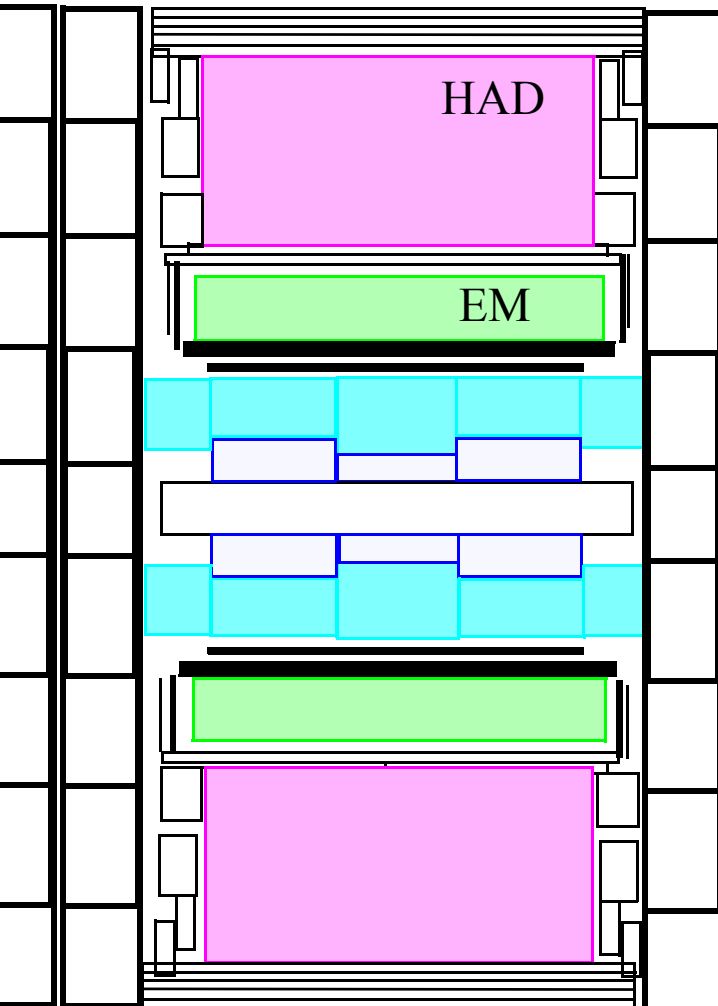
32

ACCESS

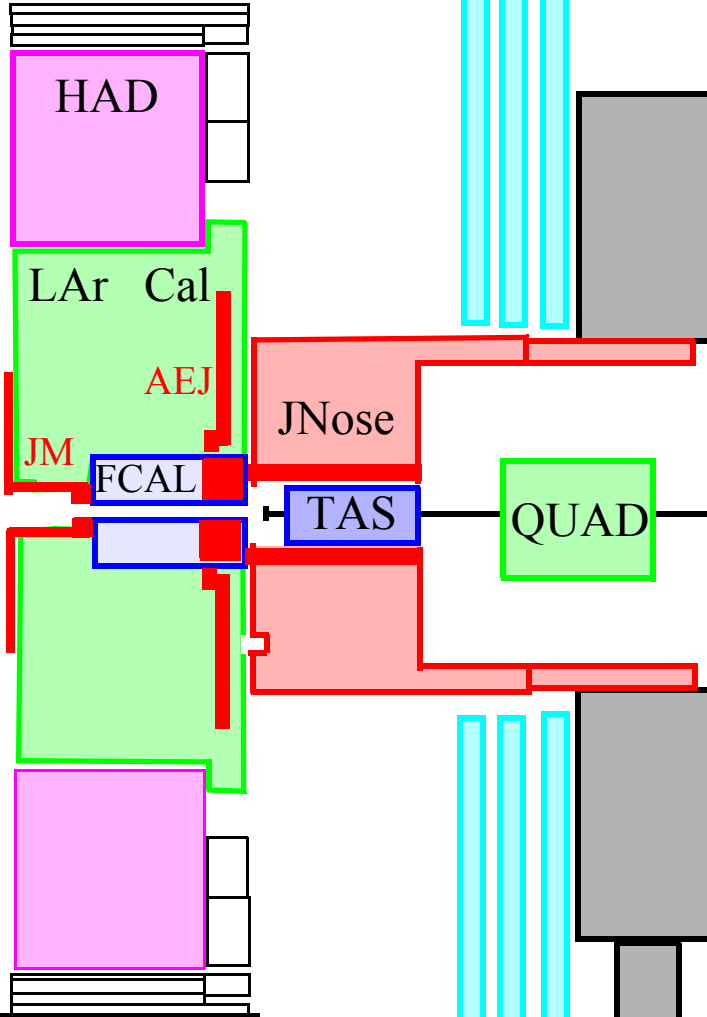
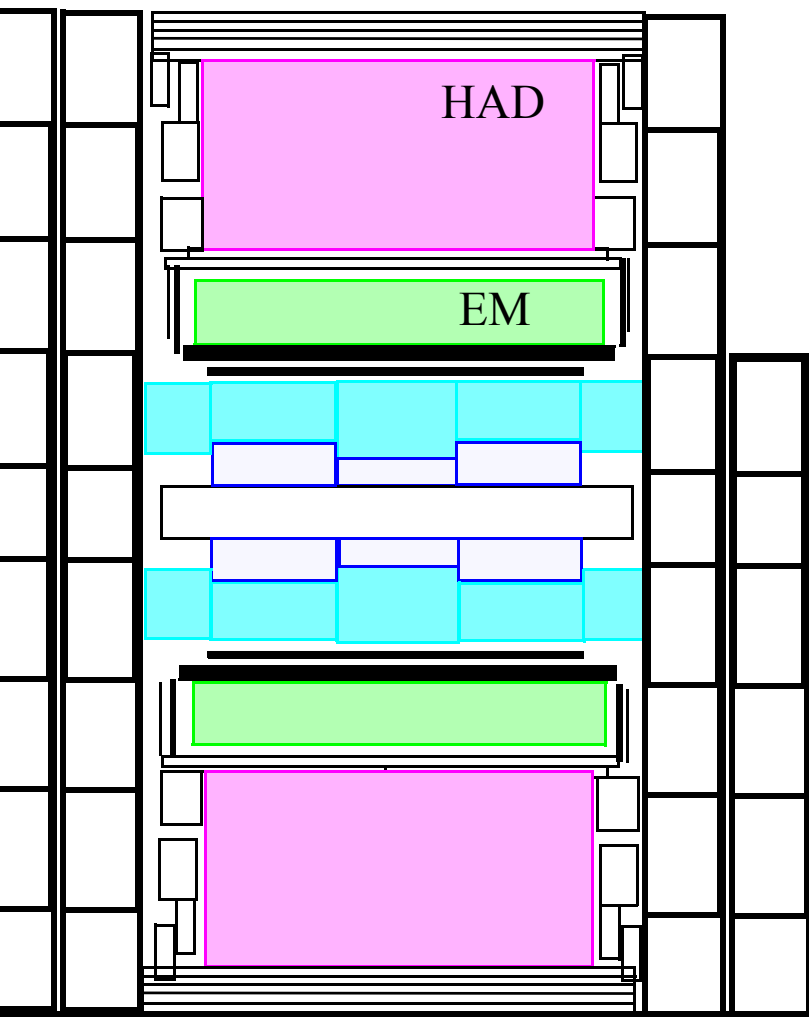




Install scaffolding

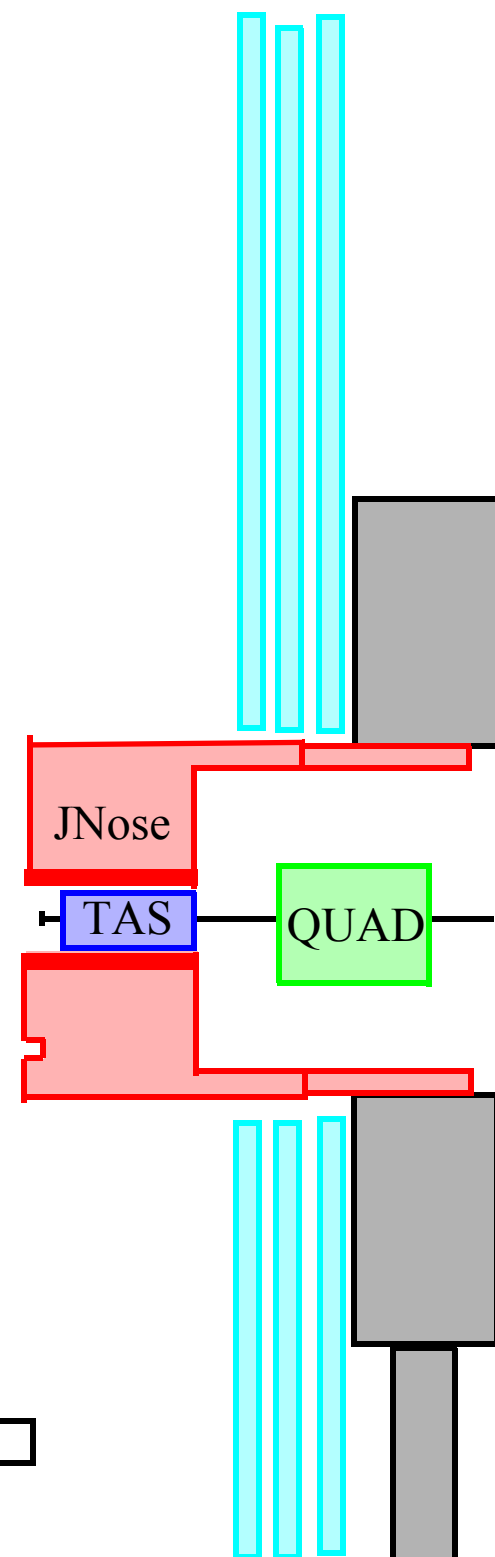
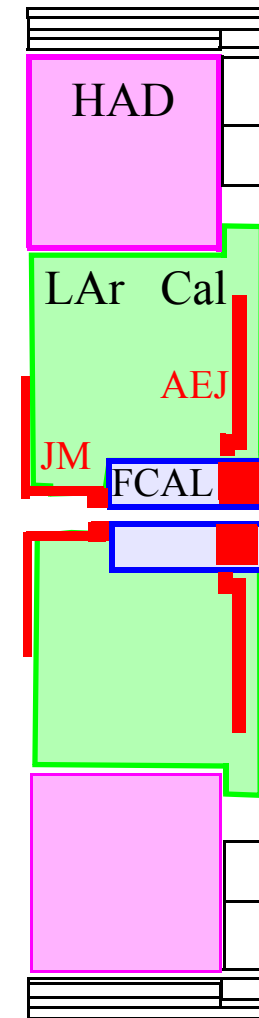
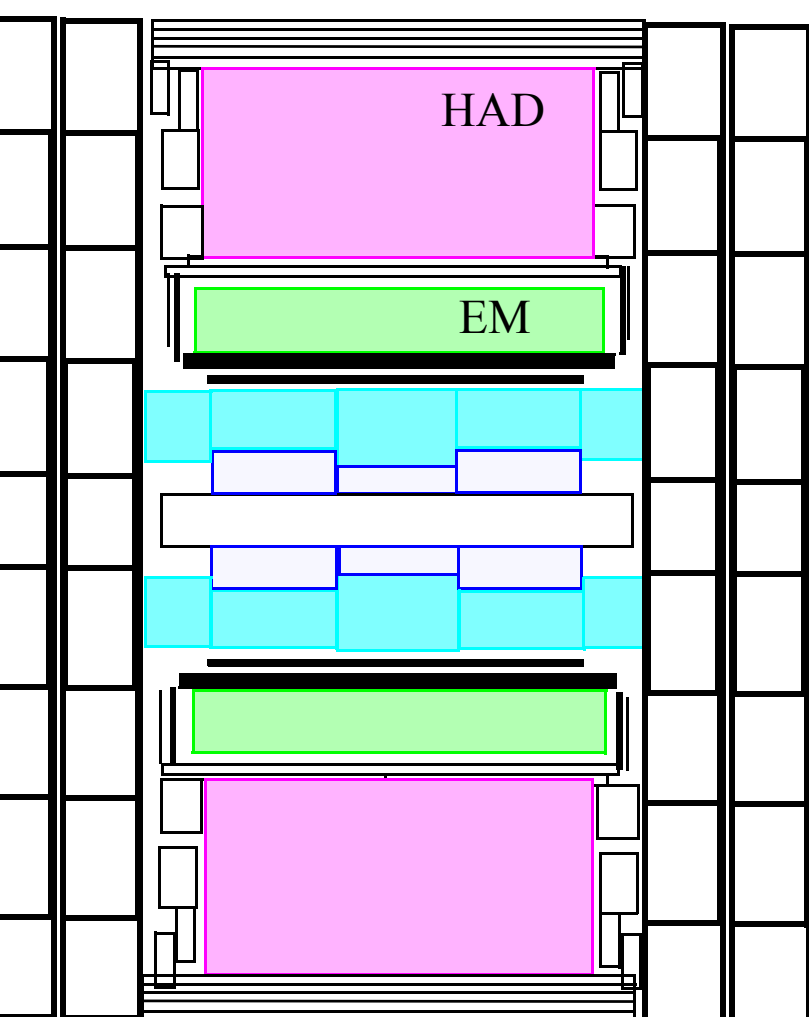


CRANE ACCESS

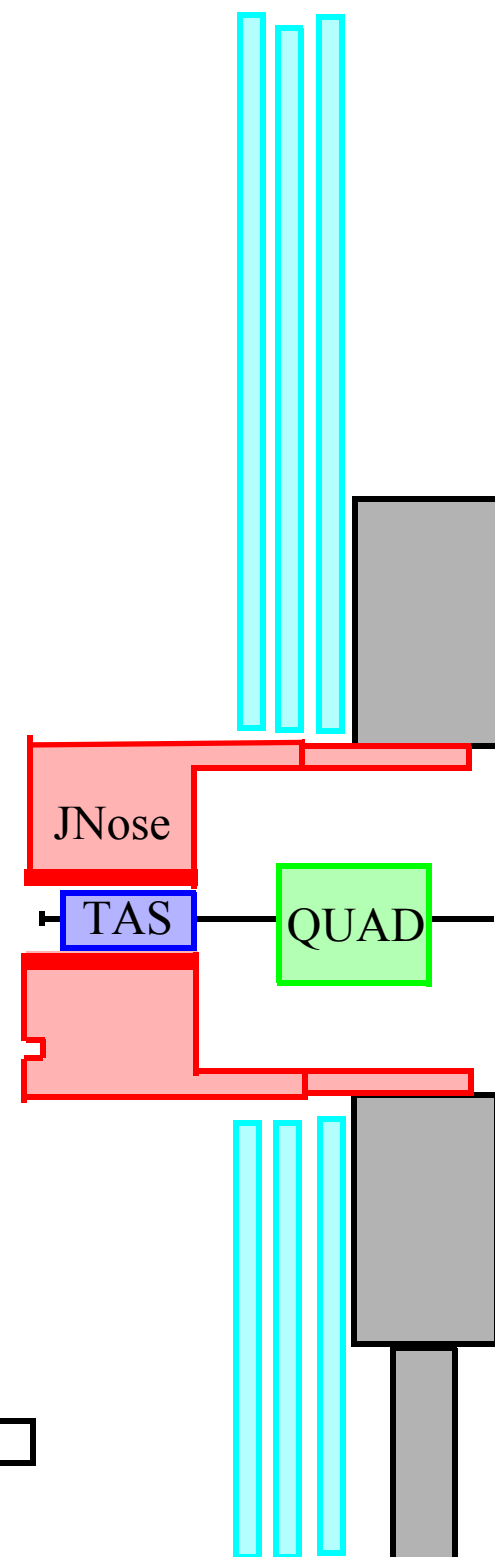
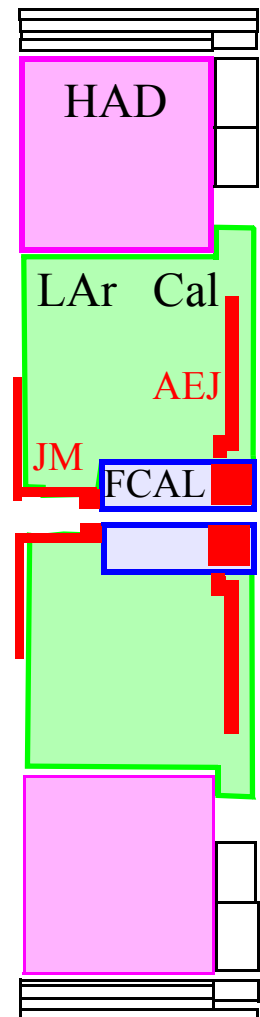
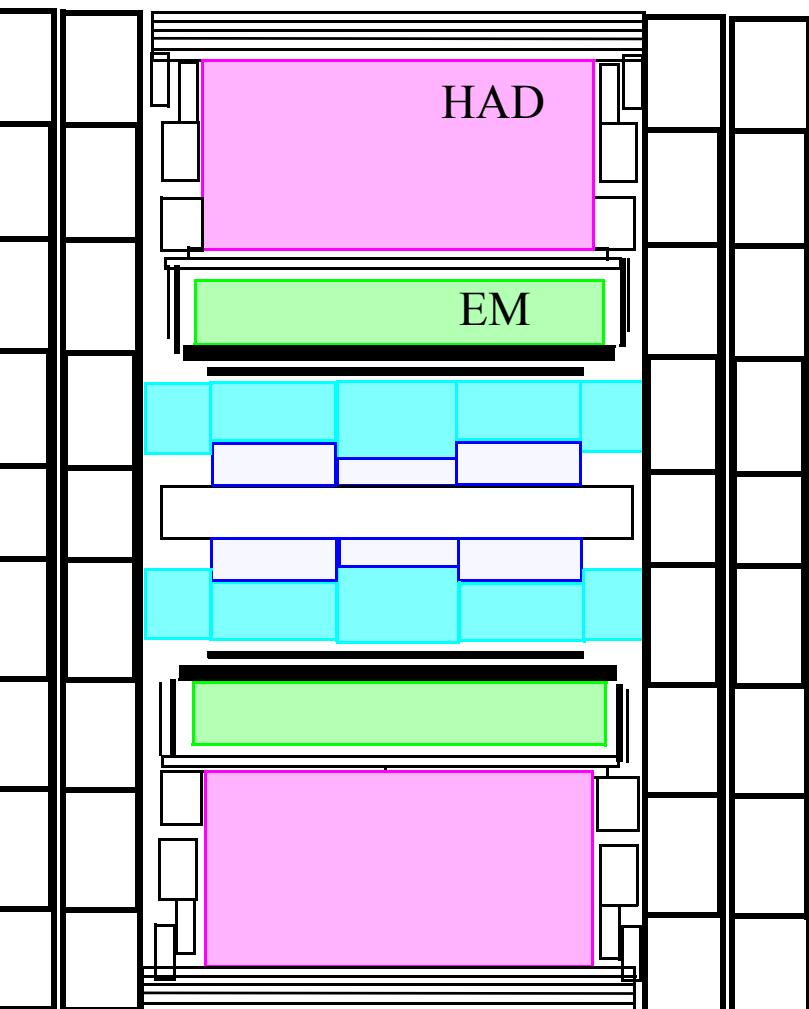


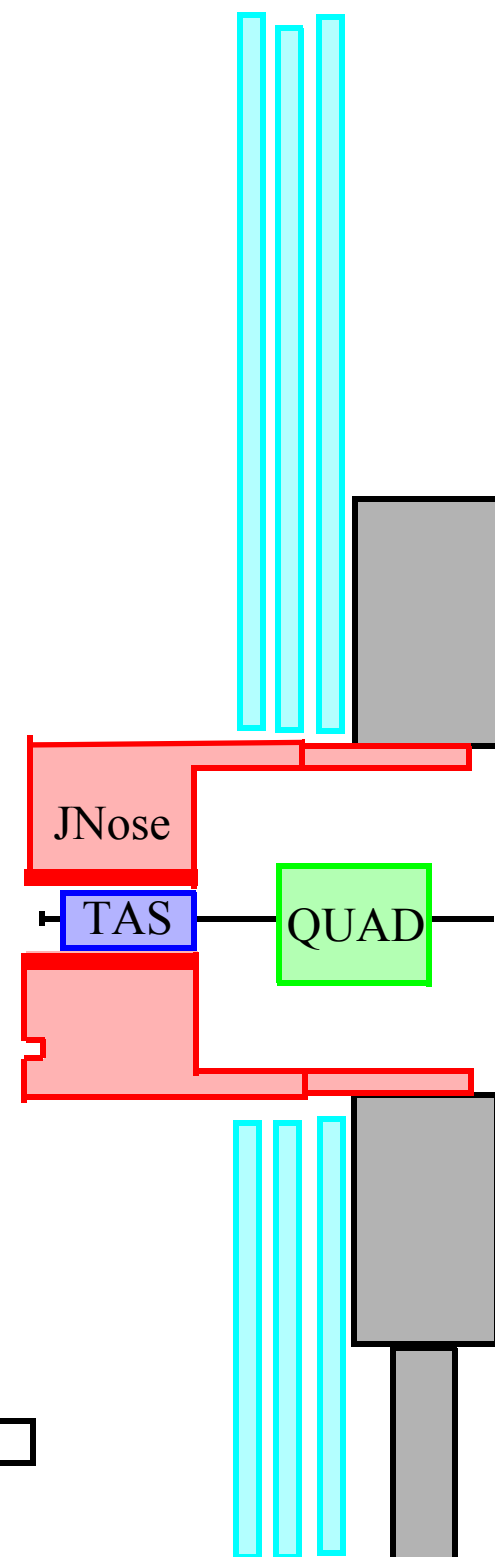
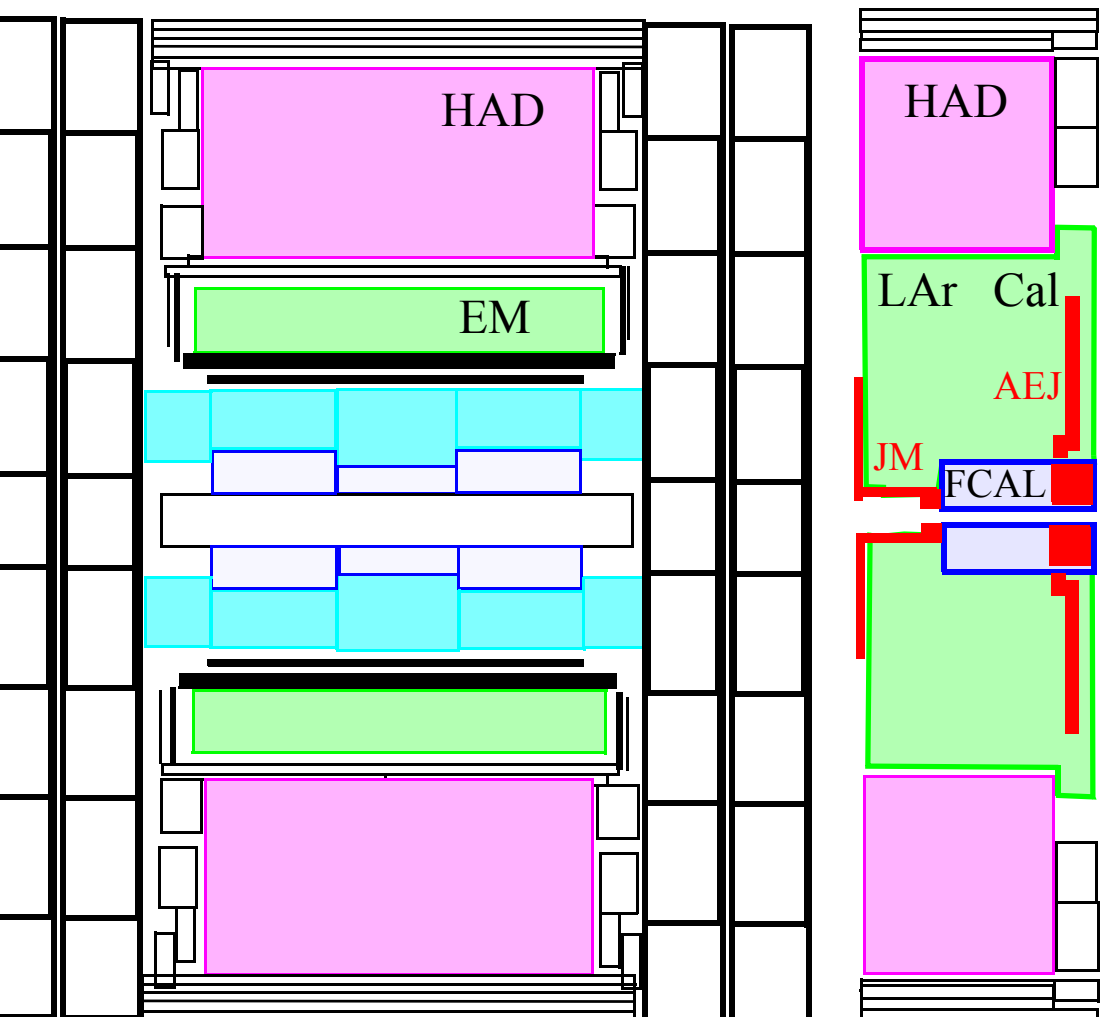
Rails

Move calorimeter

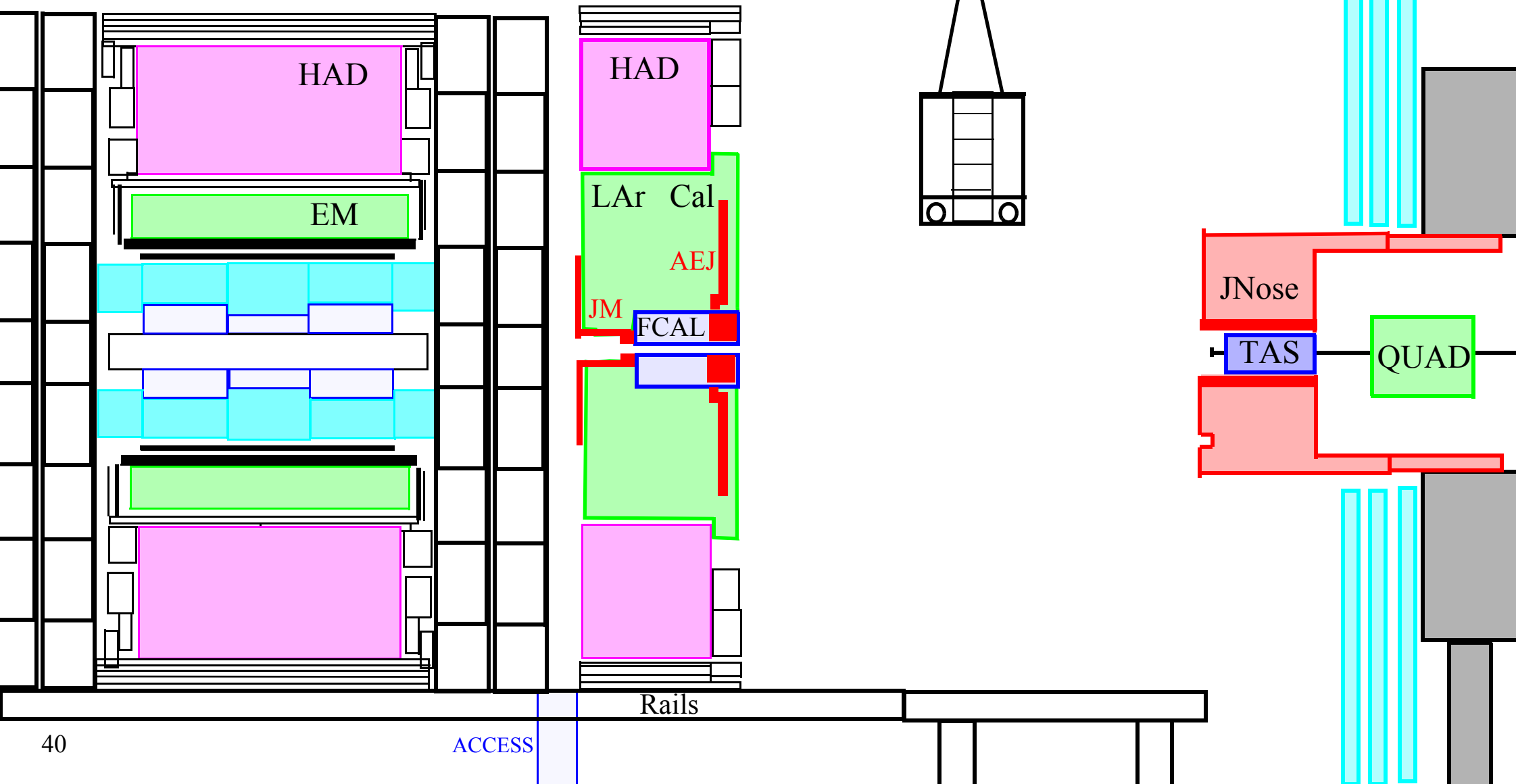


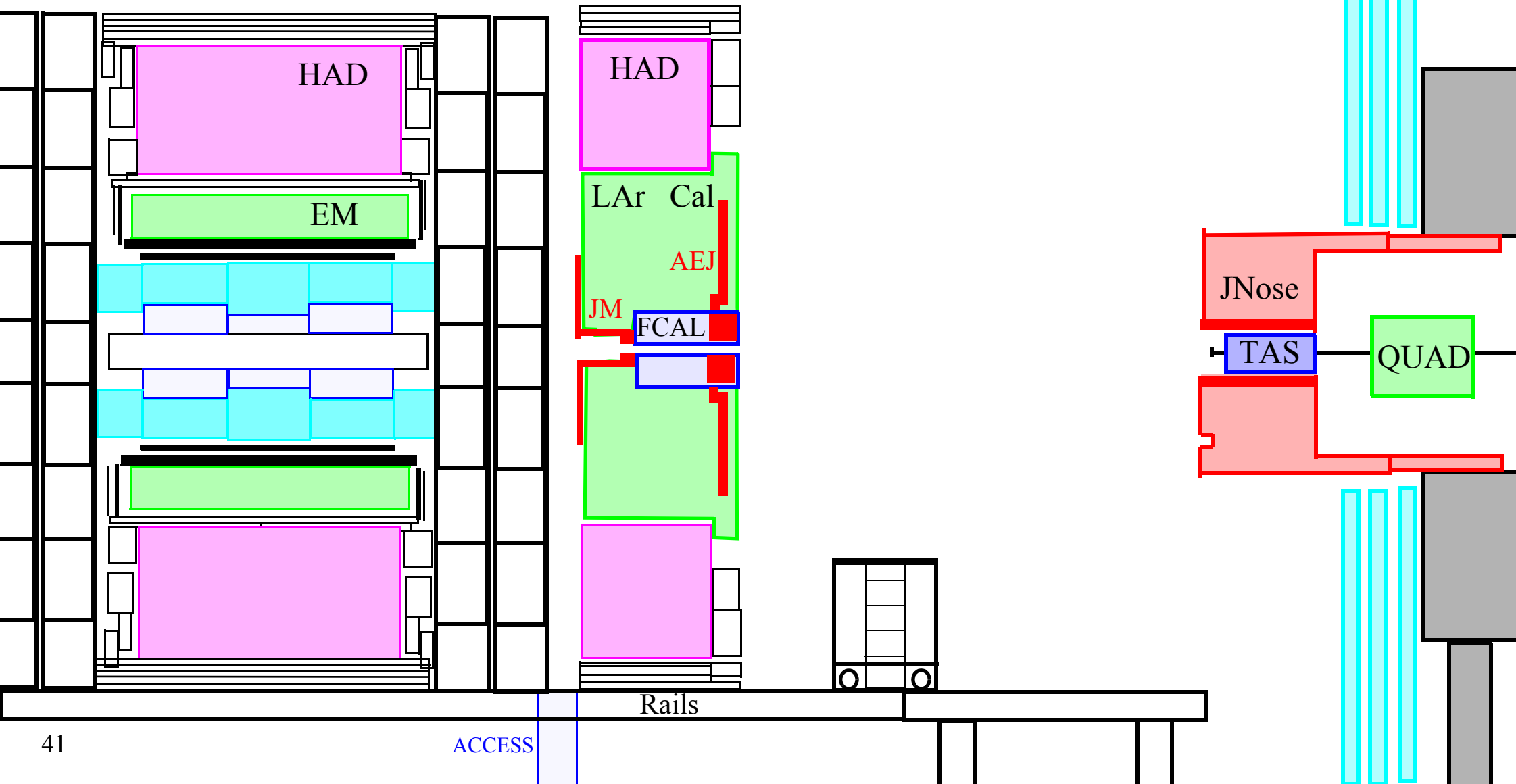
Rails

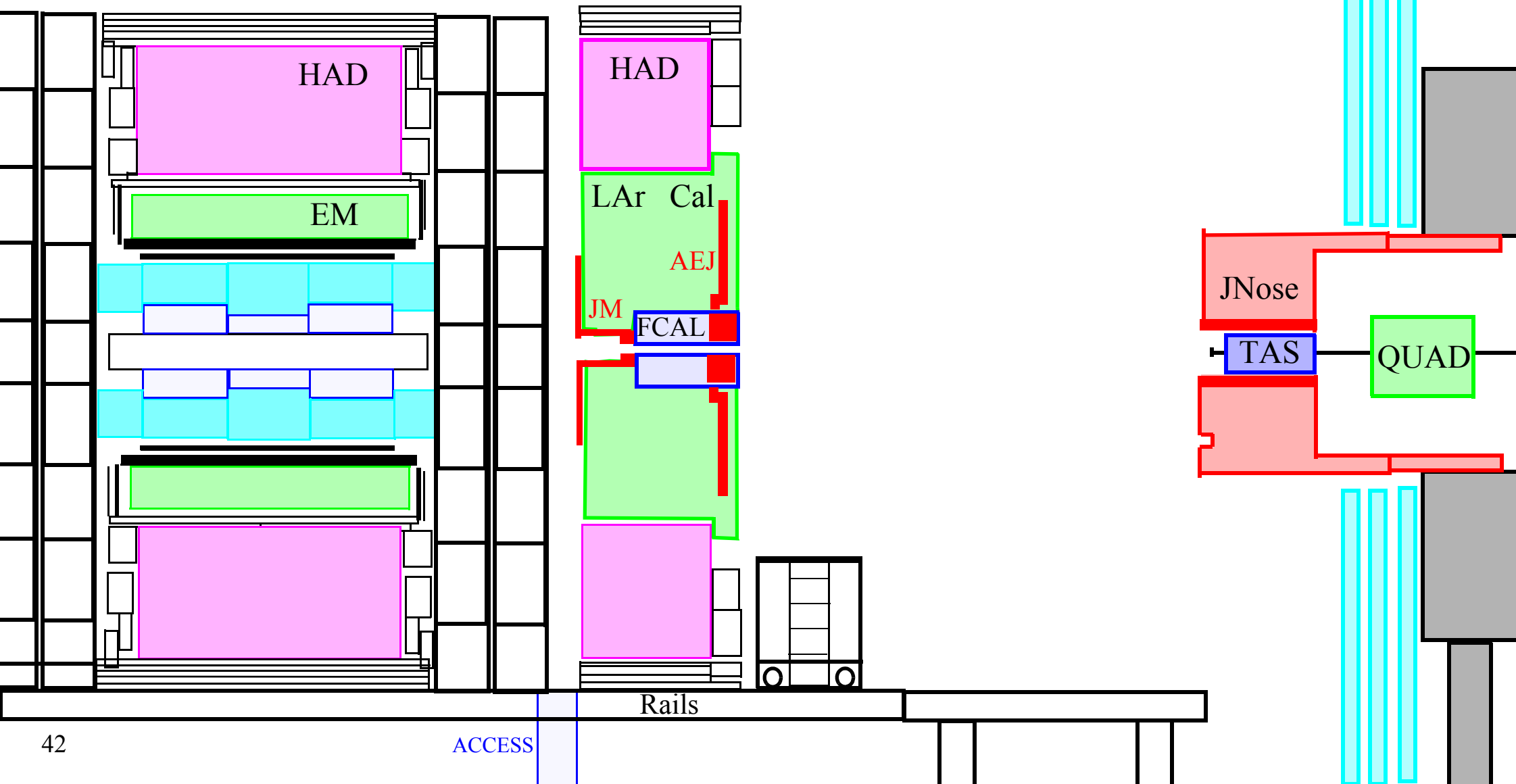




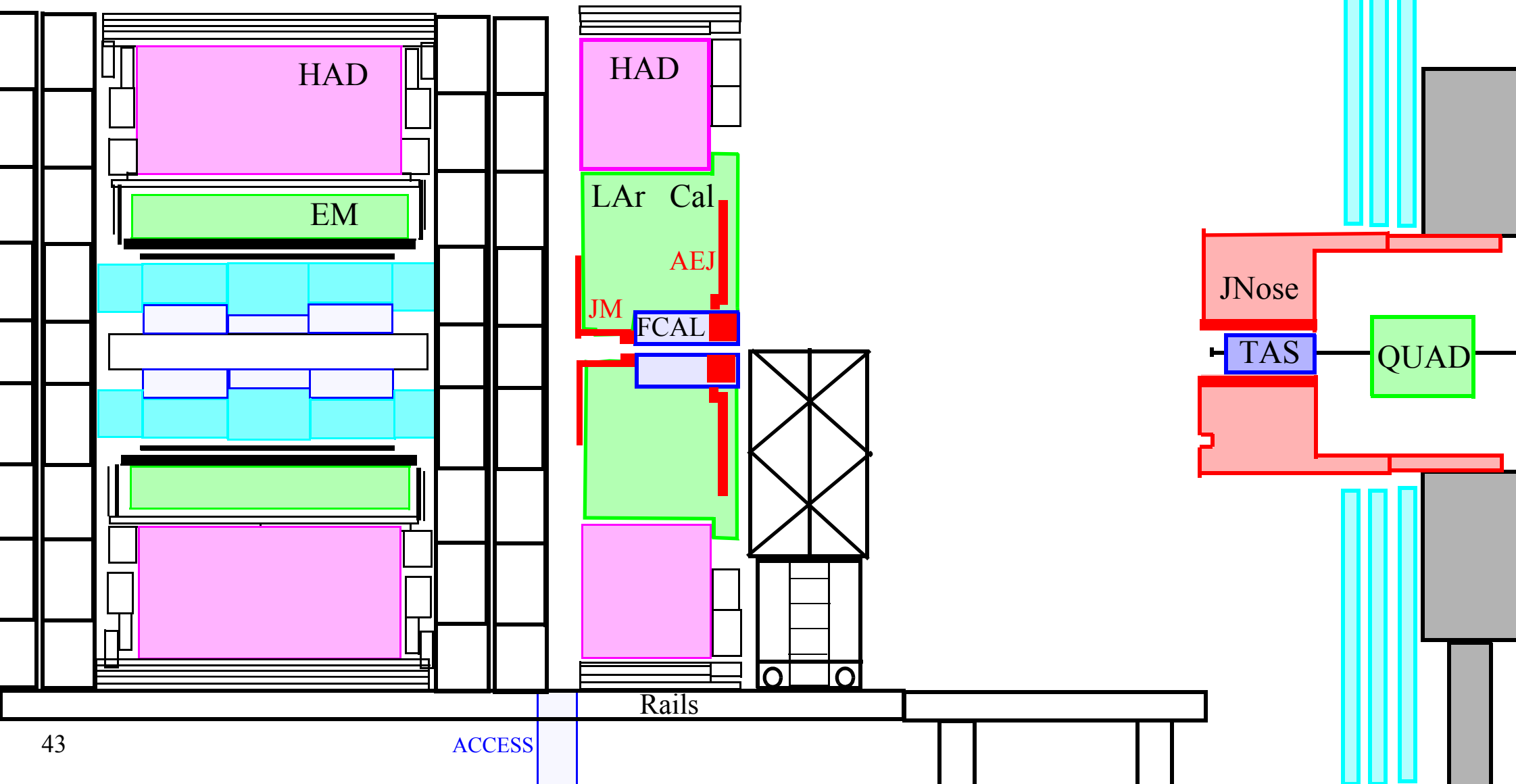
Install minivan

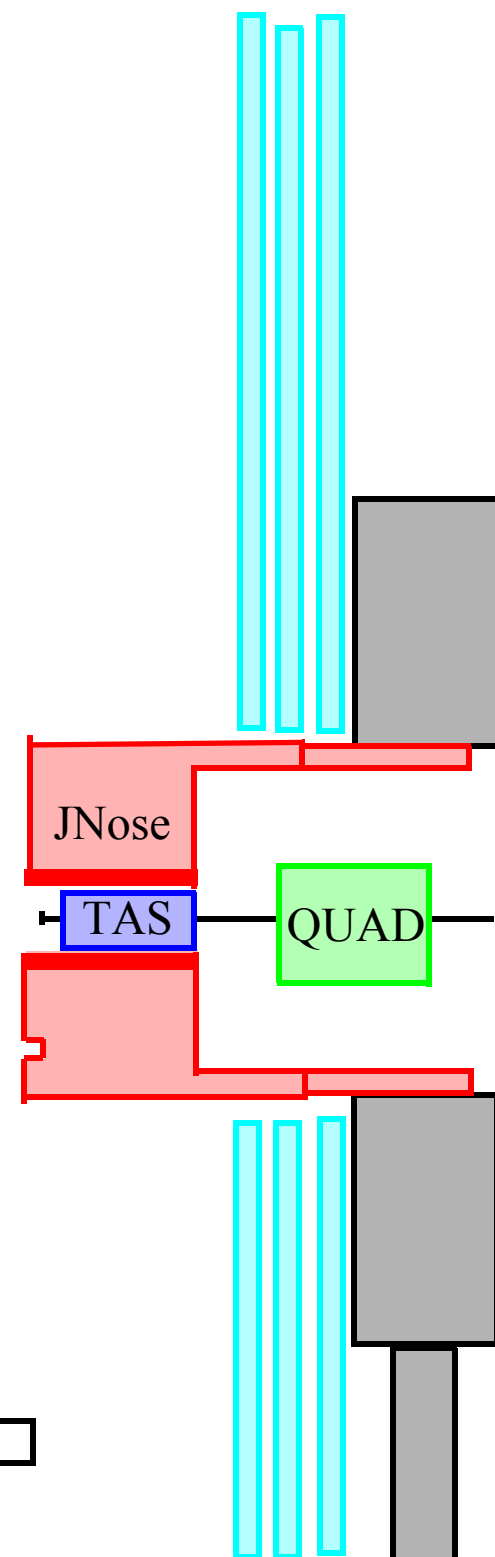
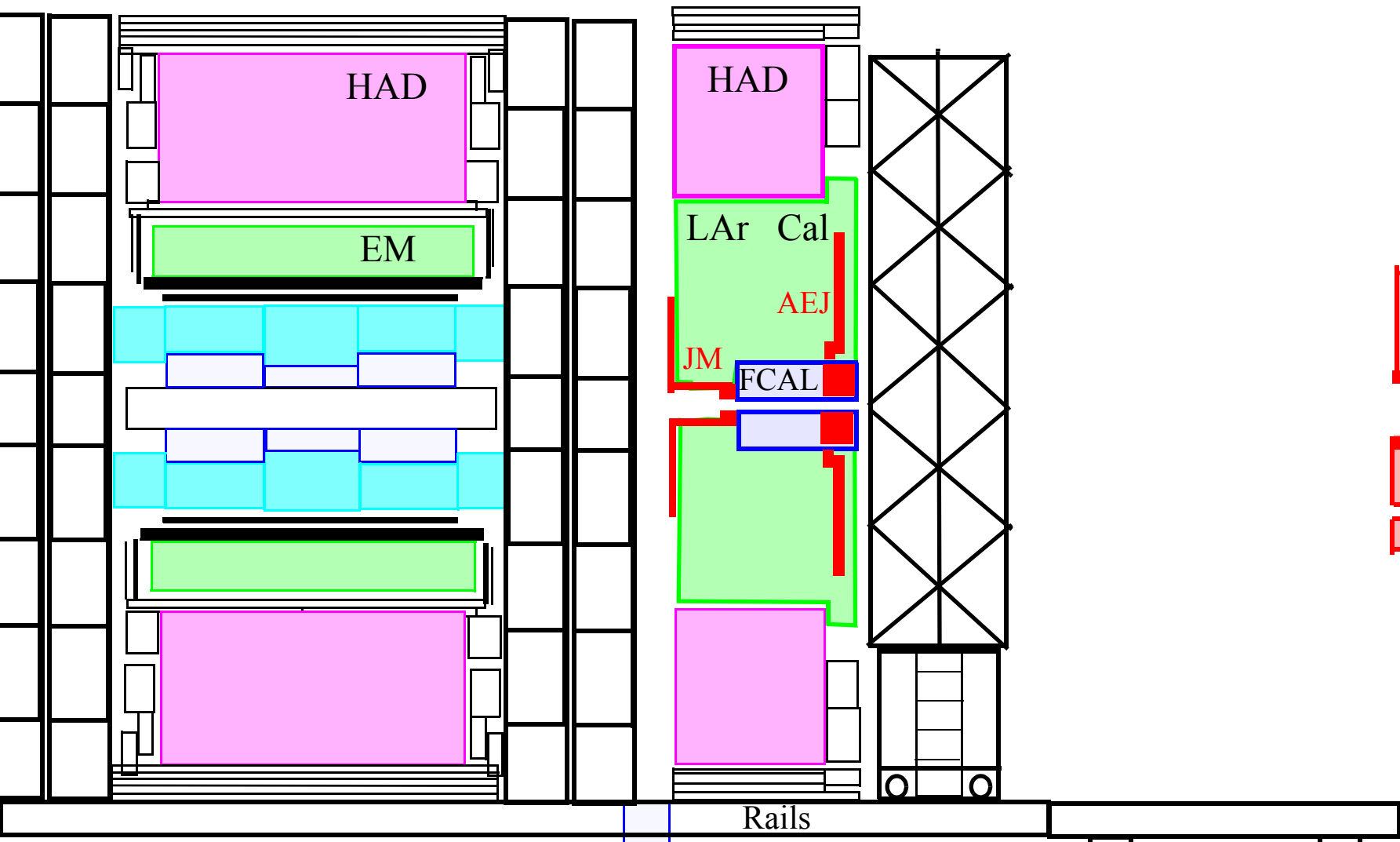




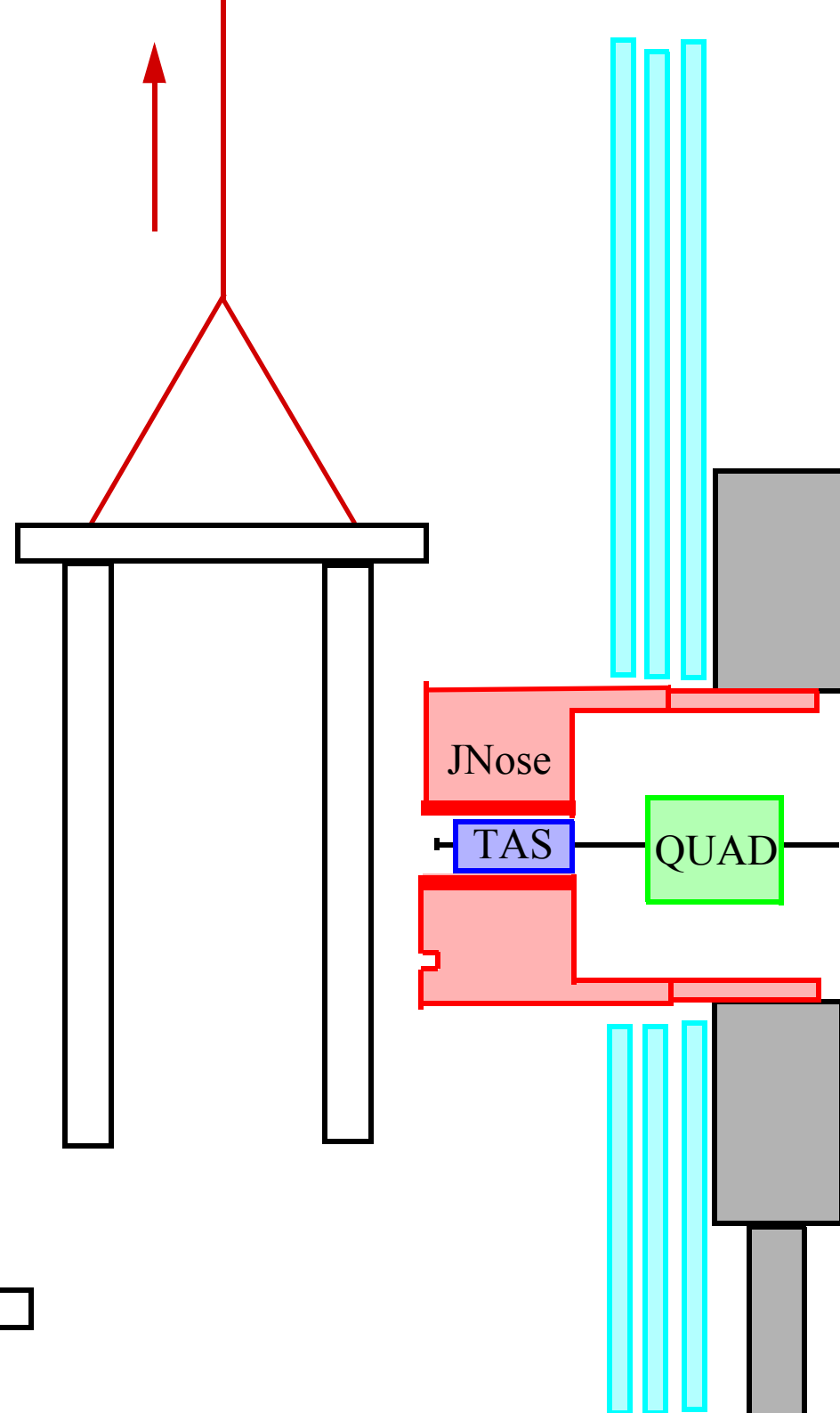
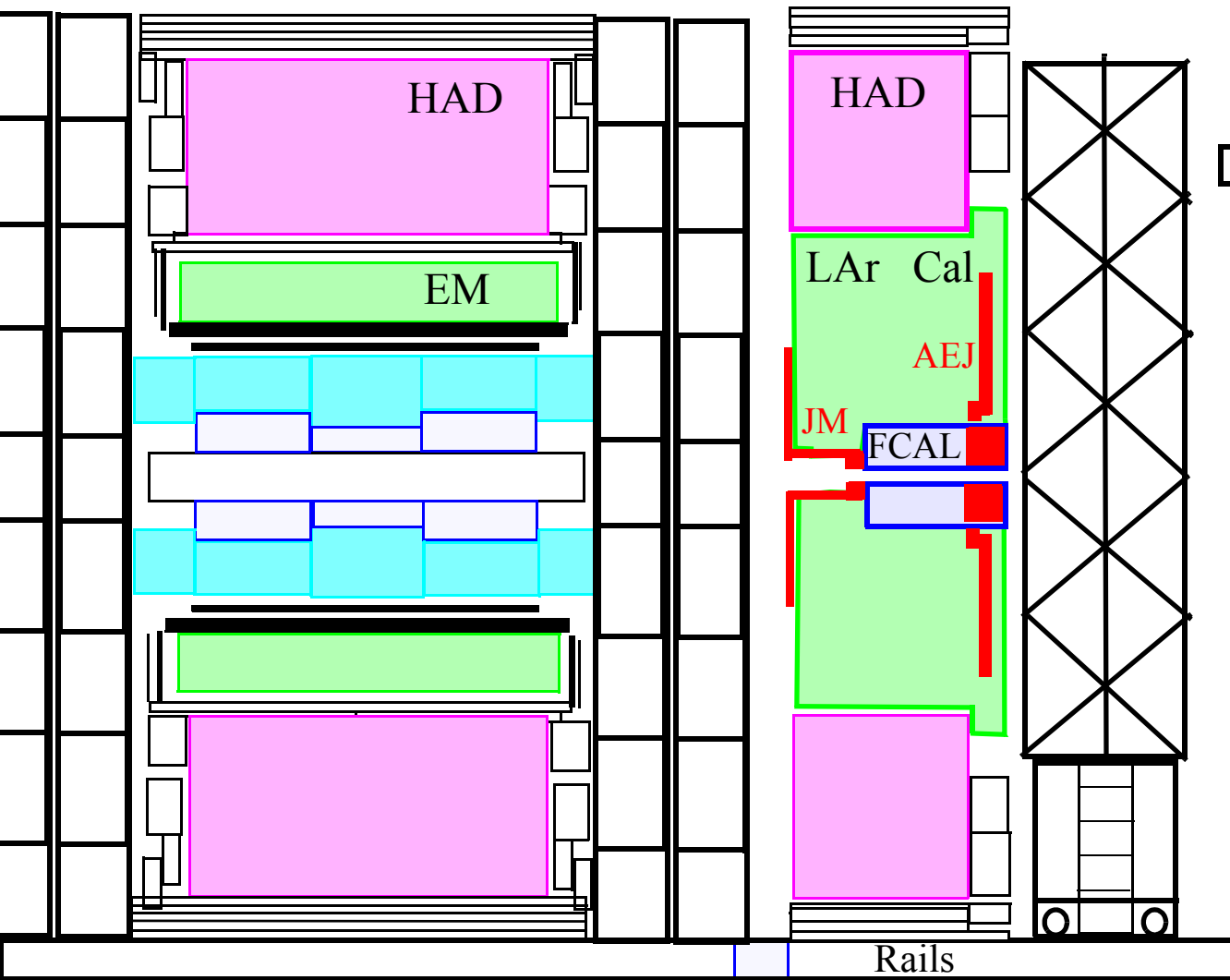


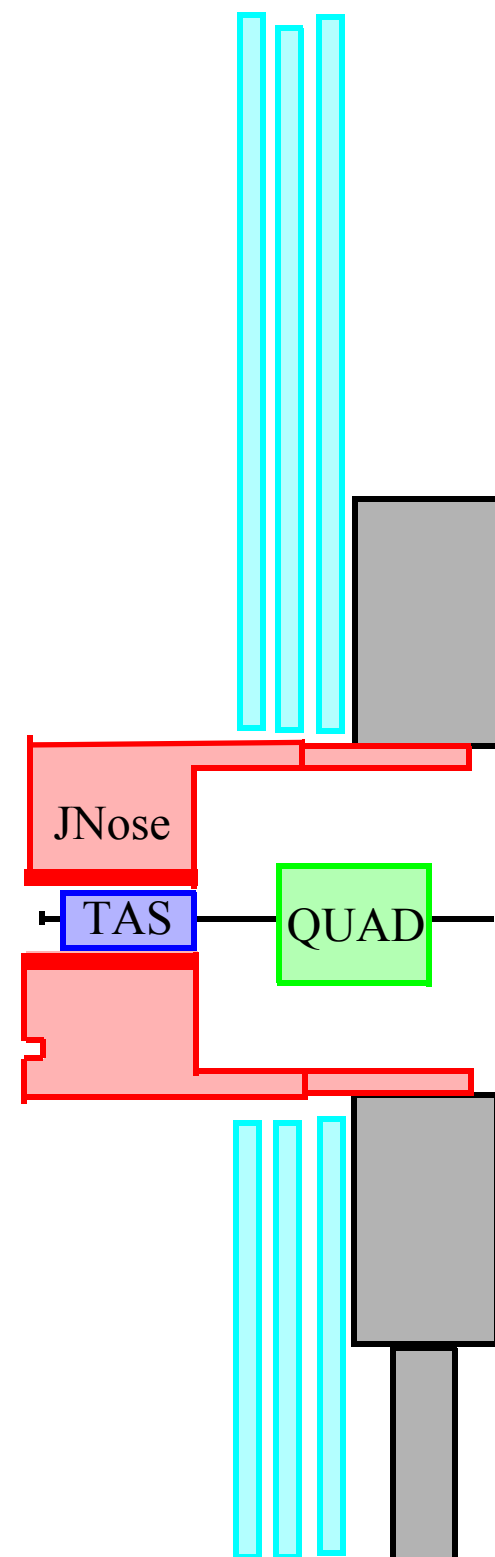
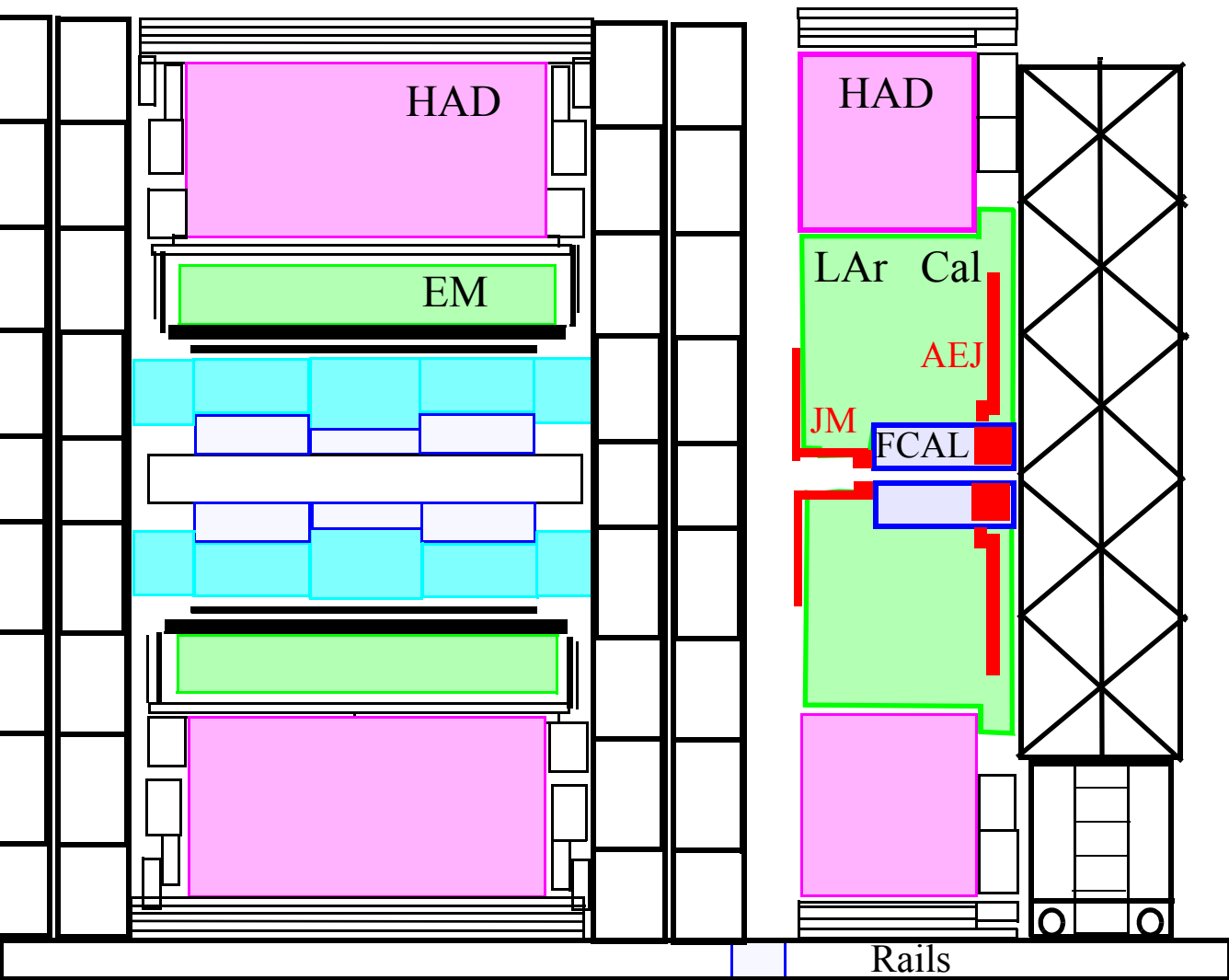
Build scaffolding



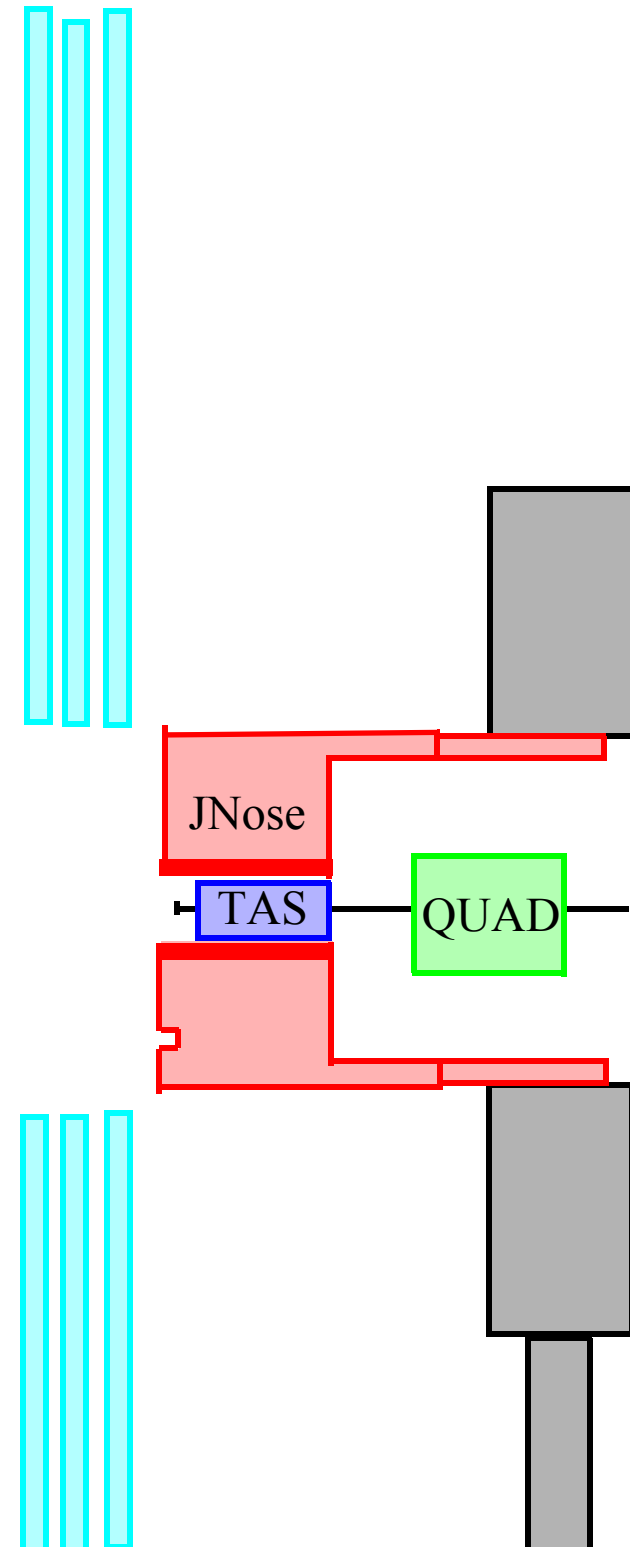
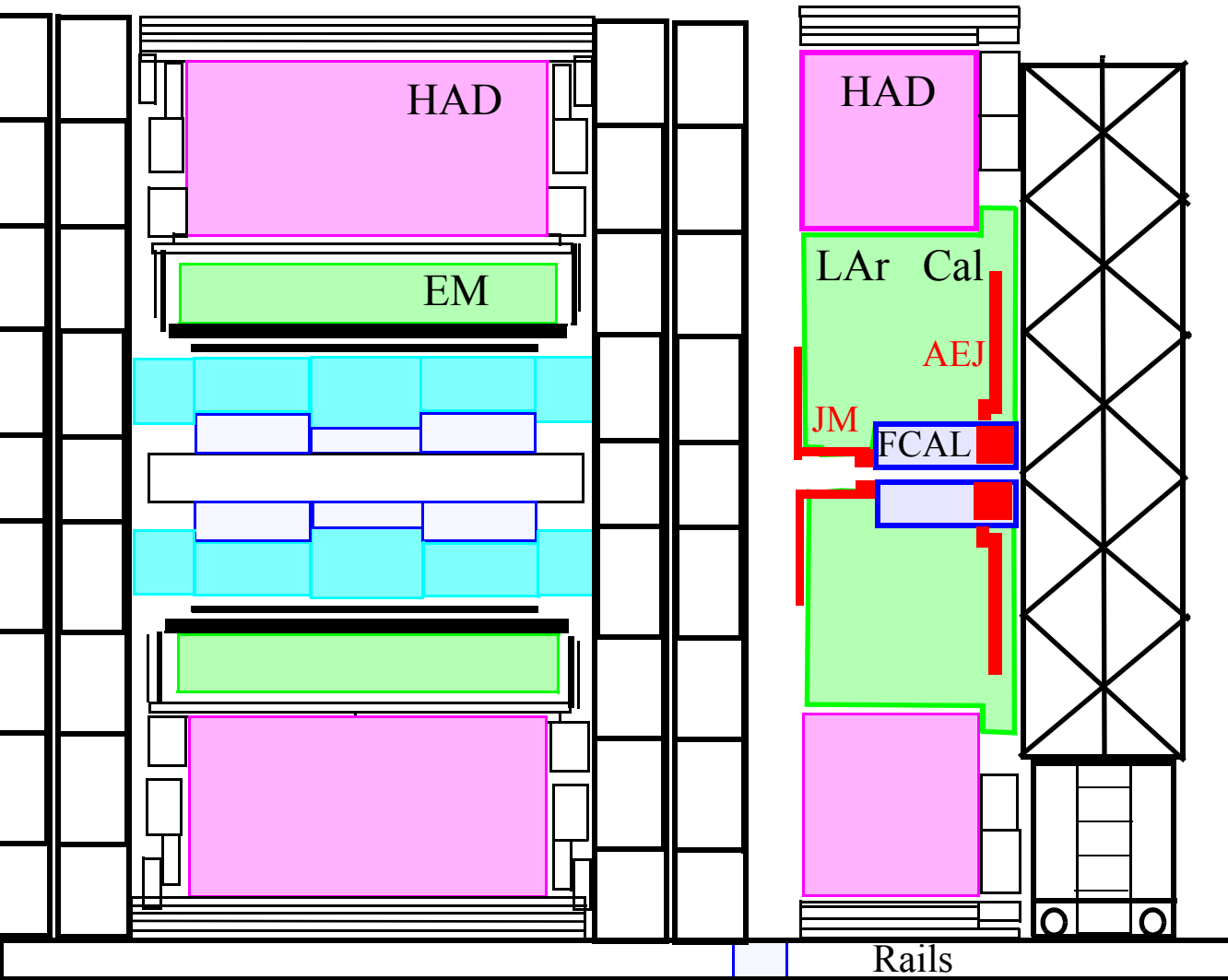


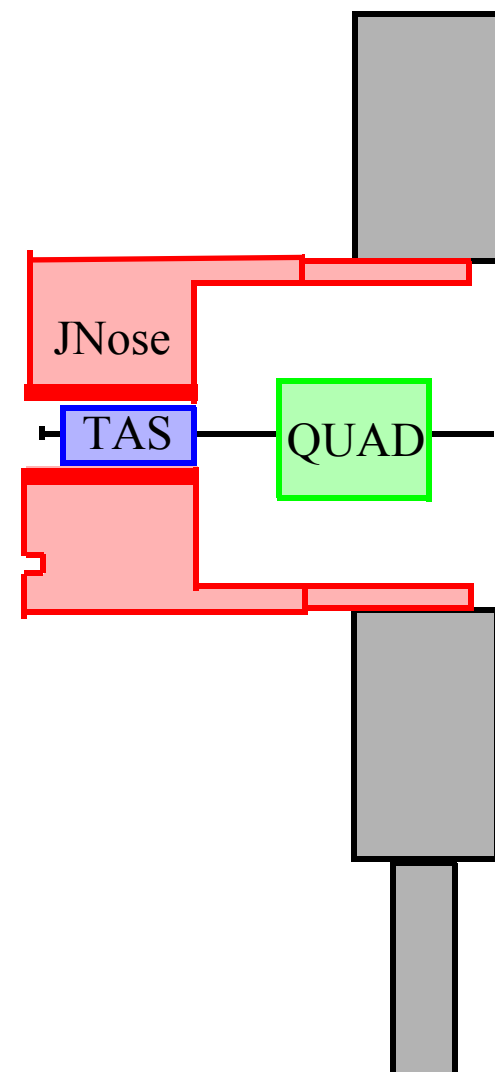
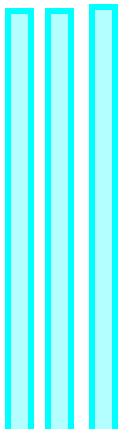
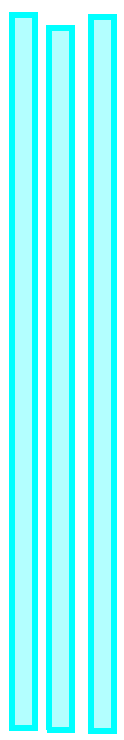
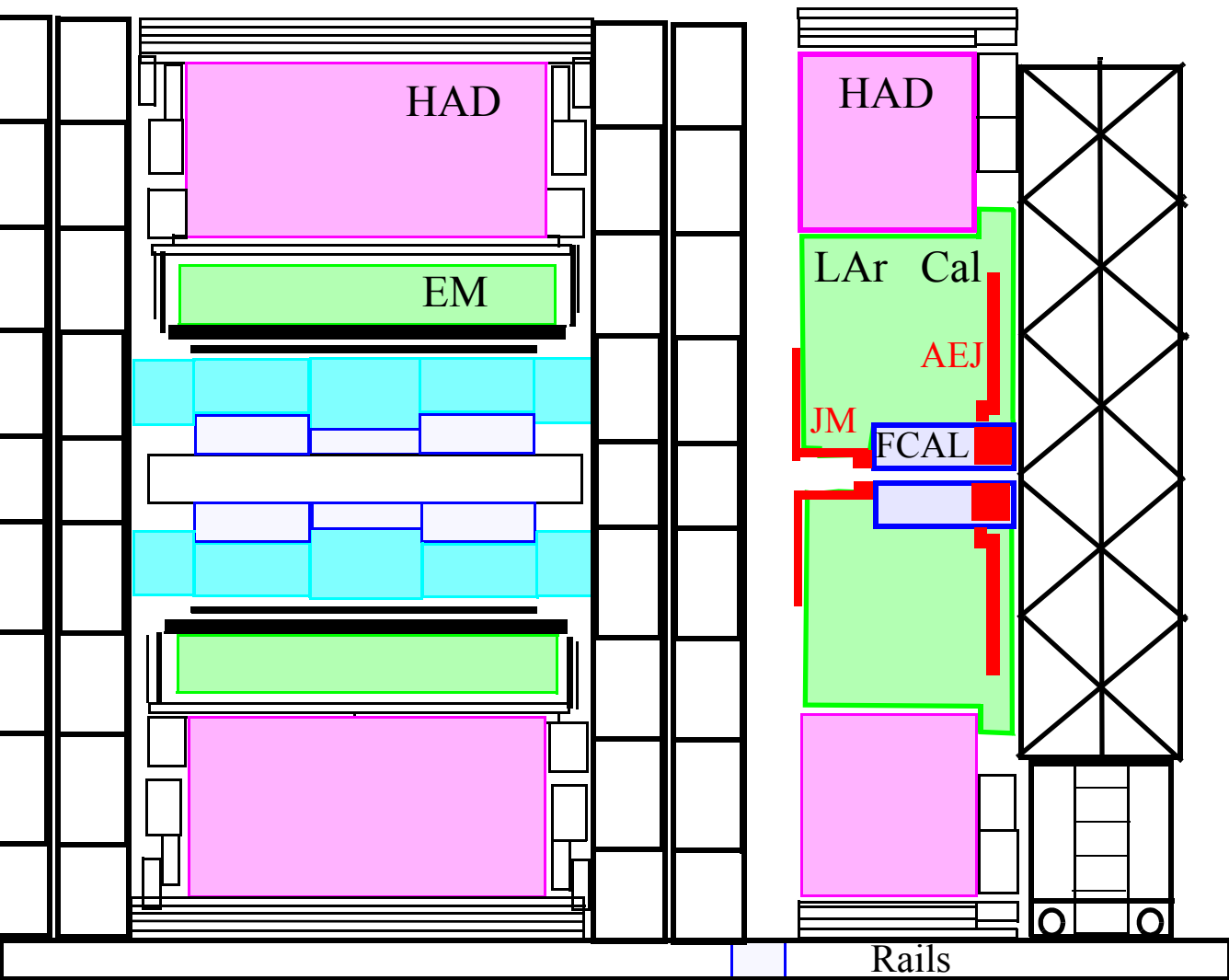
Remove HF truck



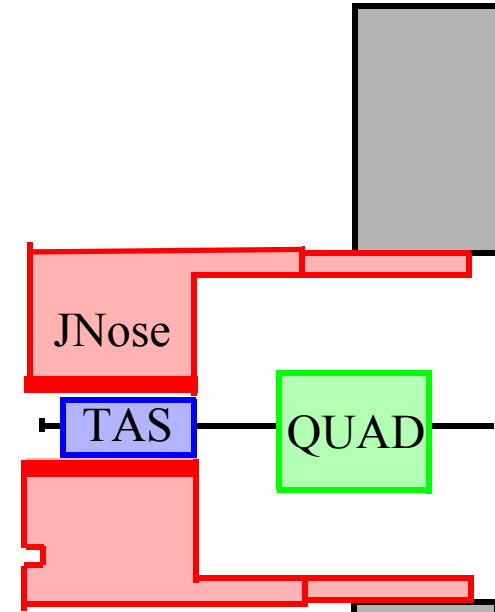
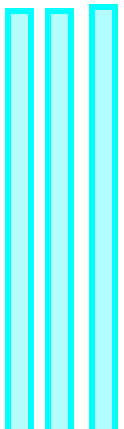
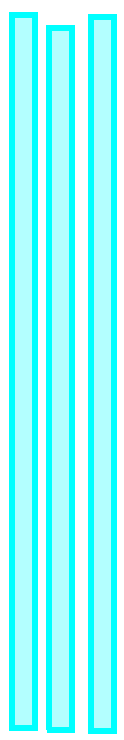
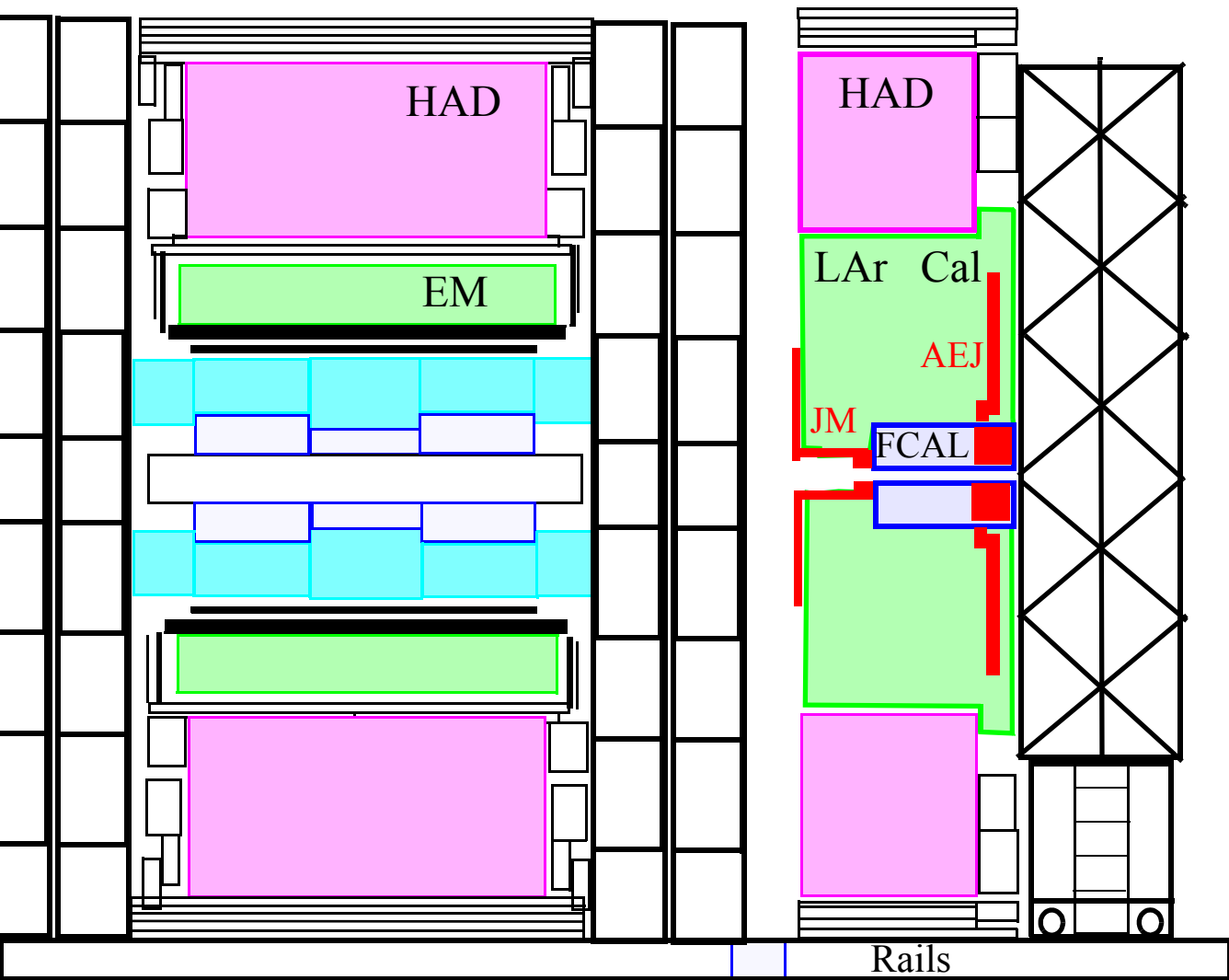


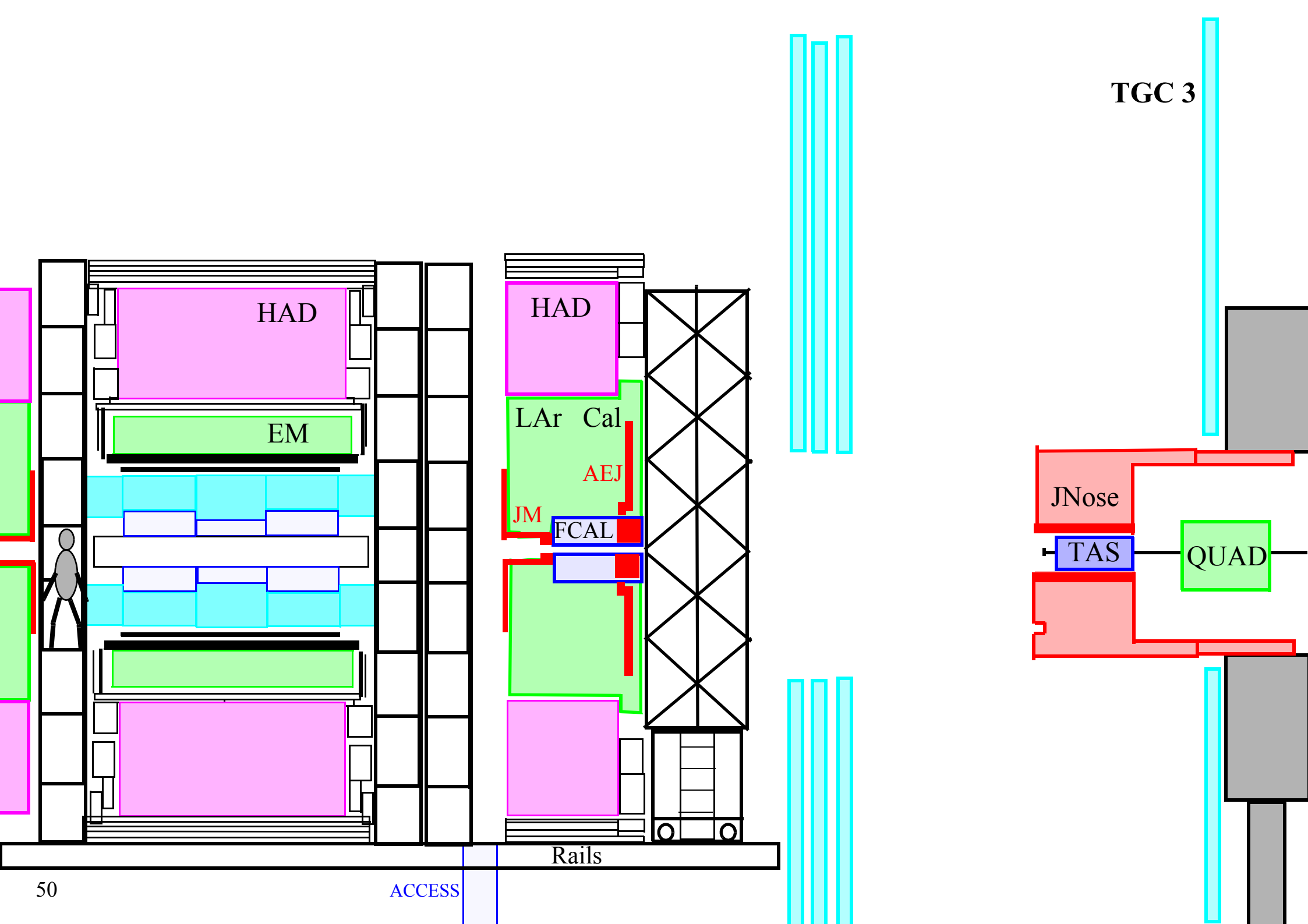
Move BW





Build TGC3





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

TAS

QUAD

TGC 3

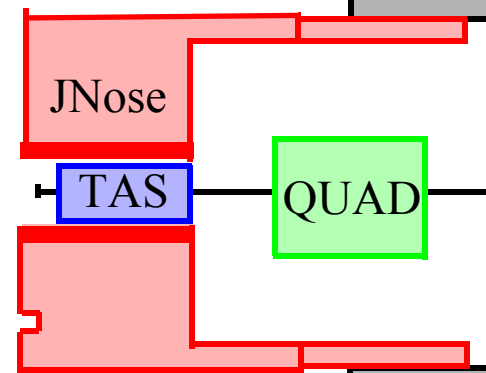
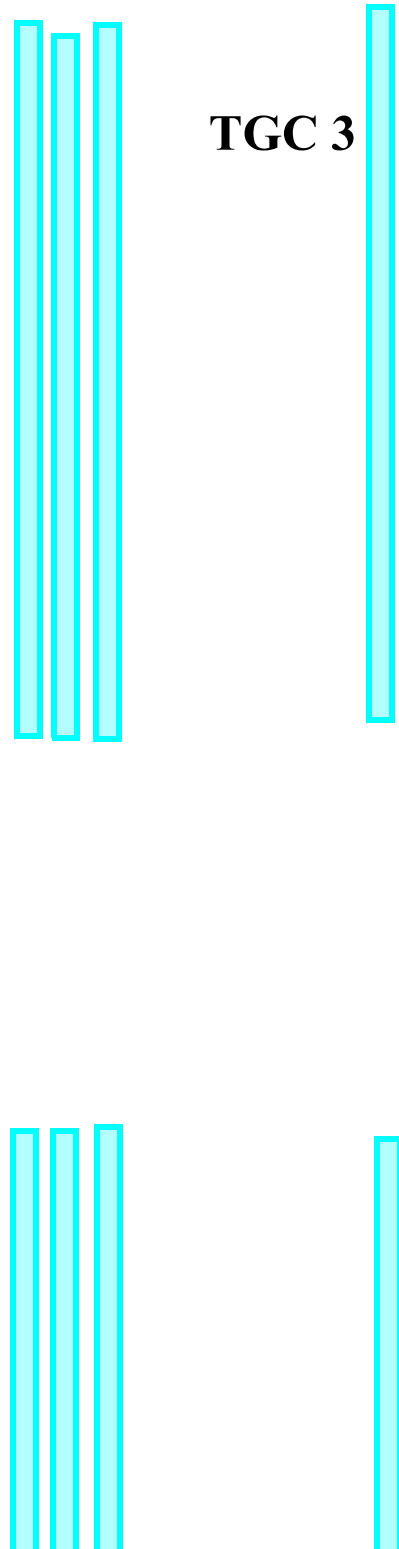
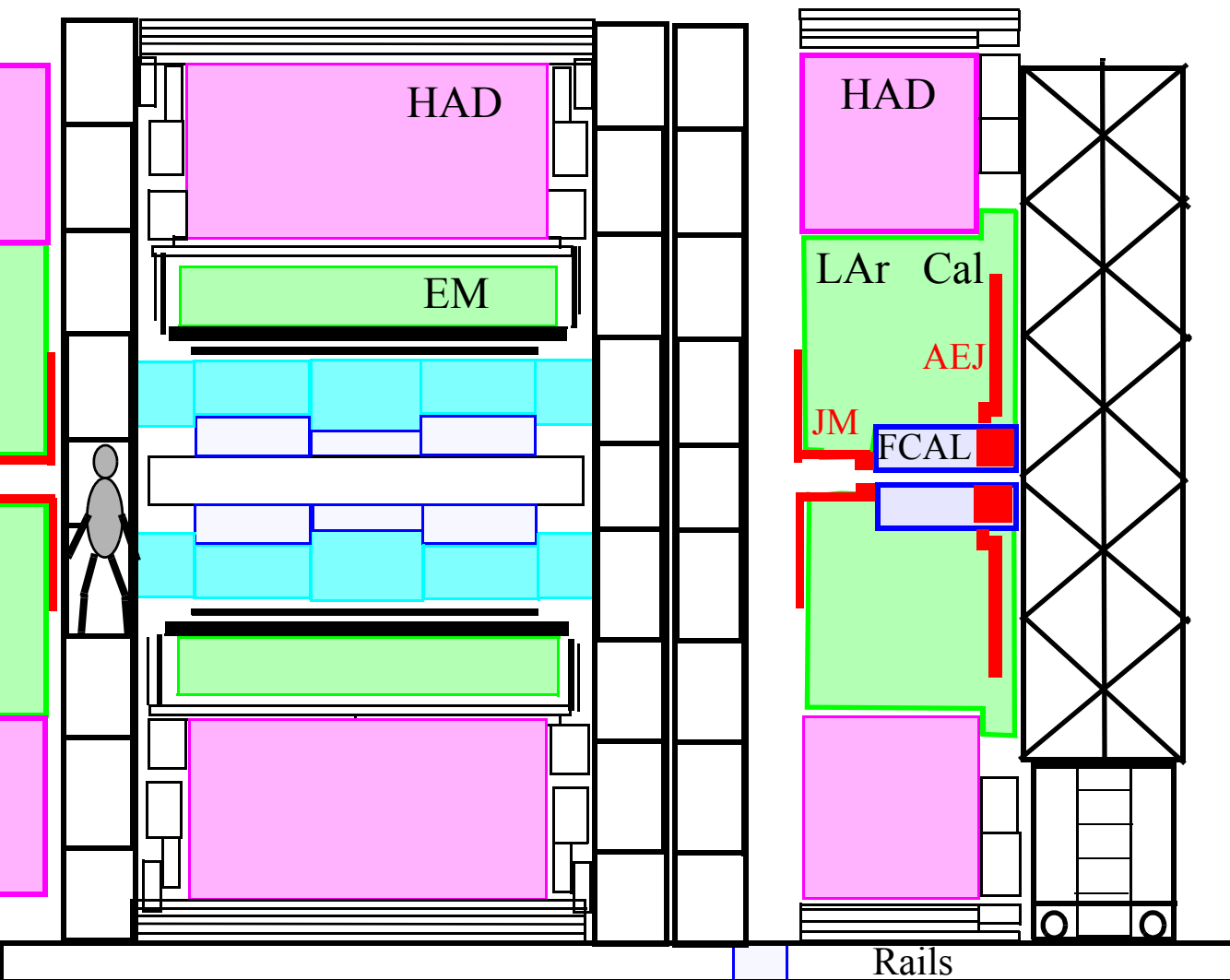
Rails

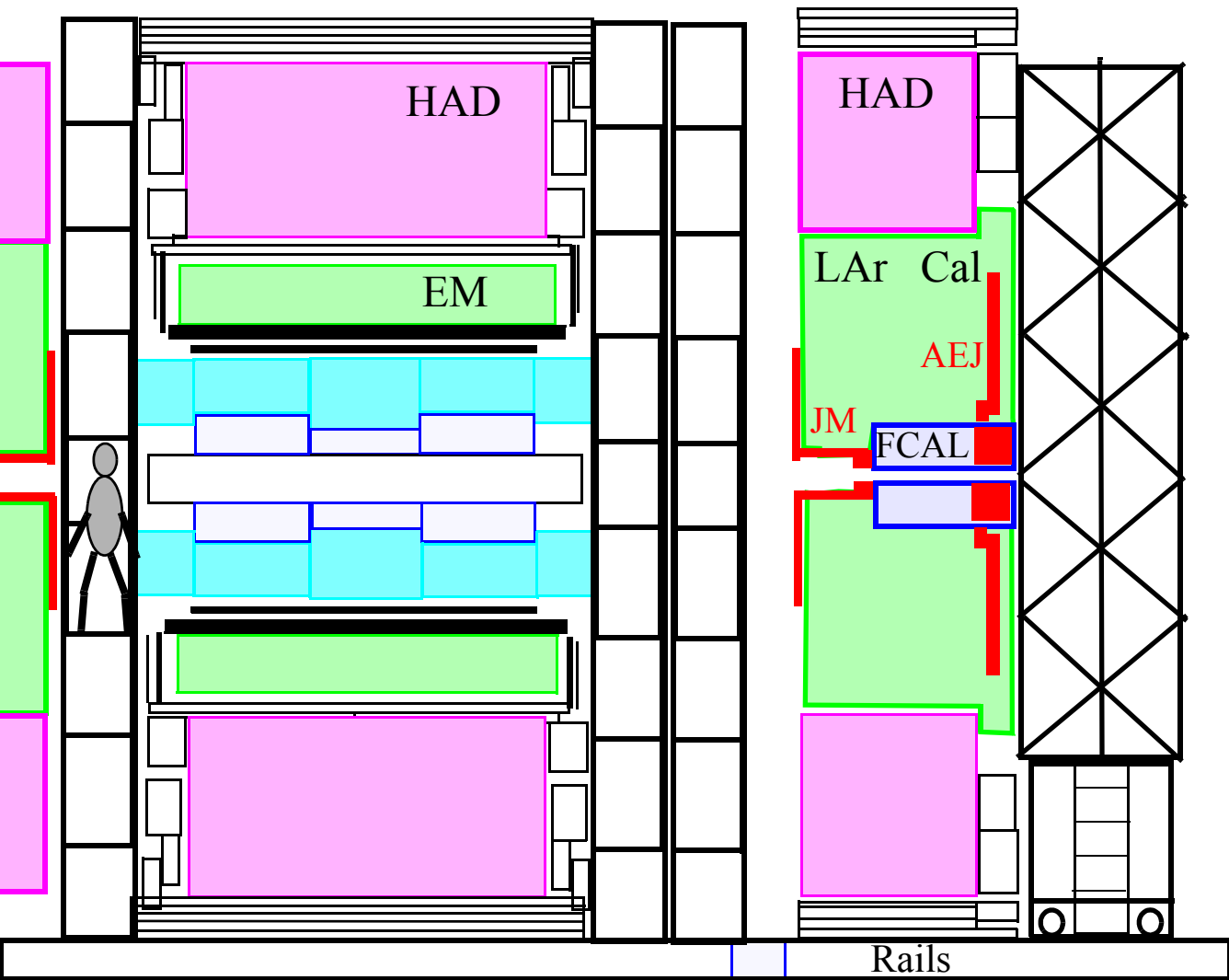
ACCESS

50

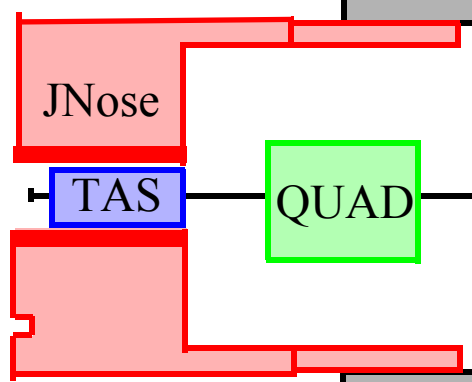
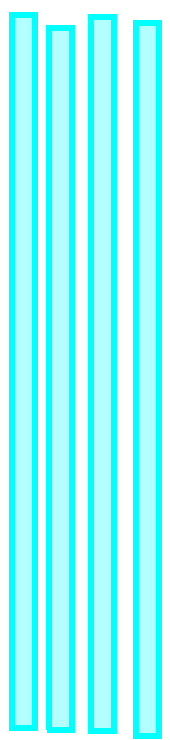
Move TGC3

TGC 3

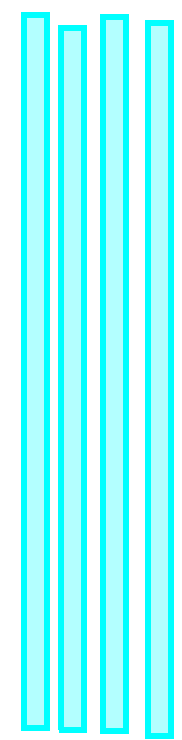
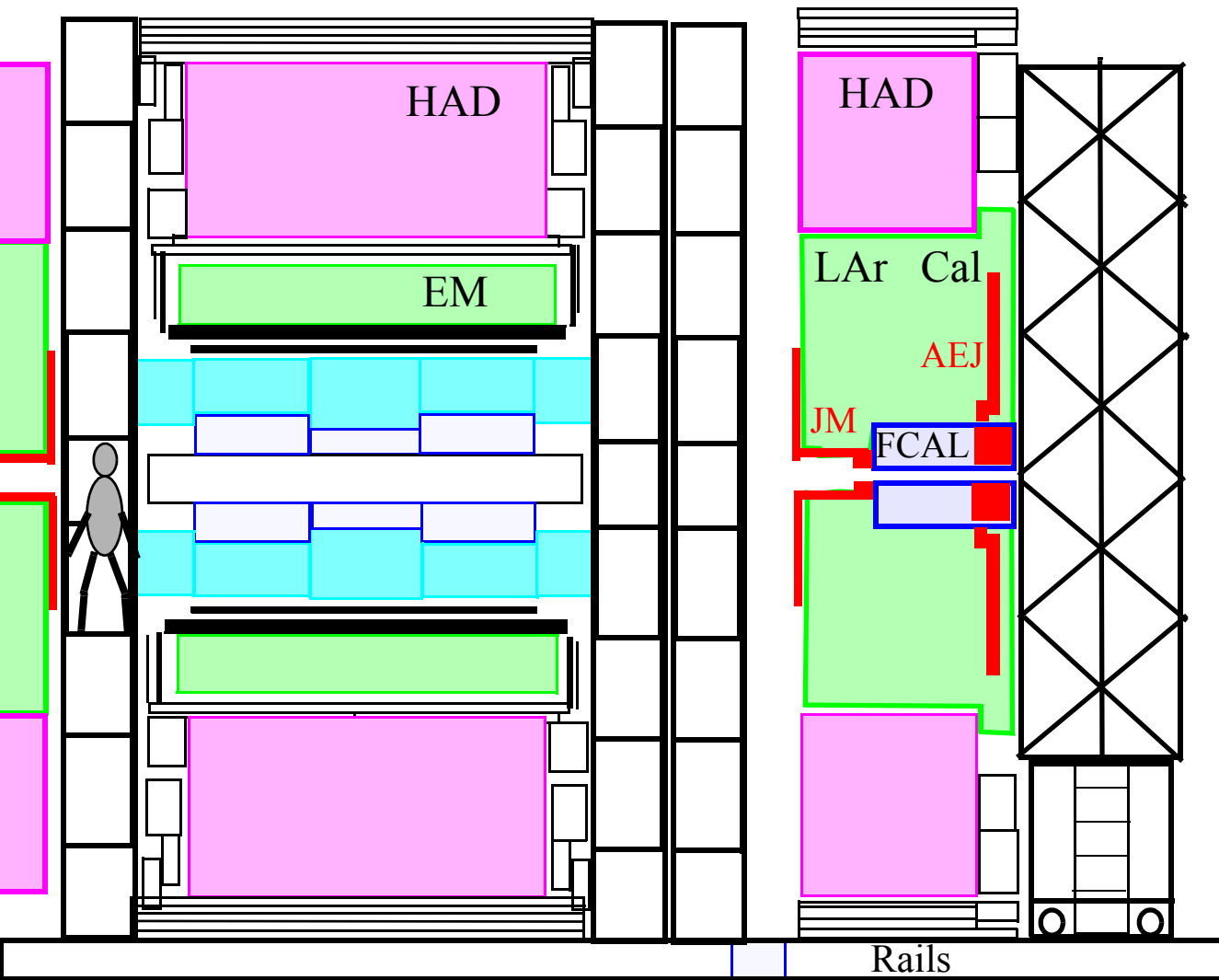




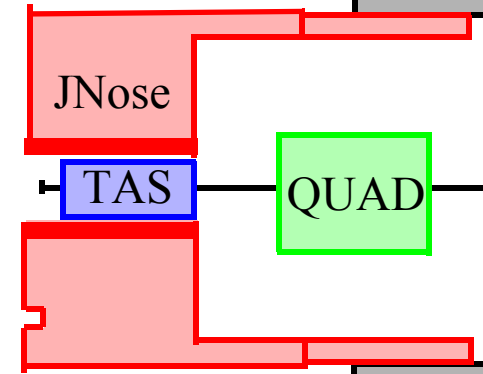
TGC 3

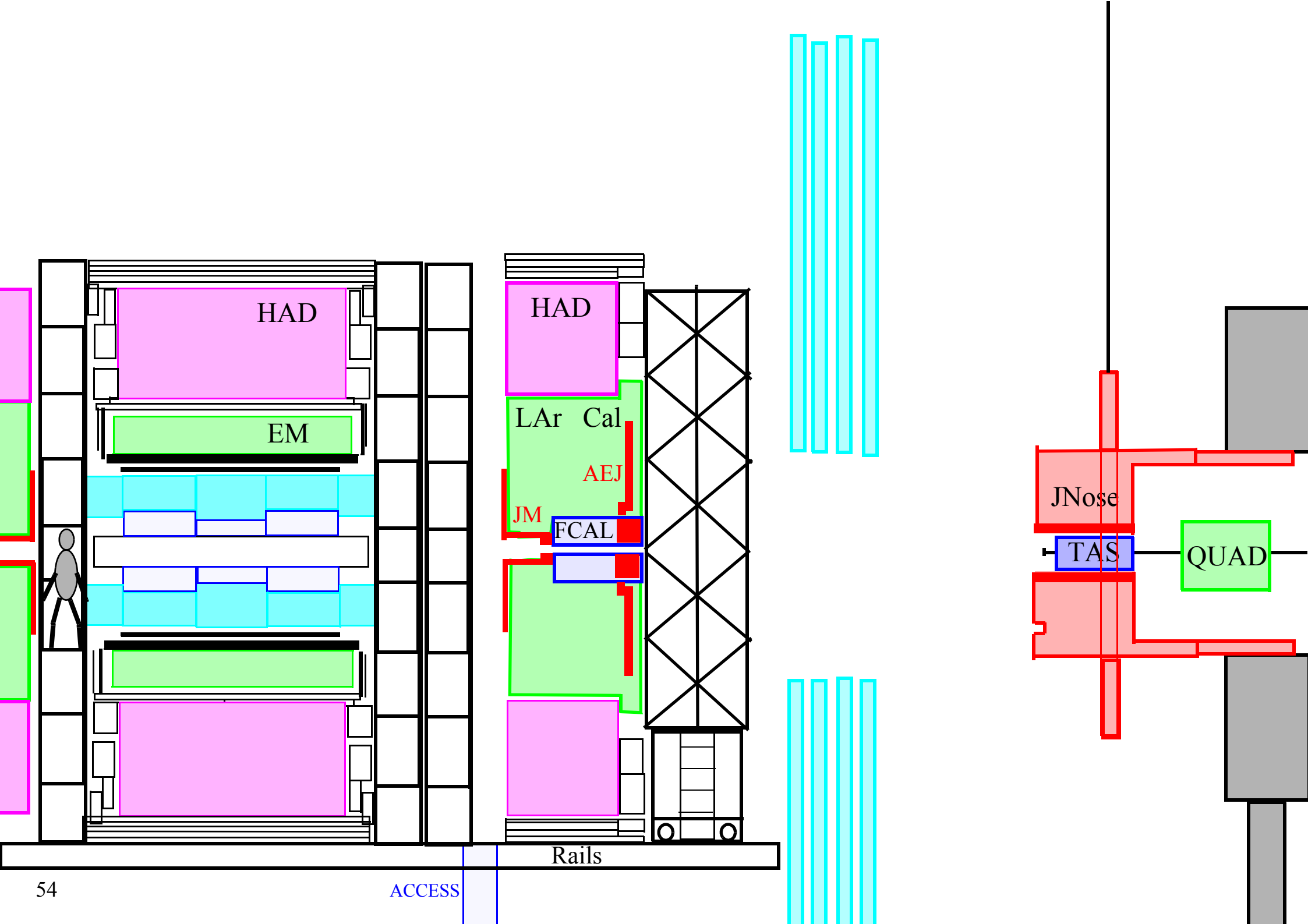


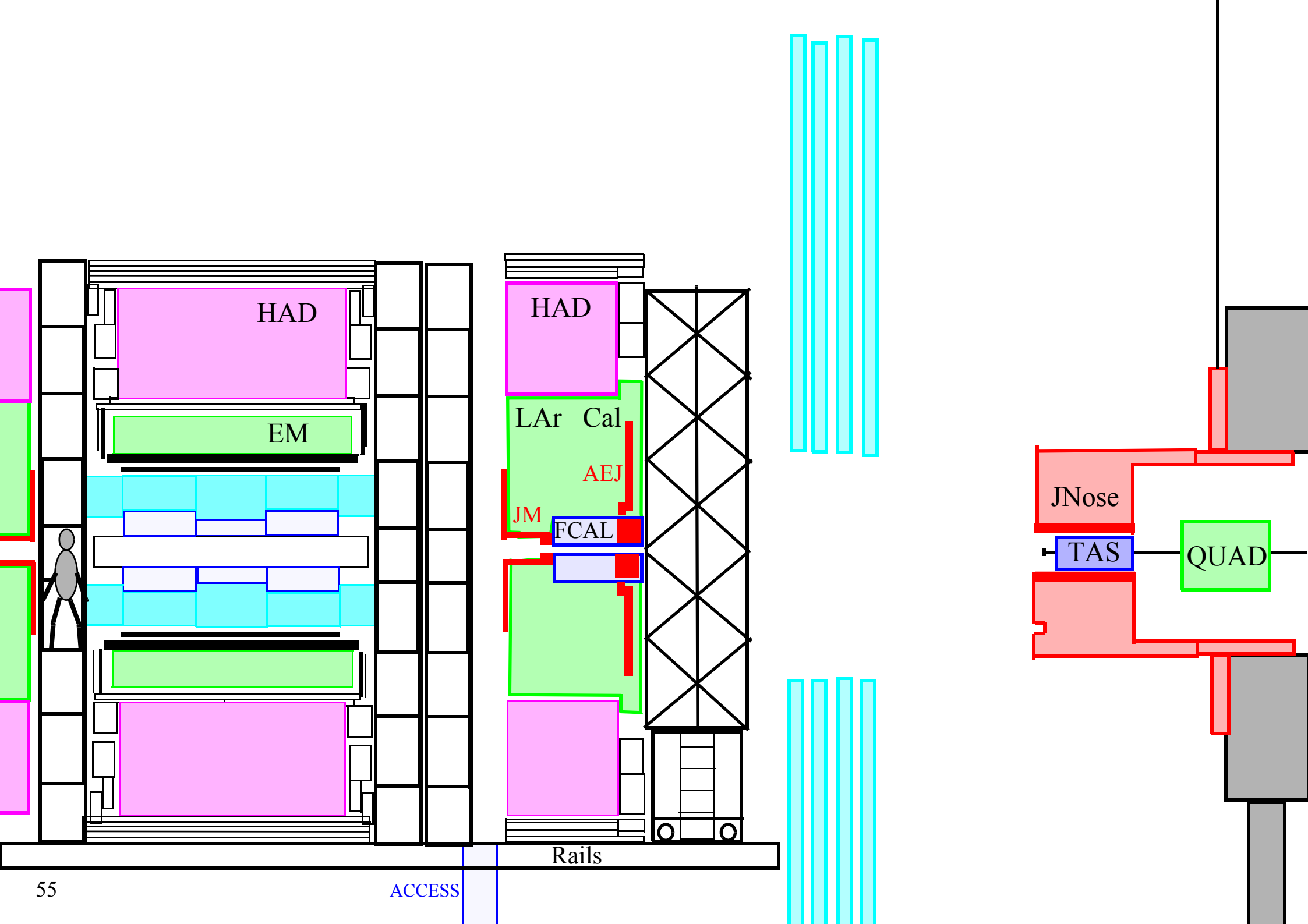
Install JN washers



WASHERS







HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

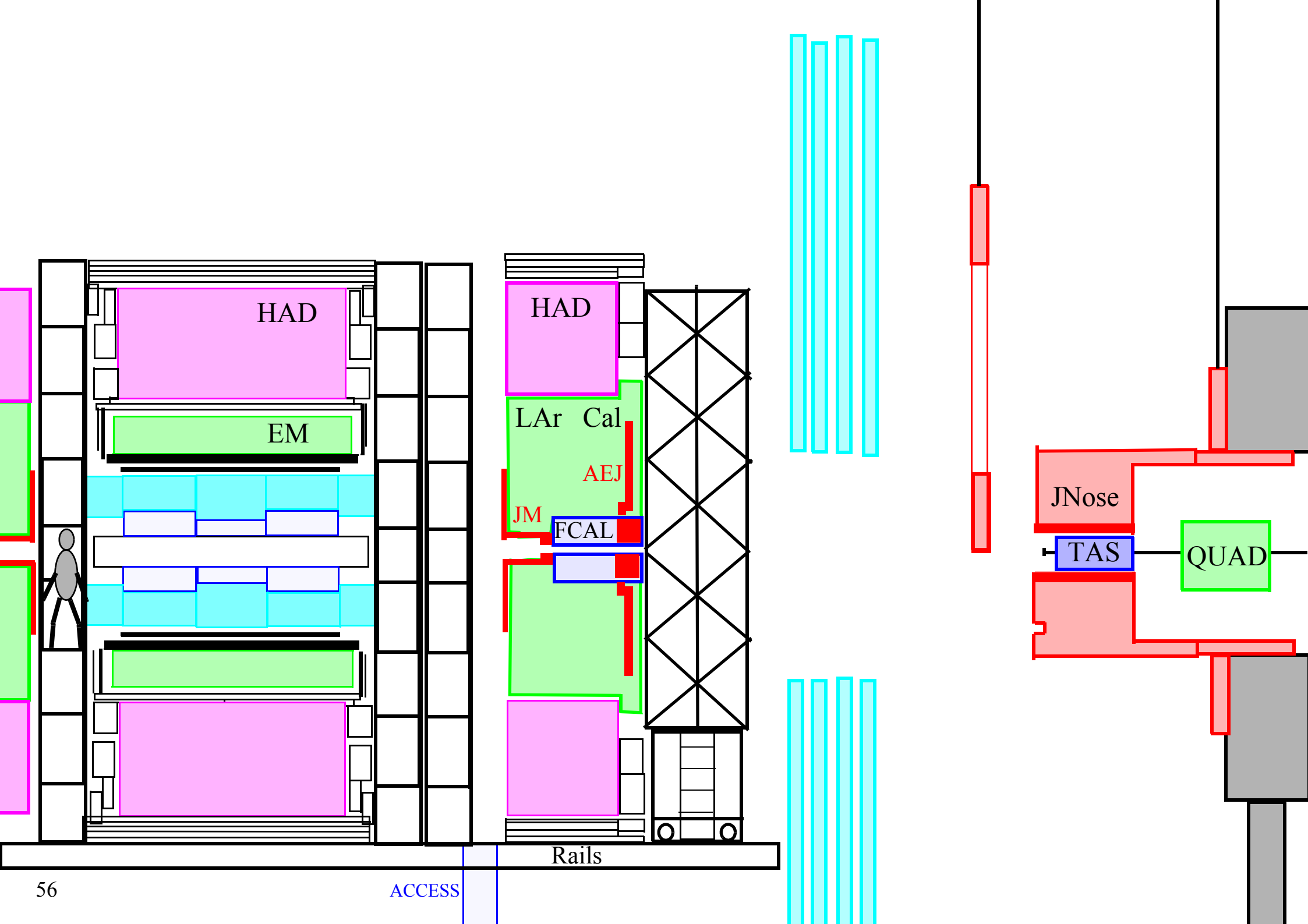
TAS

QUAD

Rails

55

ACCESS



HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

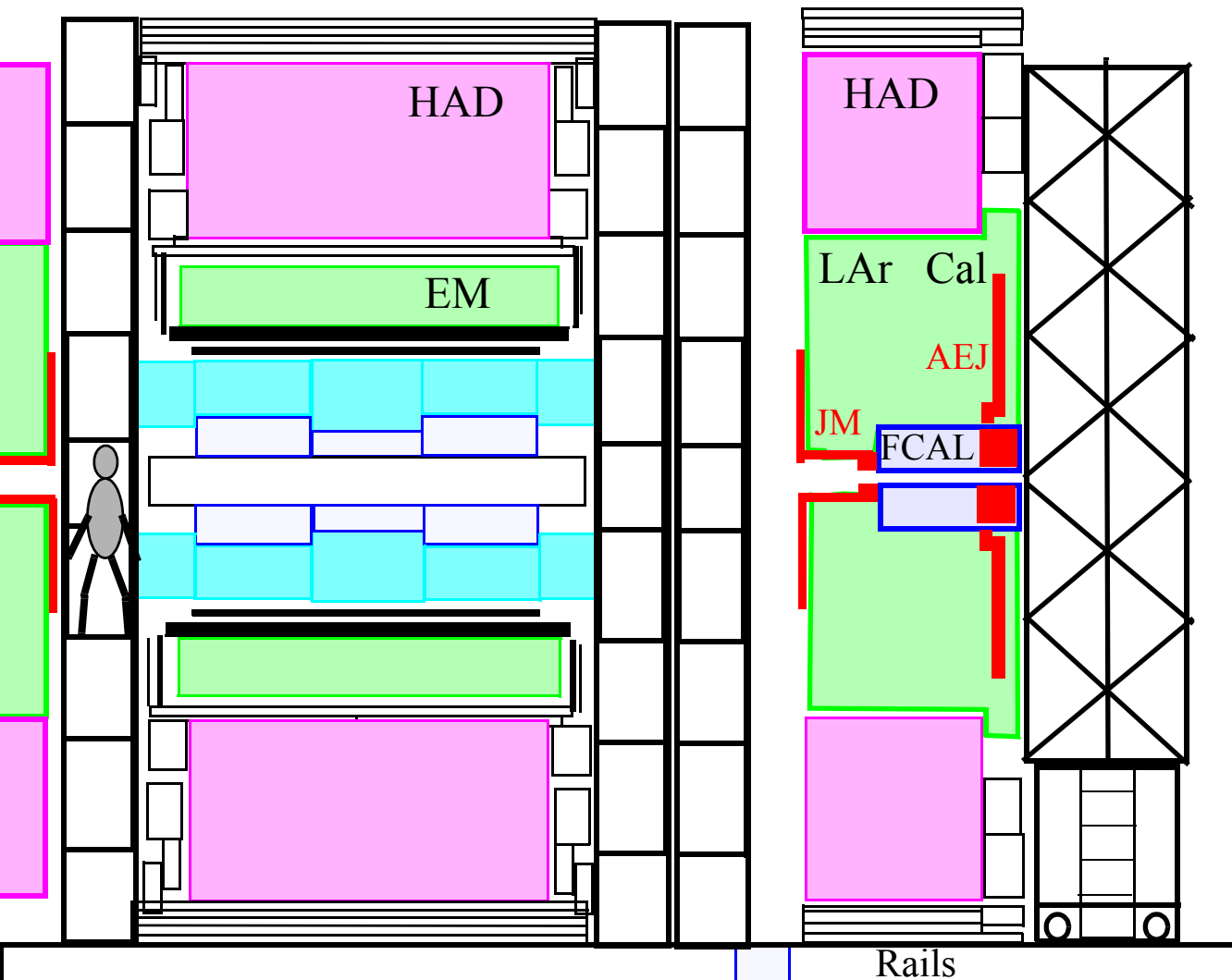
TAS

QUAD

Rails

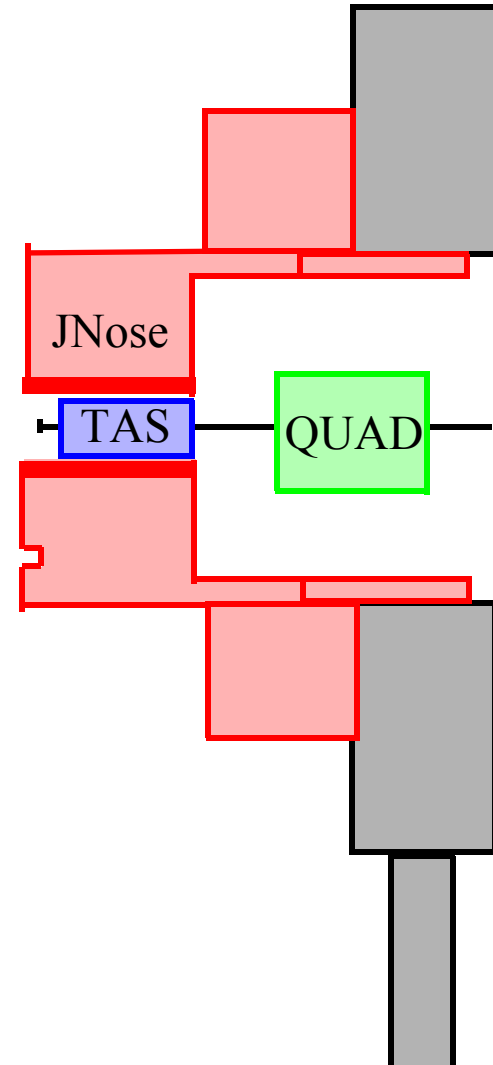
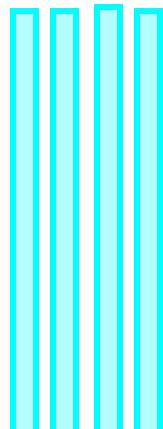
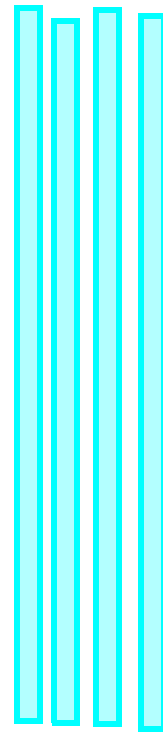
ACCESS

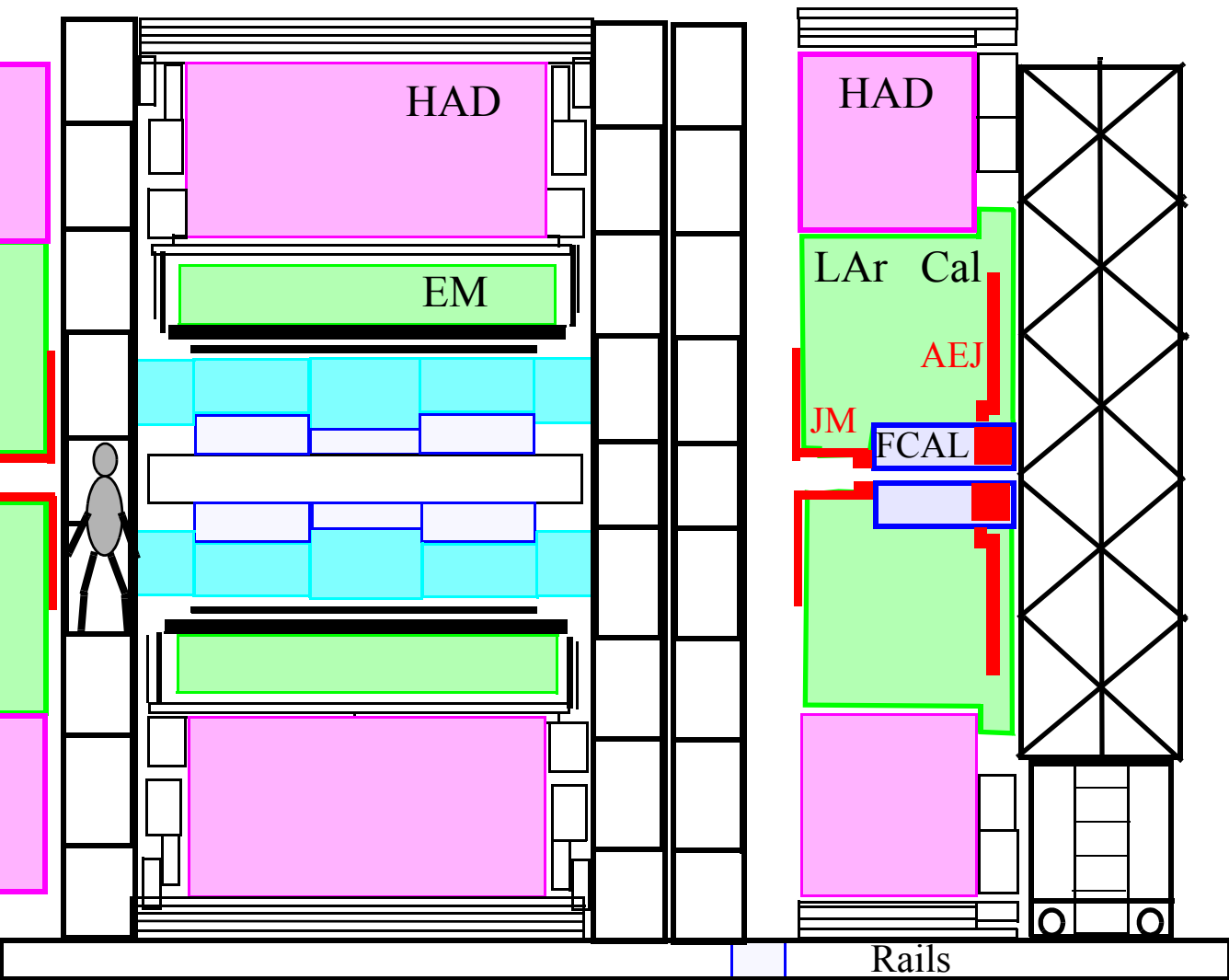
Move BW to parking position



57

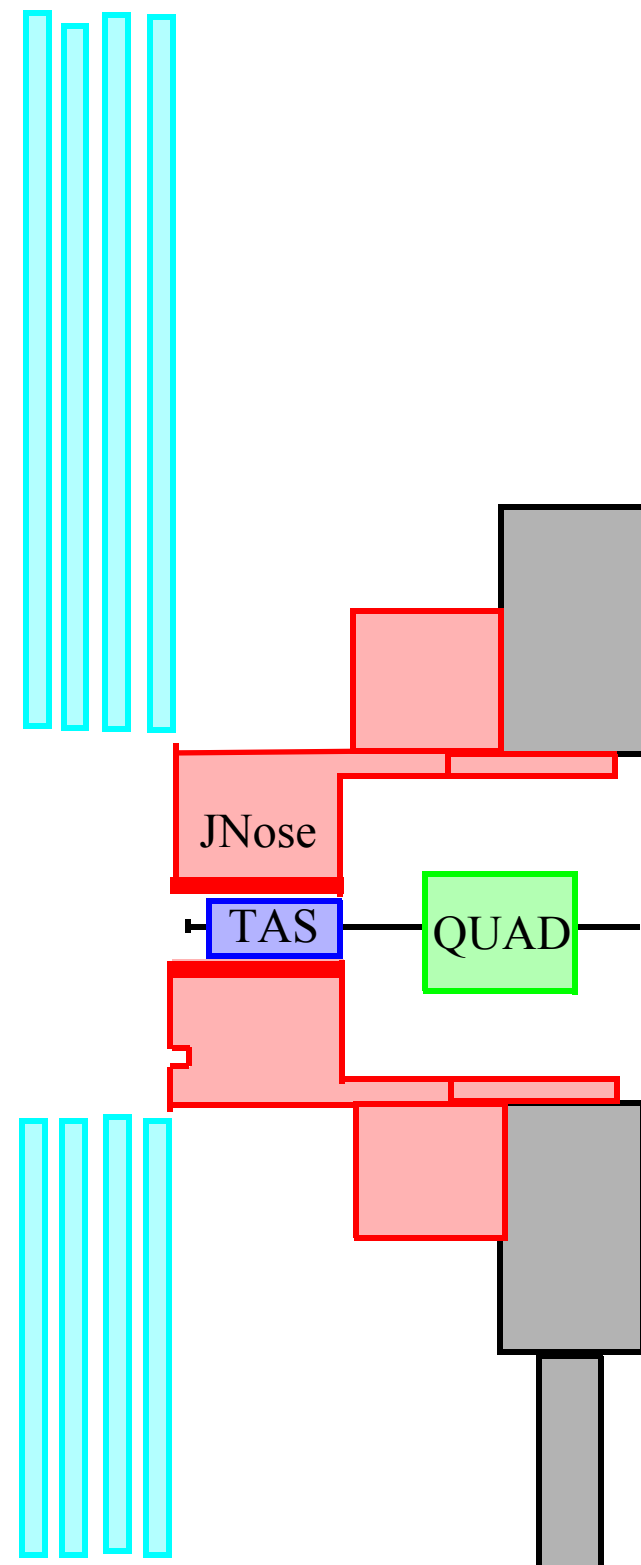
ACCESS

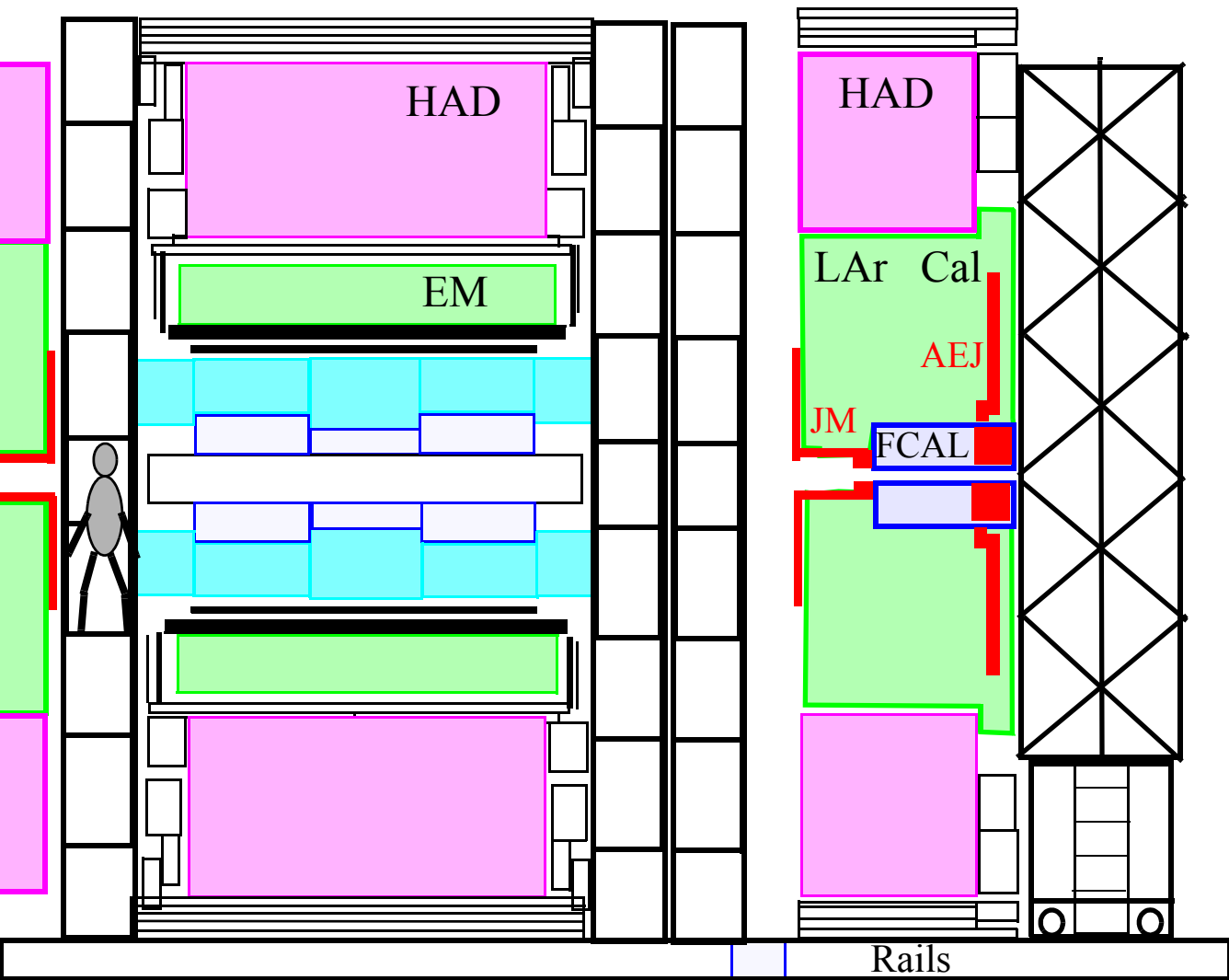




58

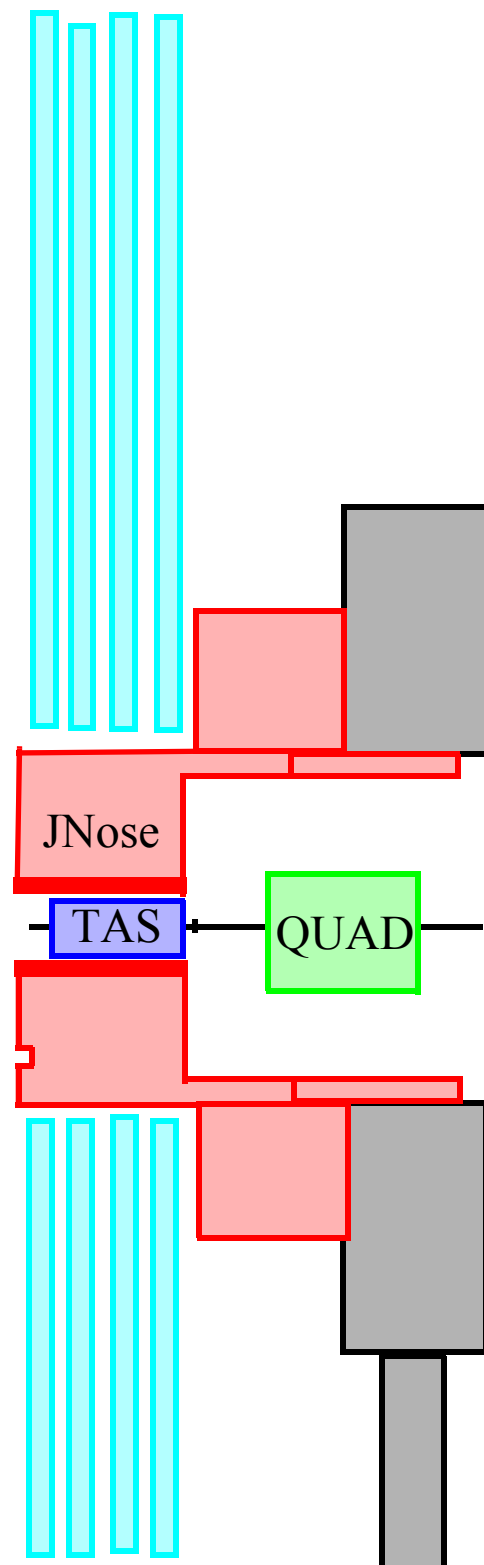
ACCESS

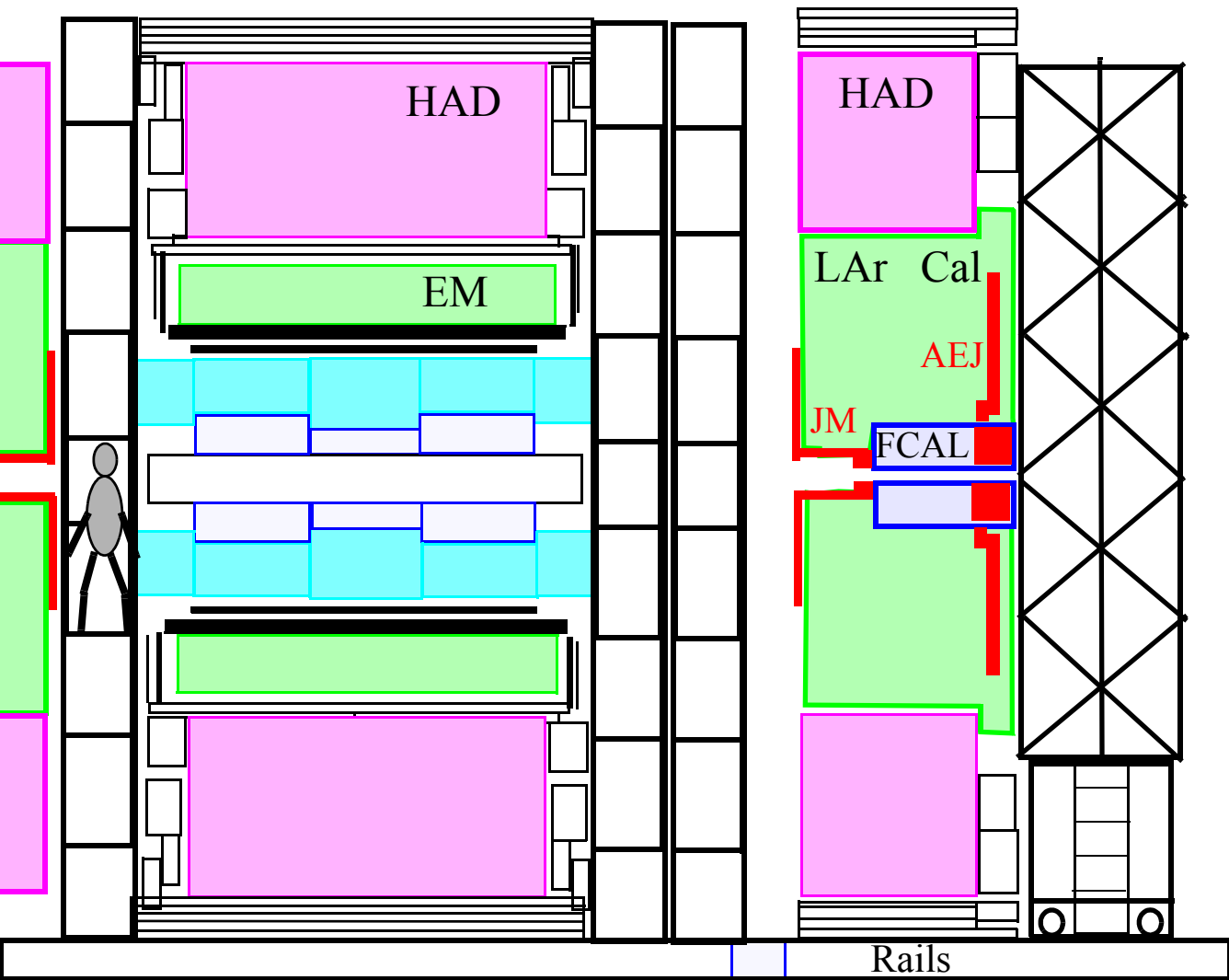




59

ACCESS





60

ACCESS

Rails

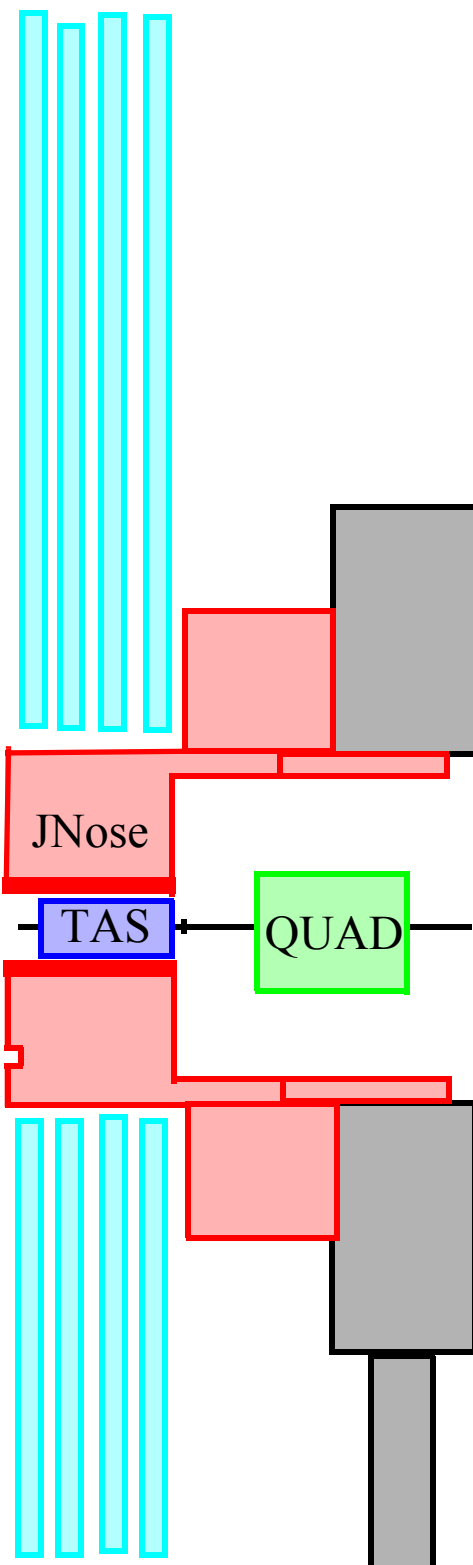
HAD

LAr Cal

AEJ

JM

FCAL

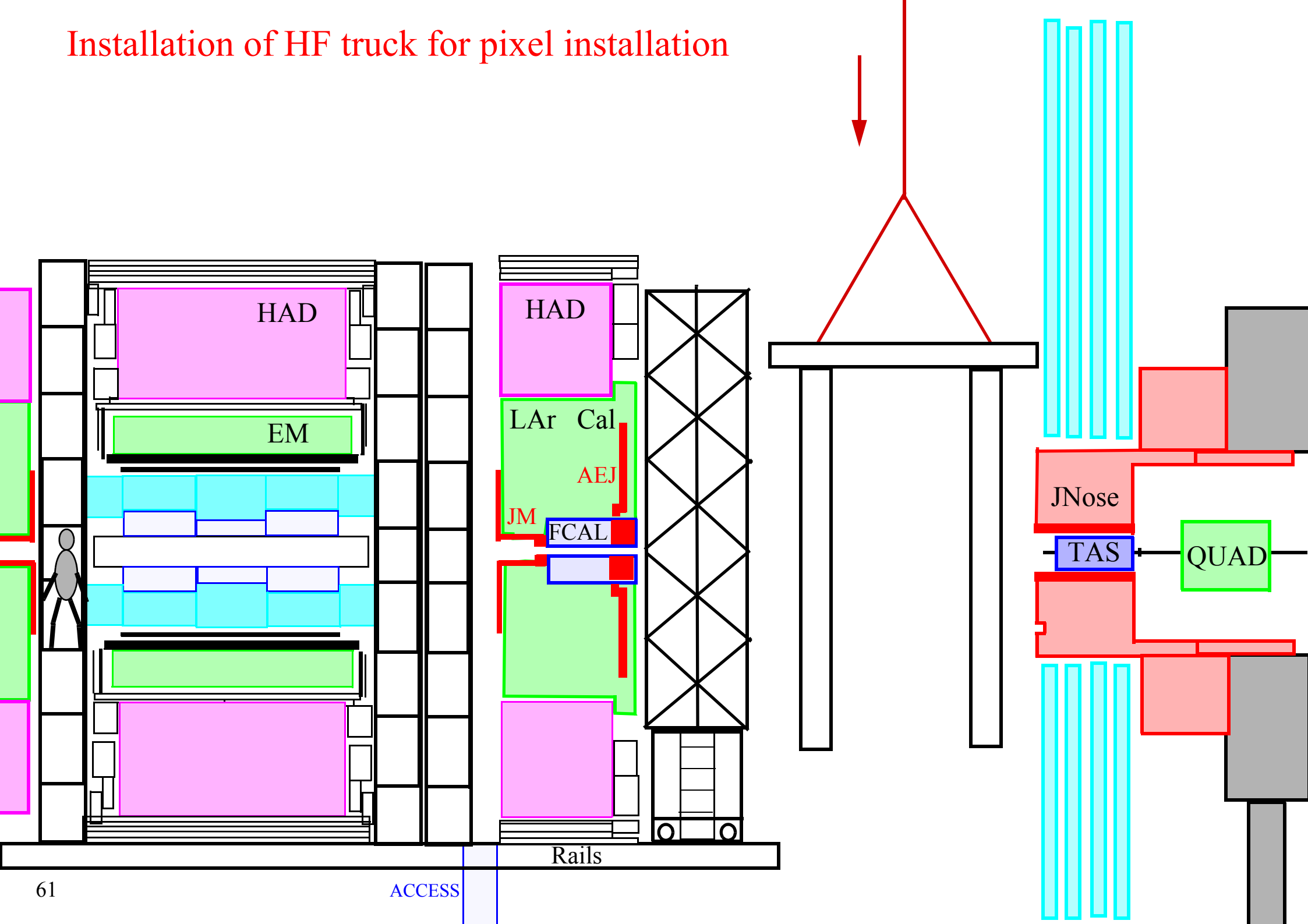


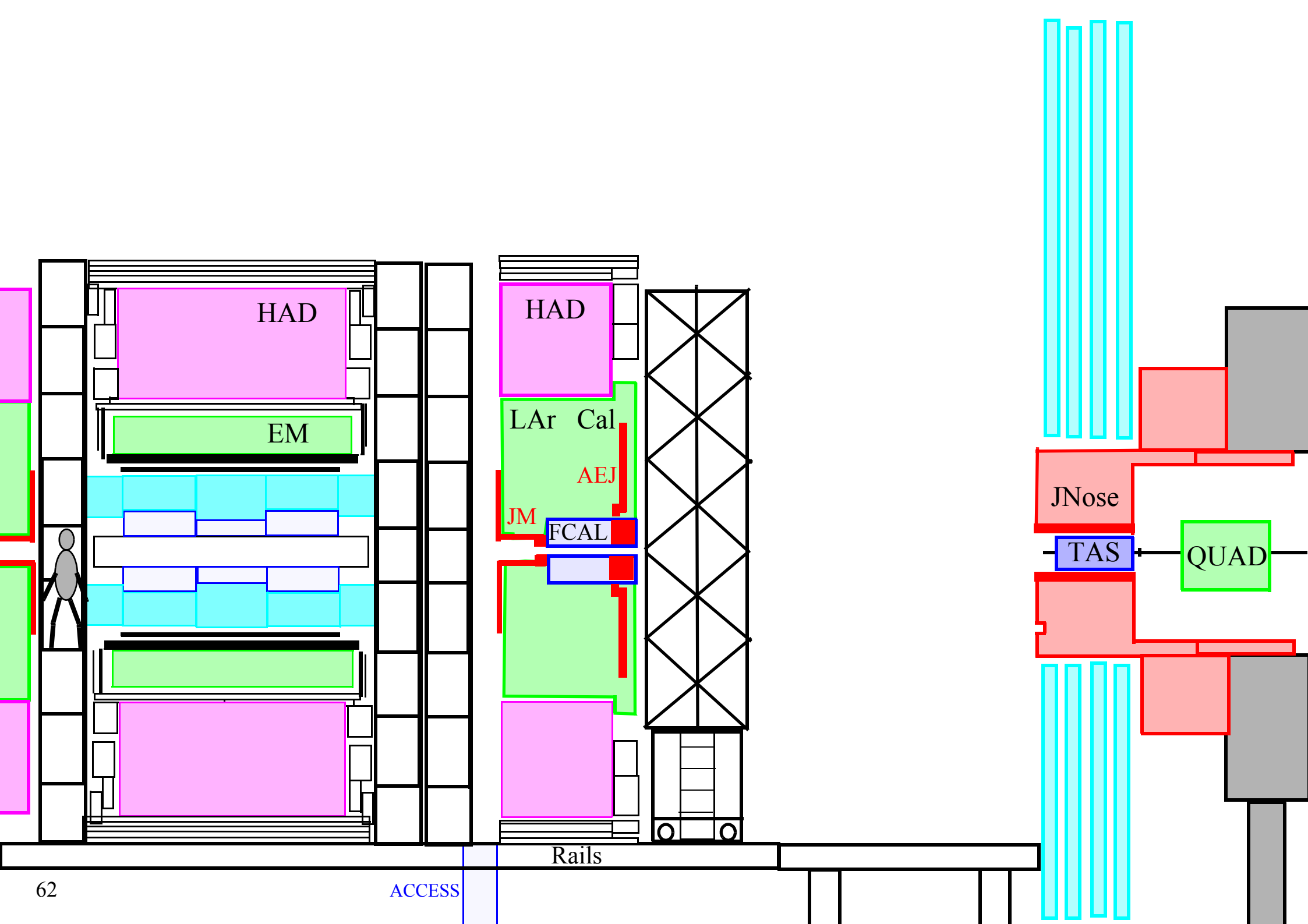
JNose

TAS

QUAD

Installation of HF truck for pixel installation





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

TAS

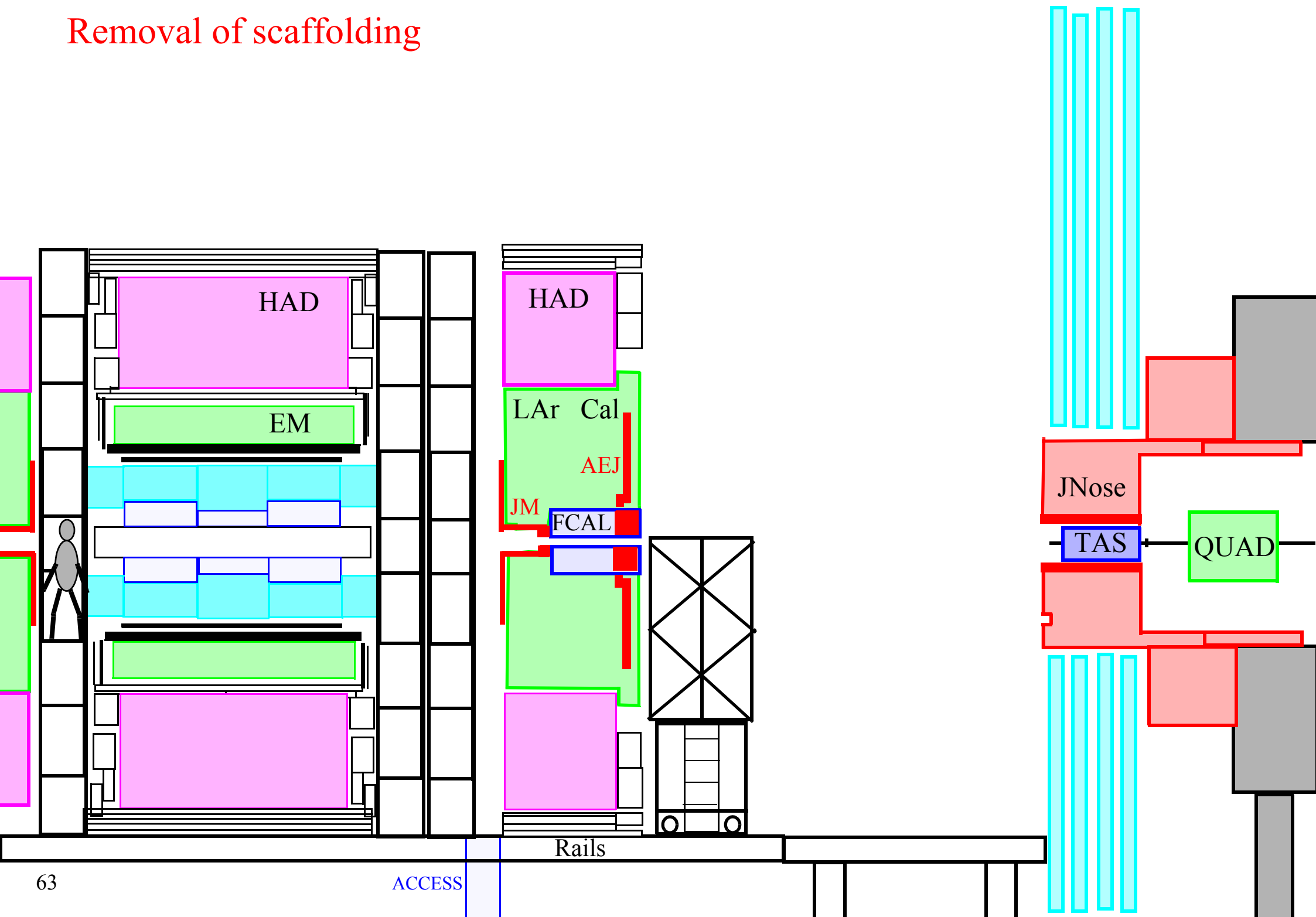
QUAD

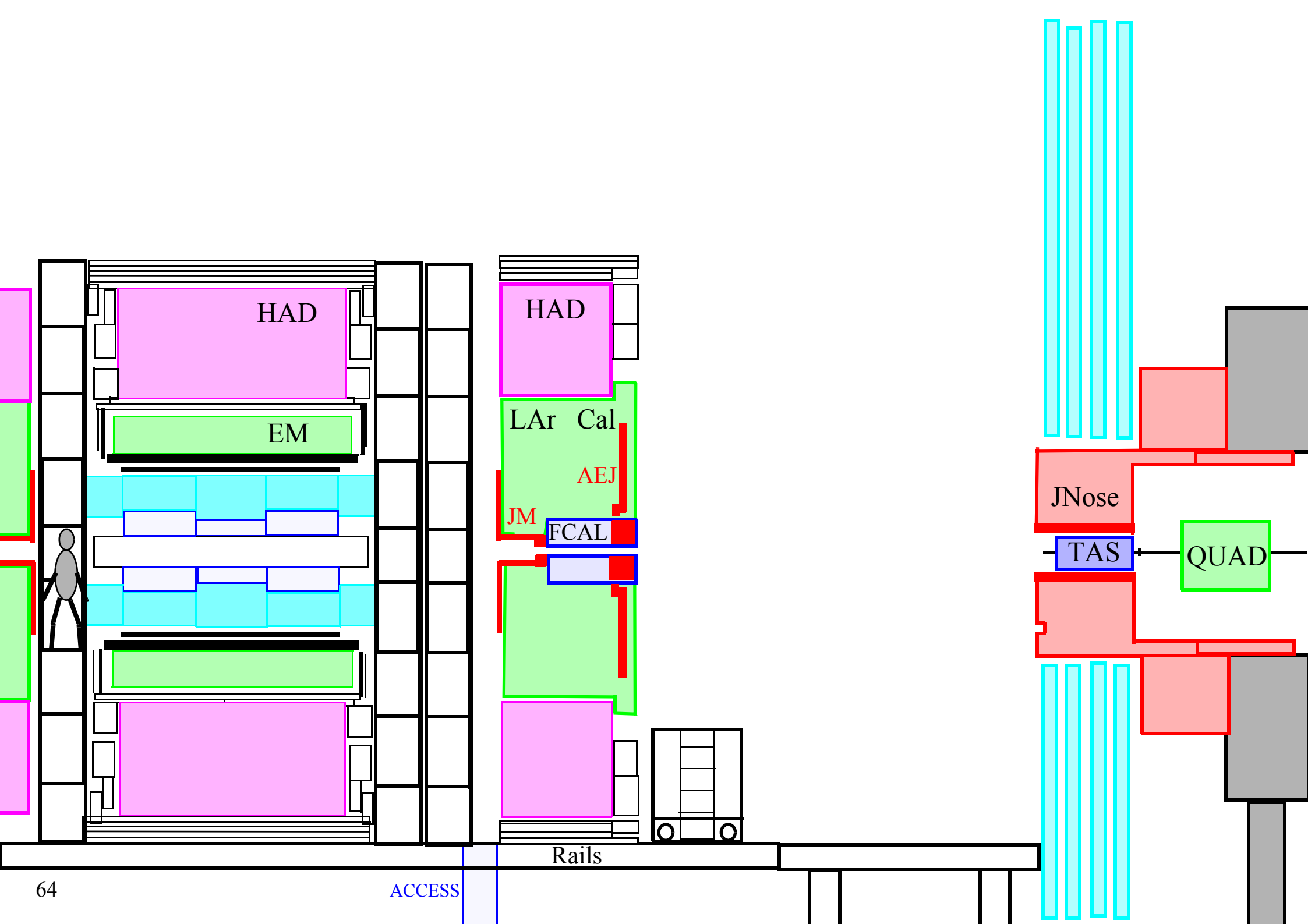
62

ACCESS

Rails

Removal of scaffolding





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

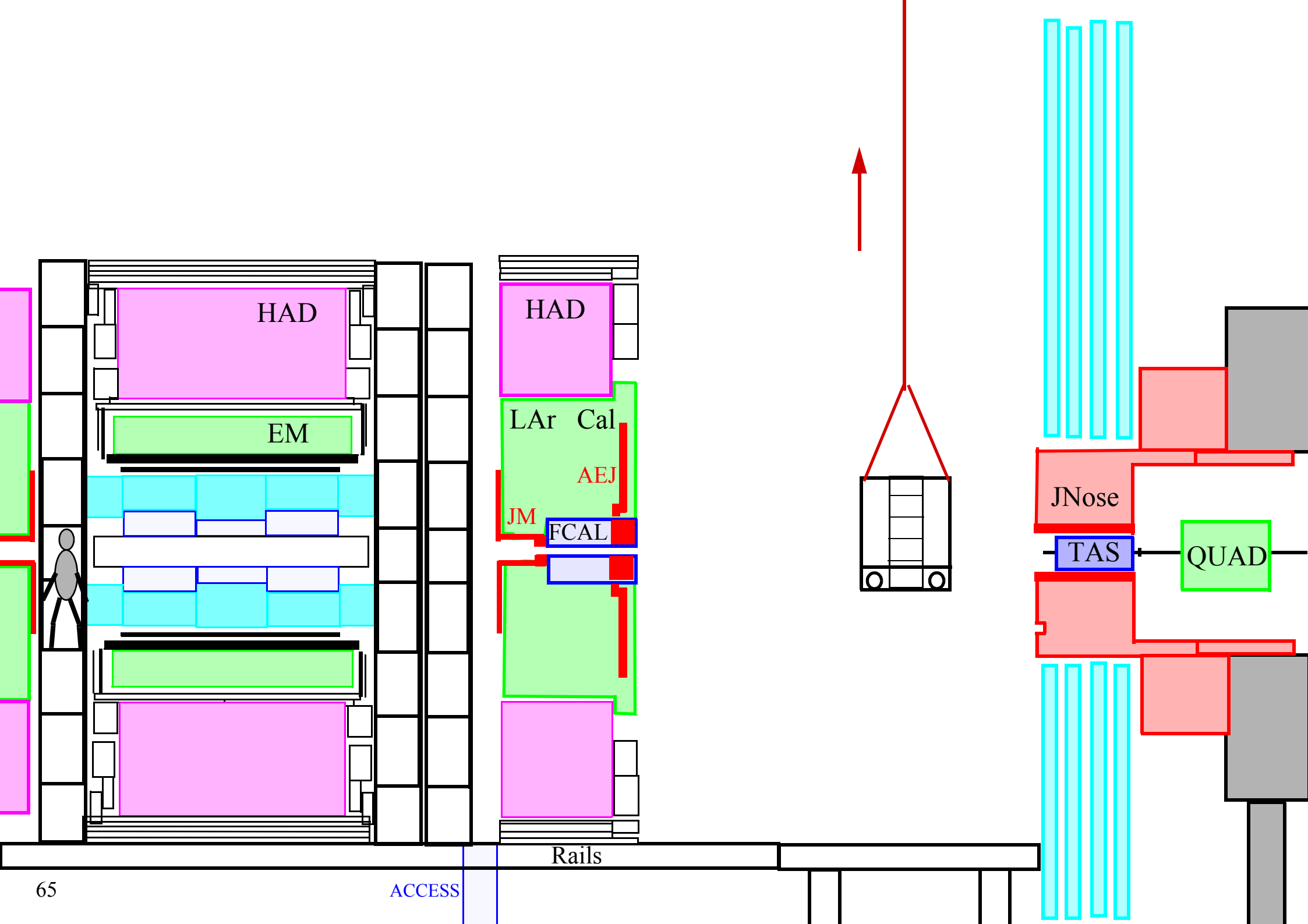
TAS

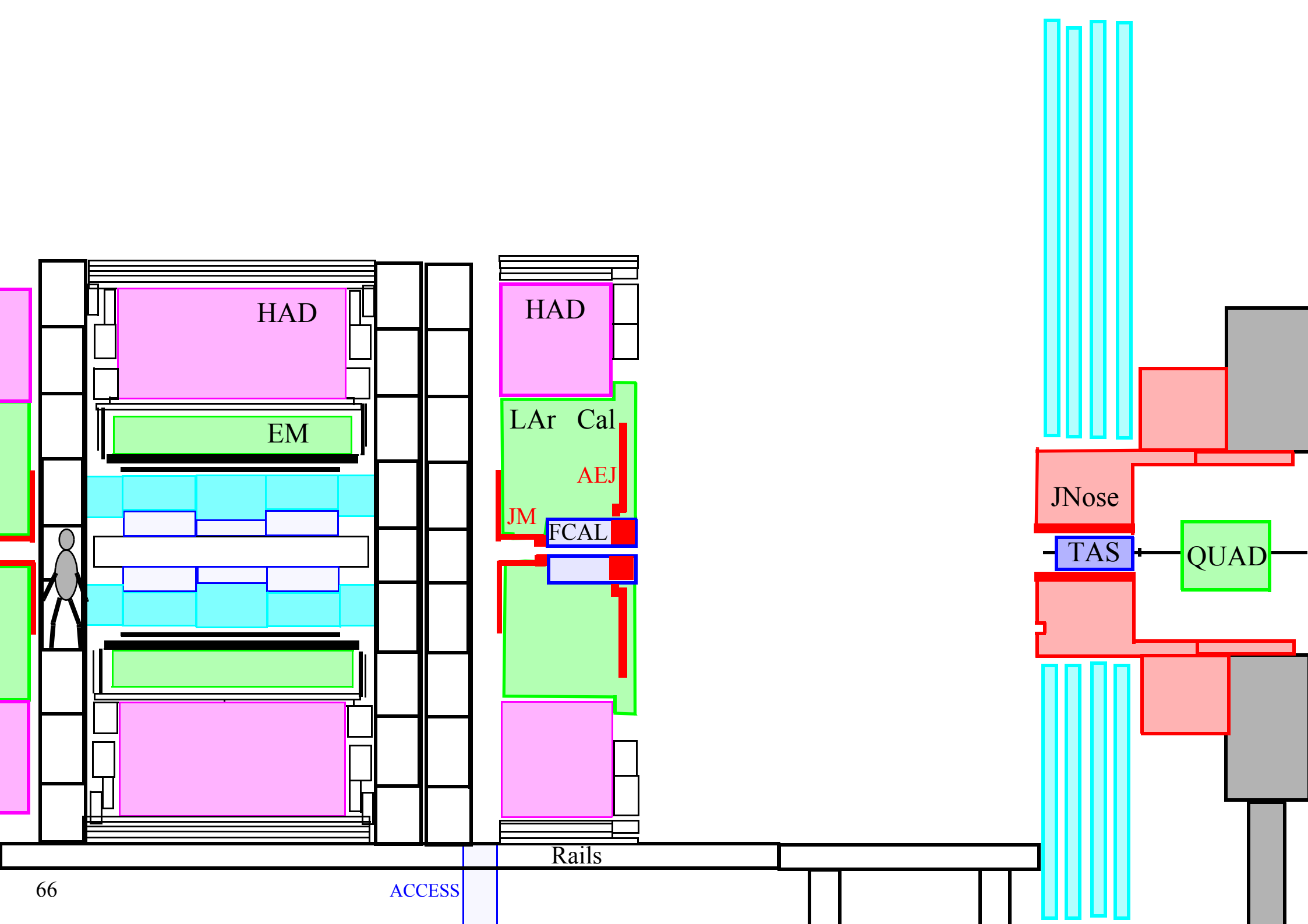
QUAD

Rails

ACCESS

64





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

HAD

JNose

TAS

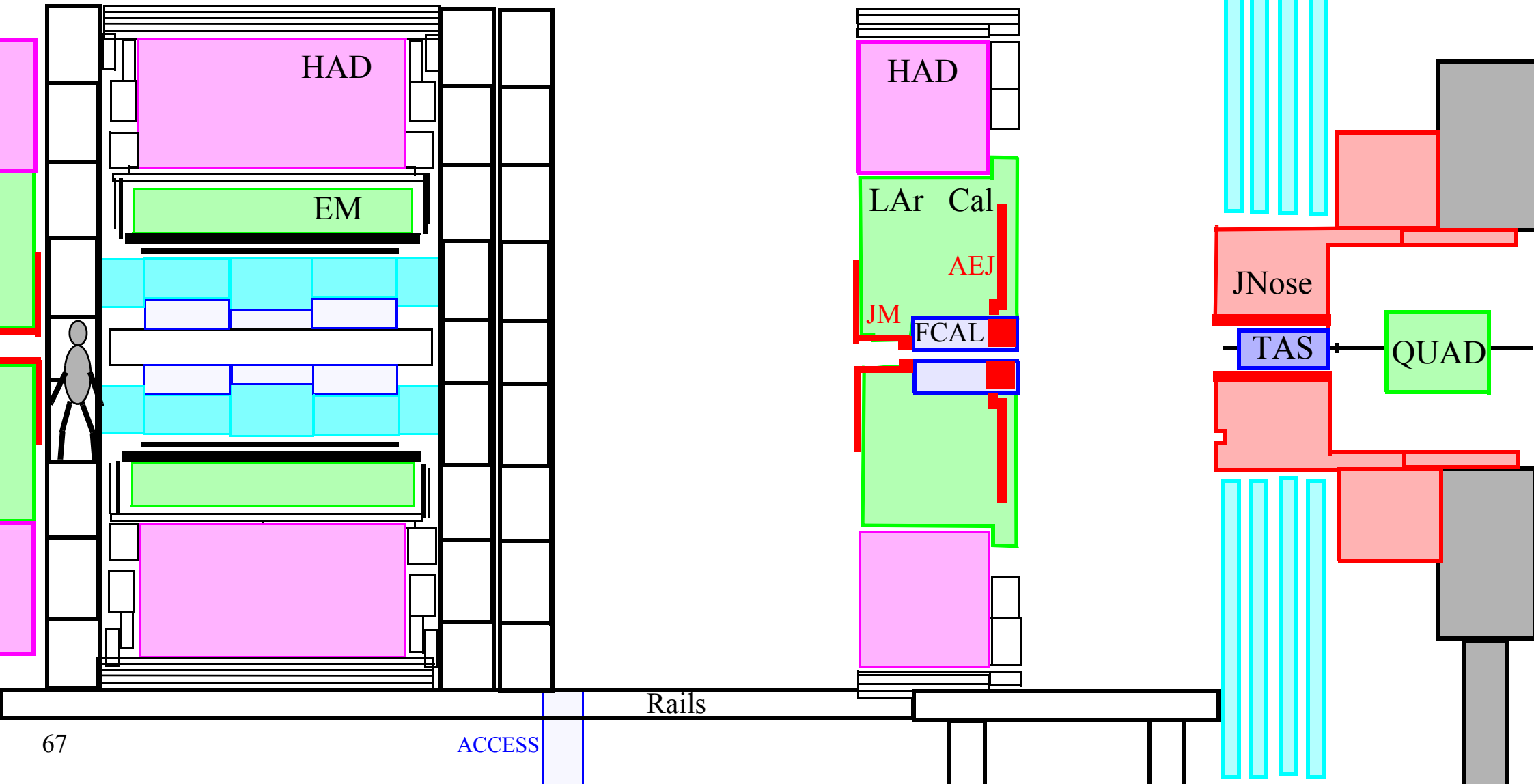
QUAD

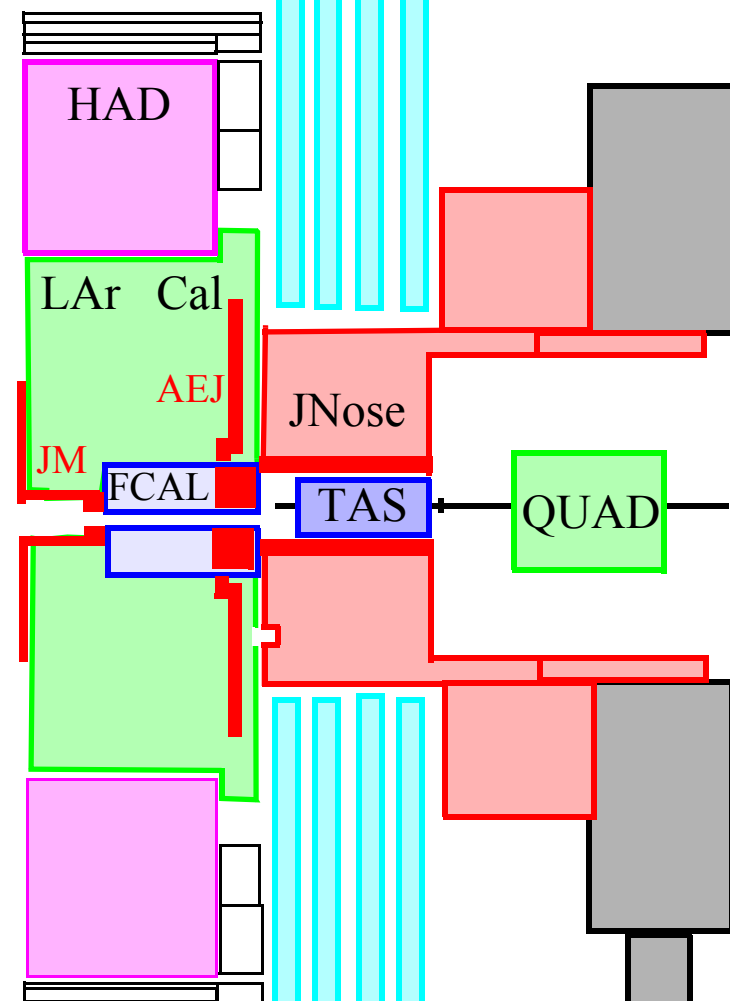
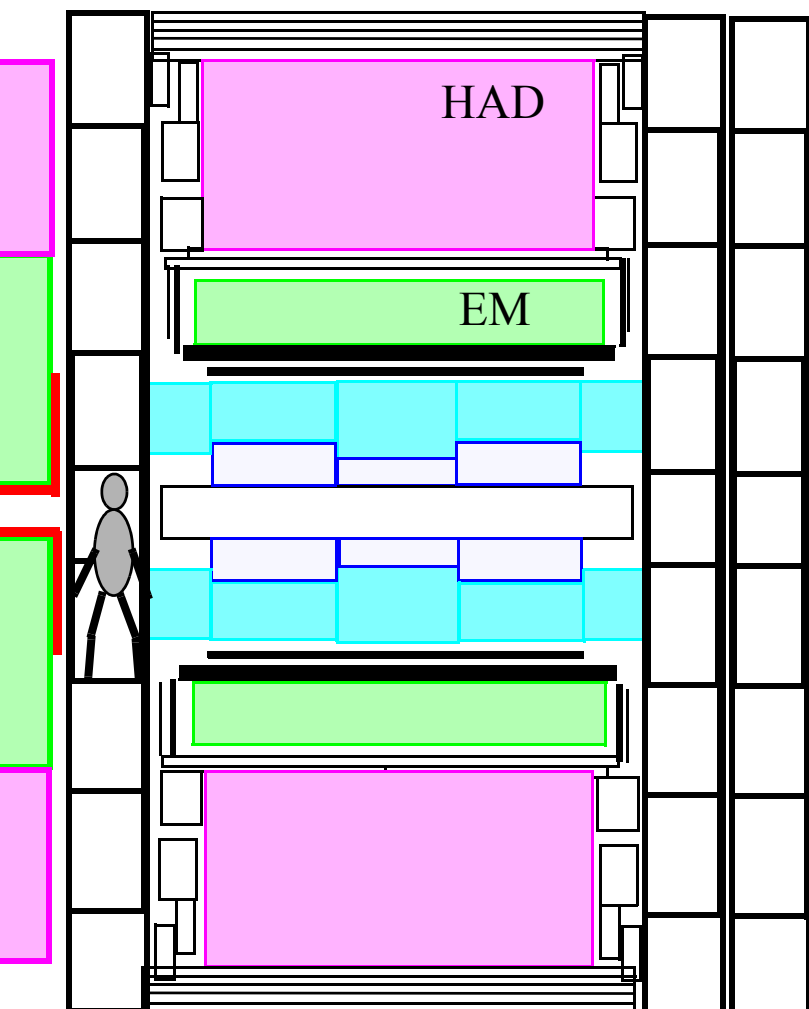
66

ACCESS

Rails

Move calorimeter



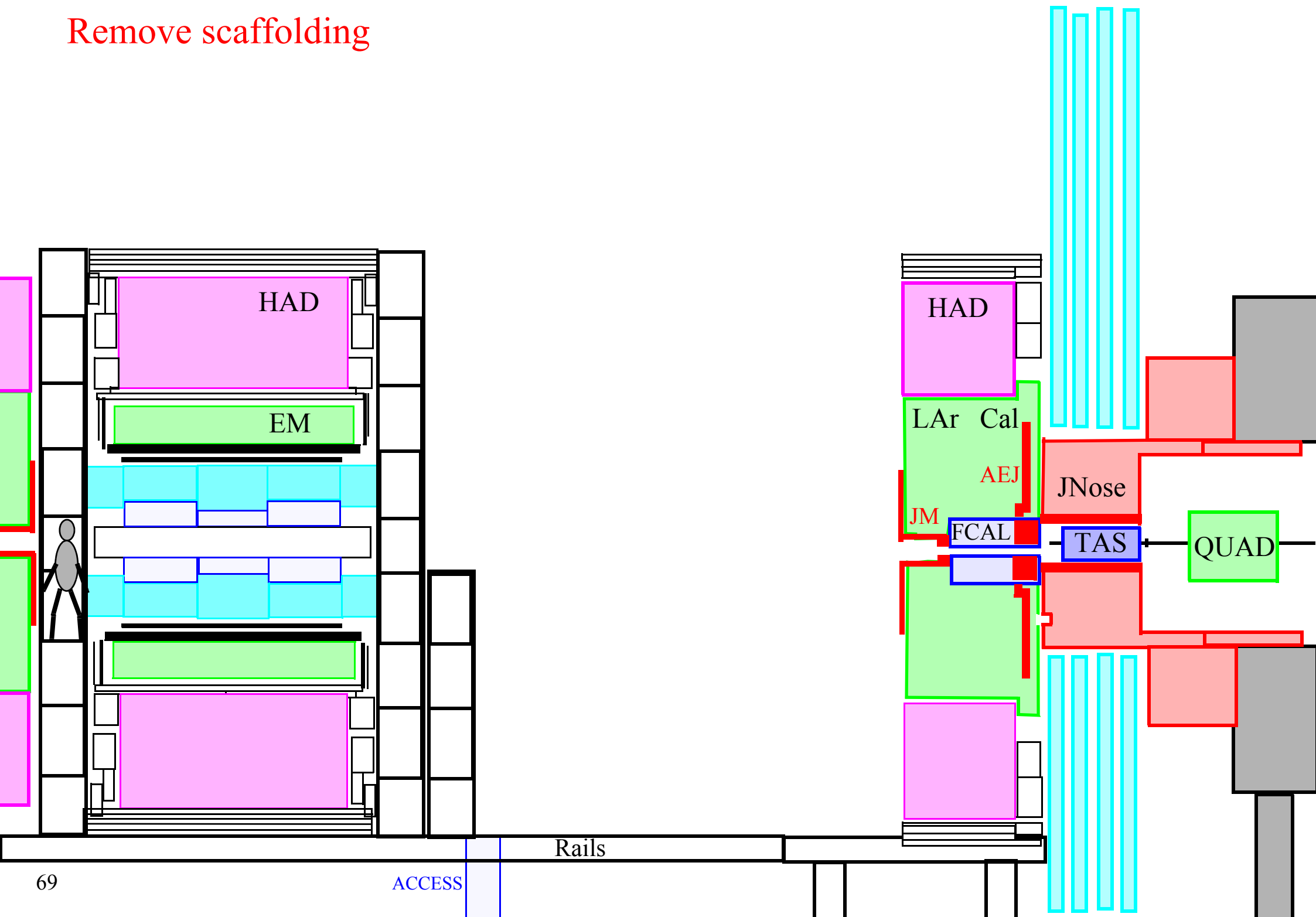


68

ACCESS

Rails

Remove scaffolding



HAD

HAD

EM

LAr Cal
JM
AEJ

[Cyan and Blue blocks]

EM

HAD

JNose

FCAL

TAS

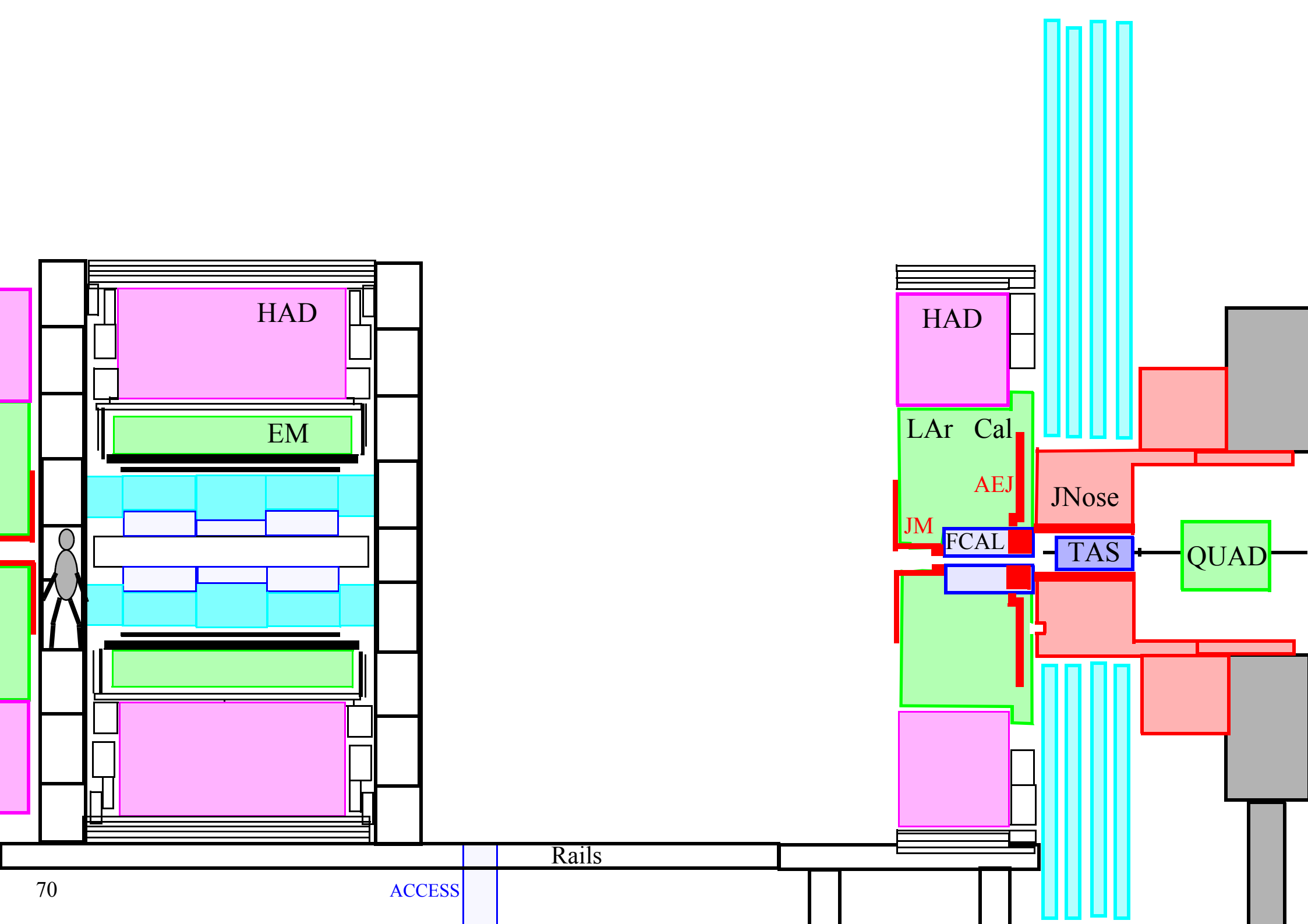
QUAD

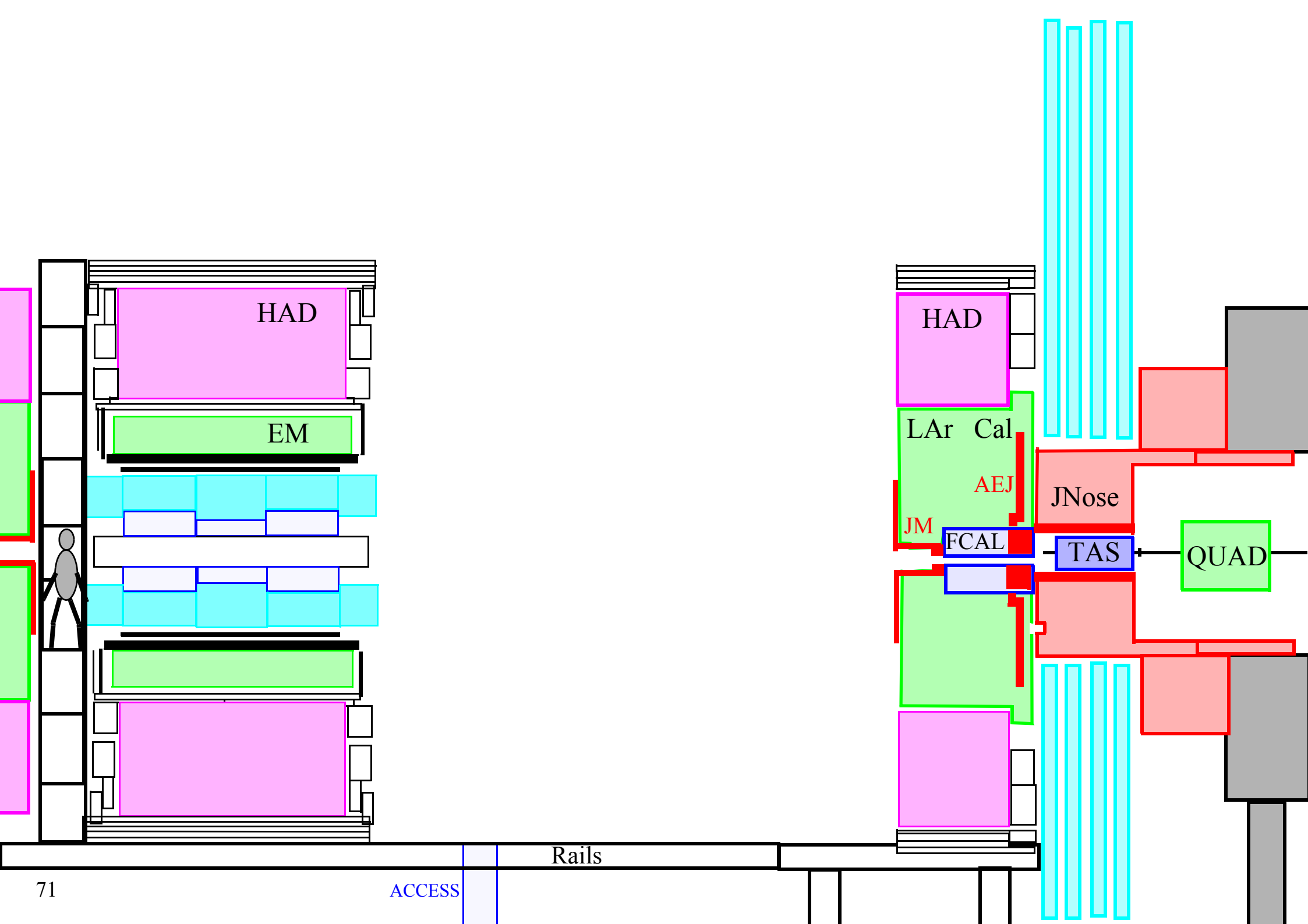
[Red block]

[Red block]

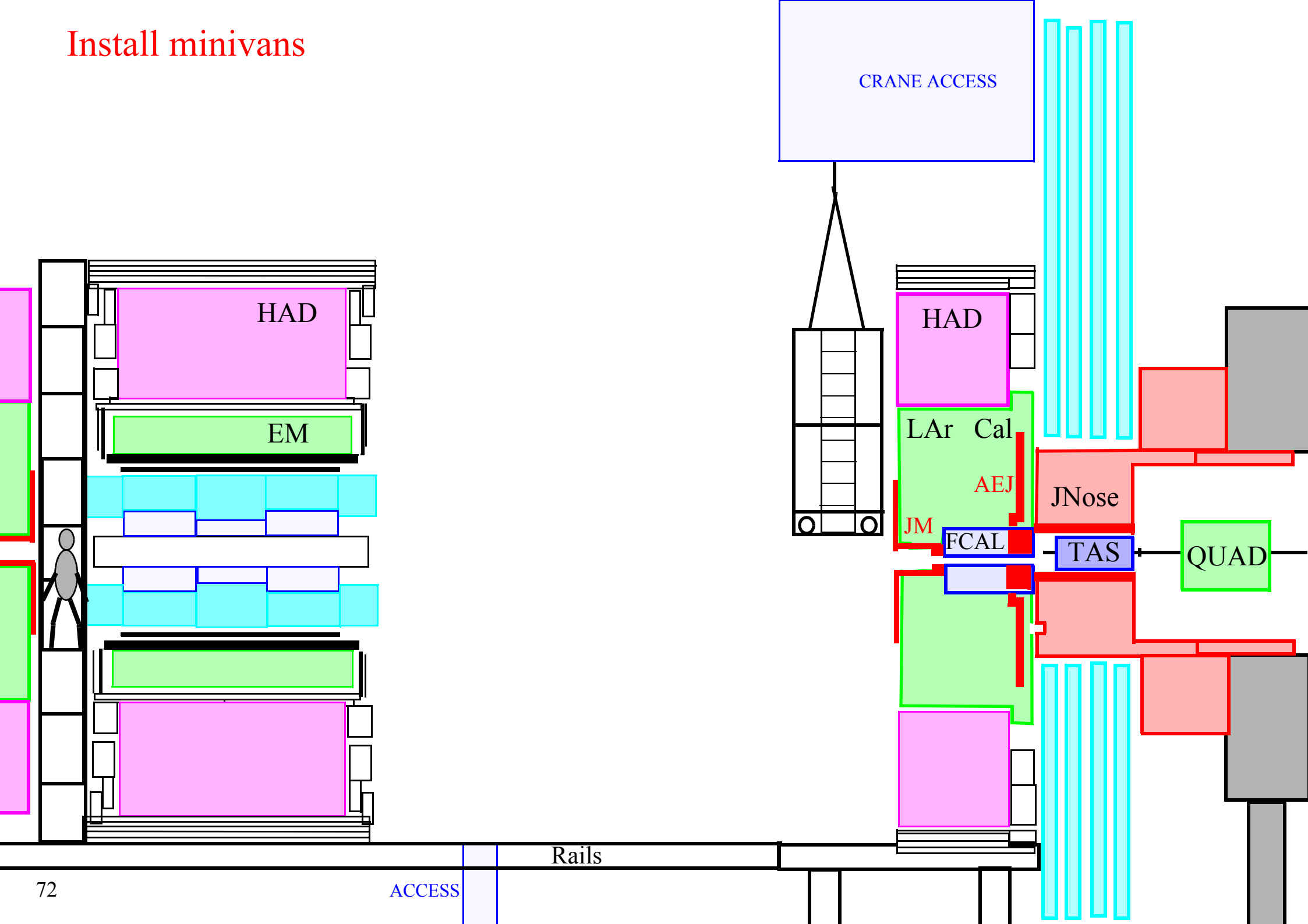
[Grey block]

[Grey block]





Install minivans



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

JM

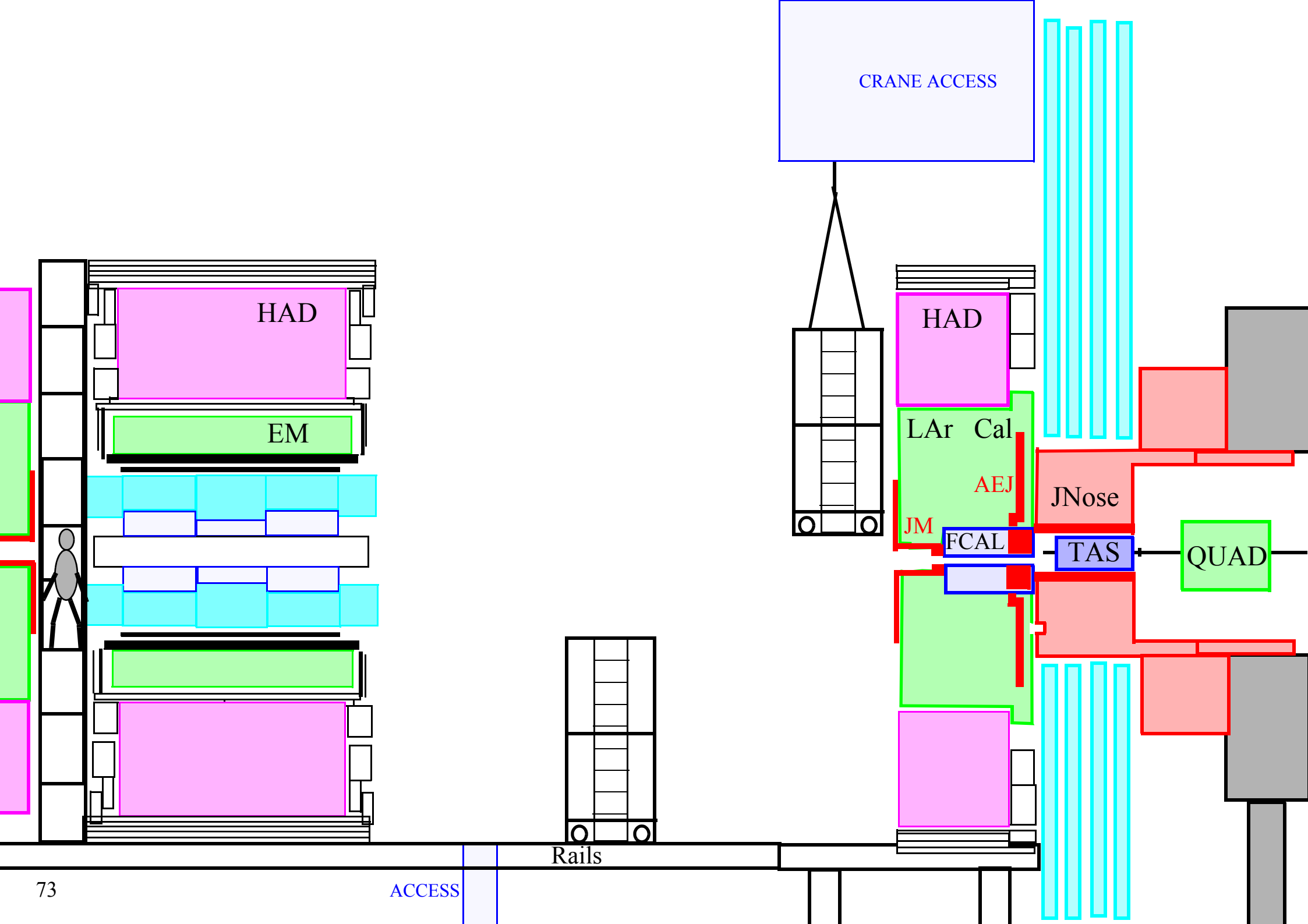
FCAL

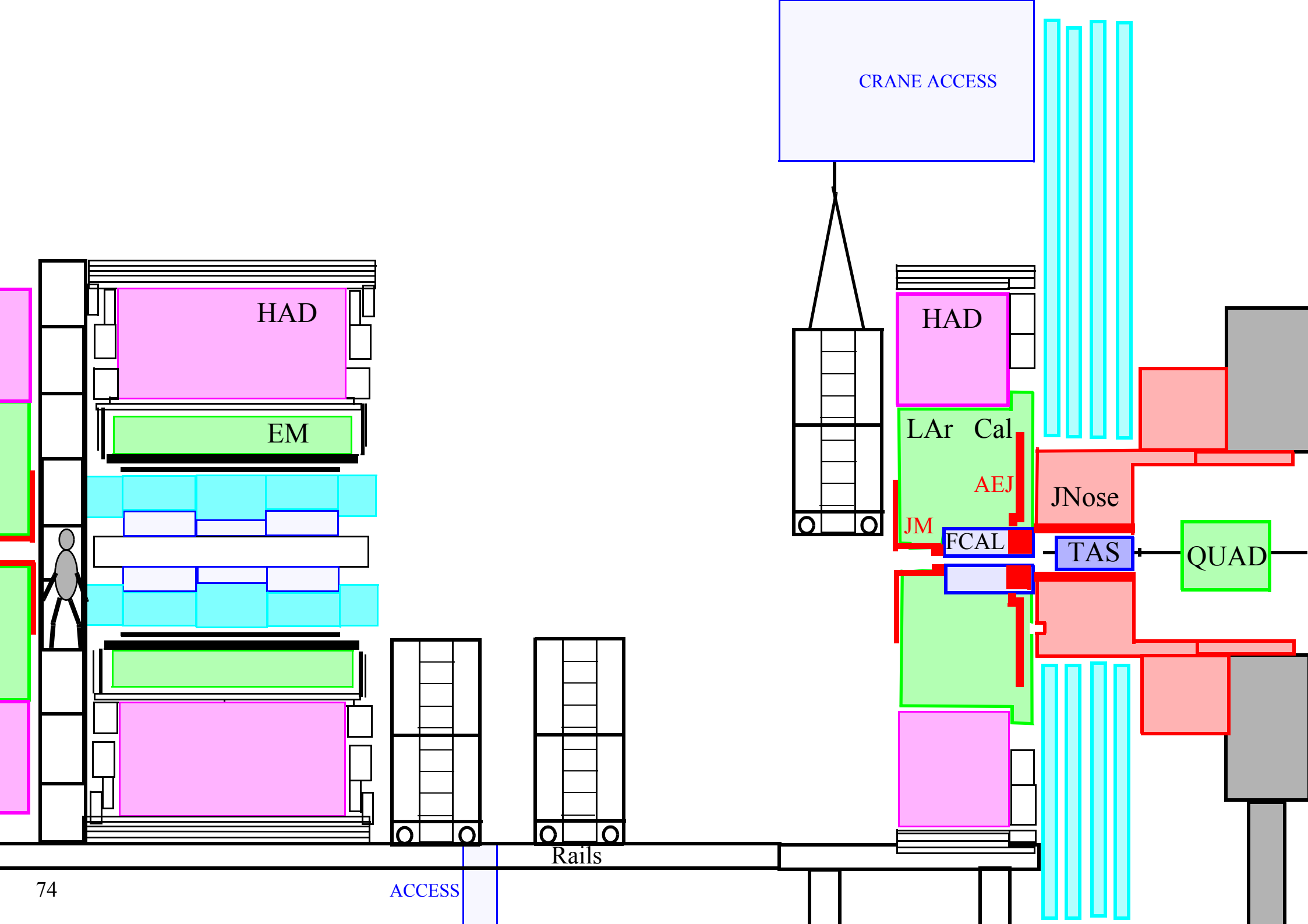
TAS

QUAD

Rails

ACCESS





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

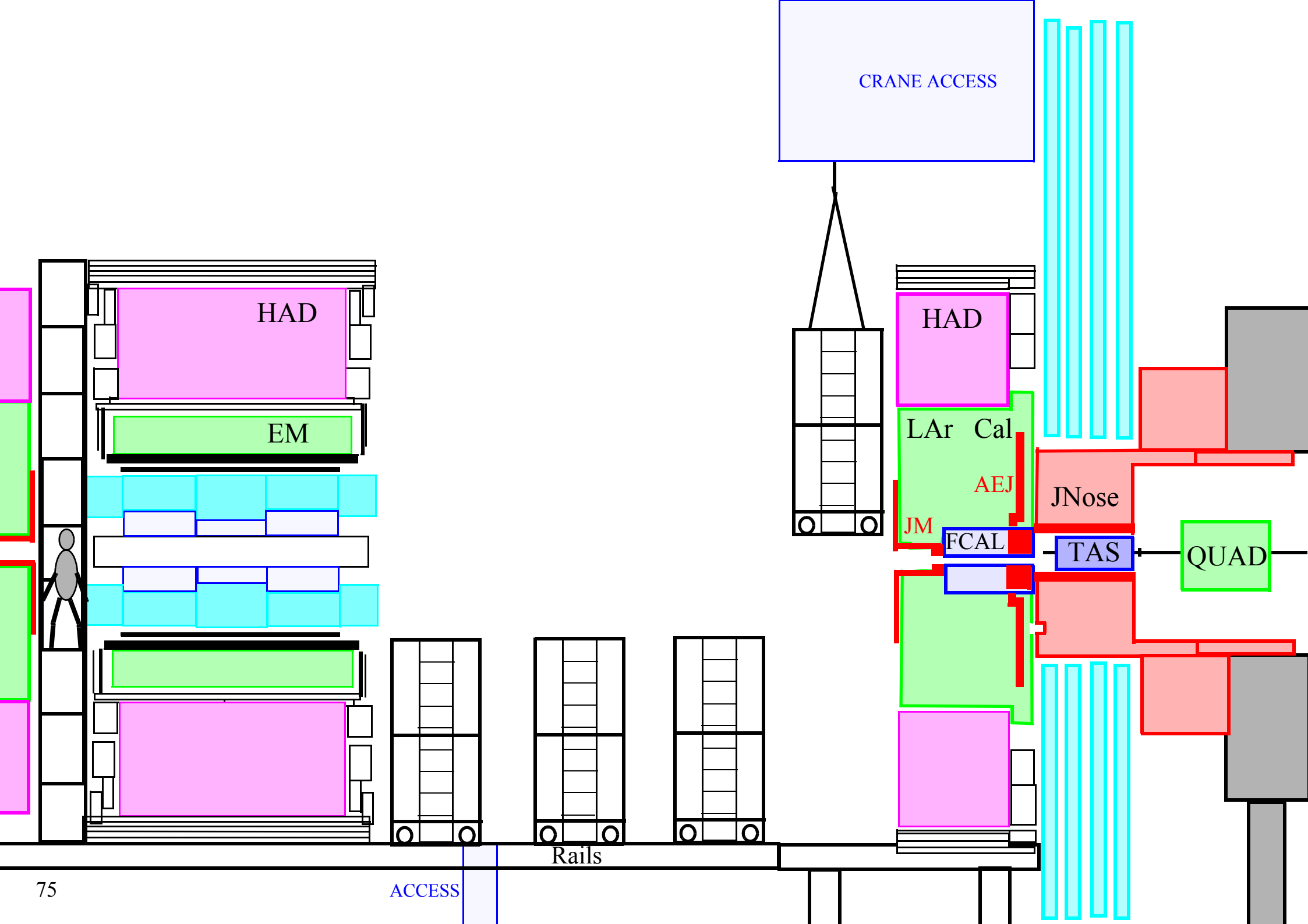
JM

FCAL

JNose

TAS

QUAD



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

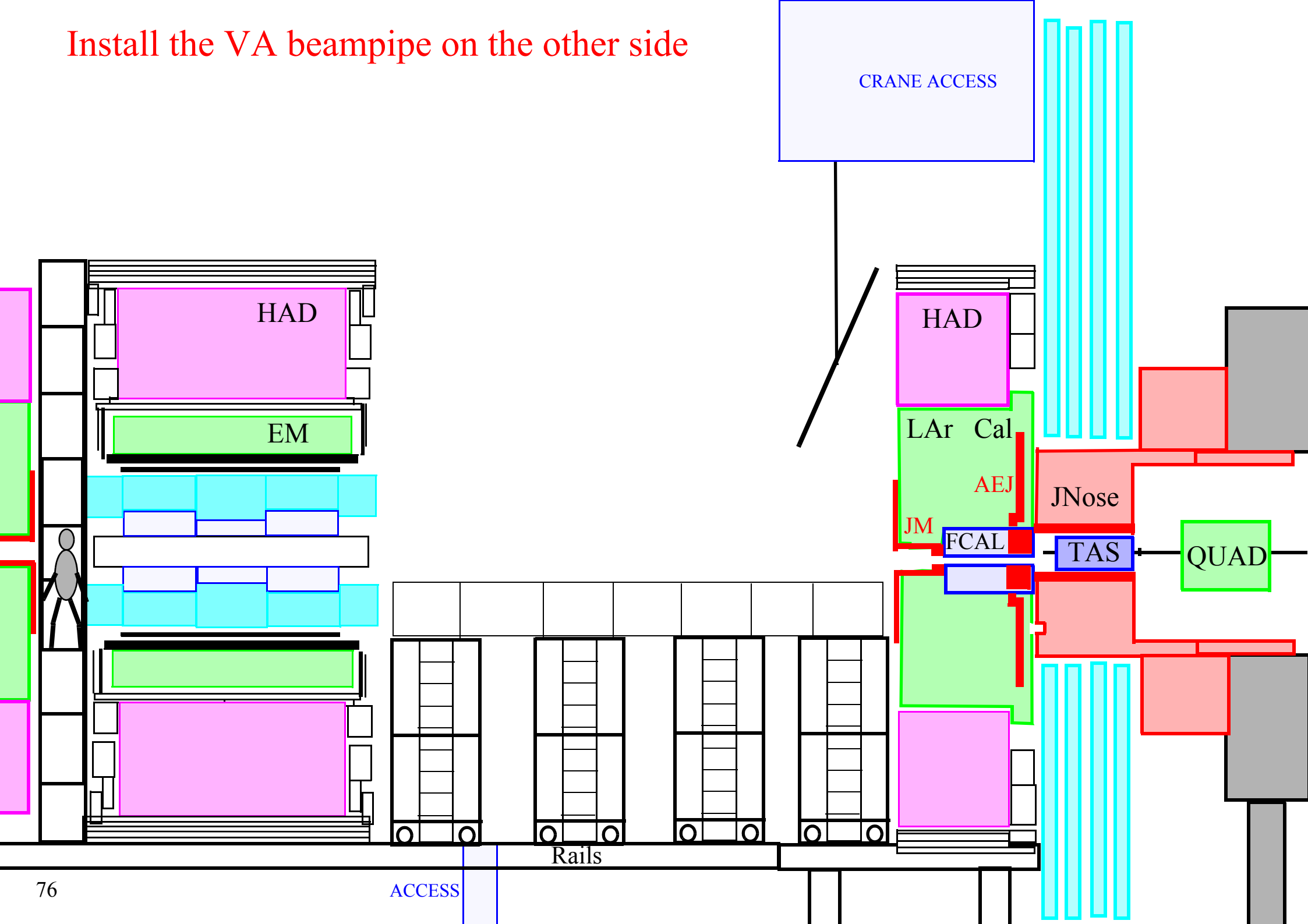
FCAL

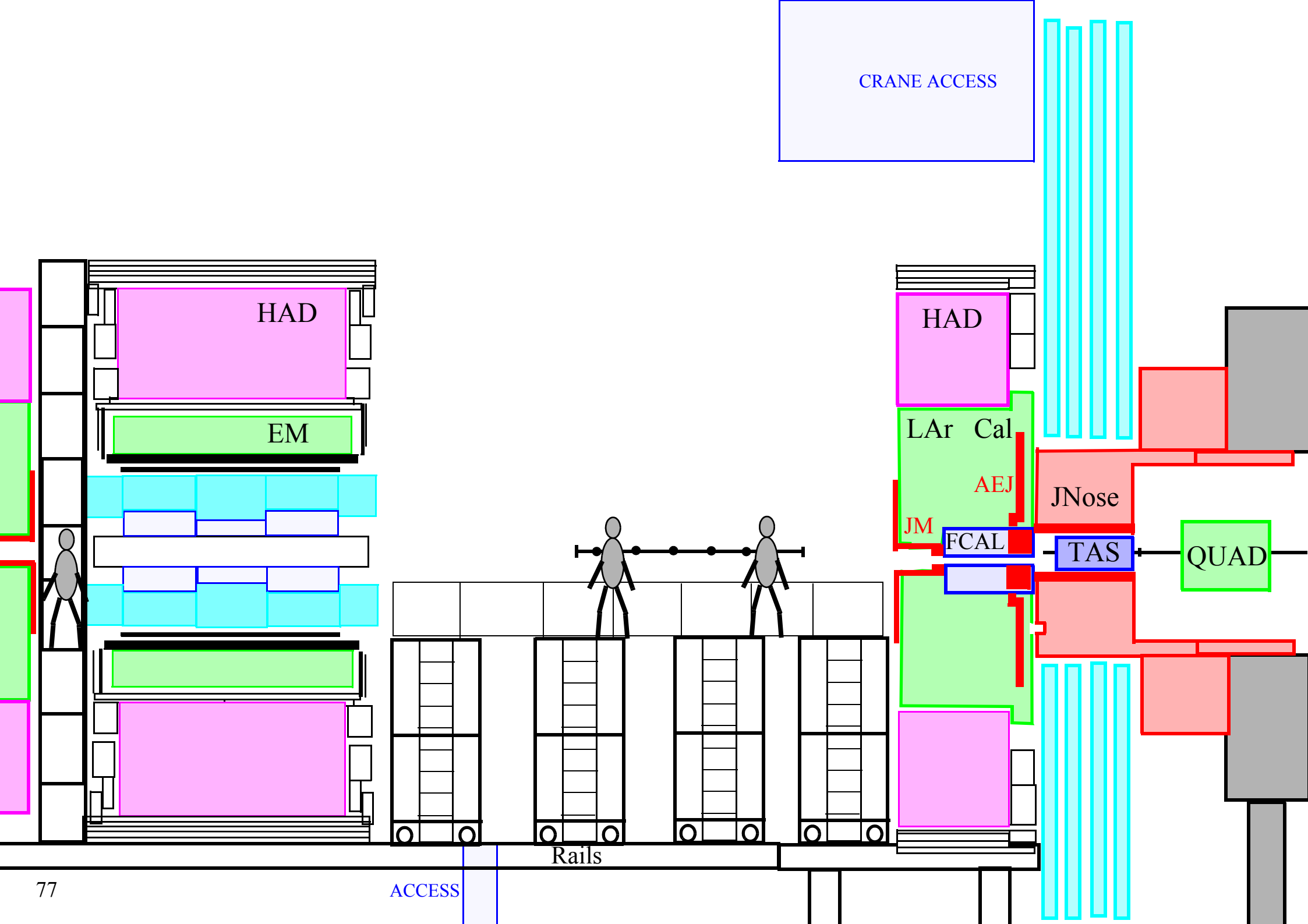
JNose

TAS

QUAD

Install the VA beampipe on the other side





HAD

EM

HAD

LAr Cal

AEJ

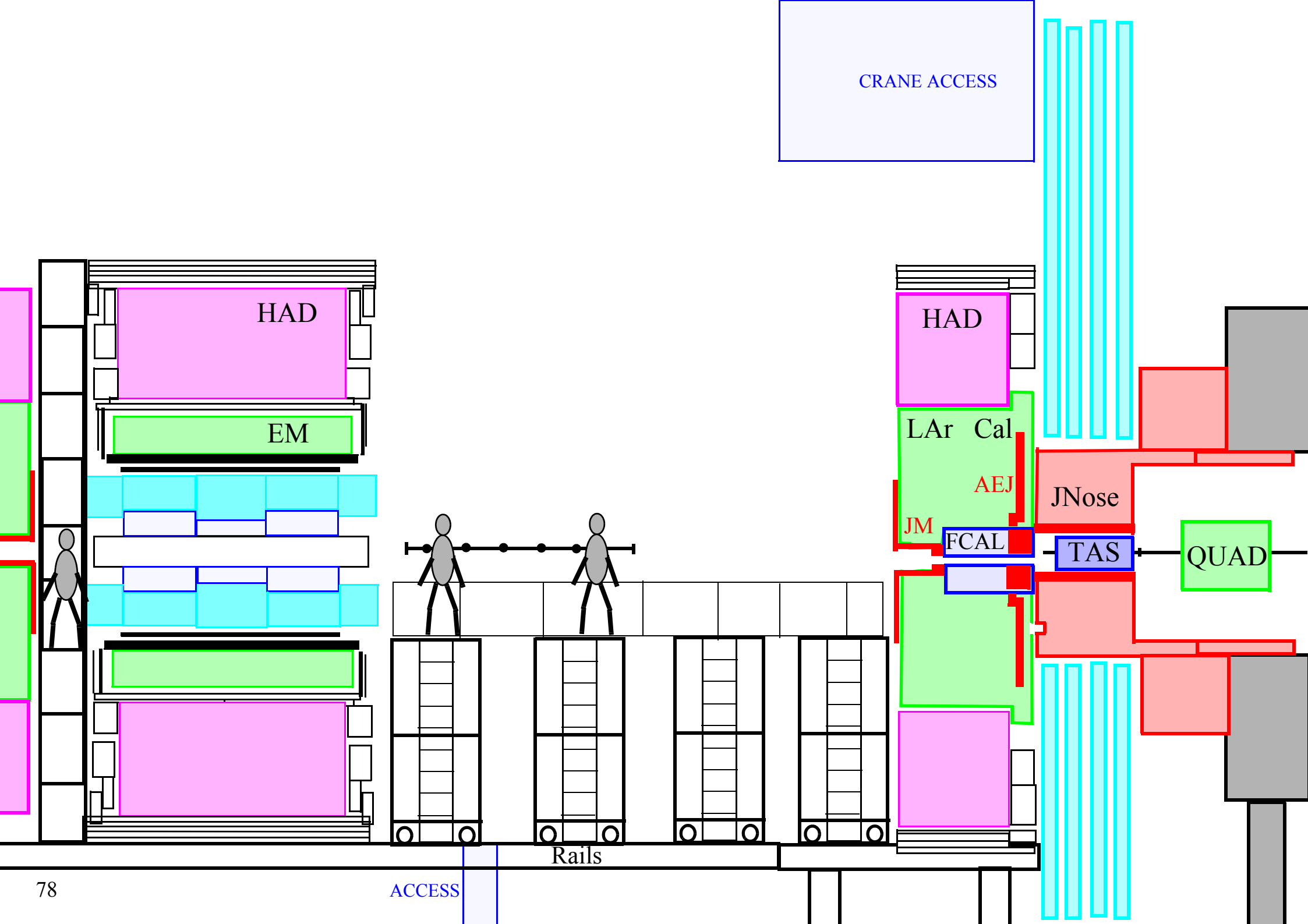
JNose

FCAL

TAS

QUAD

JM



HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

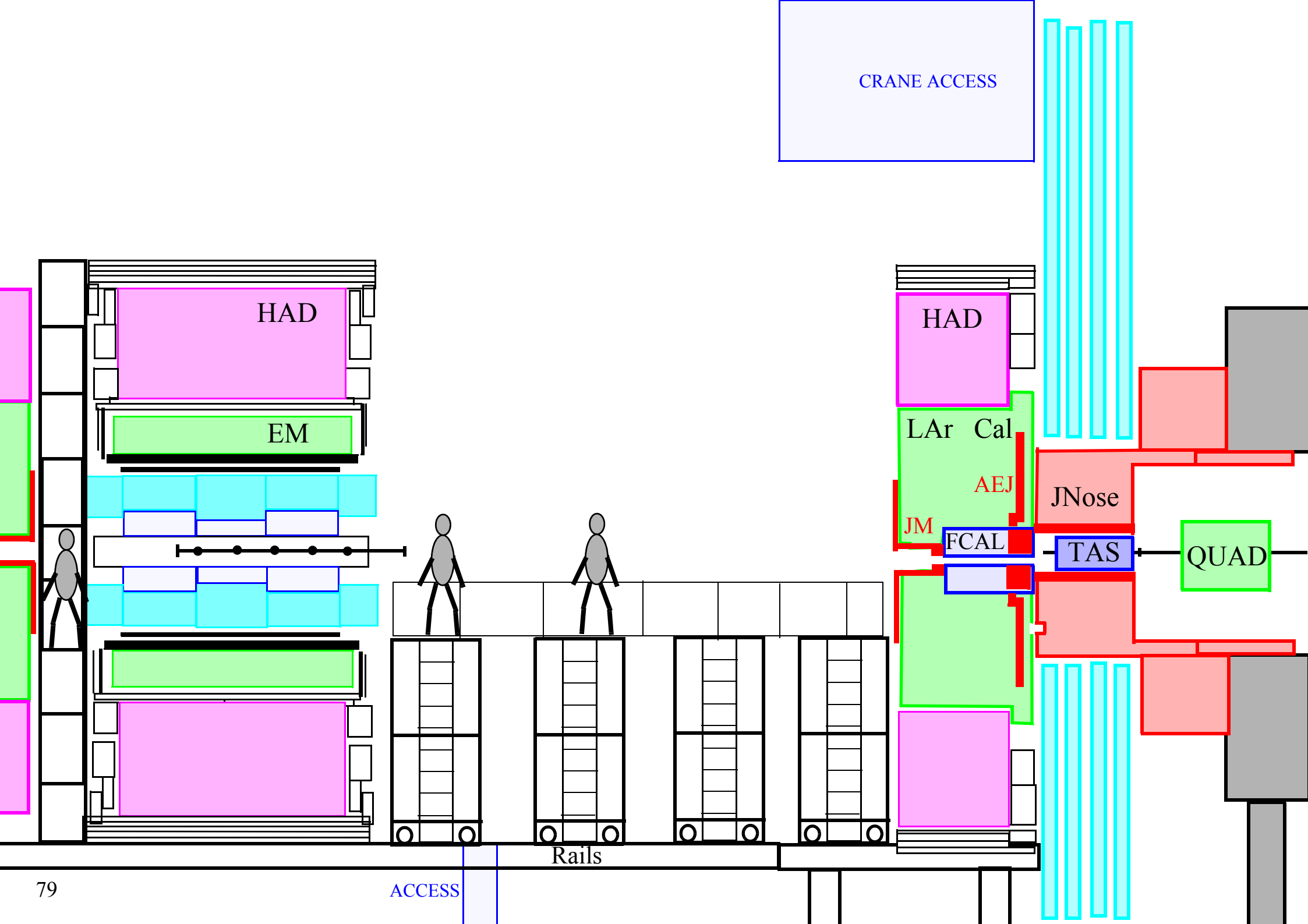
TAS

QUAD

CRANE ACCESS

Rails

ACCESS



HAD

EM

HAD

LAr Cal

AEJ

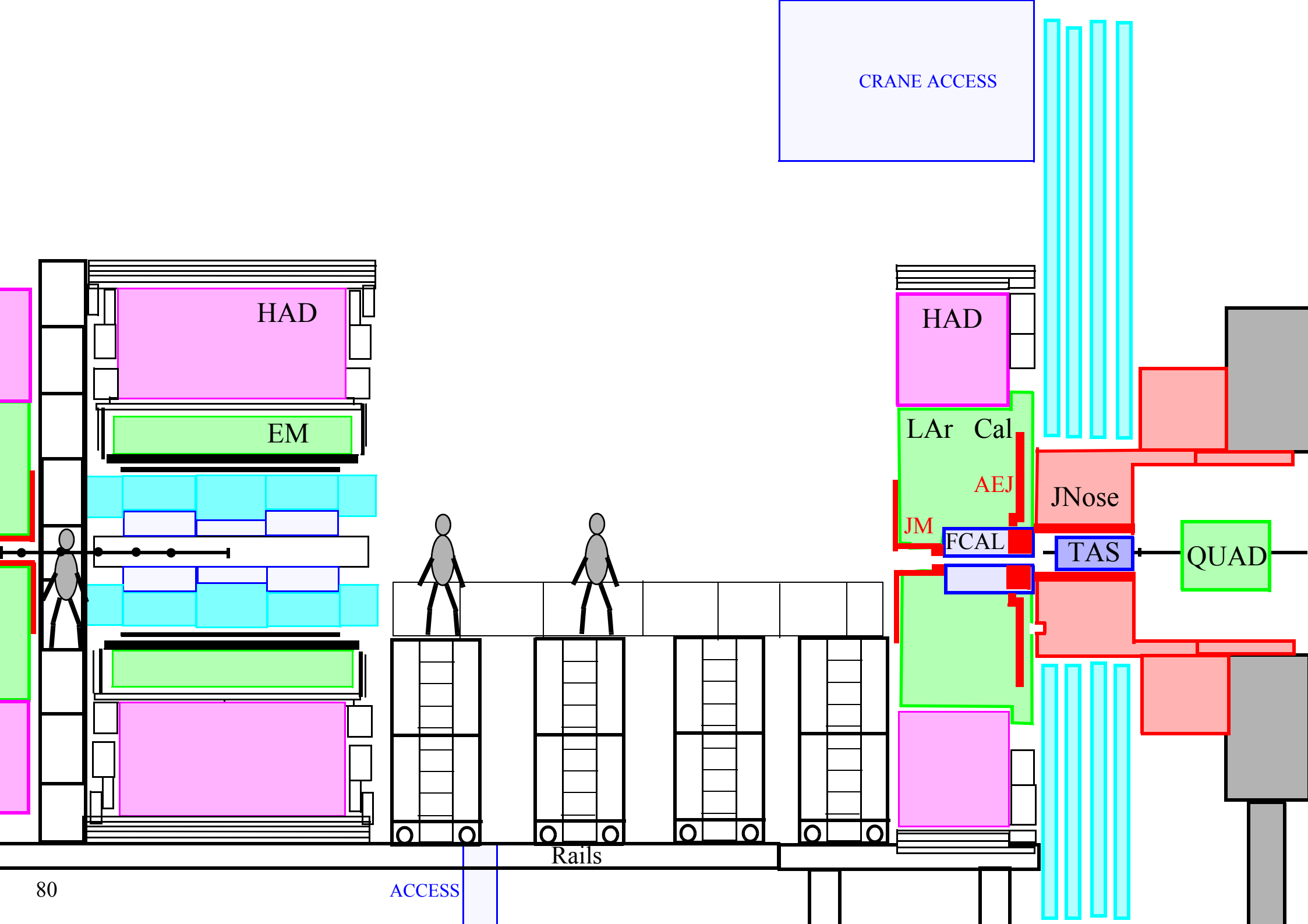
JM

JNose

FCAL

TAS

QUAD



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

JM

FCAL

TAS

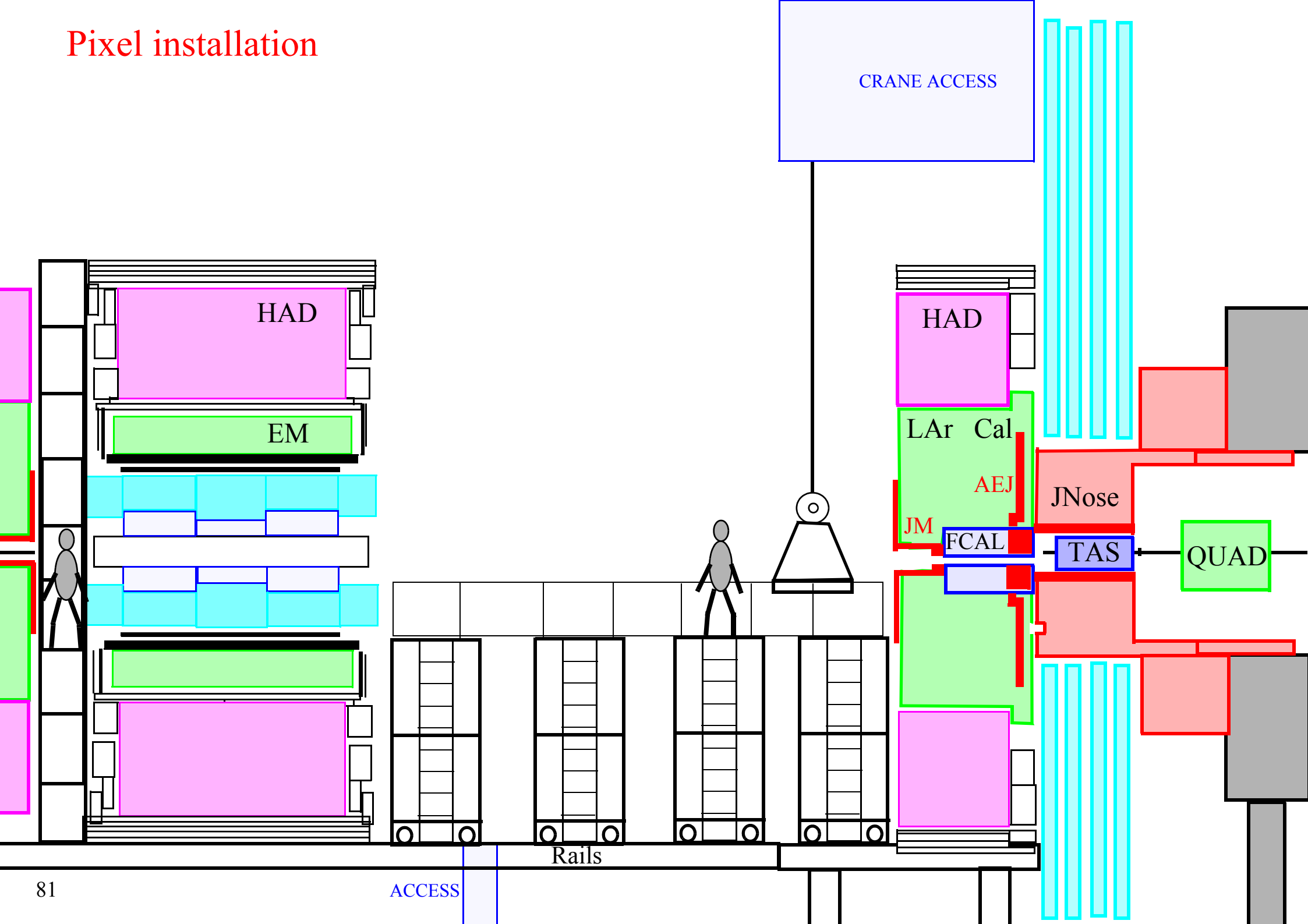
QUAD

Rails

ACCESS

80

Pixel installation



HAD

EM

HAD

LAr Cal

AEJ

JM

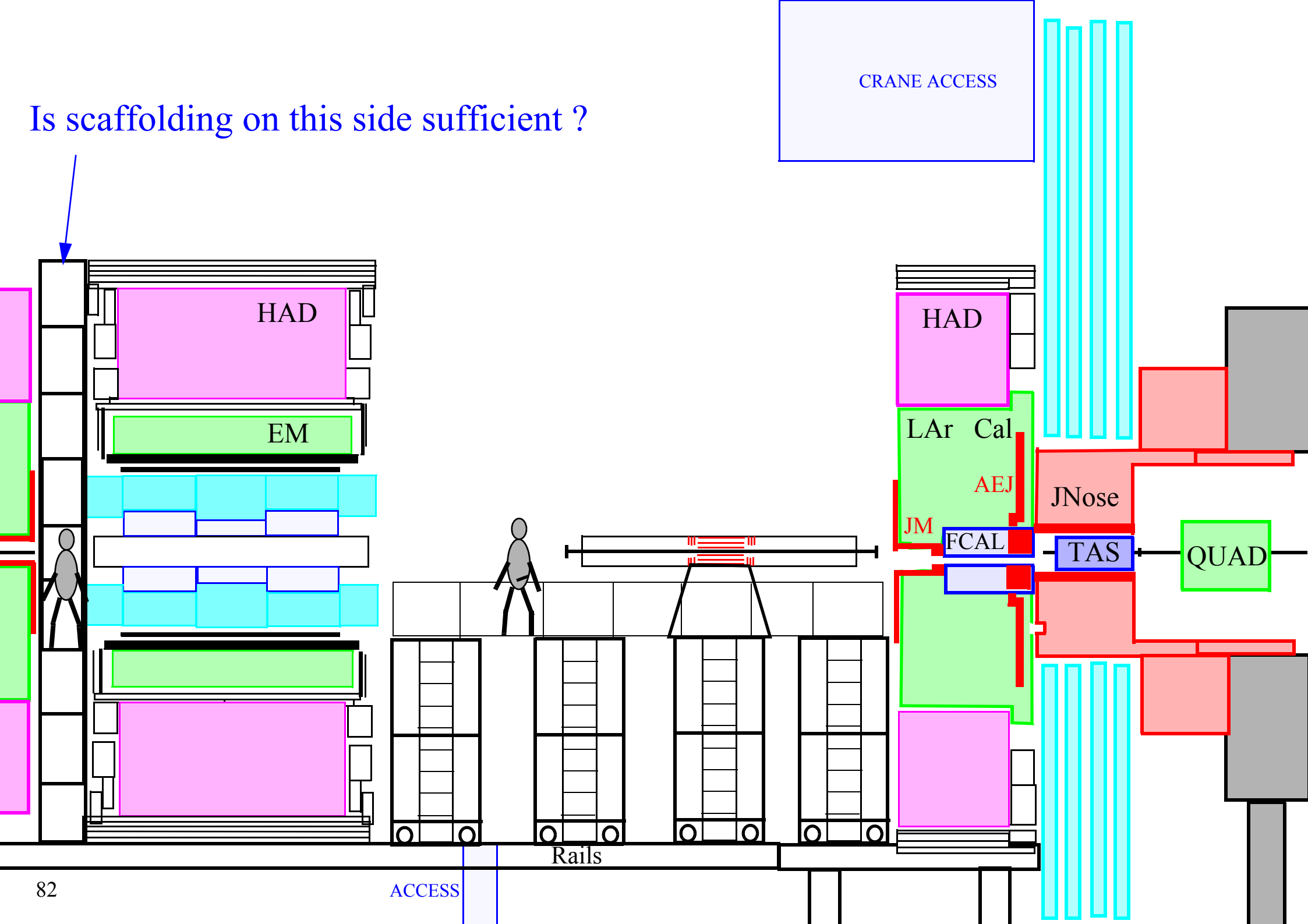
JNose

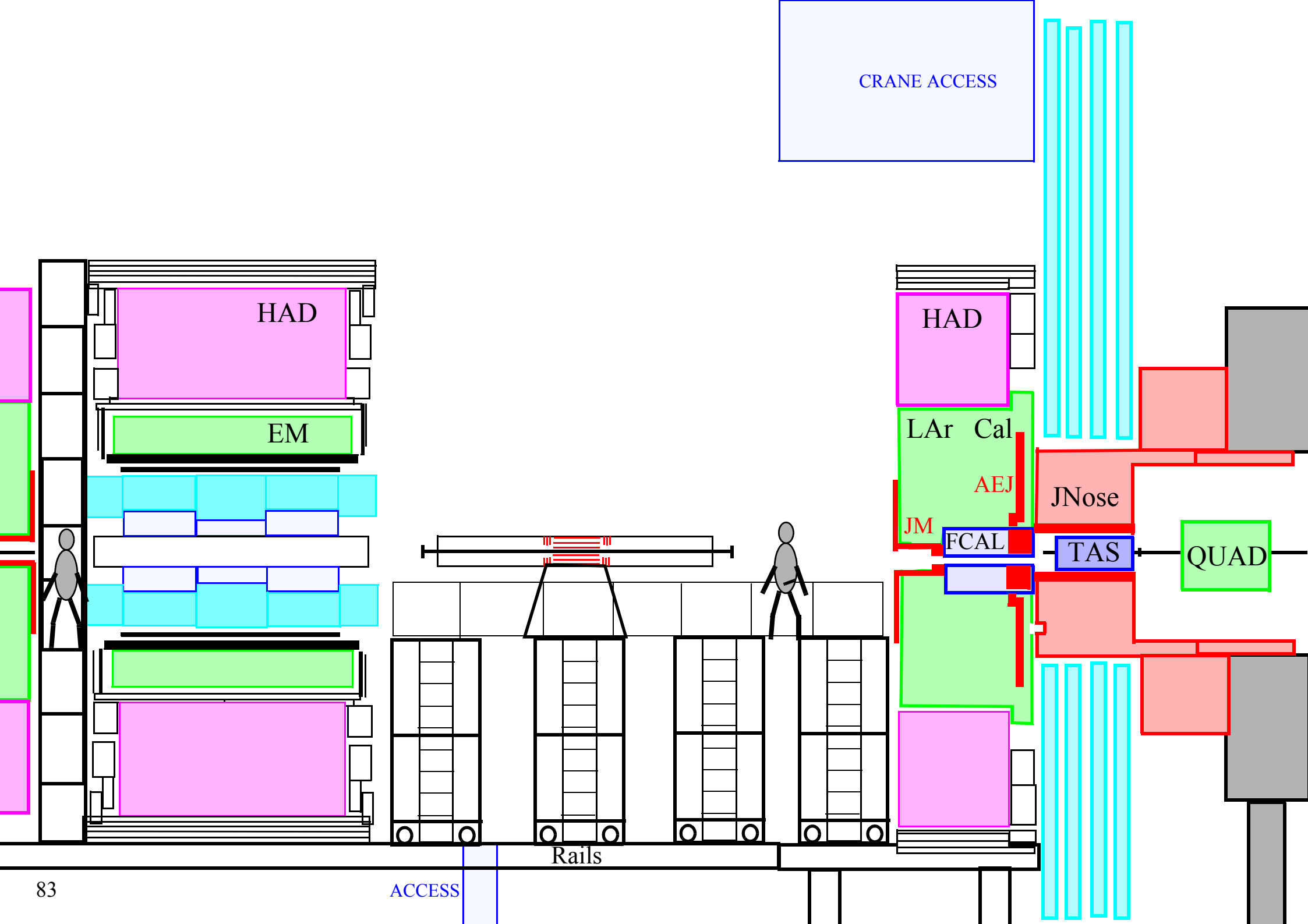
FCAL

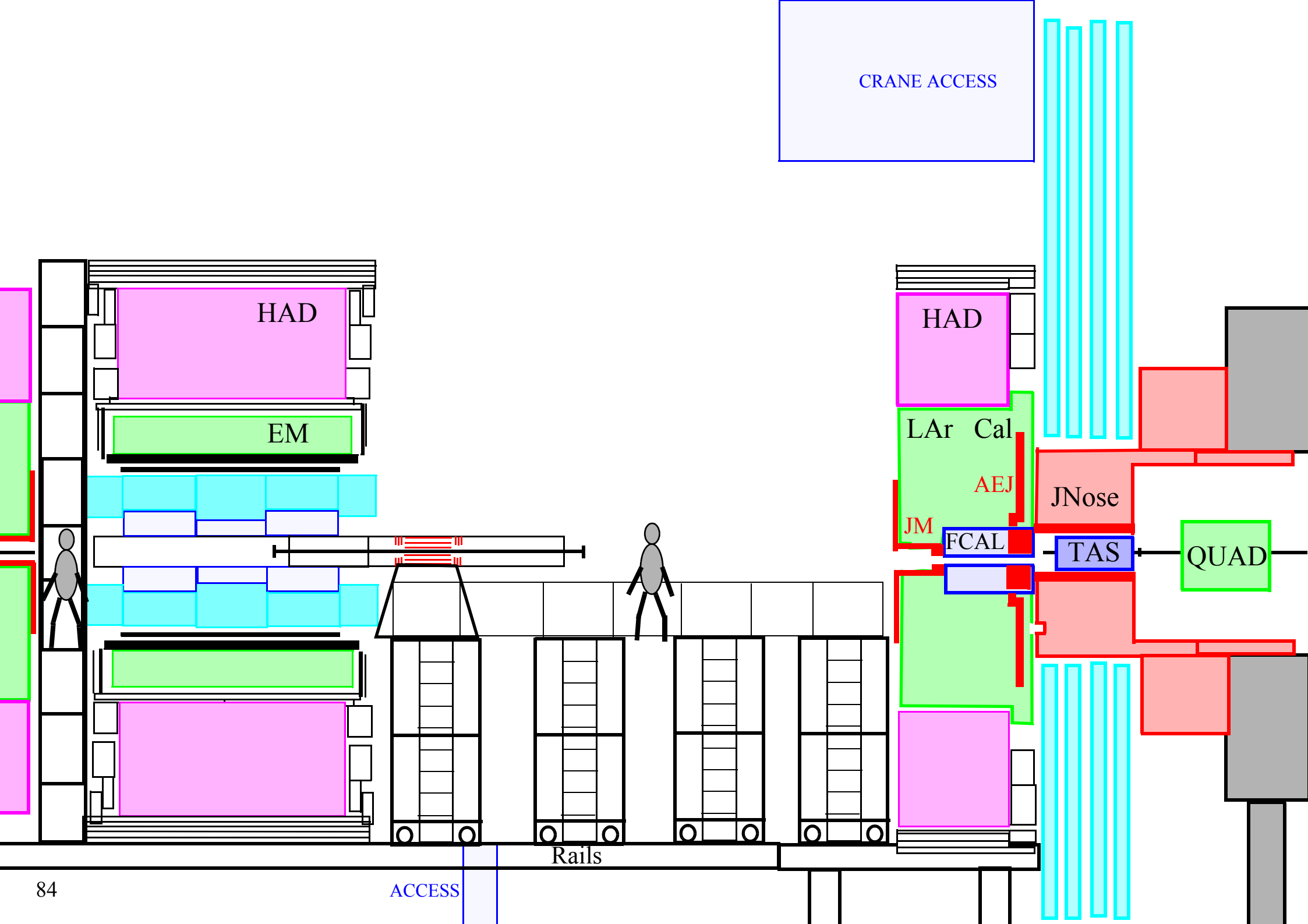
TAS

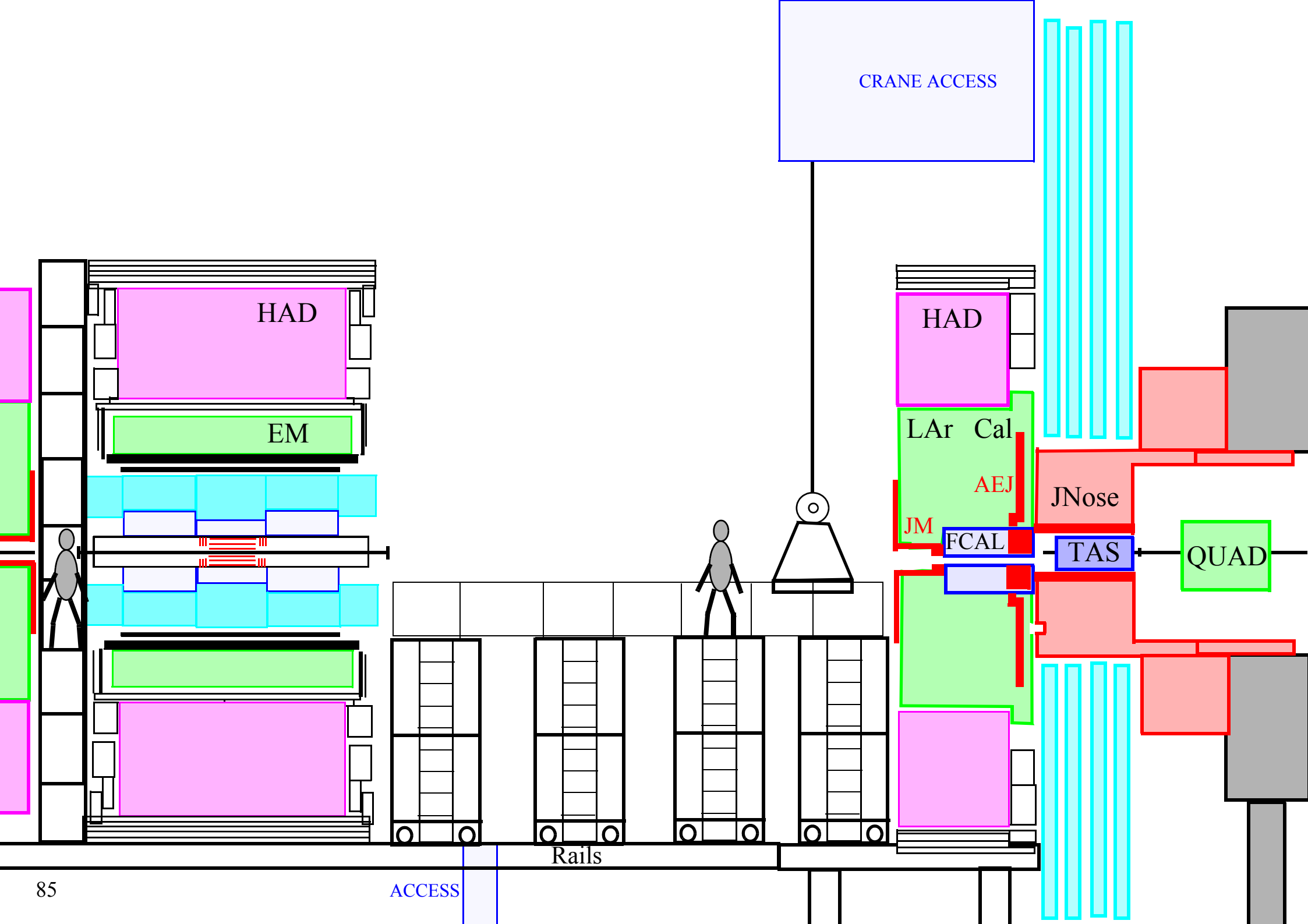
QUAD

Is scaffolding on this side sufficient ?









CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

JNose

FCAL

TAS

QUAD

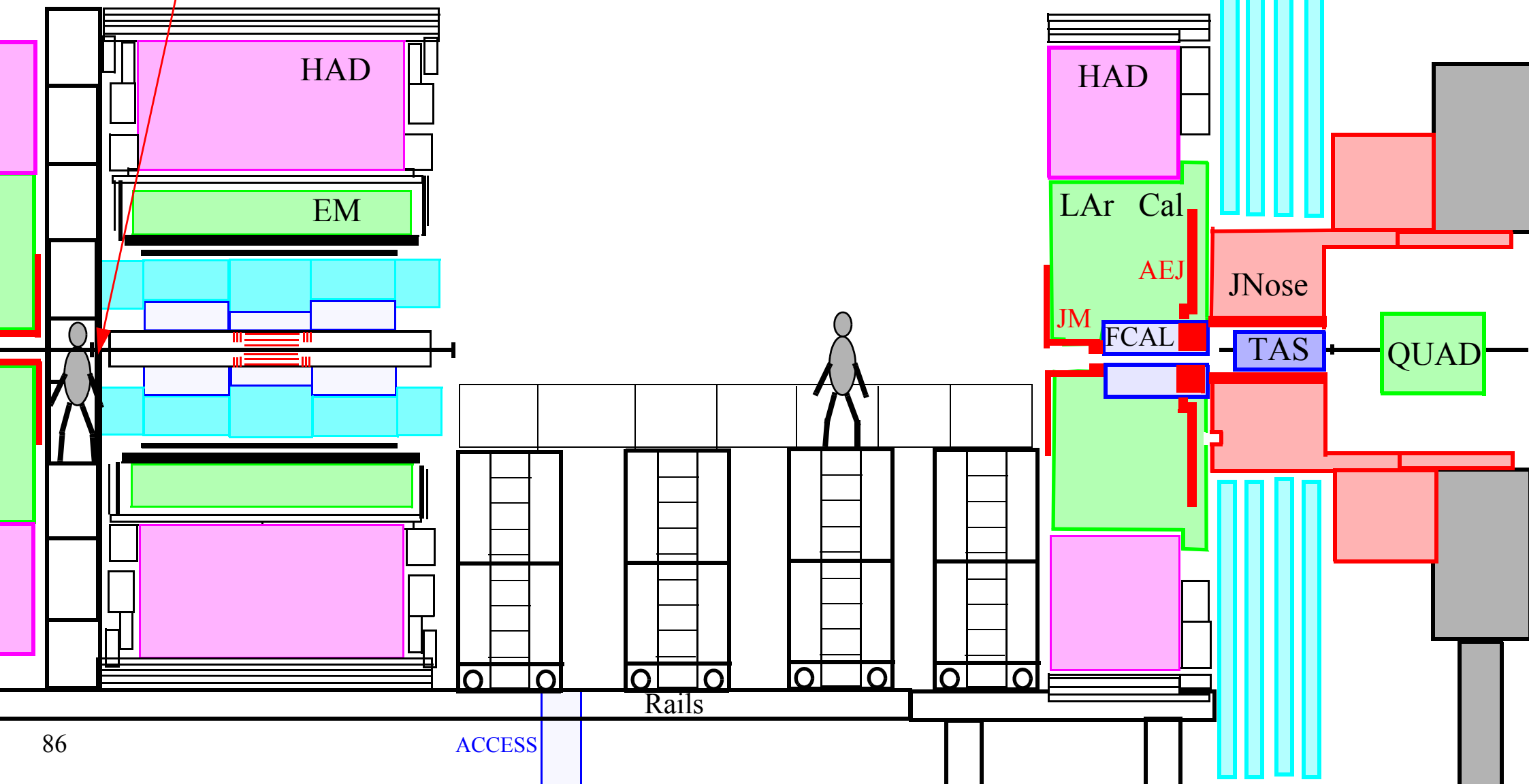
Rails

85

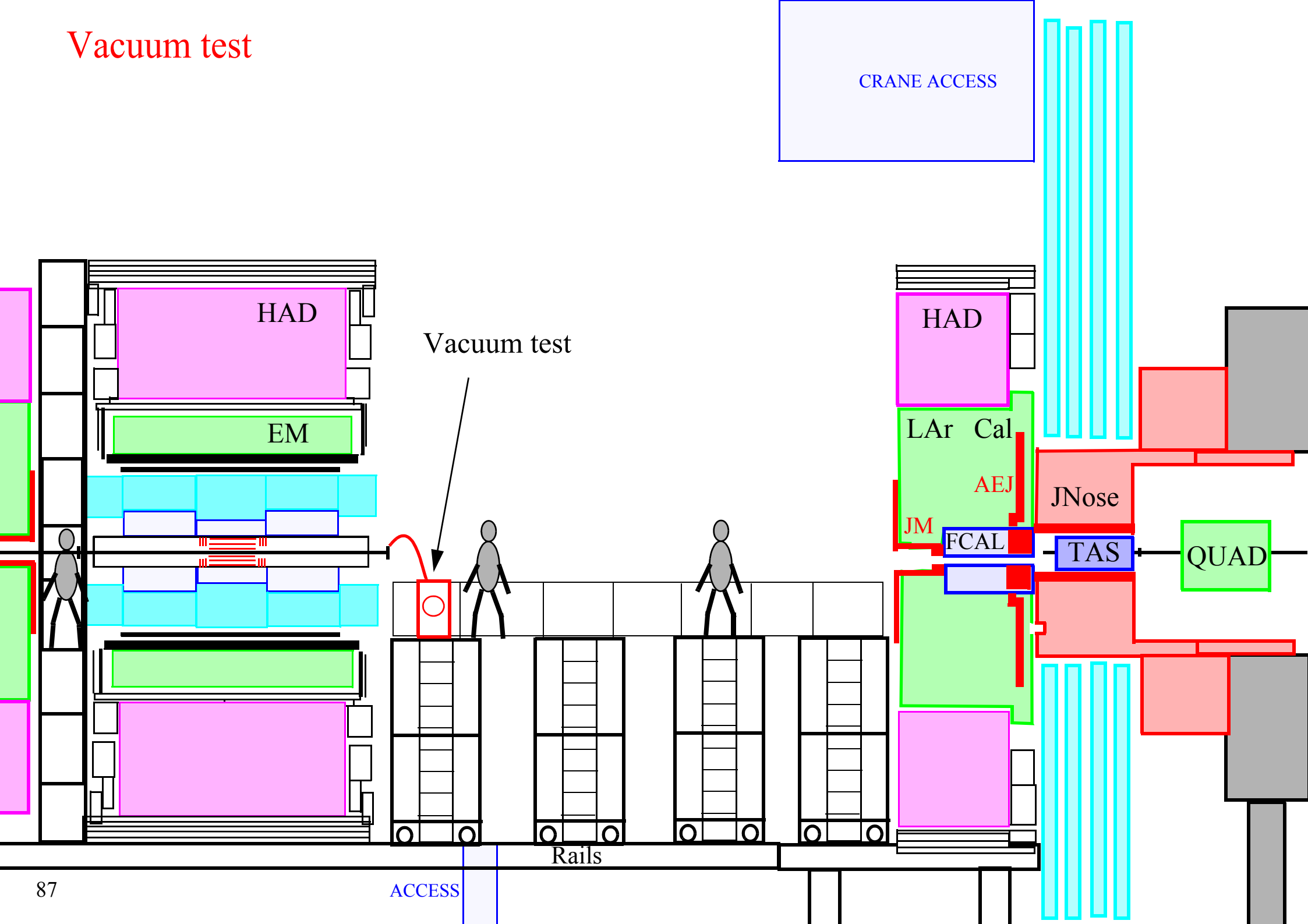
ACCESS

Connect the VA and VI beampipes
on the other side

CRANE ACCESS



Vacuum test



HAD

EM

Vacuum test

HAD

LAr Cal

AEJ

JM

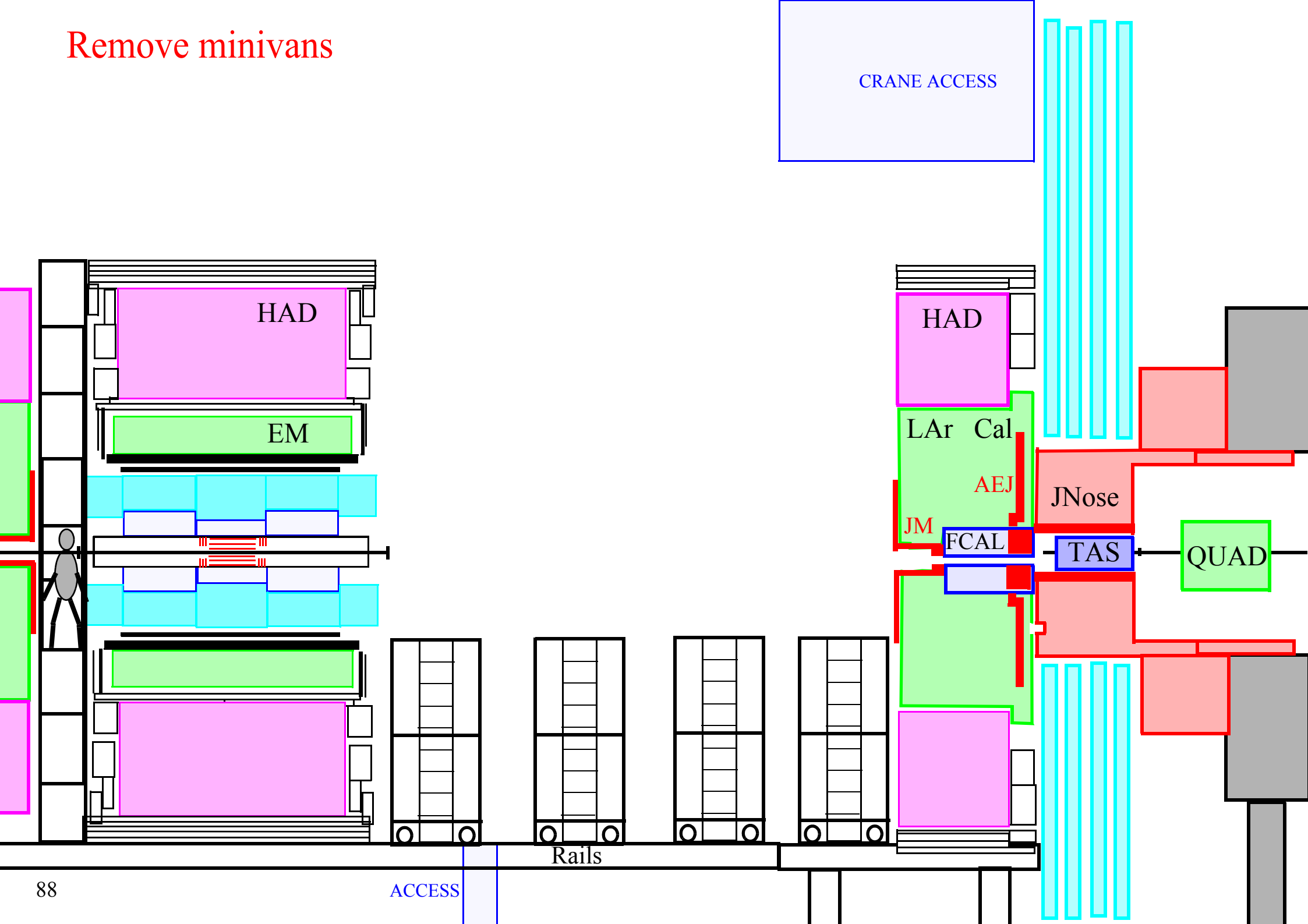
FCAL

JNose

TAS

QUAD

Remove minivans



HAD

EM

HAD

LAr Cal

AEJ

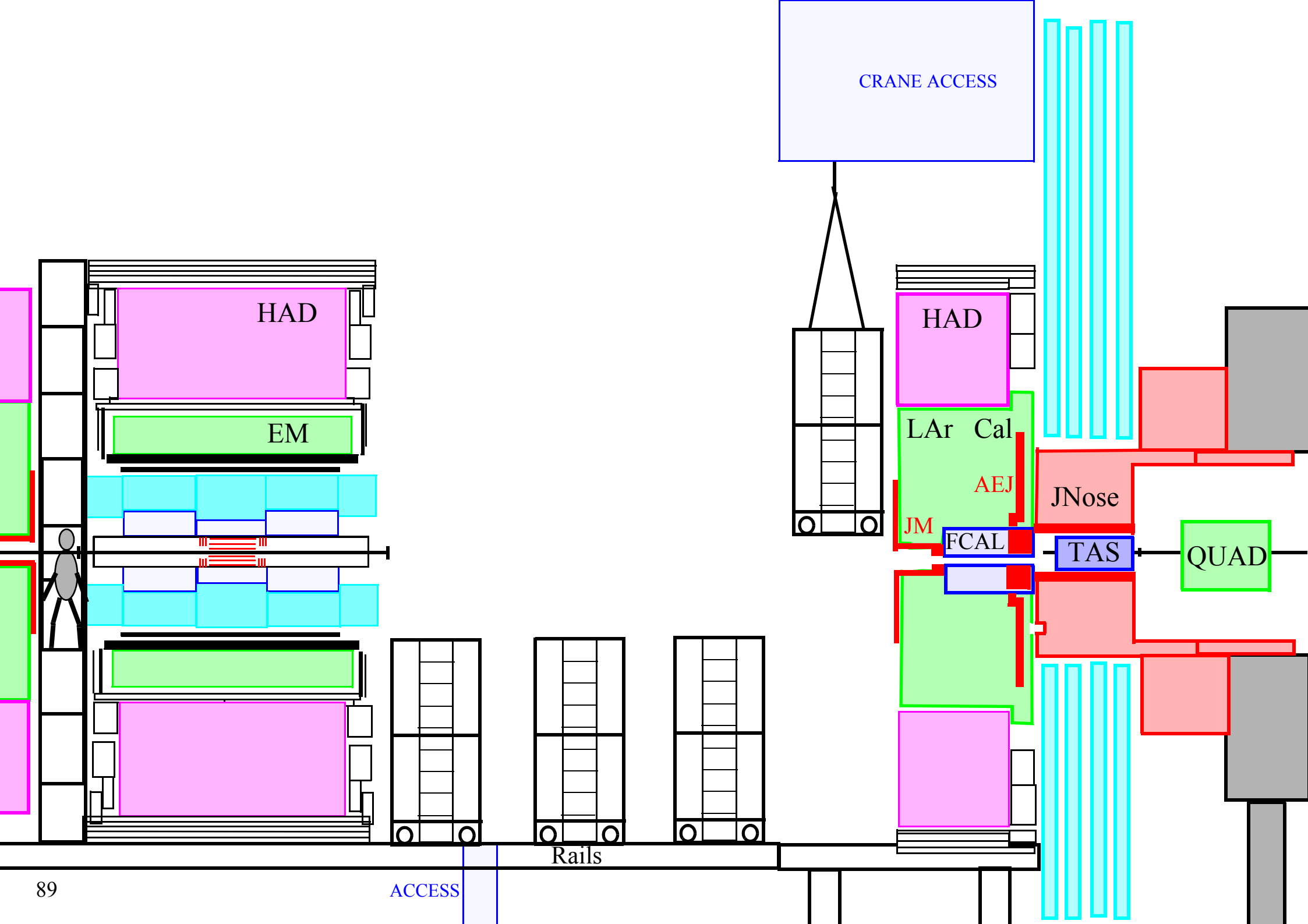
JM

FCAL

JNose

TAS

QUAD



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

JM

FCAL

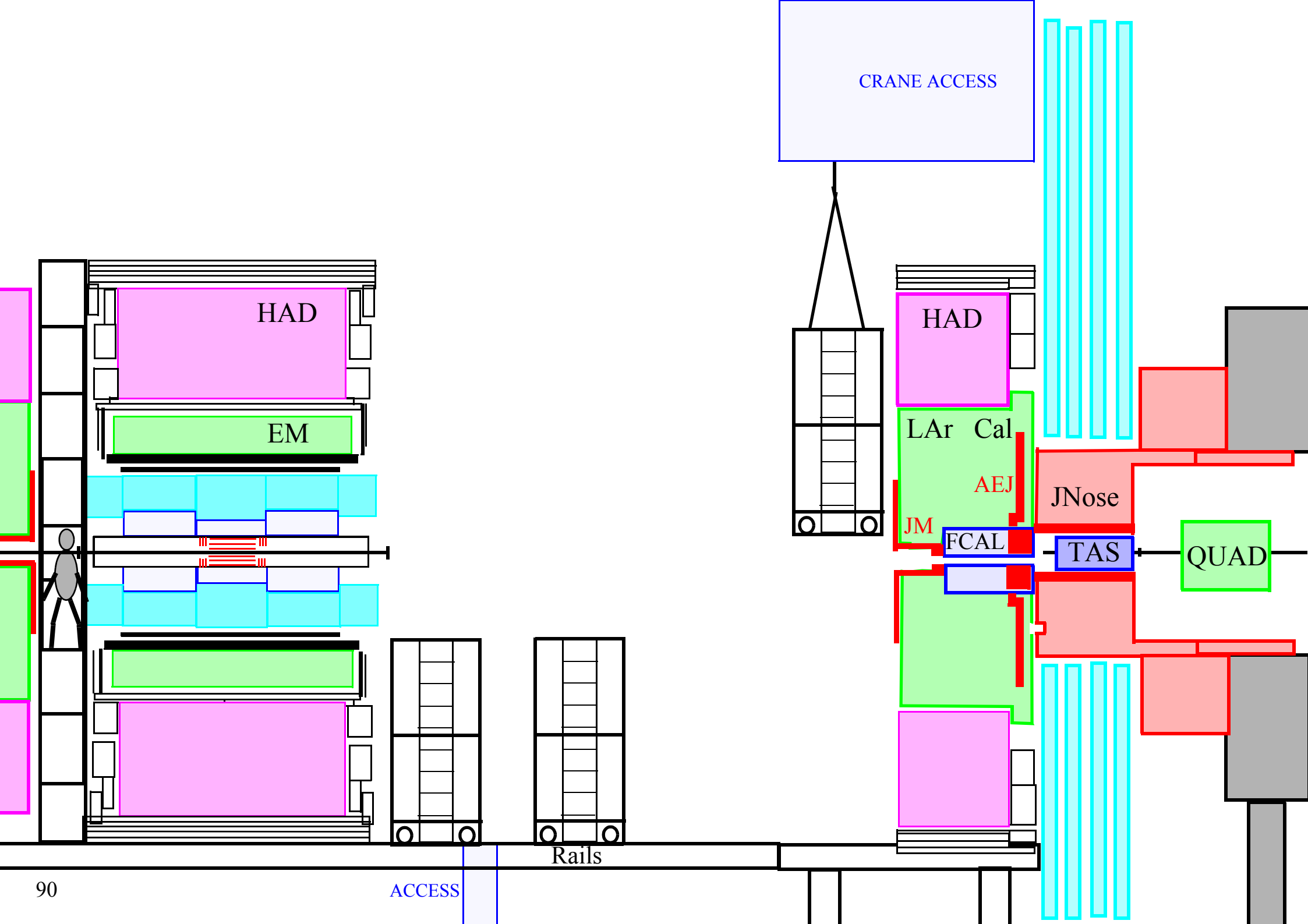
TAS

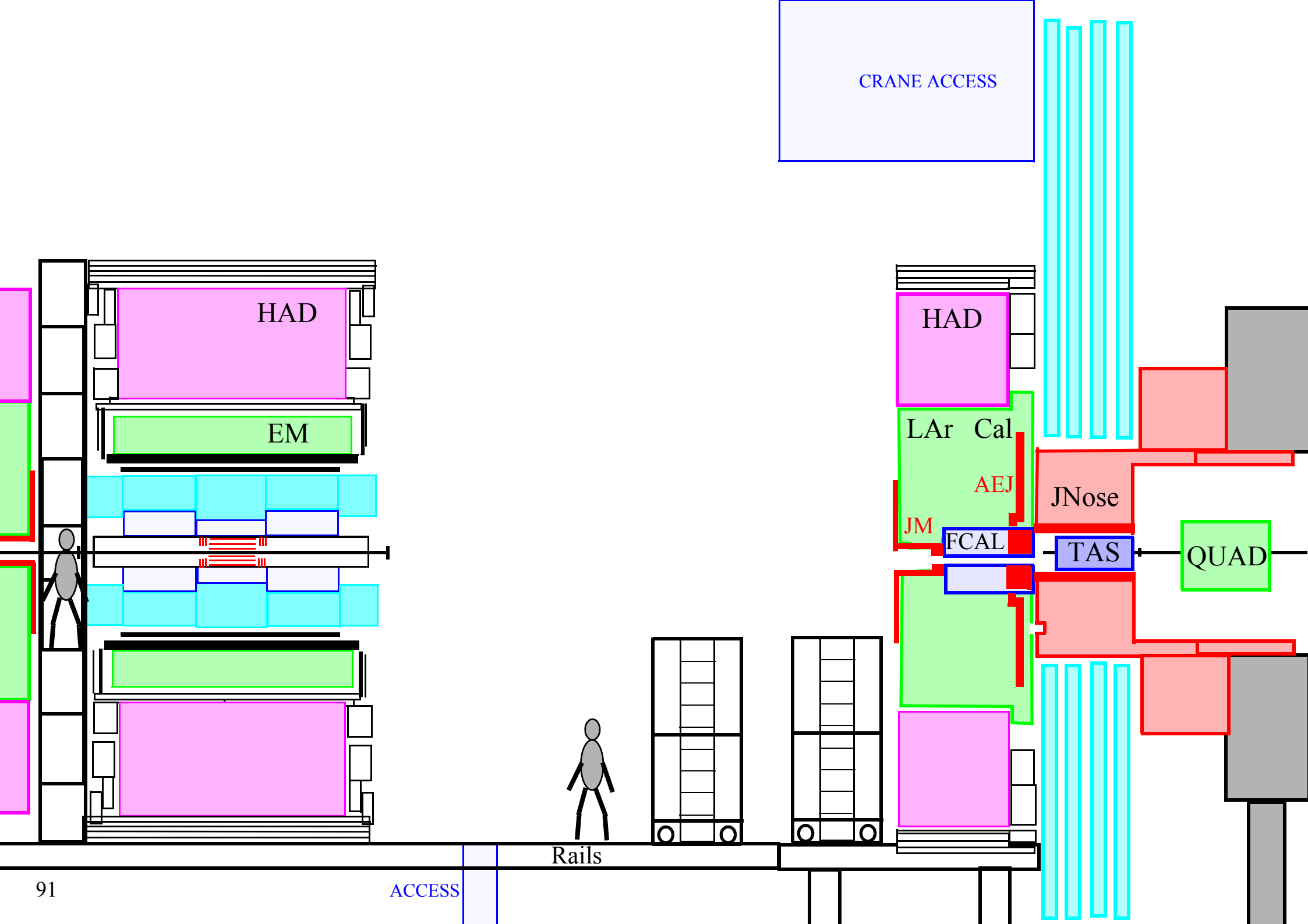
QUAD

Rails

89

ACCESS





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

JM

FCAL

TAS

QUAD

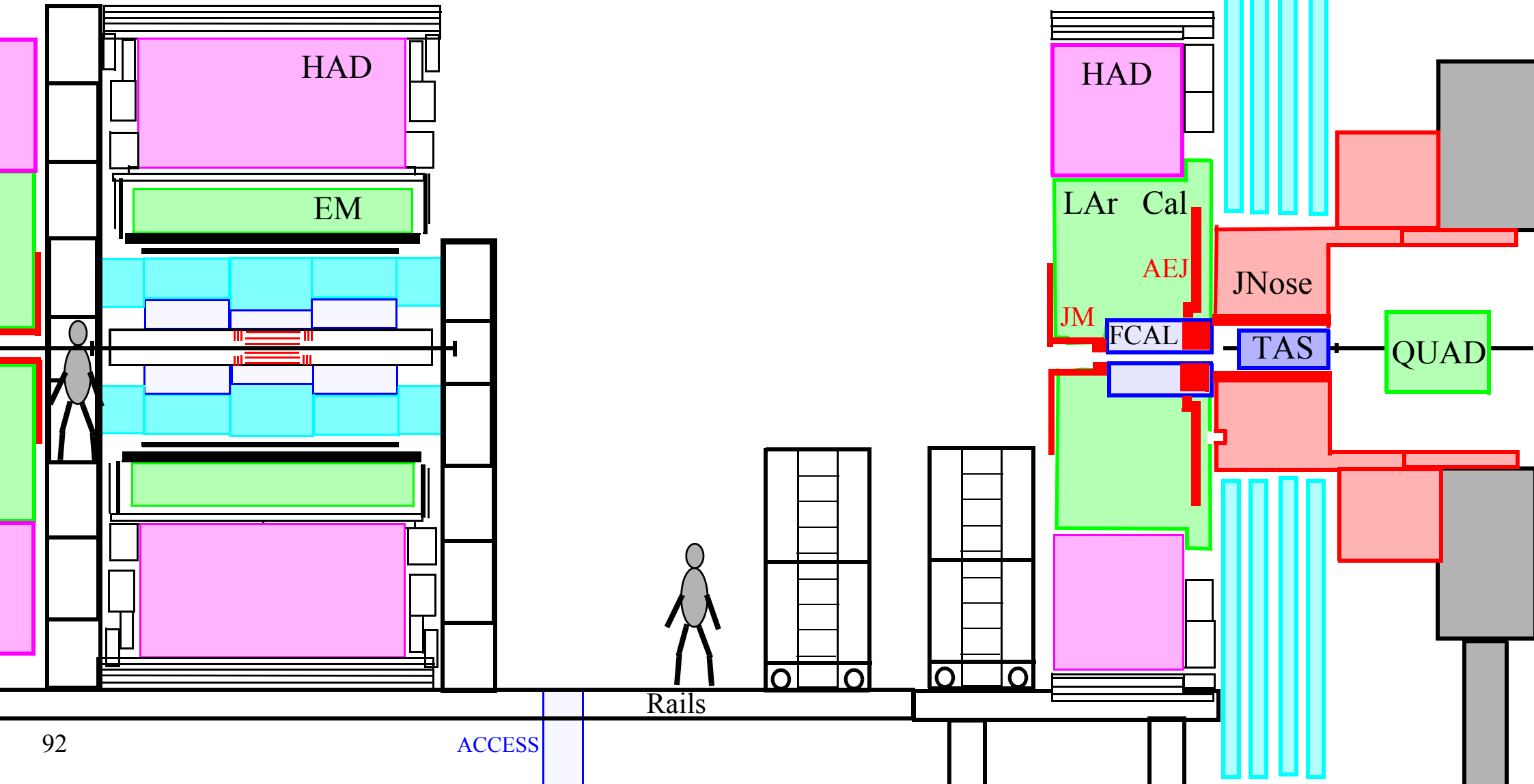
Rails

ACCESS

91

Install scaffolding

CRANE ACCESS



HAD

EM

HAD

LAr Cal

AEJ

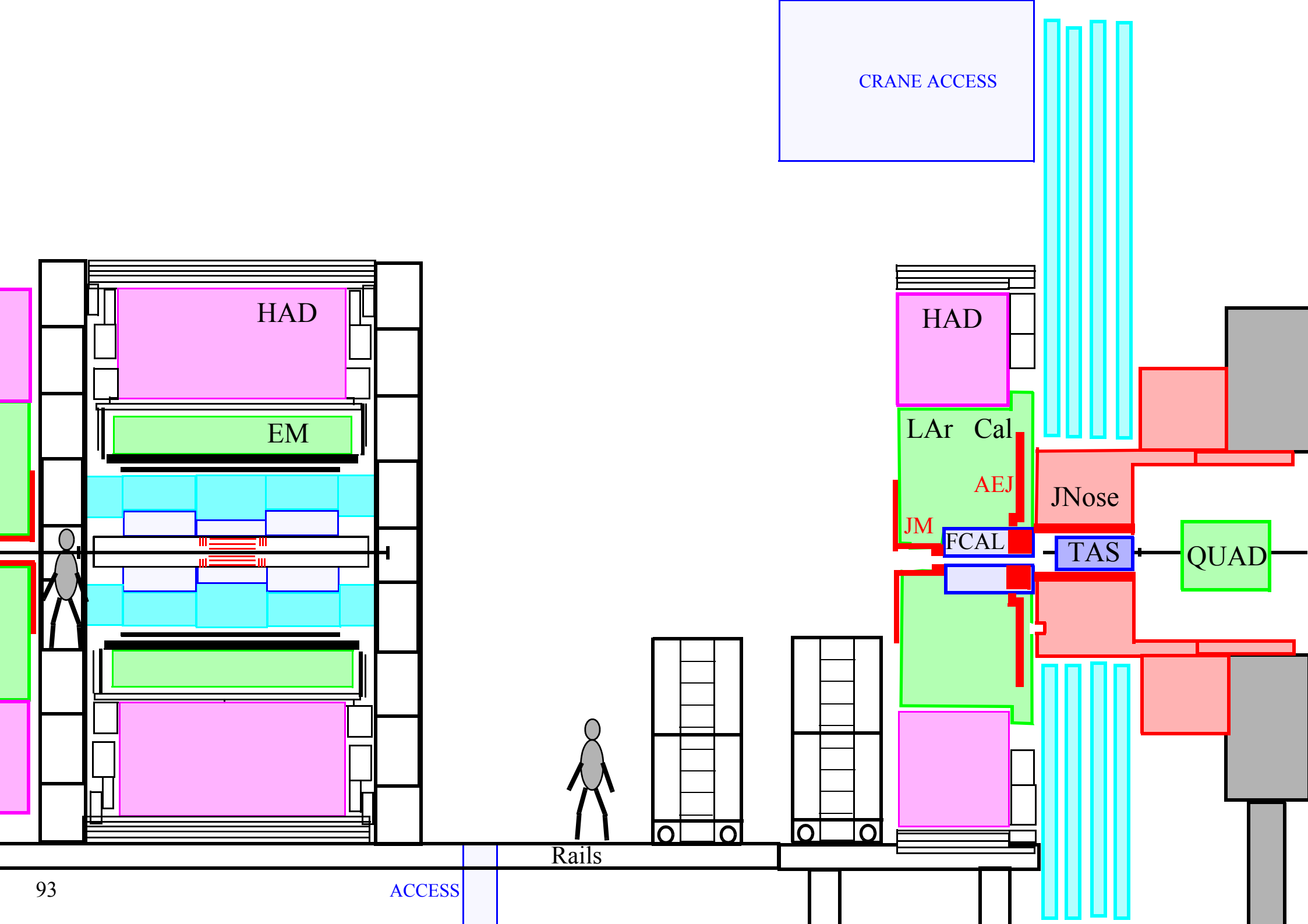
JNose

JM

FCAL

TAS

QUAD



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

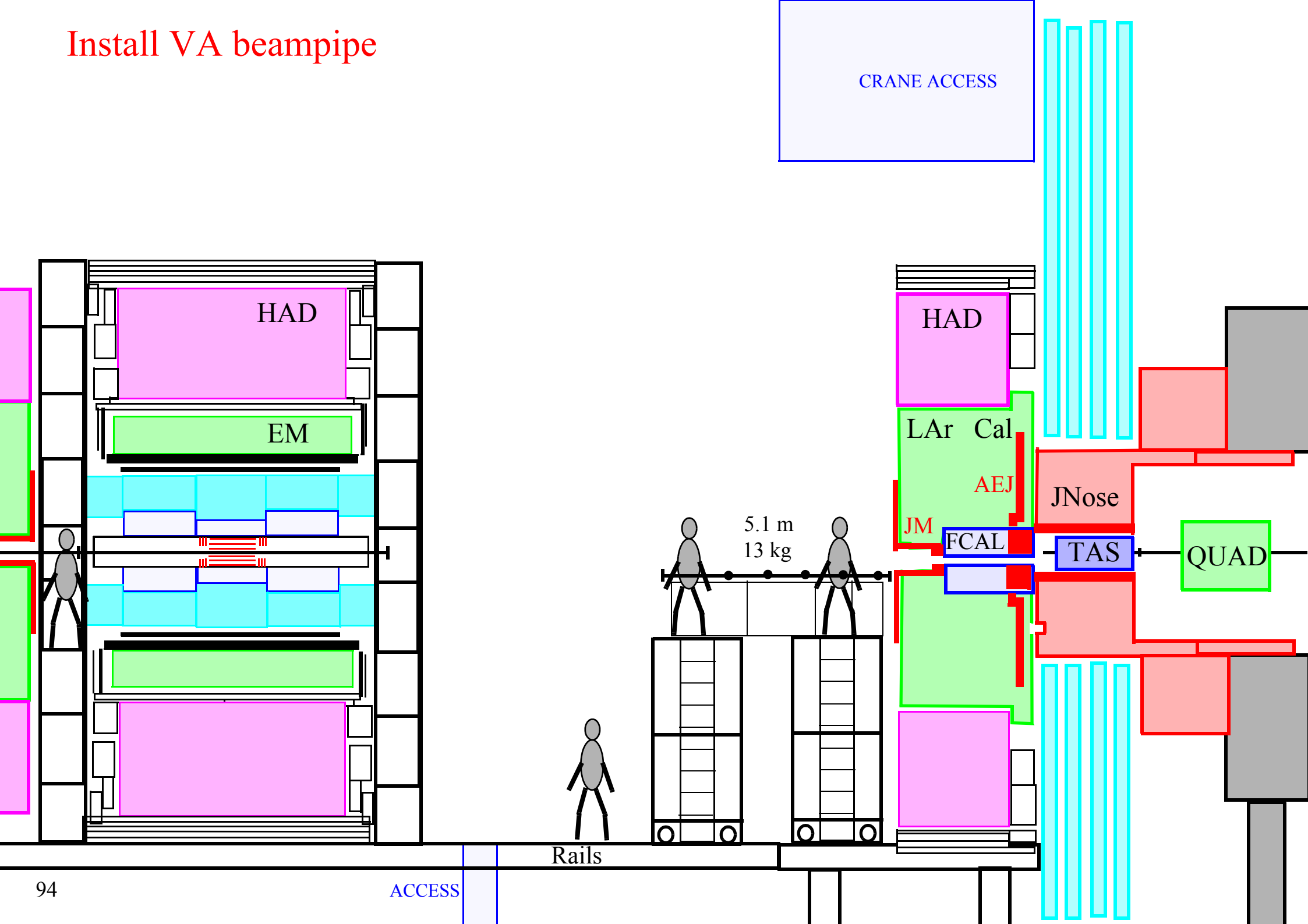
FCAL

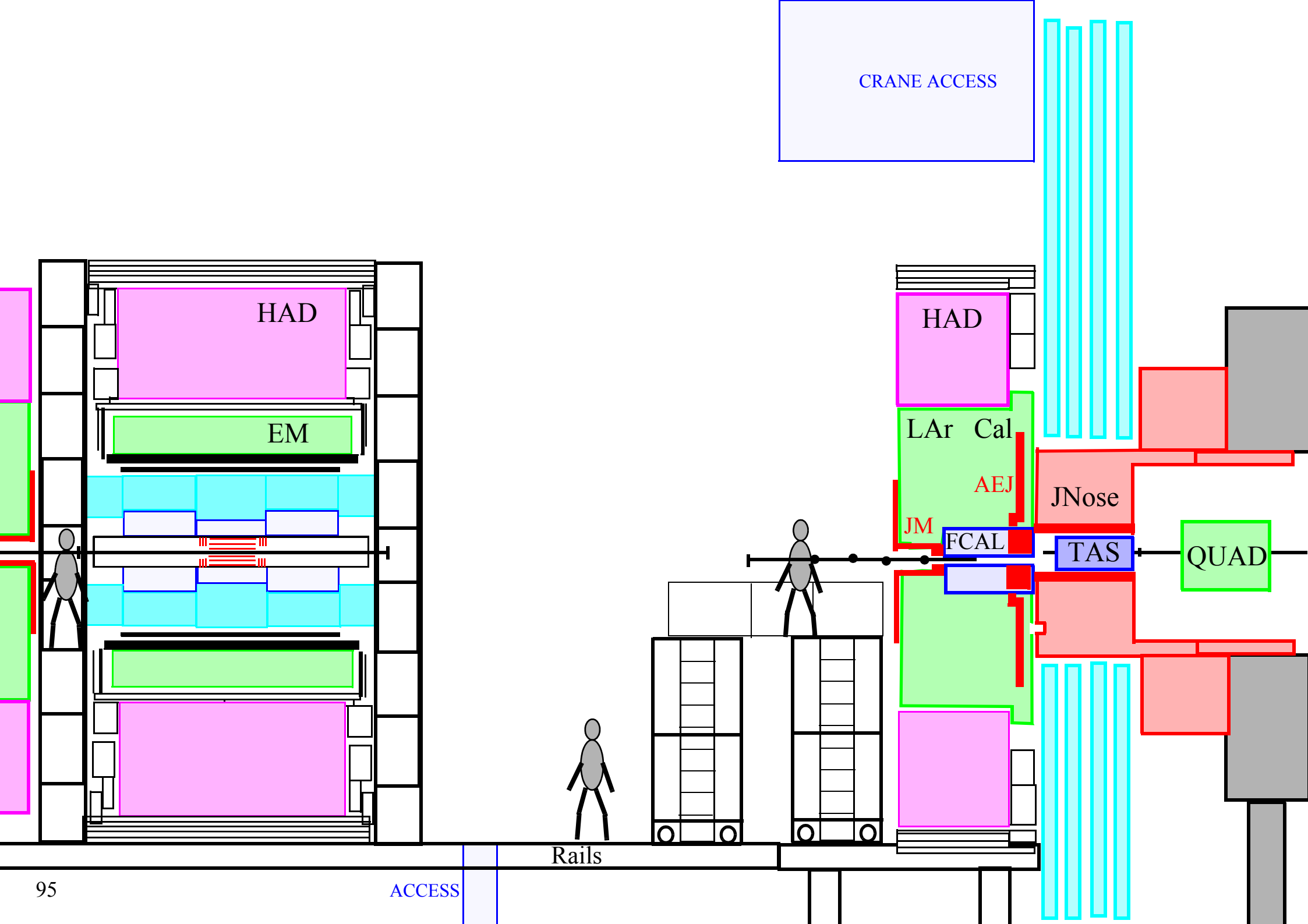
TAS

QUAD

Rails

Install VA beampipe





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

FCAL

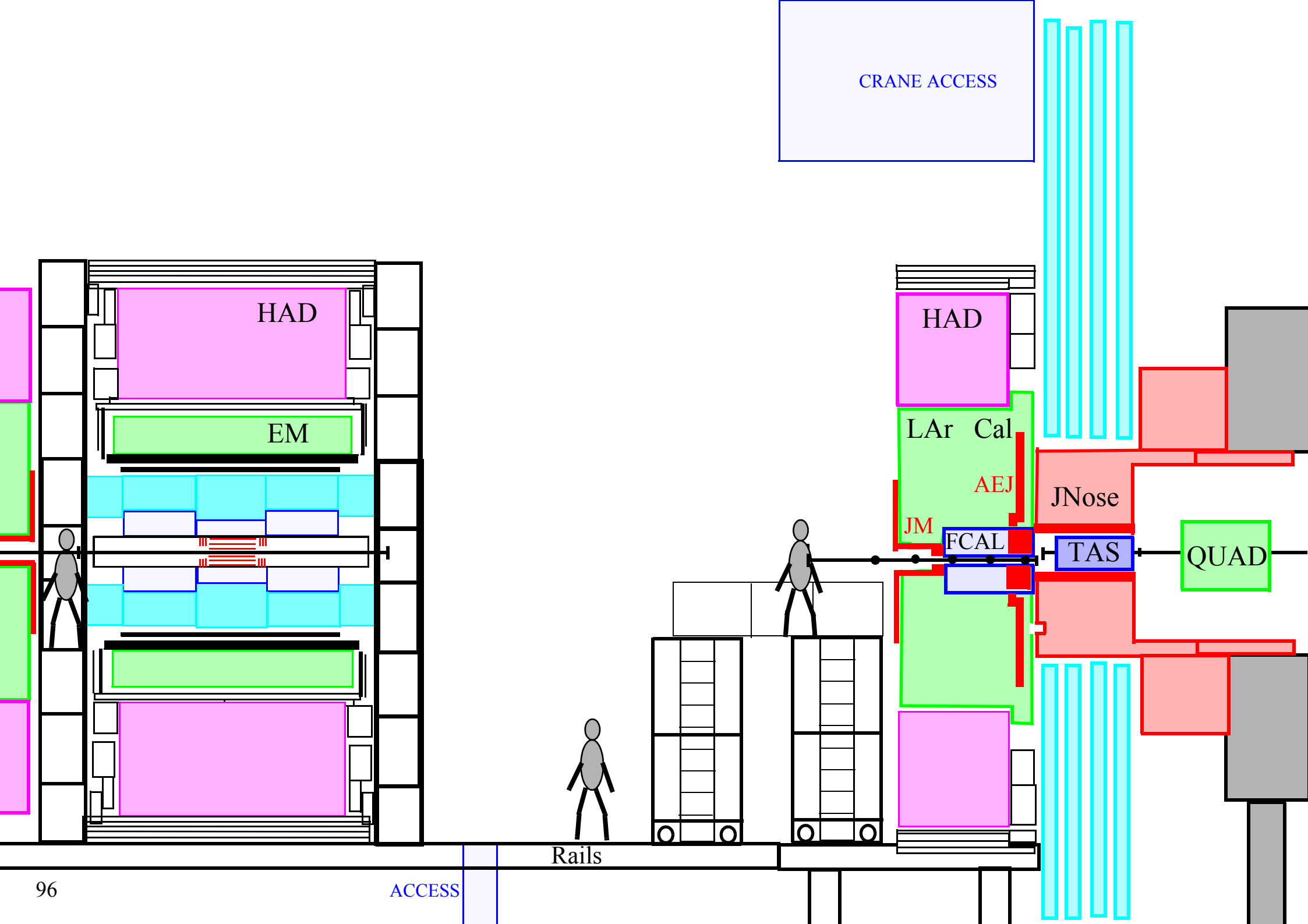
TAS

QUAD

Rails

ACCESS

95



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

JM

FCAL

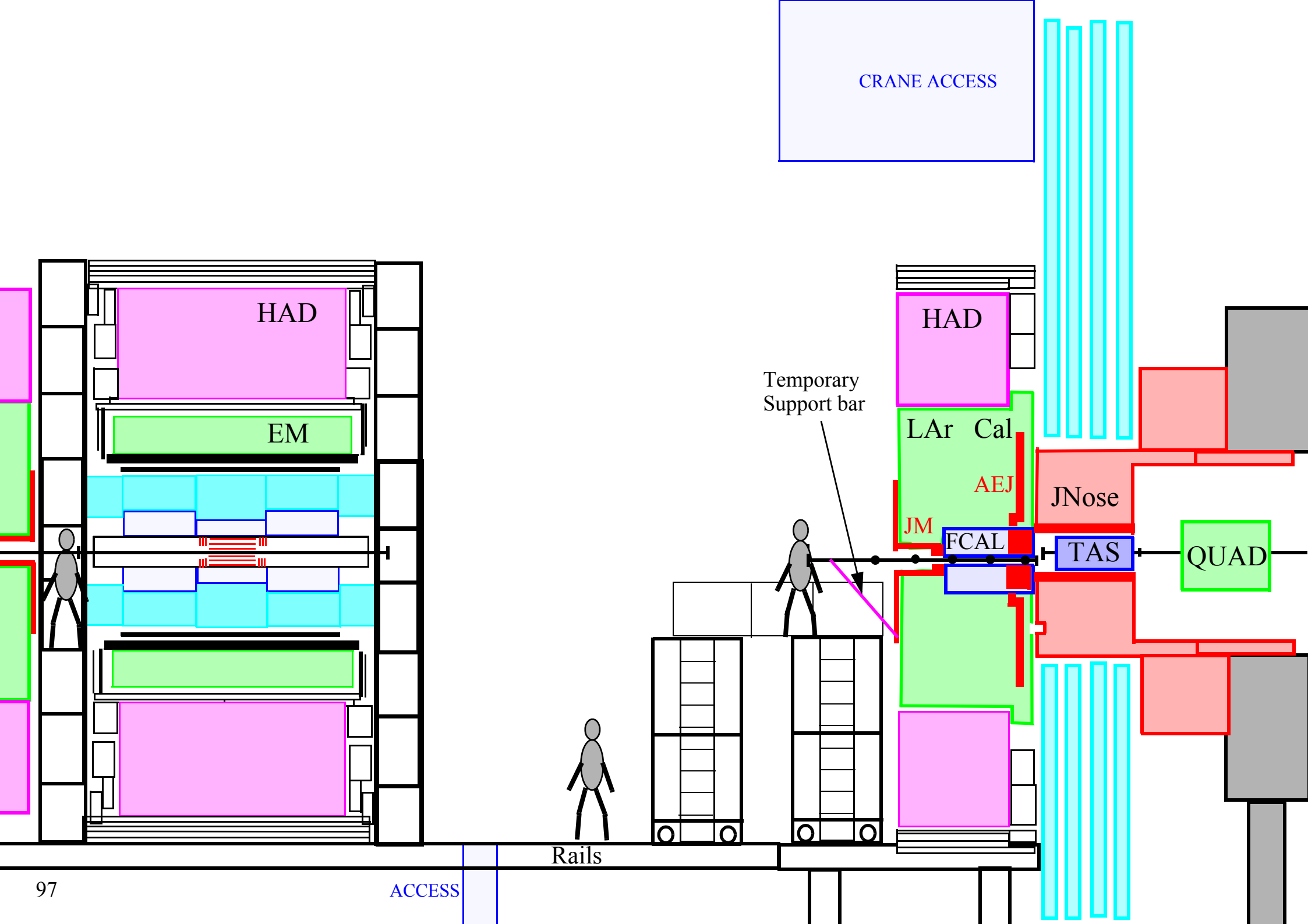
TAS

QUAD

Rails

96

ACCESS



HAD

EM

Temporary Support bar

HAD

LAr Cal

AEJ

JNose

JM

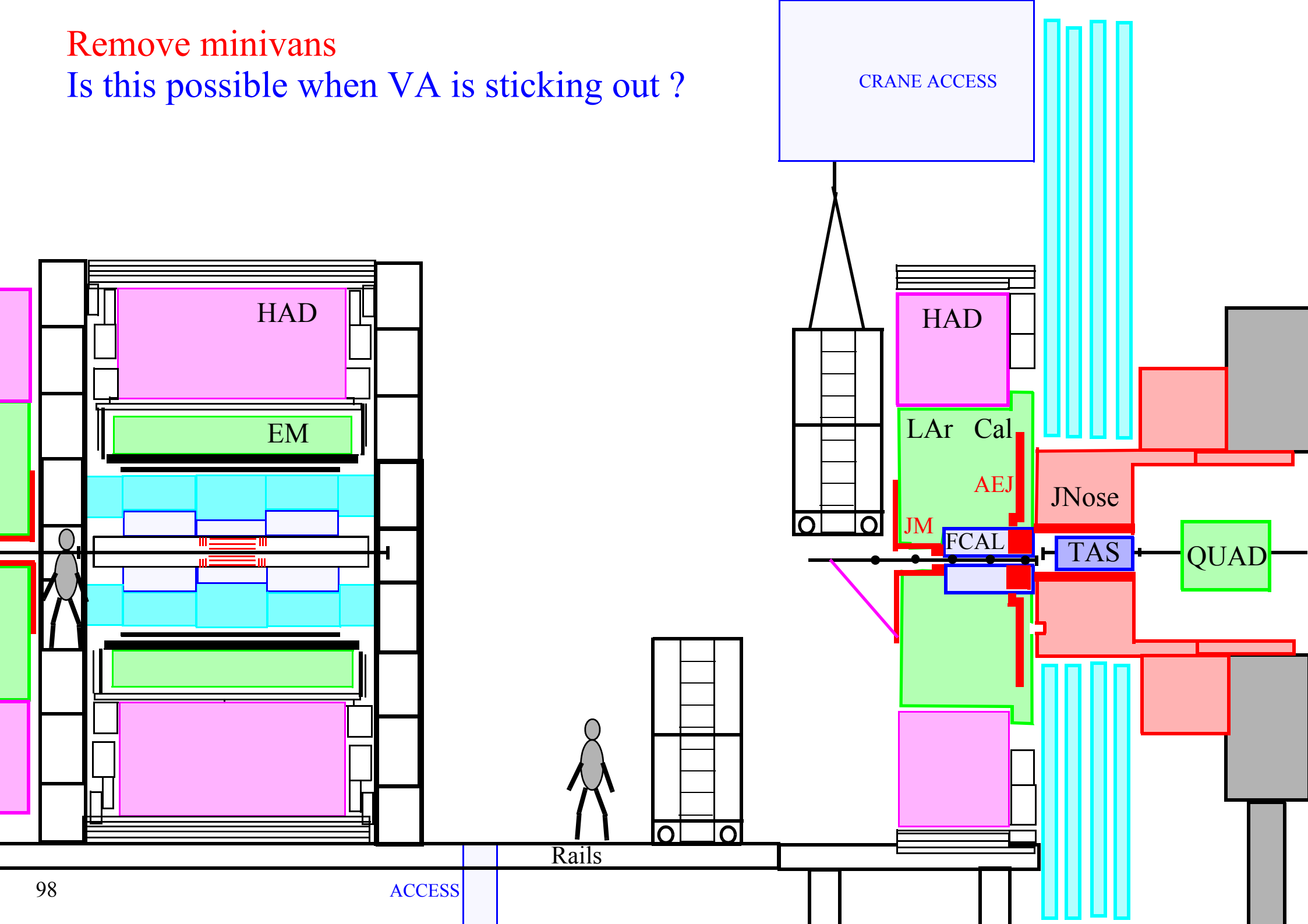
FCAL

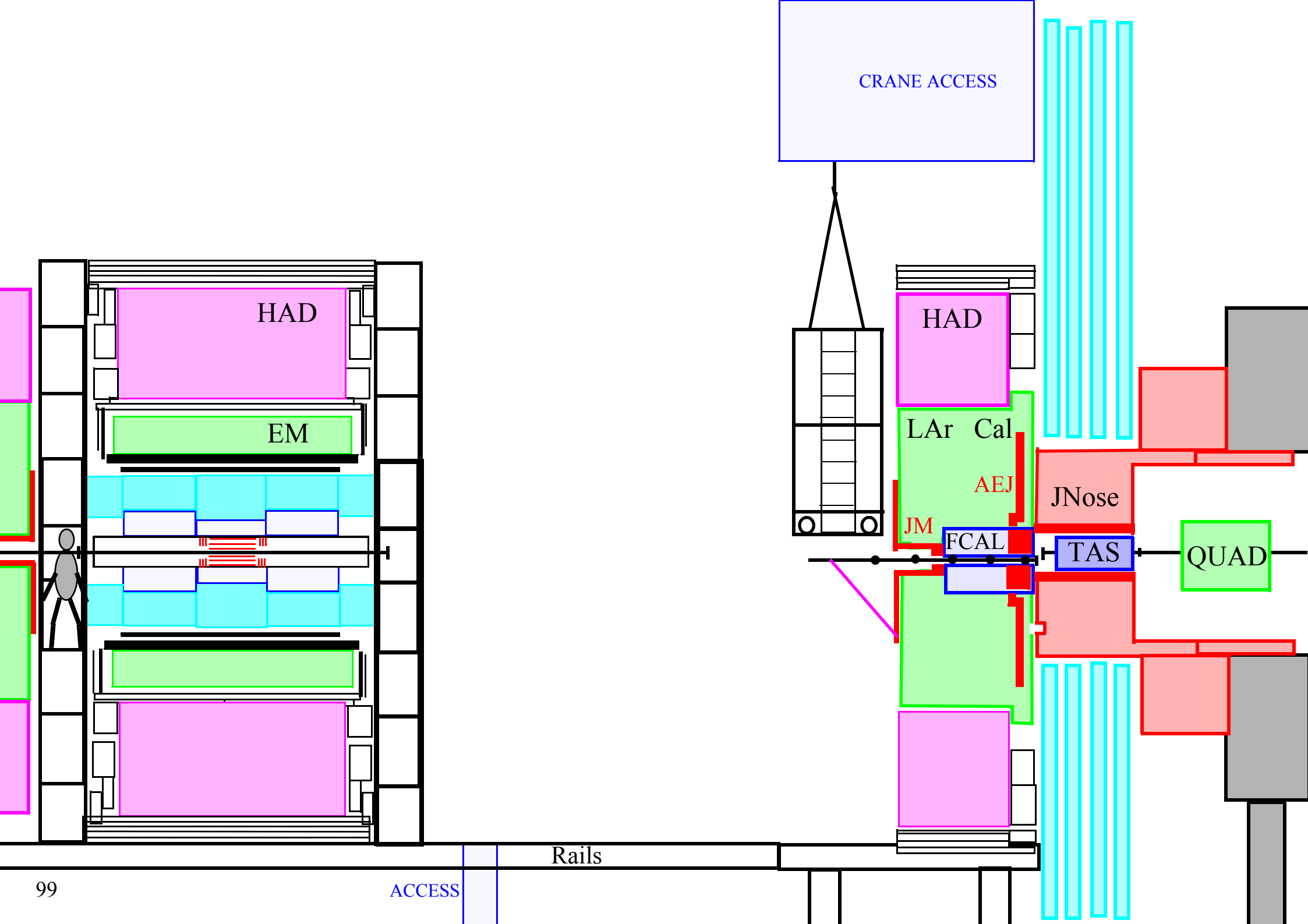
TAS

QUAD

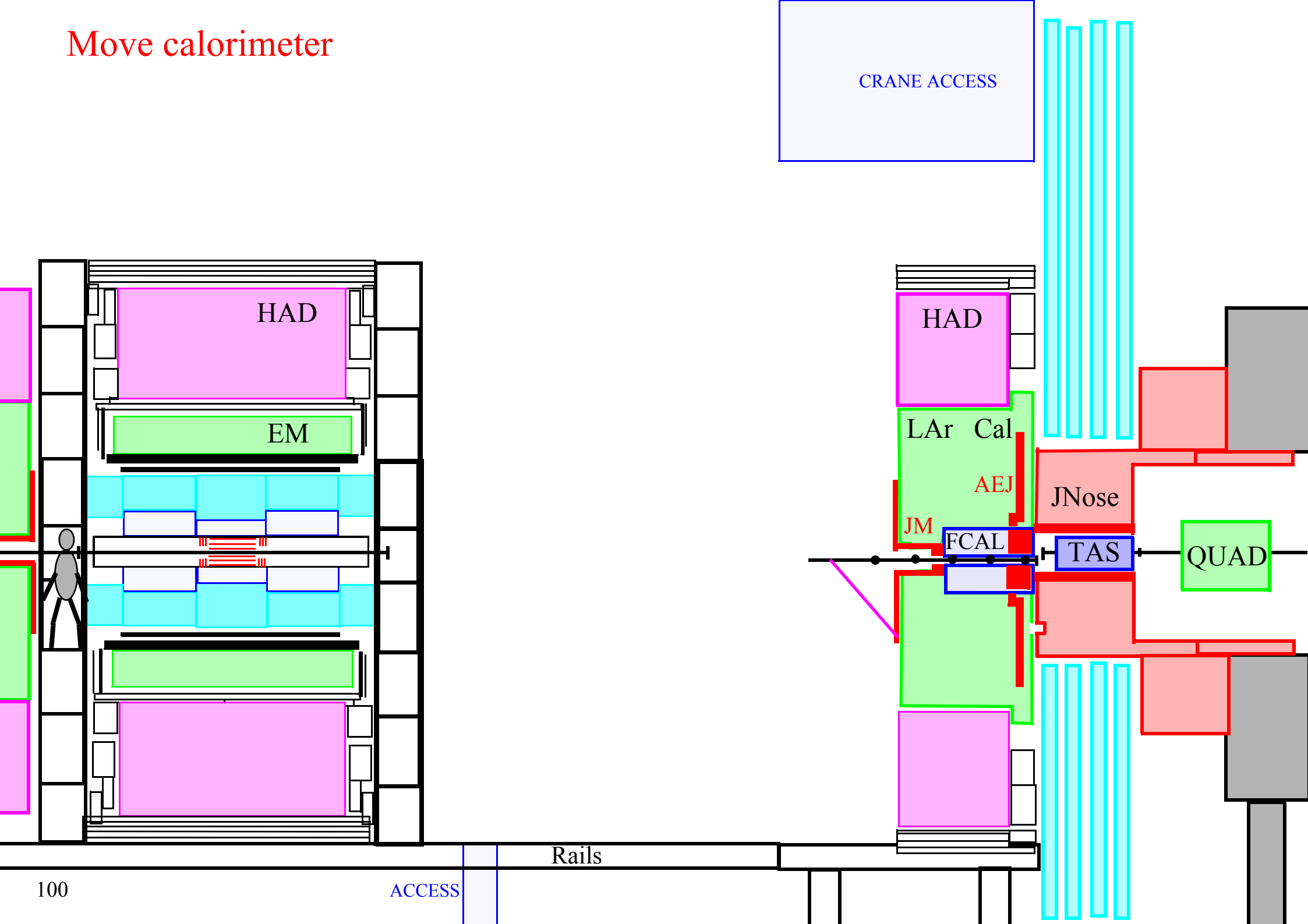
Remove minivans

Is this possible when VA is sticking out ?





Move calorimeter



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JNose

JM

FCAL

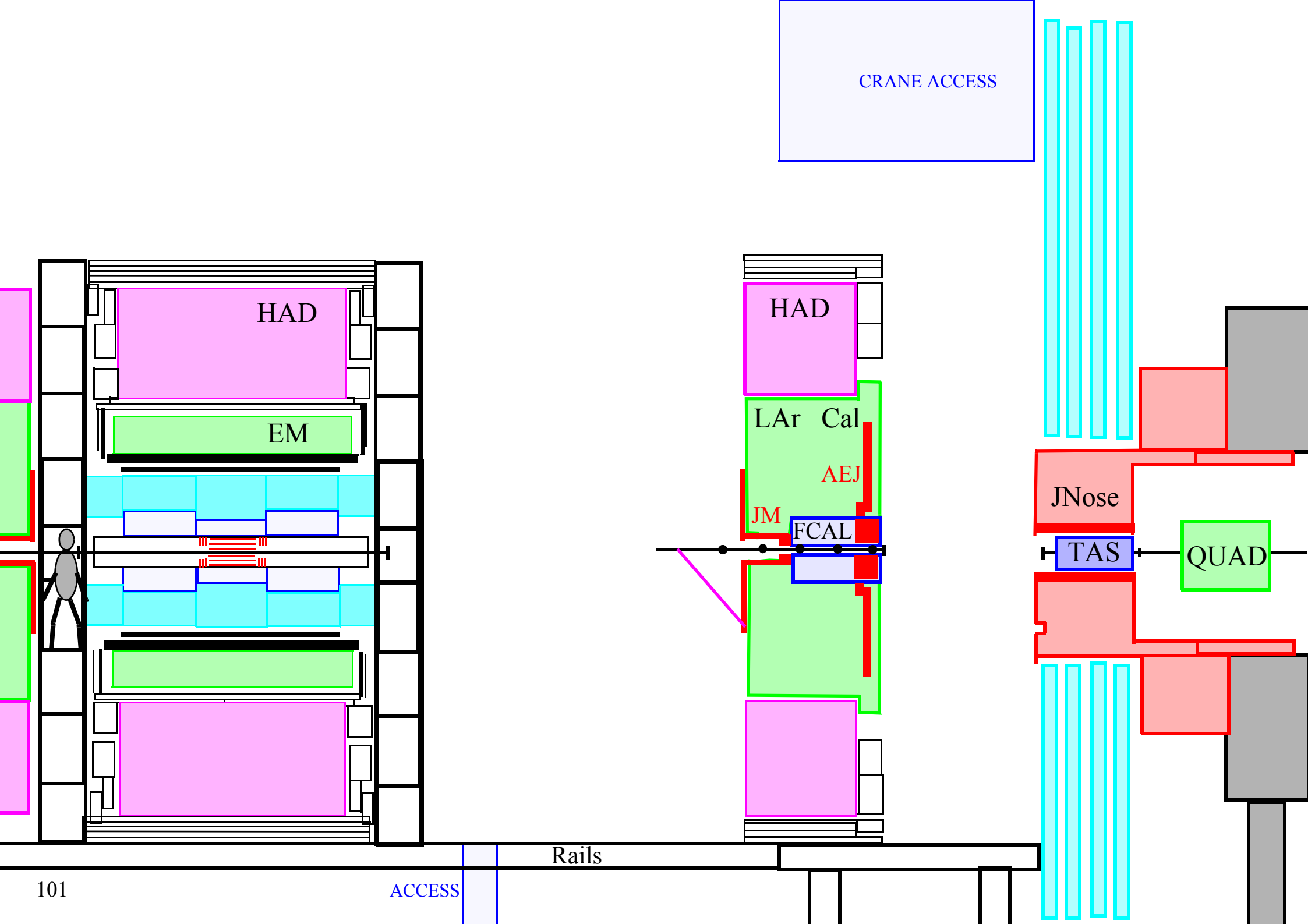
TAS

QUAD

Rails

ACCESS

100



101

ACCESS

Rails

CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

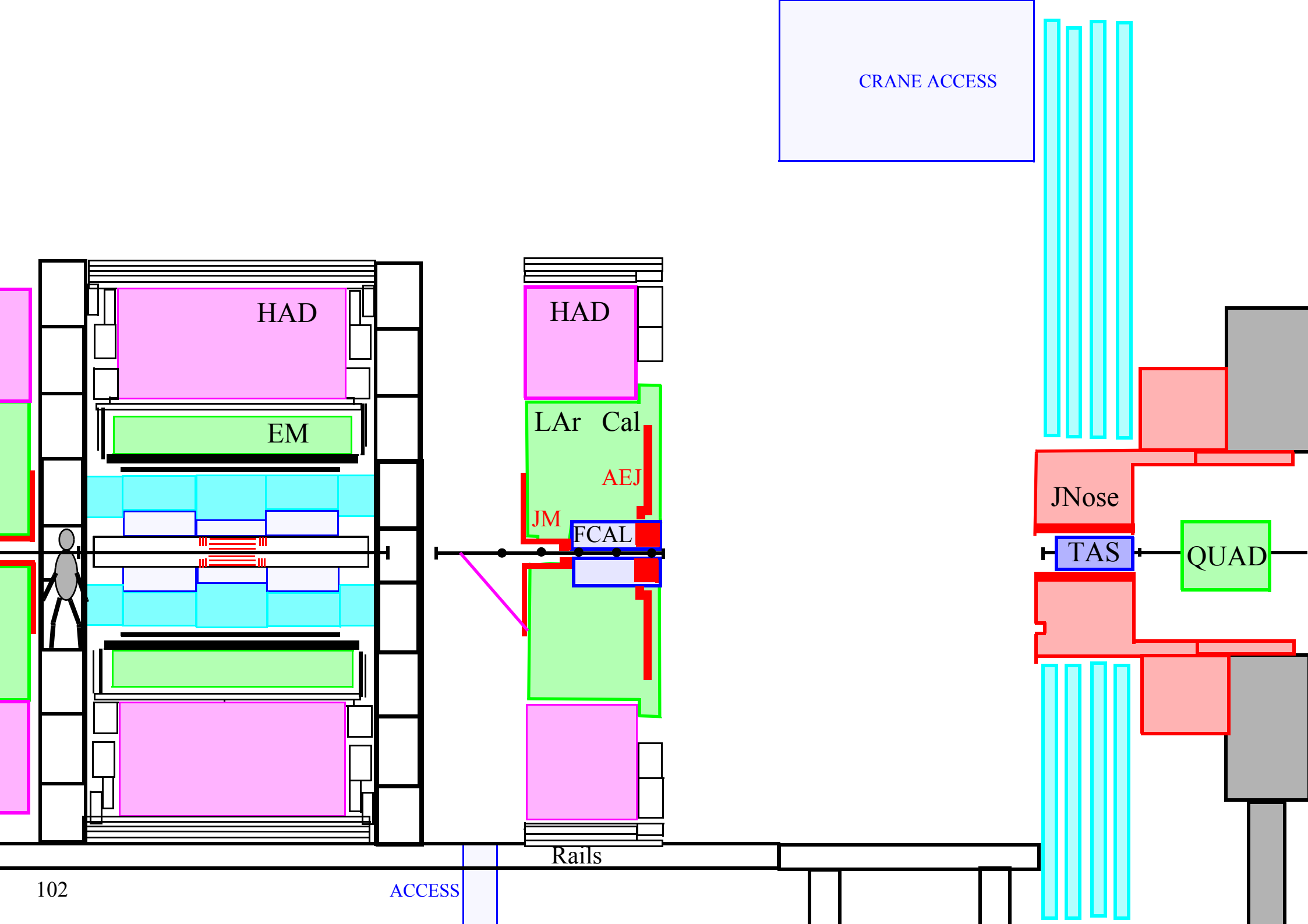
JM

FCAL

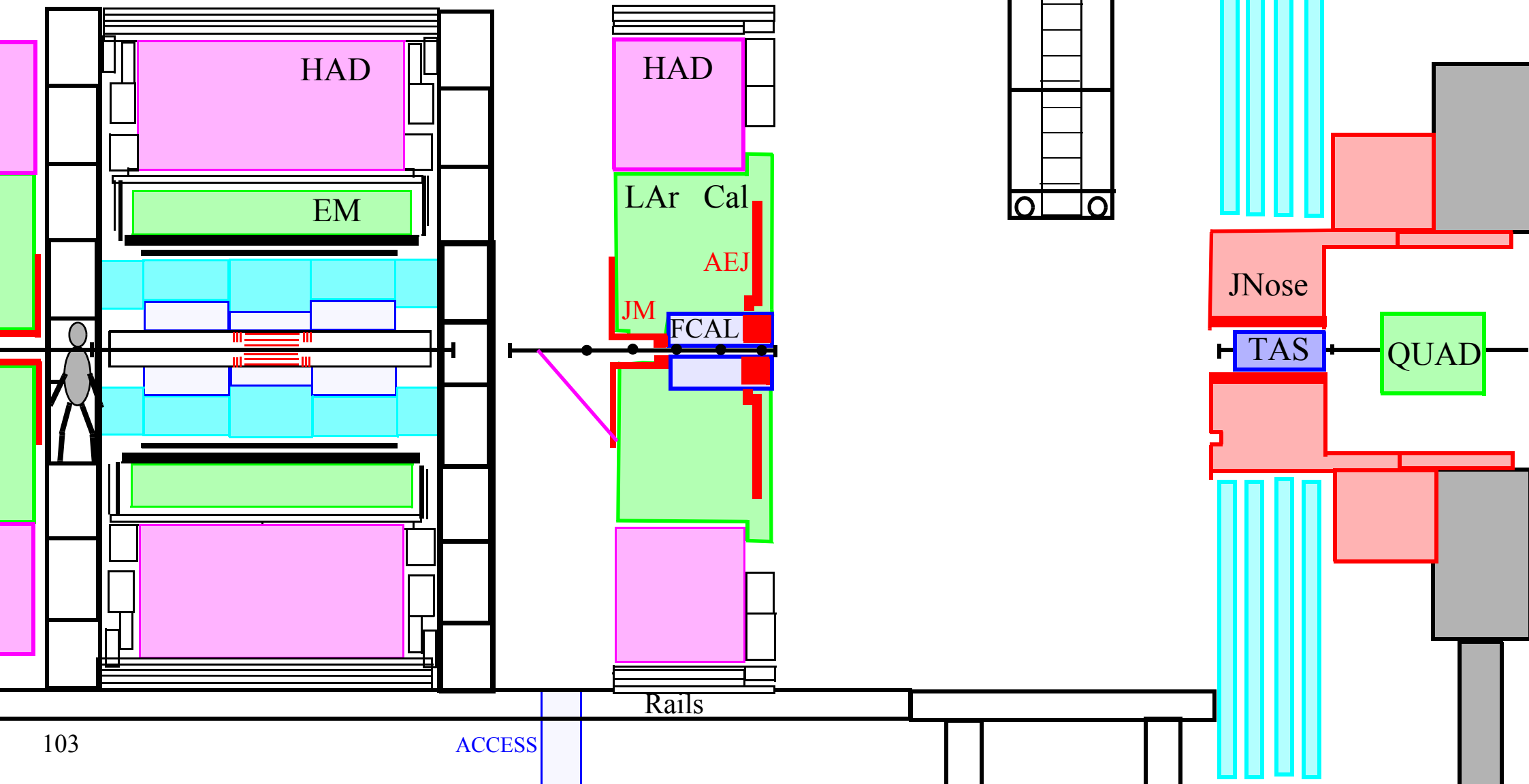
JNose

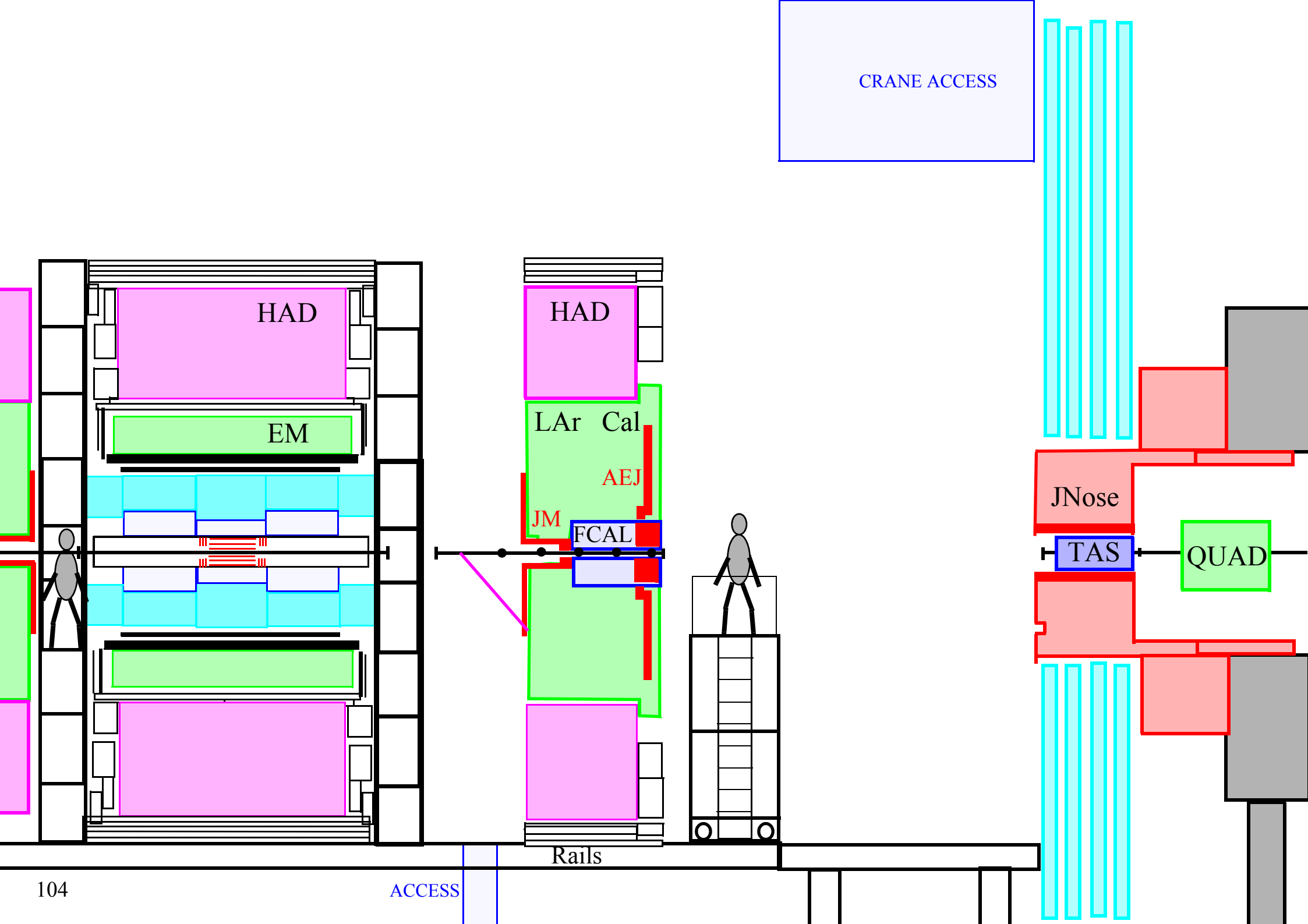
TAS

QUAD



Install minivan





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

TAS

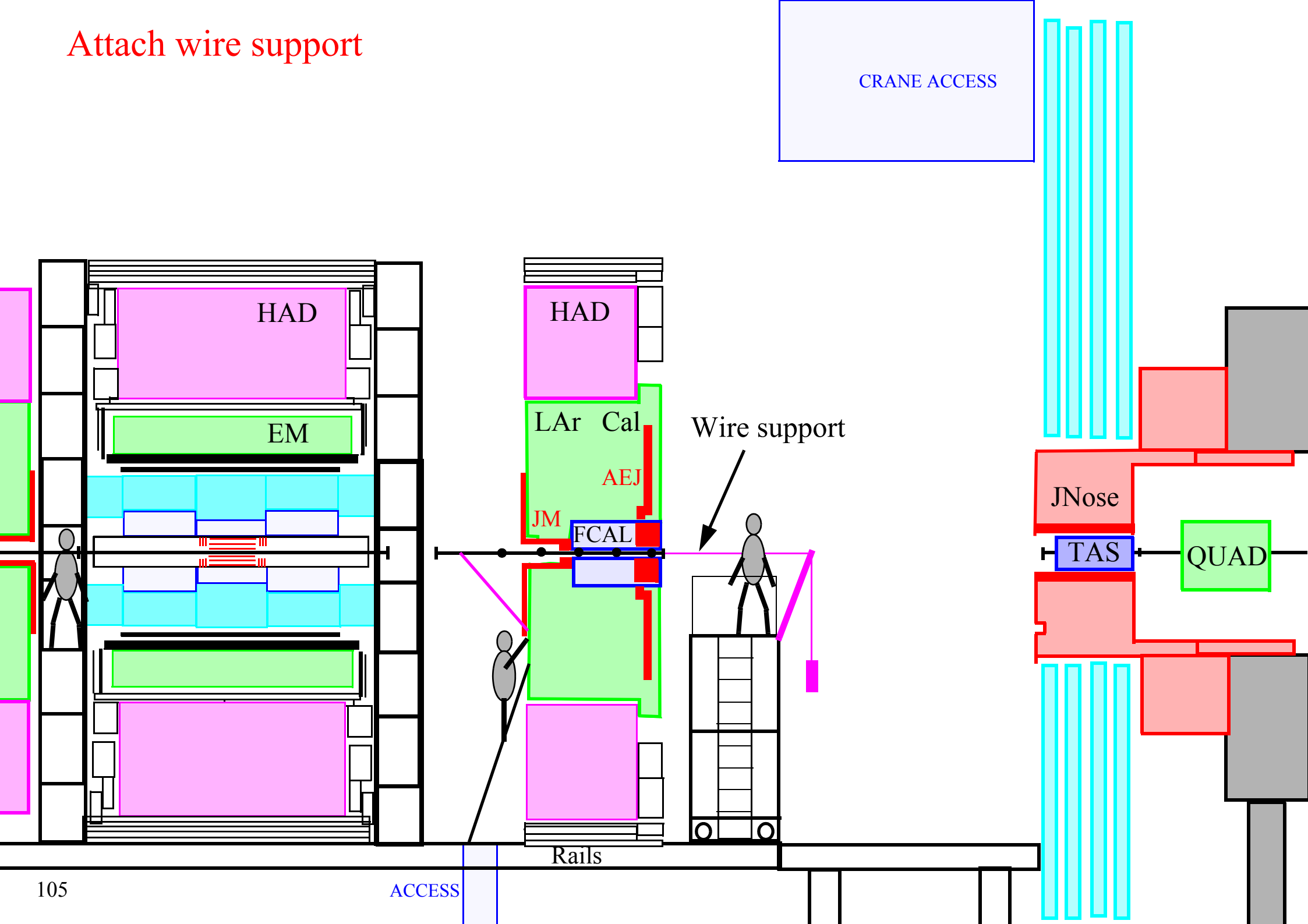
QUAD

Rails

104

ACCESS

Attach wire support



CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

Wire support

JNose

TAS

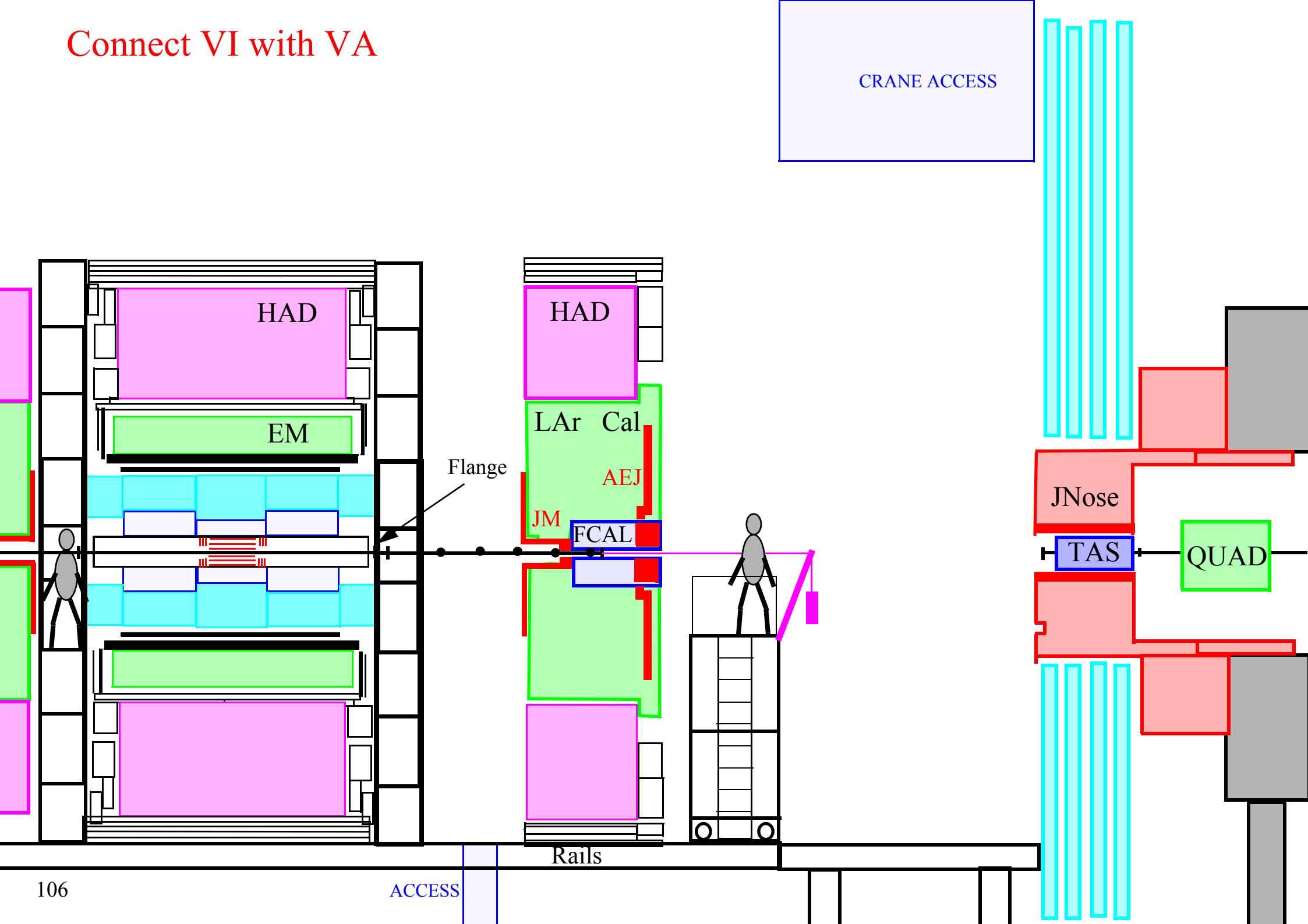
QUAD

RAILS

105

ACCESS

Connect VI with VA



CRANE ACCESS

HAD

EM

Flange

HAD

LAr Cal

AEJ

JM

FCAL

JNose

TAS

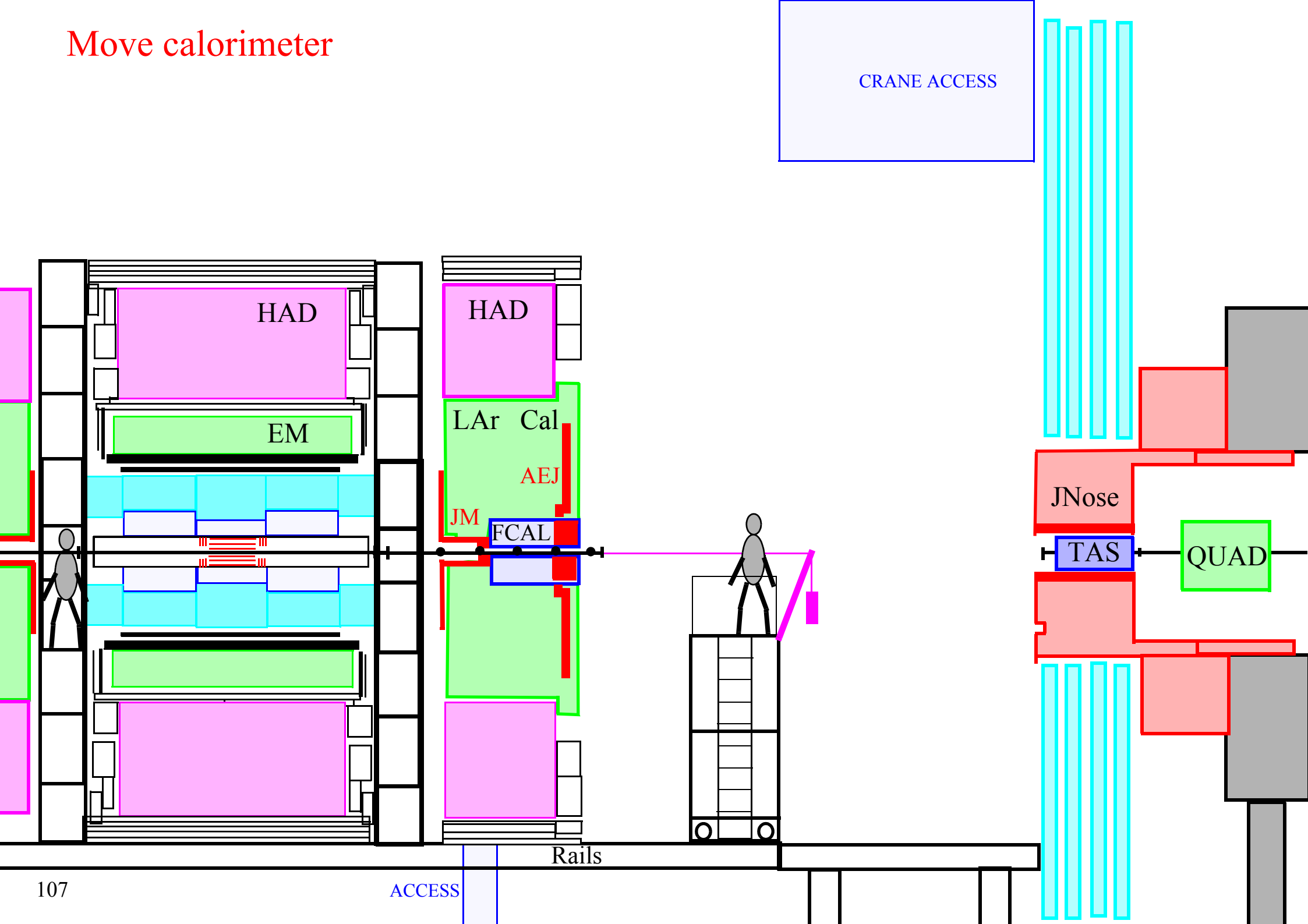
QUAD

Rails

ACCESS

106

Move calorimeter



CRANE ACCESS

HAD

HAD

EM

LAr Cal

AEJ

JM

FCAL

JNose

TAS

QUAD

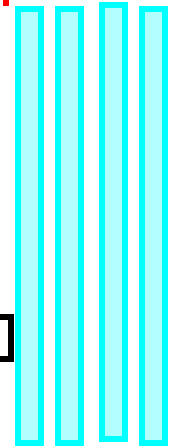
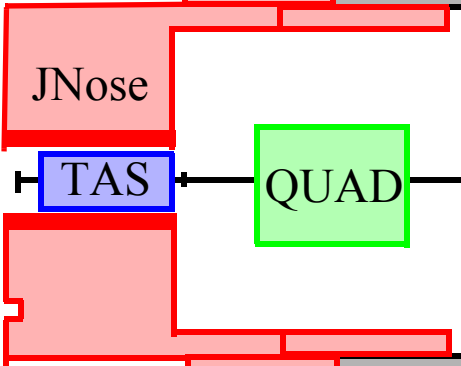
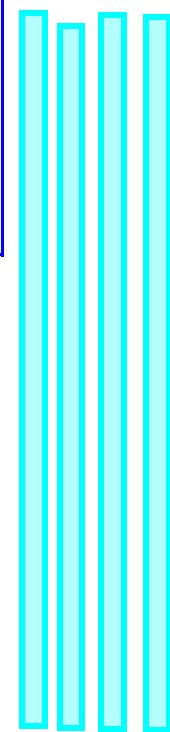
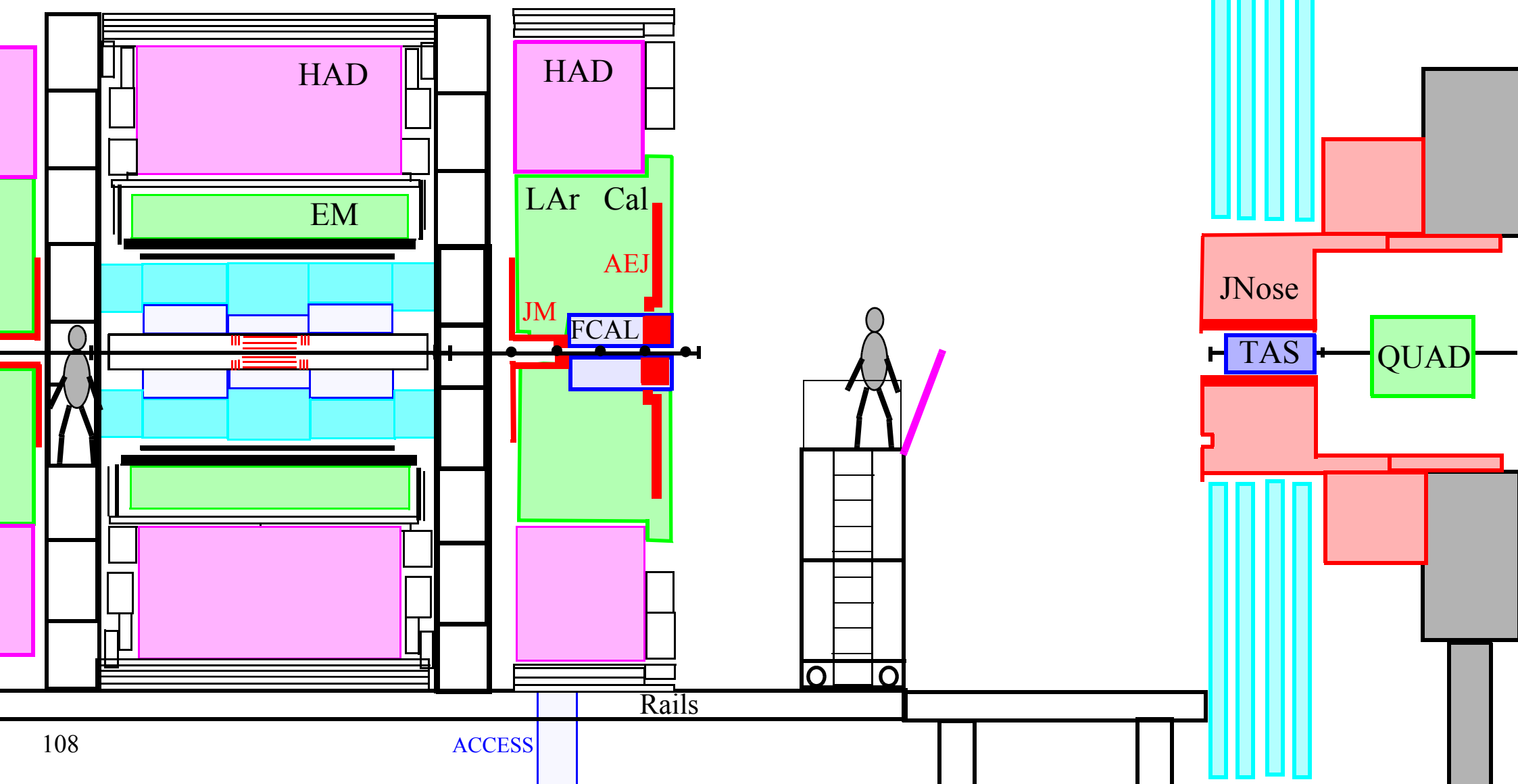
Rails

107

ACCESS

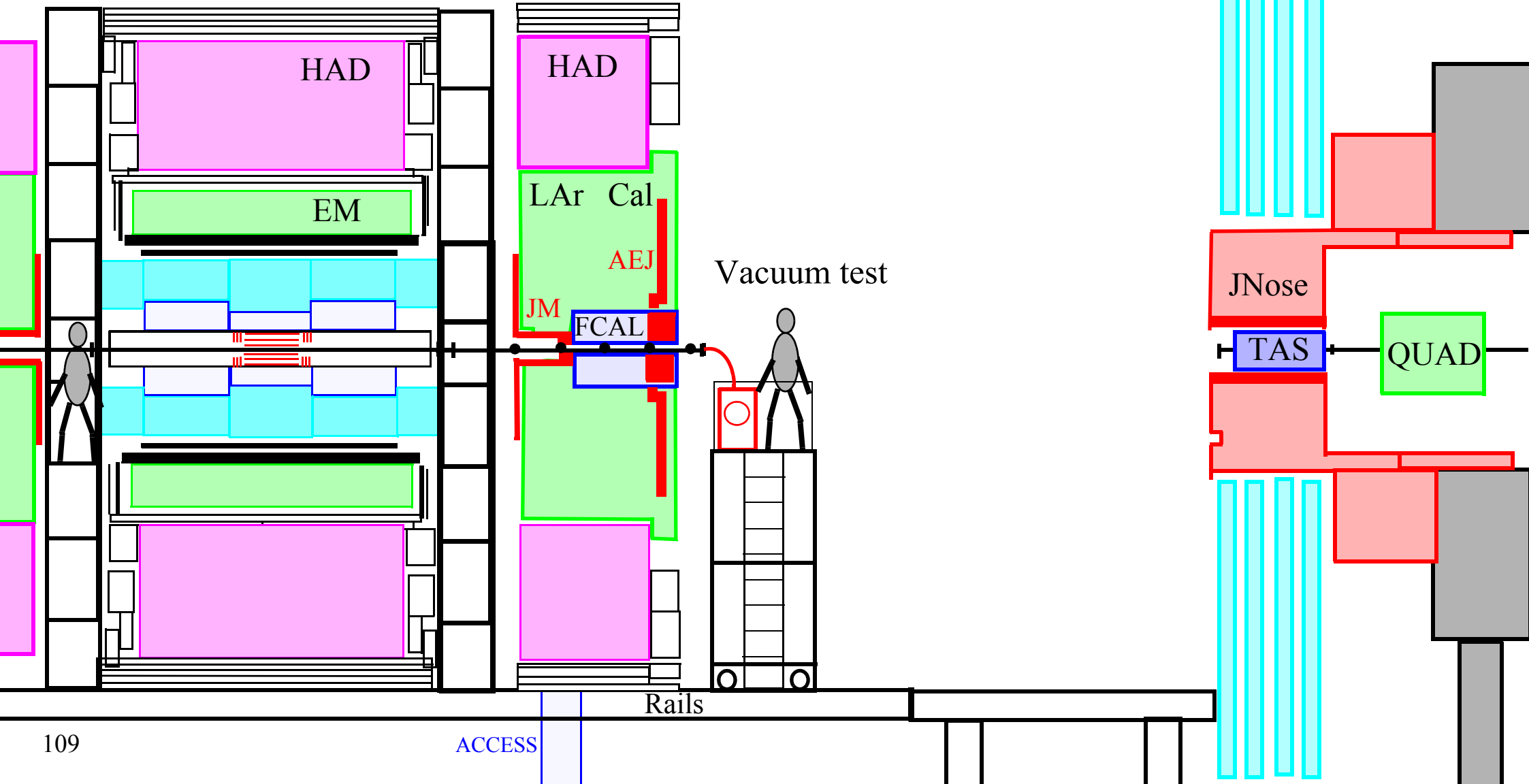
Remove wire support

CRANE ACCESS



Do vacuum test

CRANE ACCESS



Vacuum test

Rails

109

ACCESS

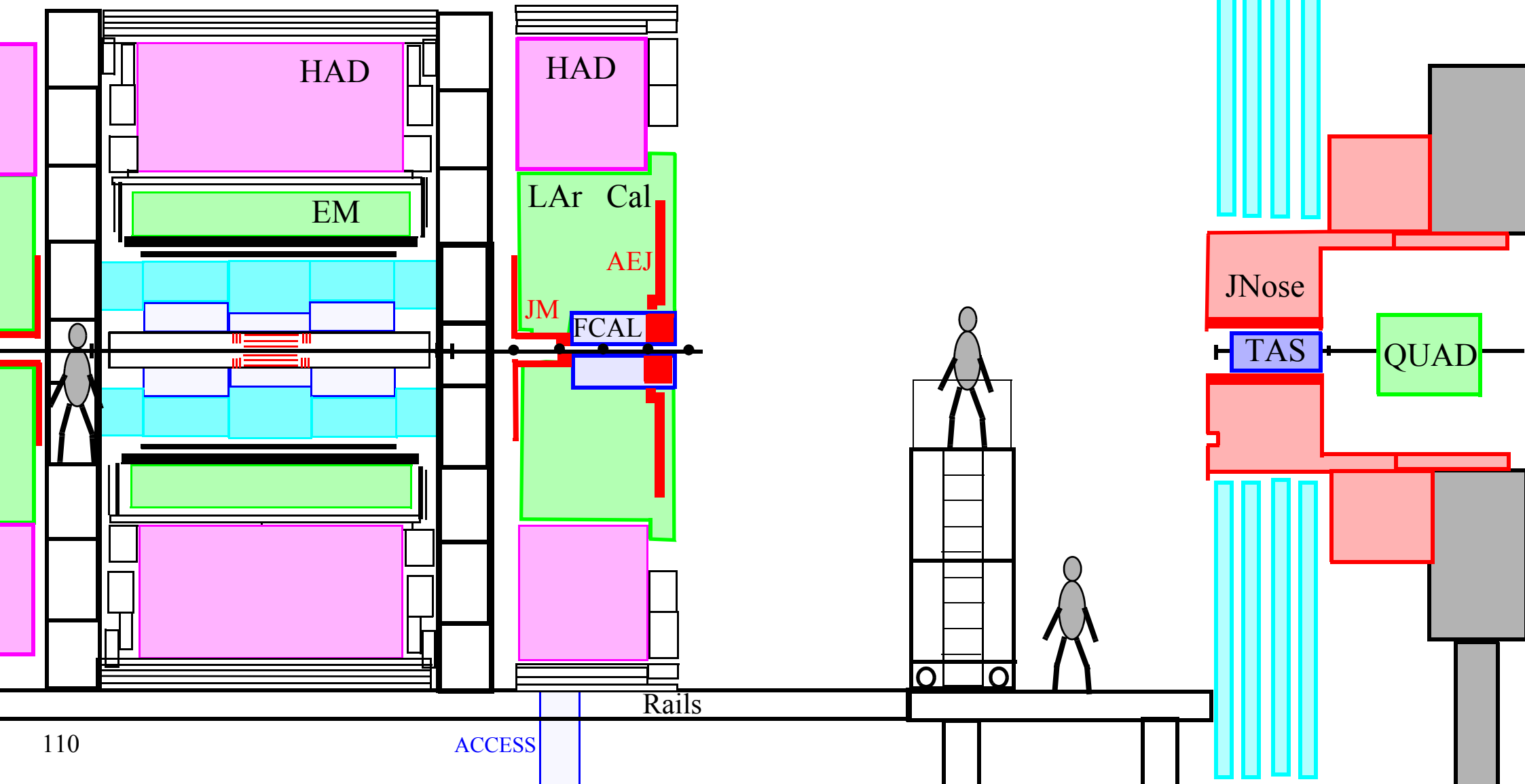
JNose

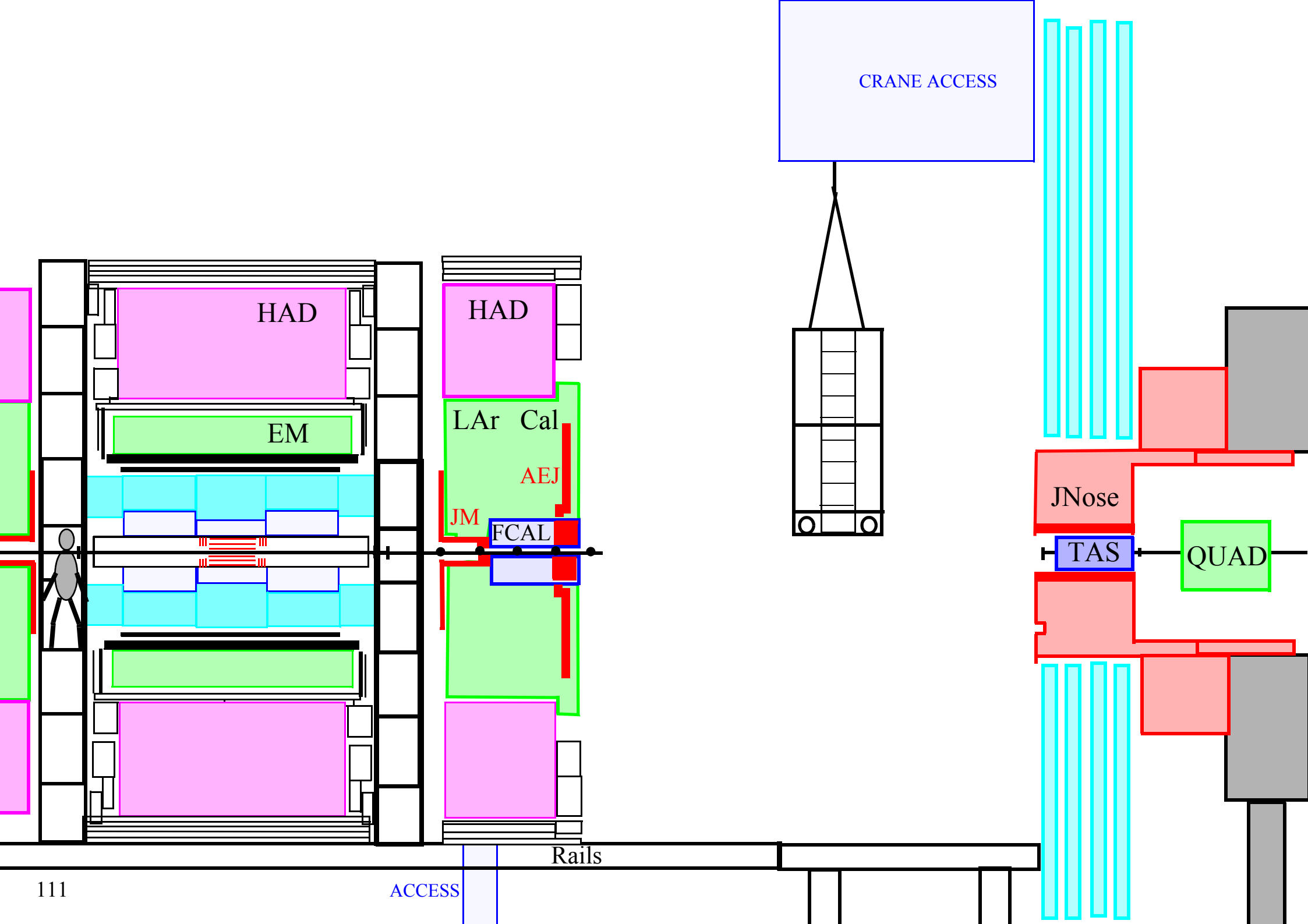
TAS

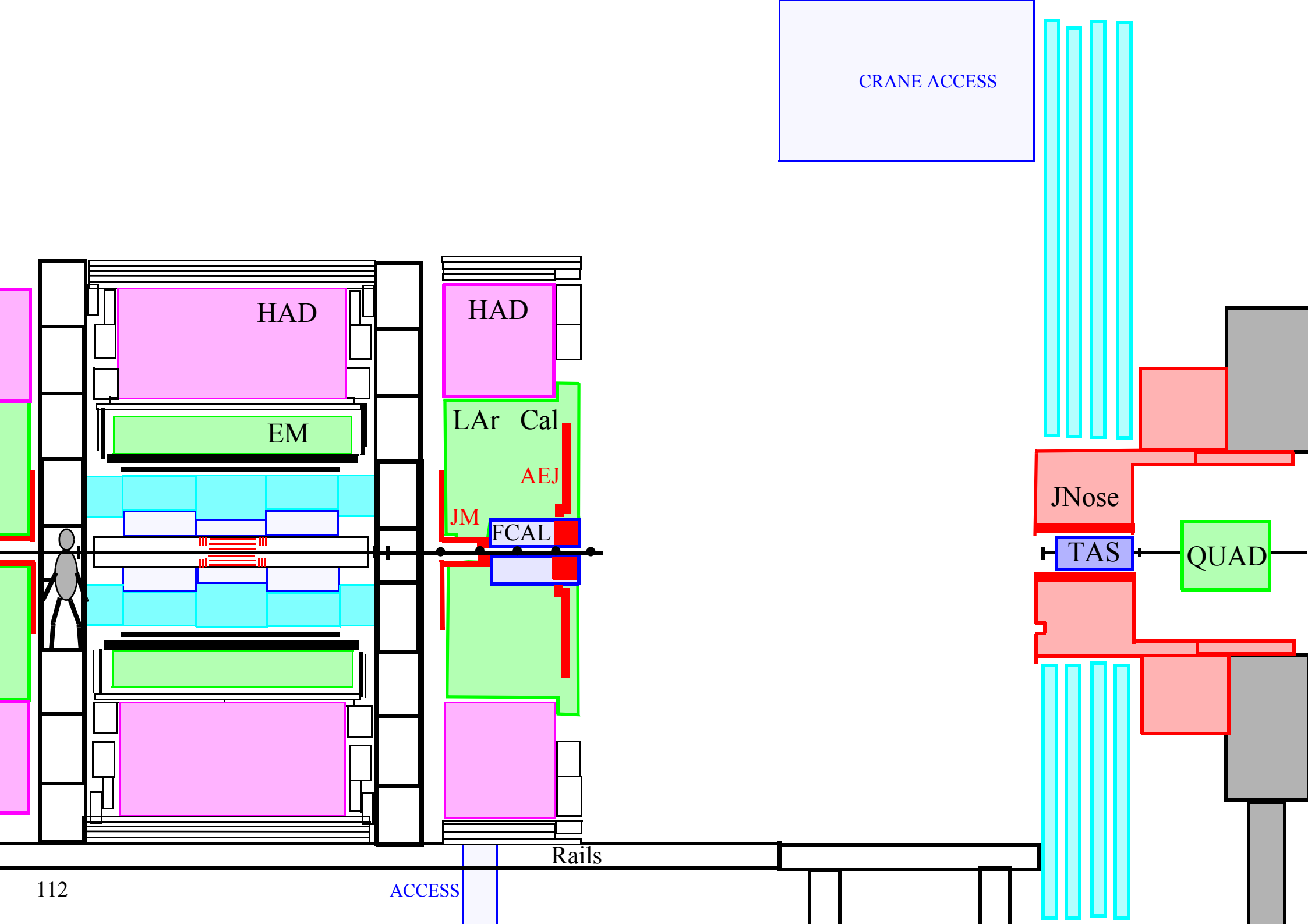
QUAD

Remove minivan

CRANE ACCESS







CRANE ACCESS

HAD

HAD

EM

LAr Cal

AEJ

JM

FCAL

JNose

TAS

QUAD

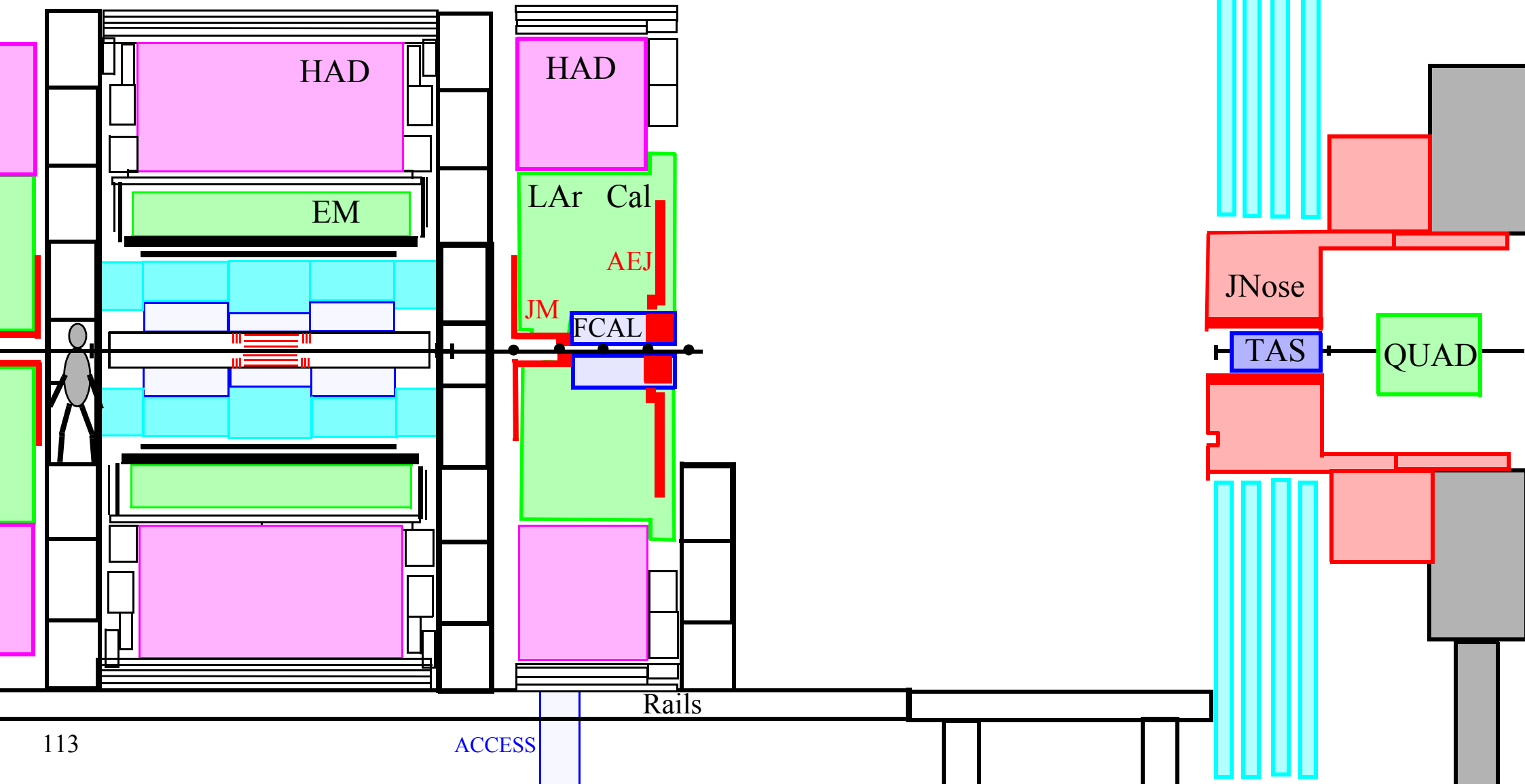
Rails

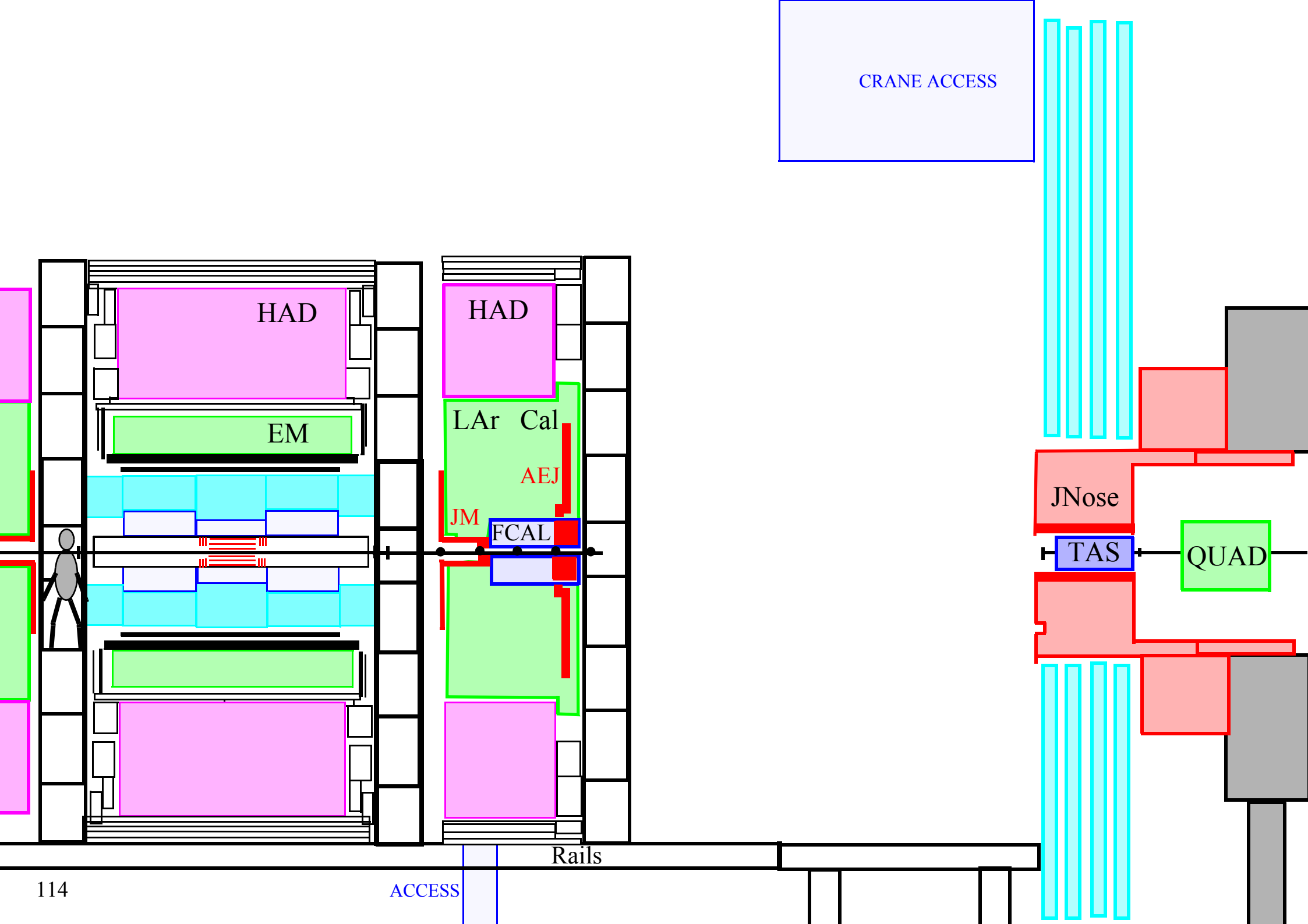
ACCESS

112

Install scaffolding

CRANE ACCESS





CRANE ACCESS

HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

JNose

TAS

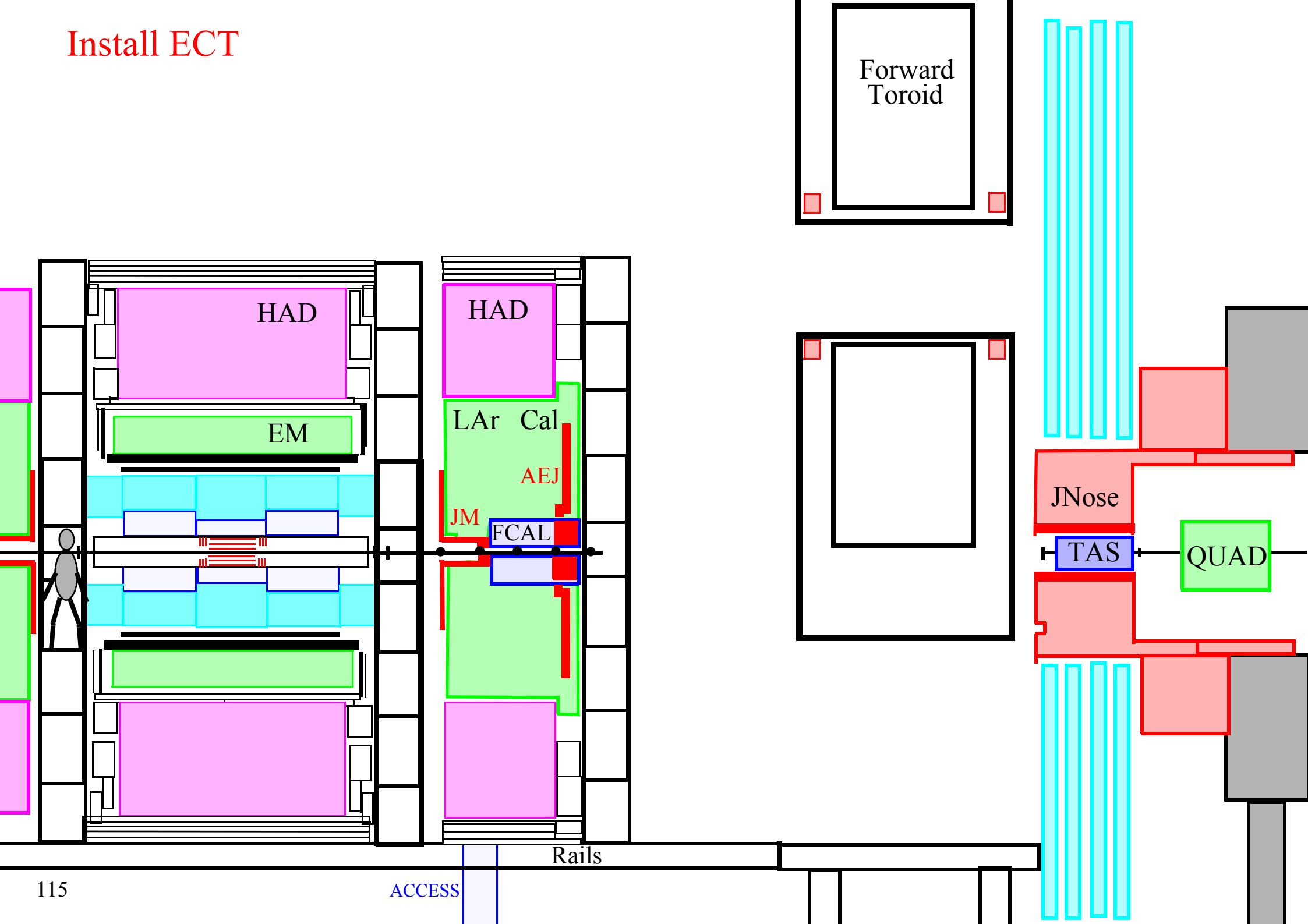
QUAD

Rails

ACCESS

114

Install ECT



Forward
Toroid

HAD

EM

HAD

LAr Cal

AEJ

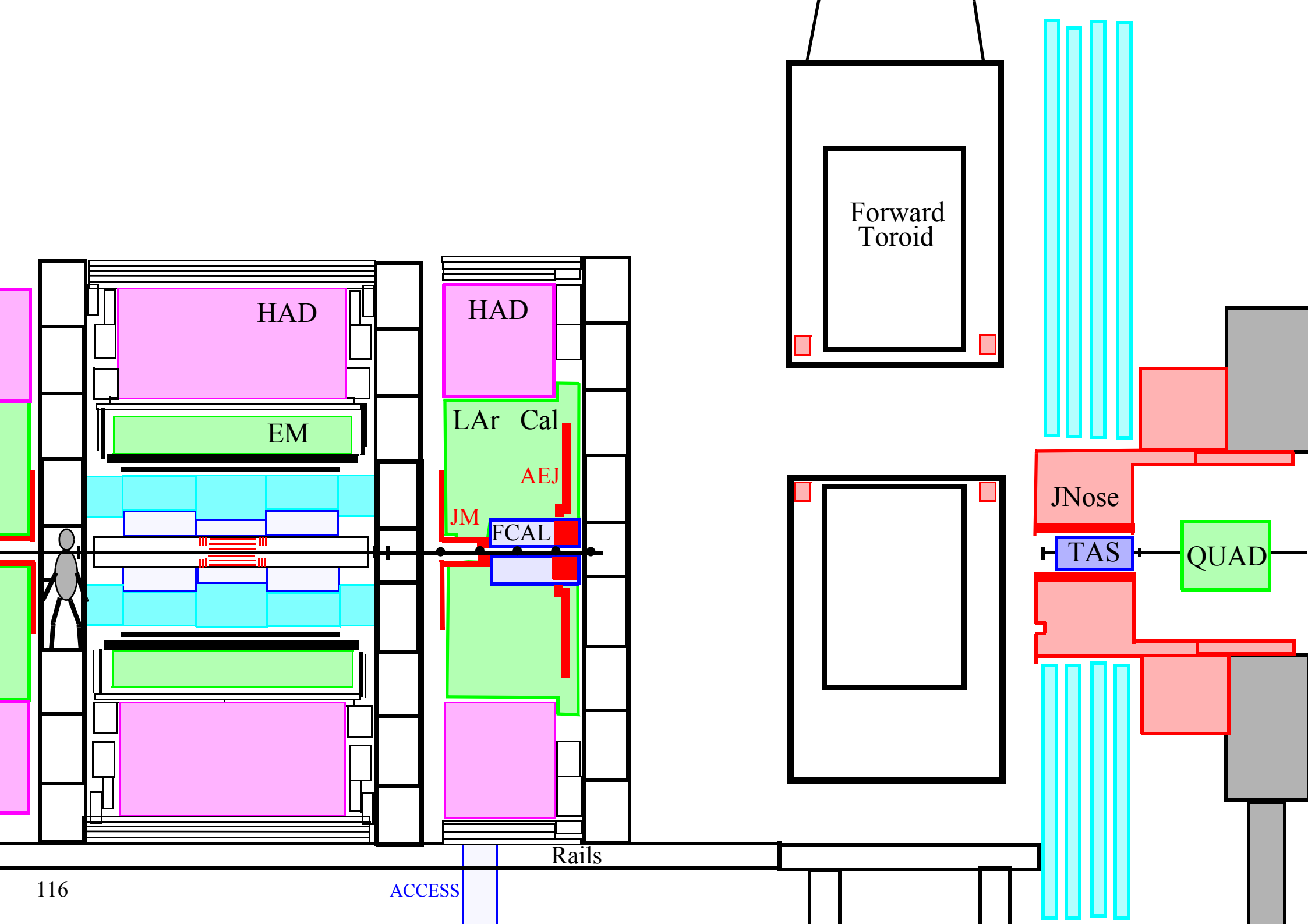
JM

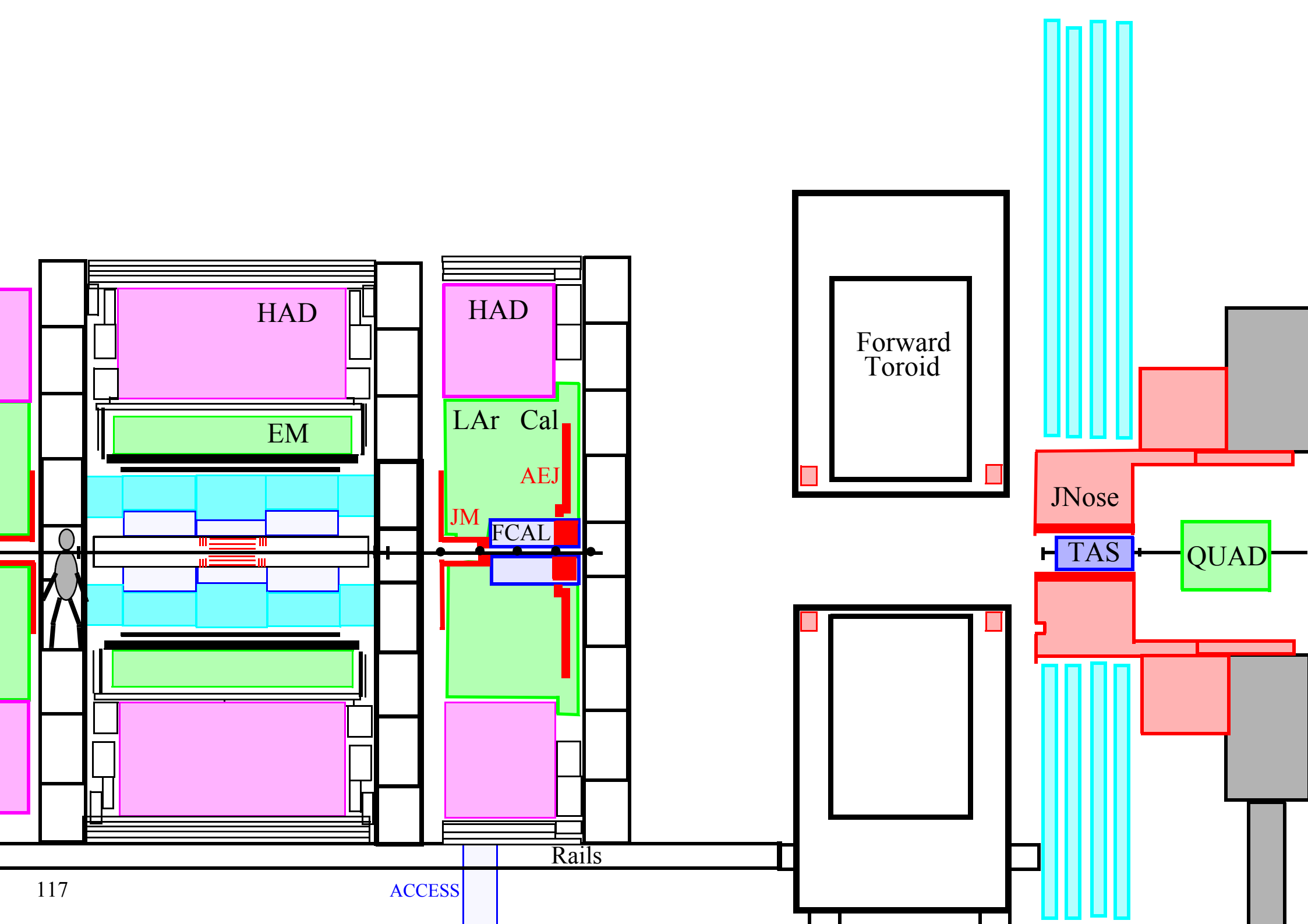
FCAL

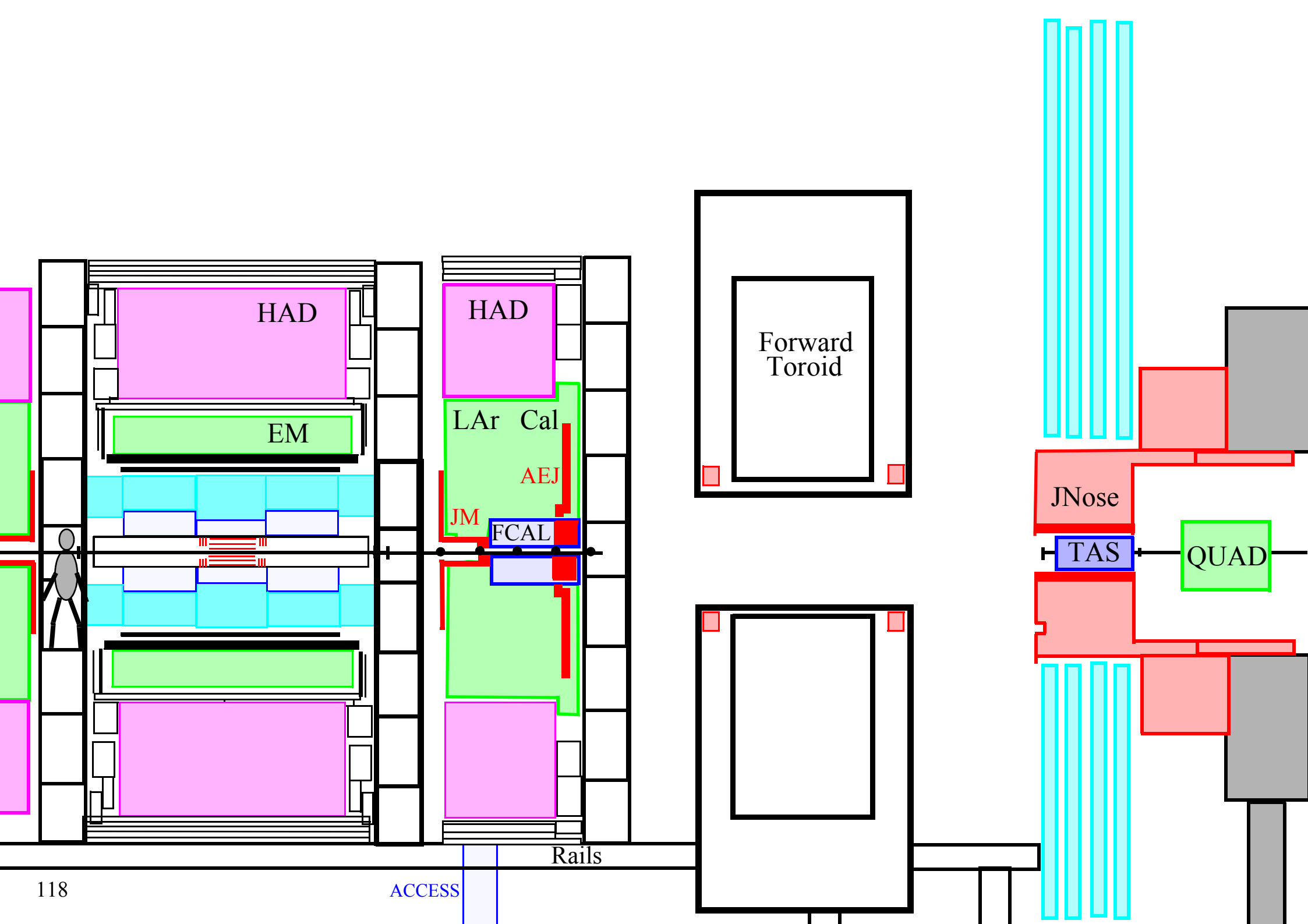
JNose

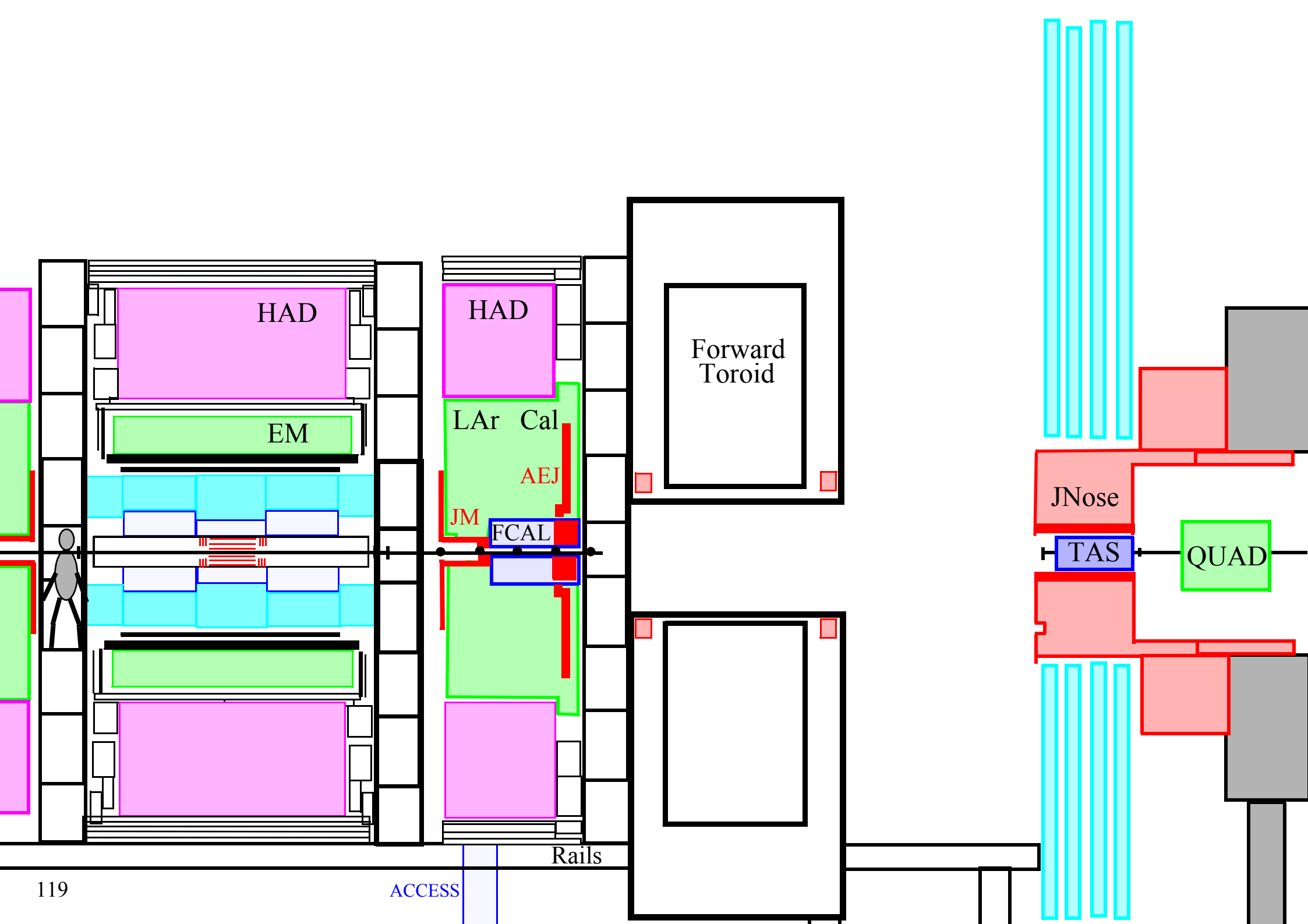
TAS

QUAD

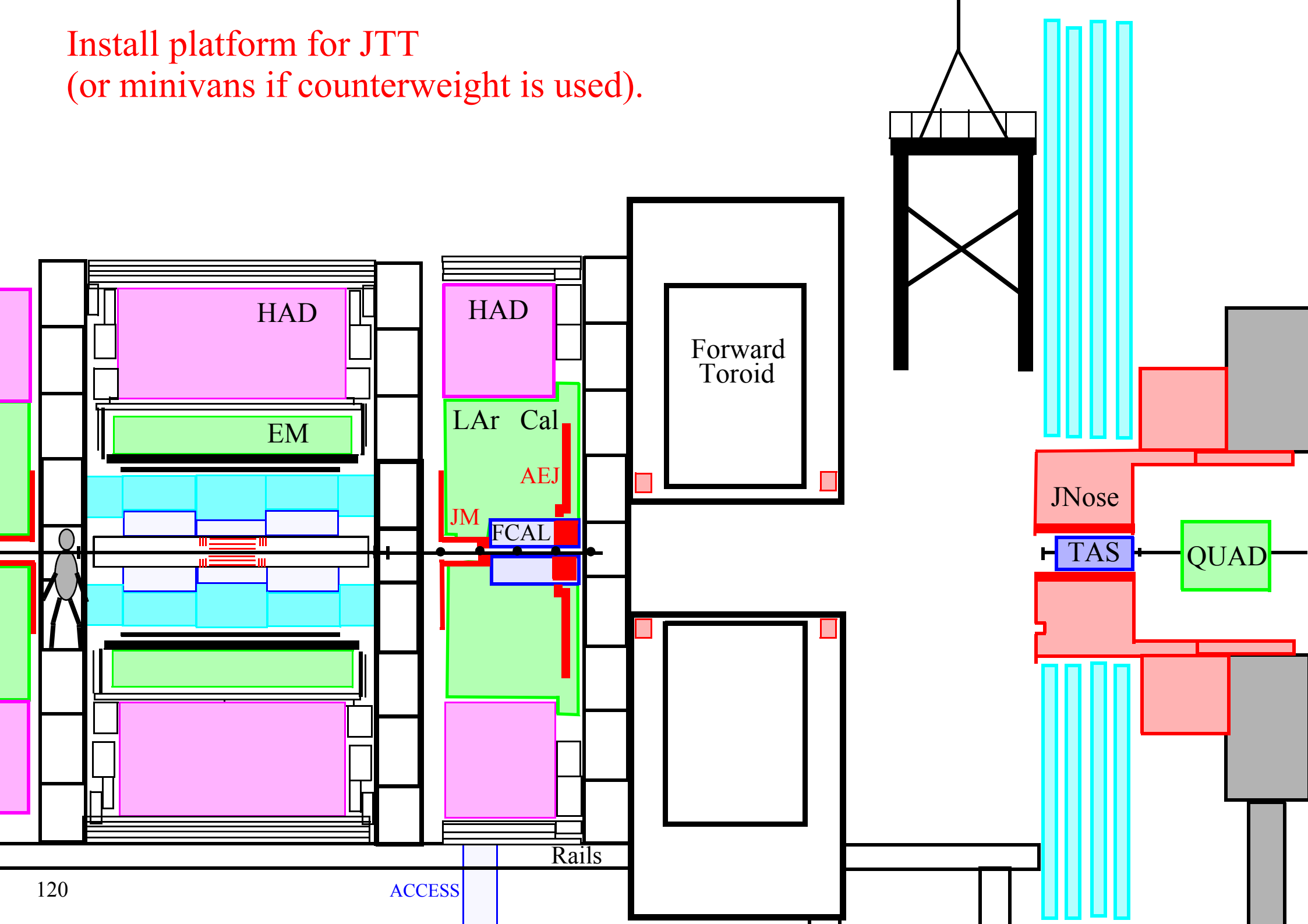


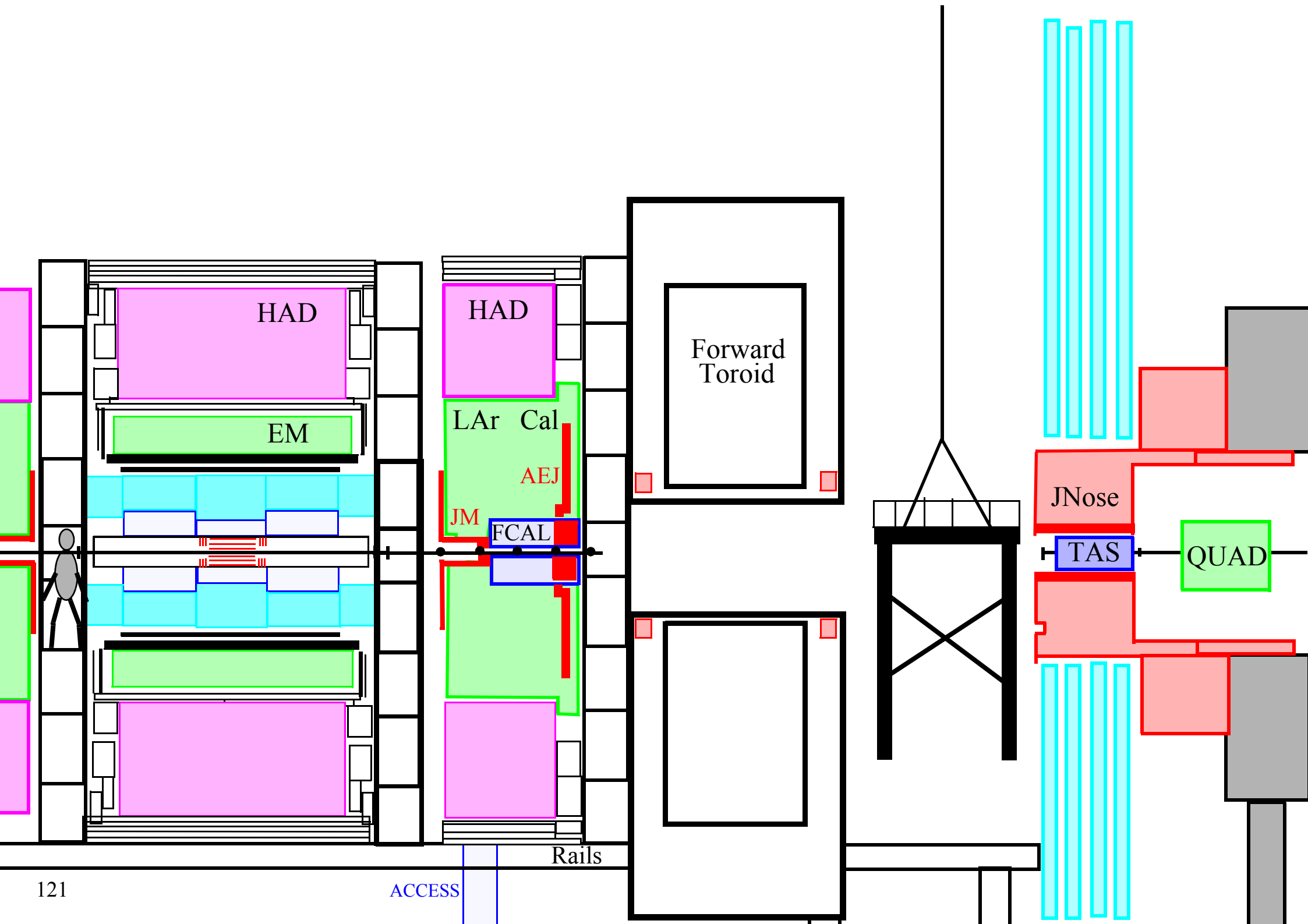


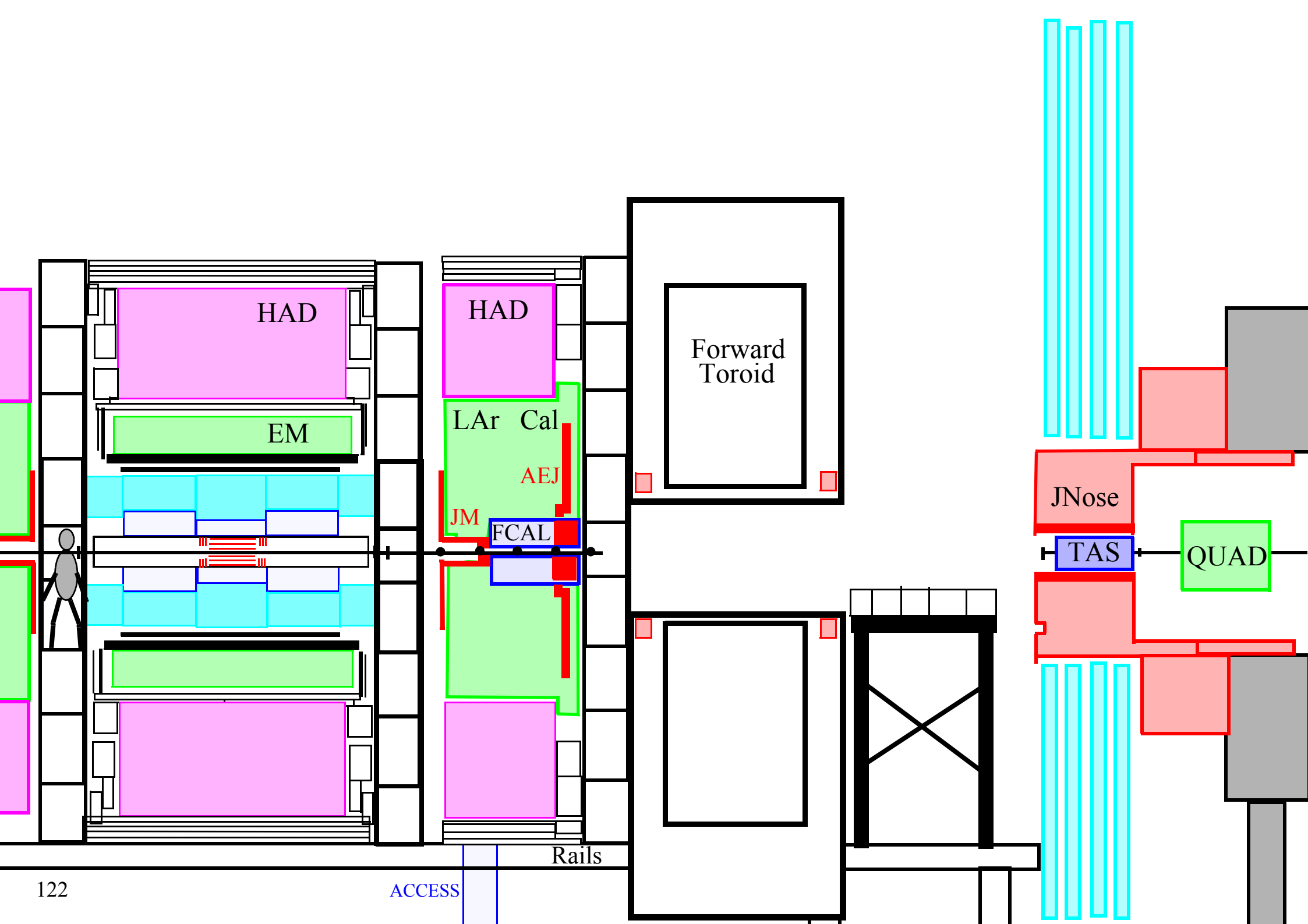




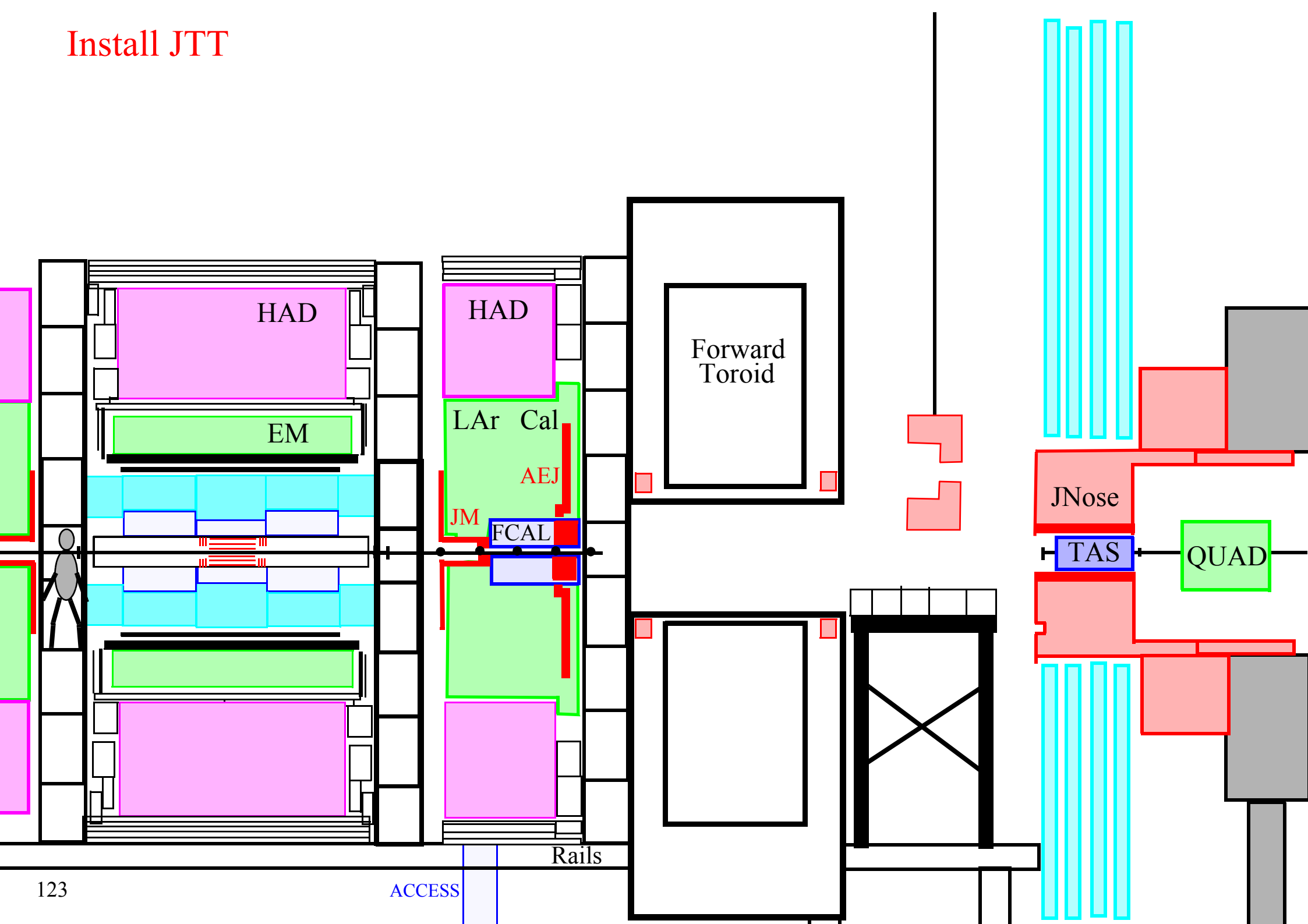
Install platform for JTT
(or minivans if counterweight is used).

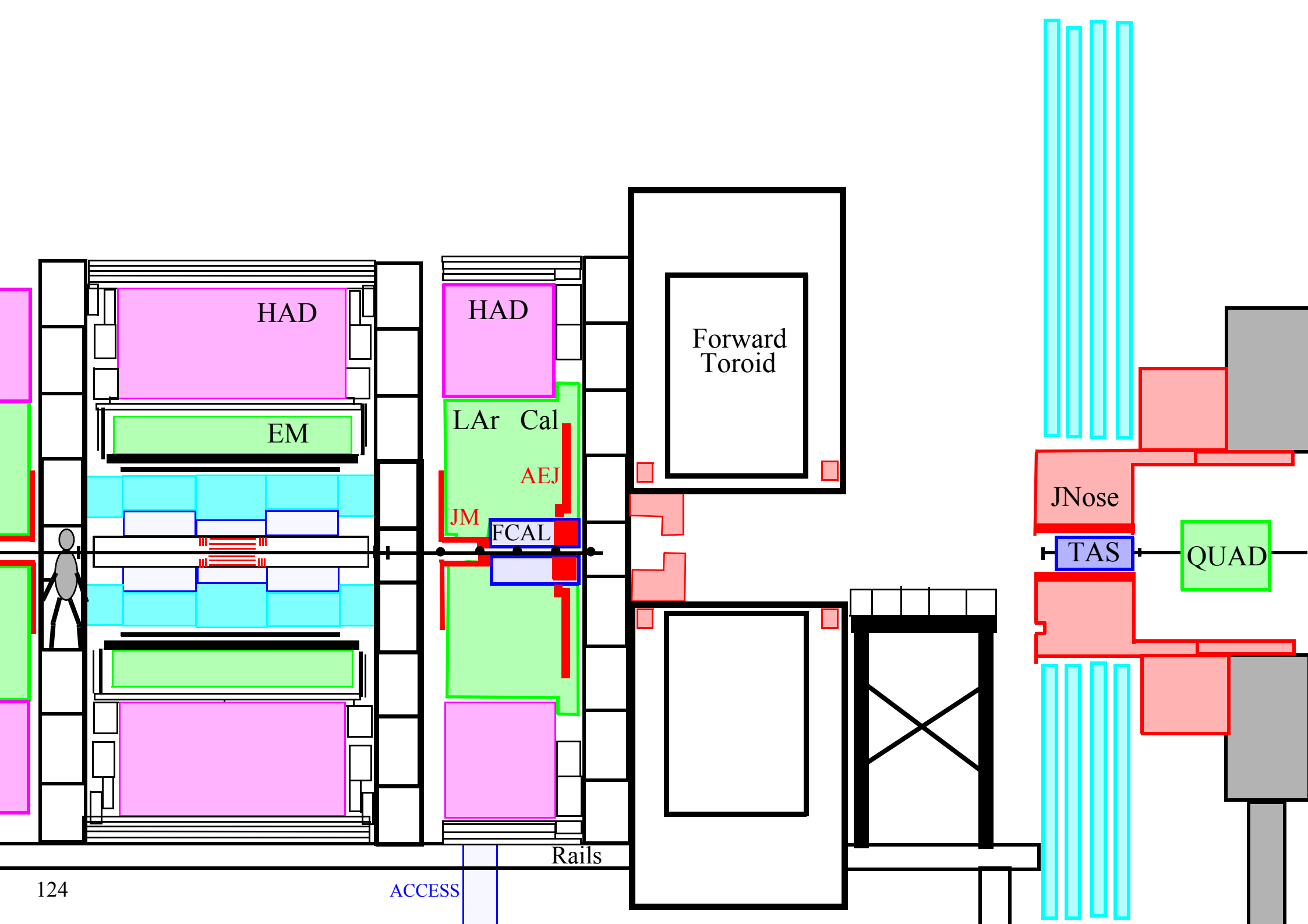


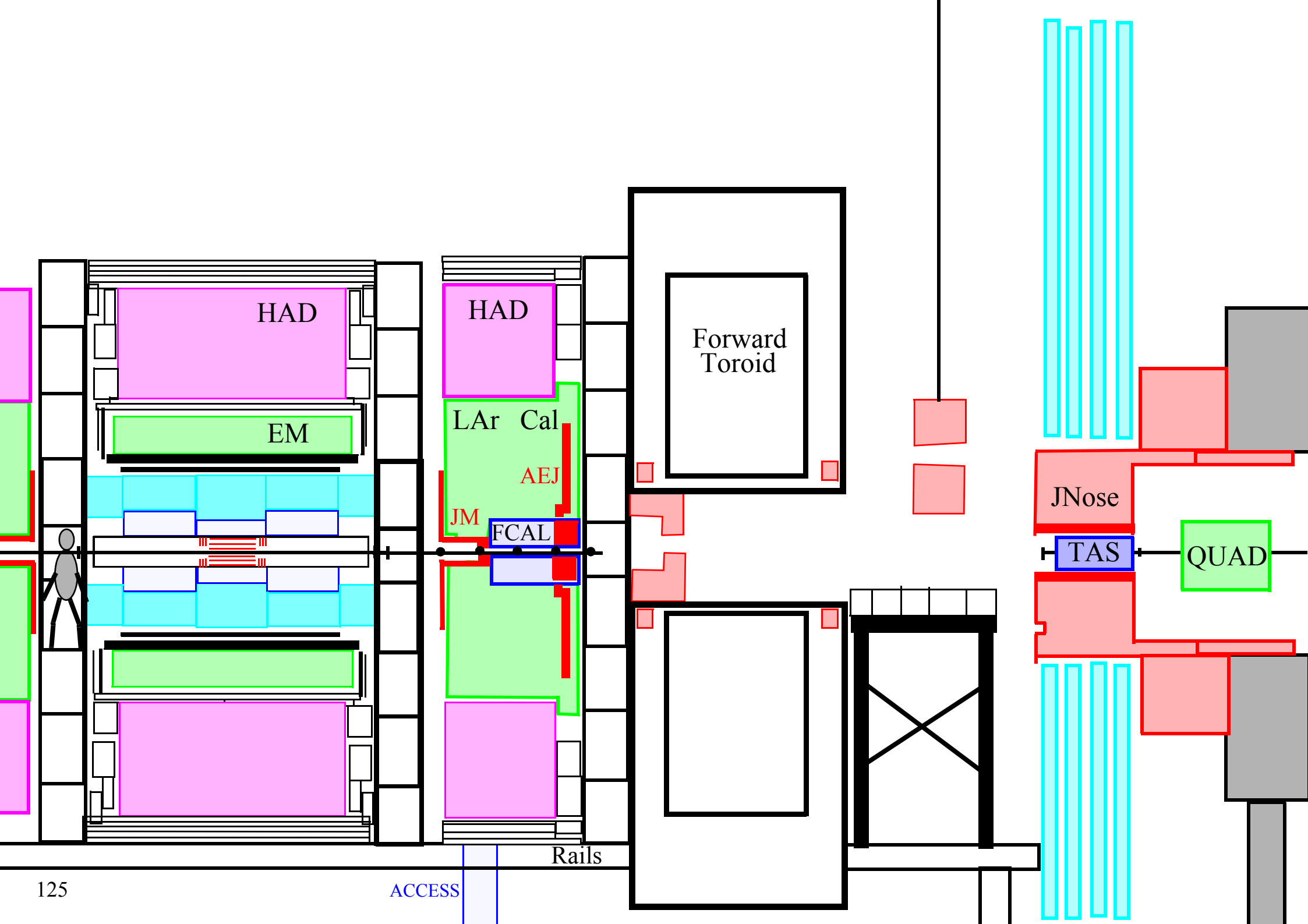


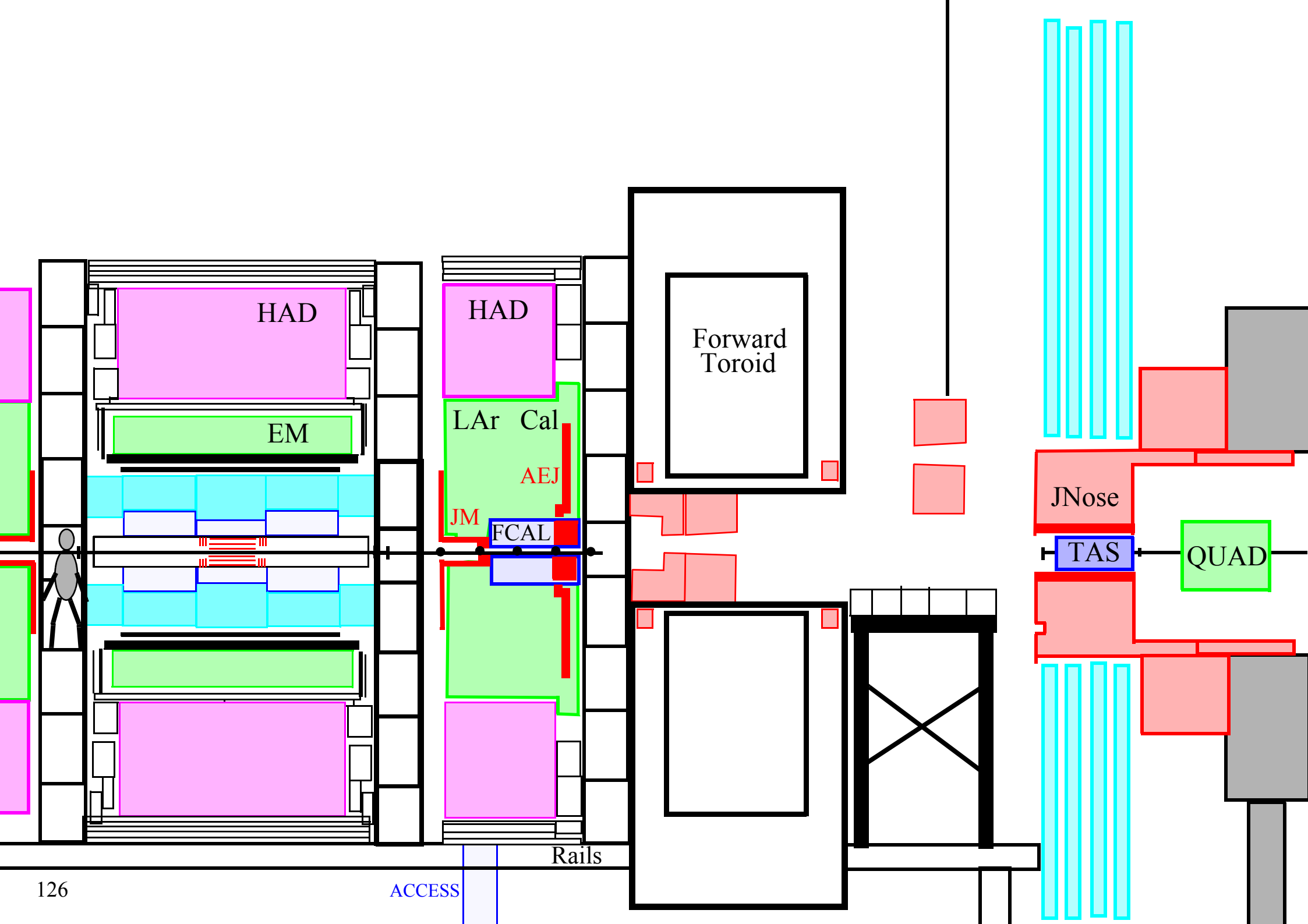


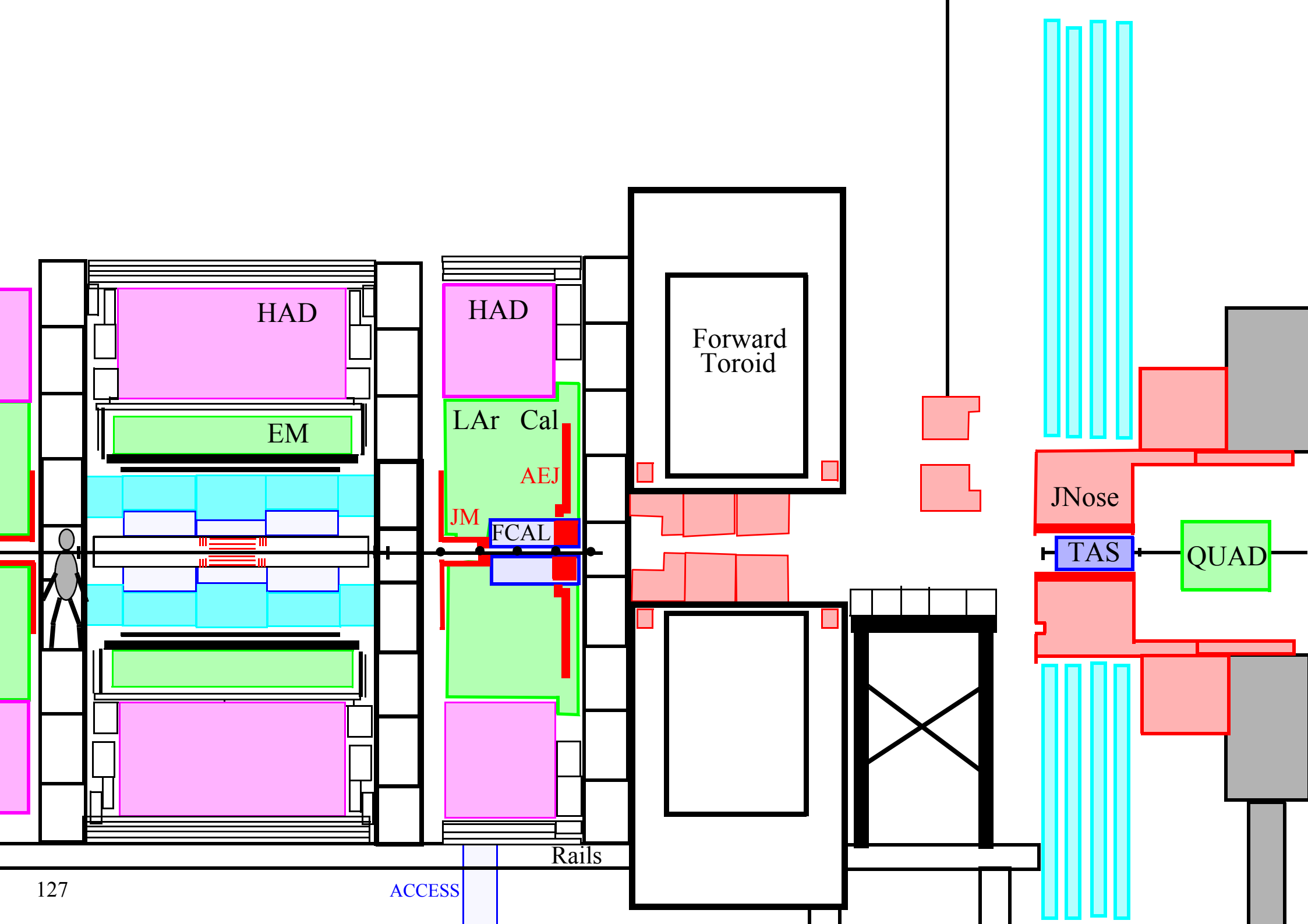
Install JTT

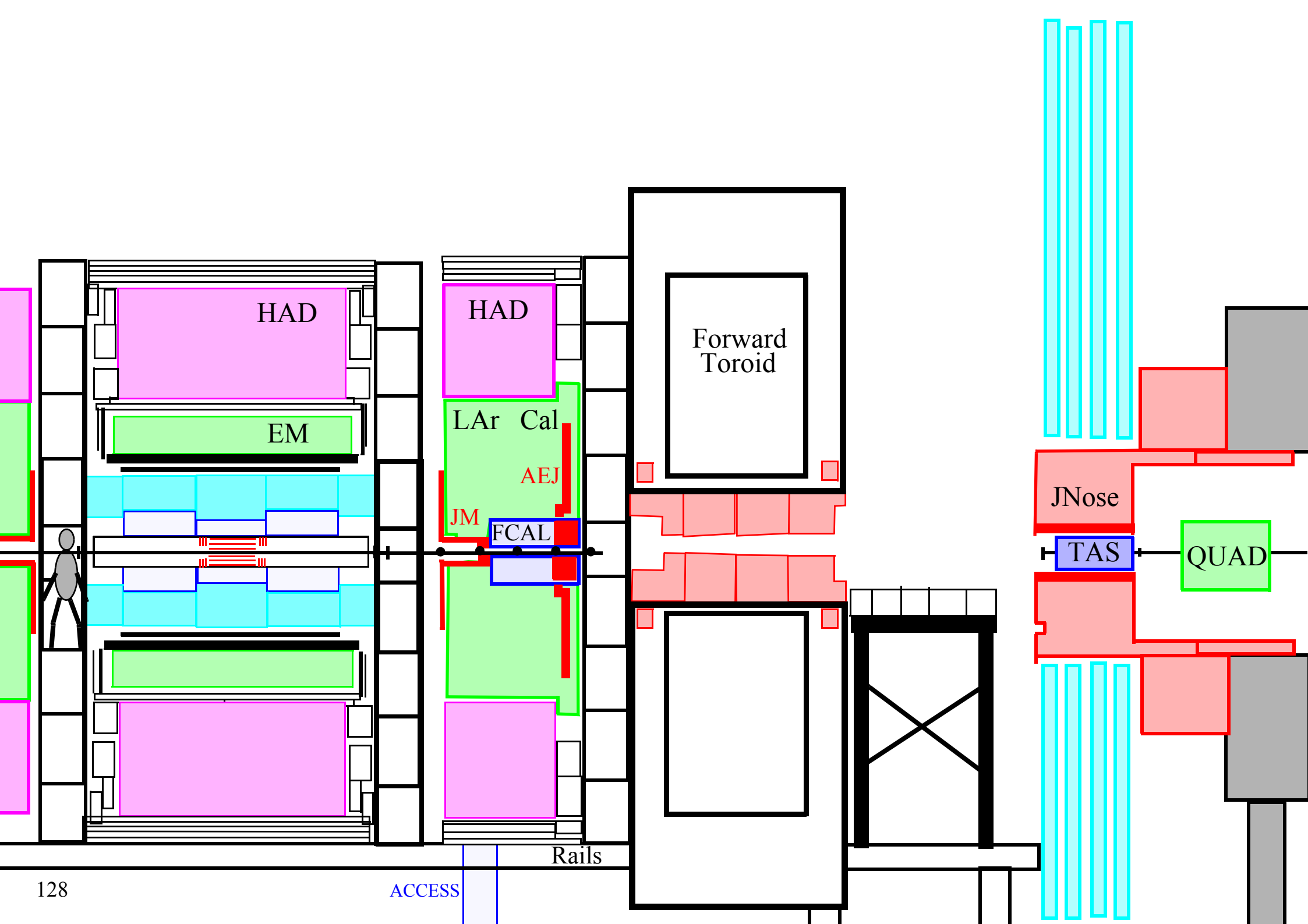




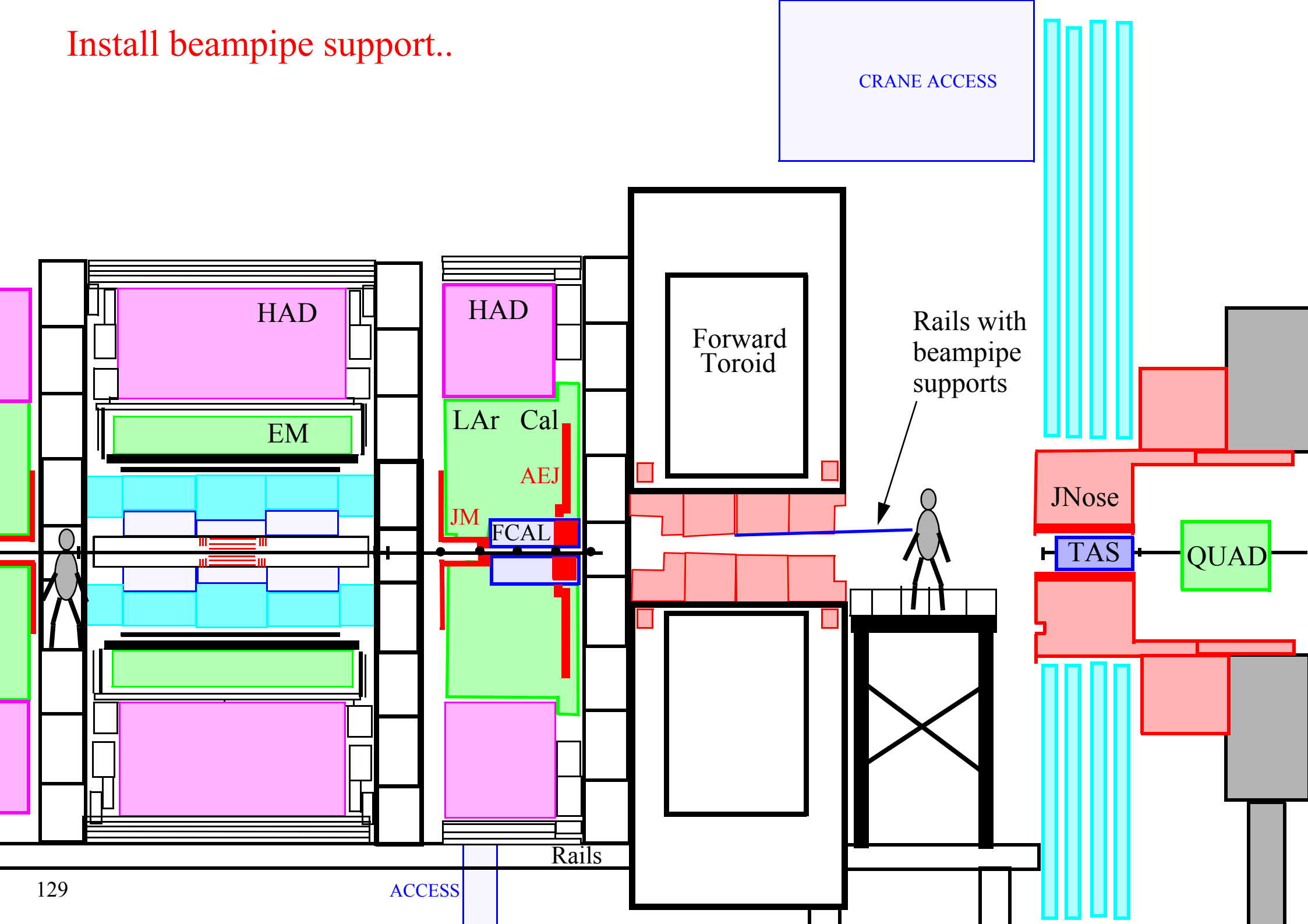


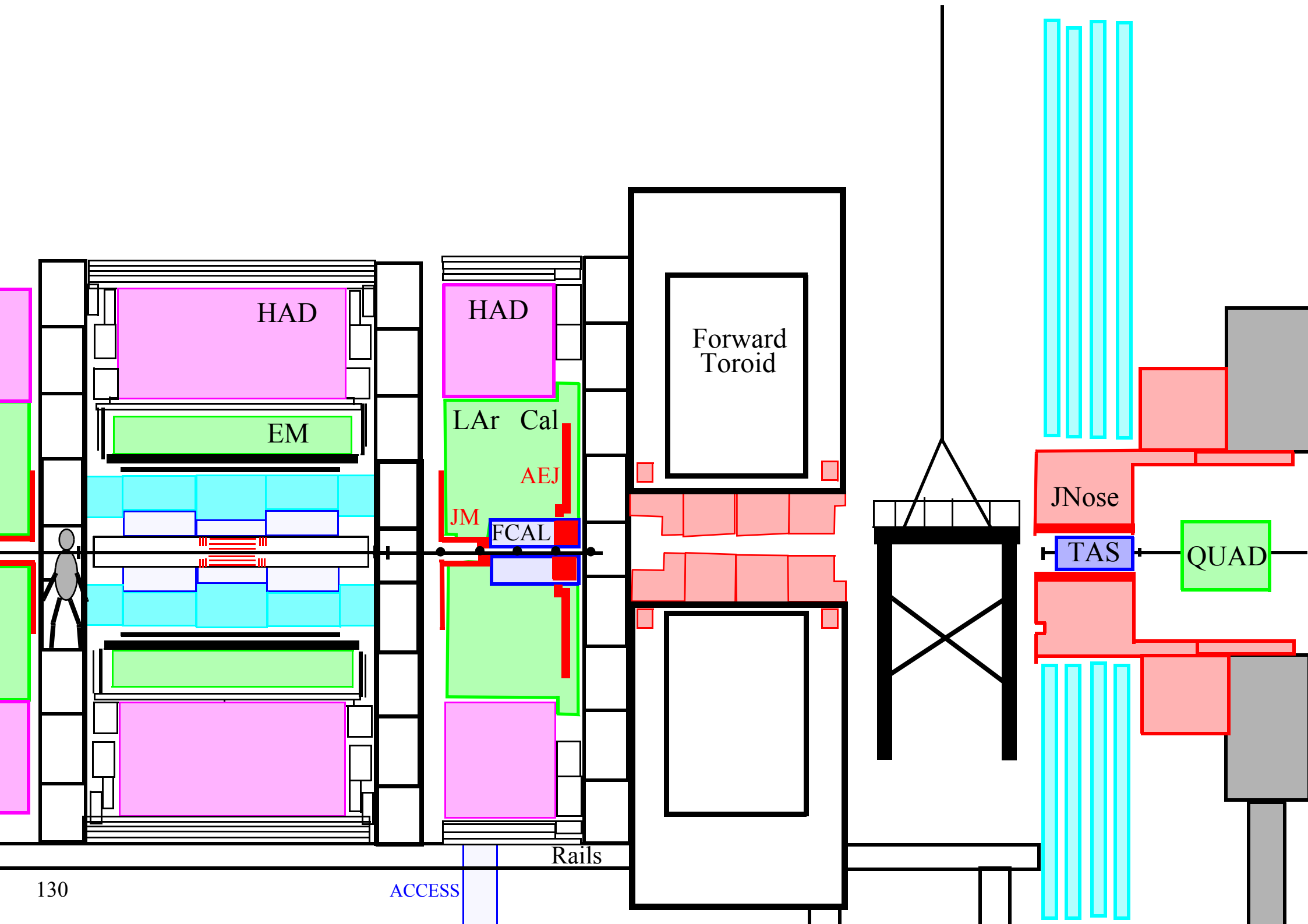


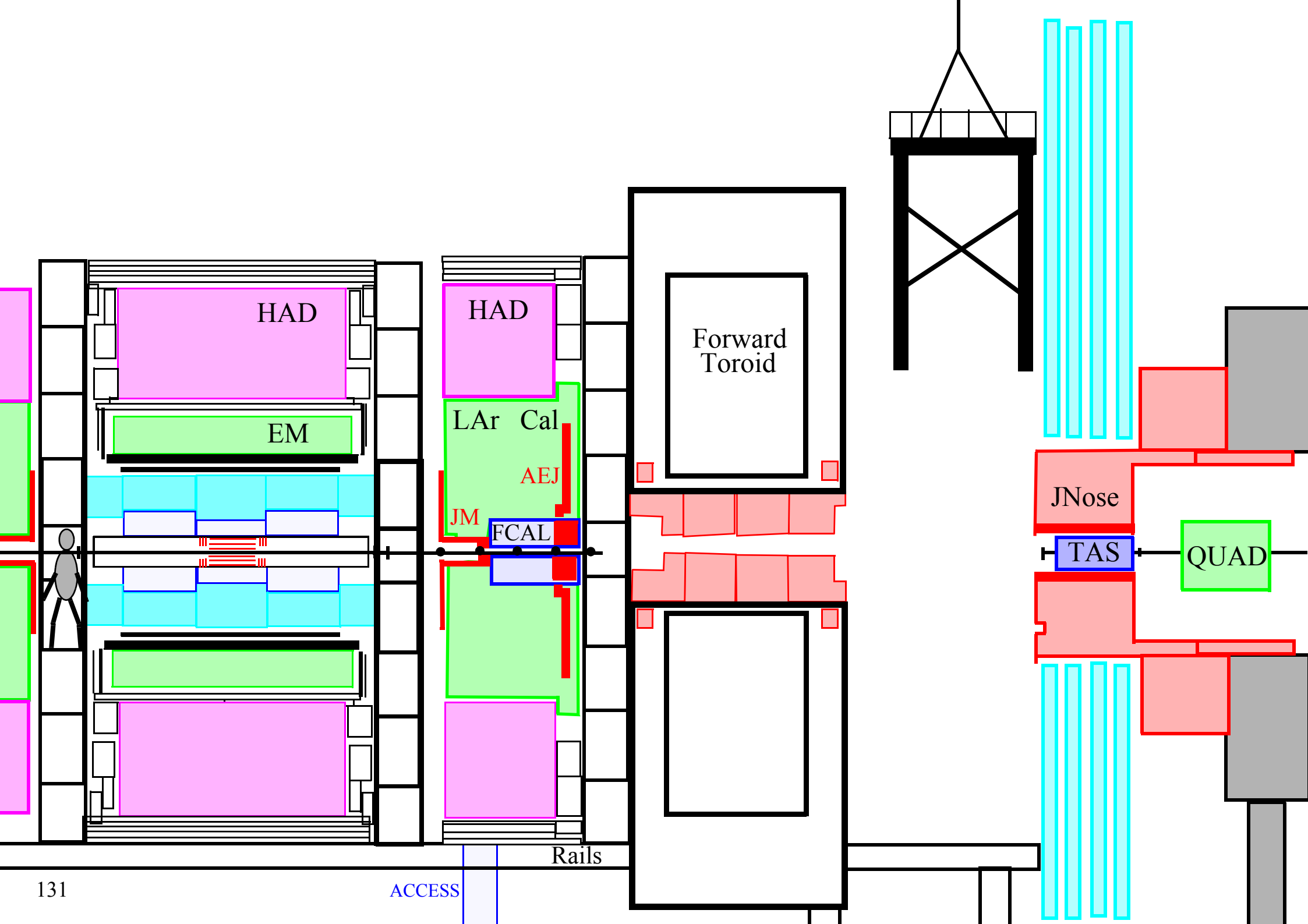


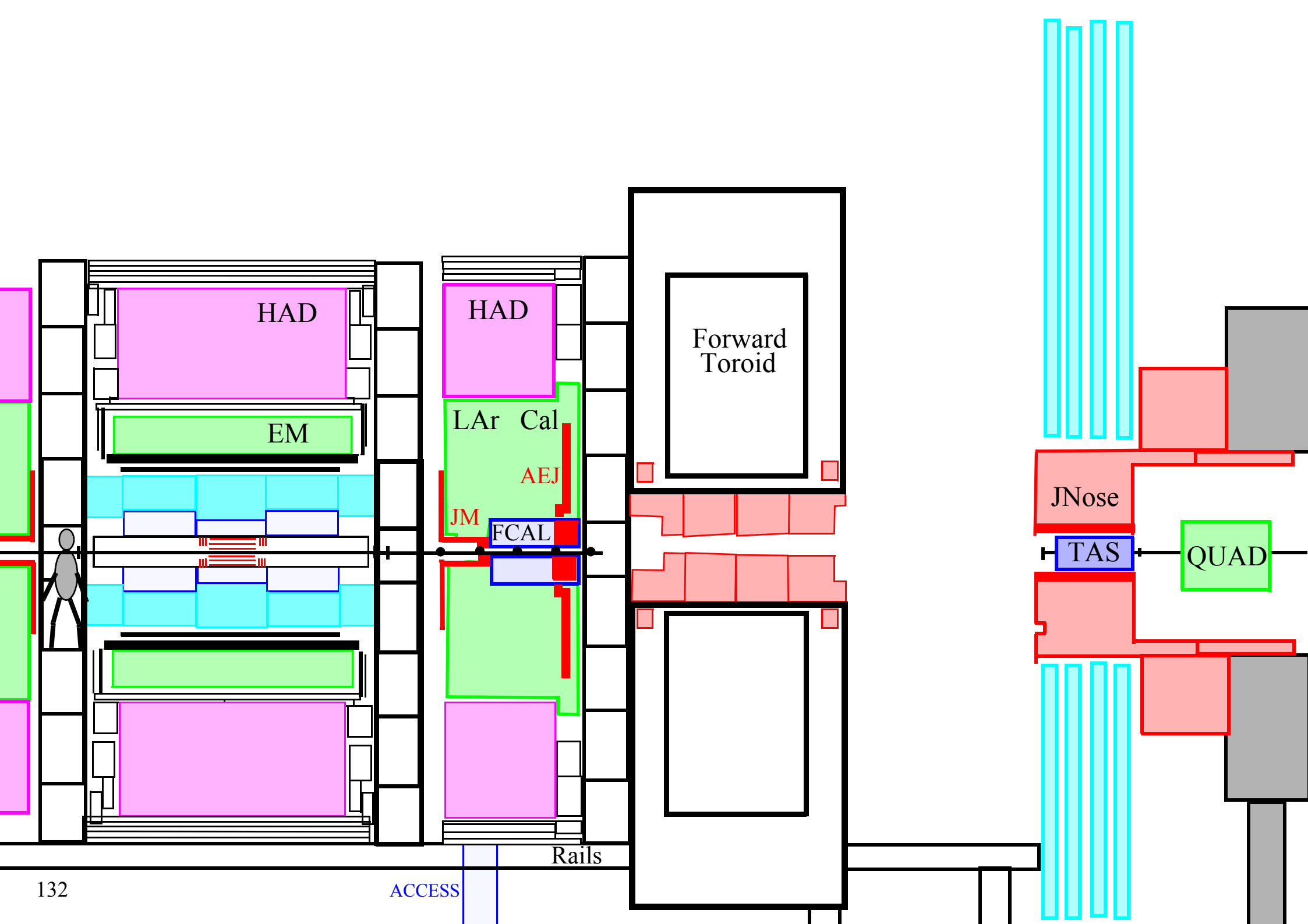


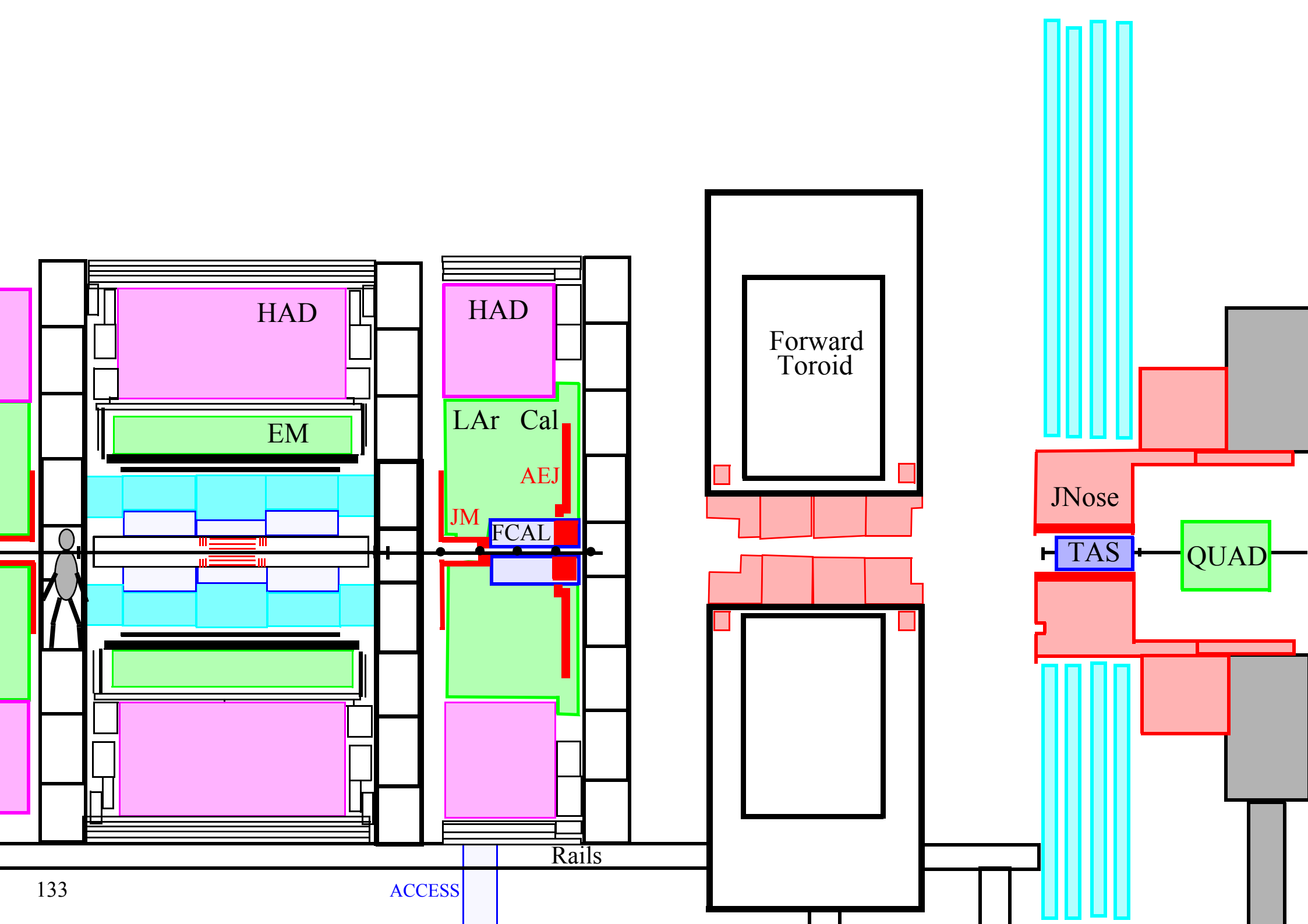
Install beampipe support..

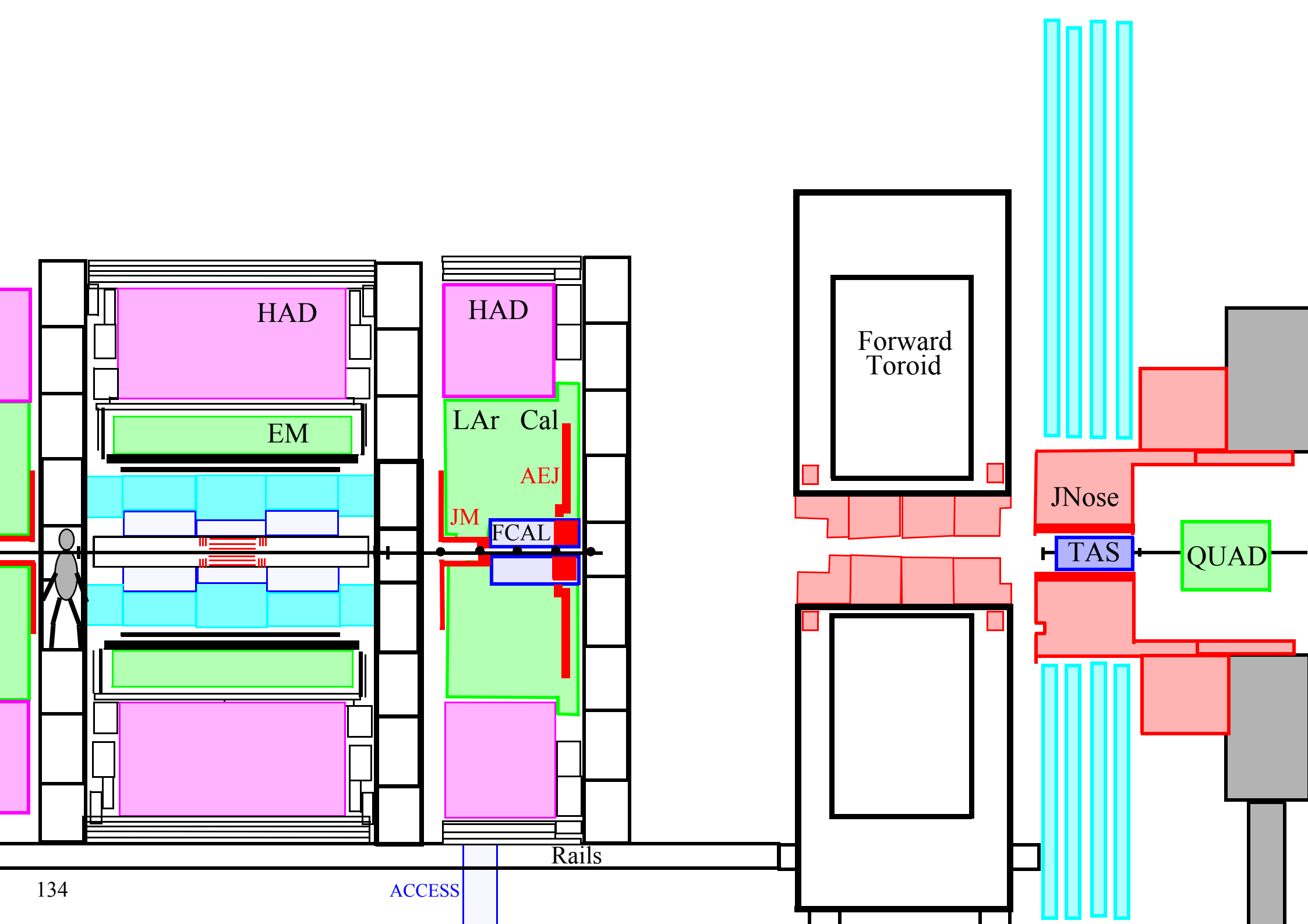




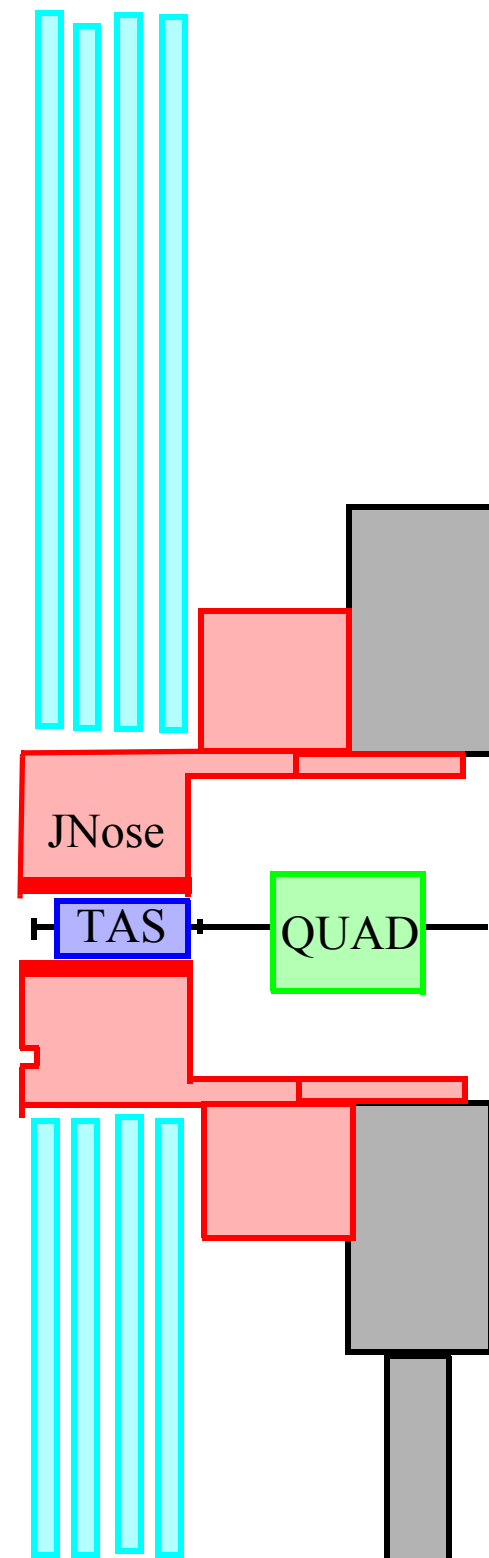
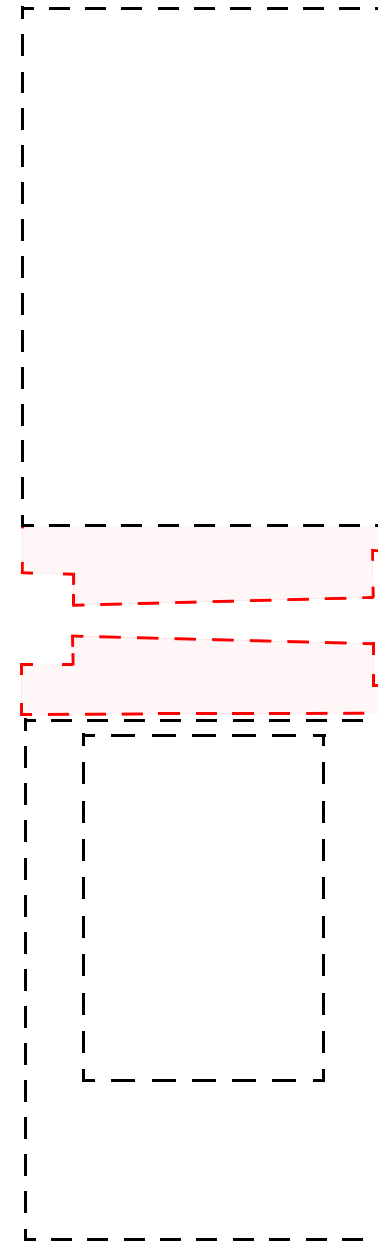
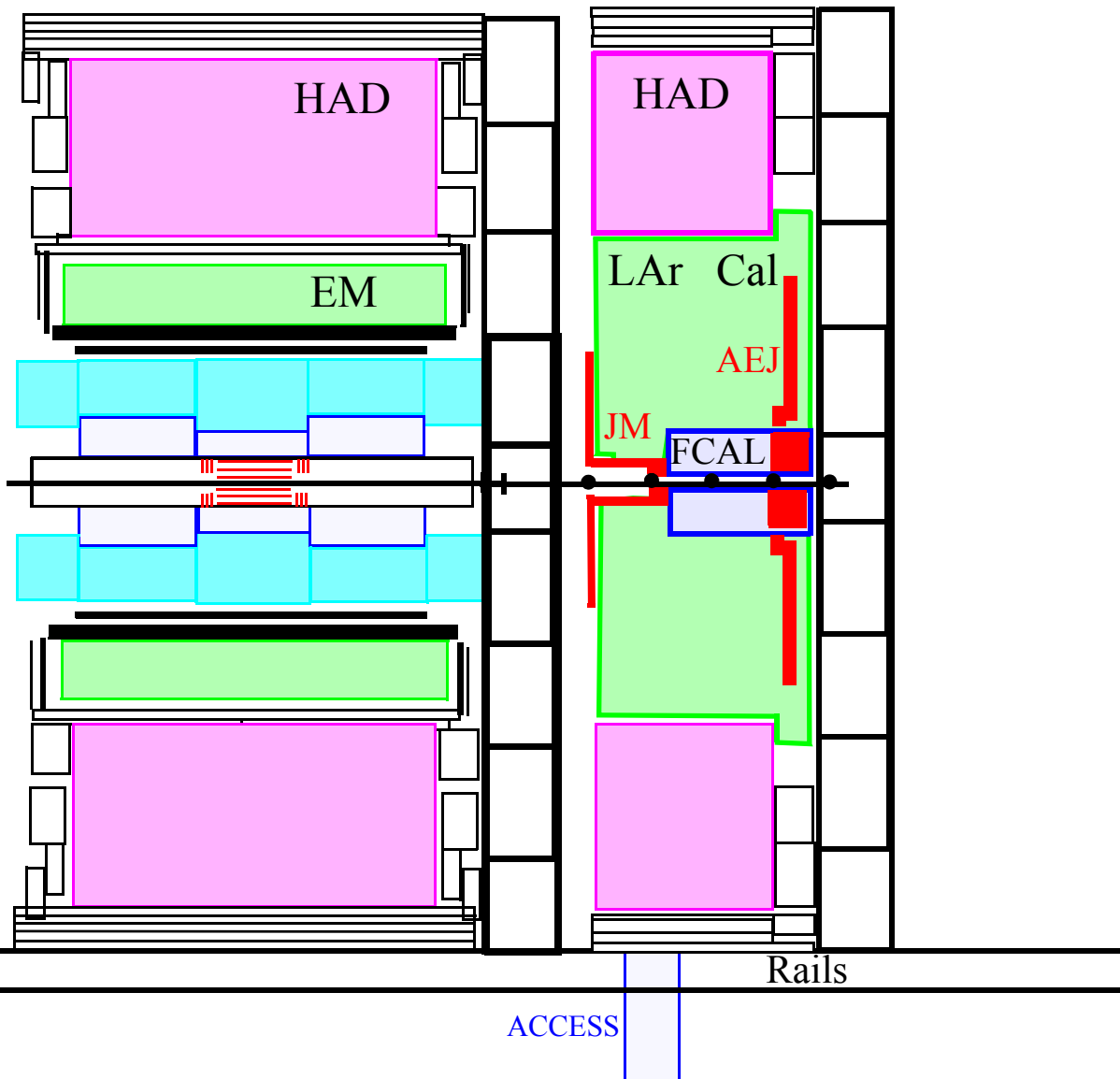




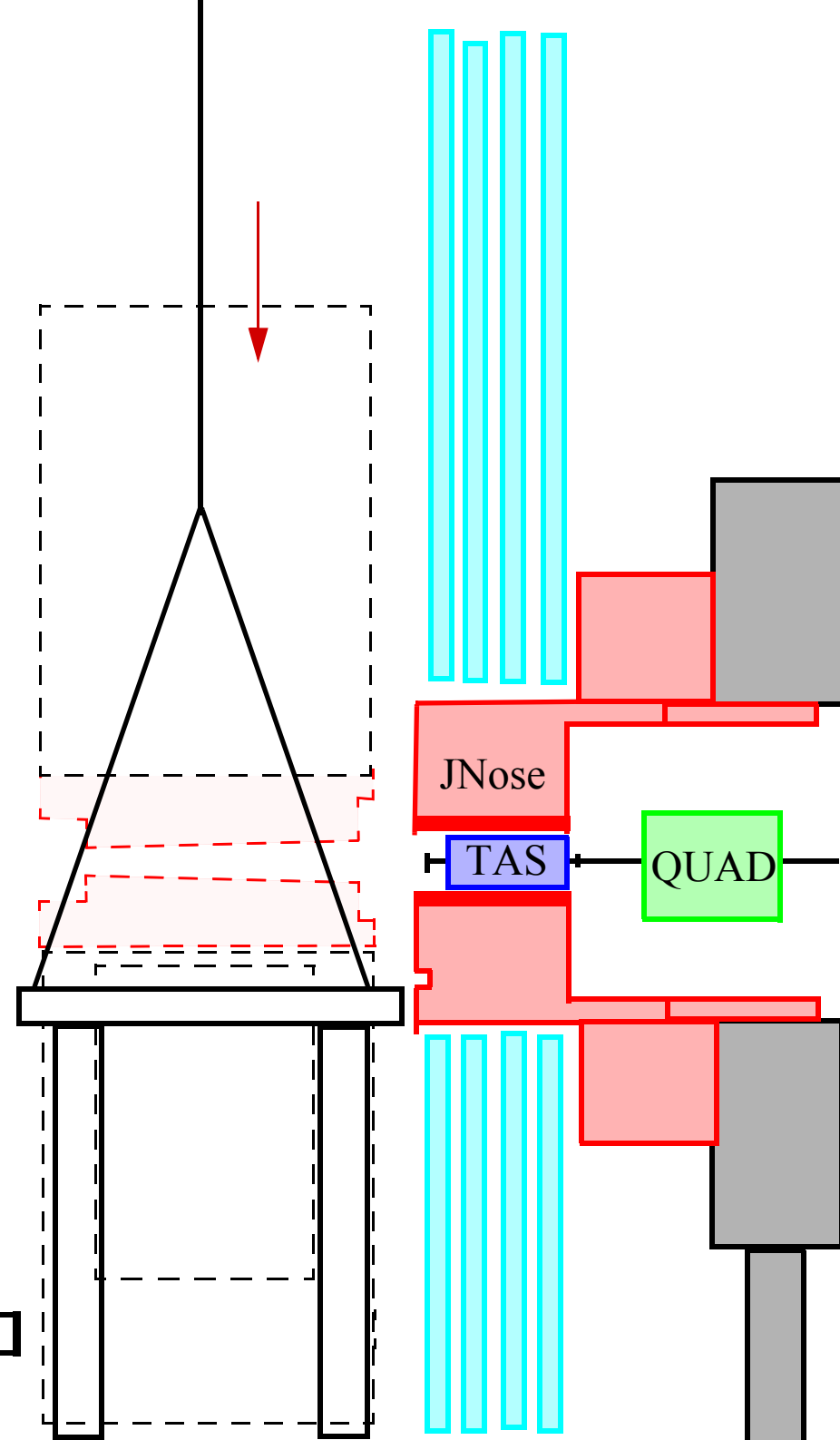
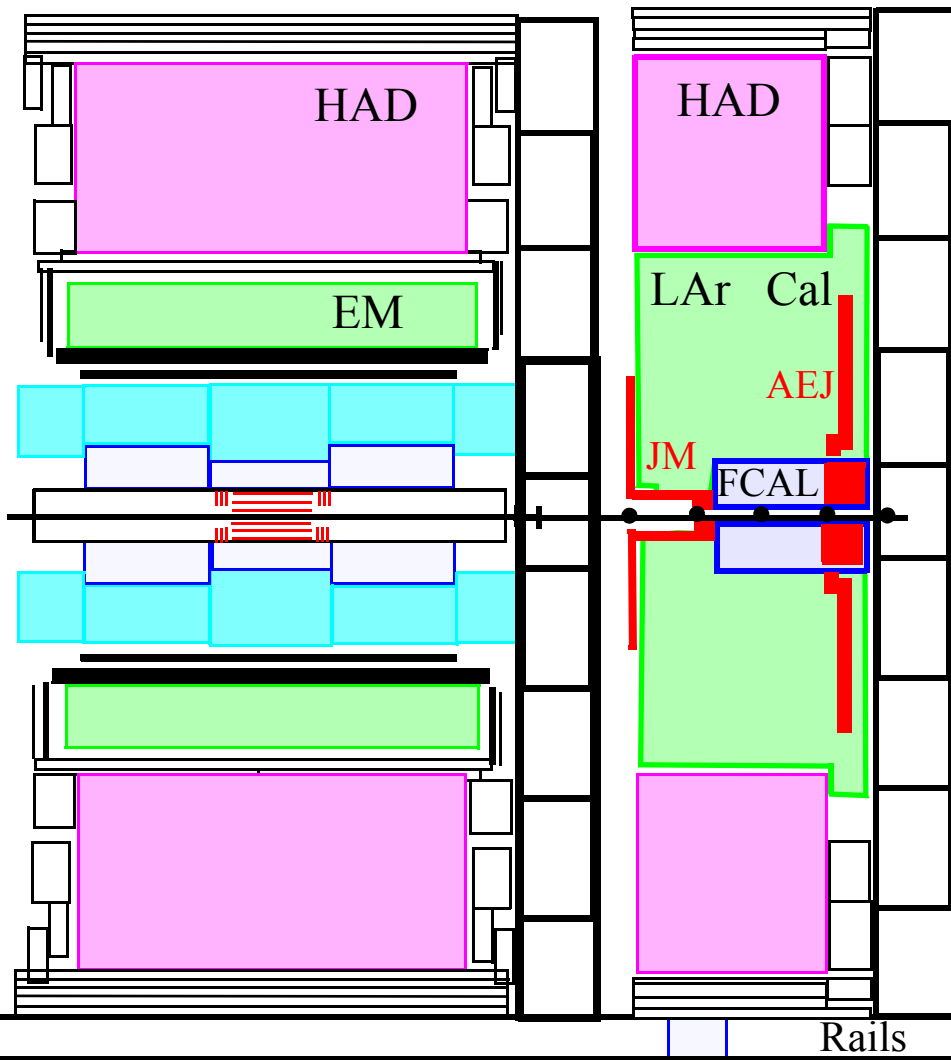


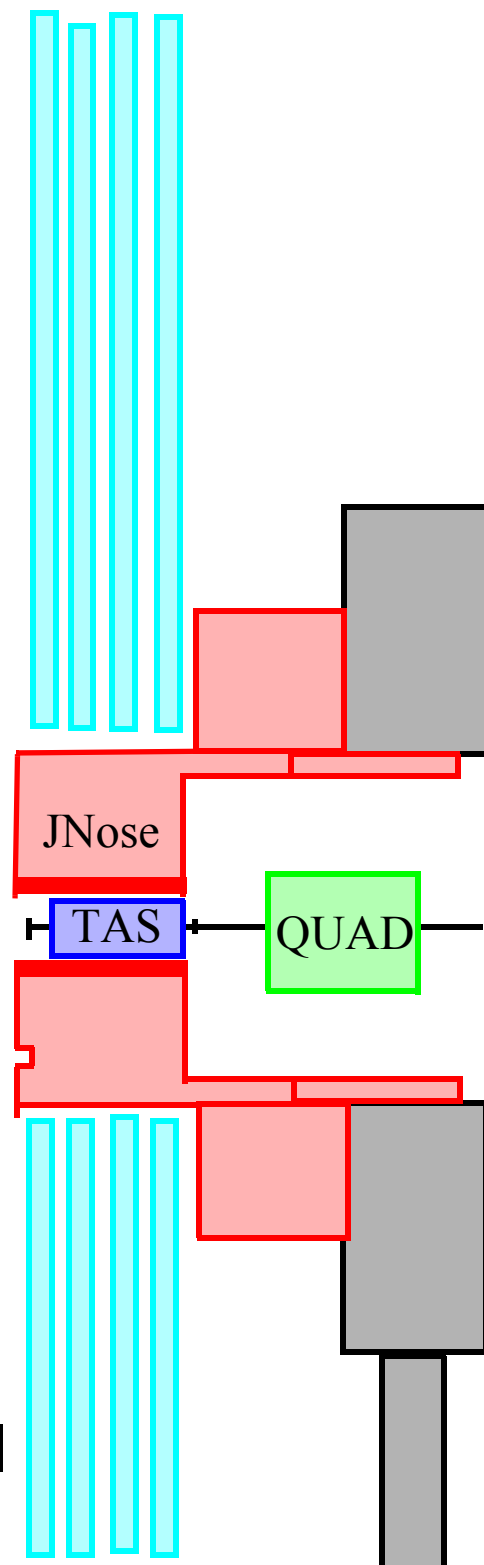
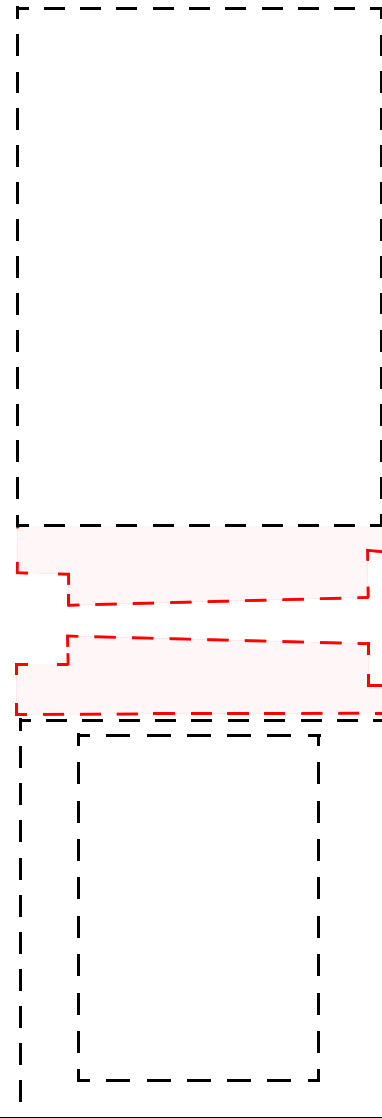
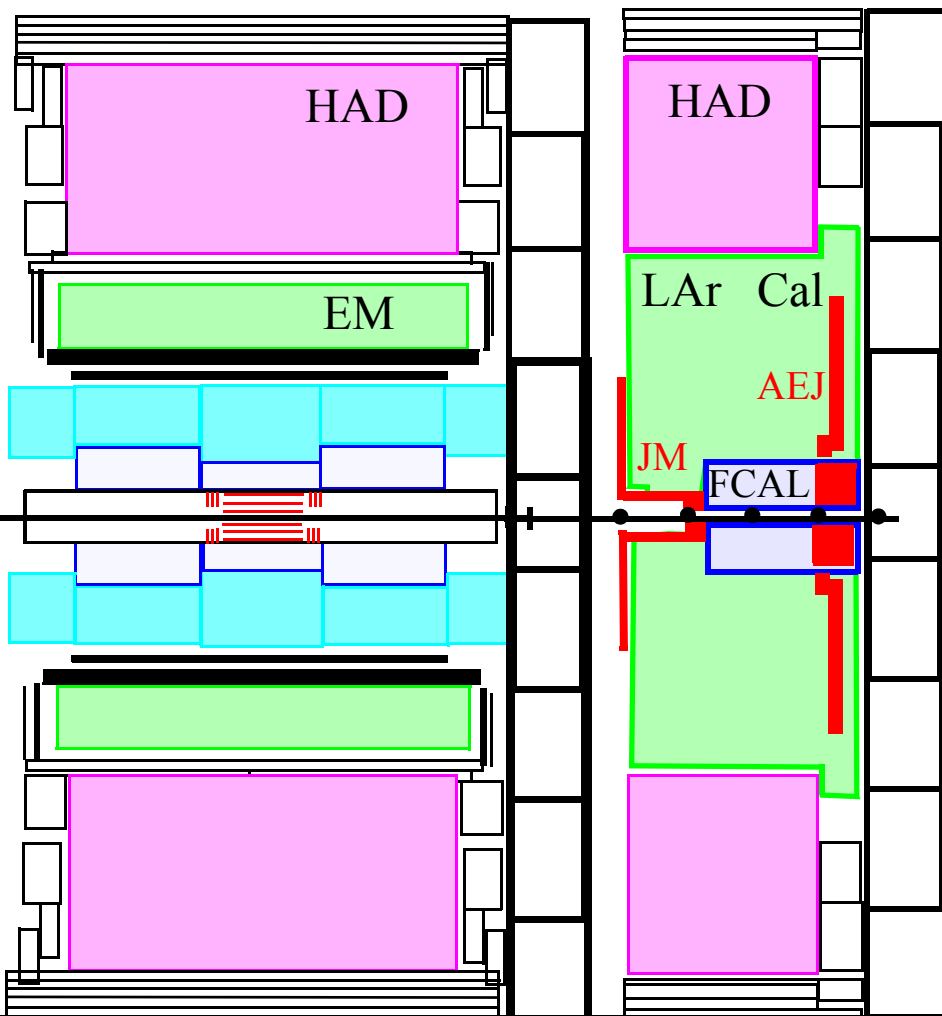


Move ECT sideways out of the beamline



Install the heavy HF truck

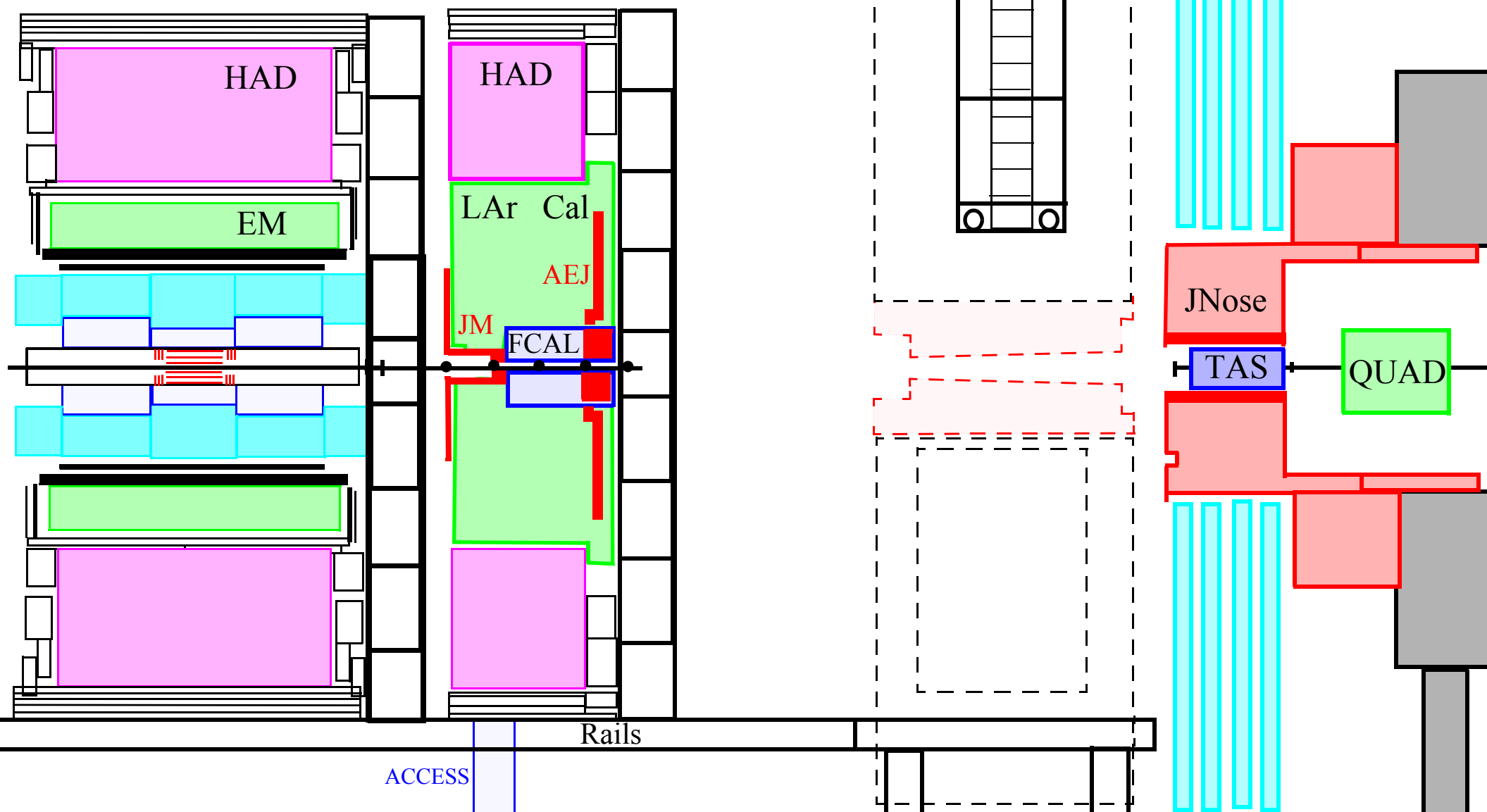


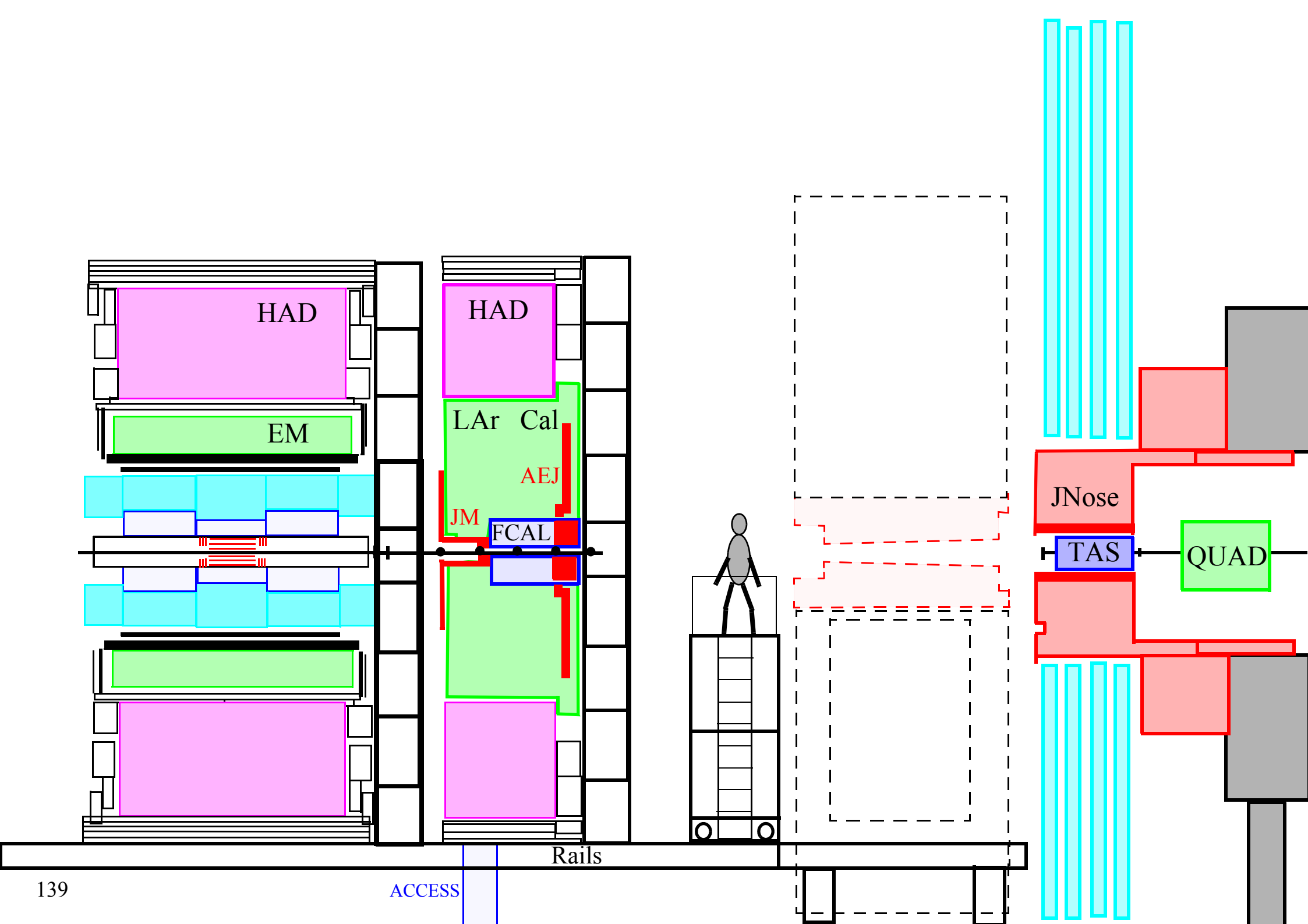


Rails

ACCESS

Install minivans





HAD

EM

HAD

LAr Cal

AEJ

JM

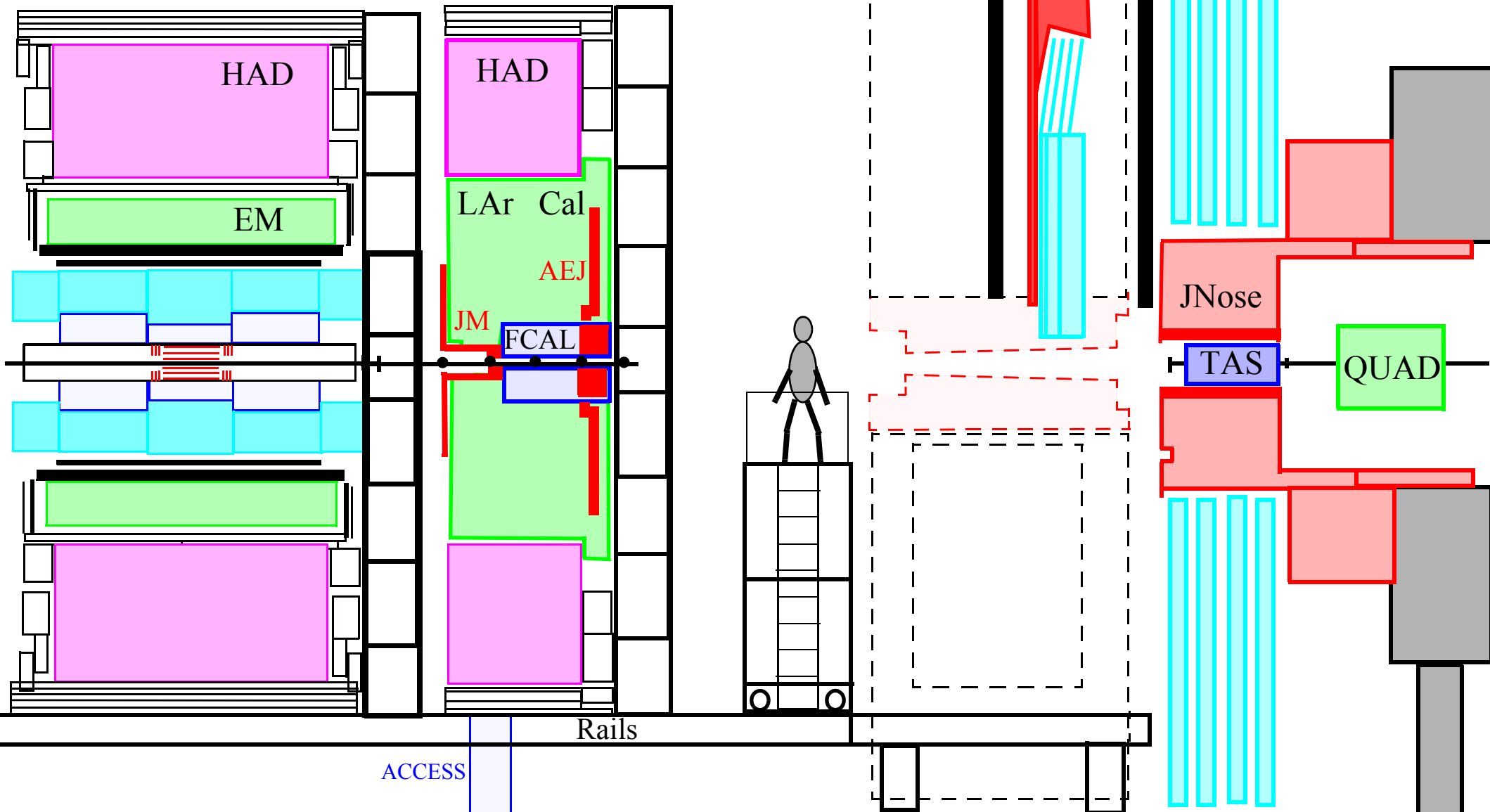
FCAL

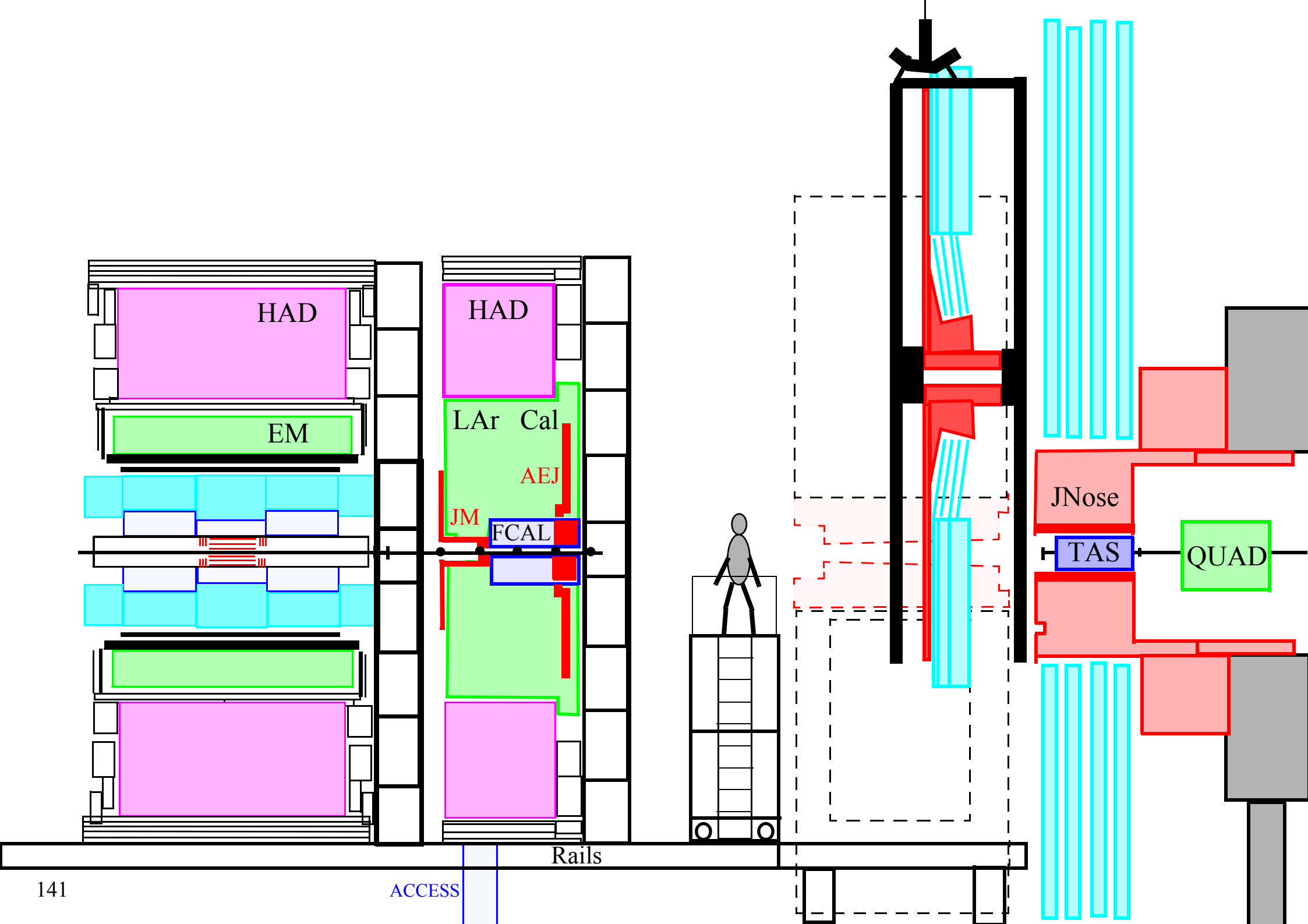
JNose

TAS

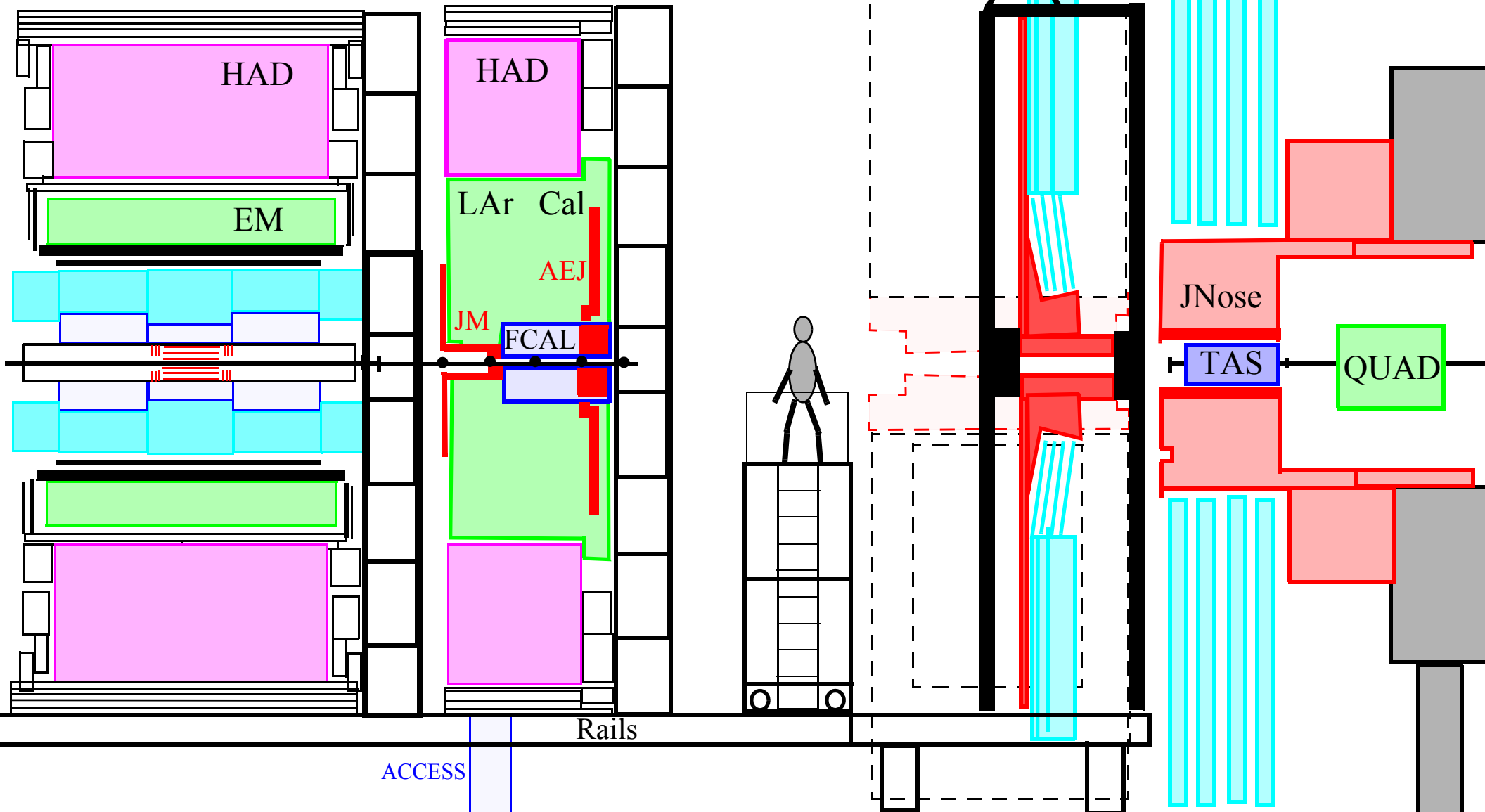
QUAD

Install JD/SW





The JD/SW has to be moved in sideways to get under the ECT services.

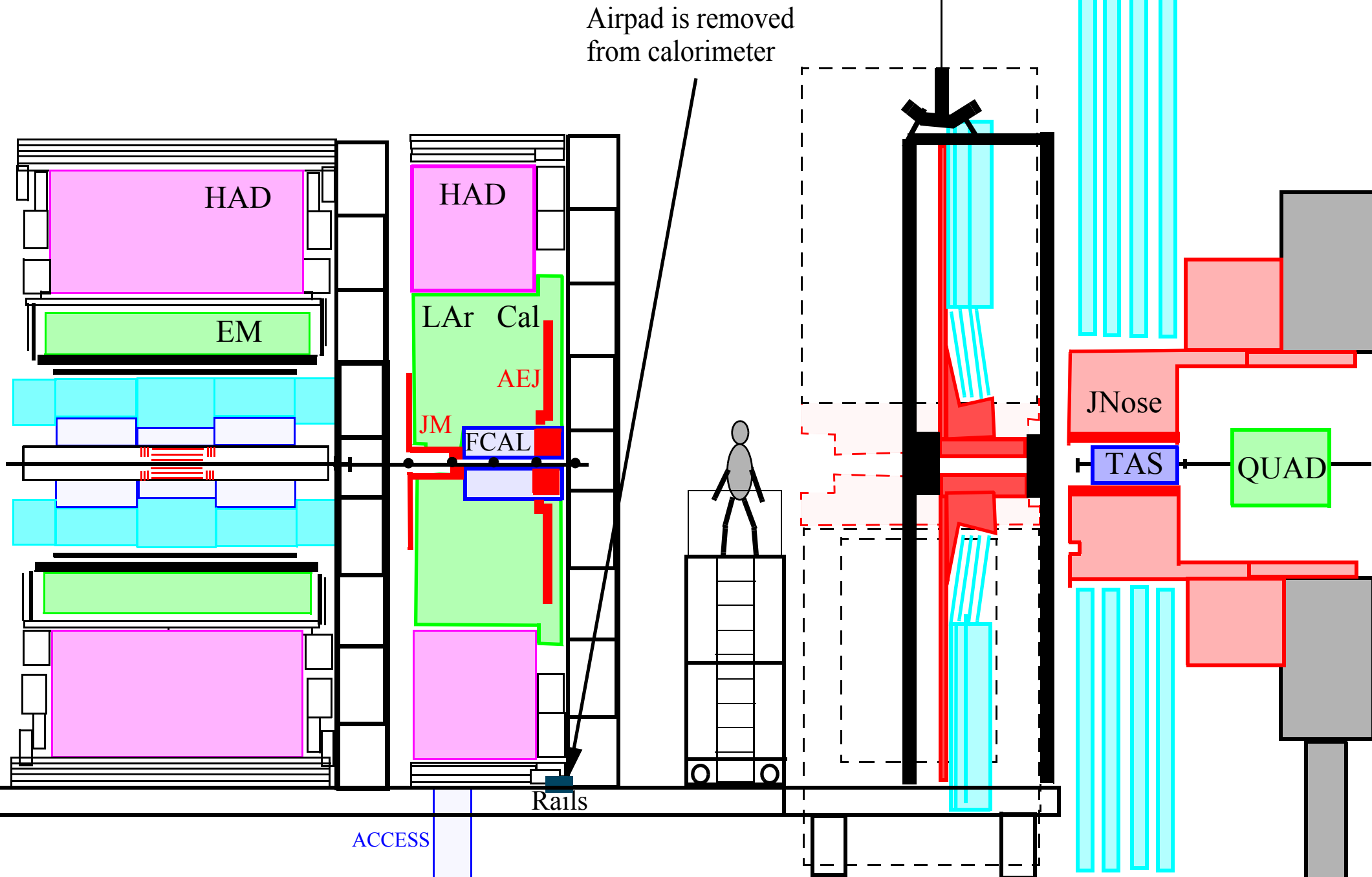


JNose

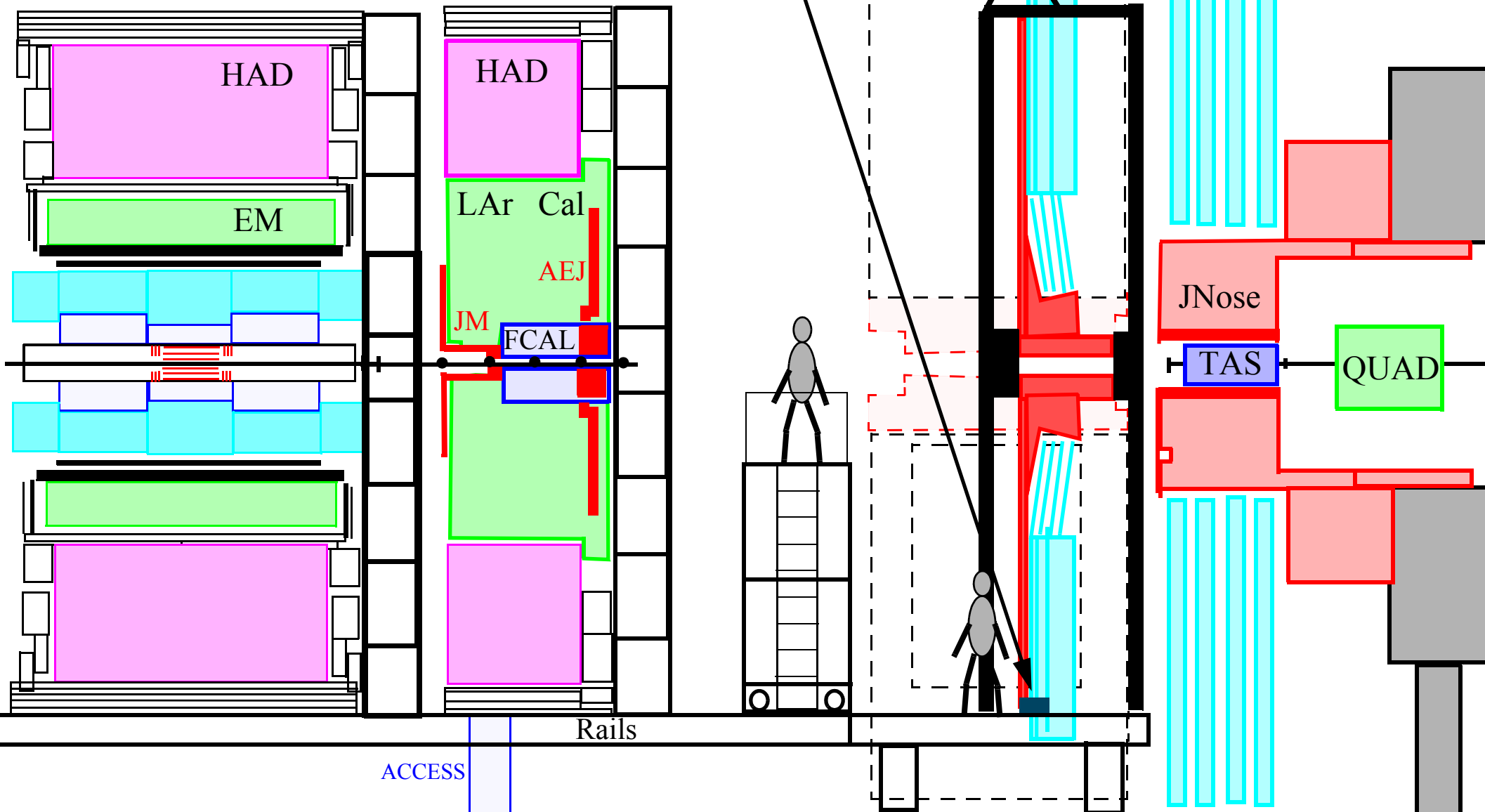
TAS

QUAD

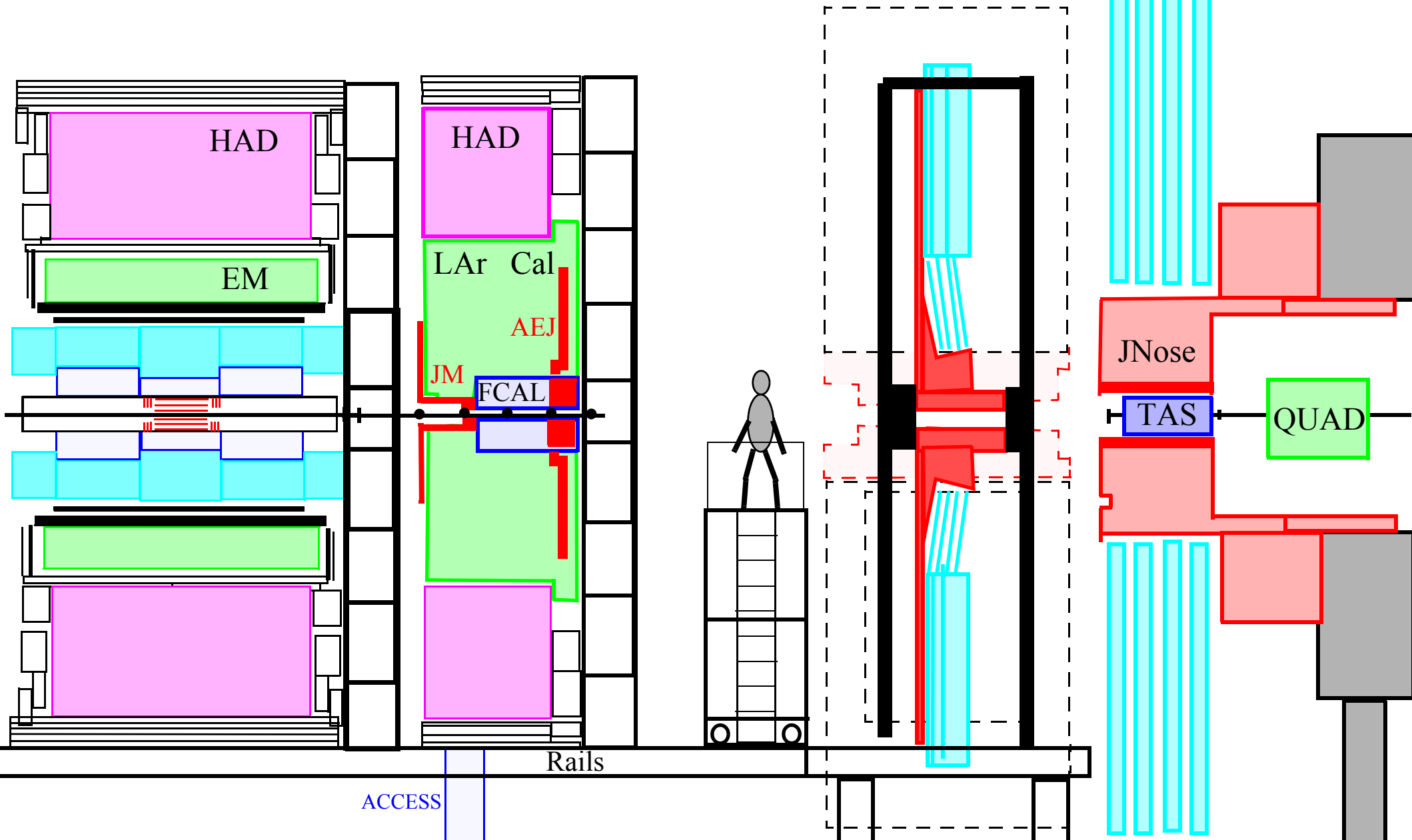
Move airpads from calorimeter to JD

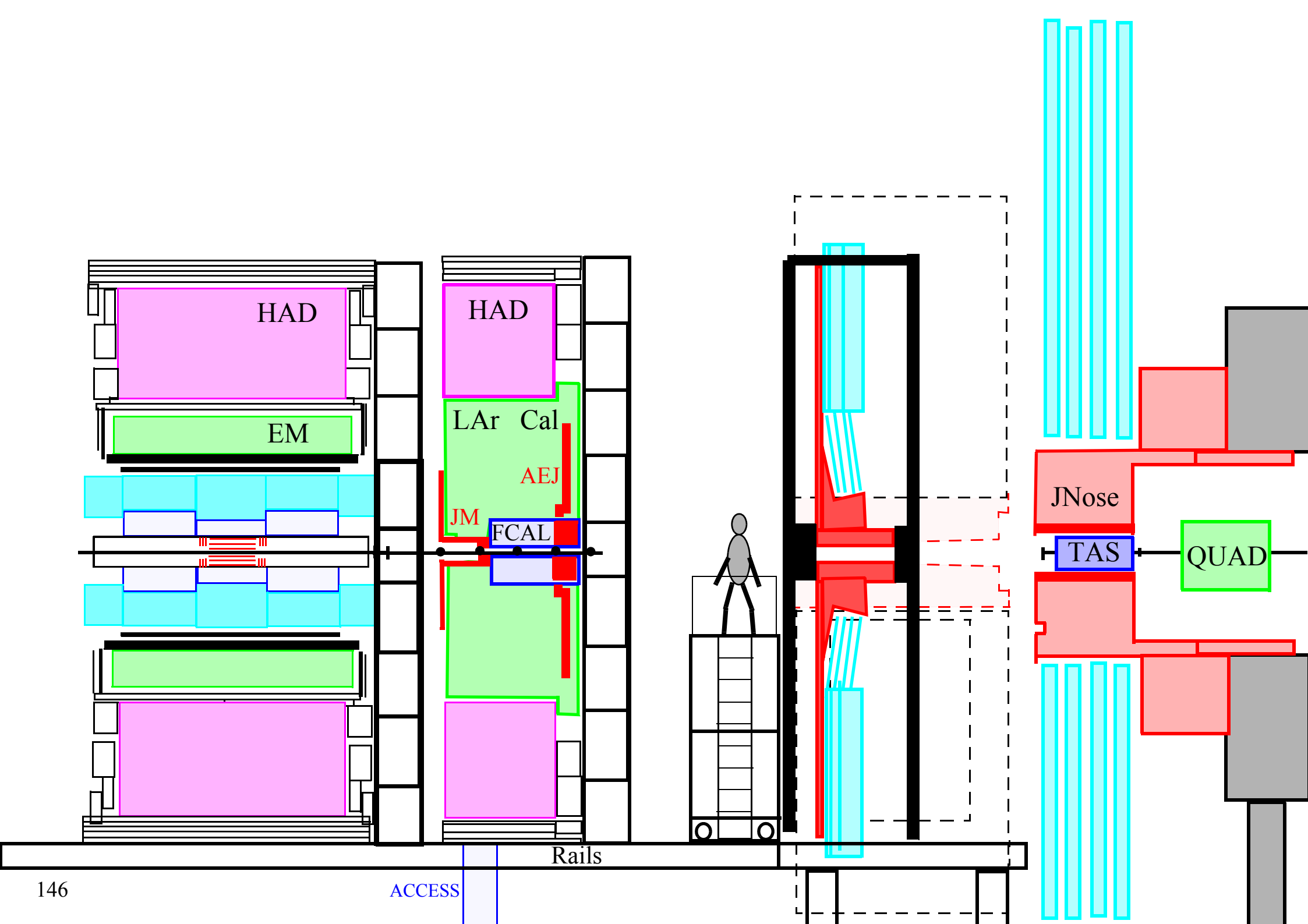


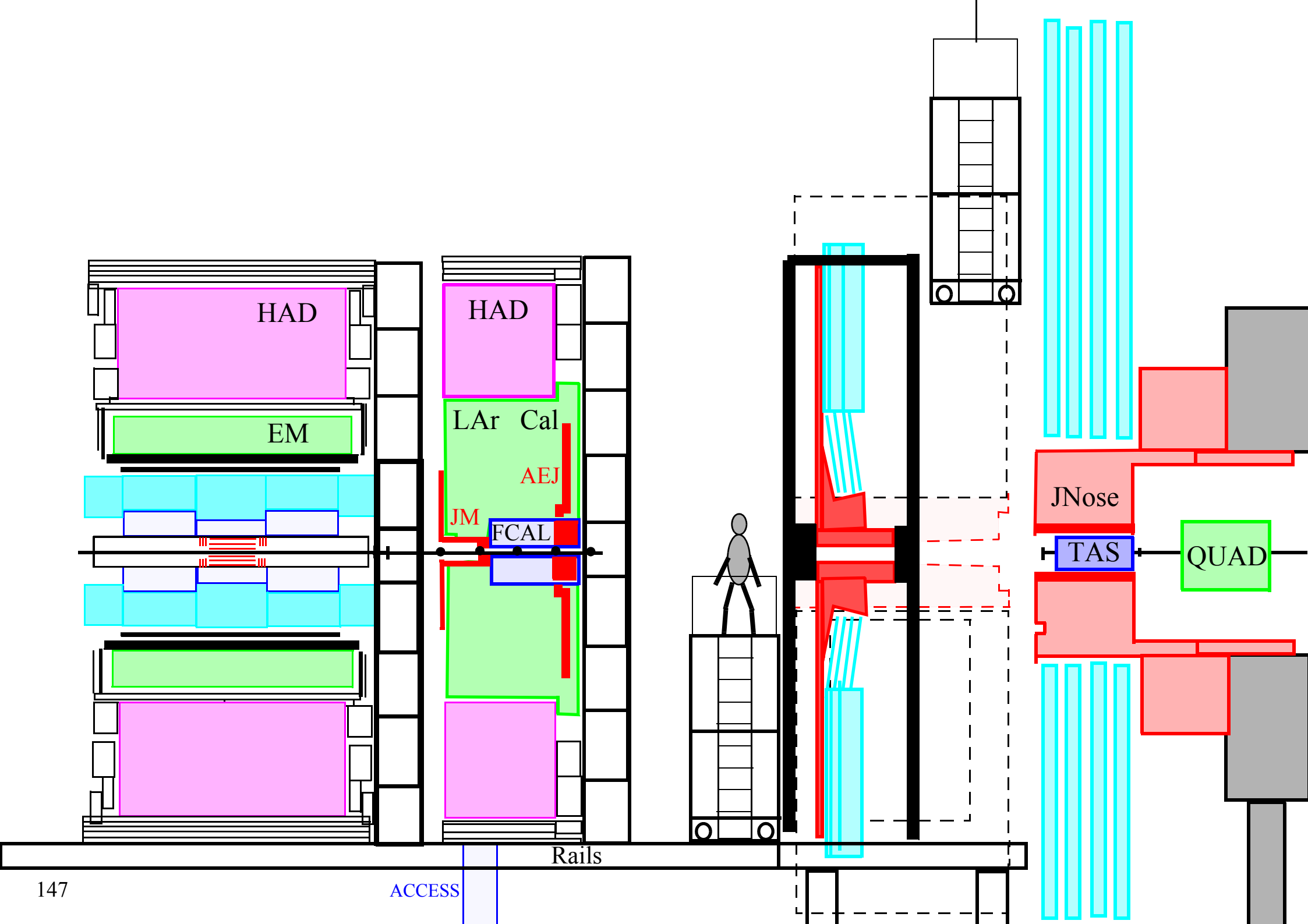
Airpad is attached
to JD feet

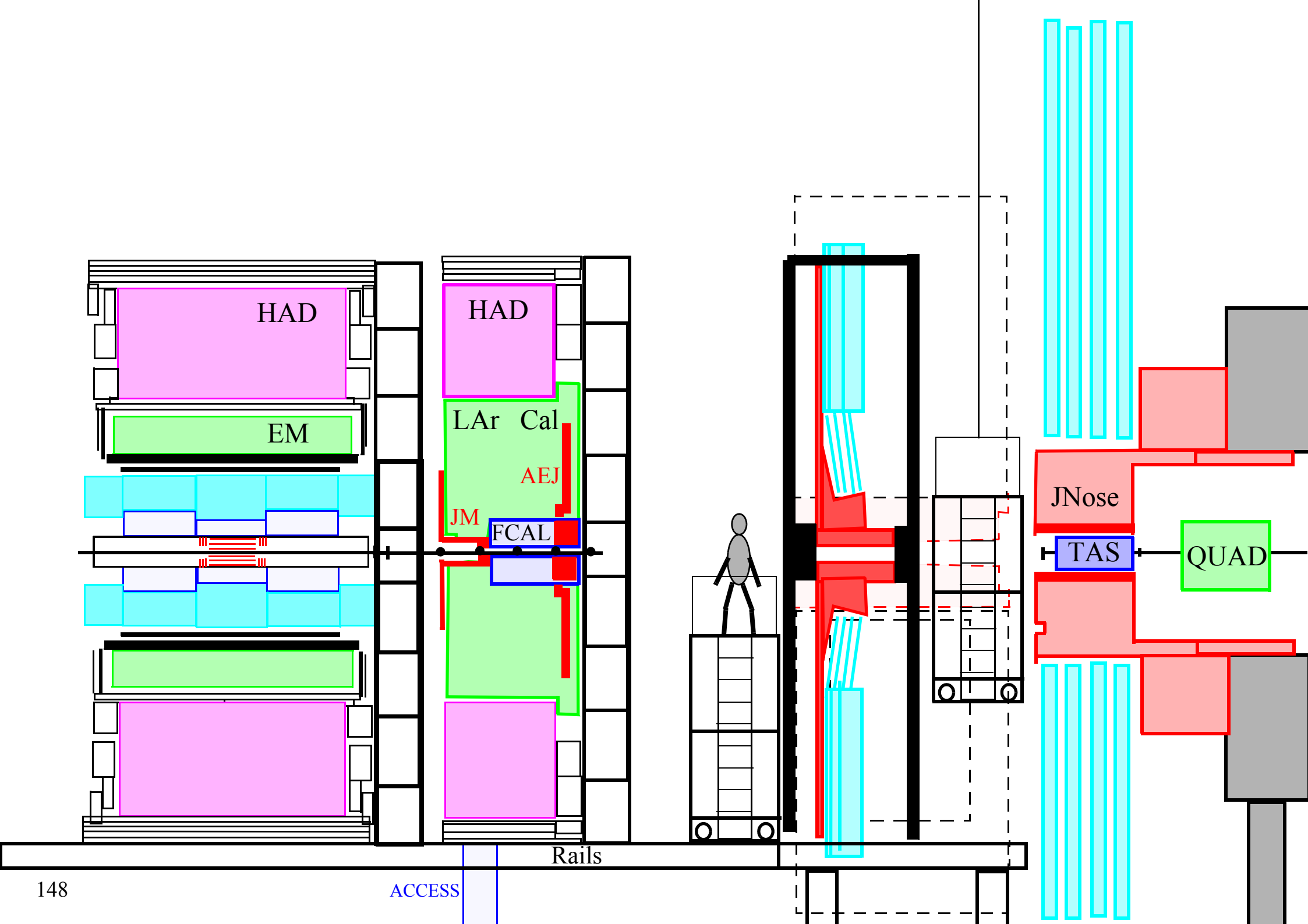


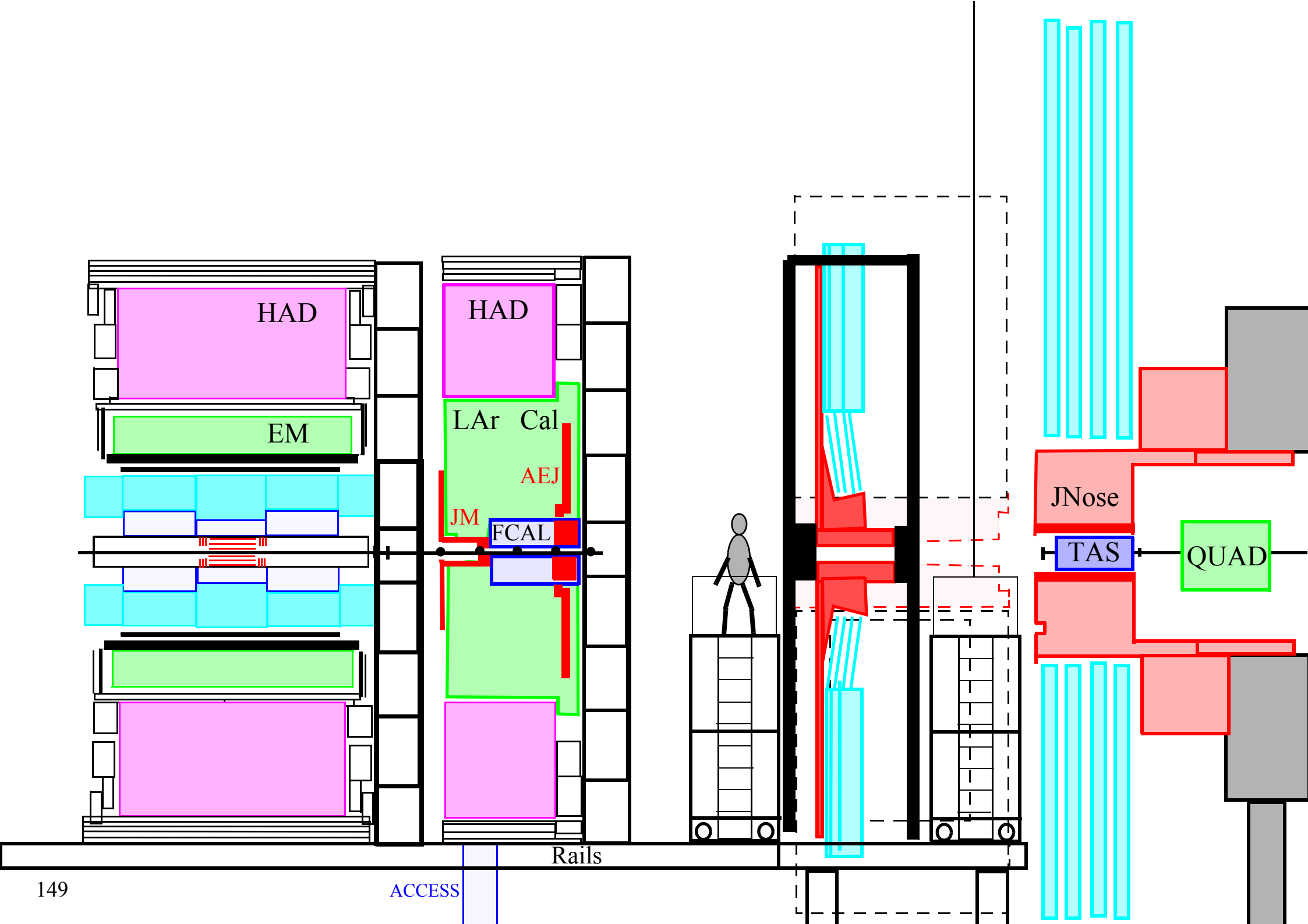
The JD/SW has to be moved towards the IP on its airpads.

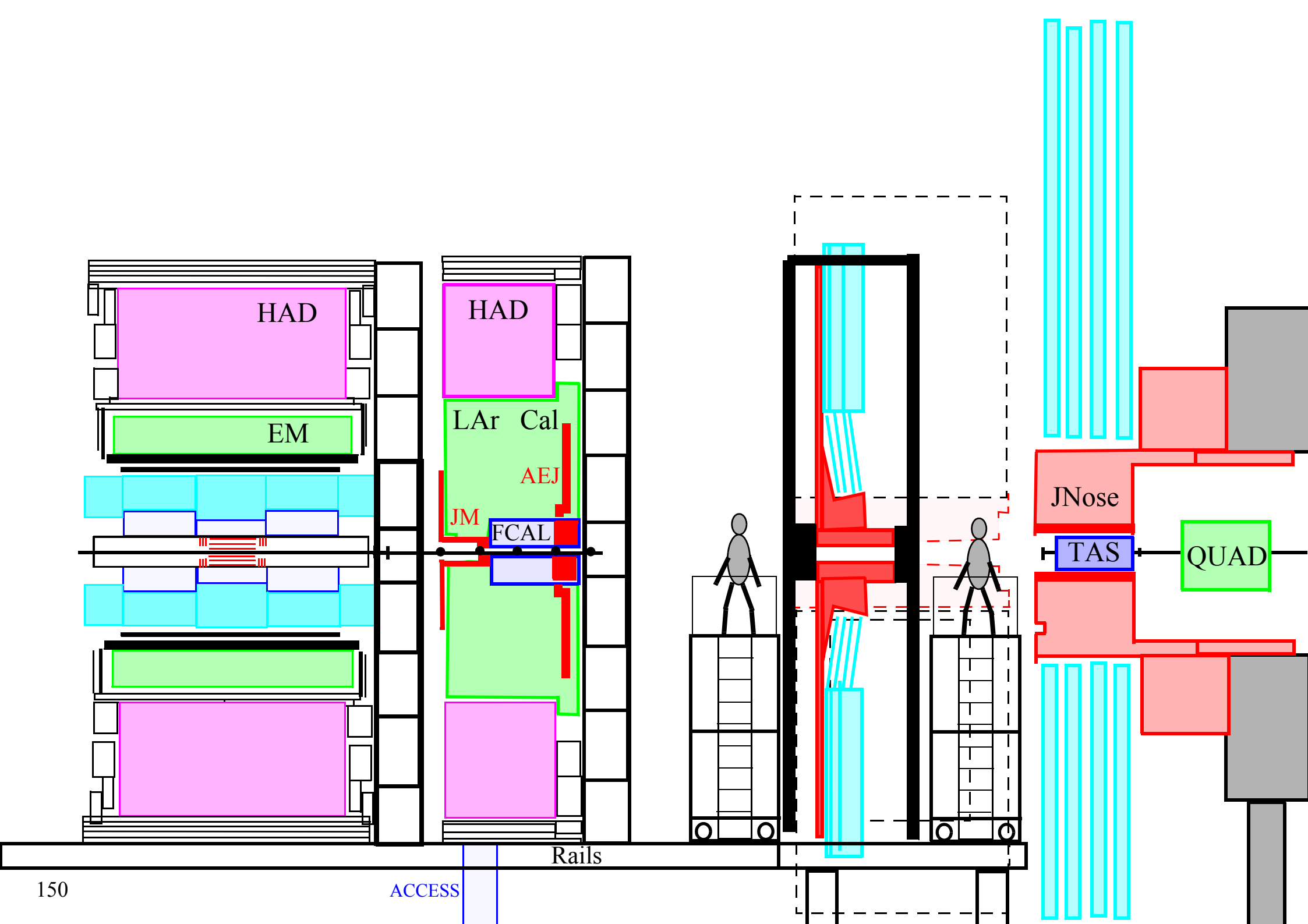


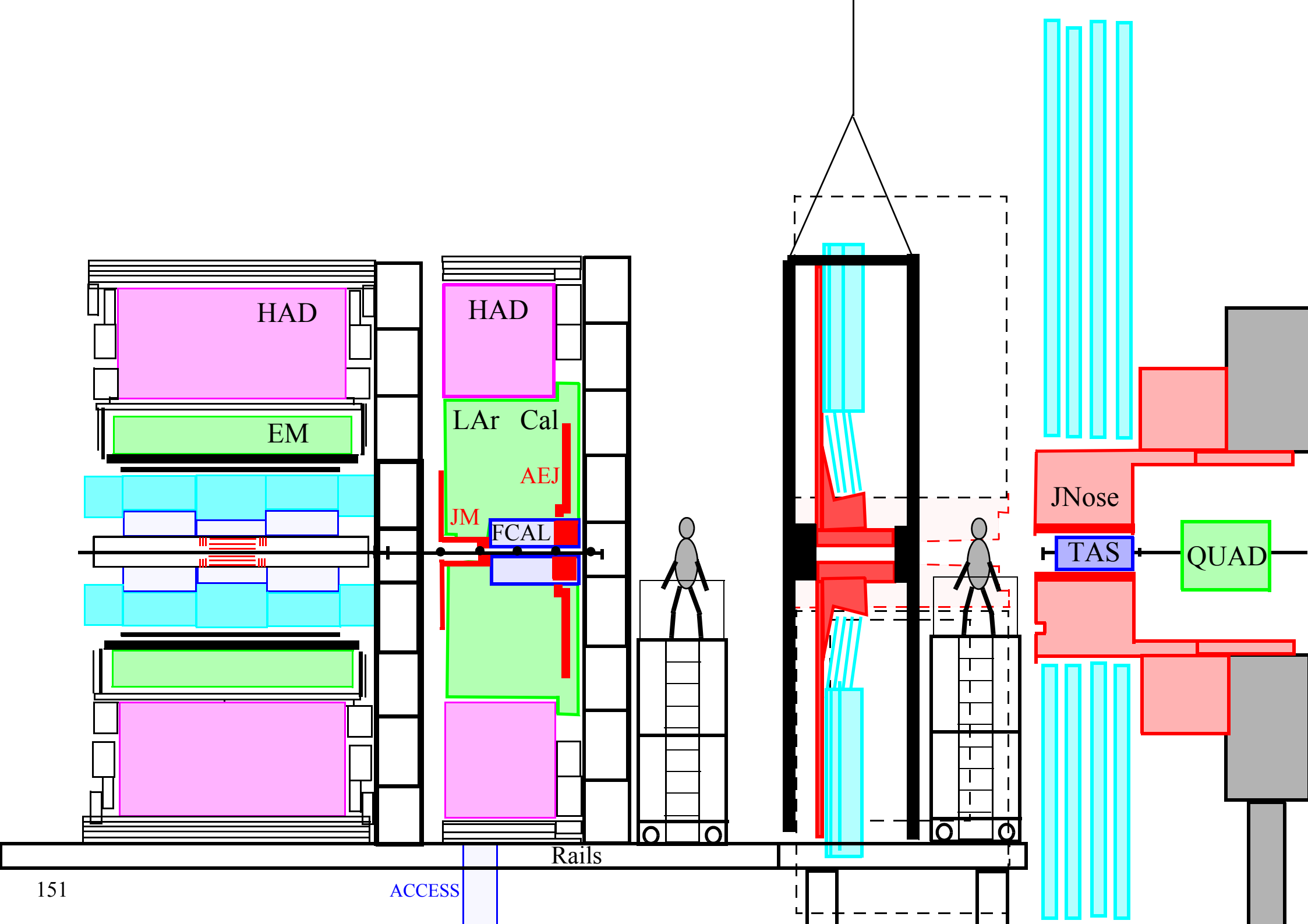


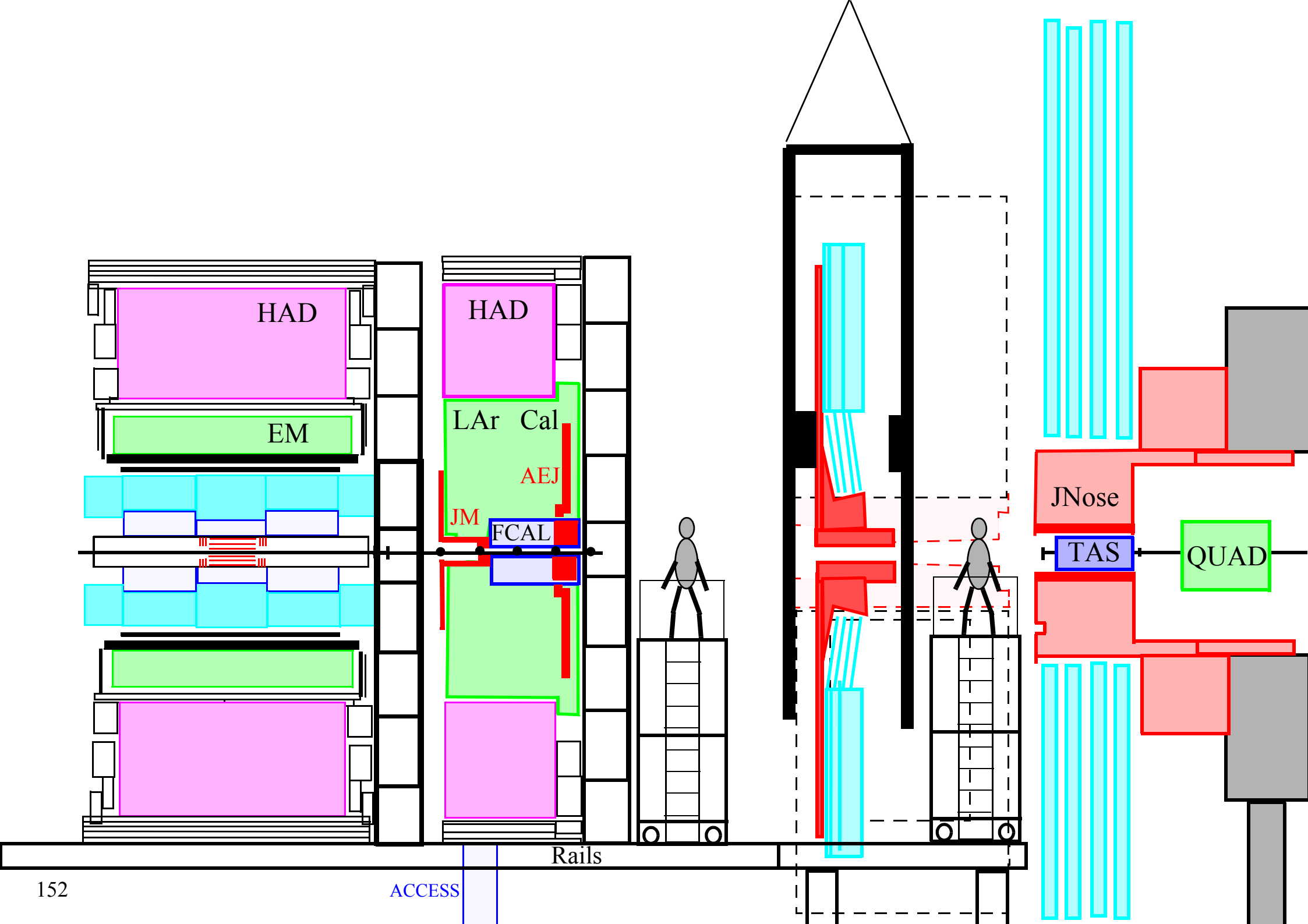


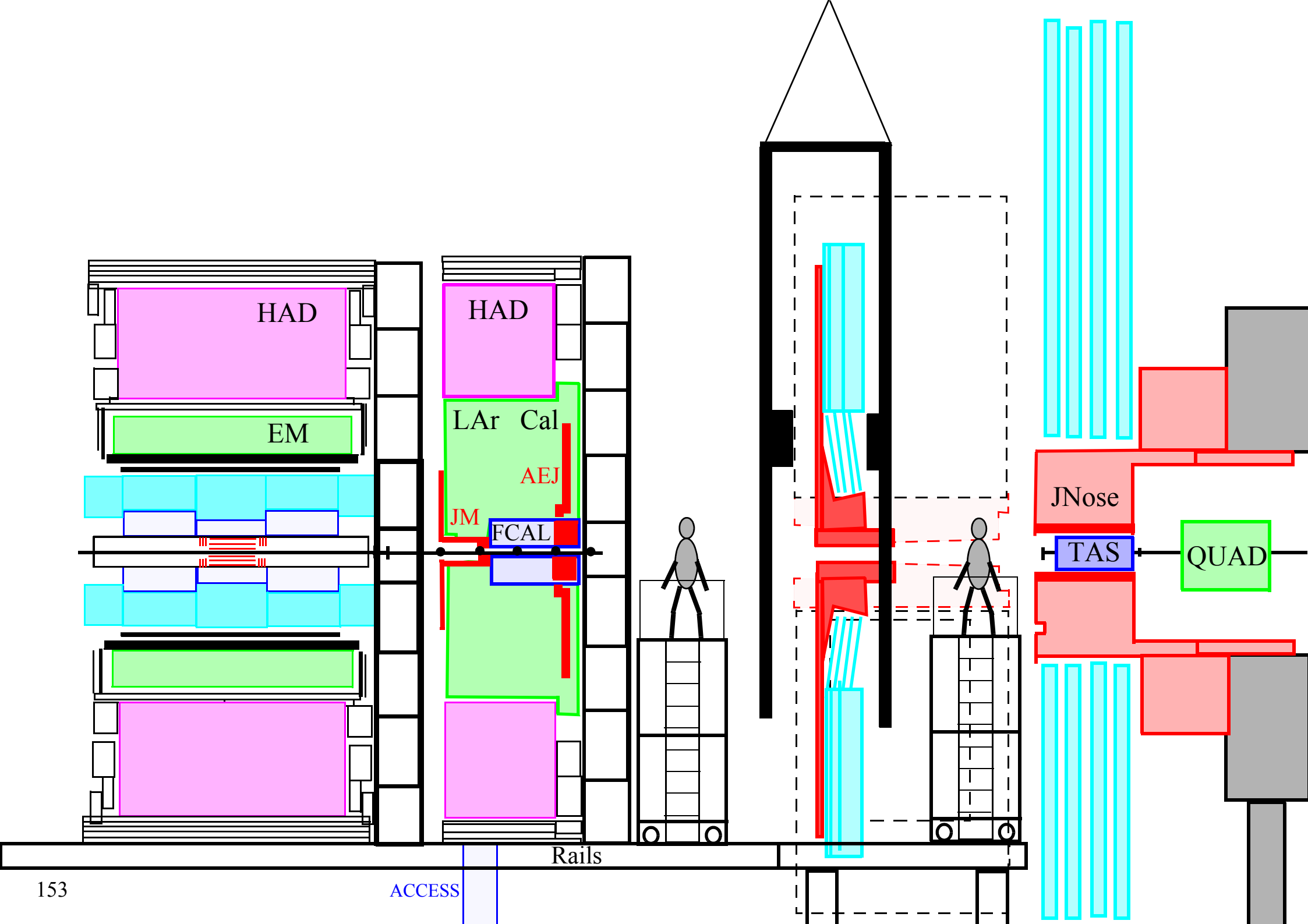


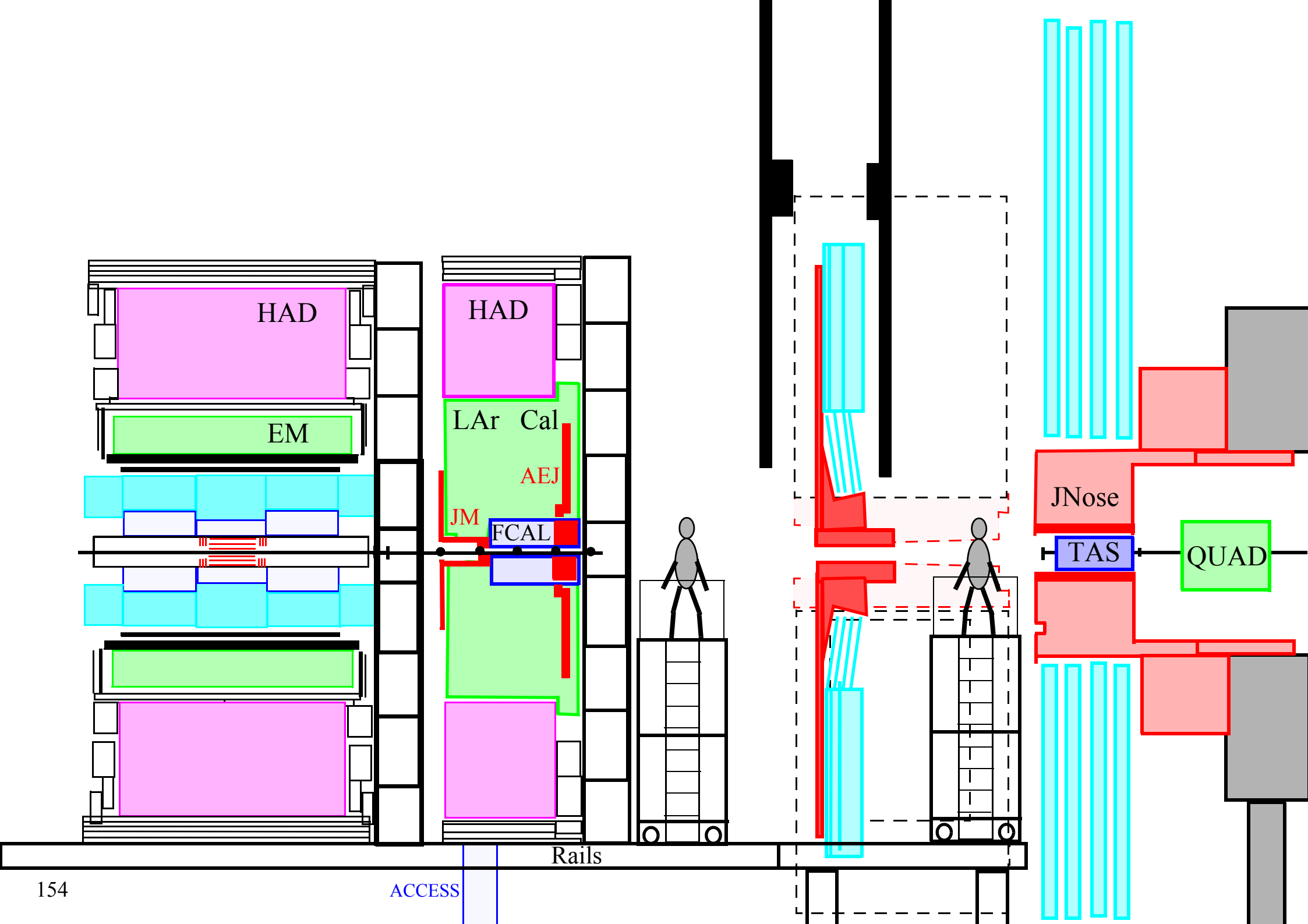




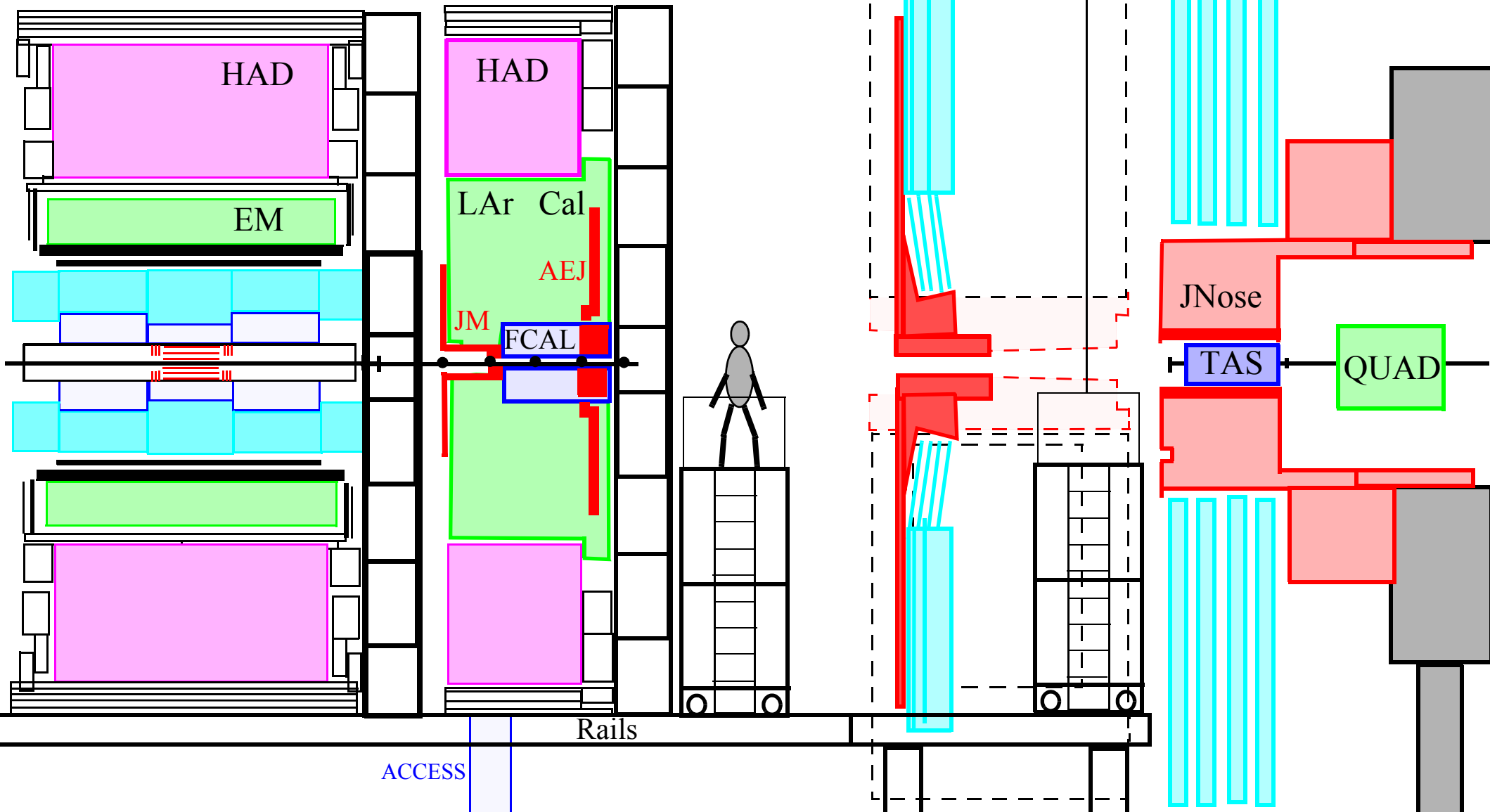


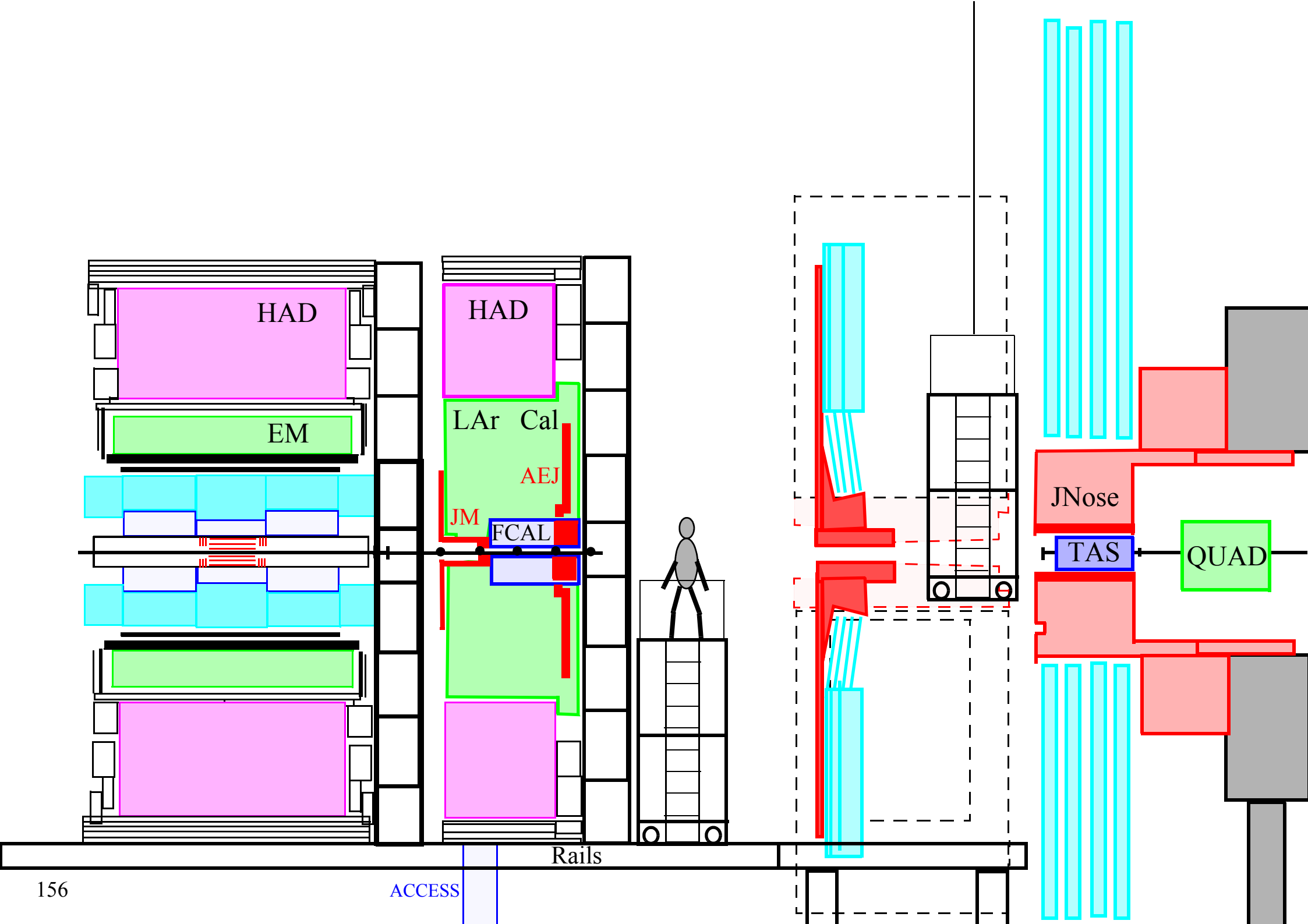


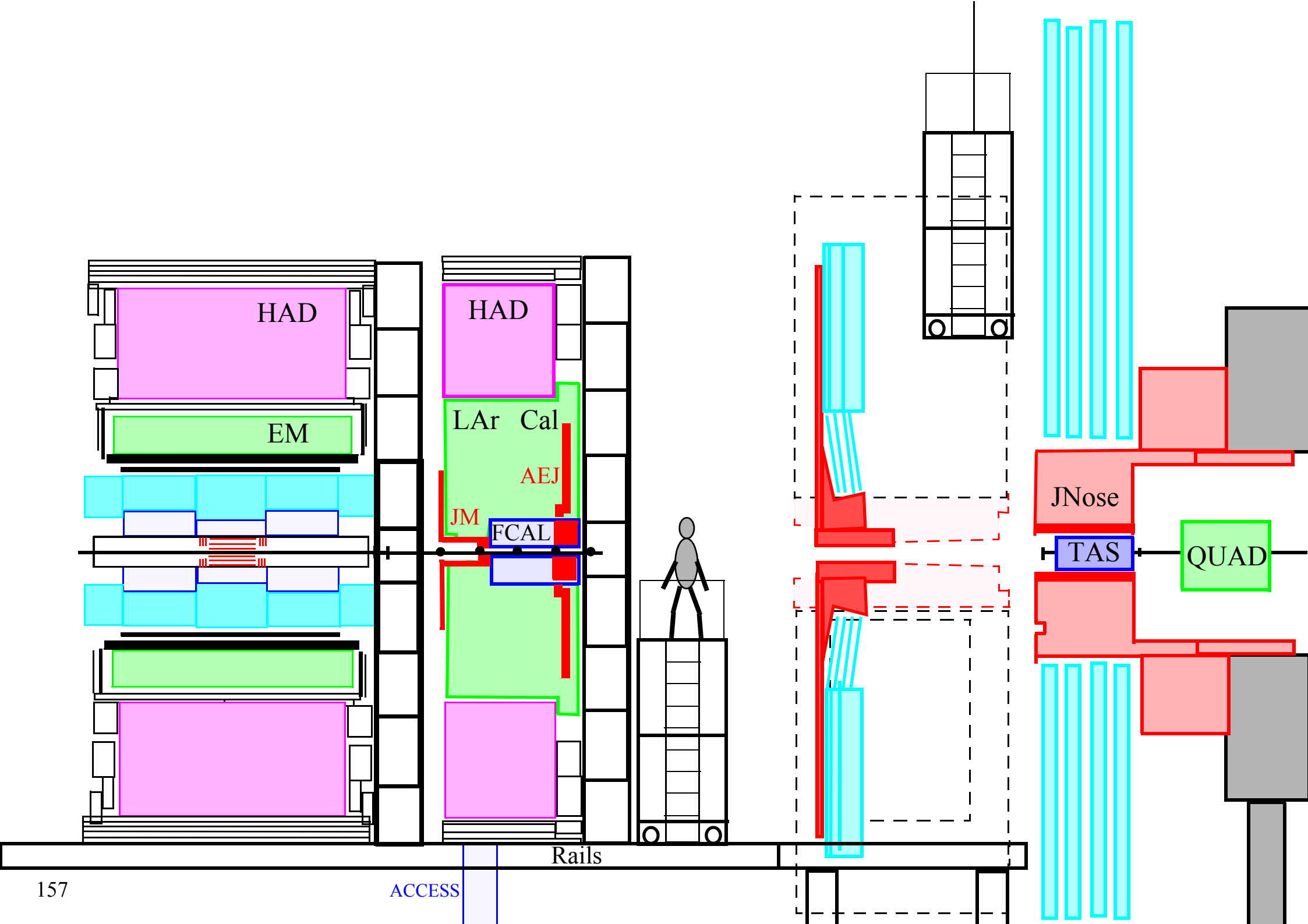




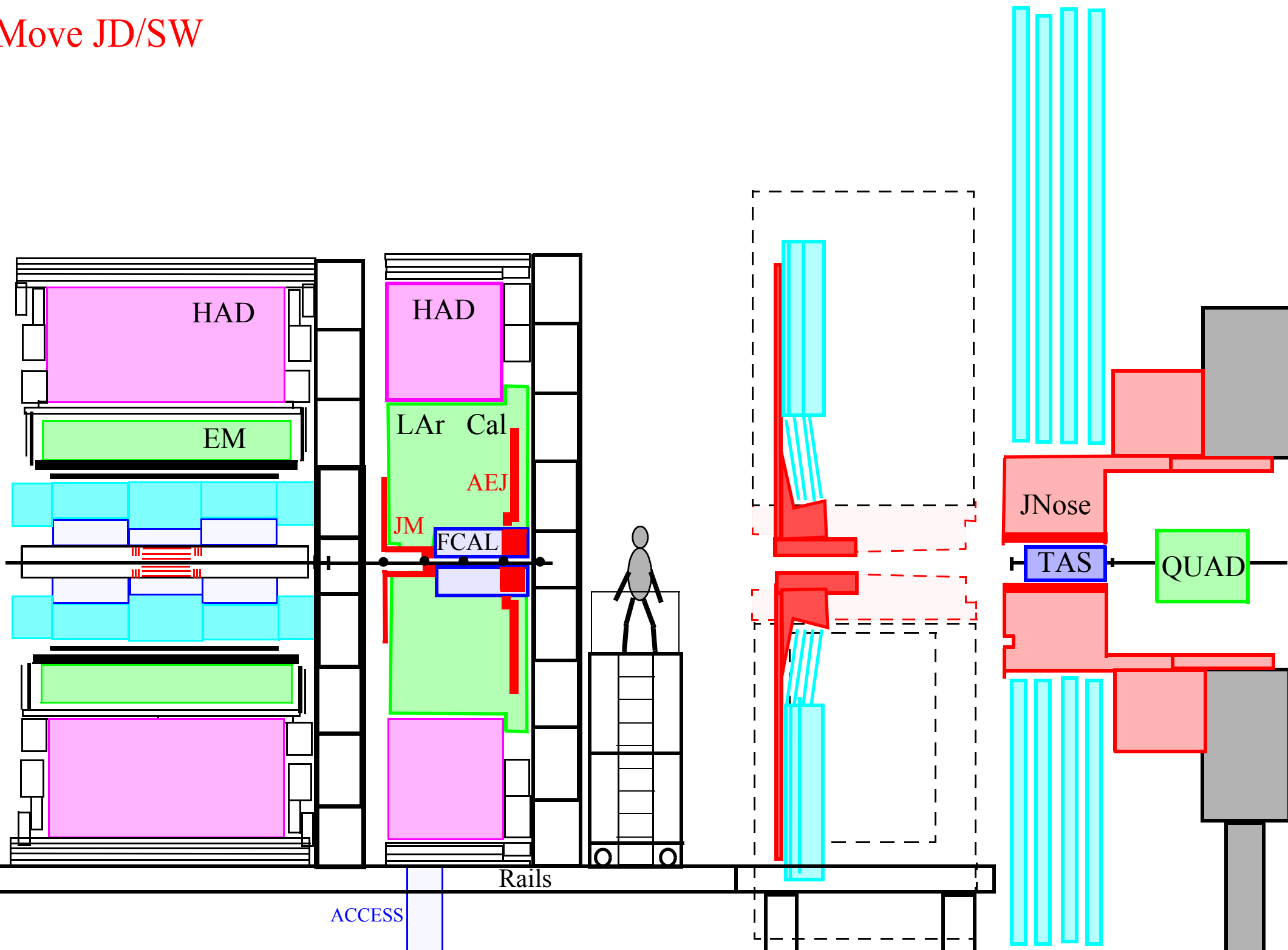
Remove minivans

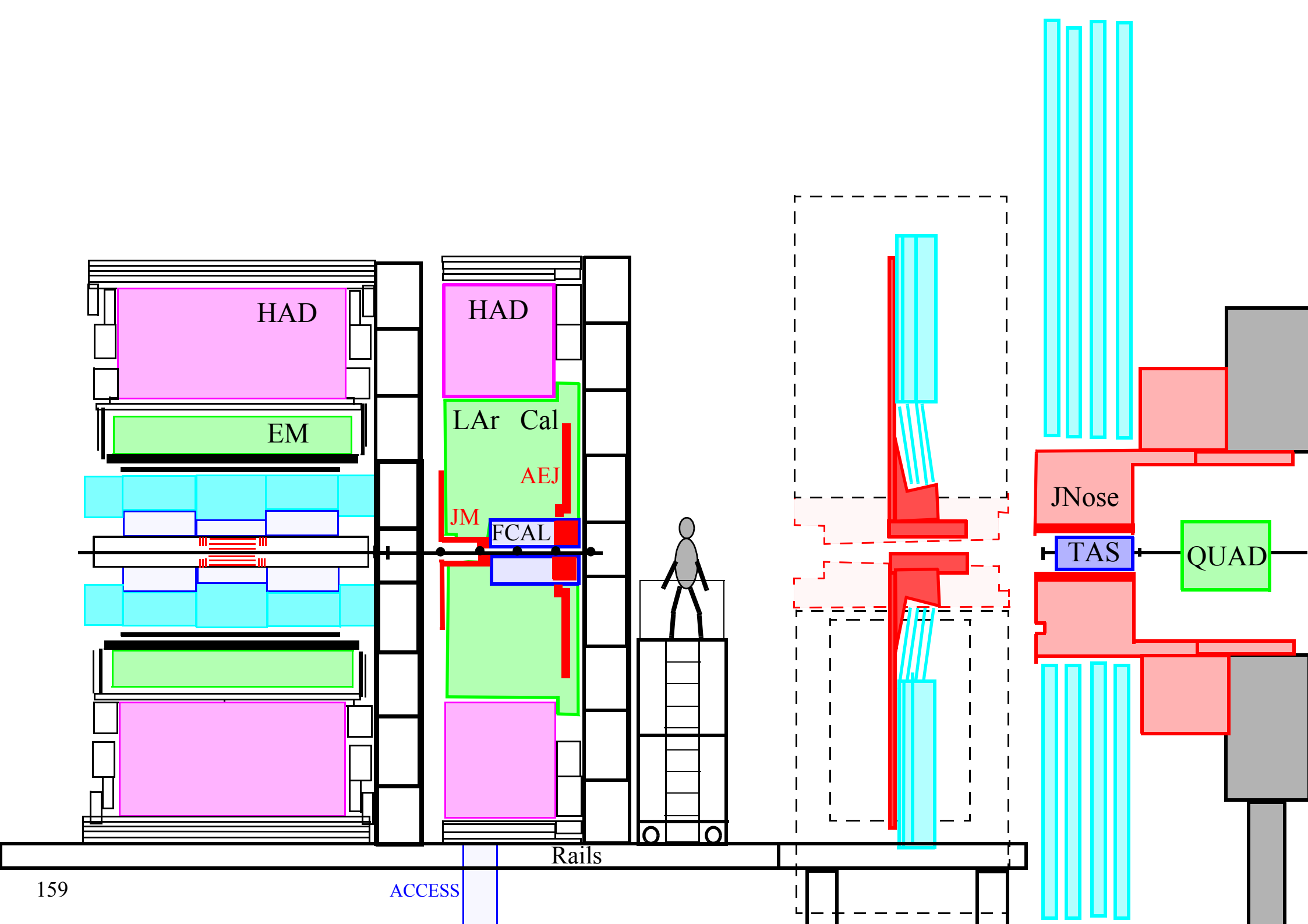


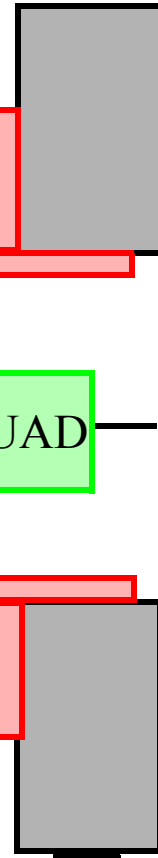
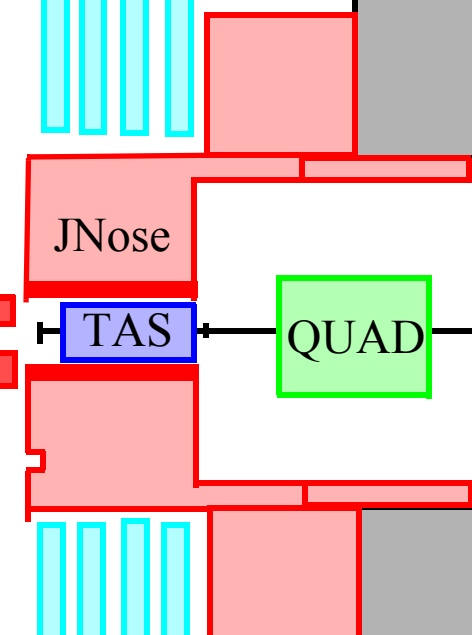
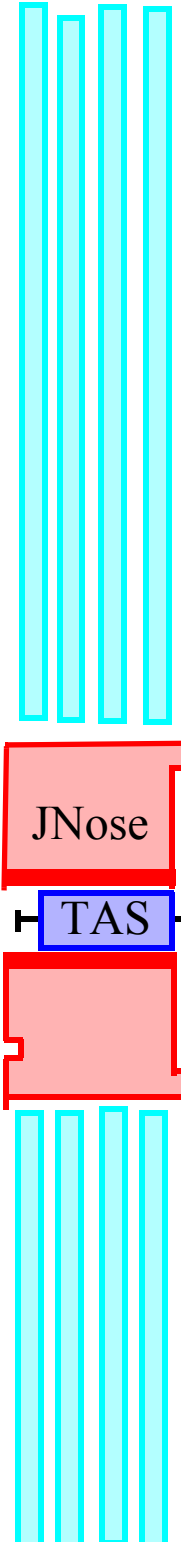
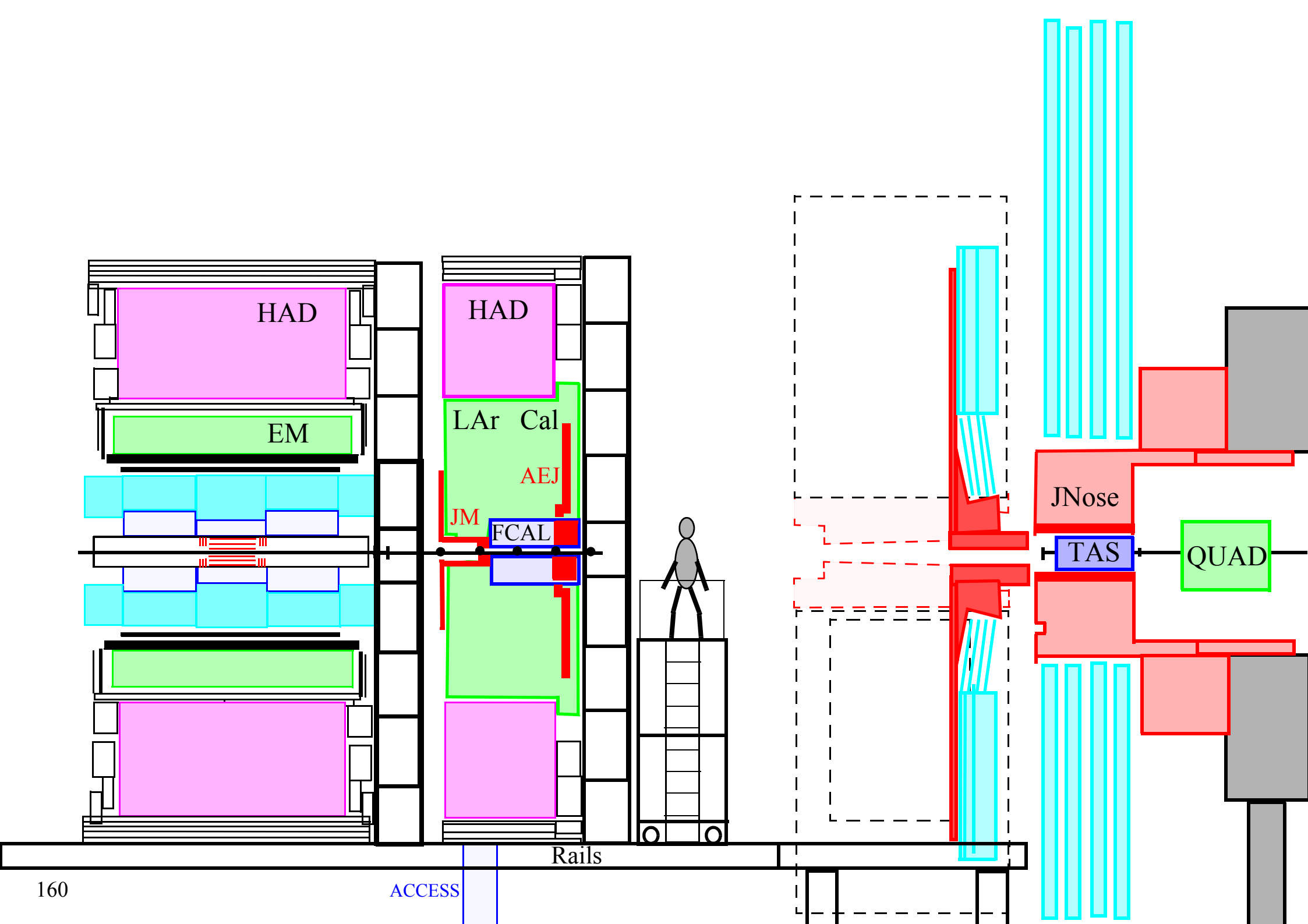




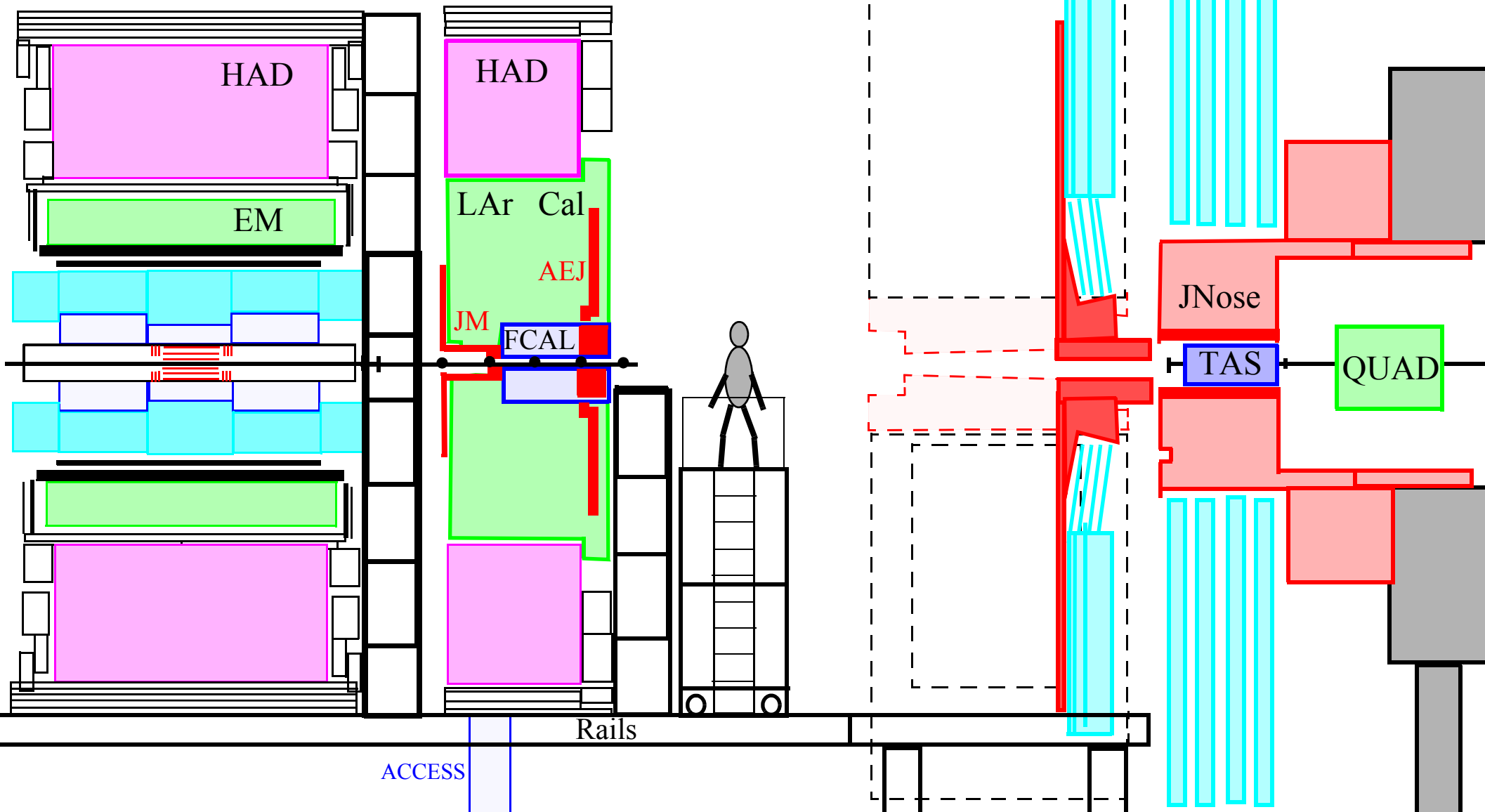
Move JD/SW

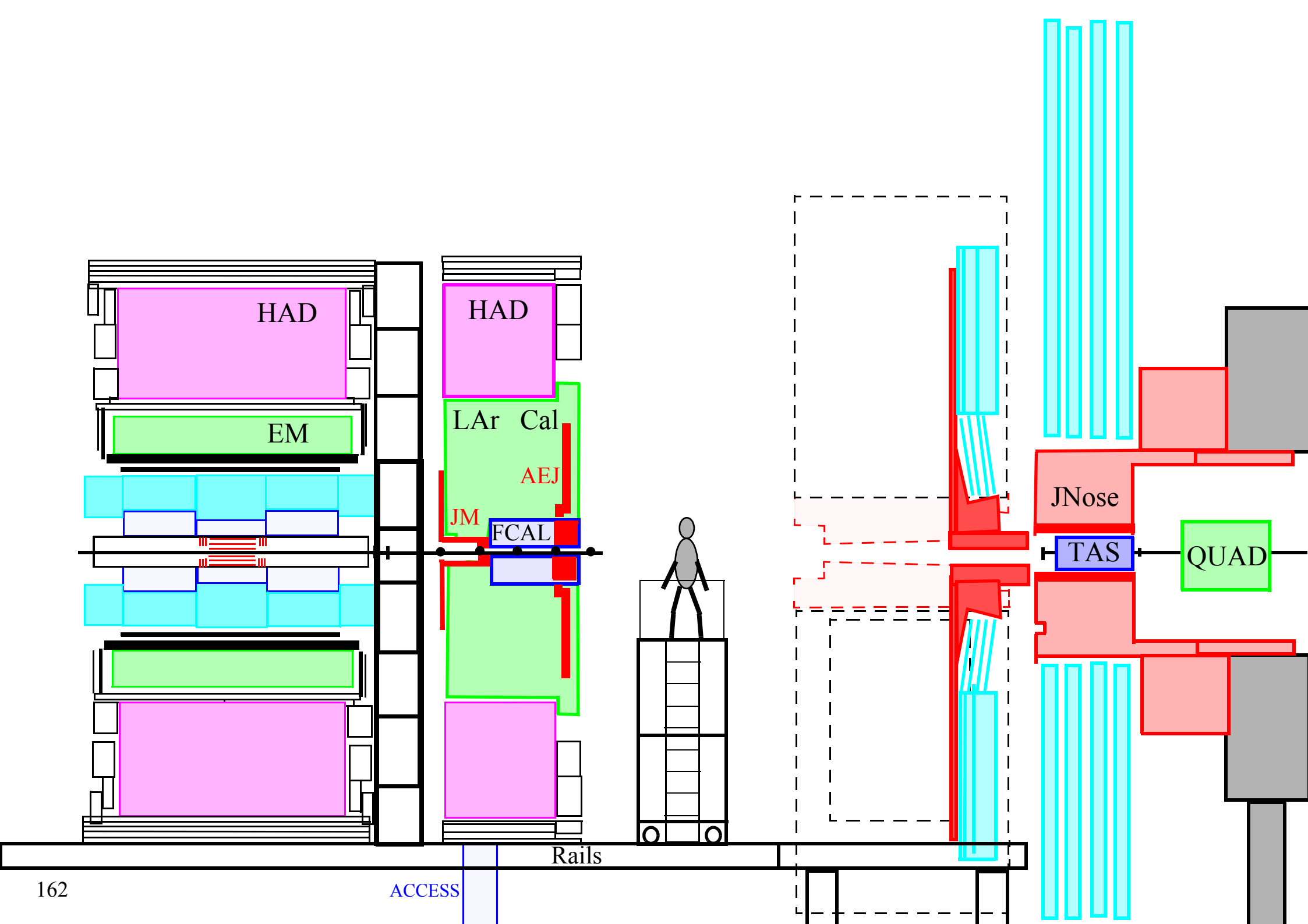






Remove scaffolding





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

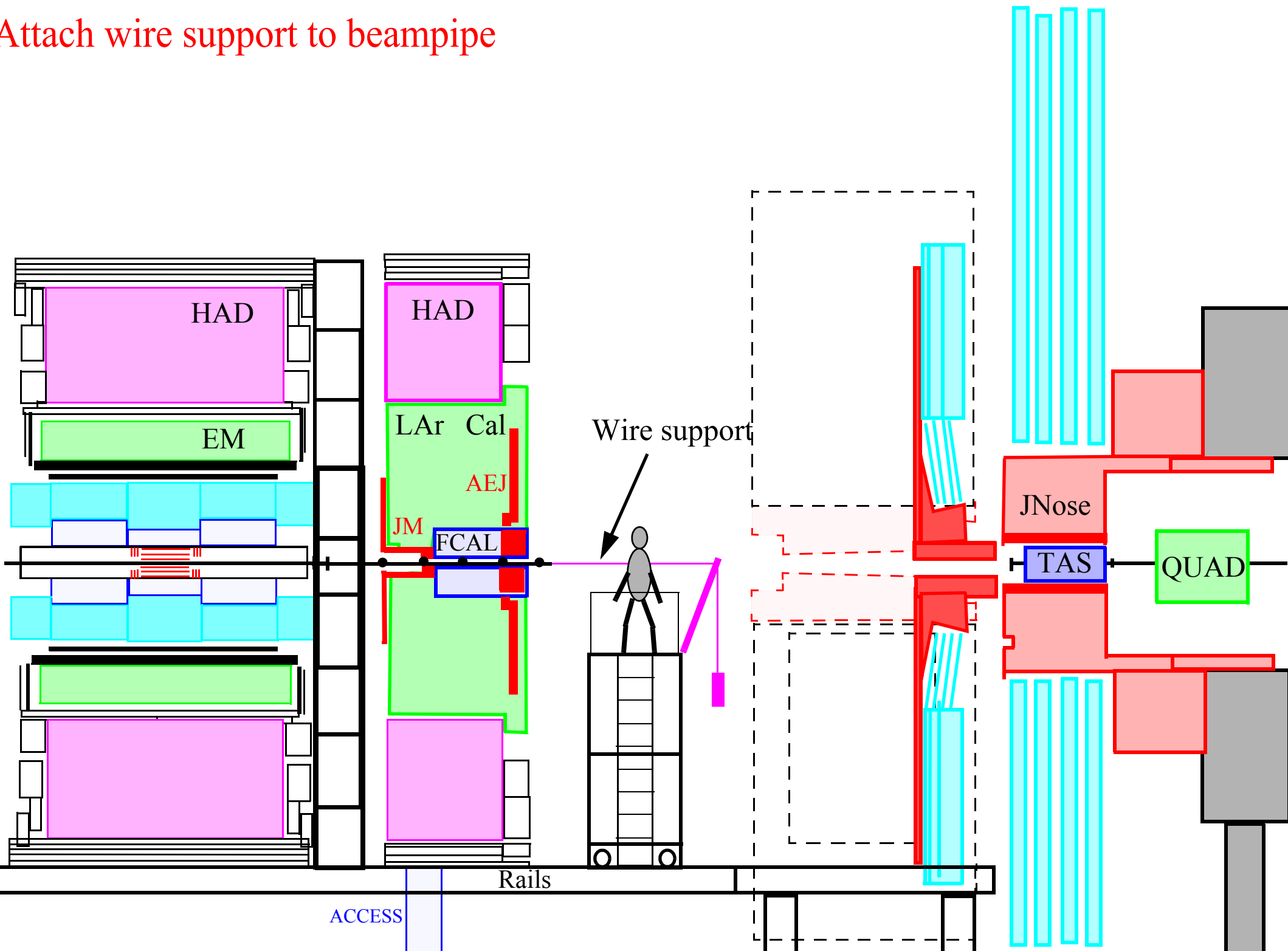
JNose

TAS

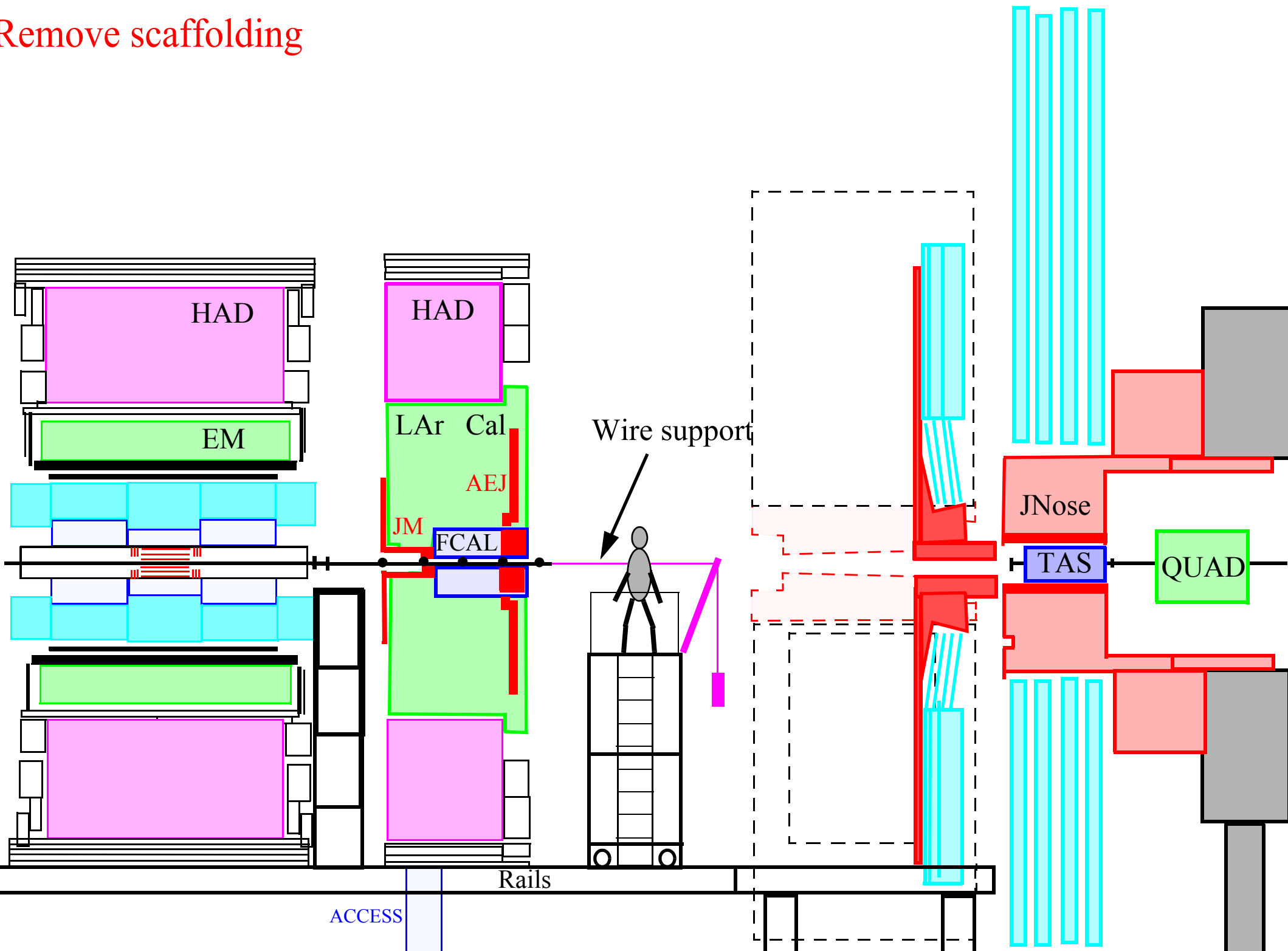
QUAD

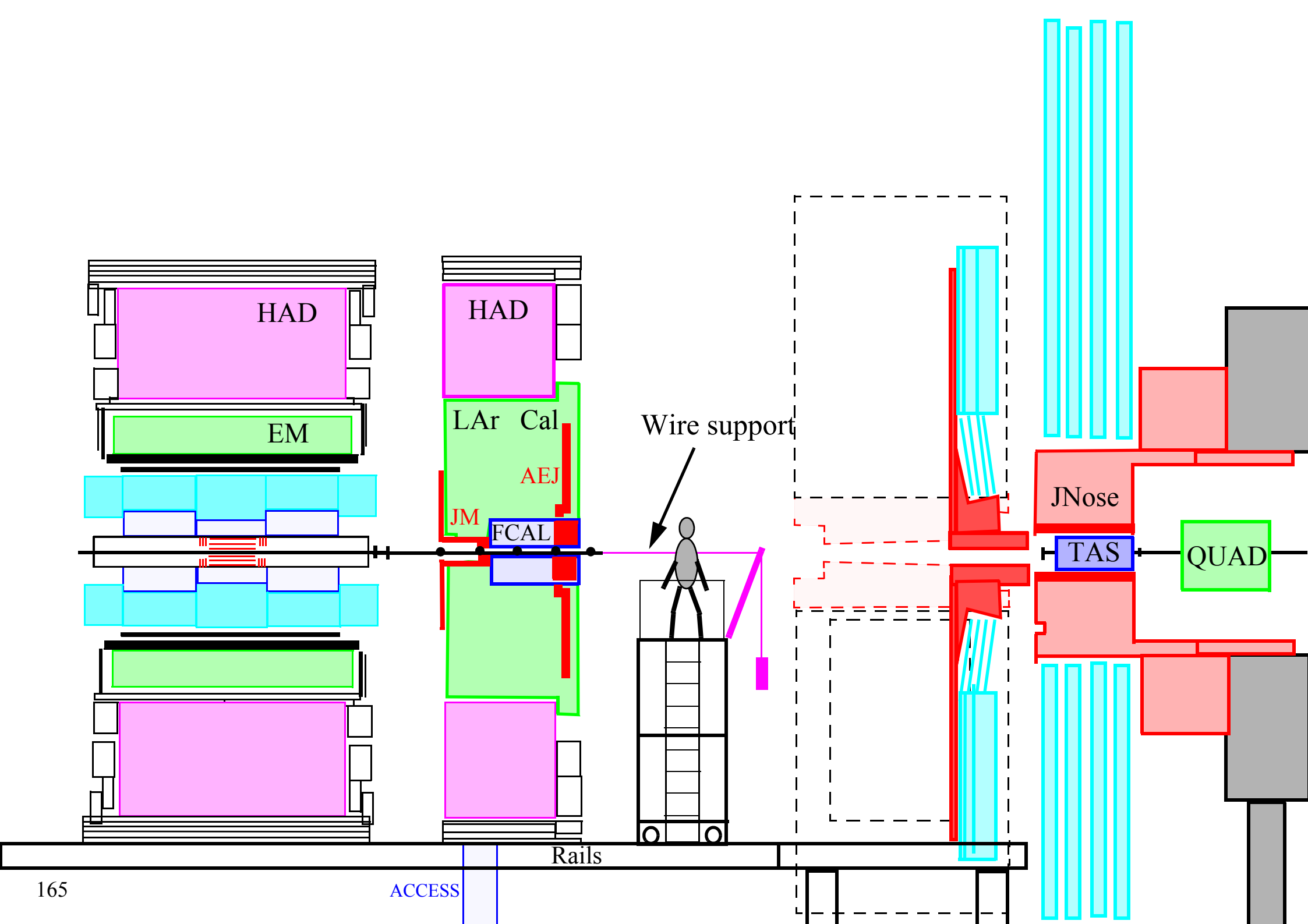
Rails

Attach wire support to beampipe



Remove scaffolding





HAD

EM

HAD

LAr Cal

AEJ

JM

FCAL

Wire support

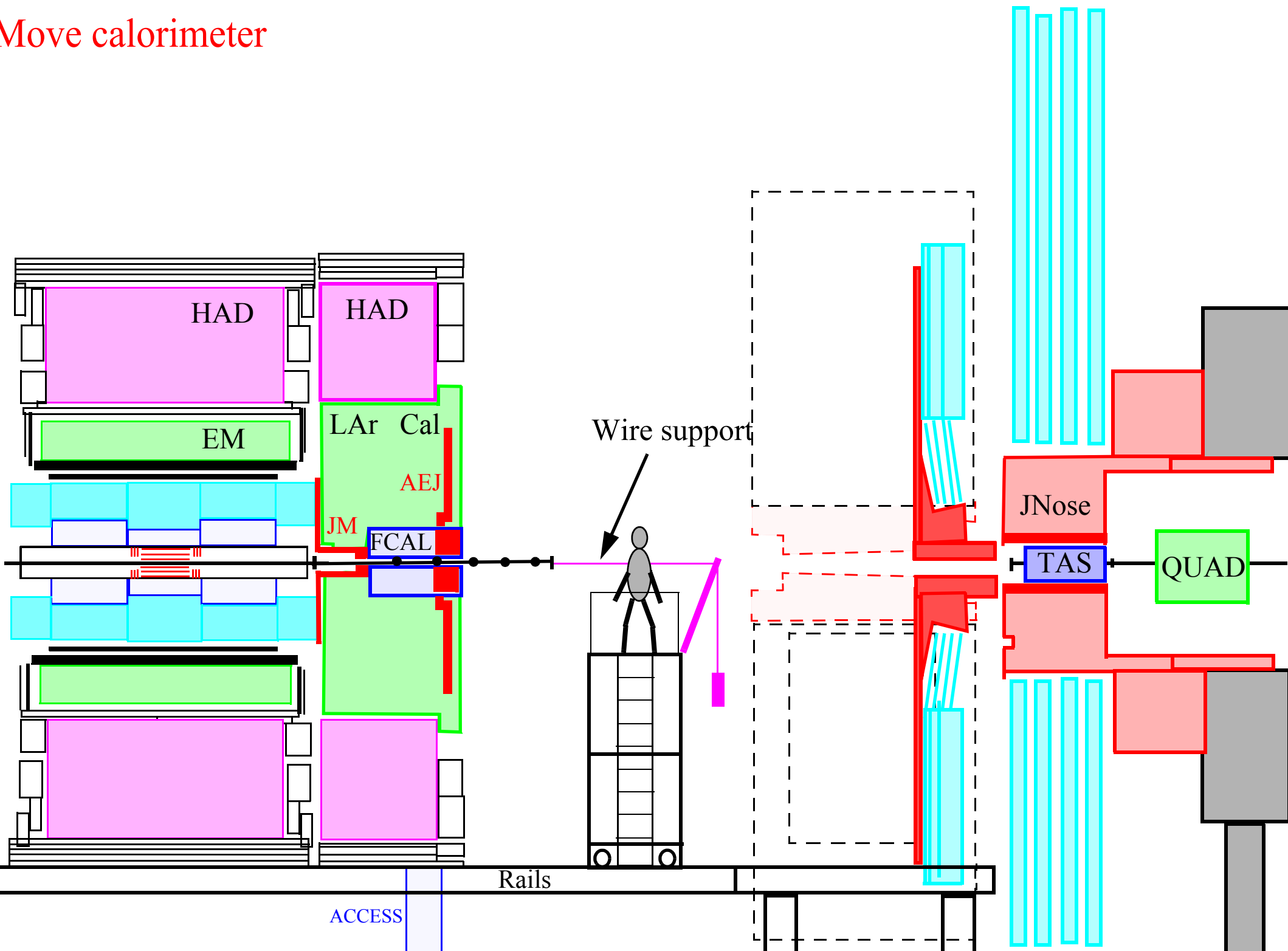
JNose

TAS

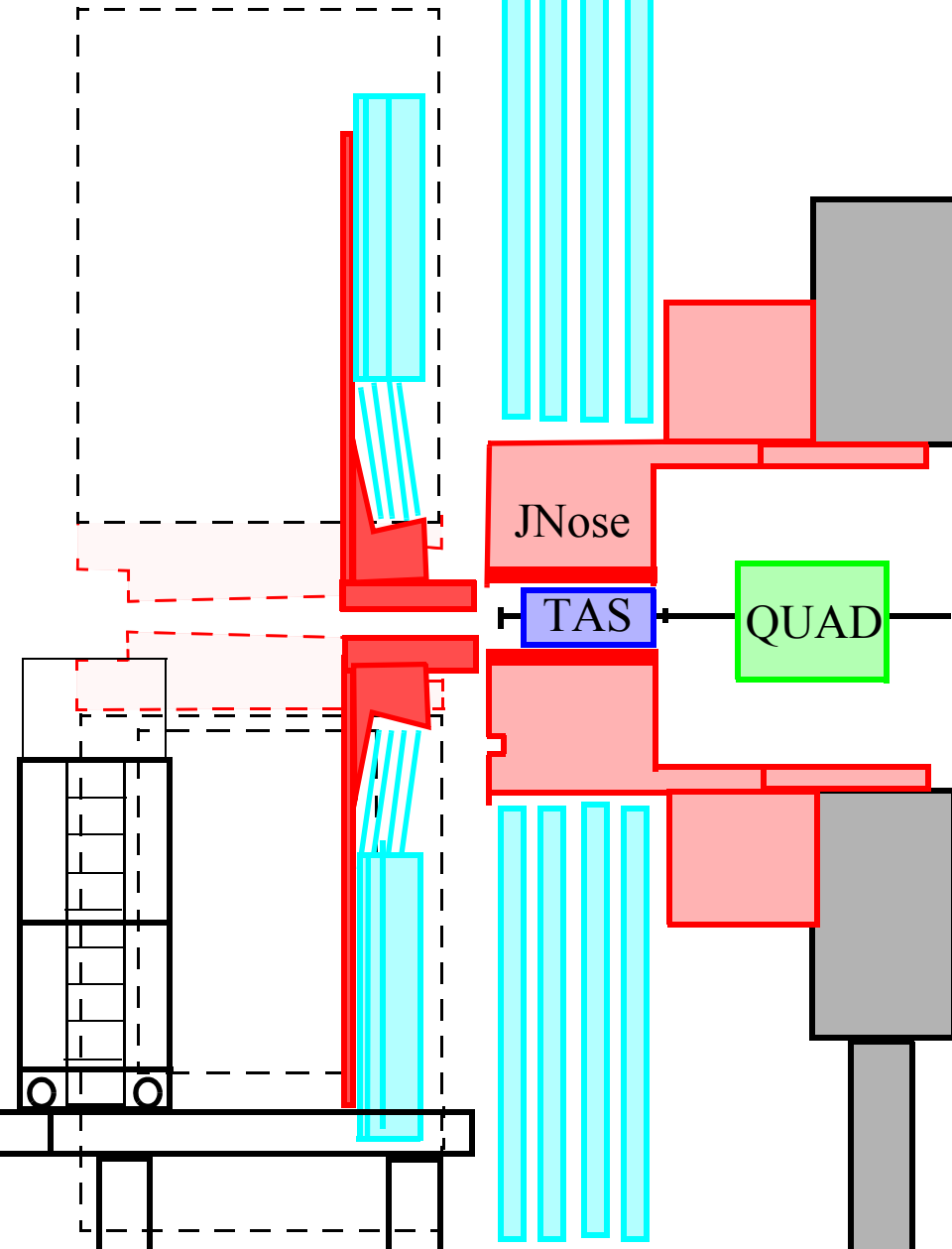
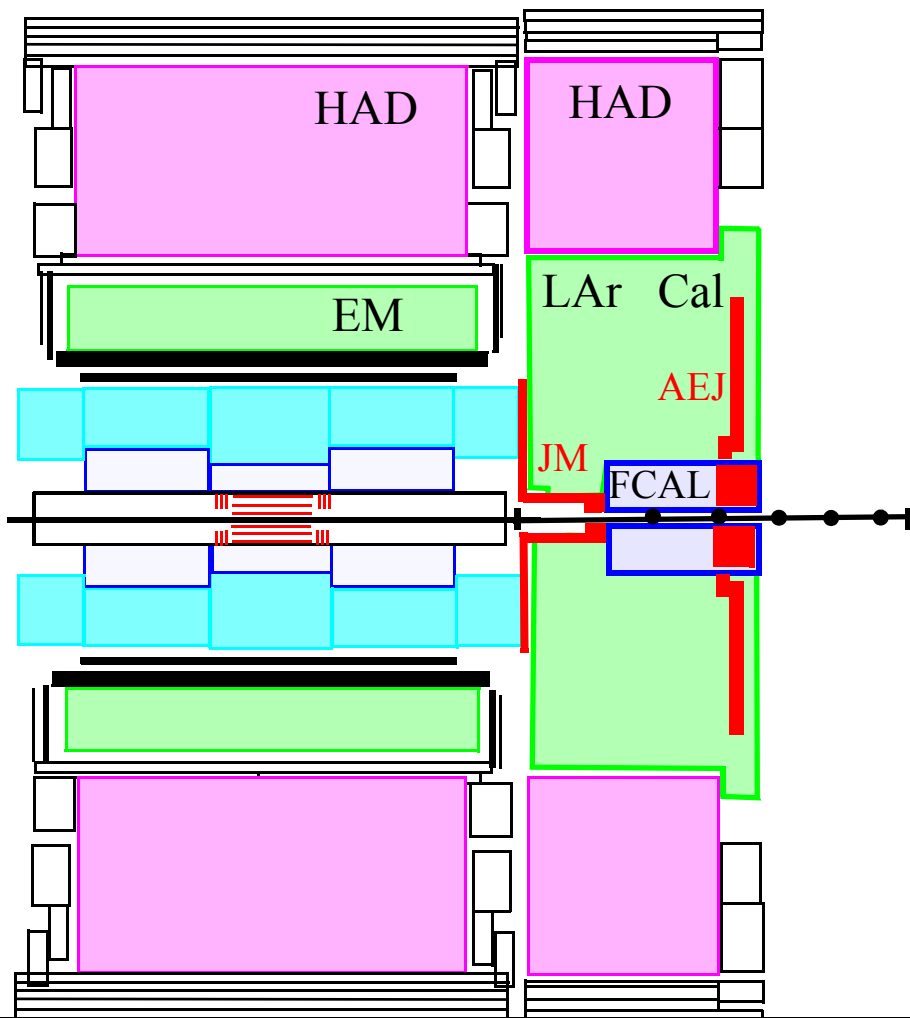
QUAD

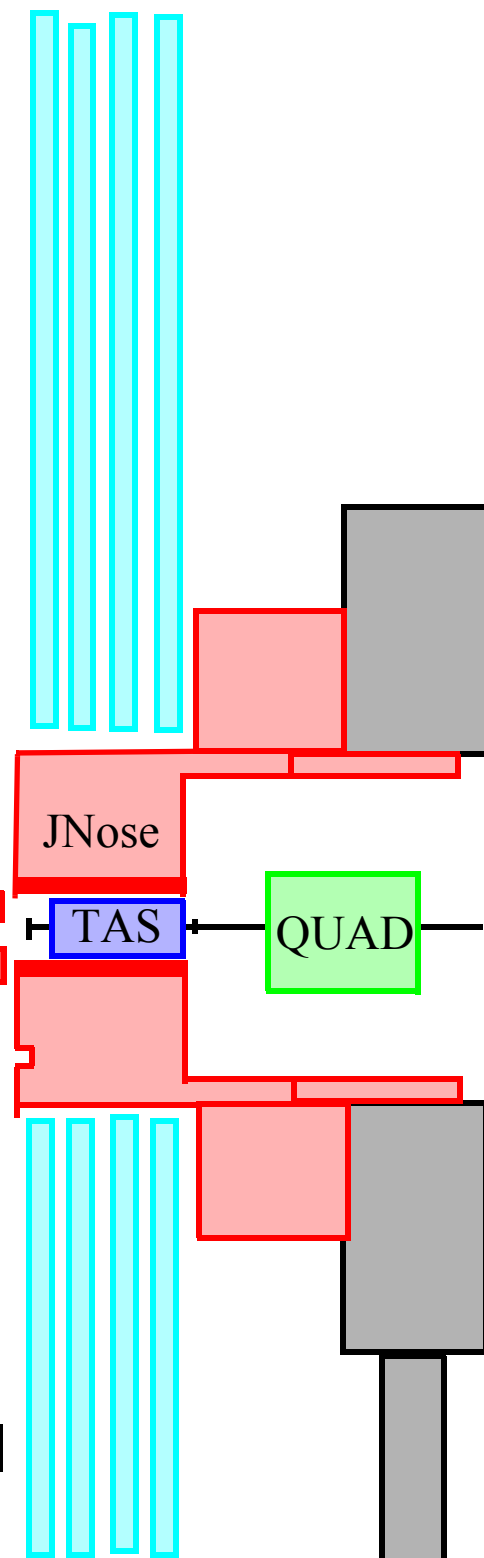
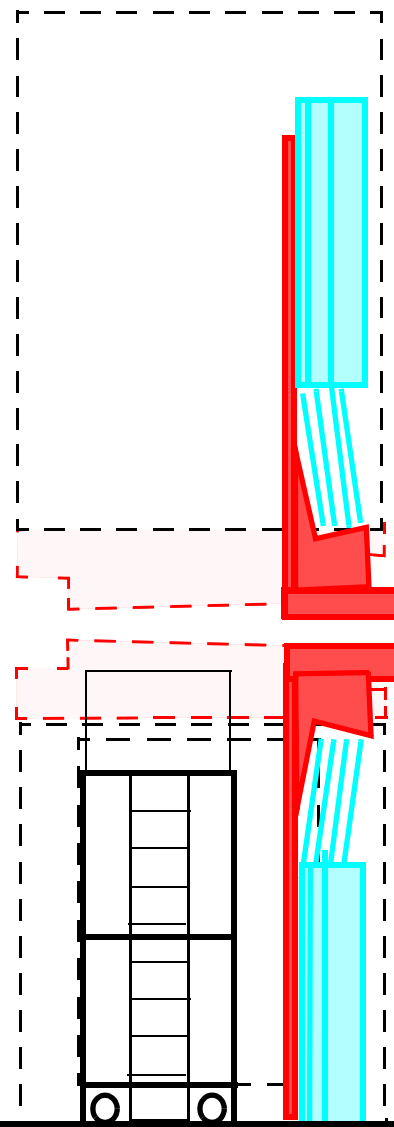
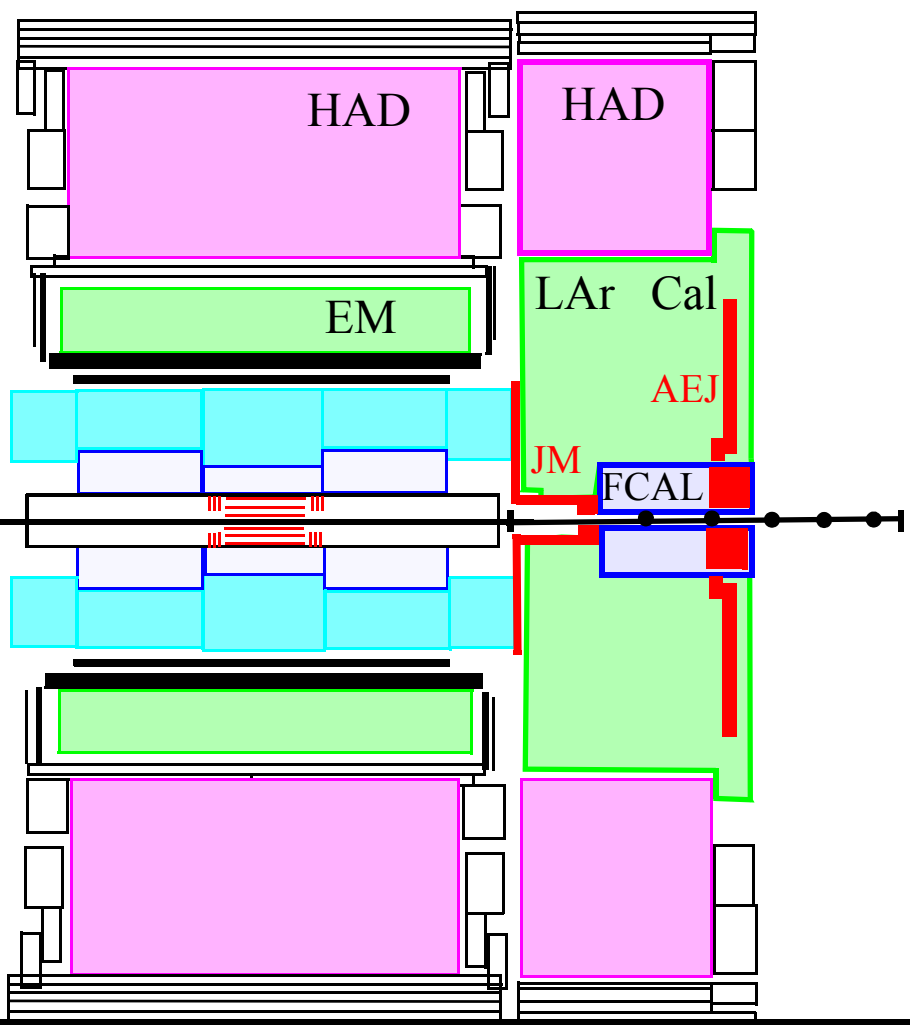
Rails

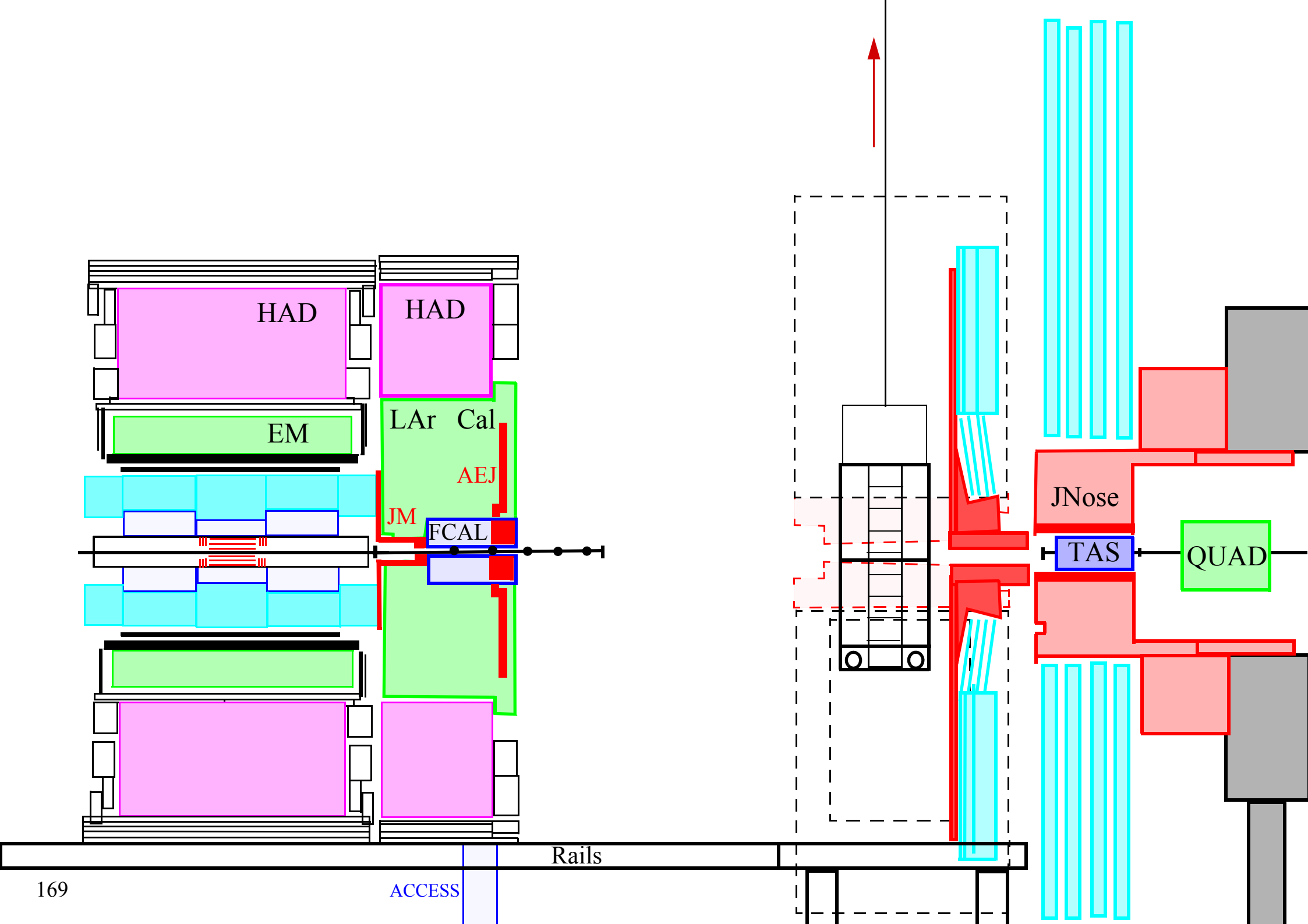
Move calorimeter

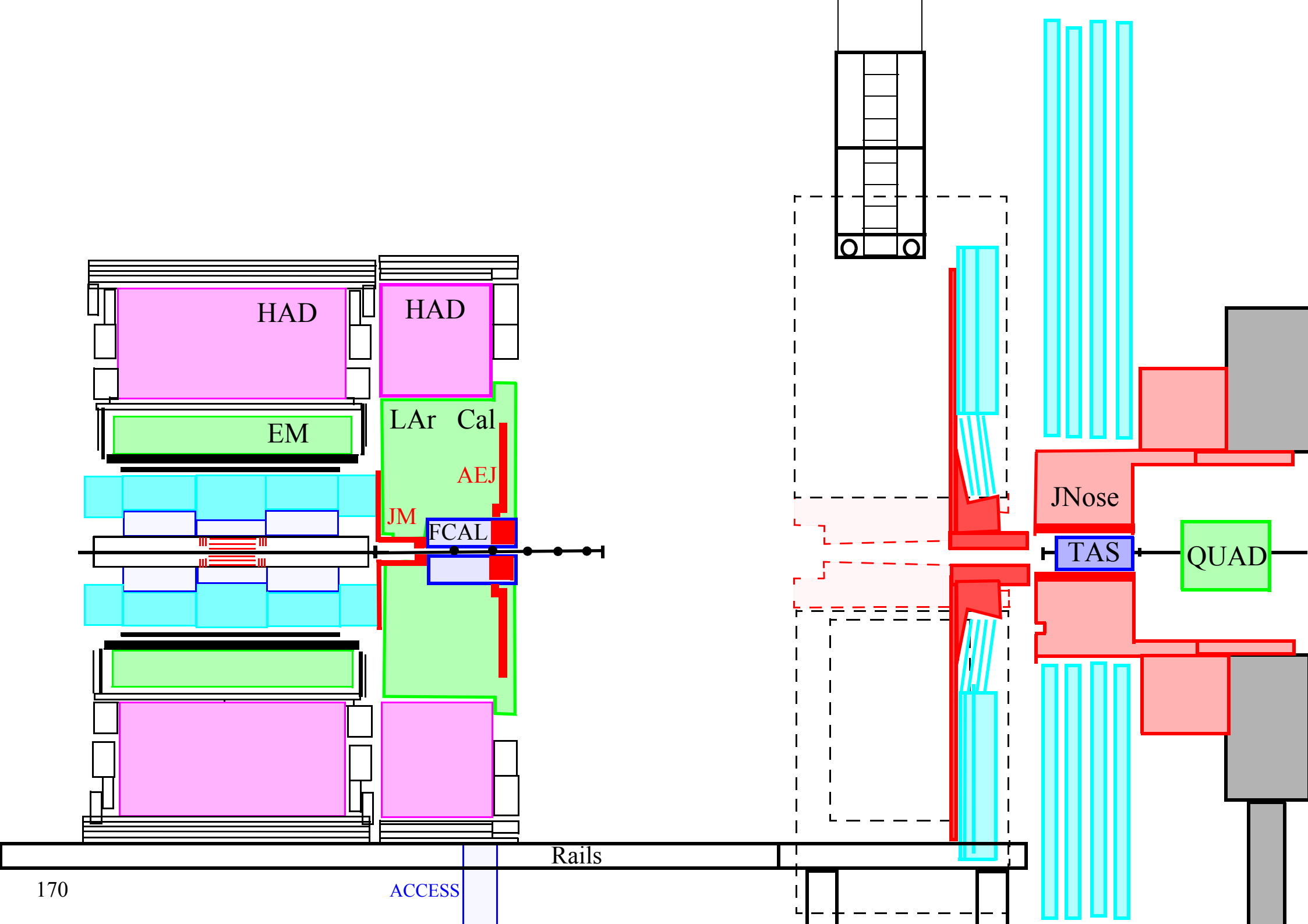


Remove minivan

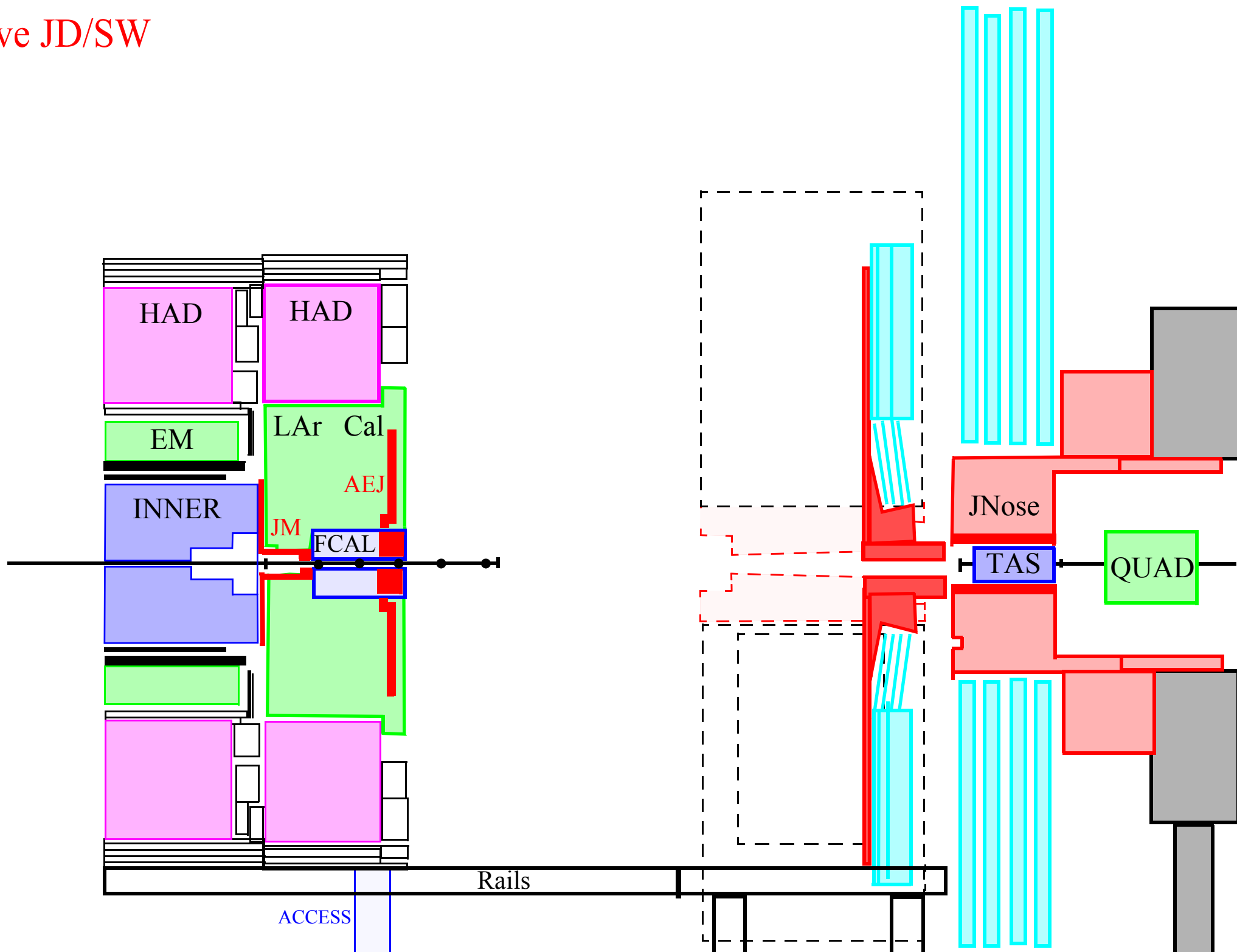


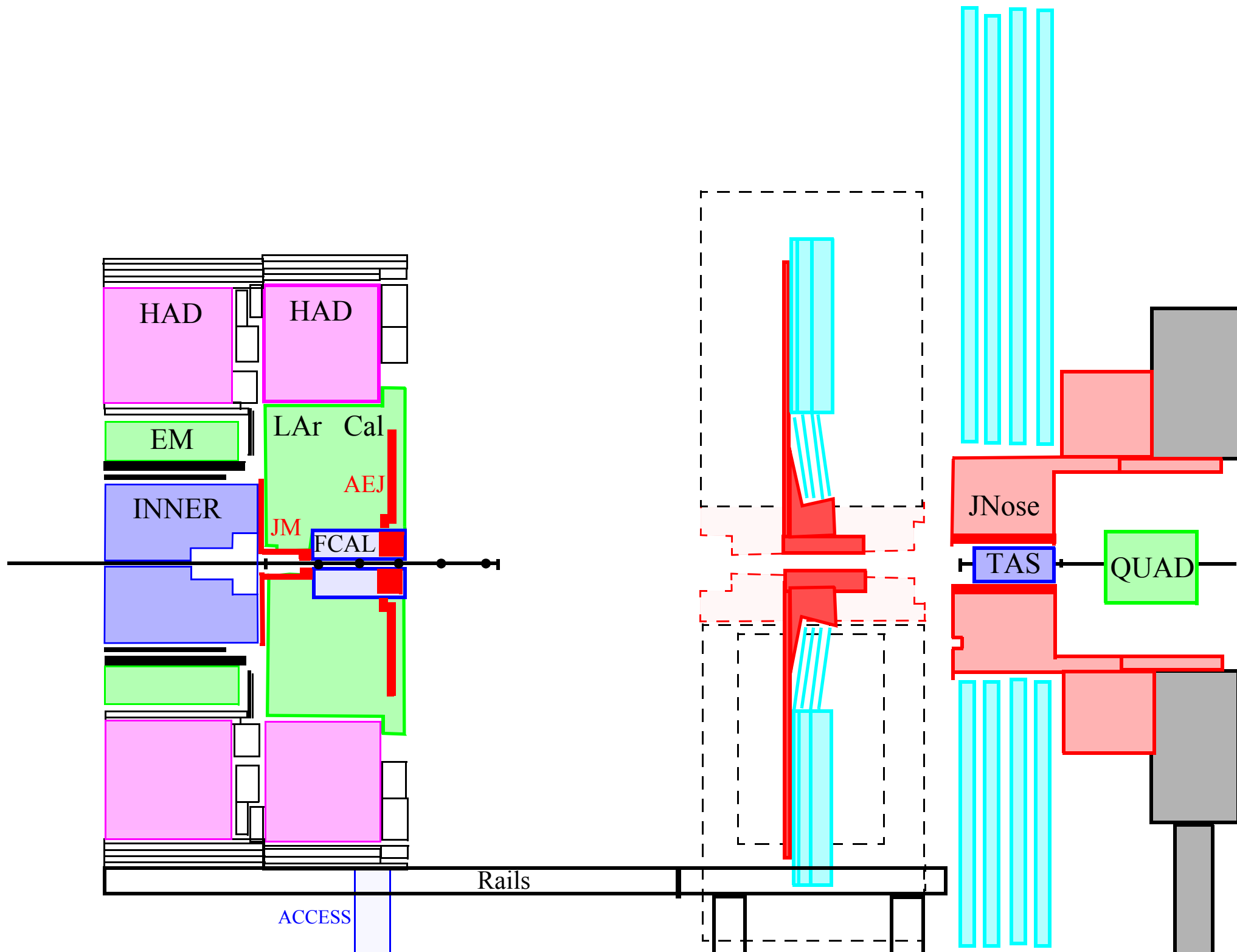


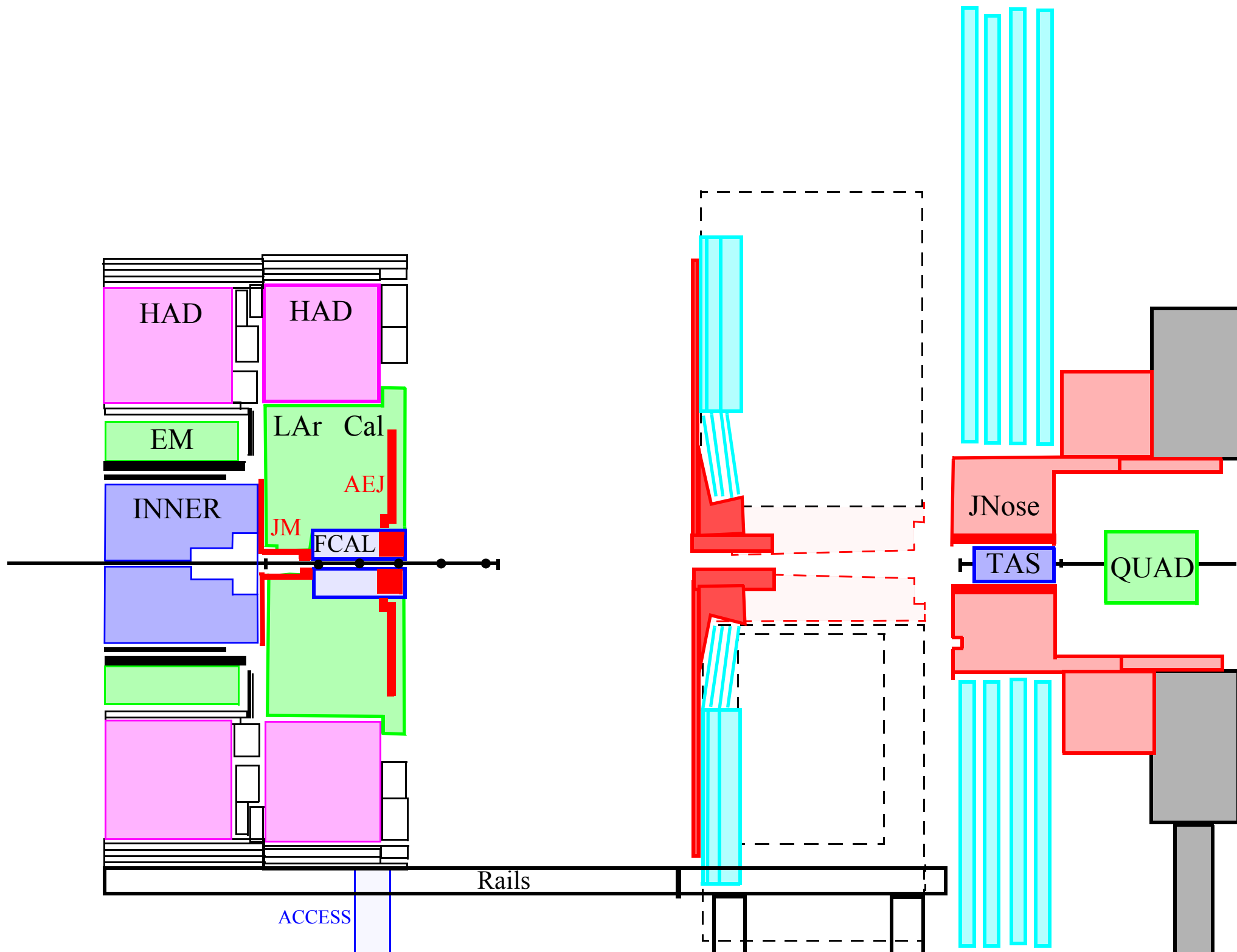


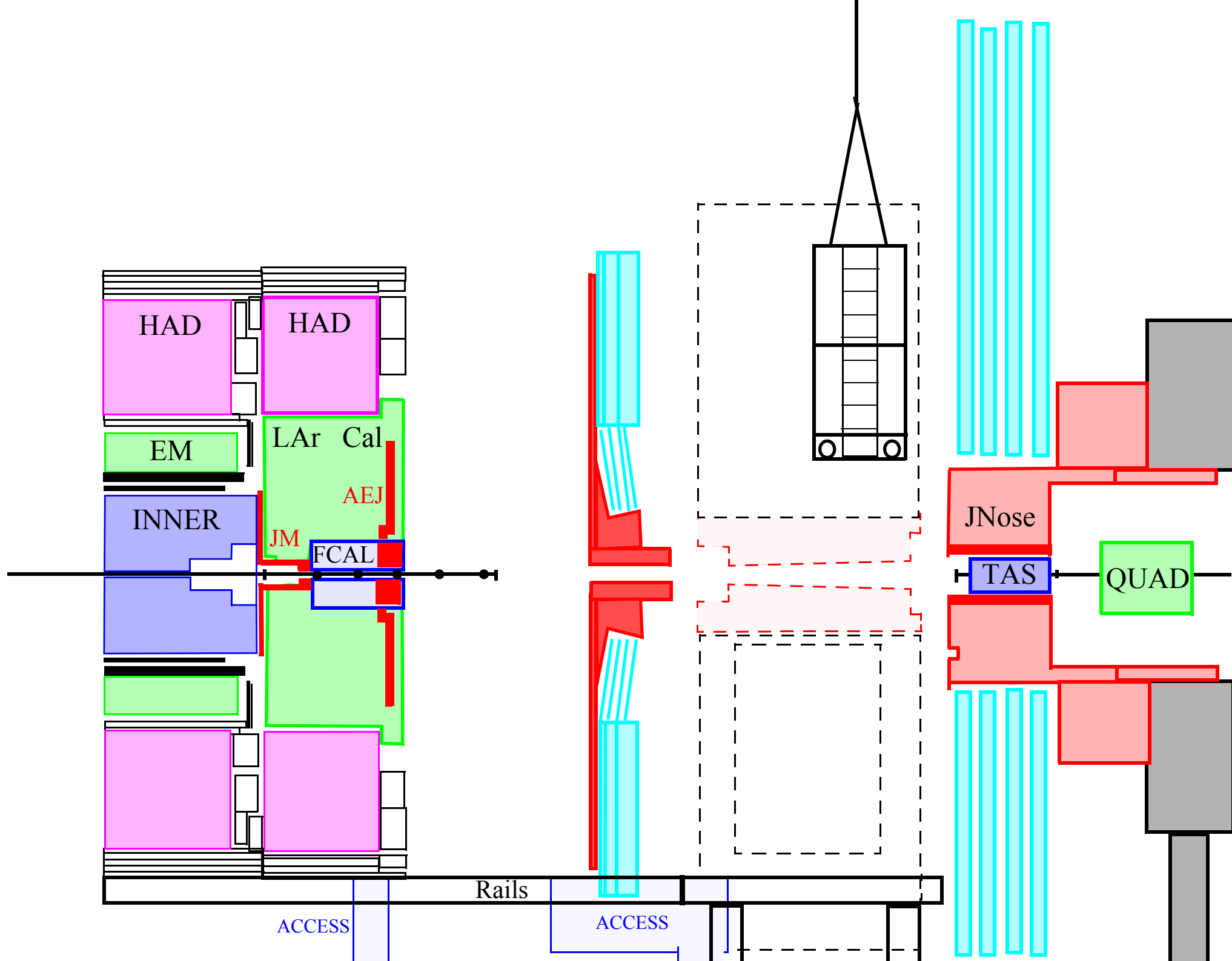


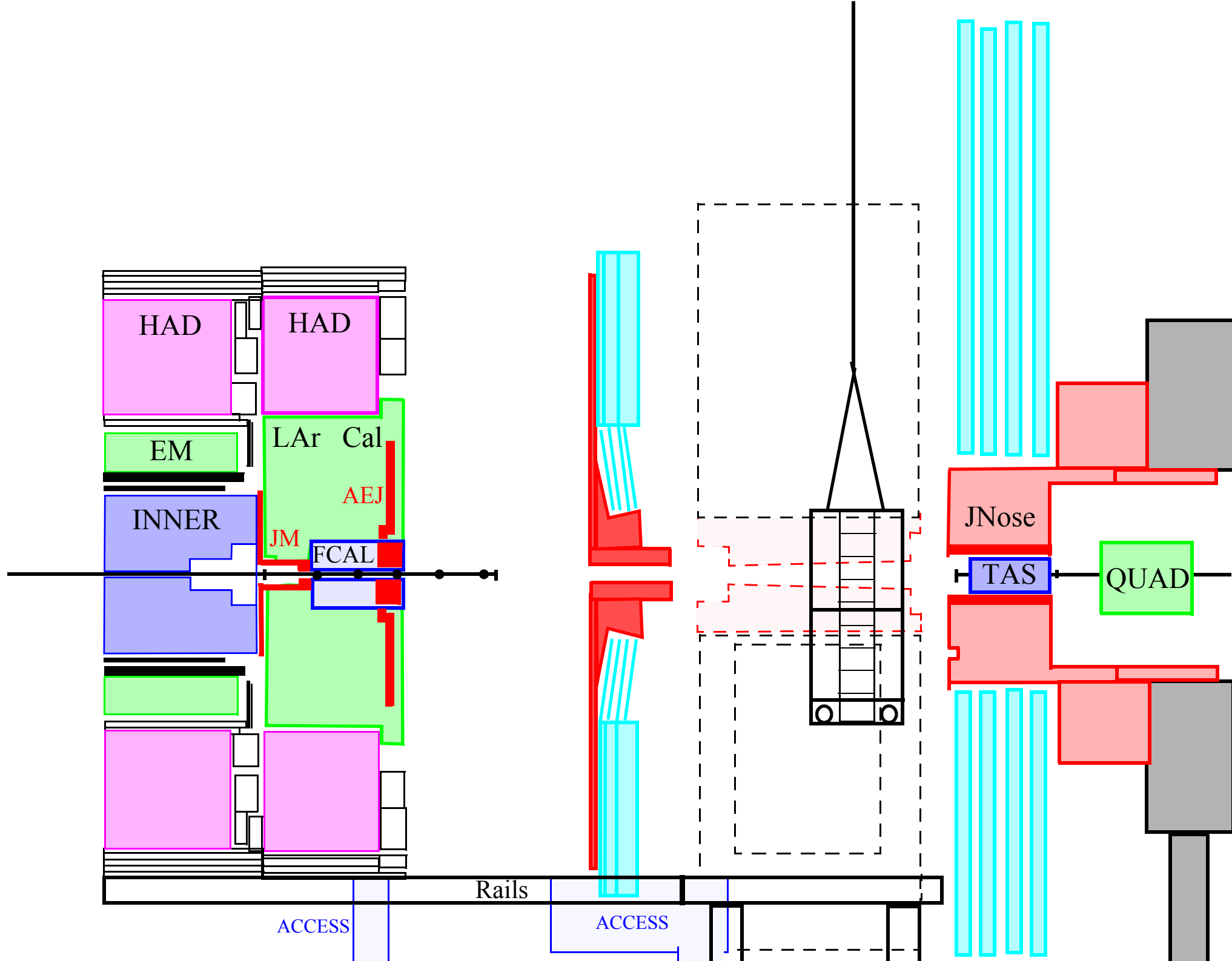
Move JD/SW

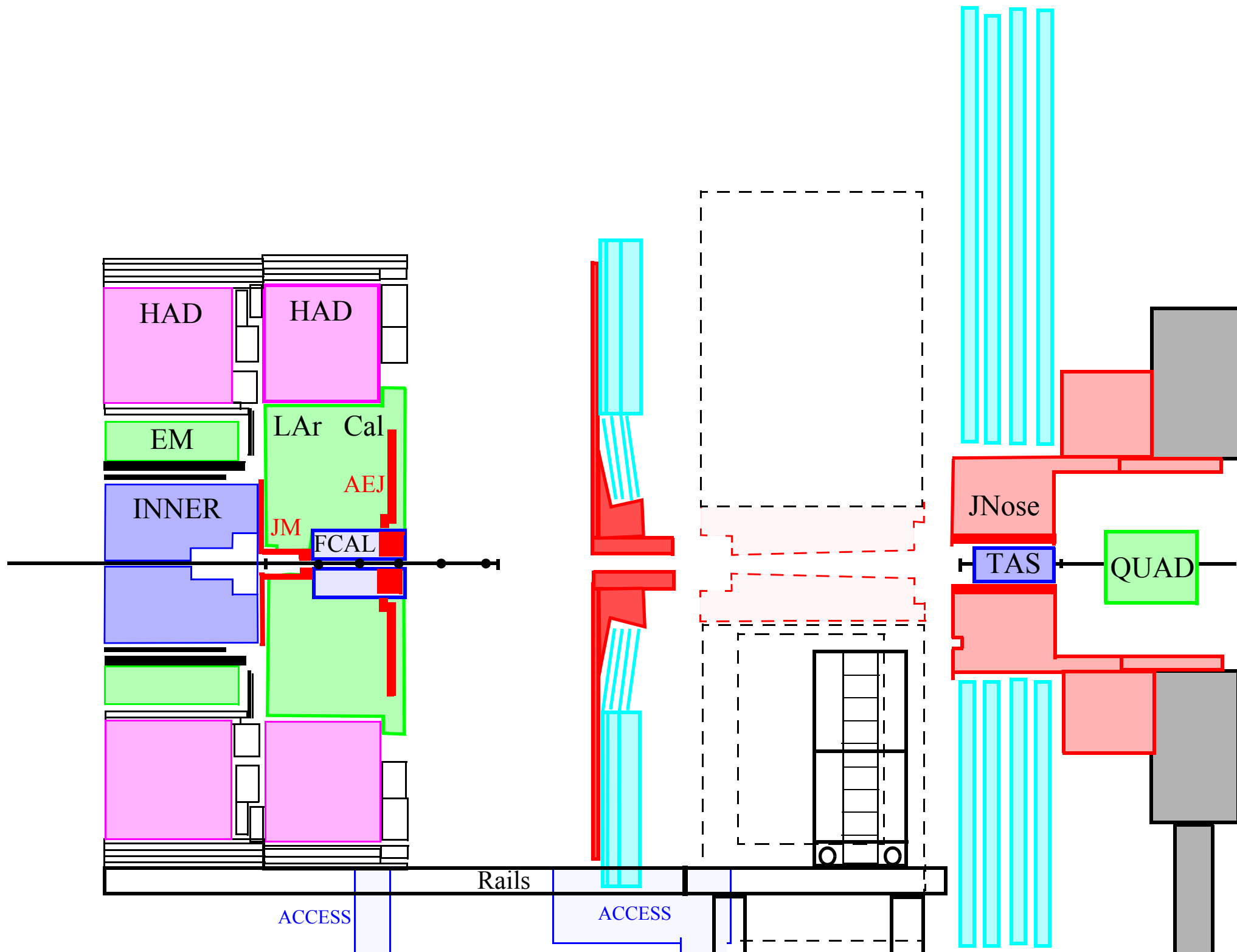


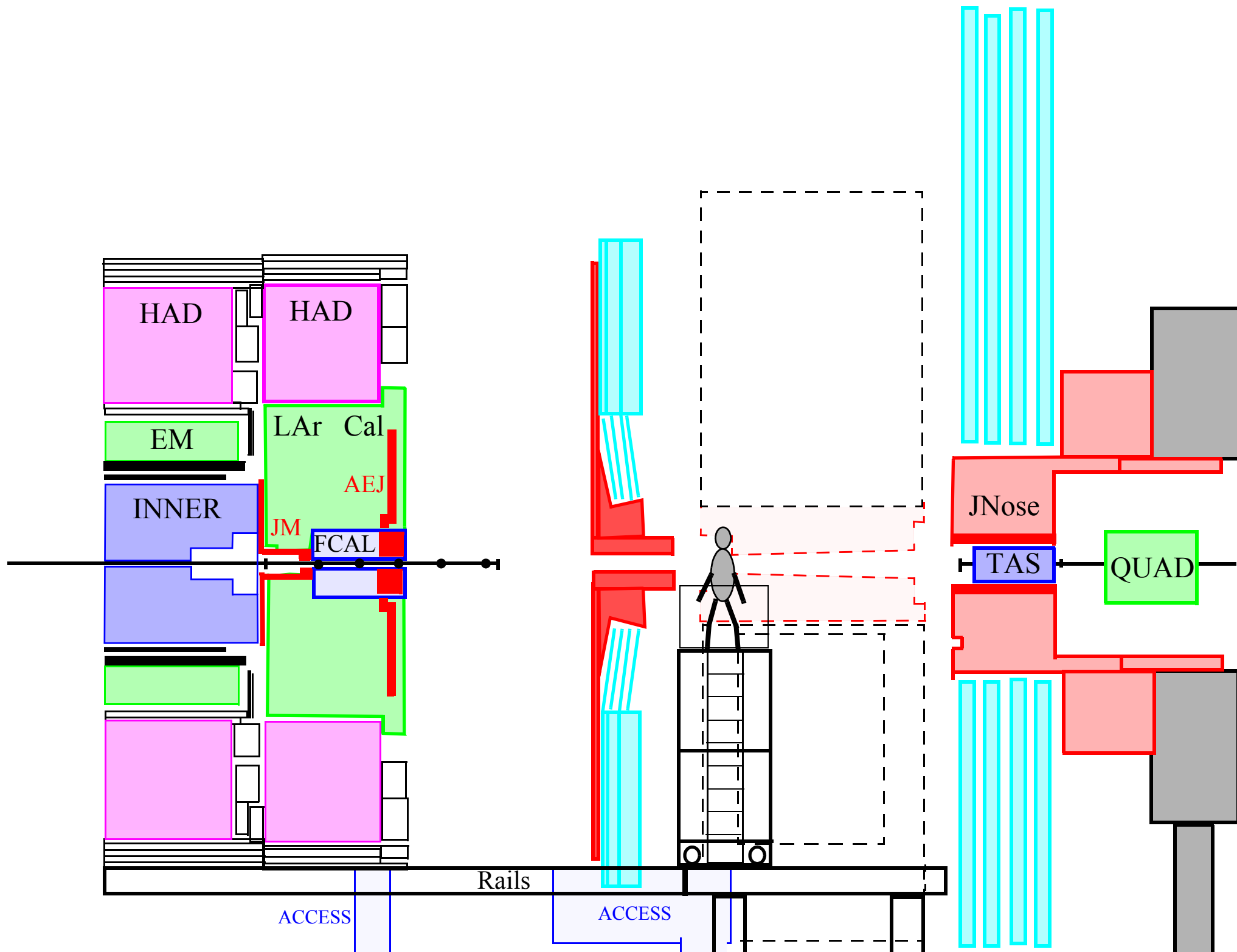




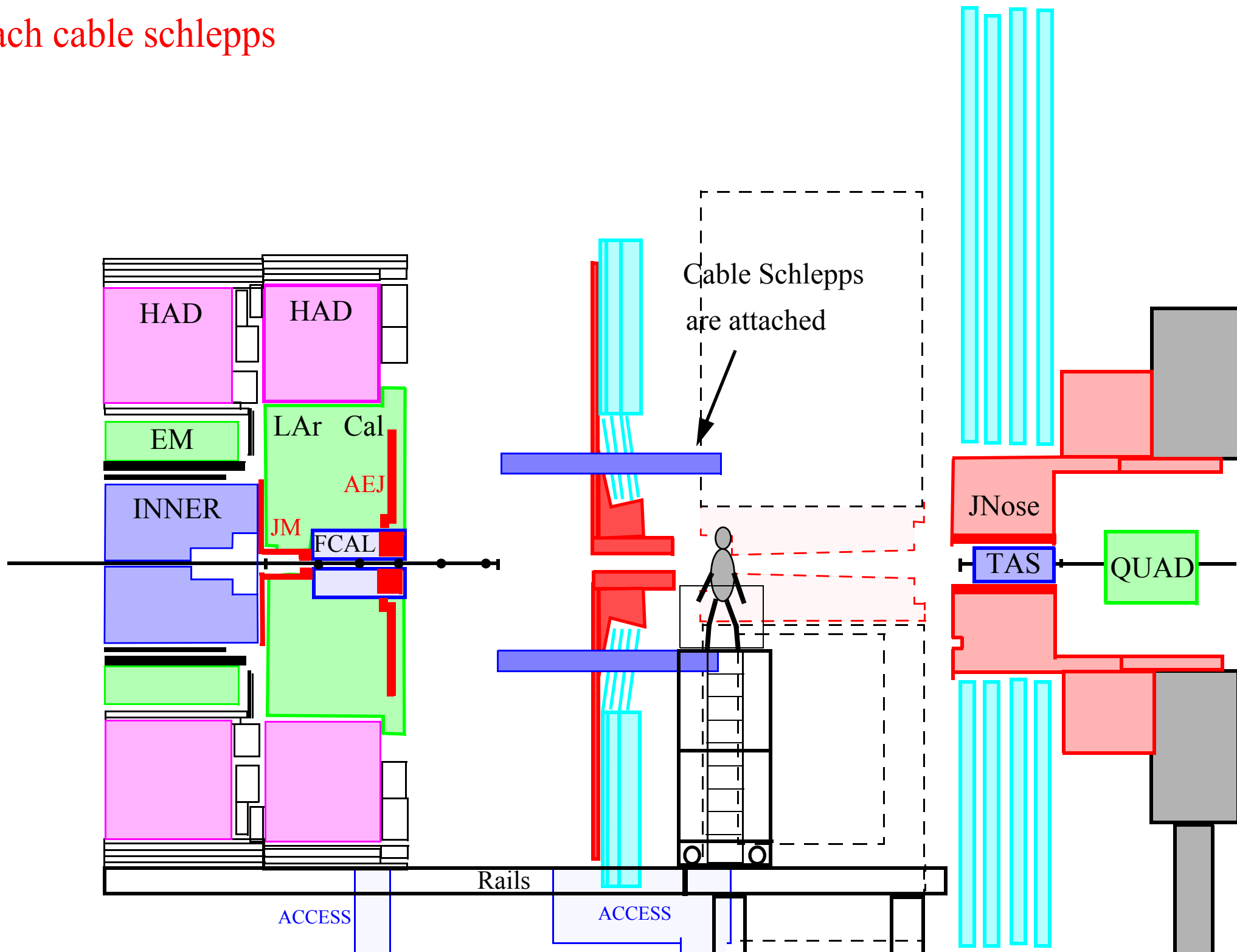


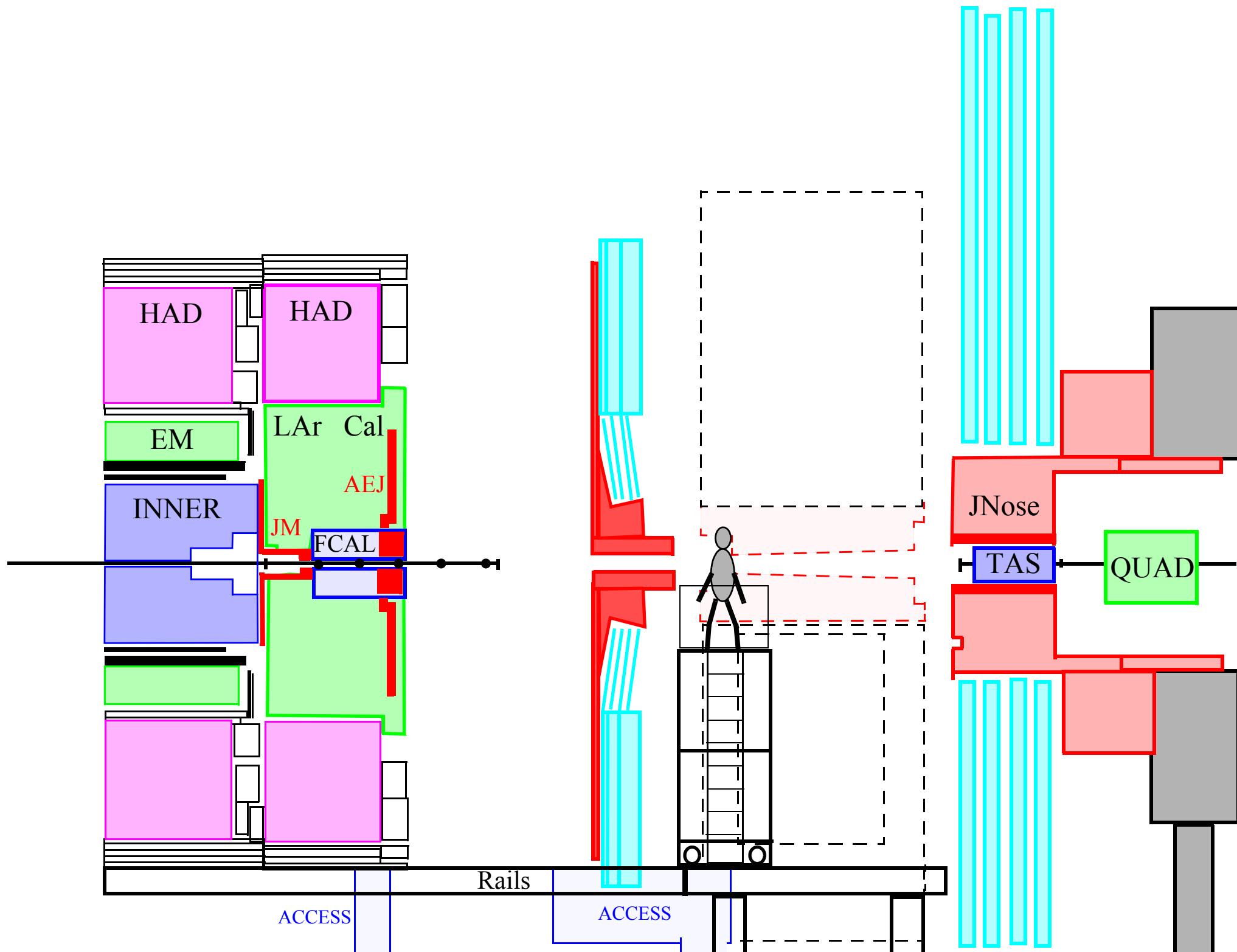


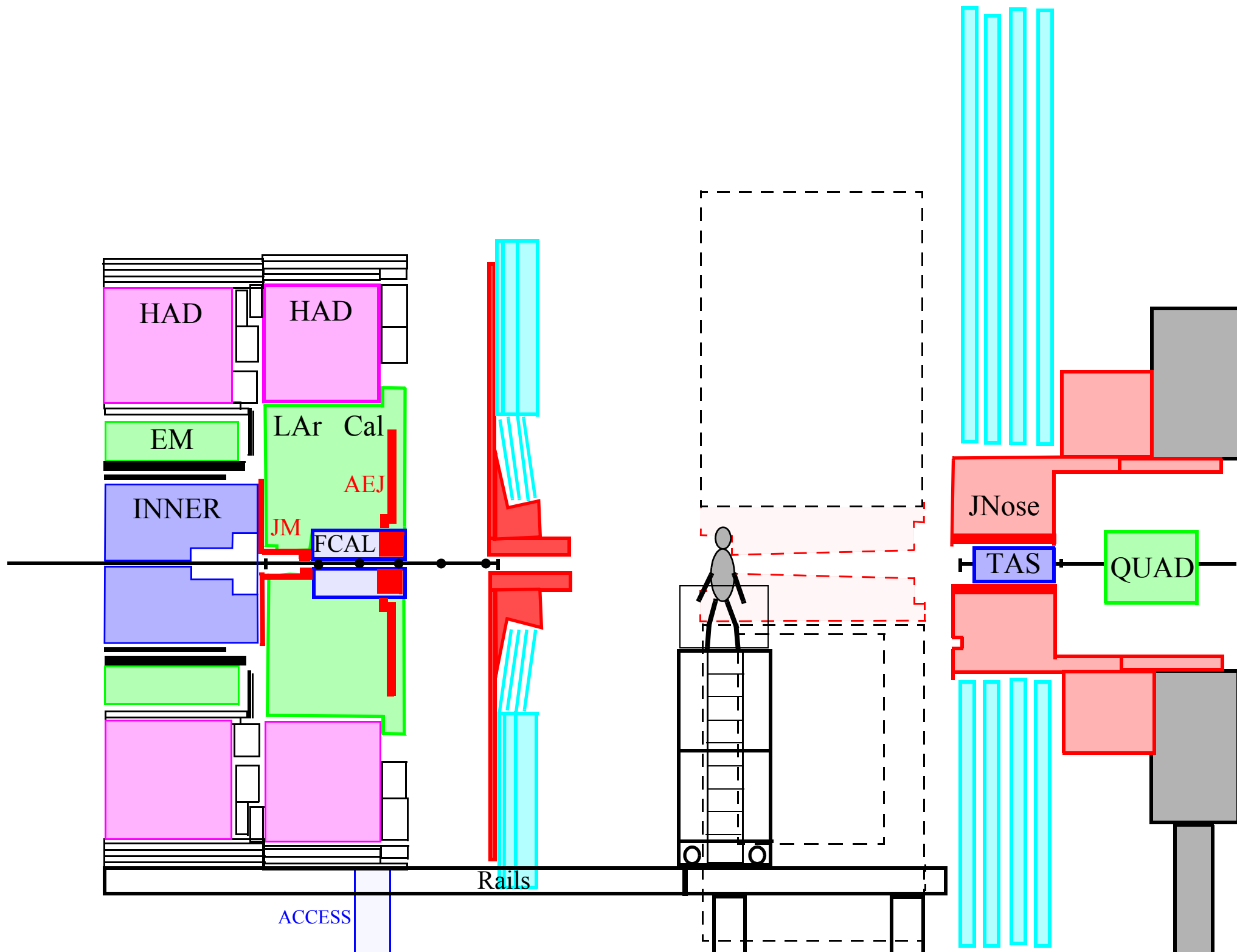


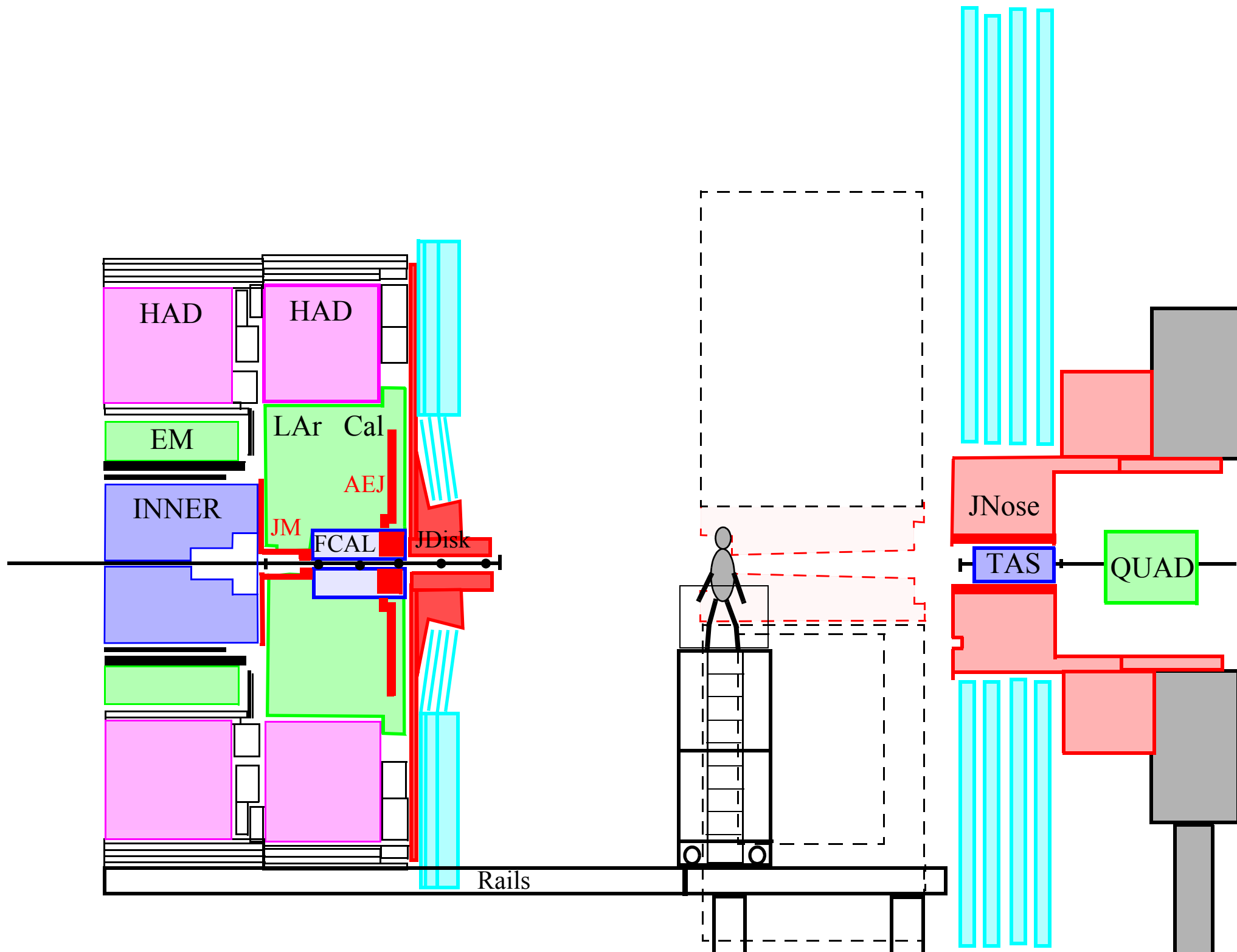


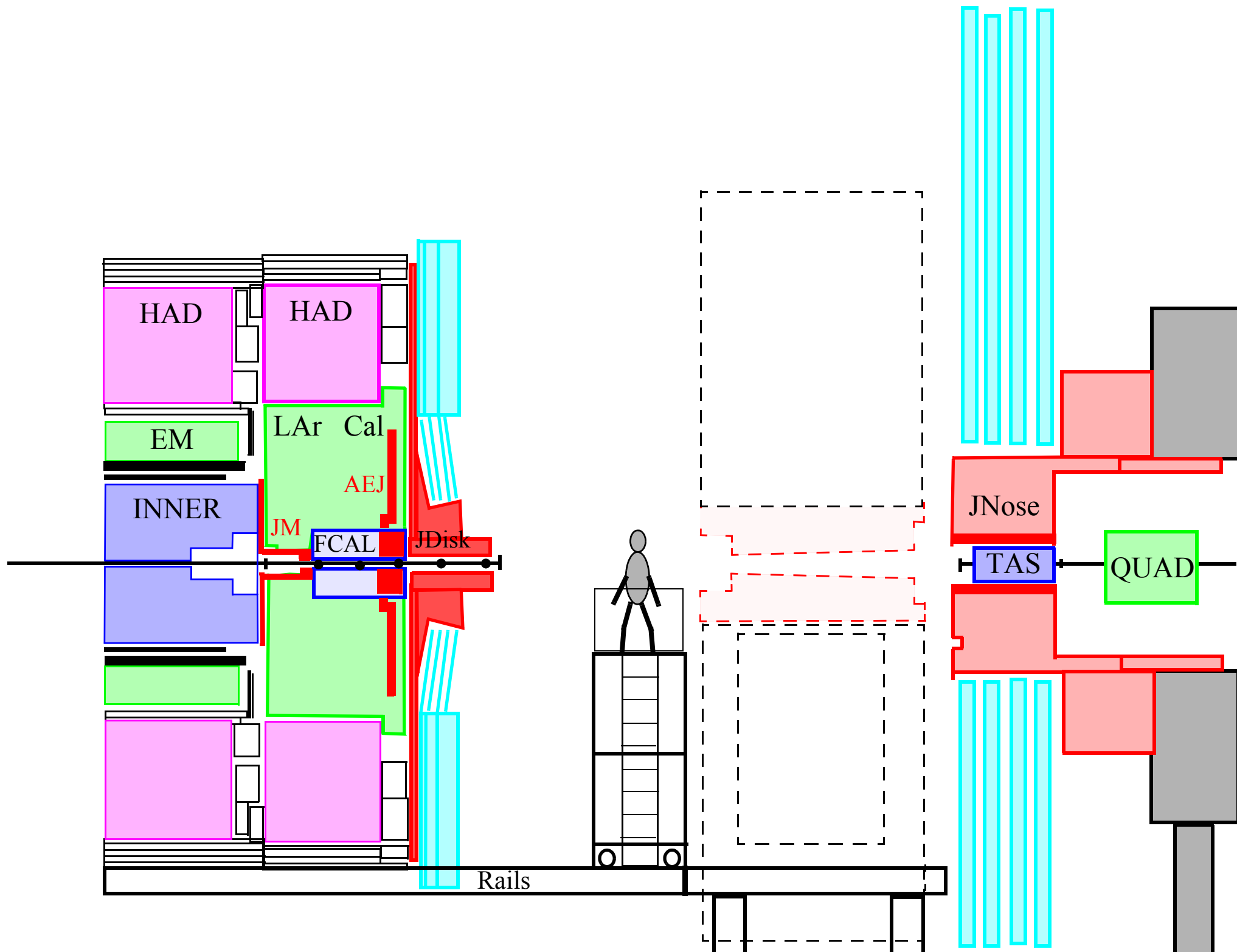
Attach cable schlepps

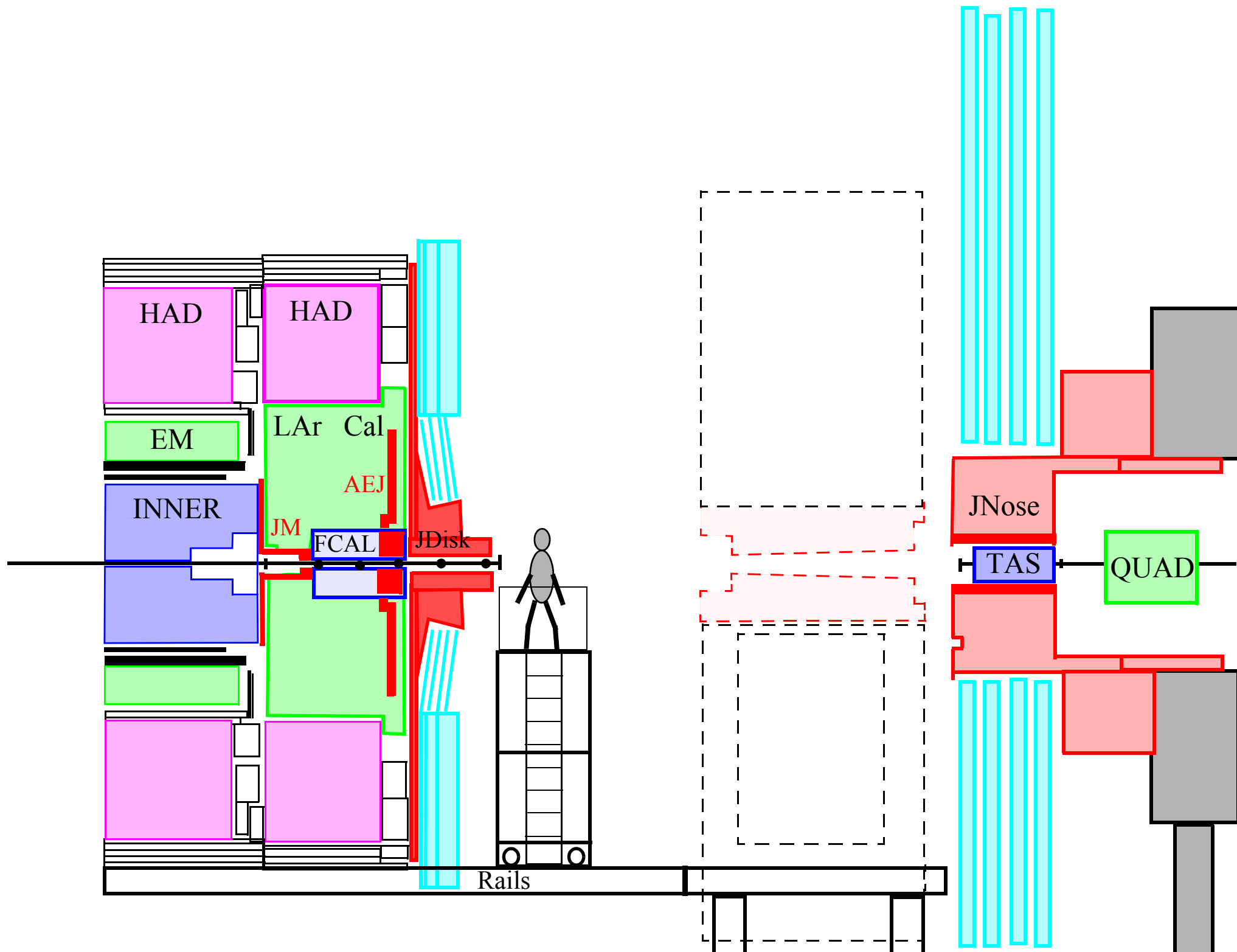




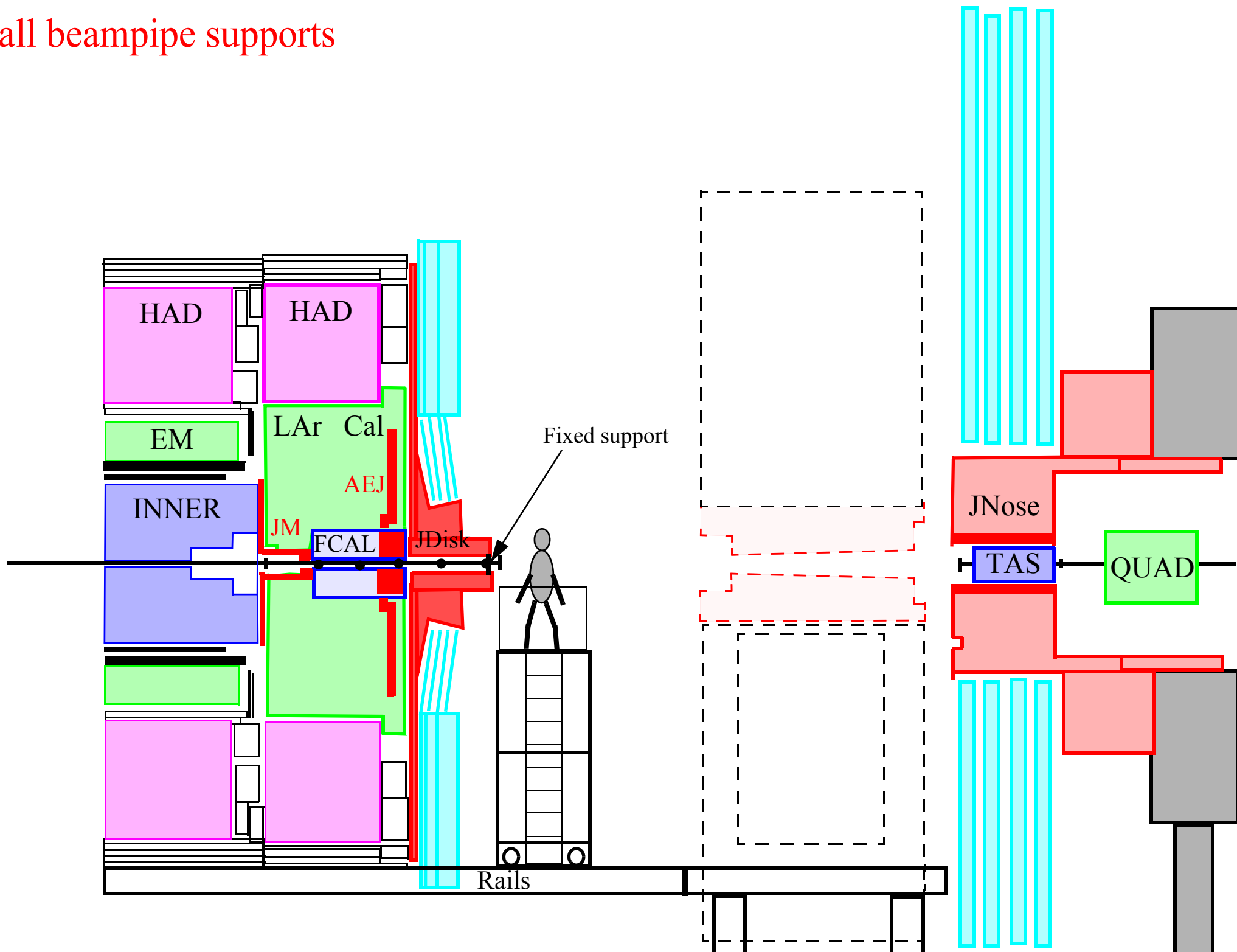




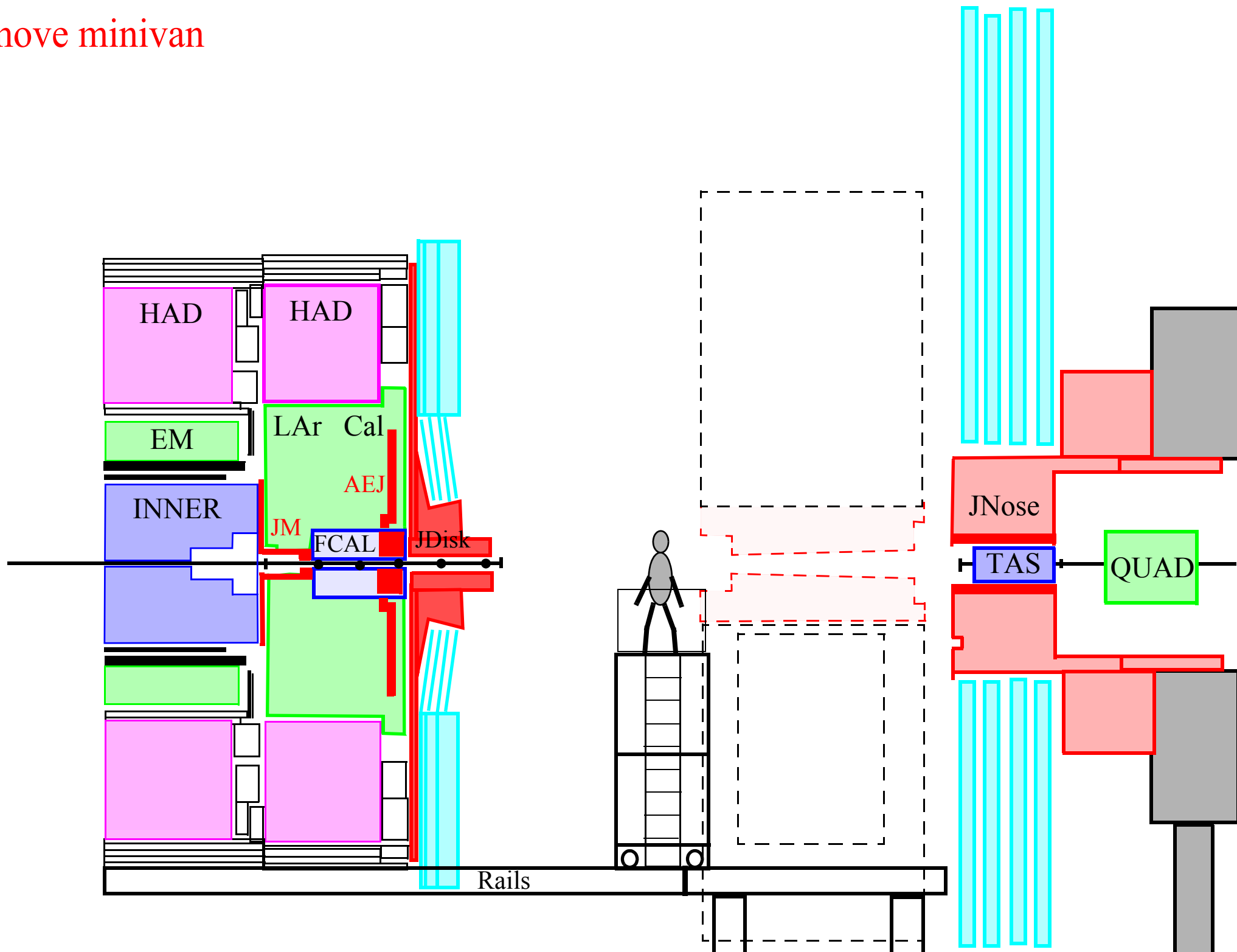


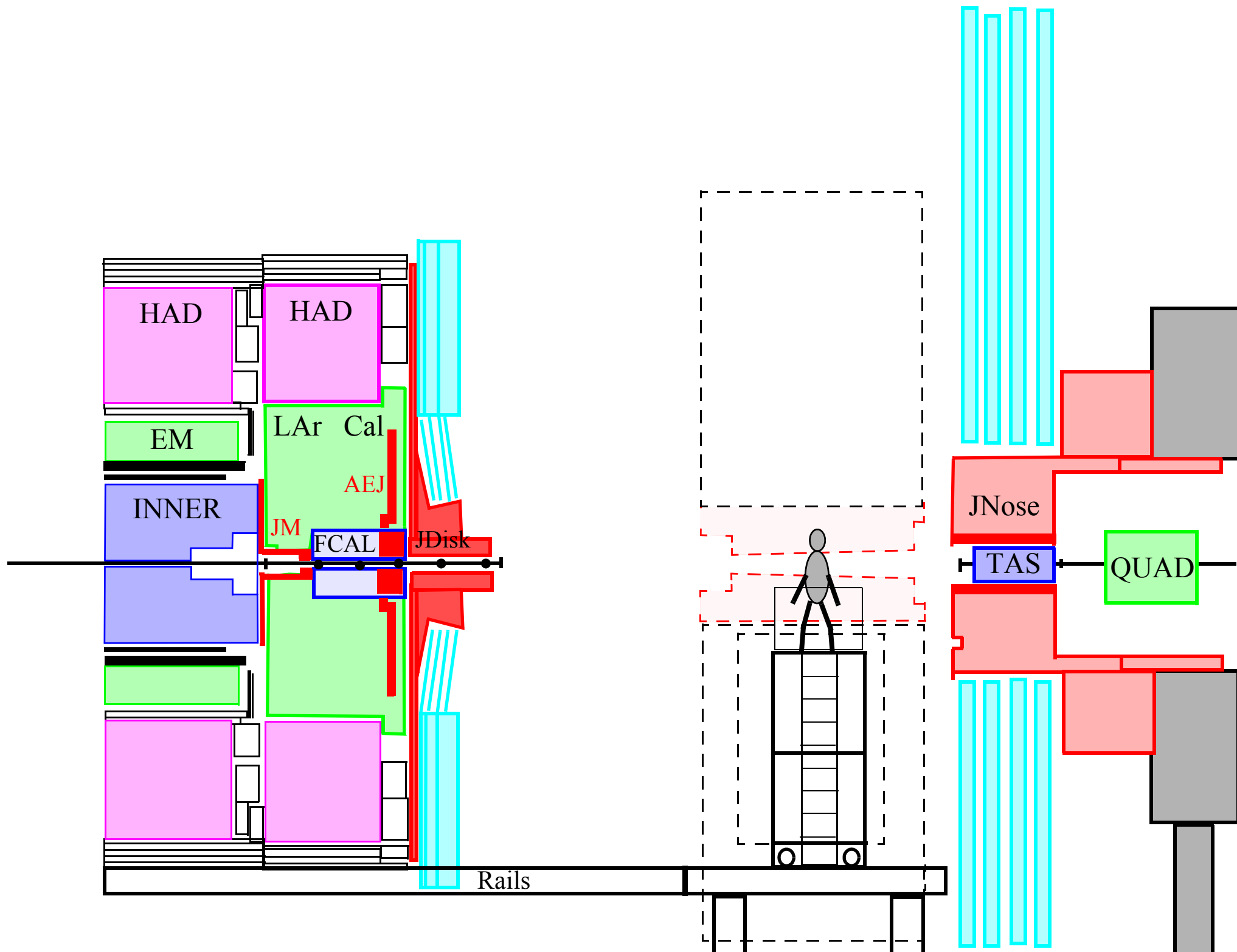


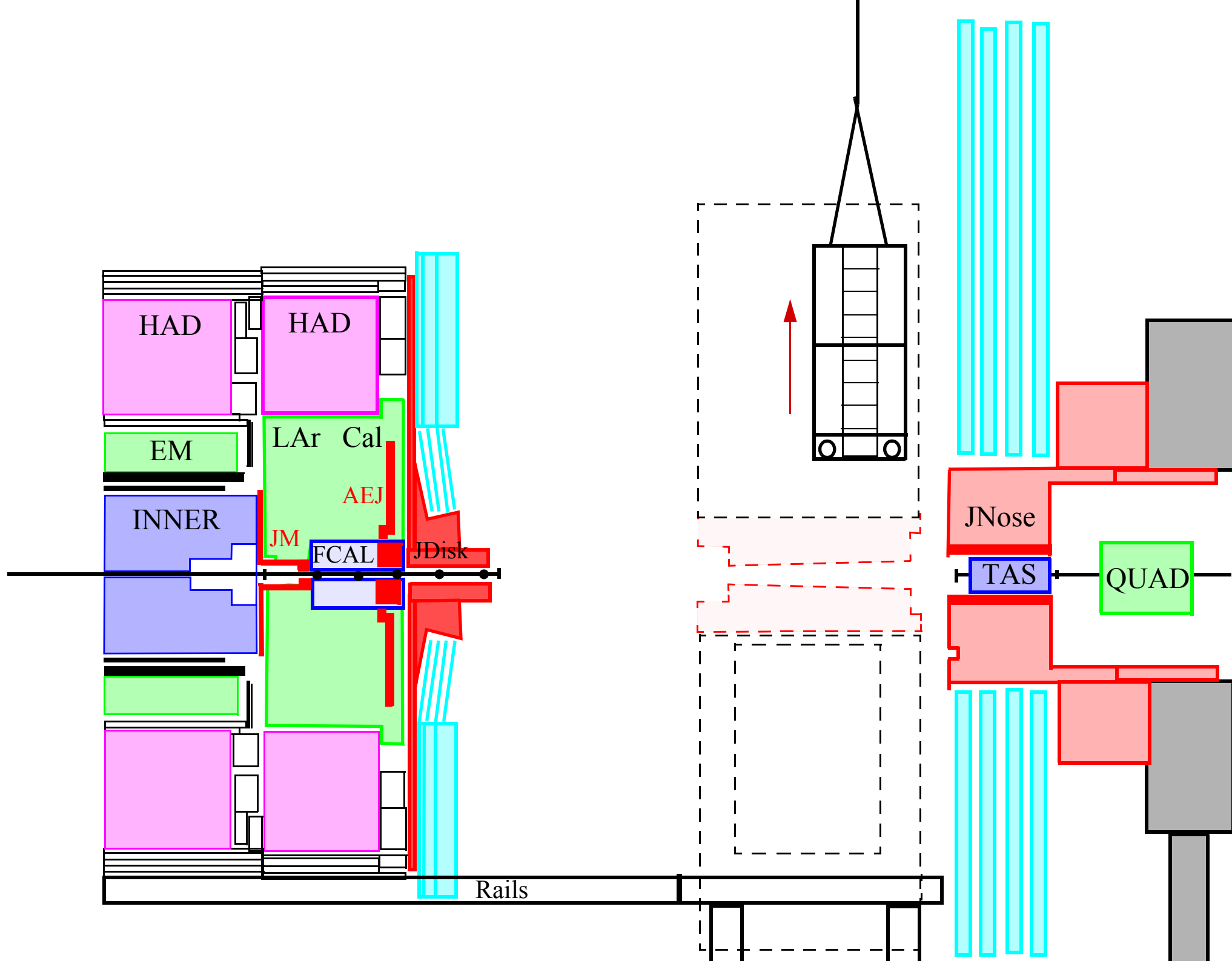
Install beampipe supports

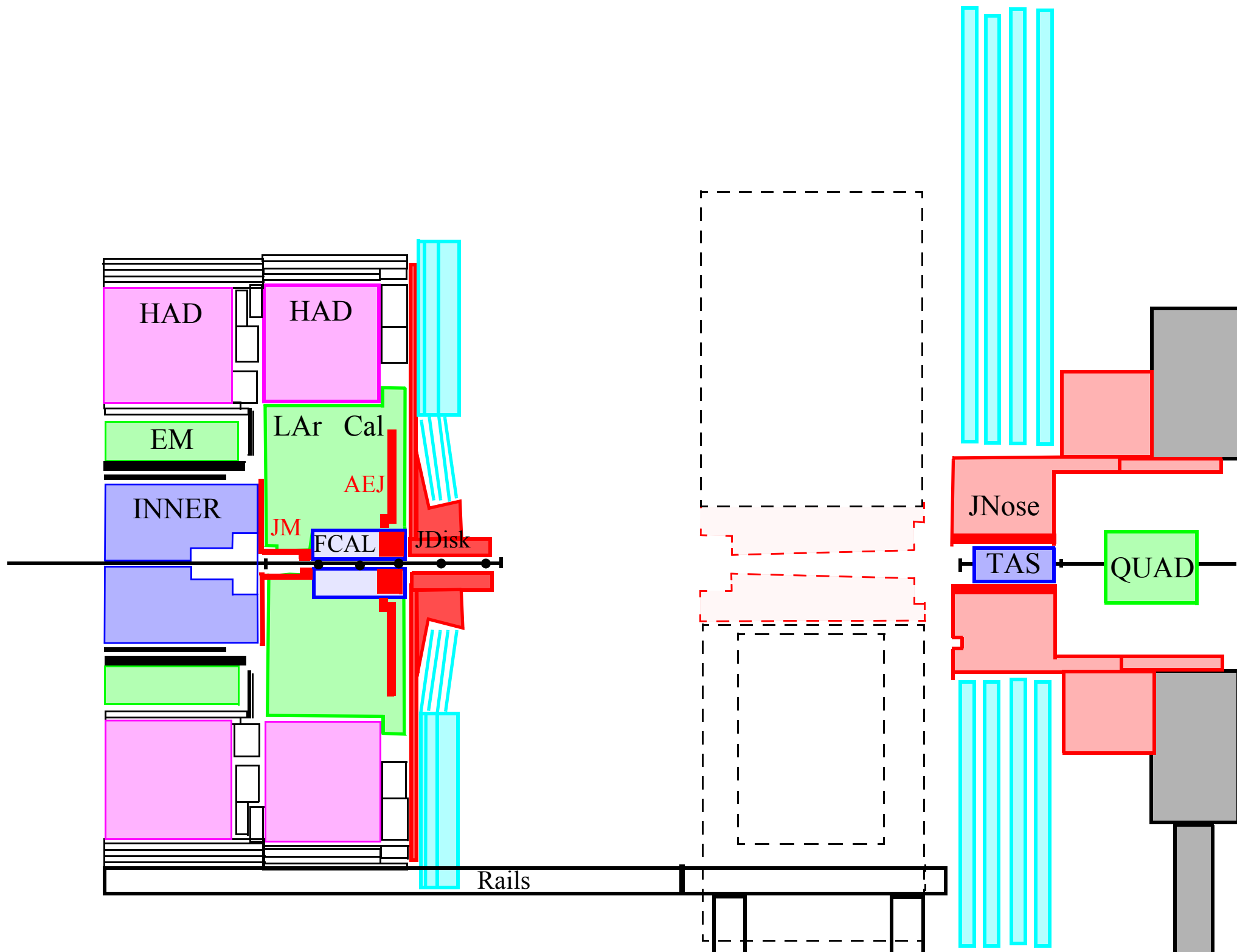


Remove minivan

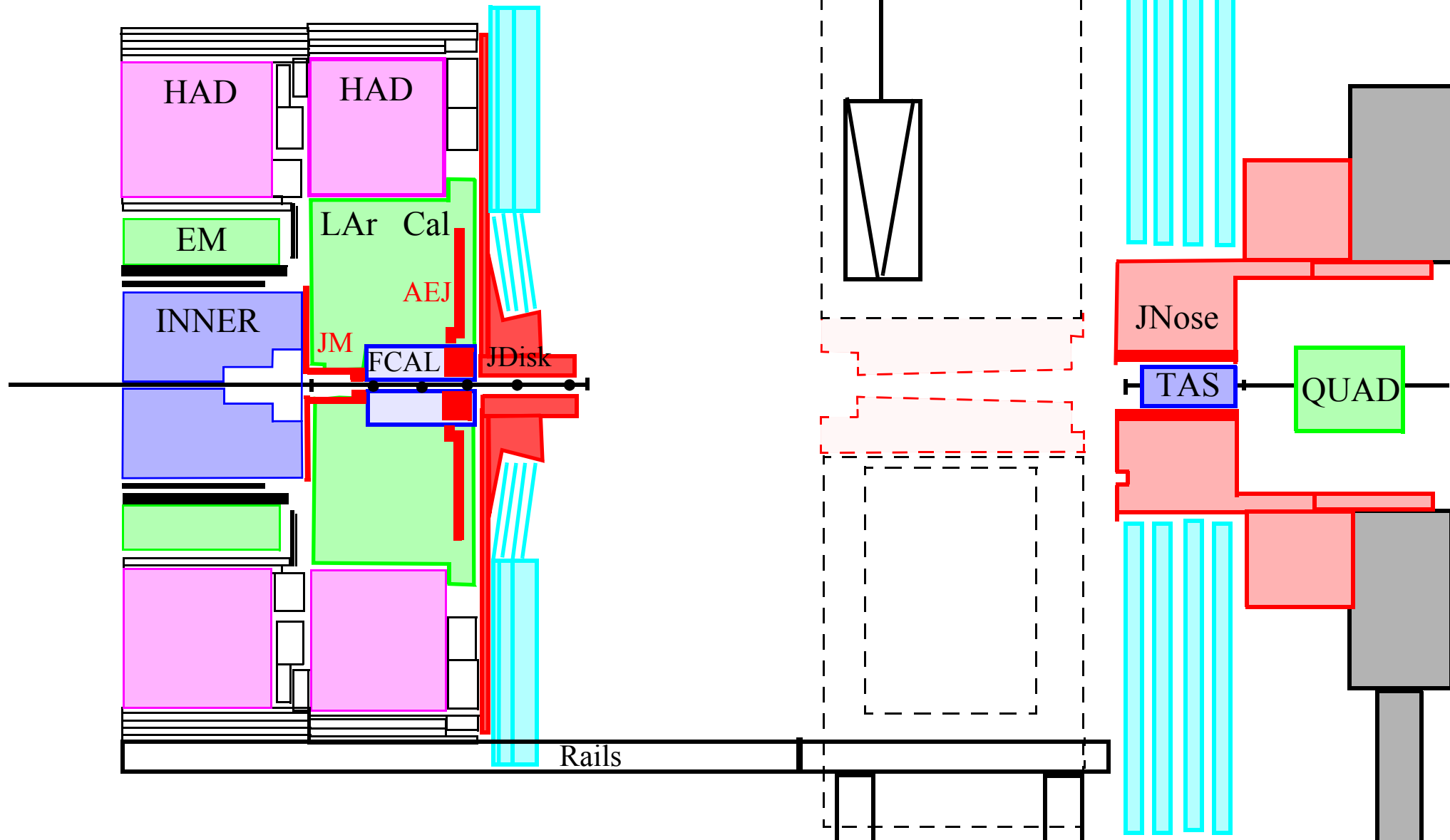


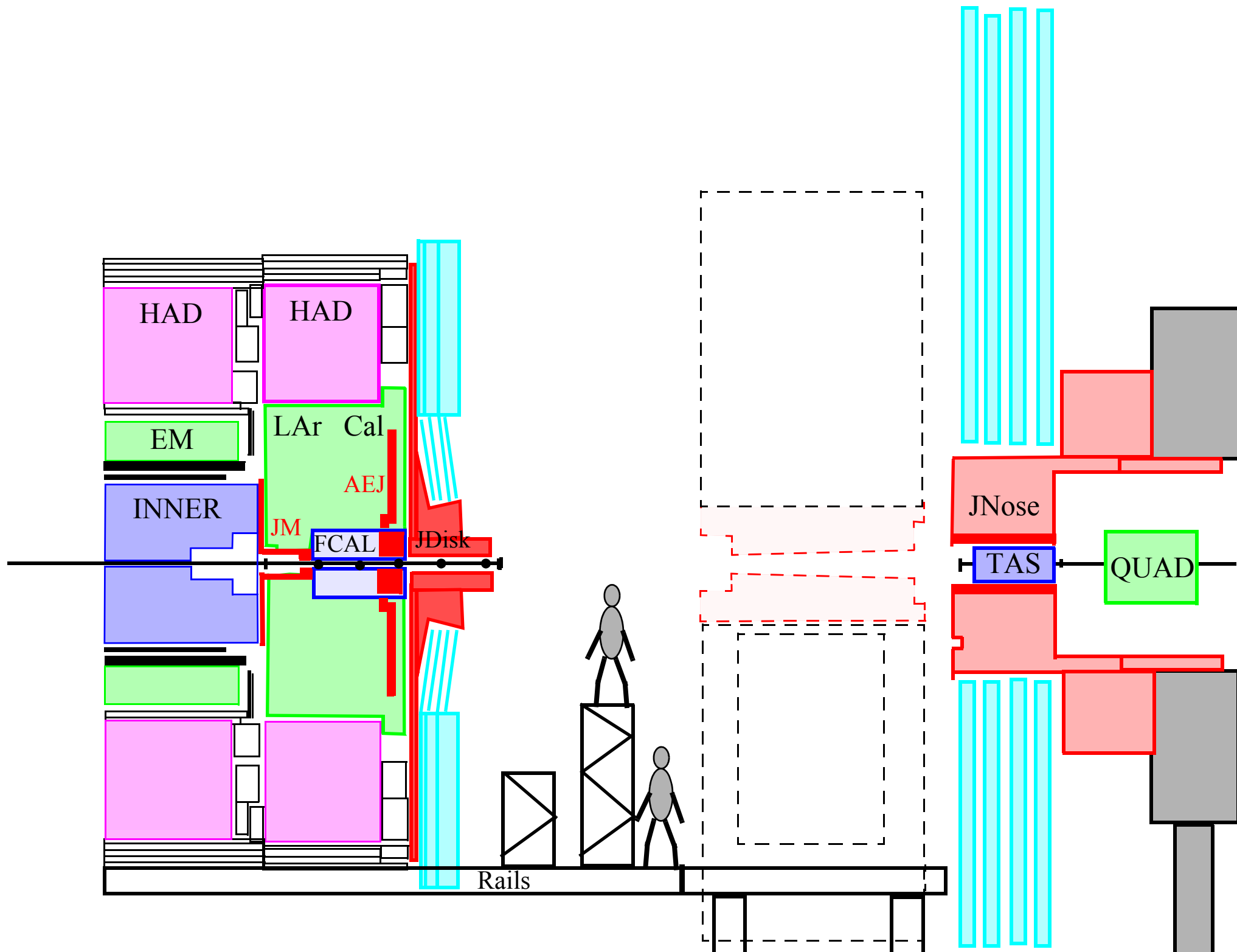


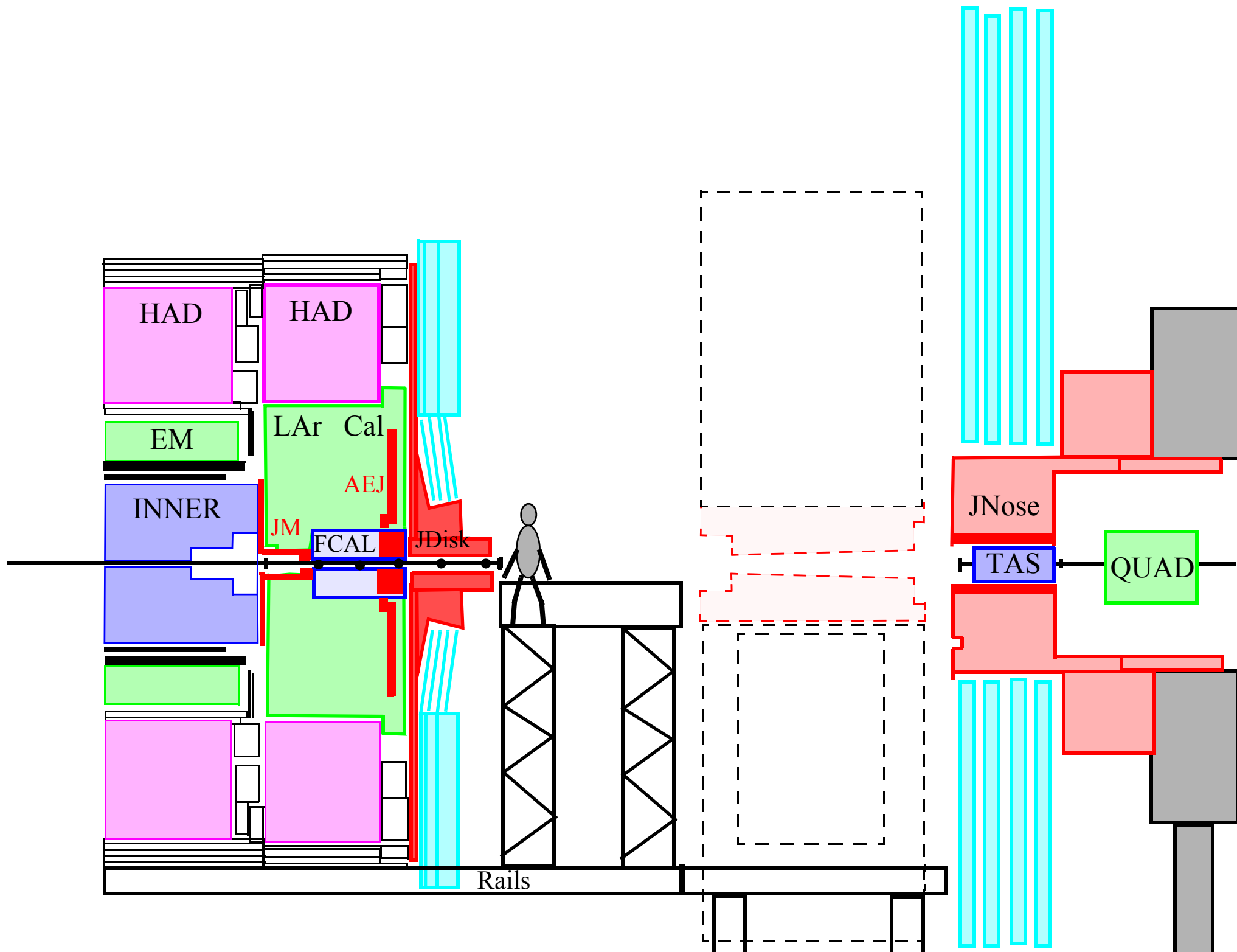




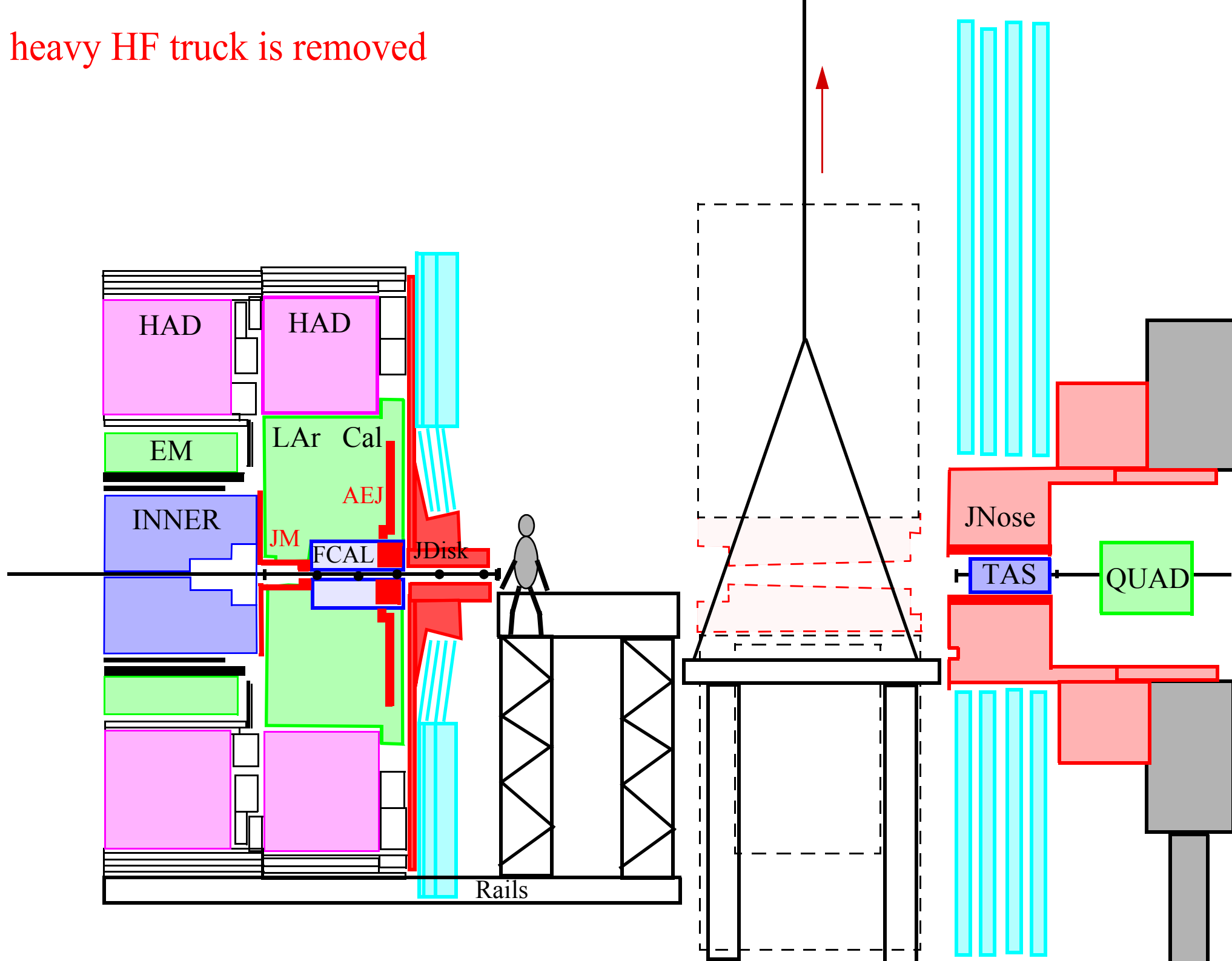
Special scaffolding is installed for the VT installation (which can be removed when the ECT is blocking the access).

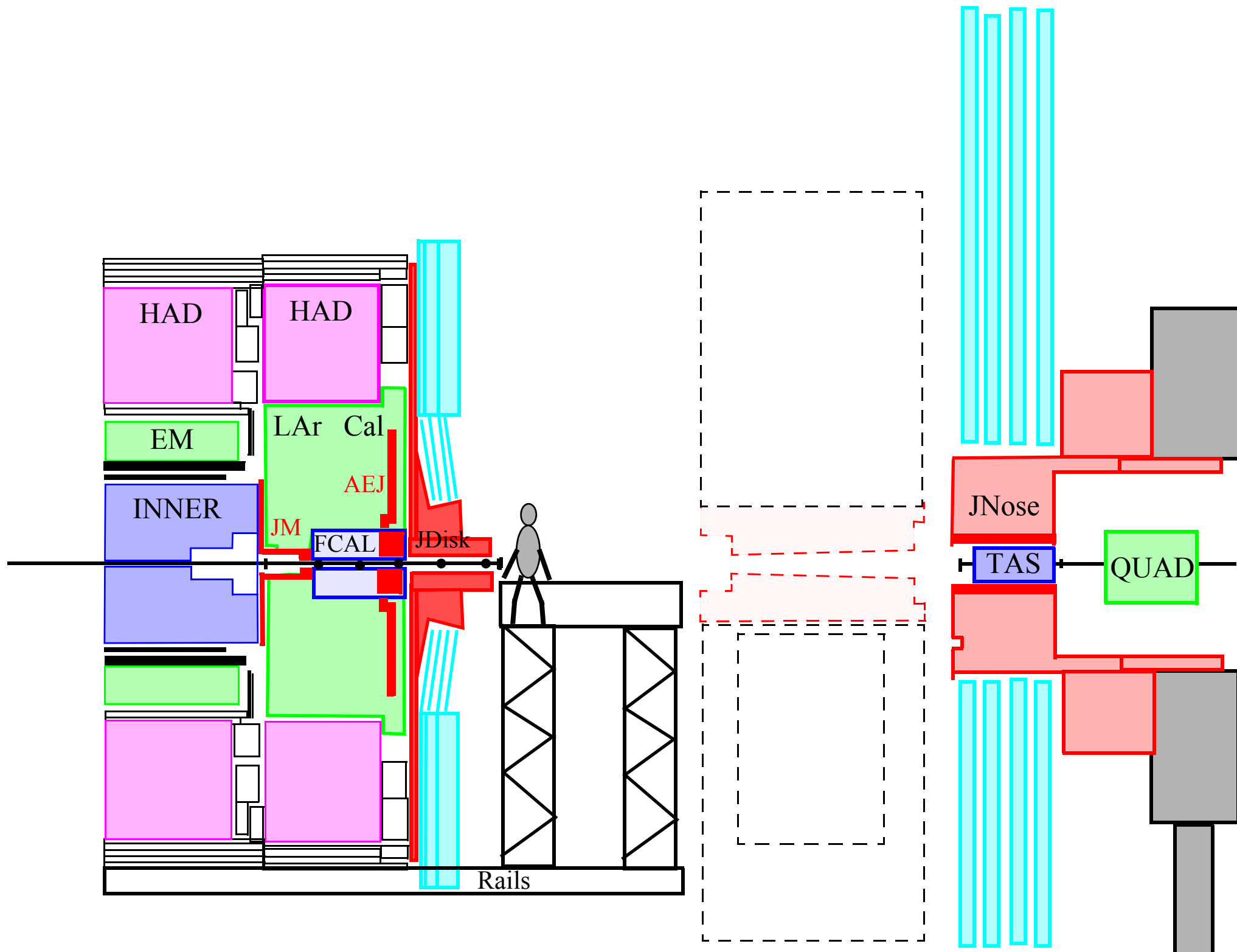




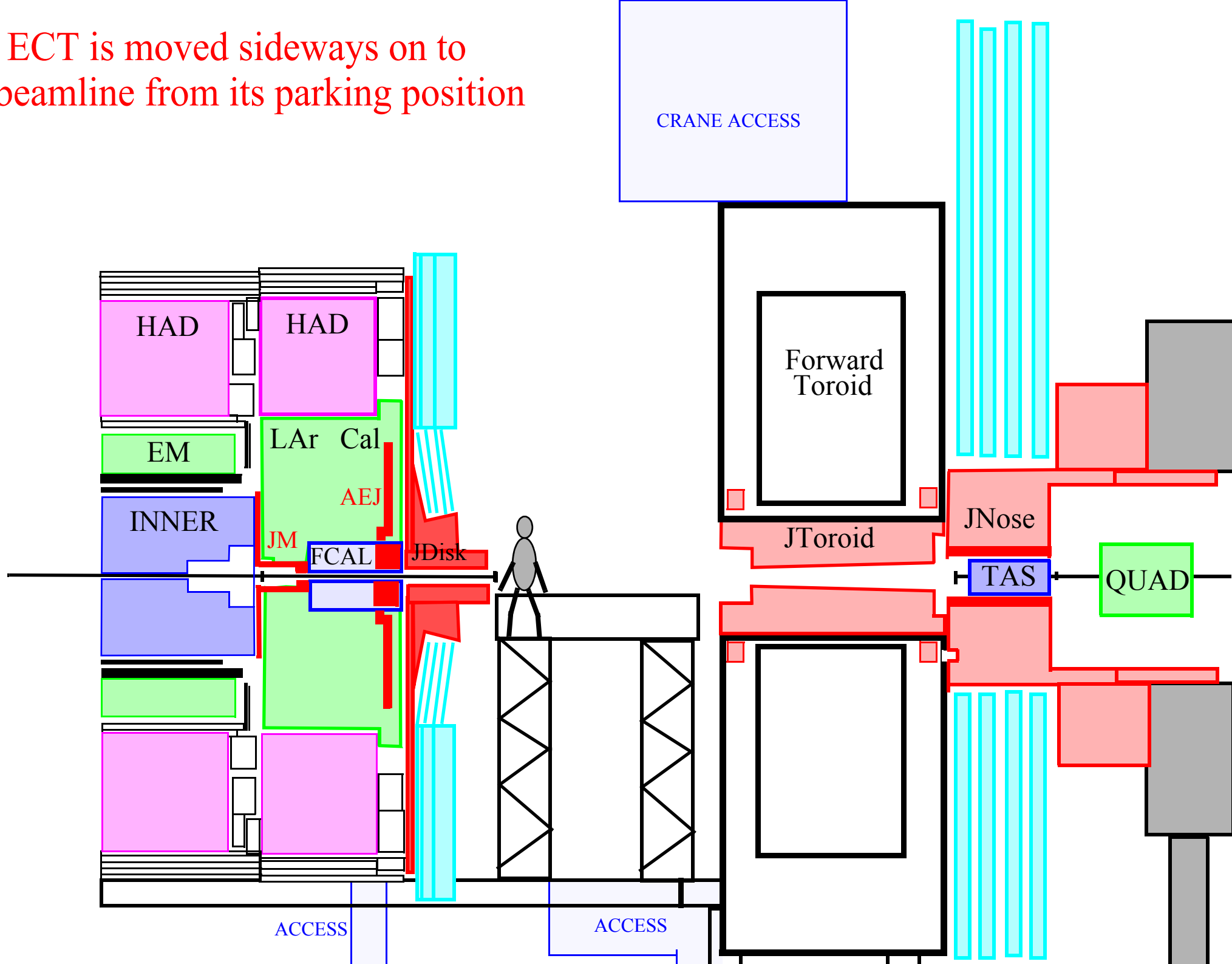


The heavy HF truck is removed

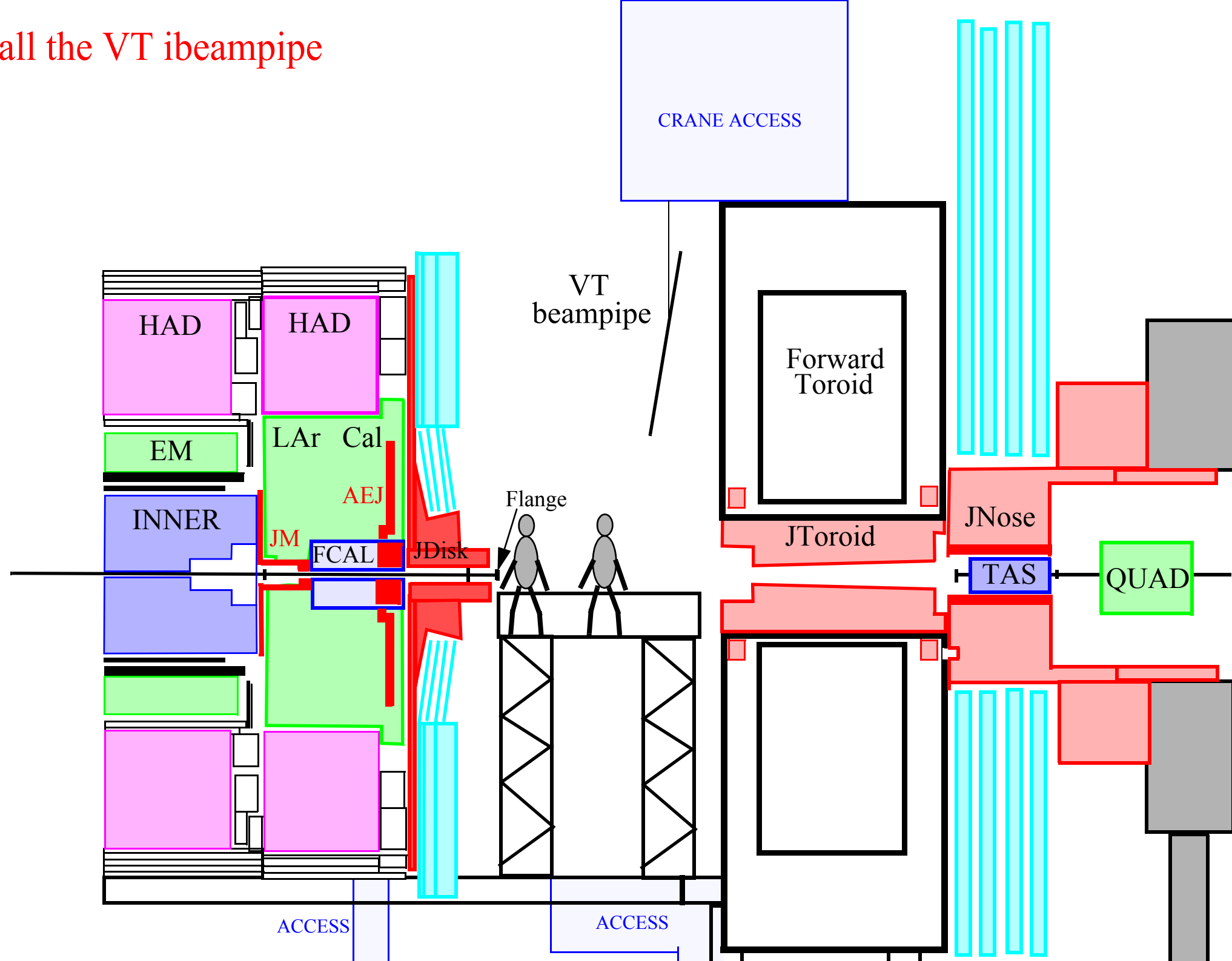


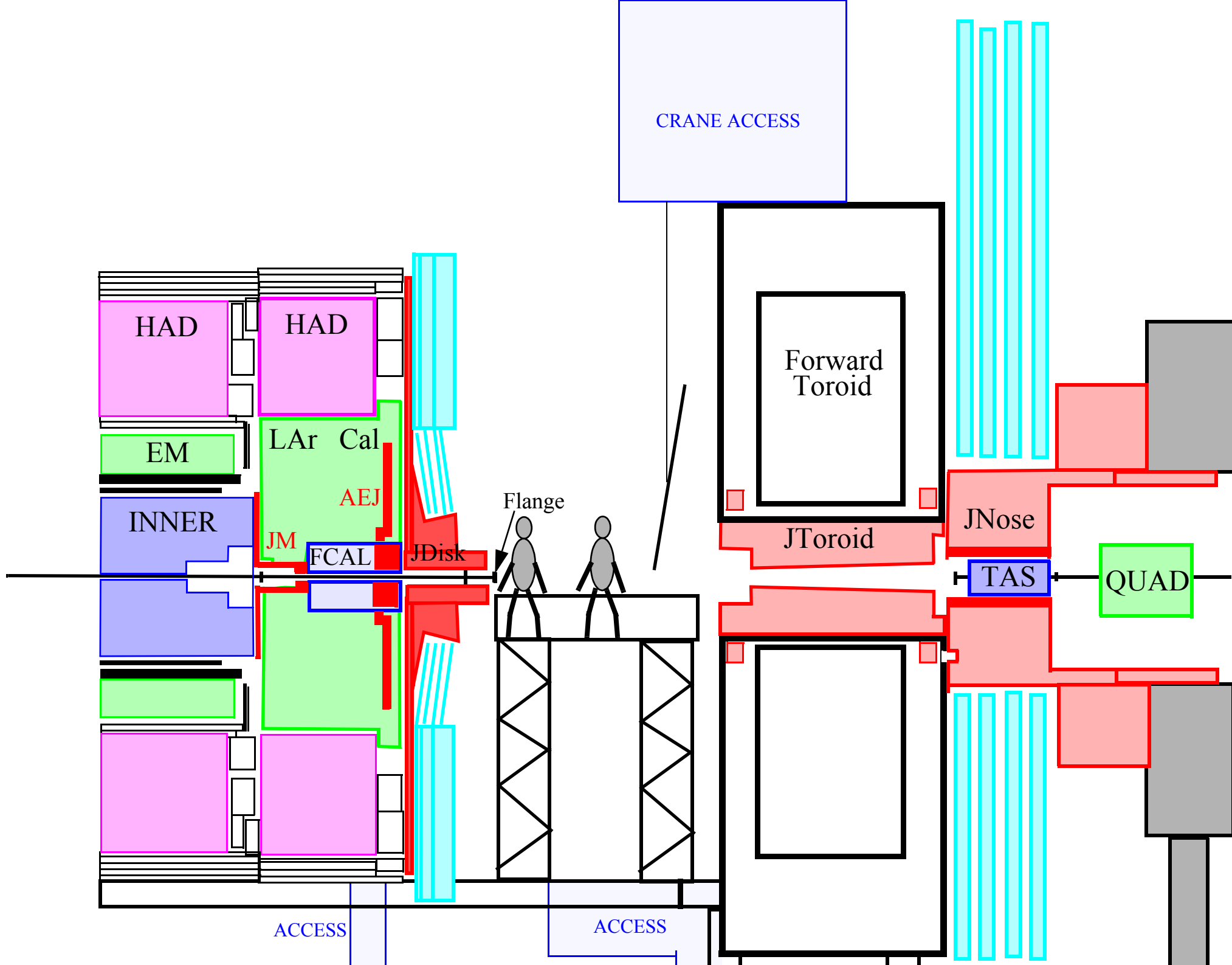


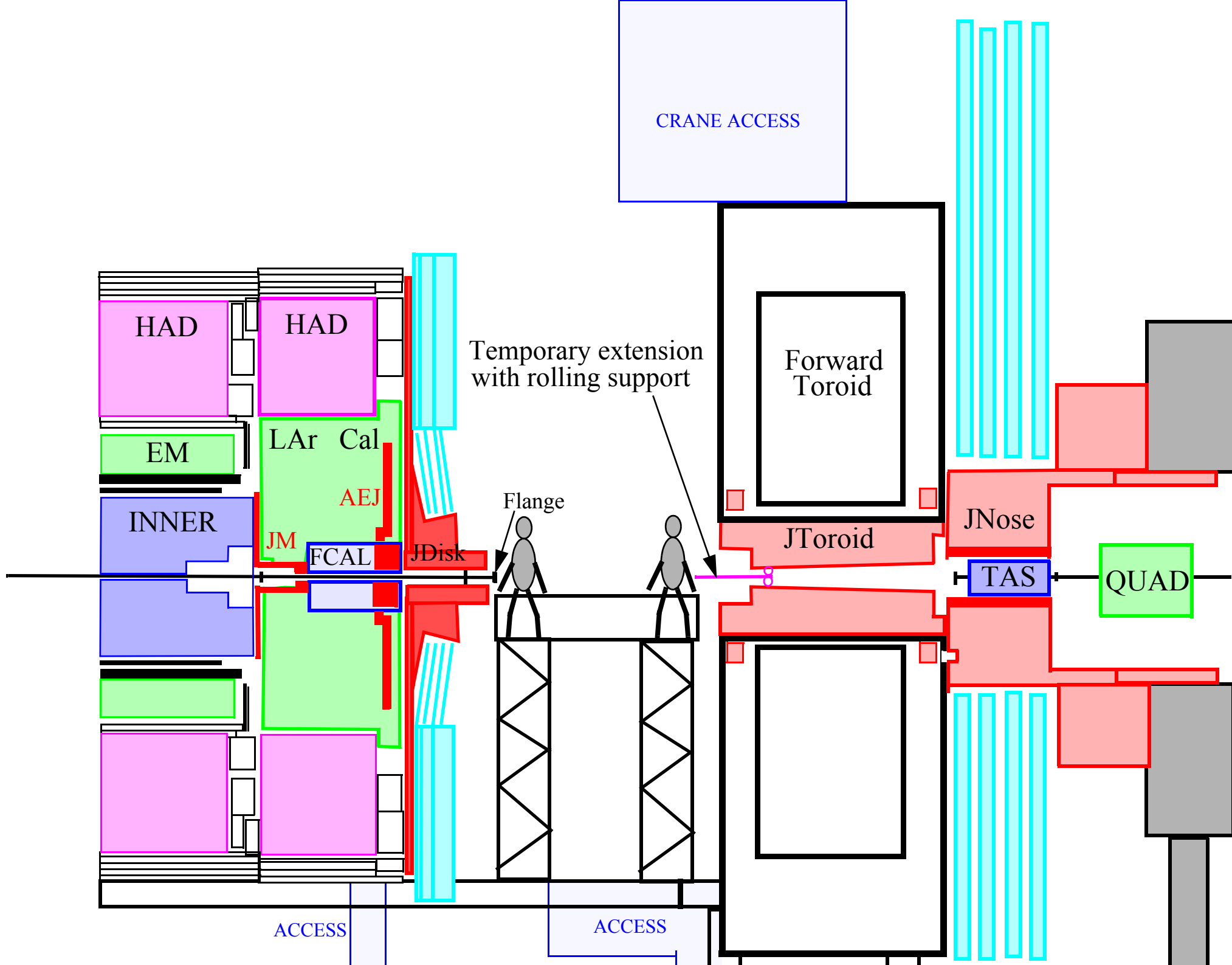
The ECT is moved sideways on to the beamline from its parking position

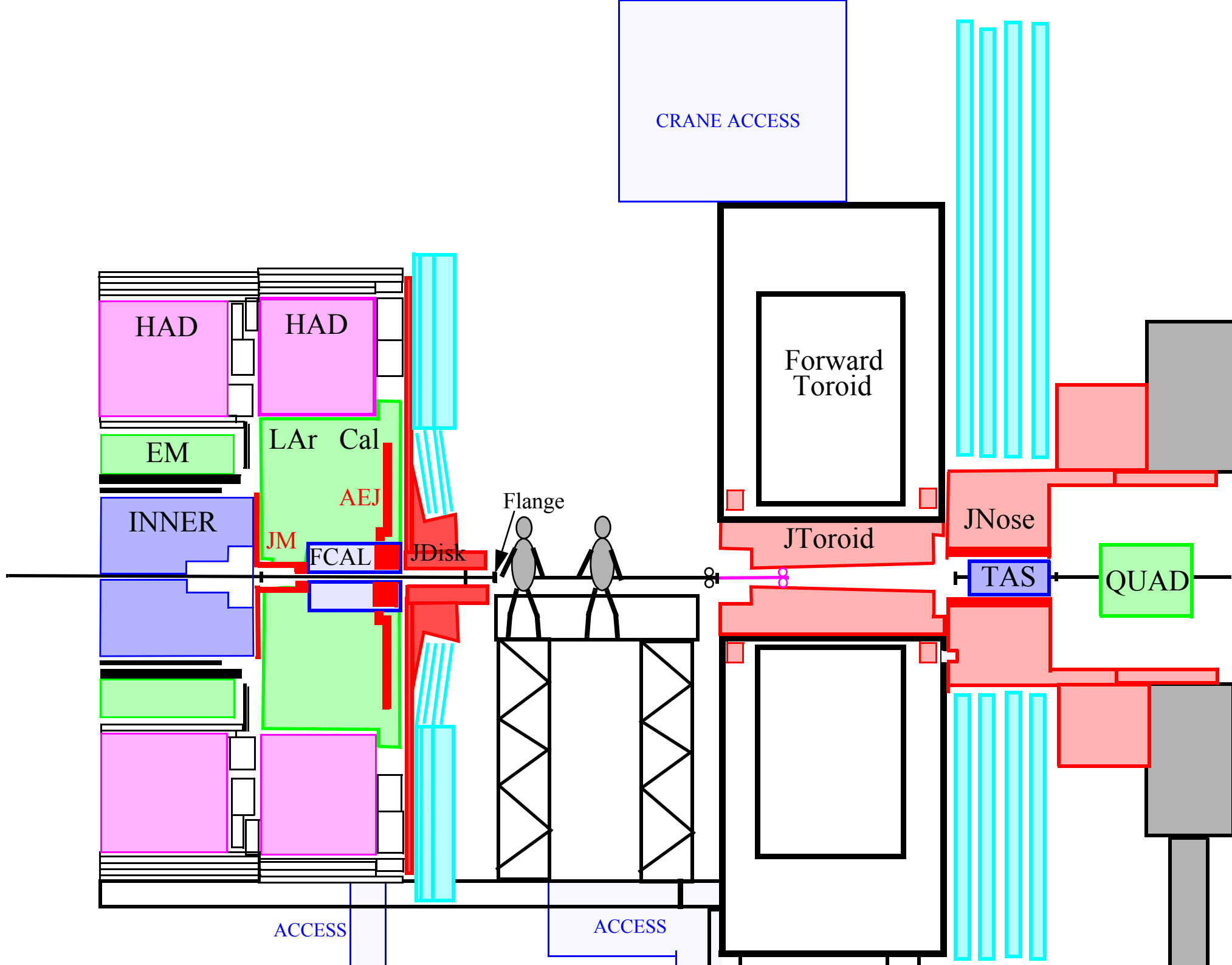


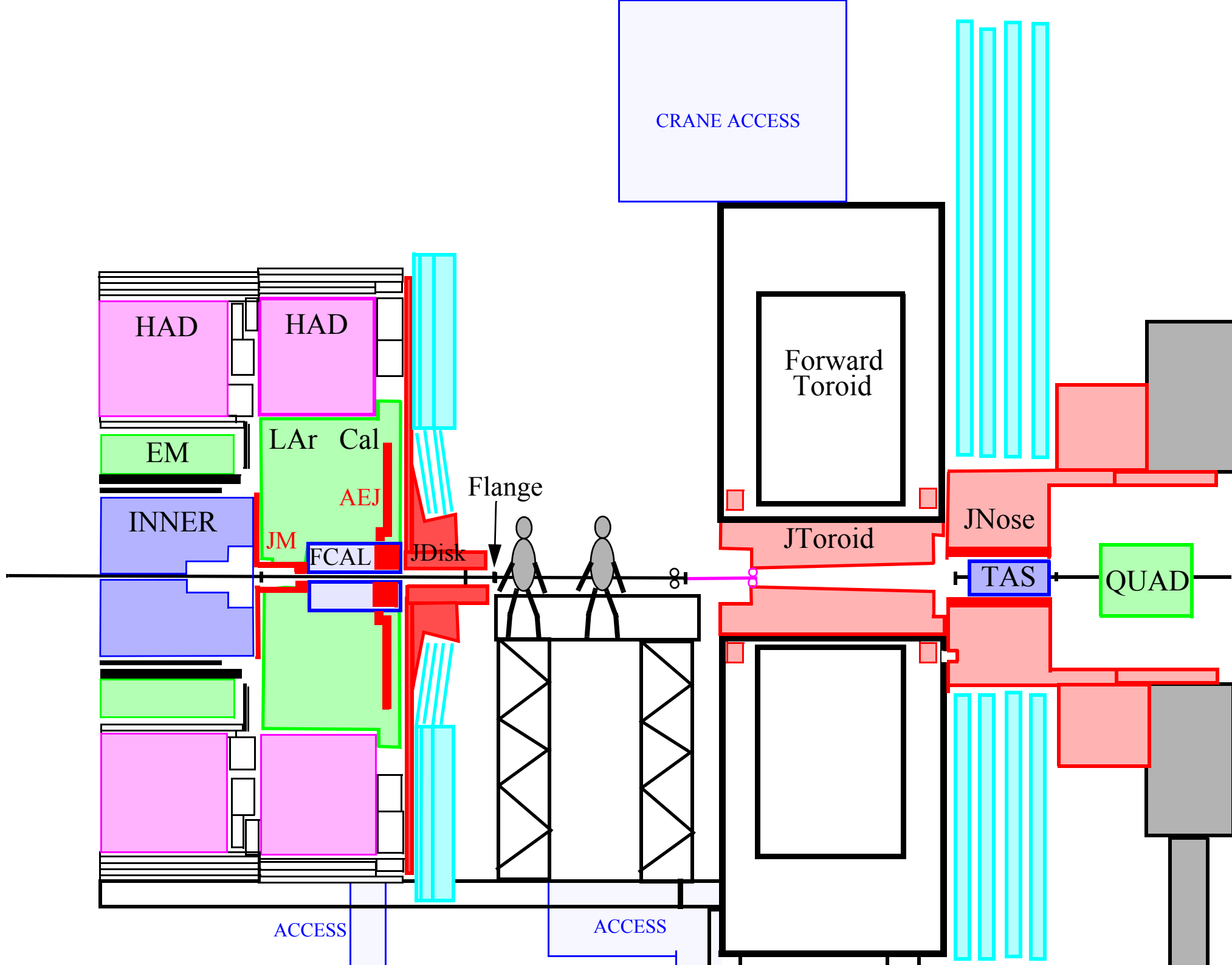
Install the VT ibeampipe

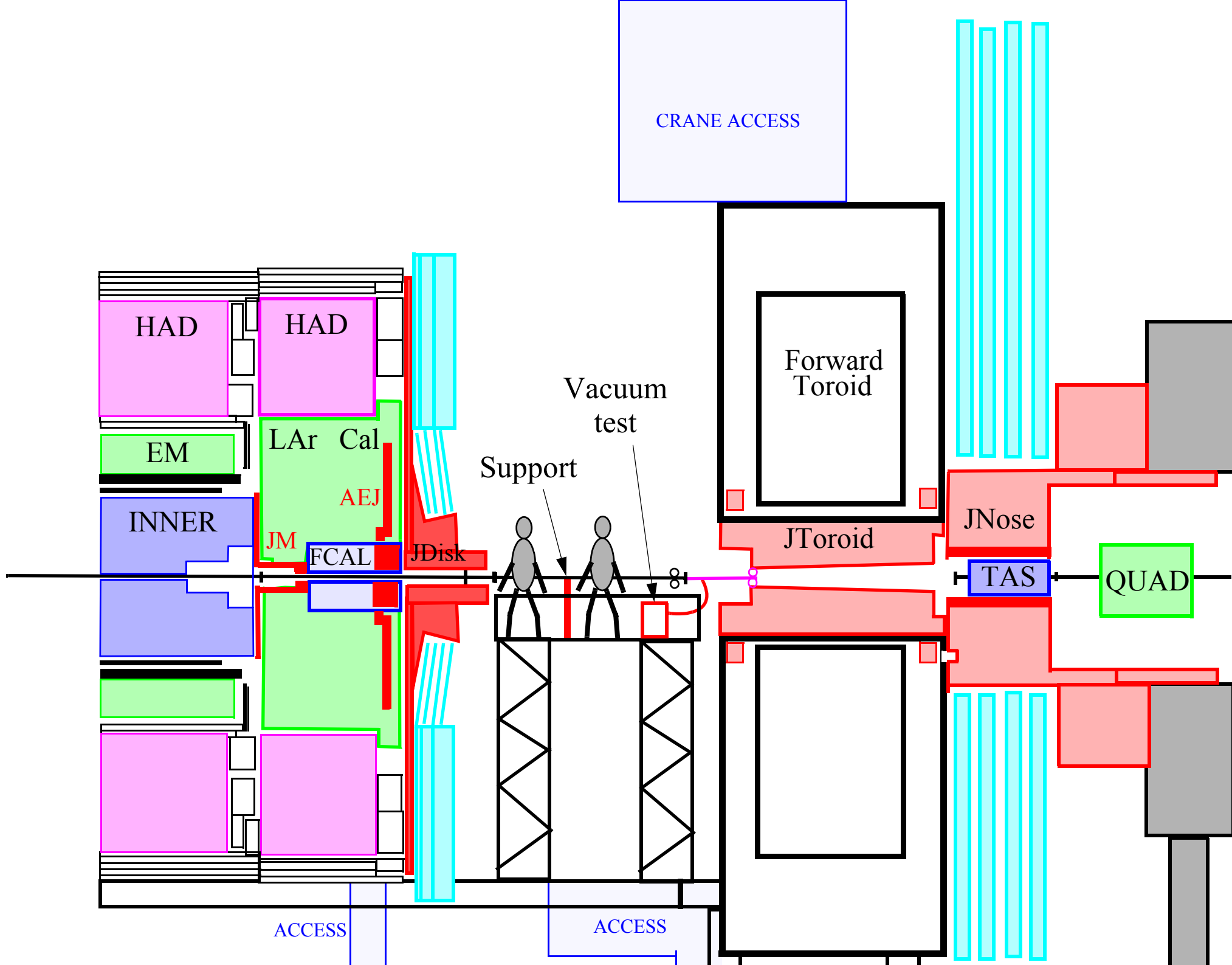




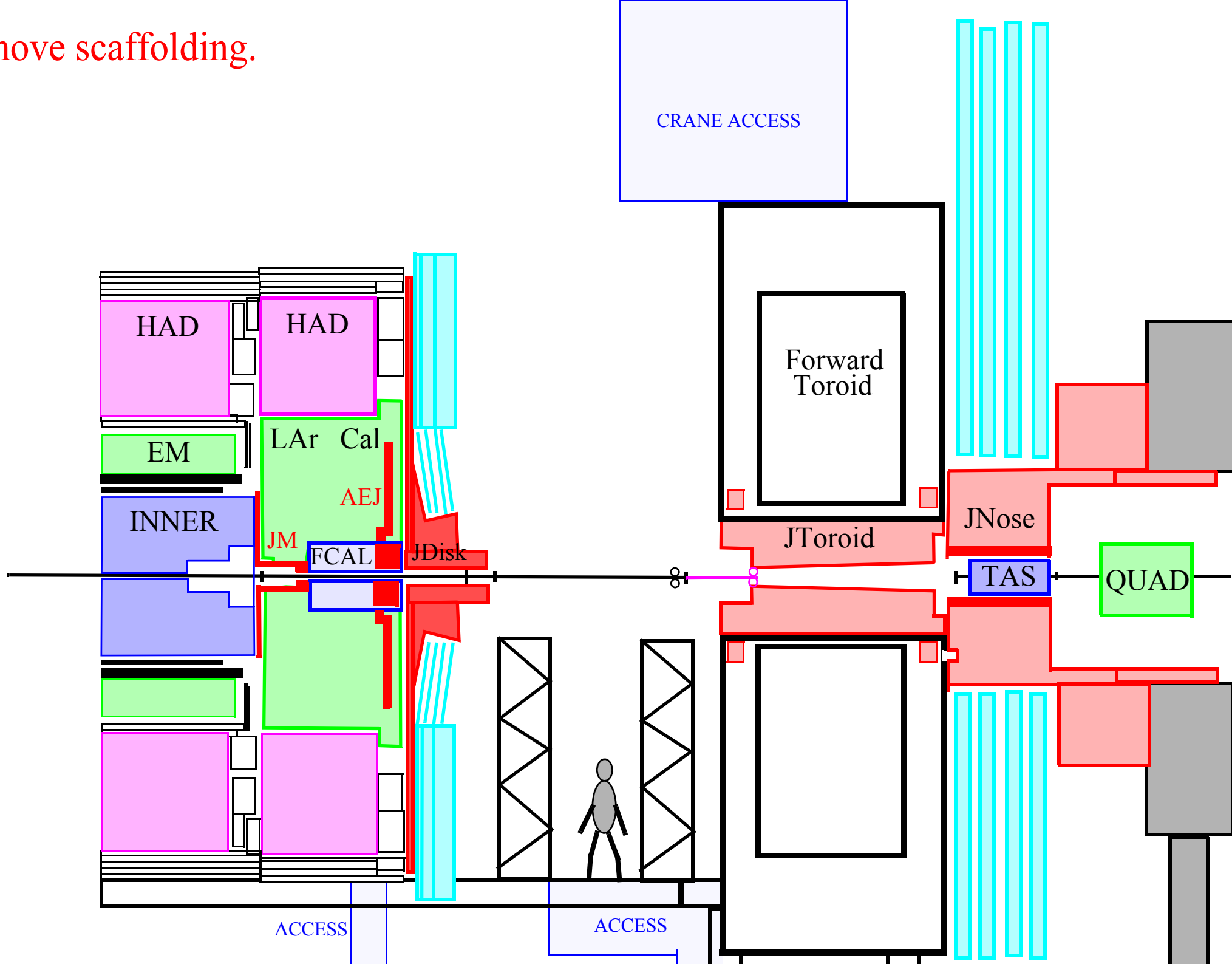


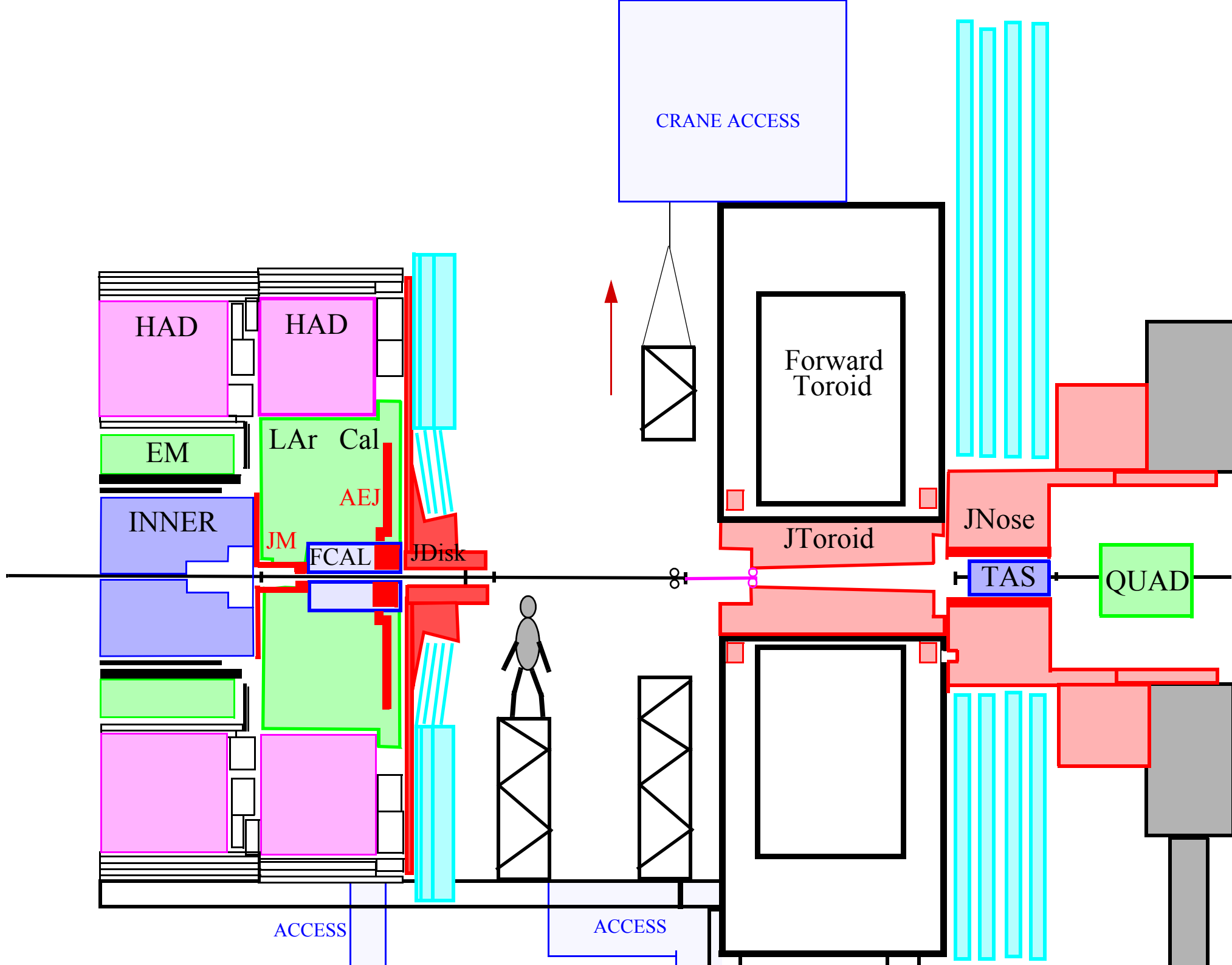


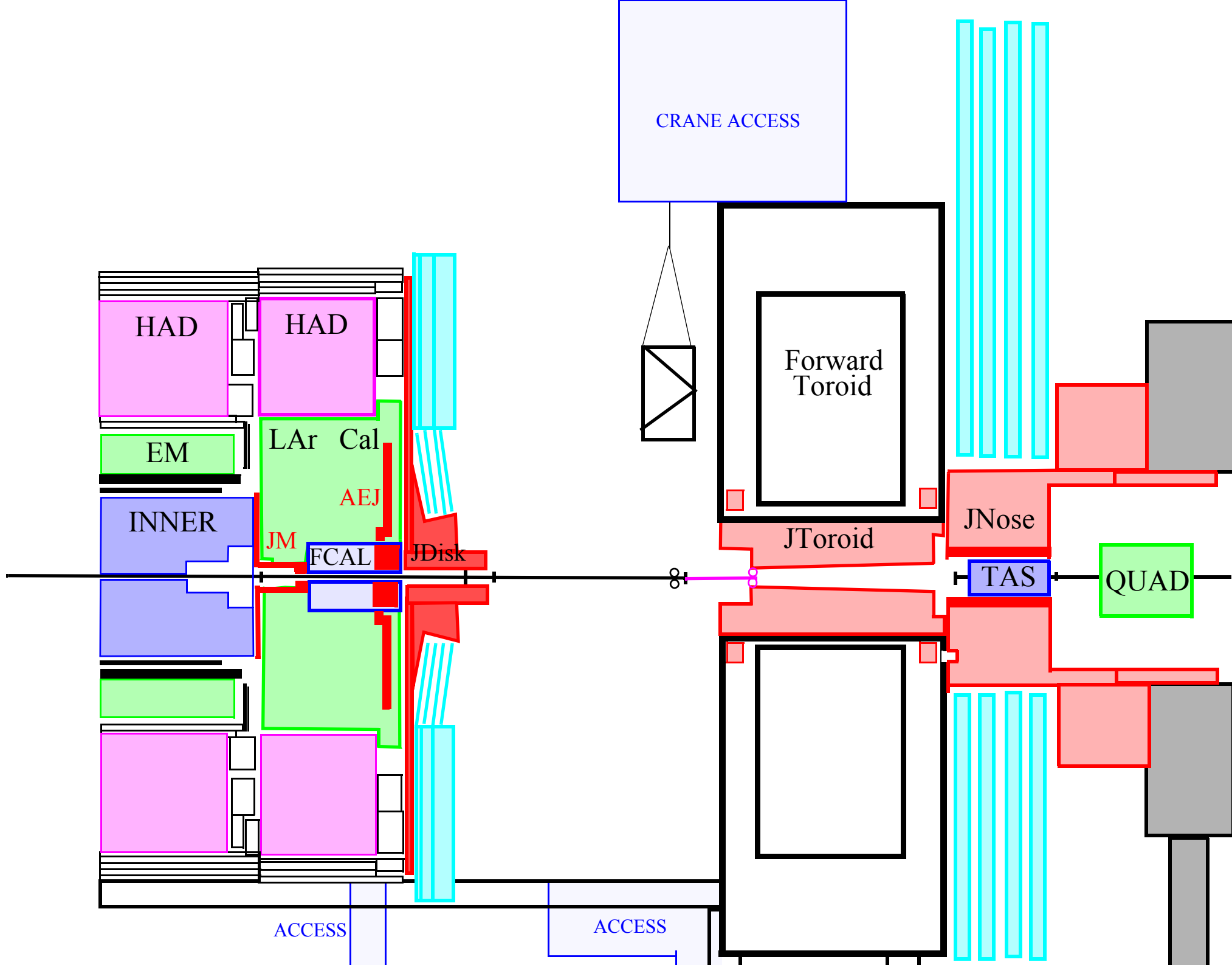




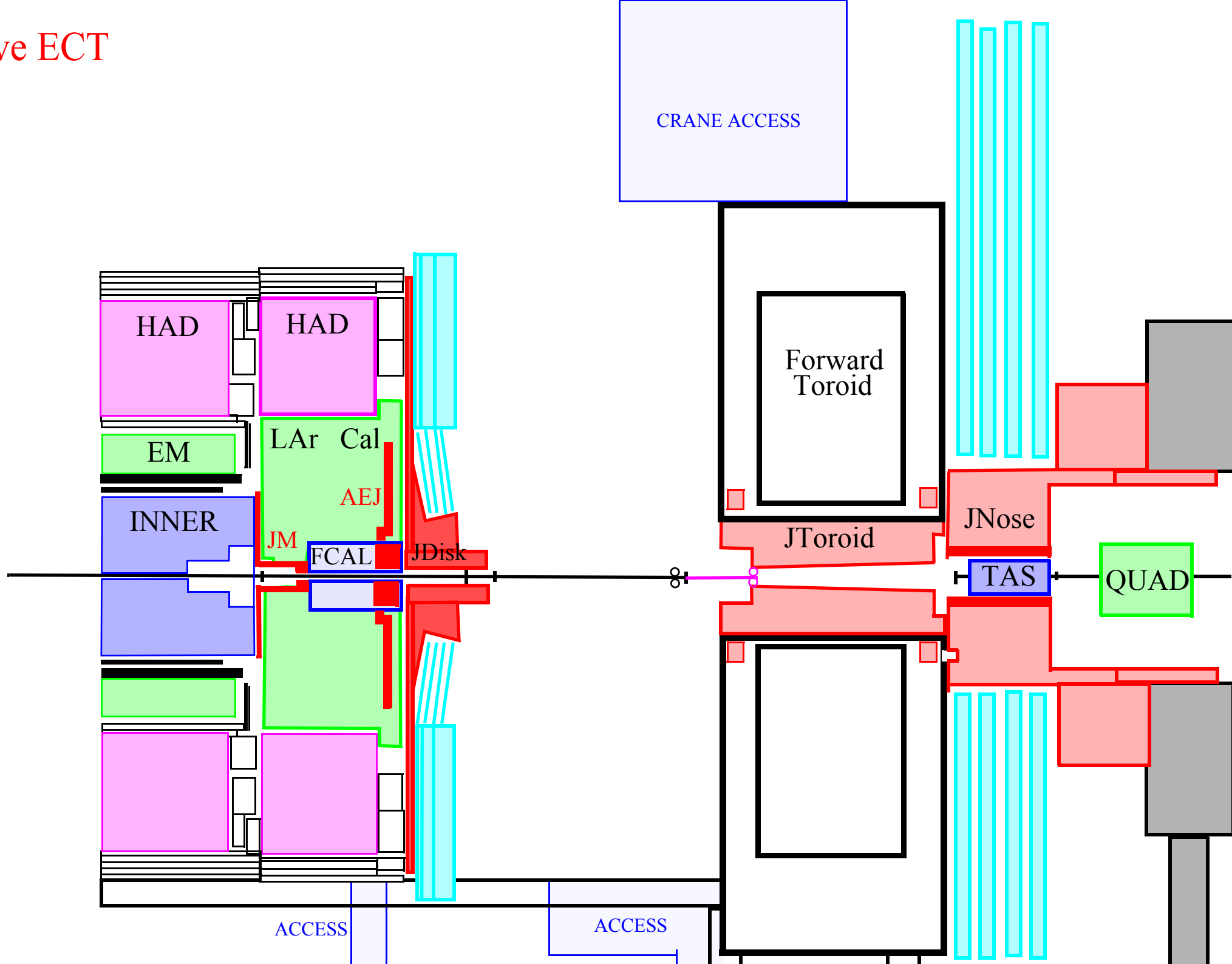
Remove scaffolding.

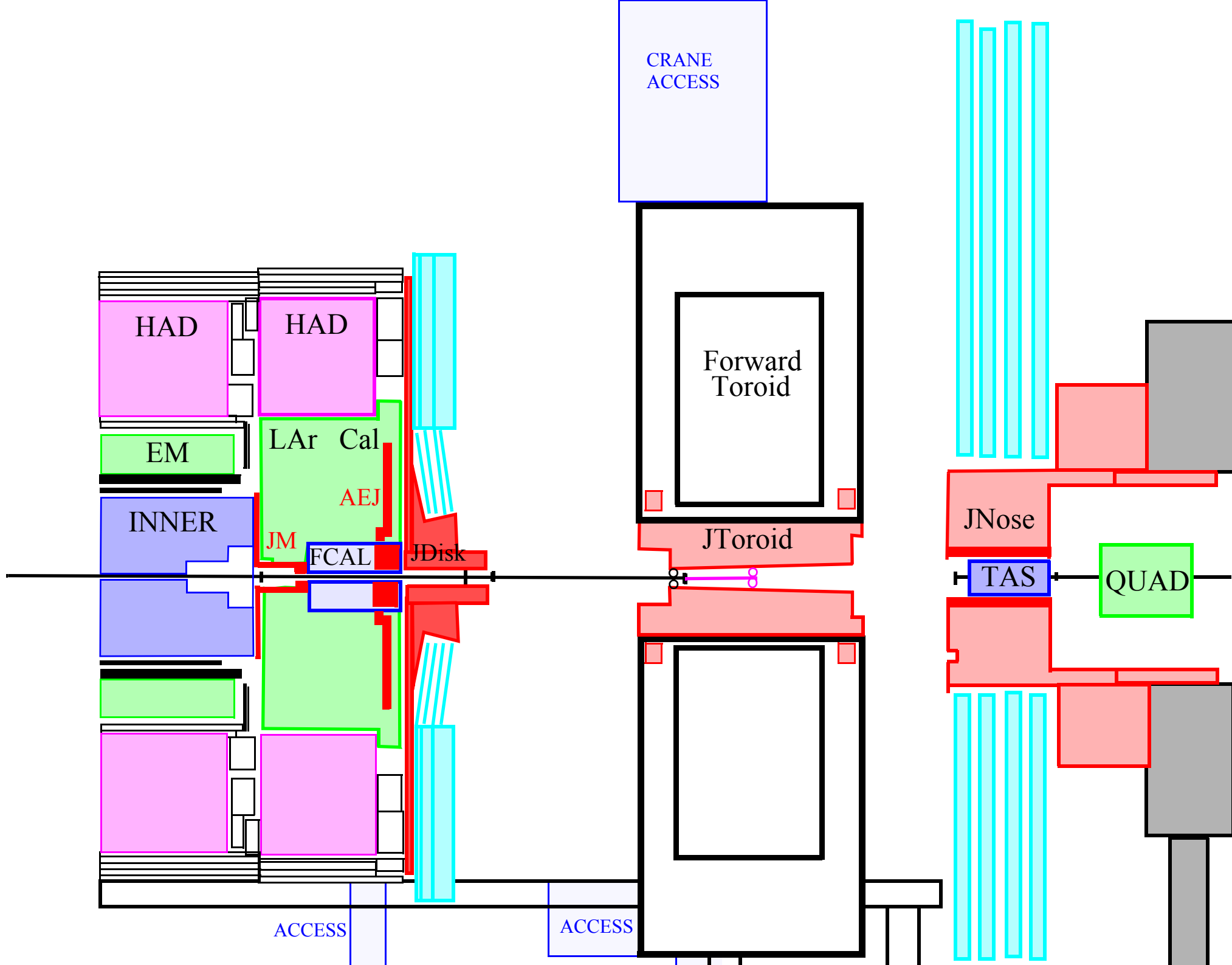


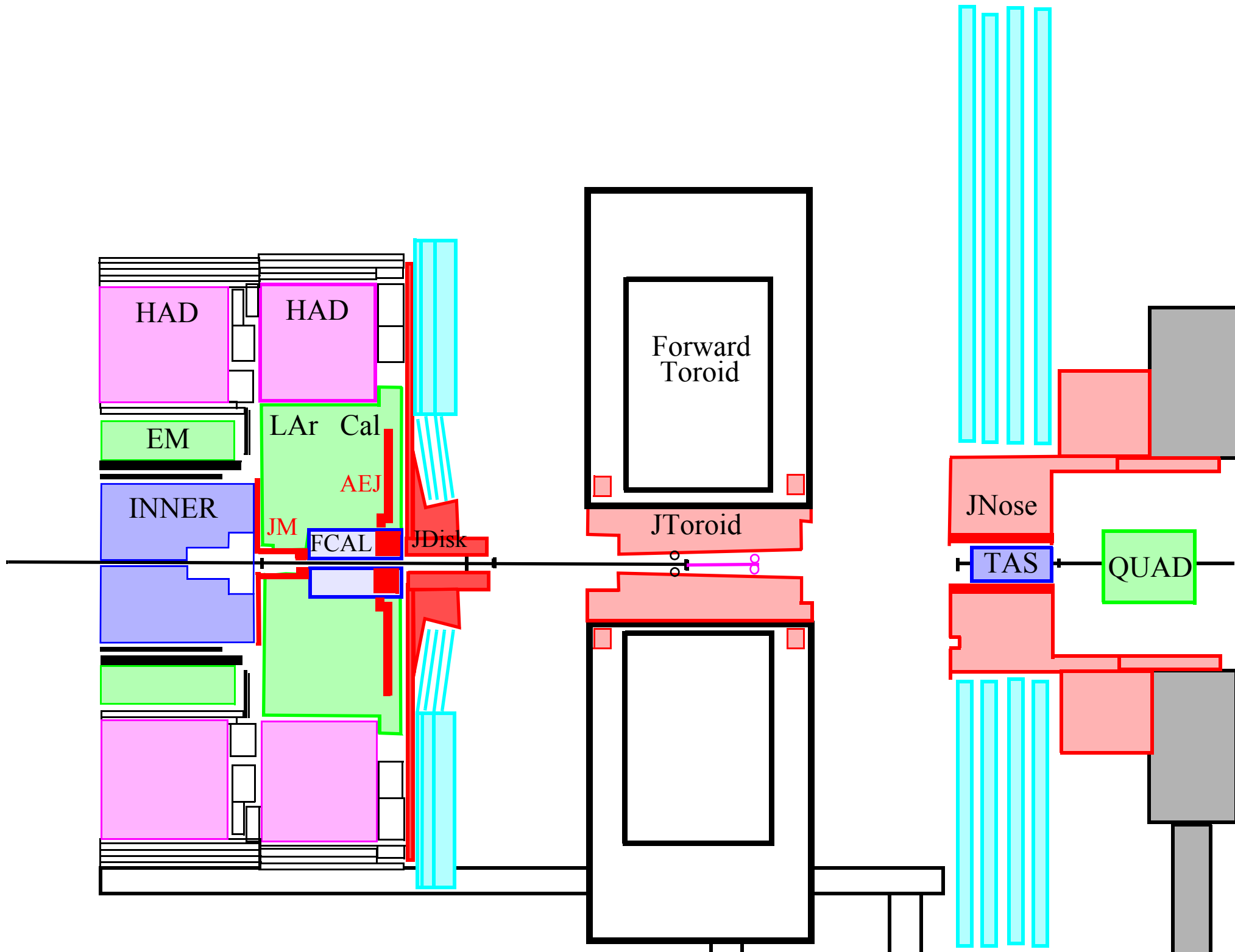


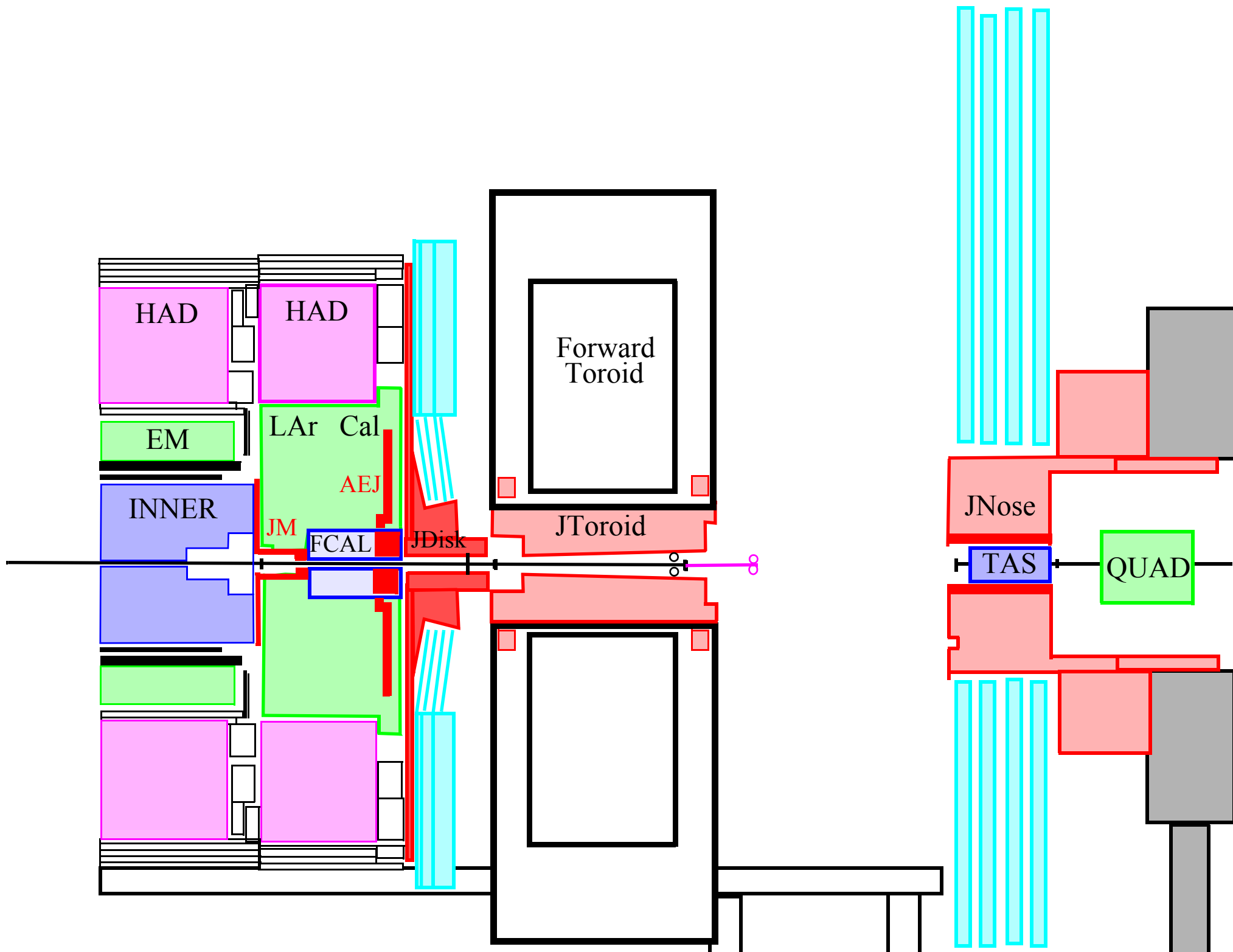


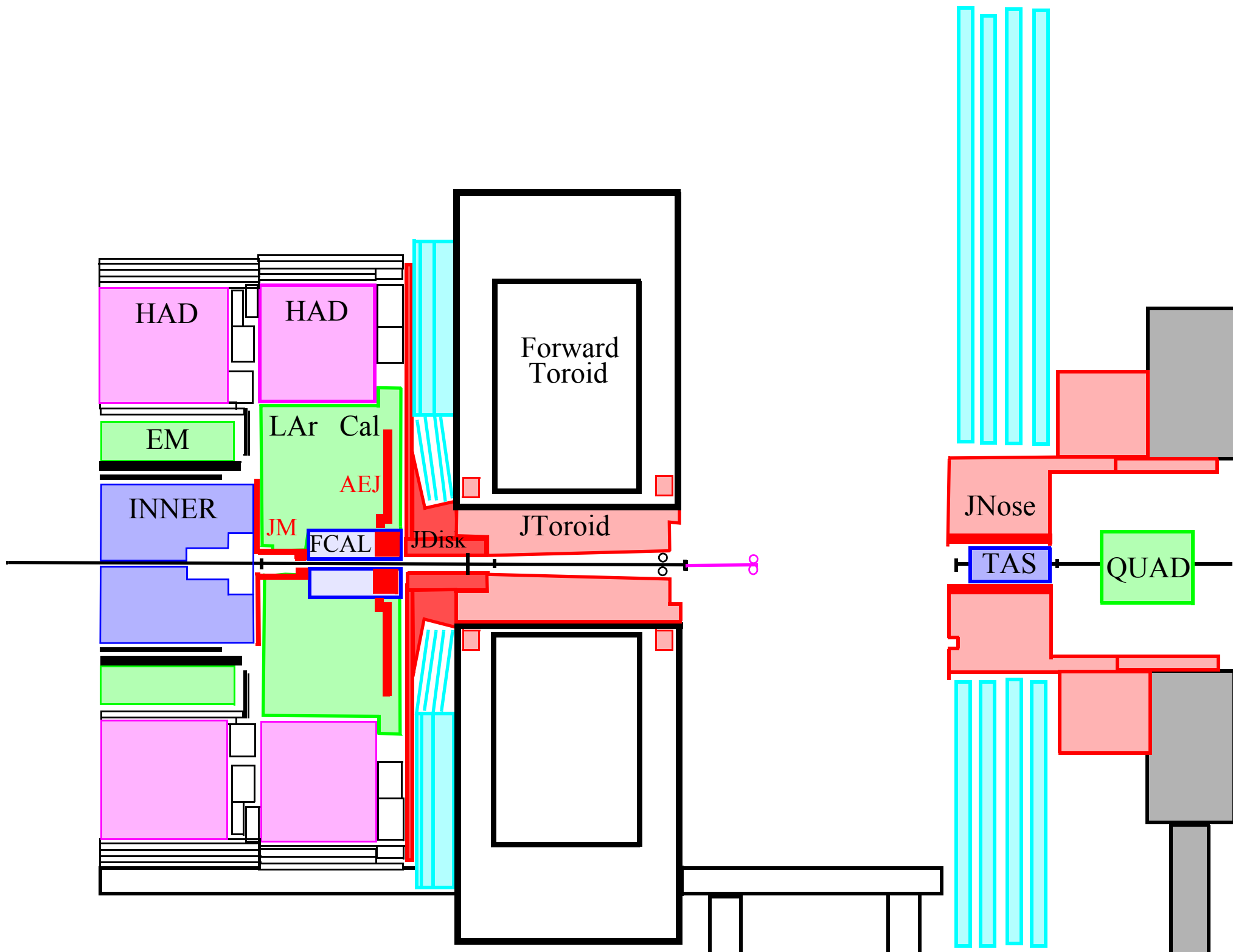
Move ECT



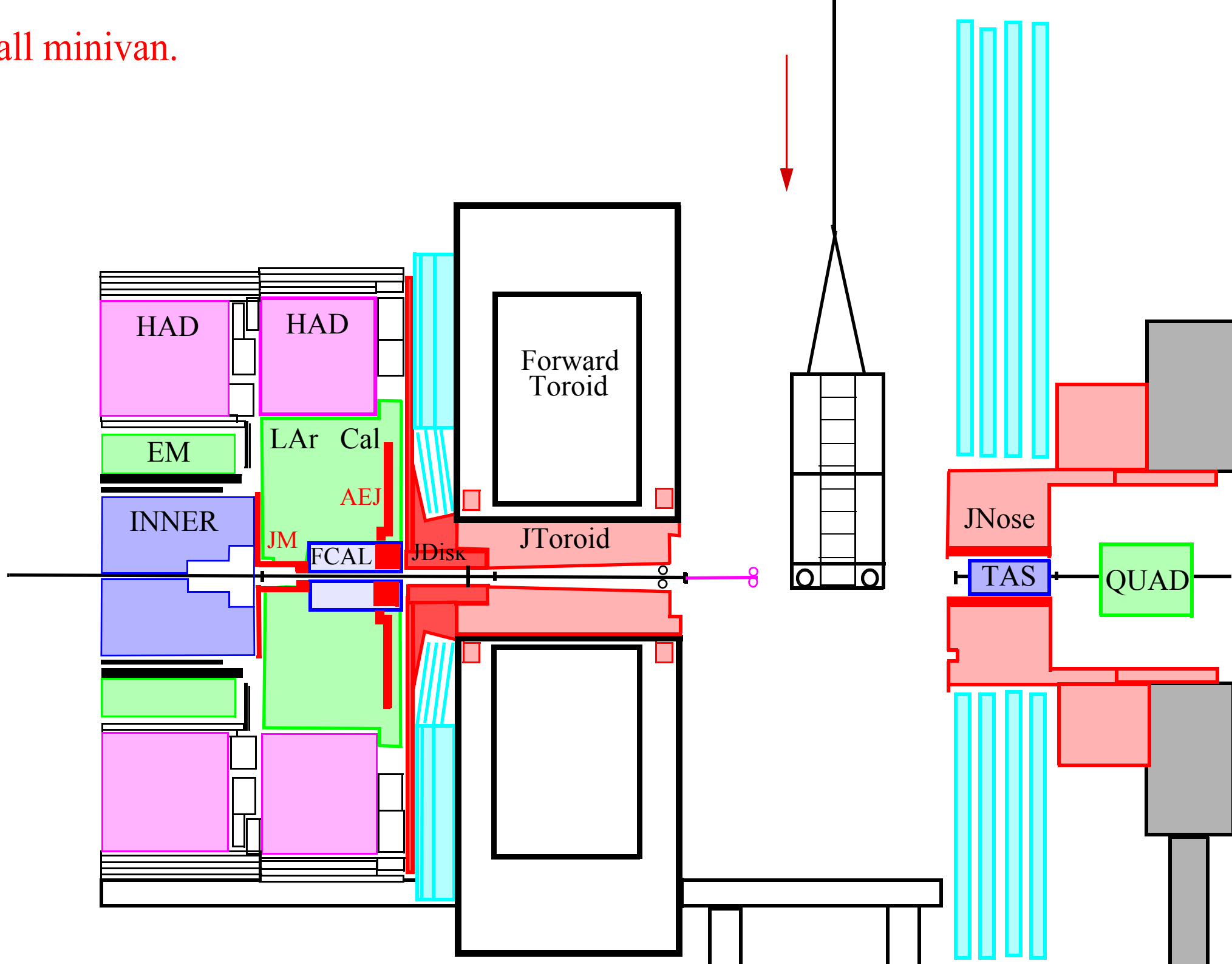


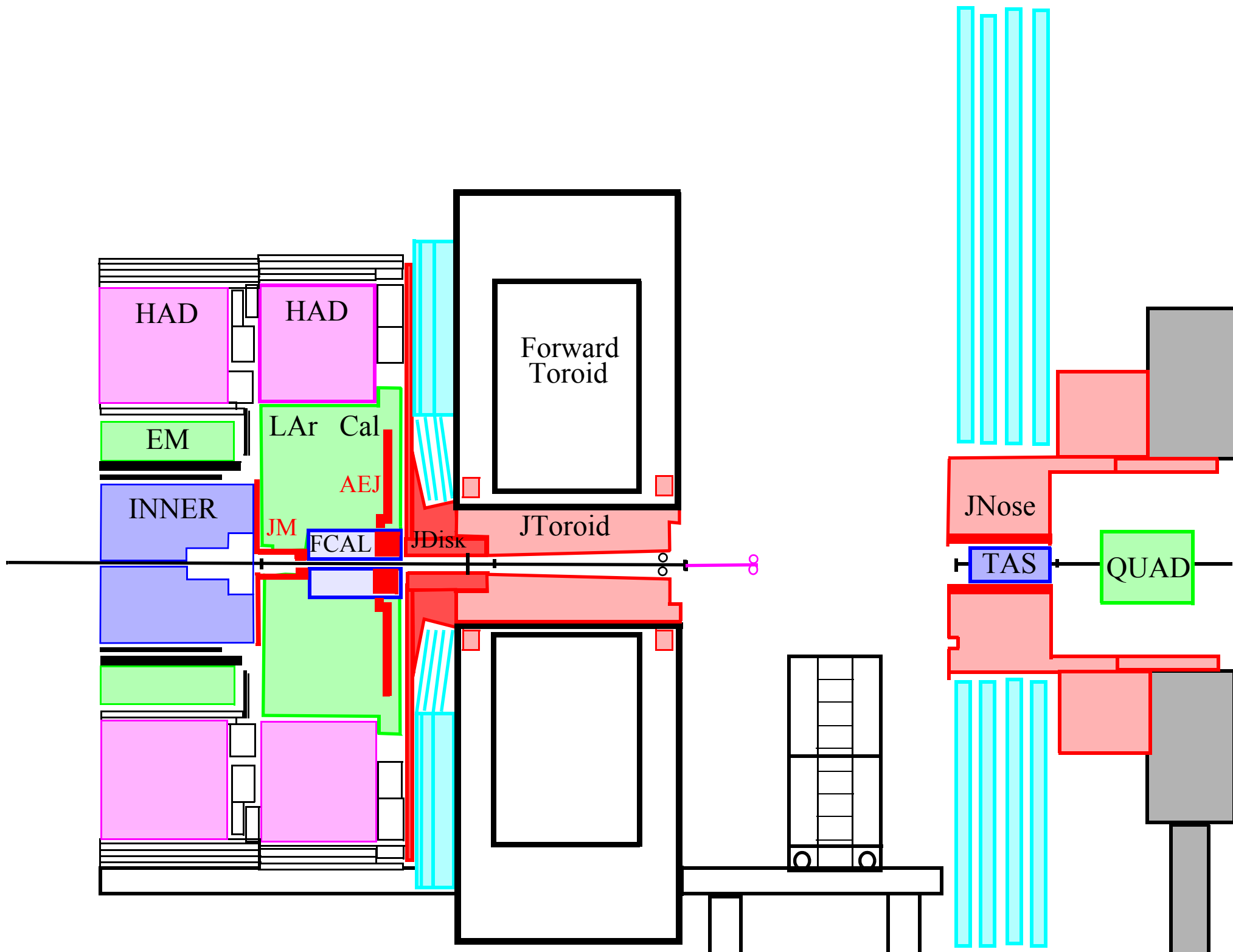


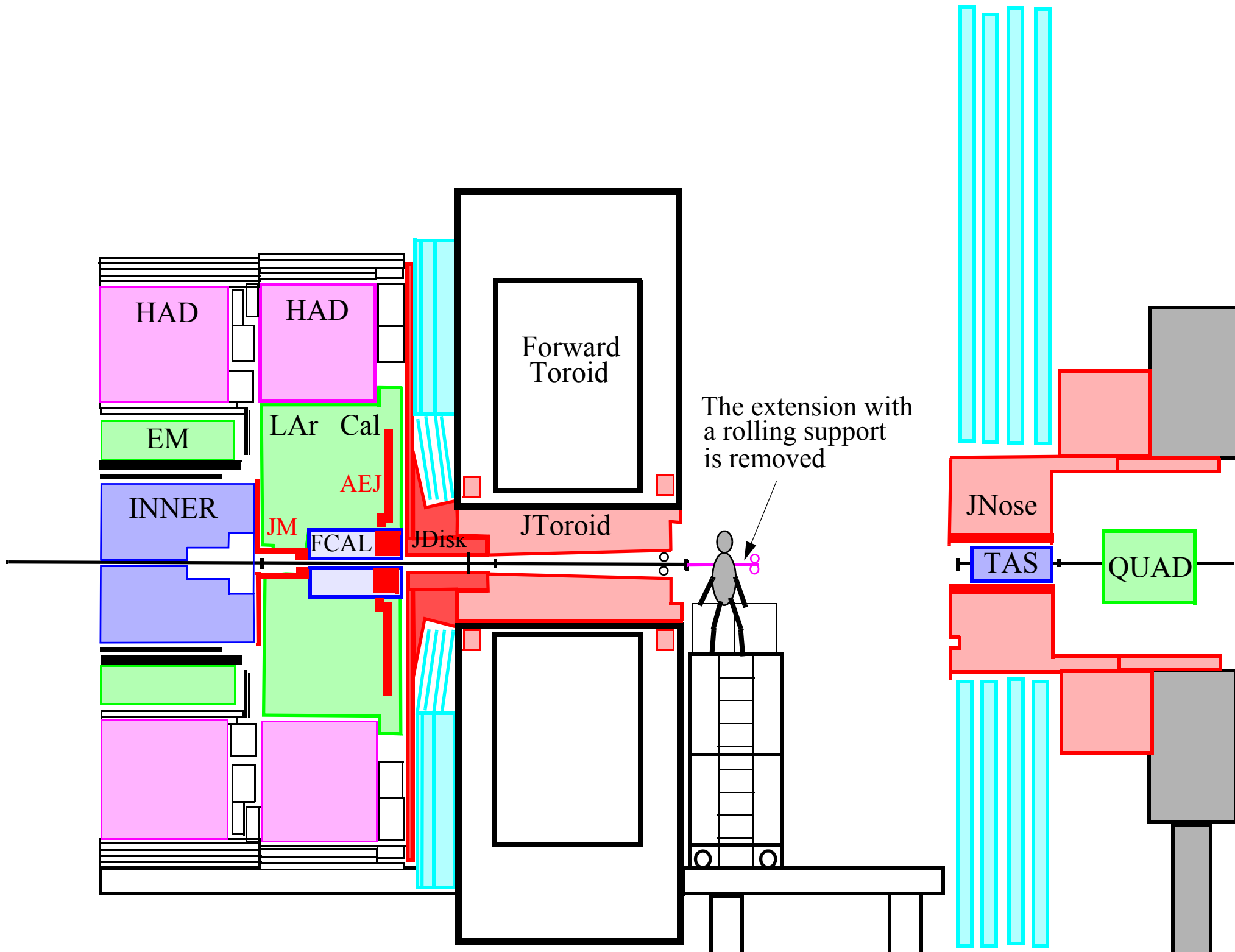


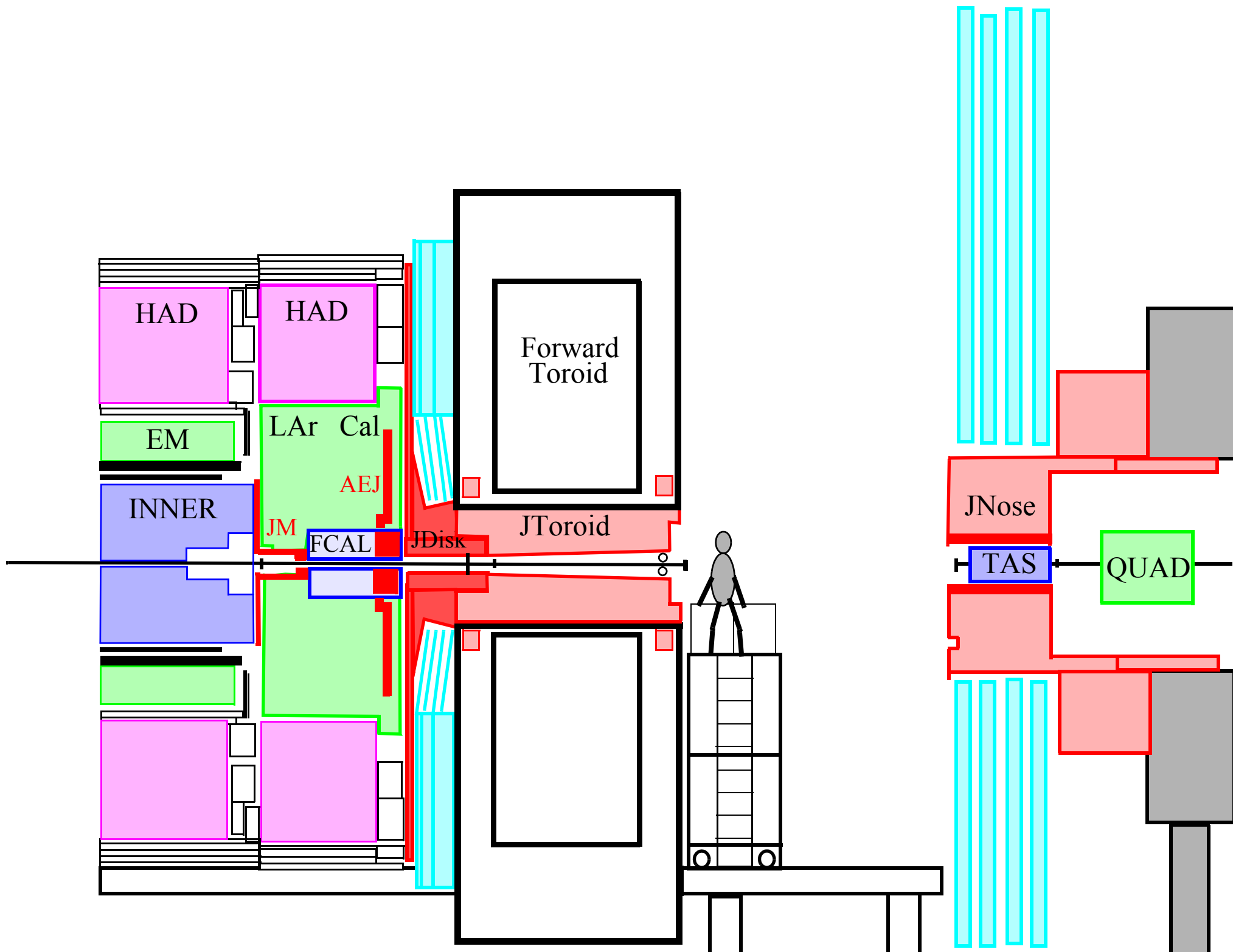


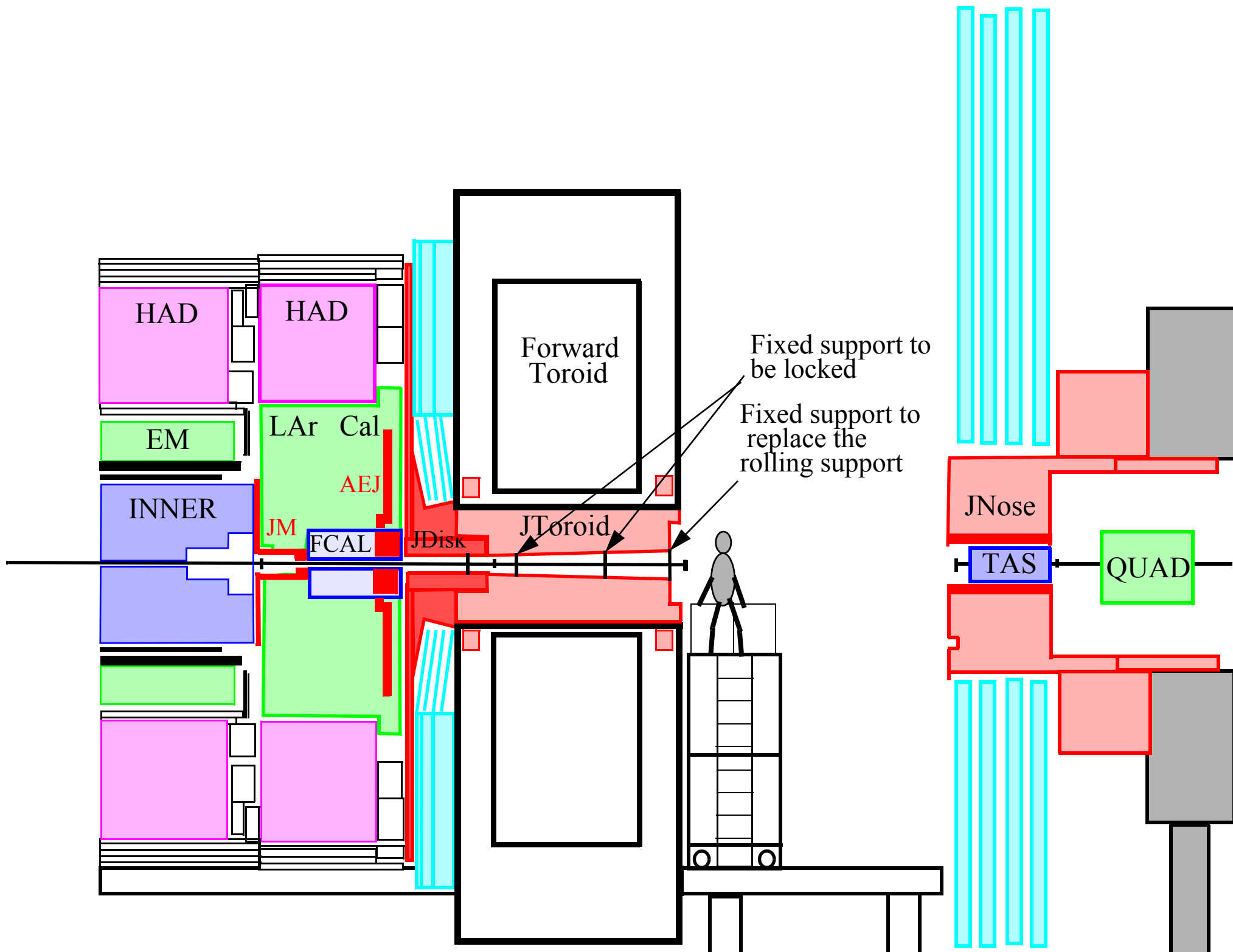
Install minivan.



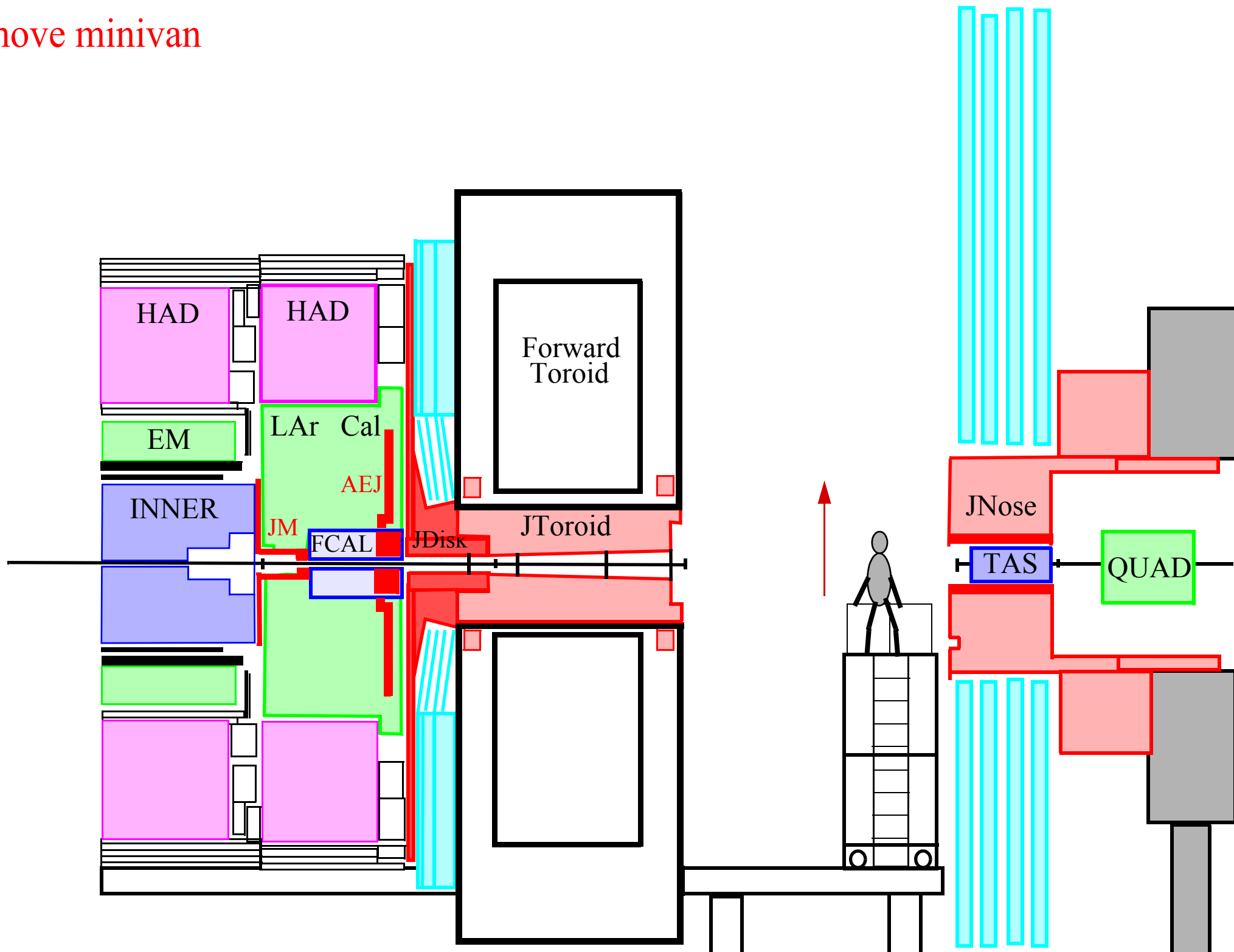




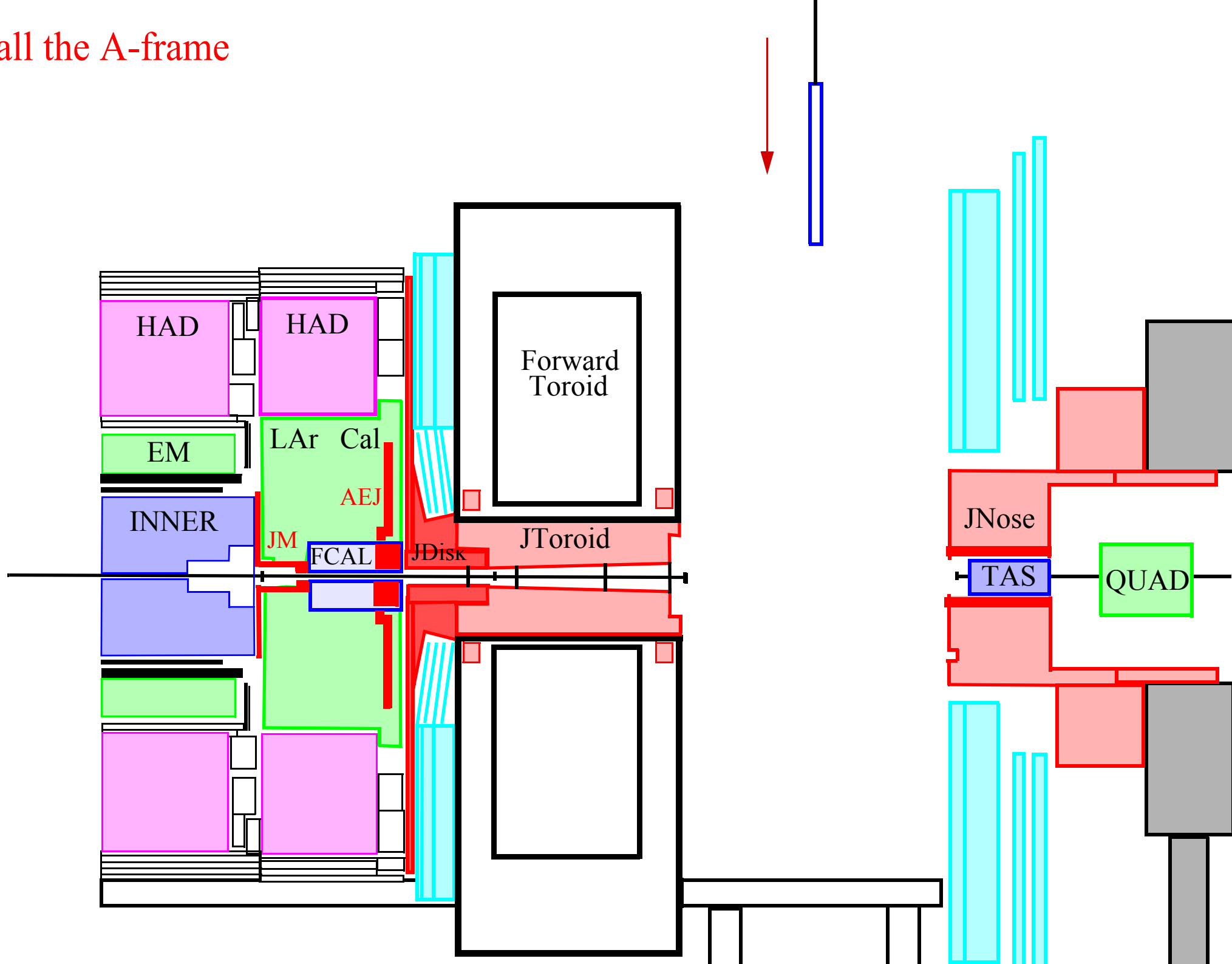


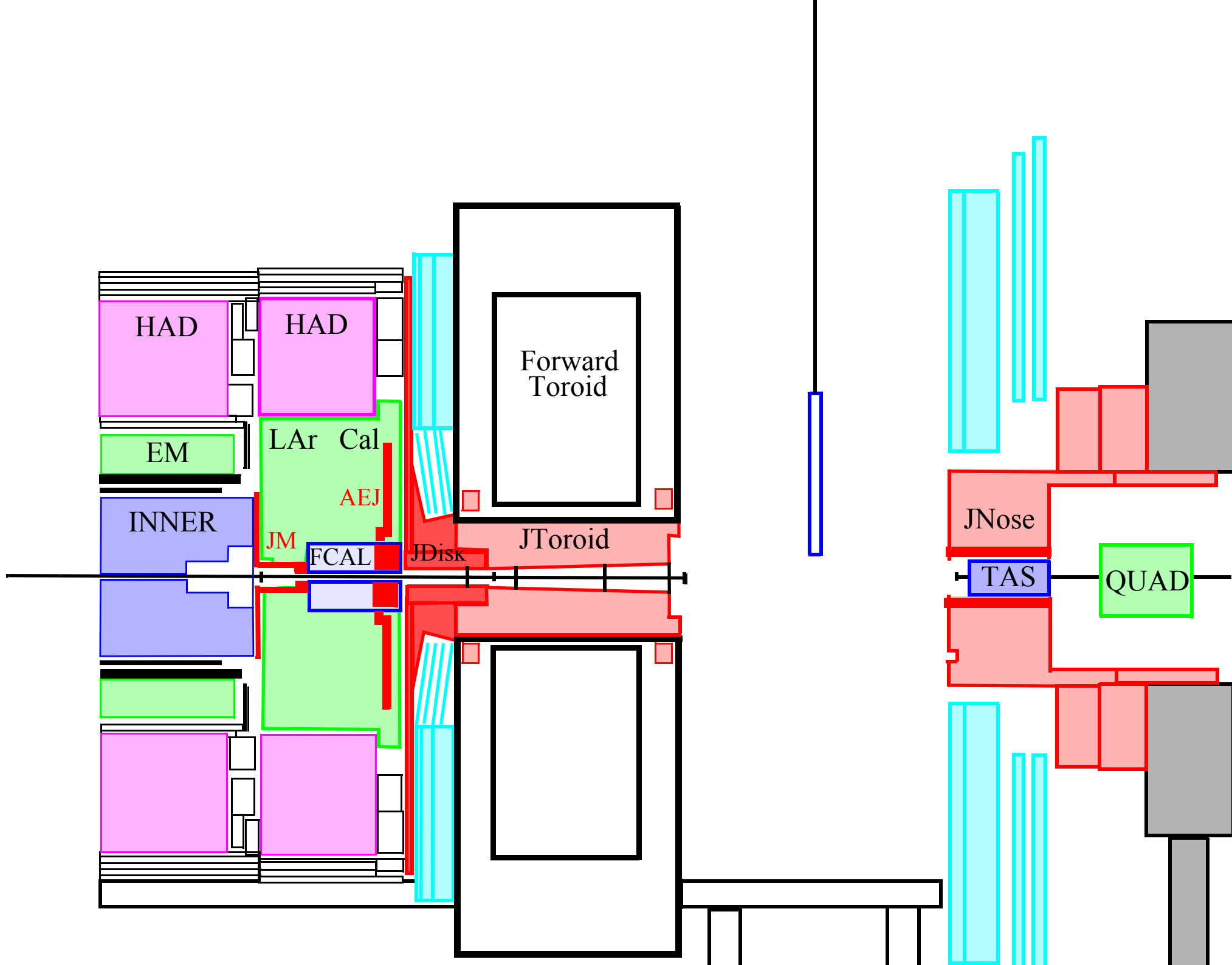


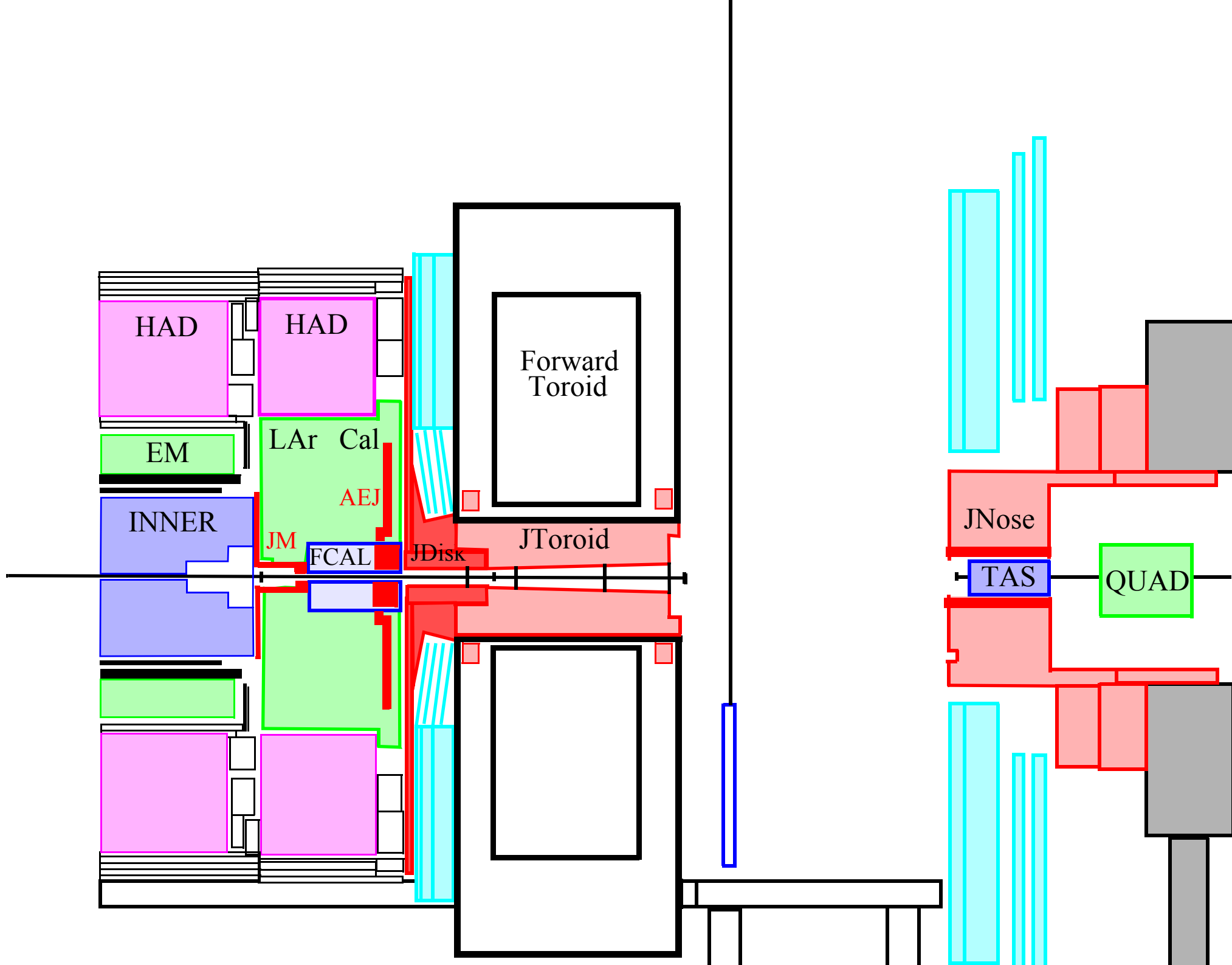
Remove minivan

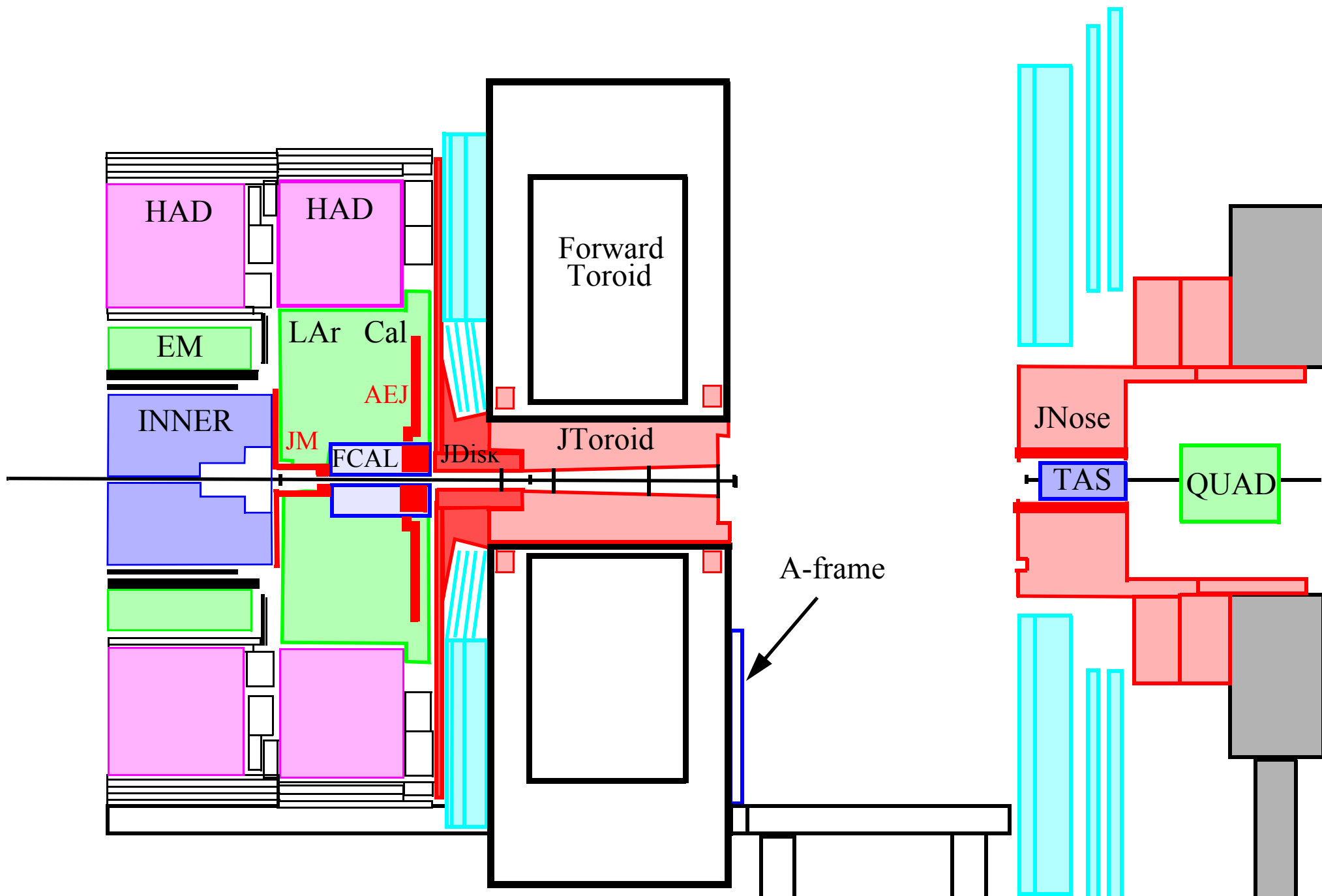


Install the A-frame

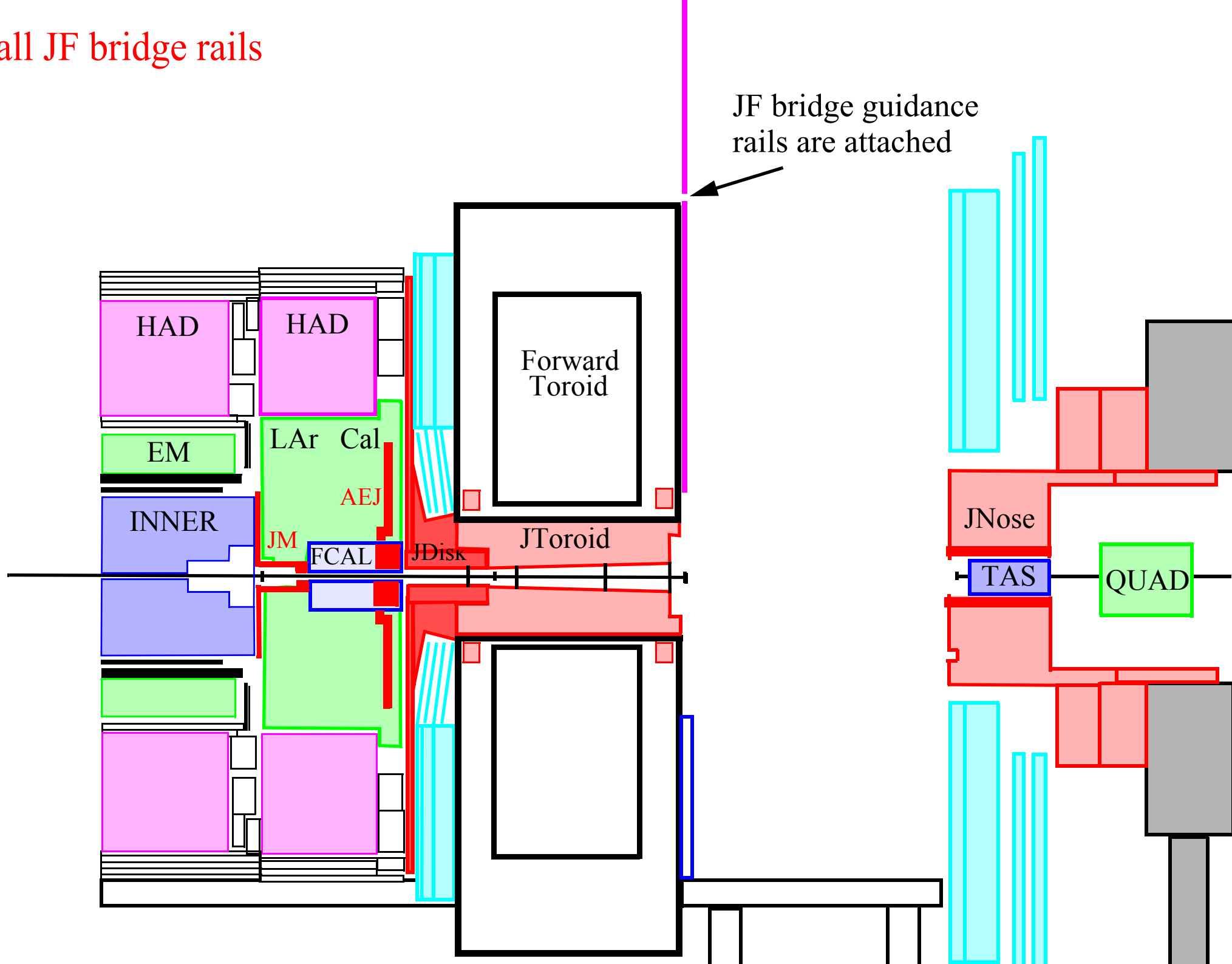




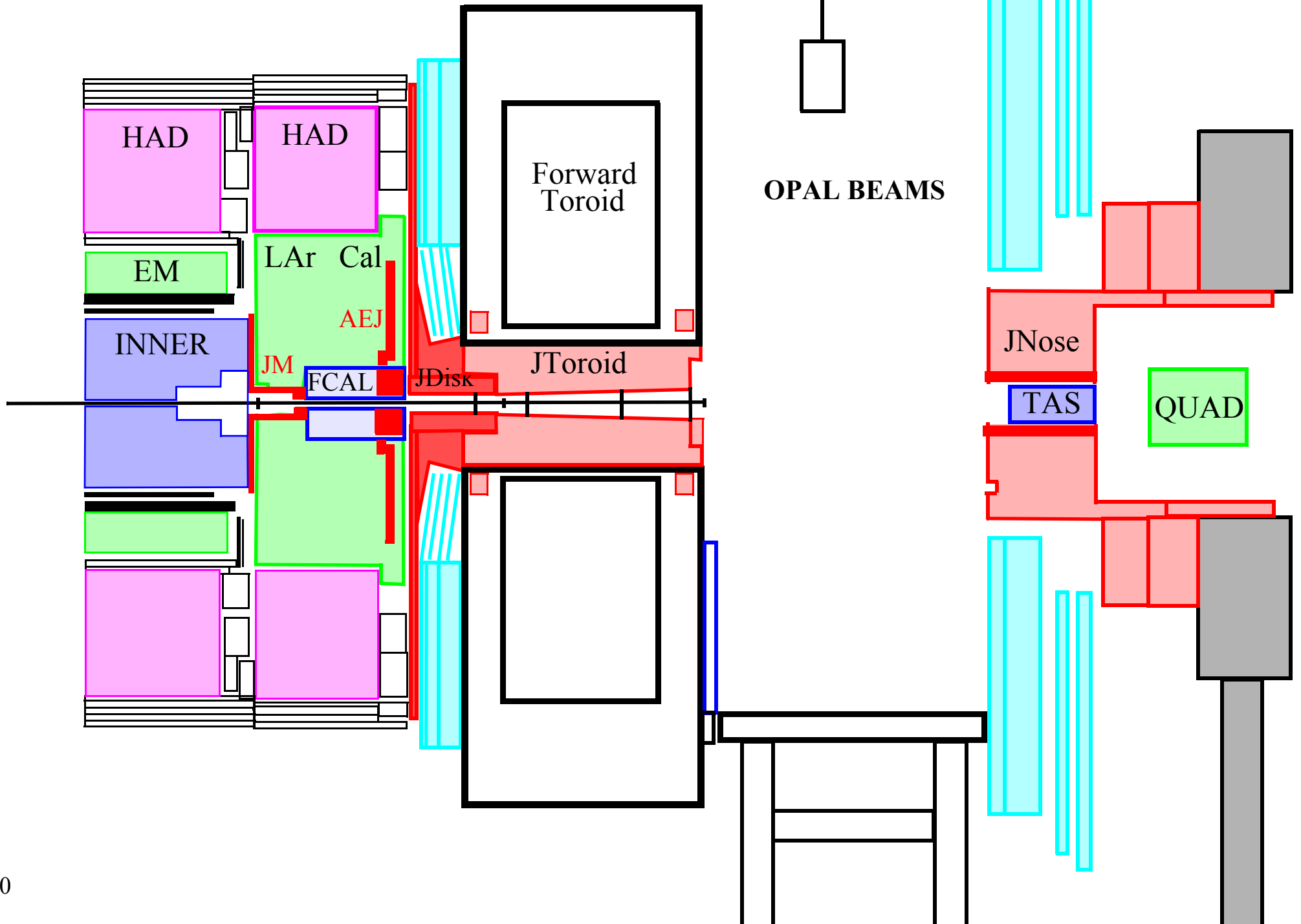


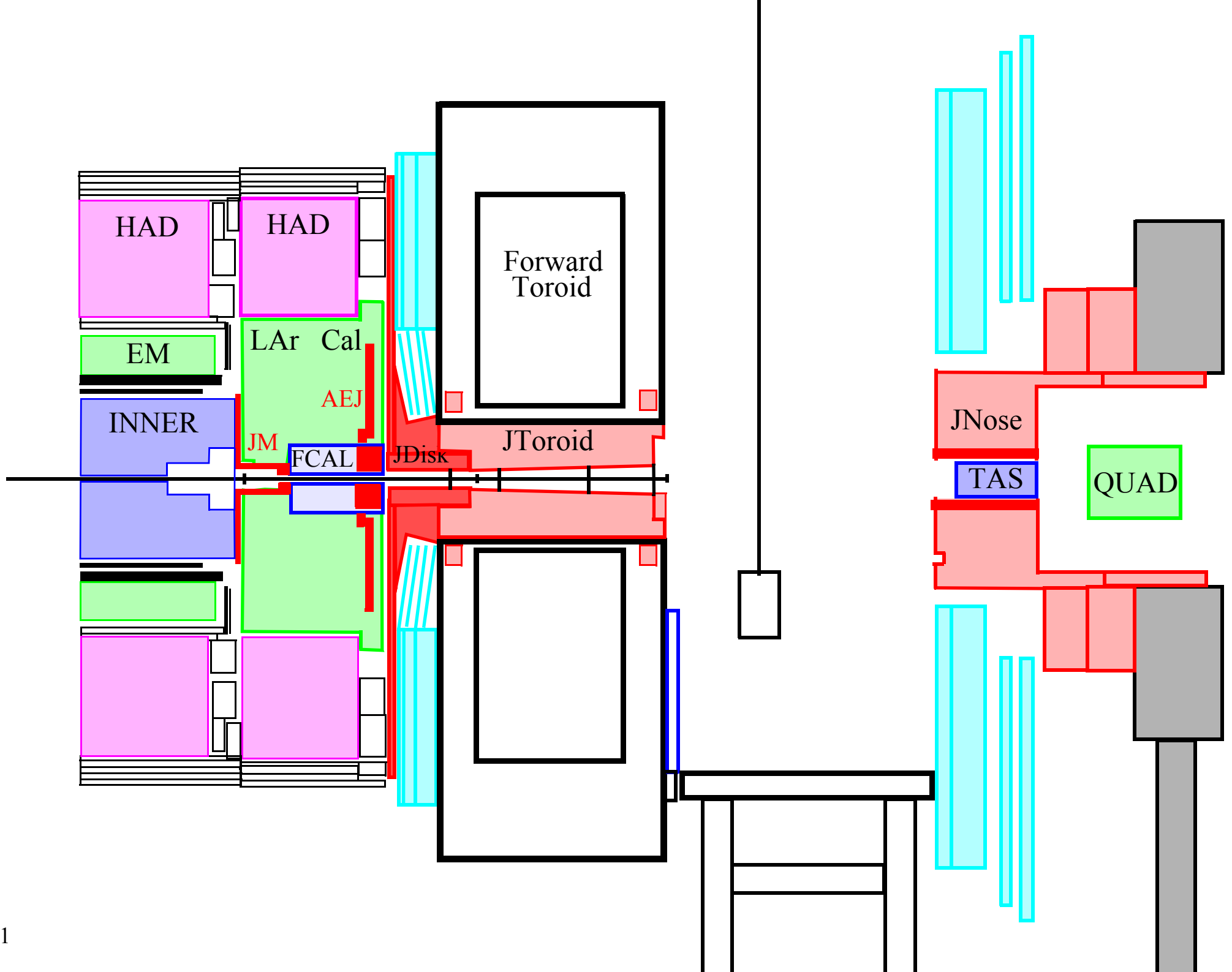


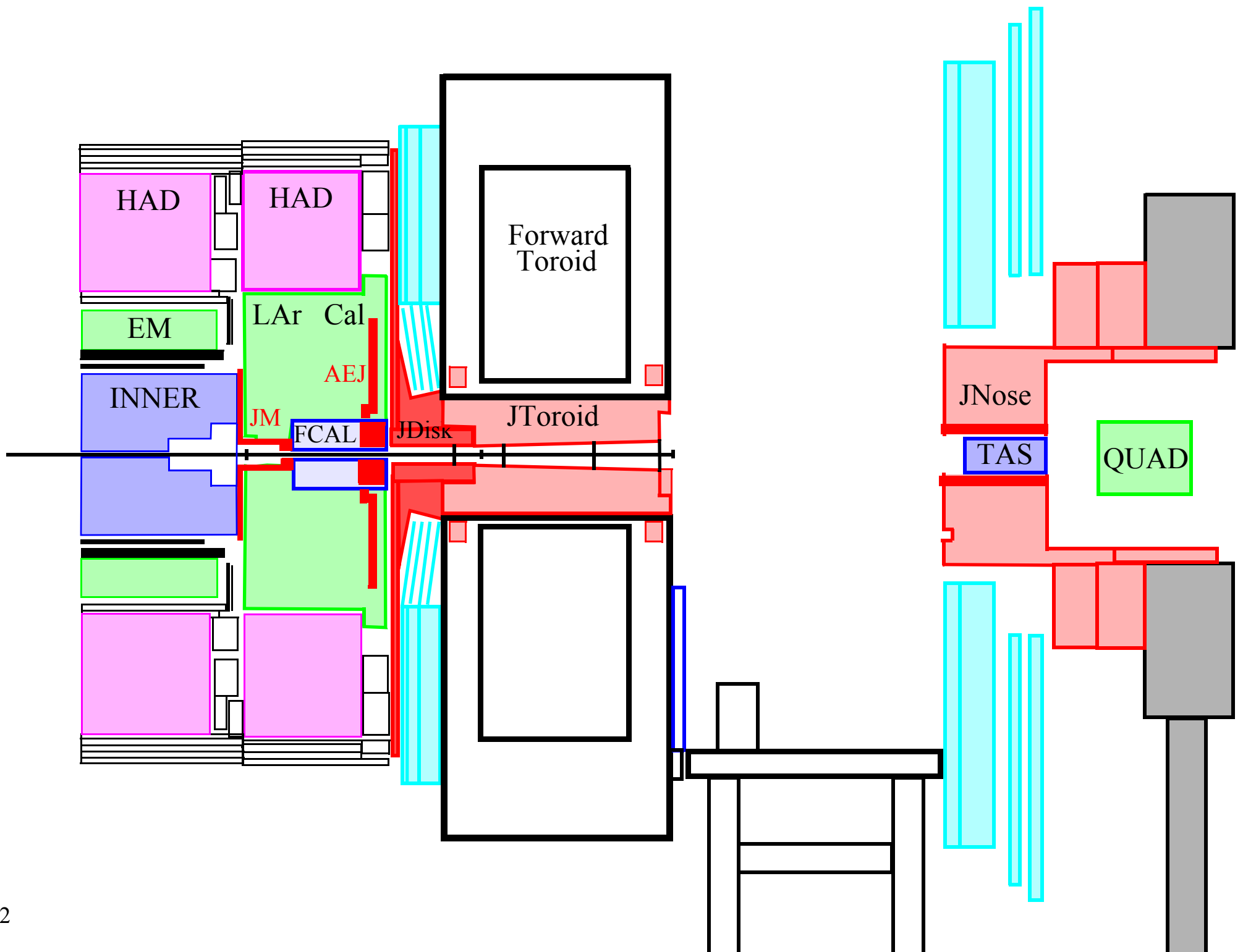
Install JF bridge rails

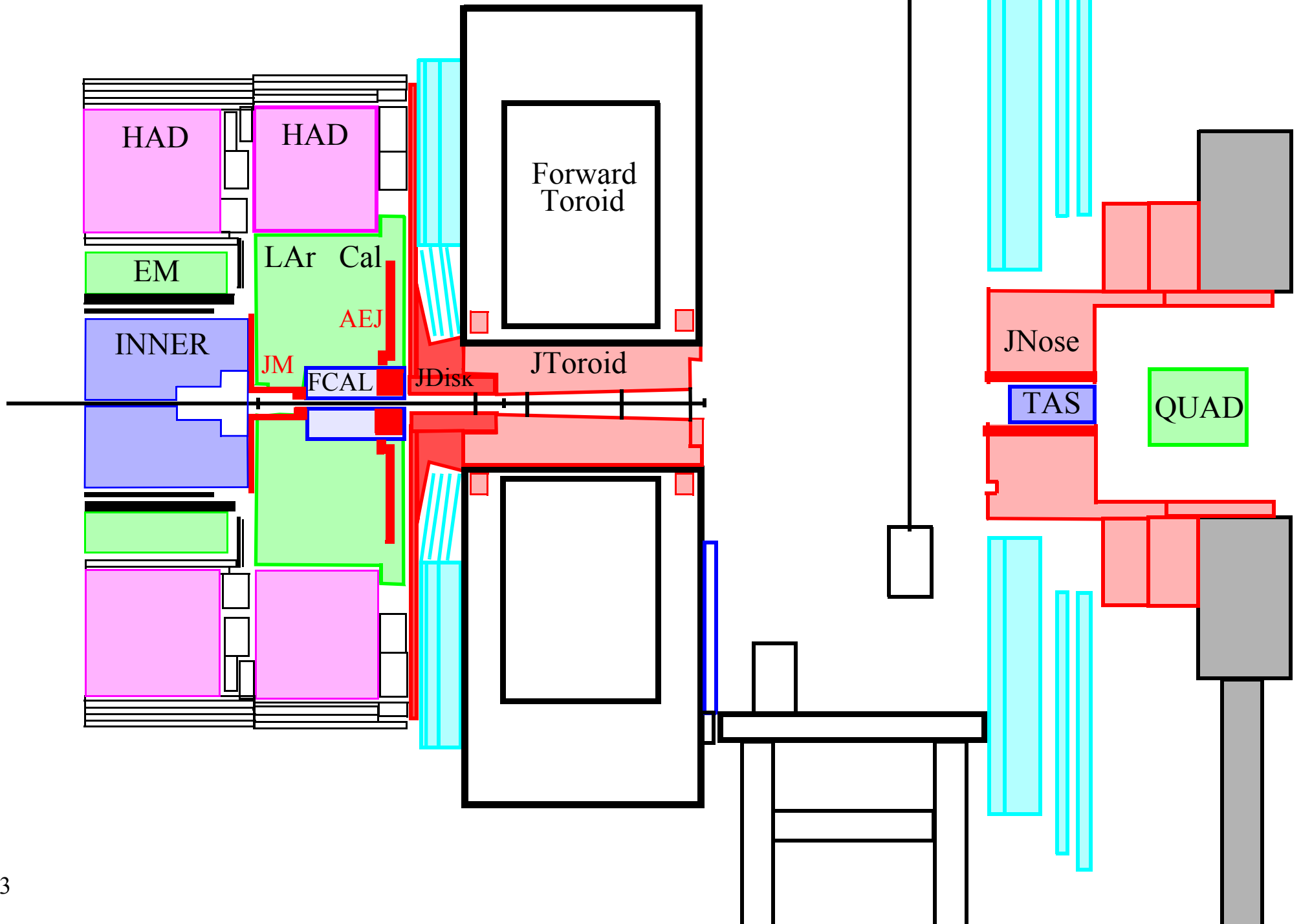


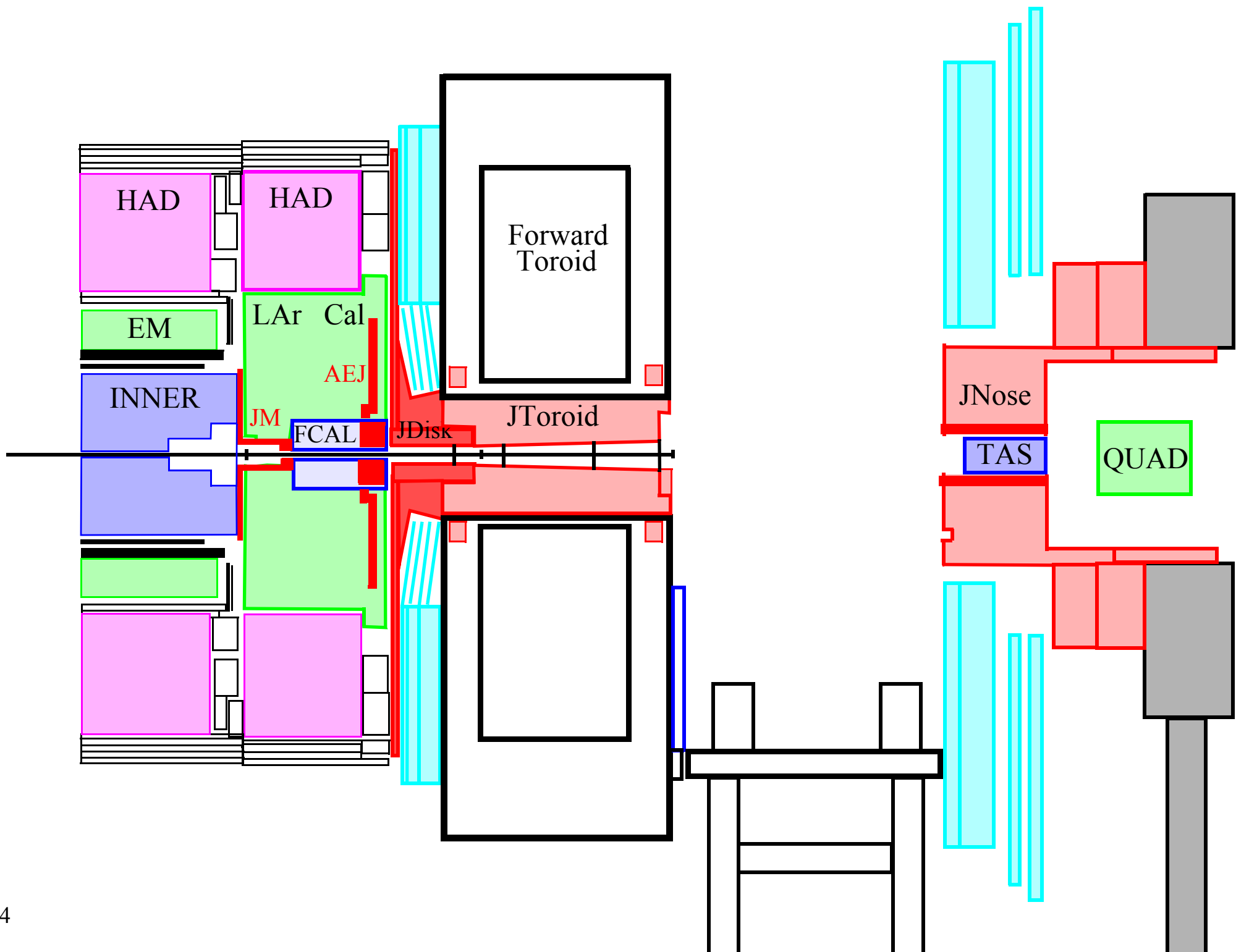
Installation of OPAL beams



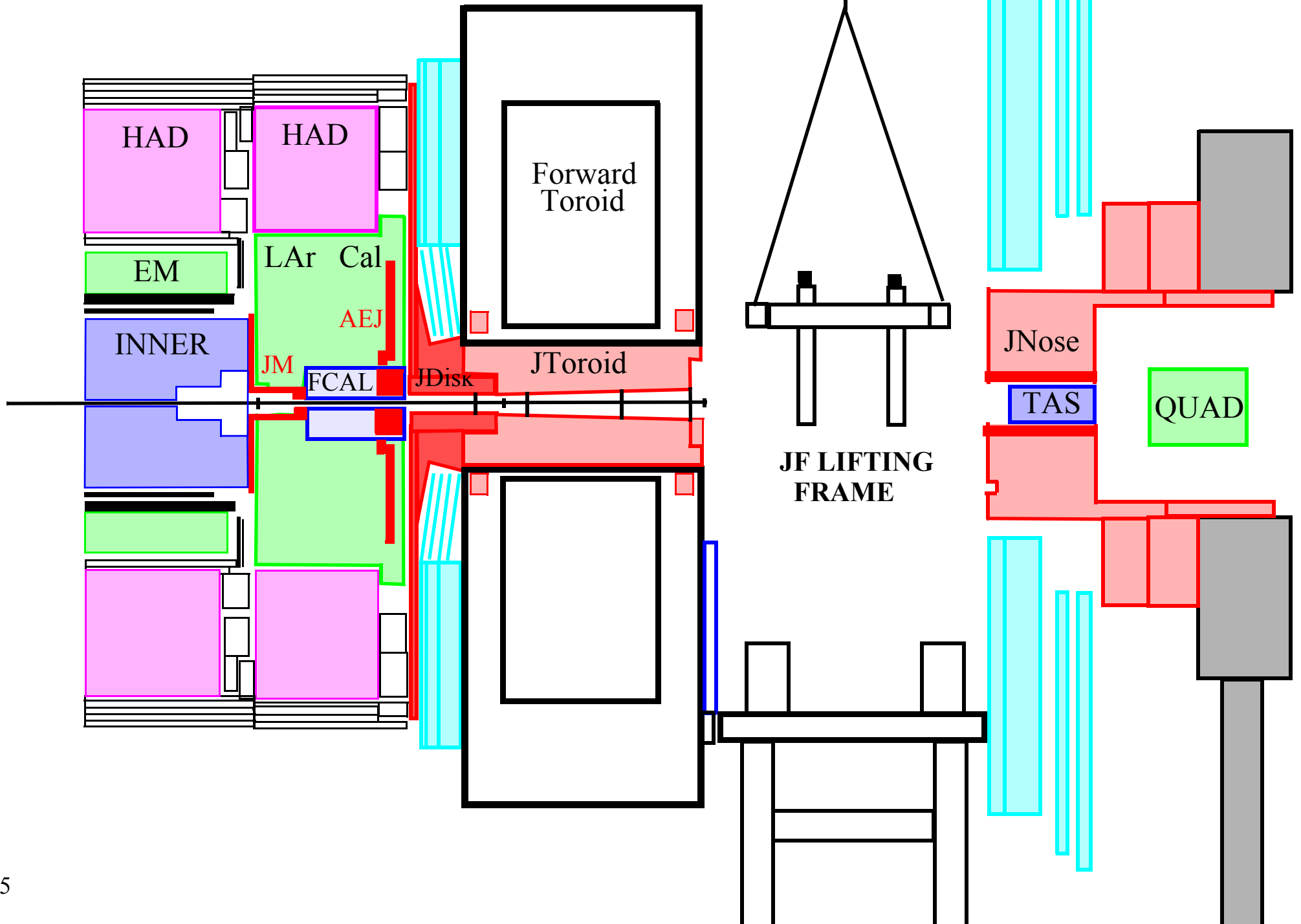


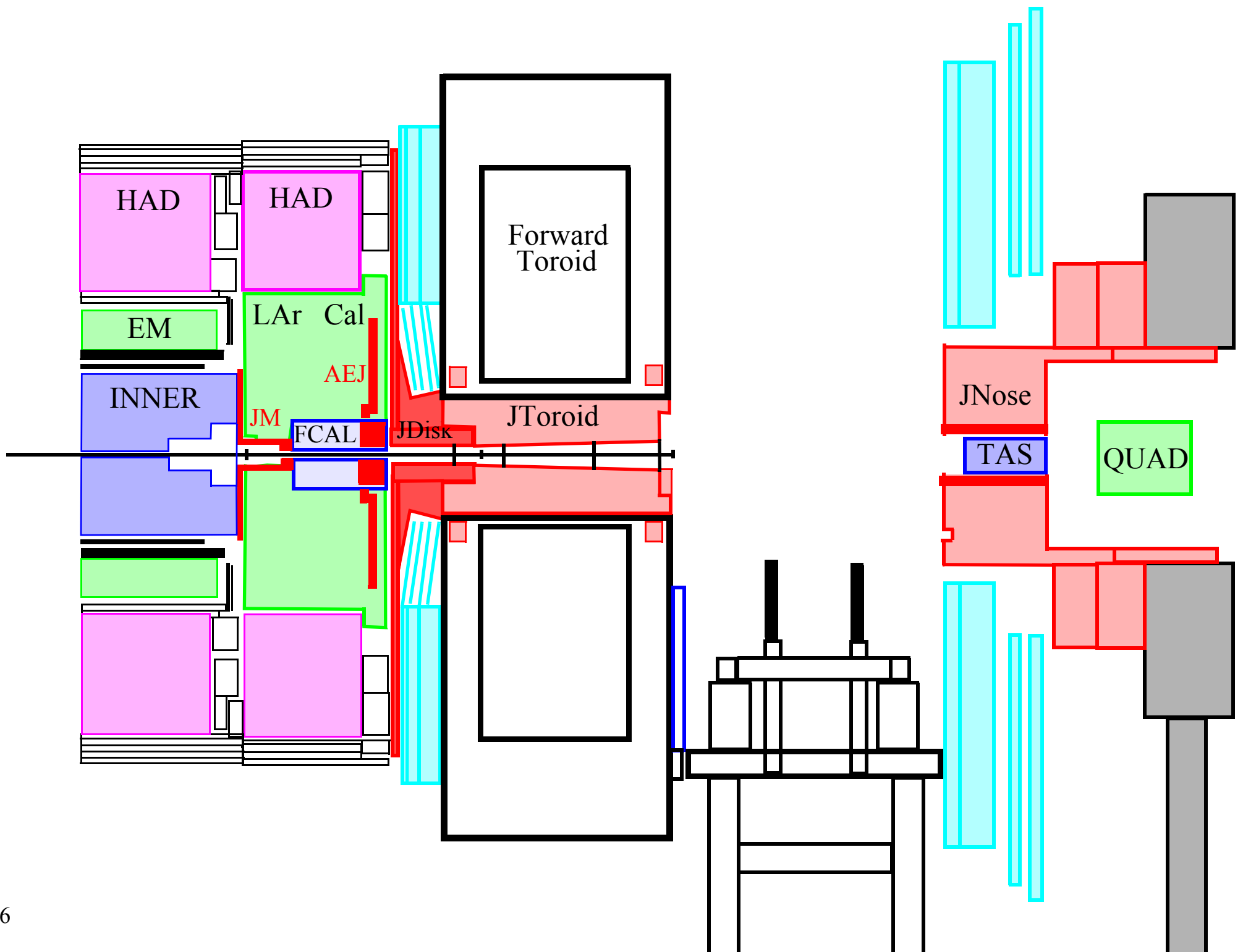




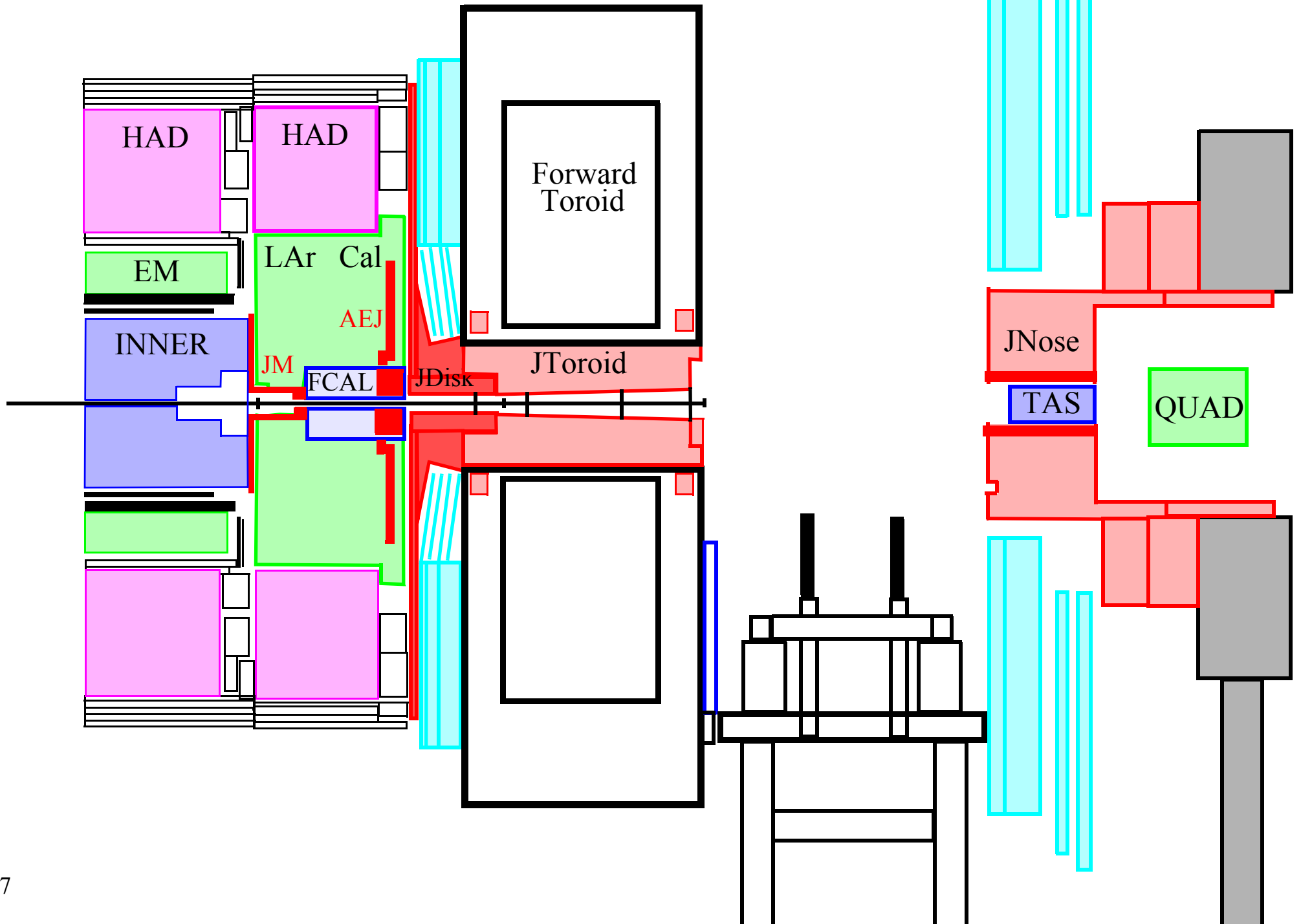


Installation of the lifting frame

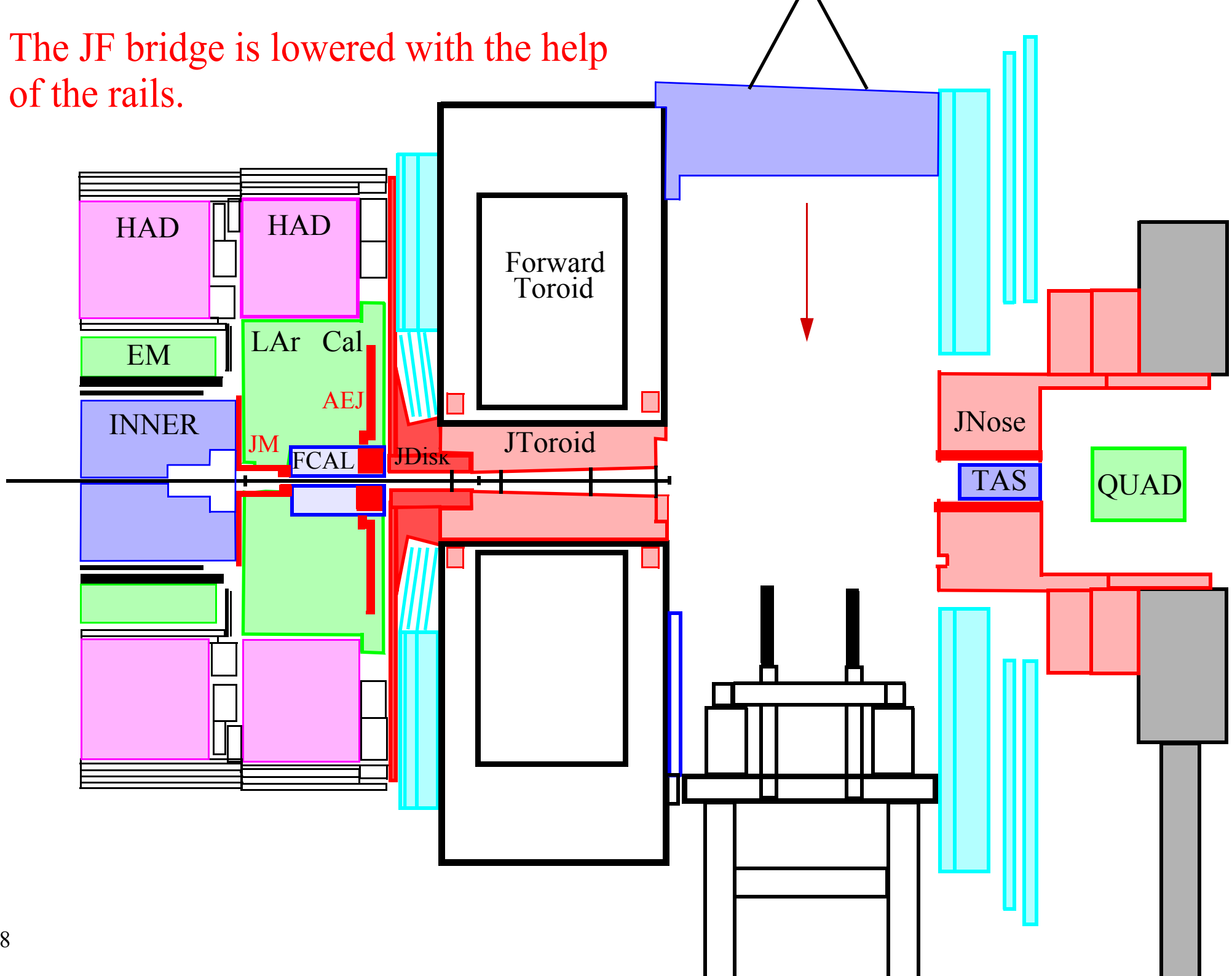


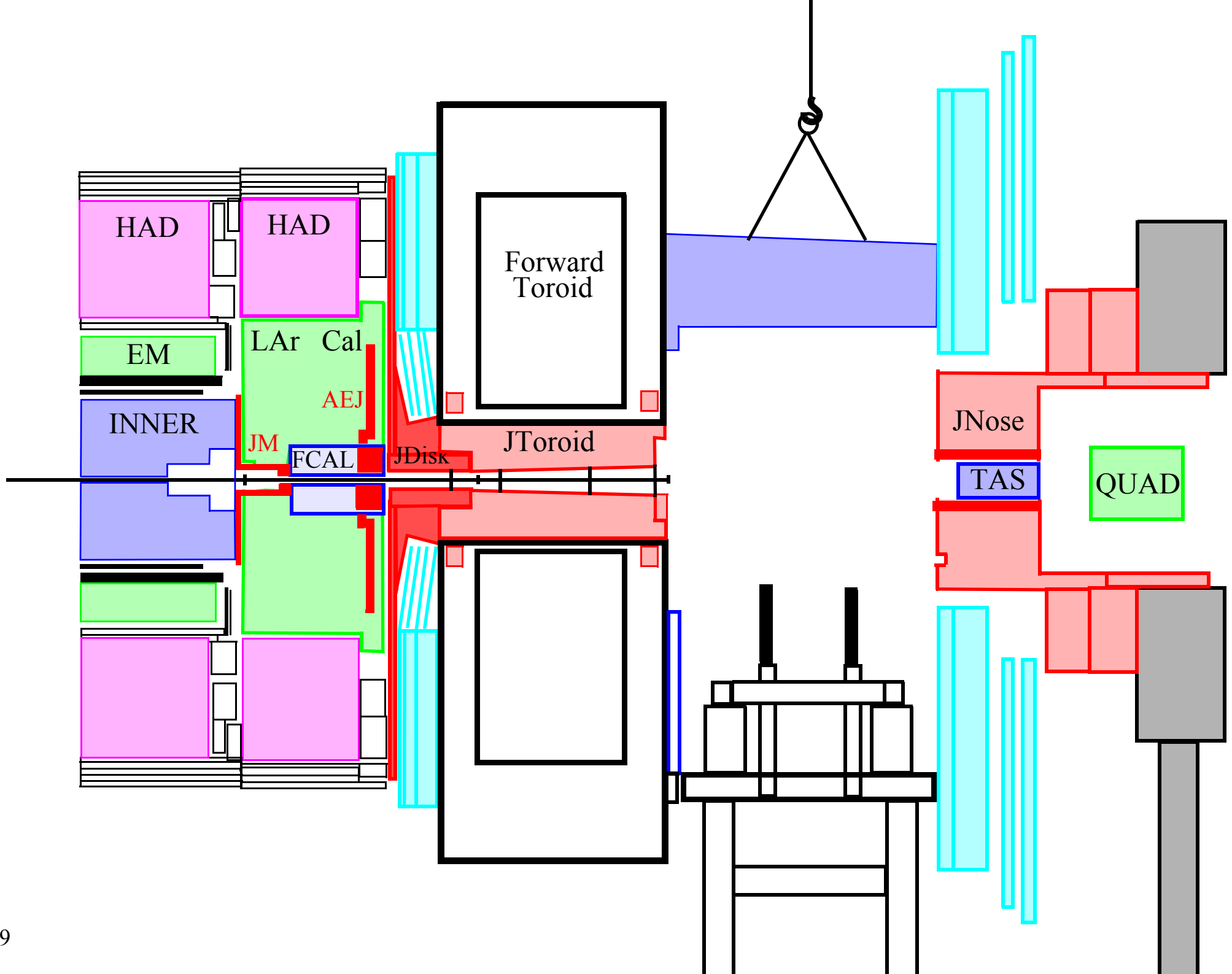


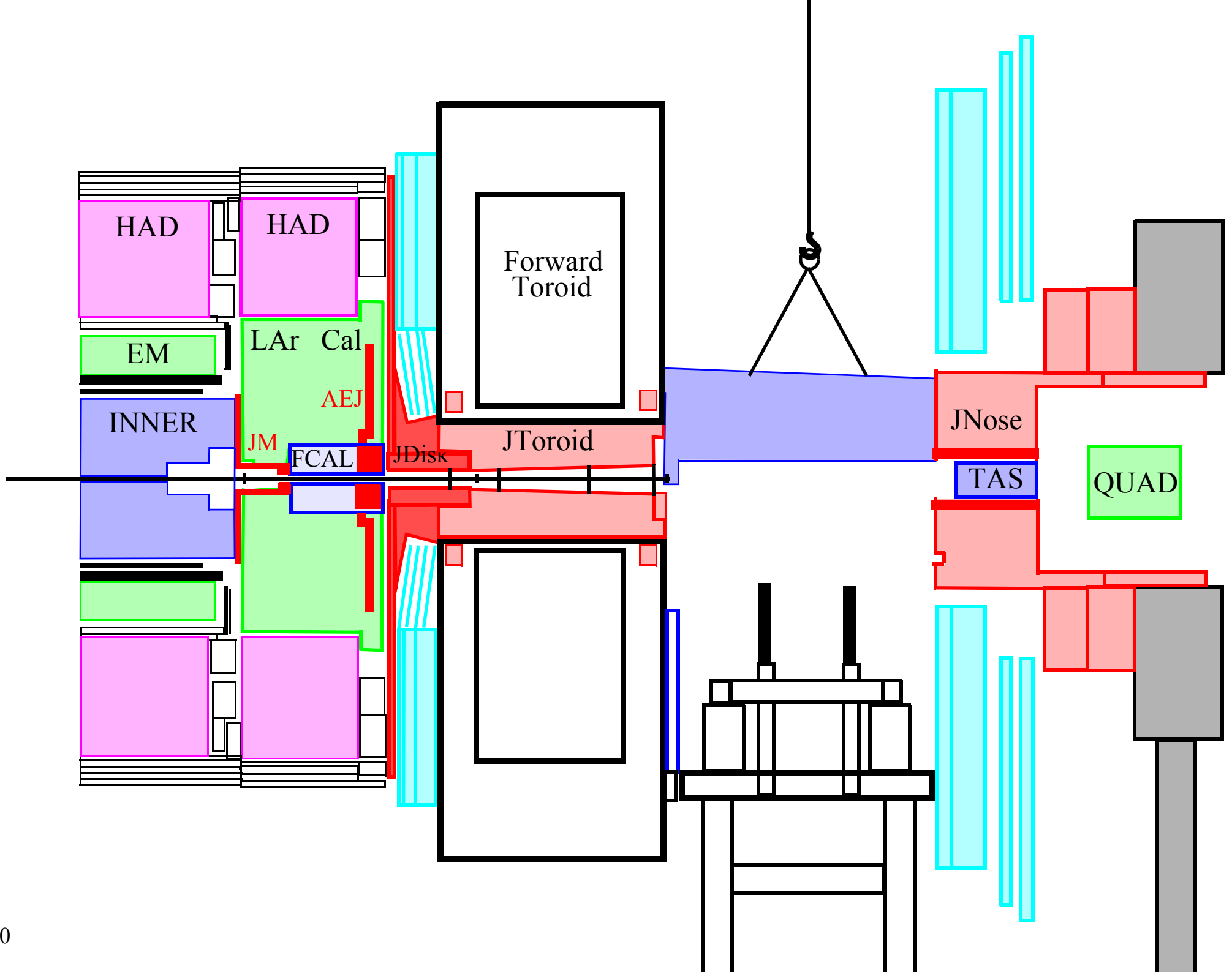
Move HF truck sideways



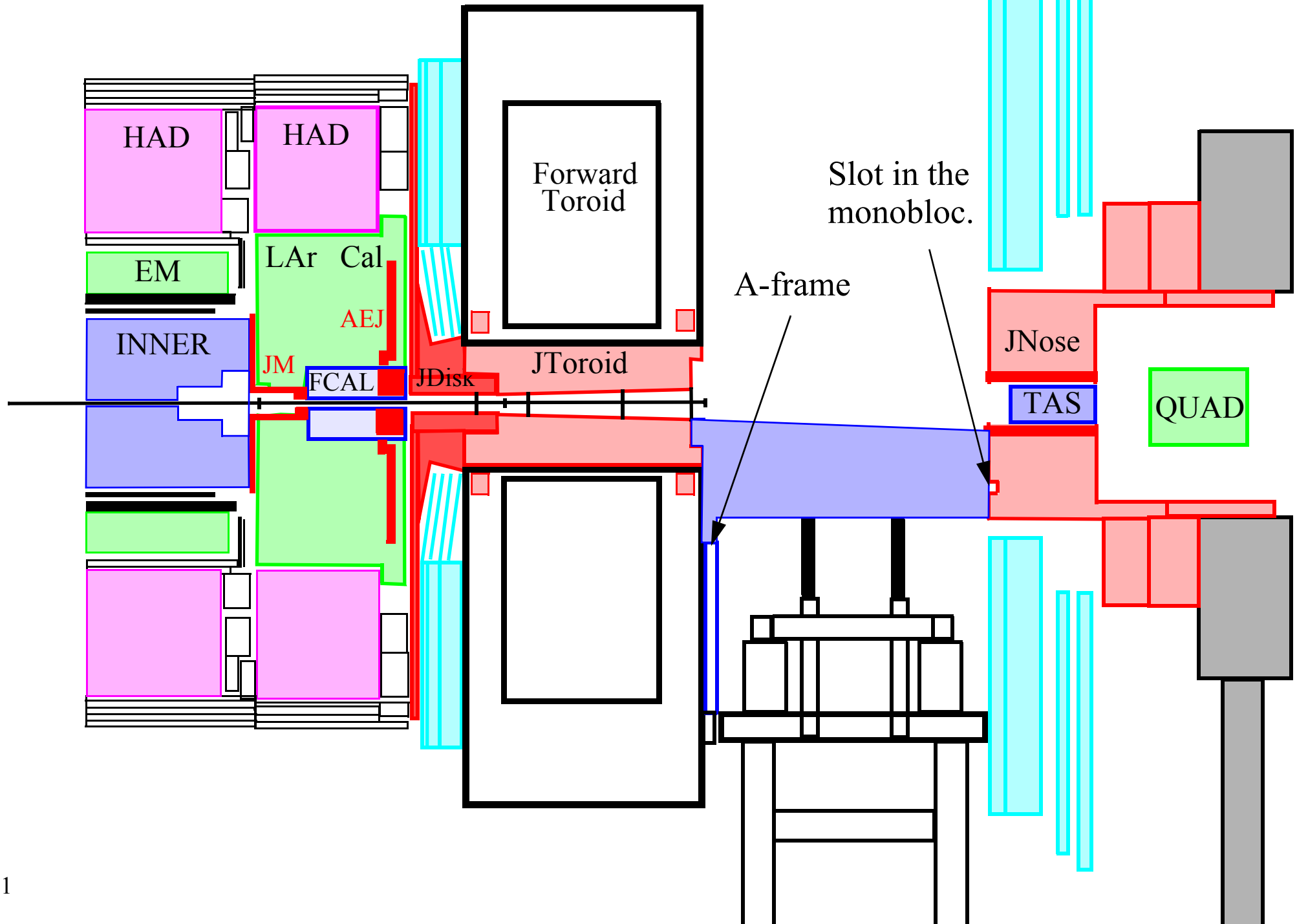
The JF bridge is lowered with the help of the rails.



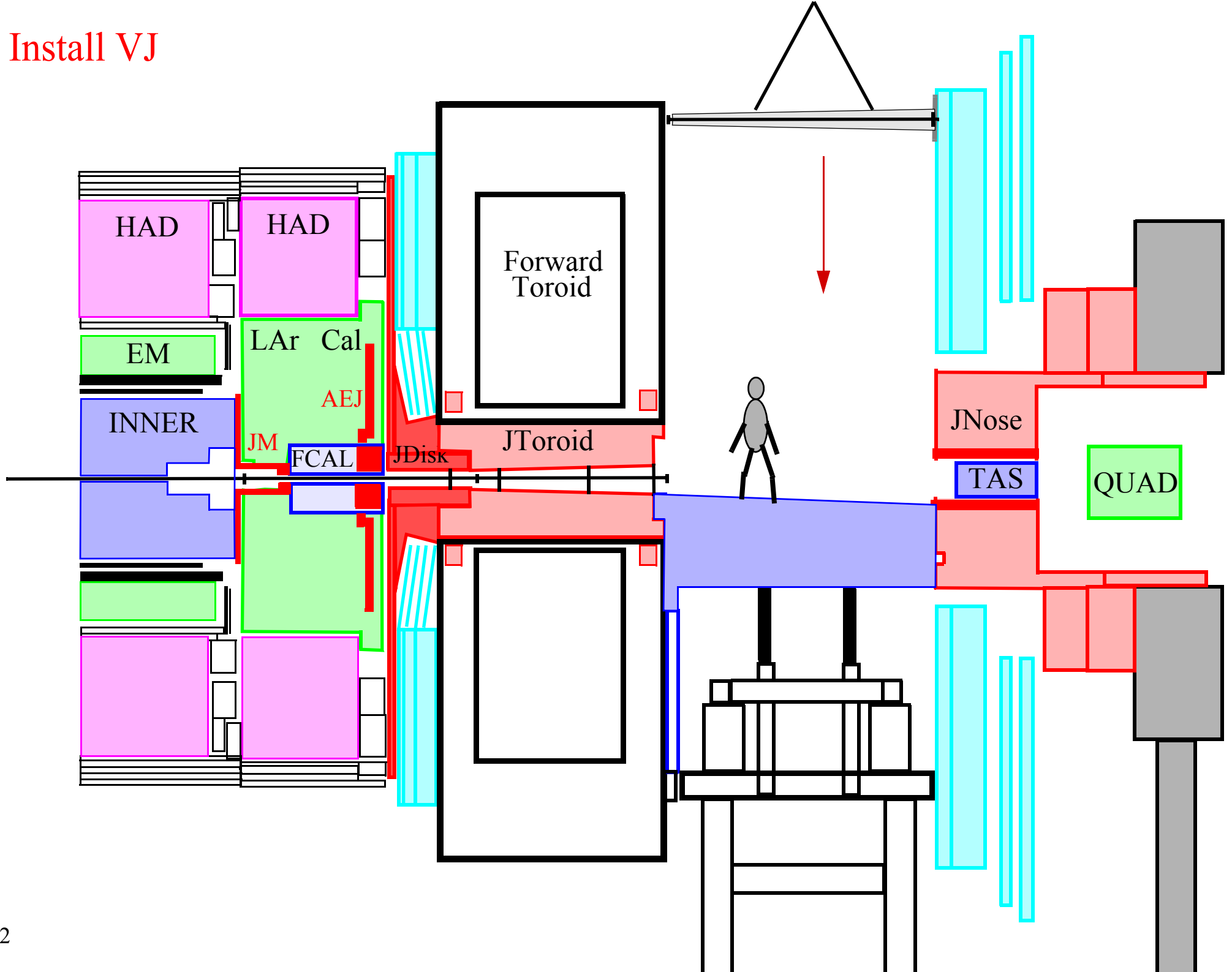


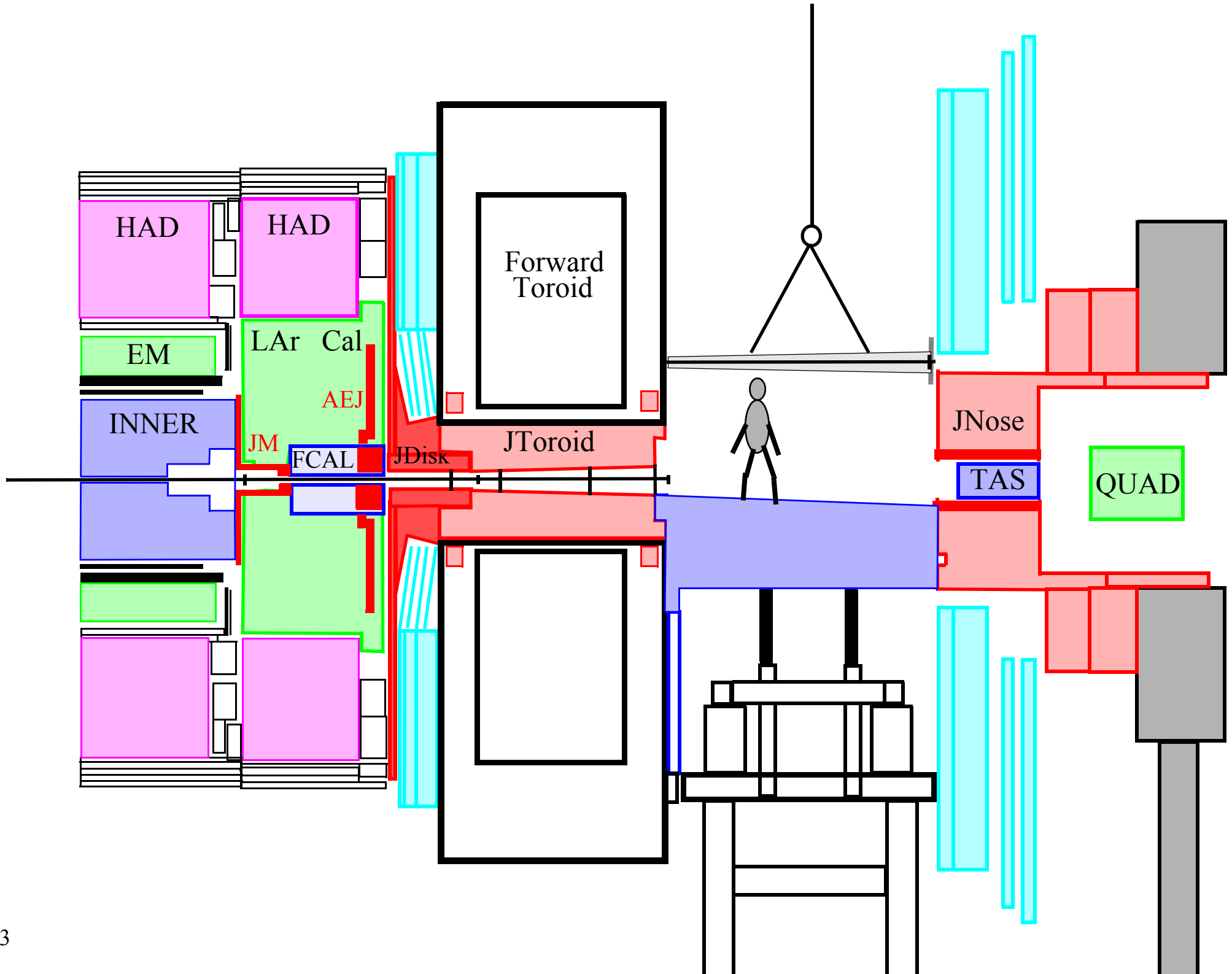


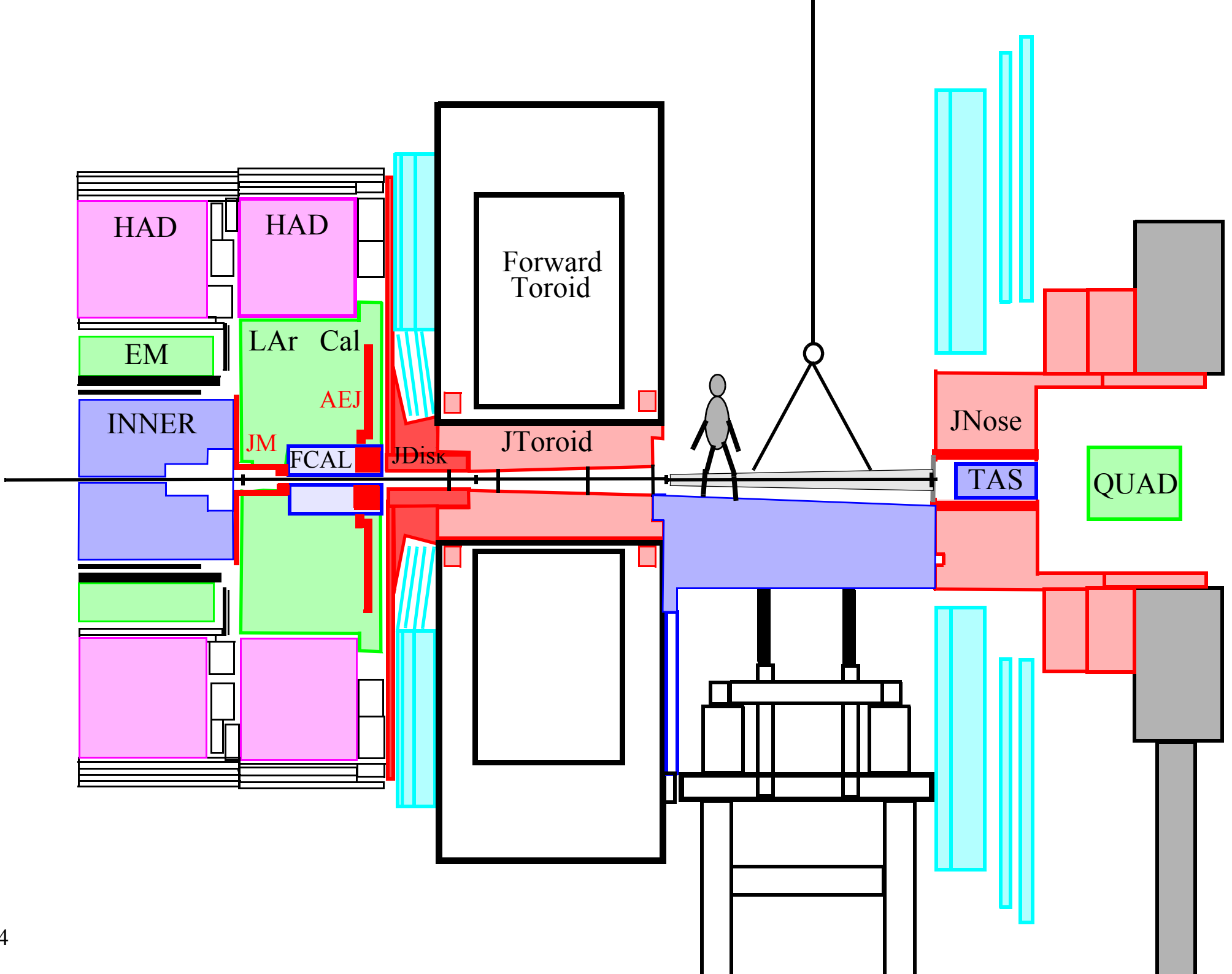
The HF truck is moved sideways until the JF bridge is resting on the A-frame and the slot in the monobloc

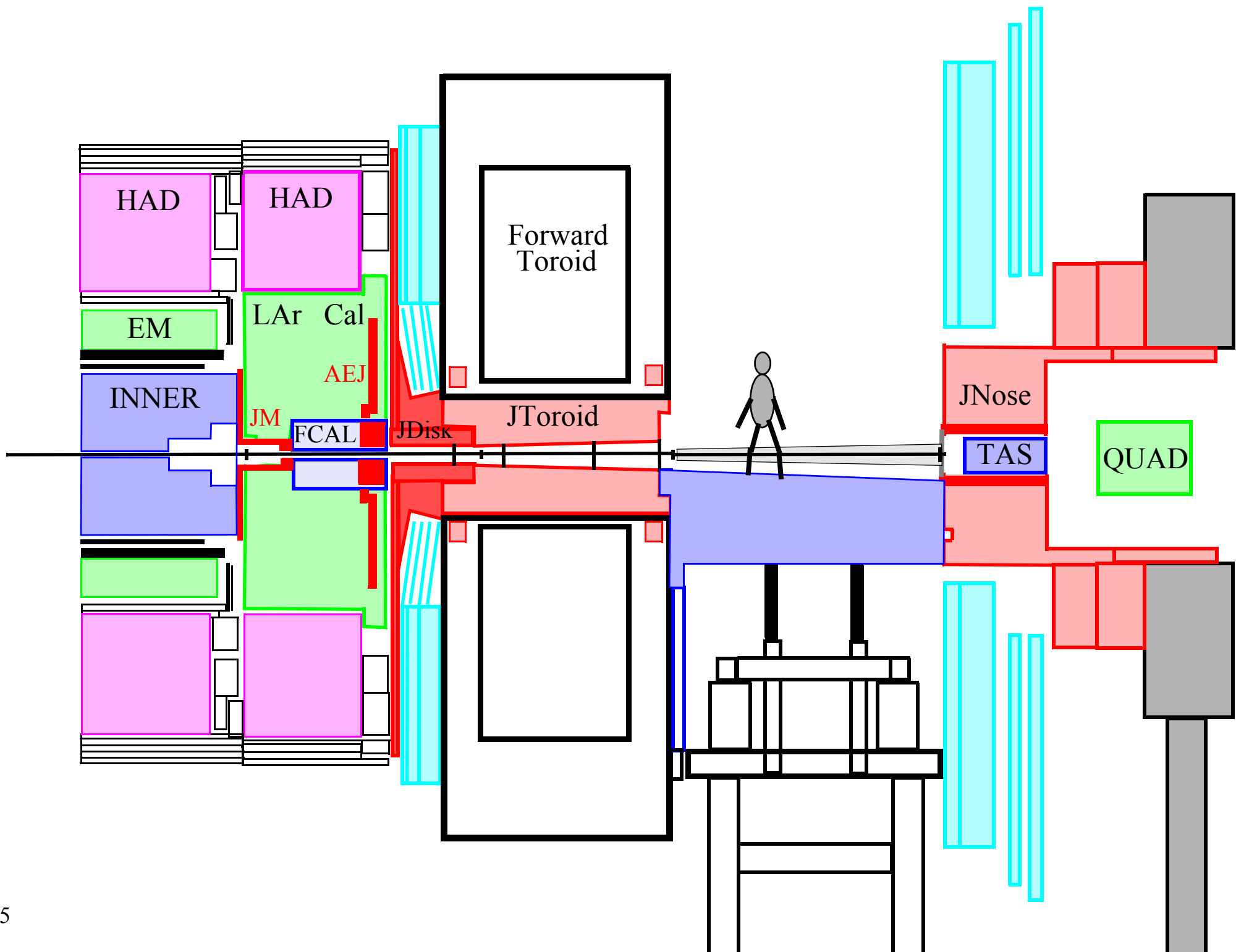


Install VJ

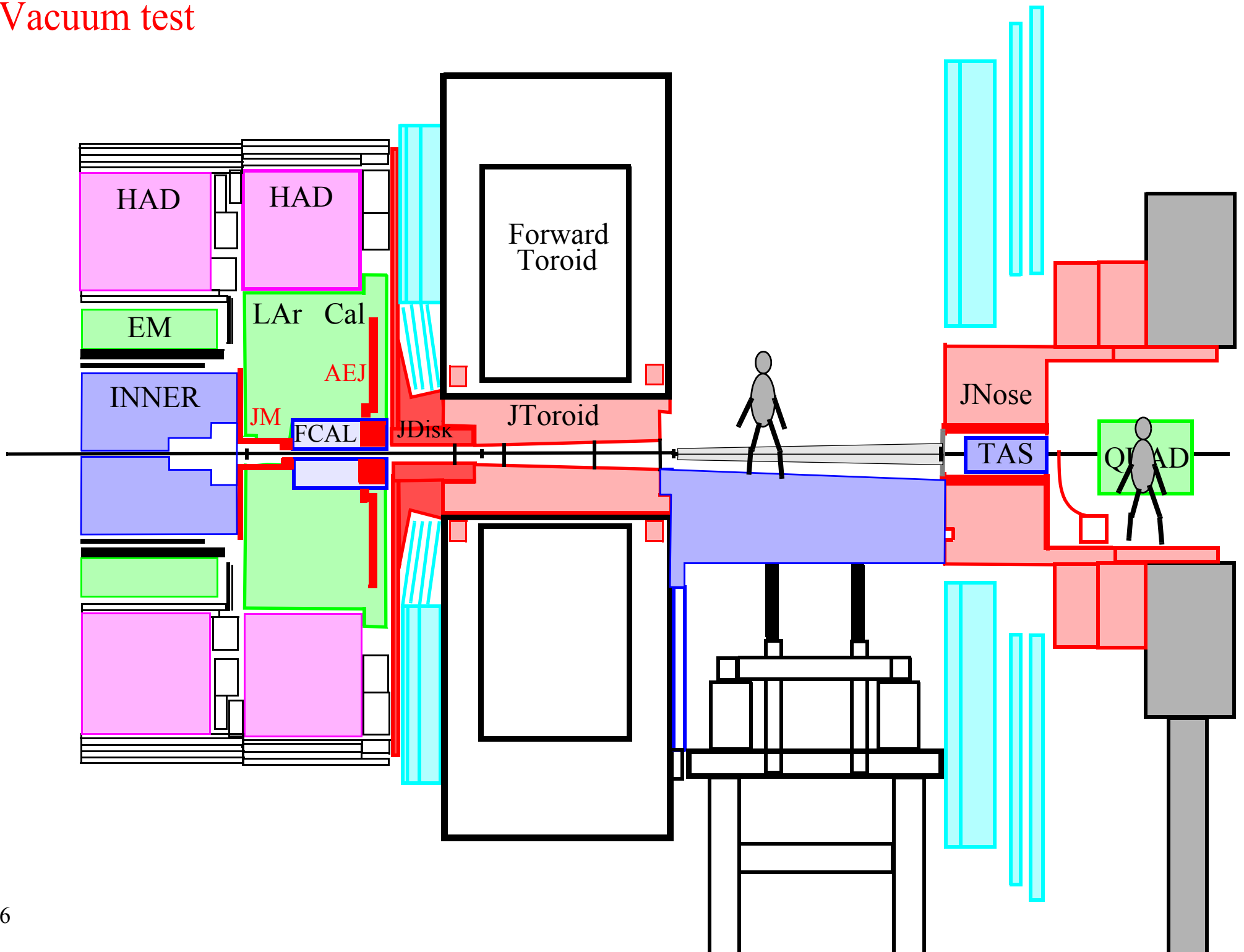




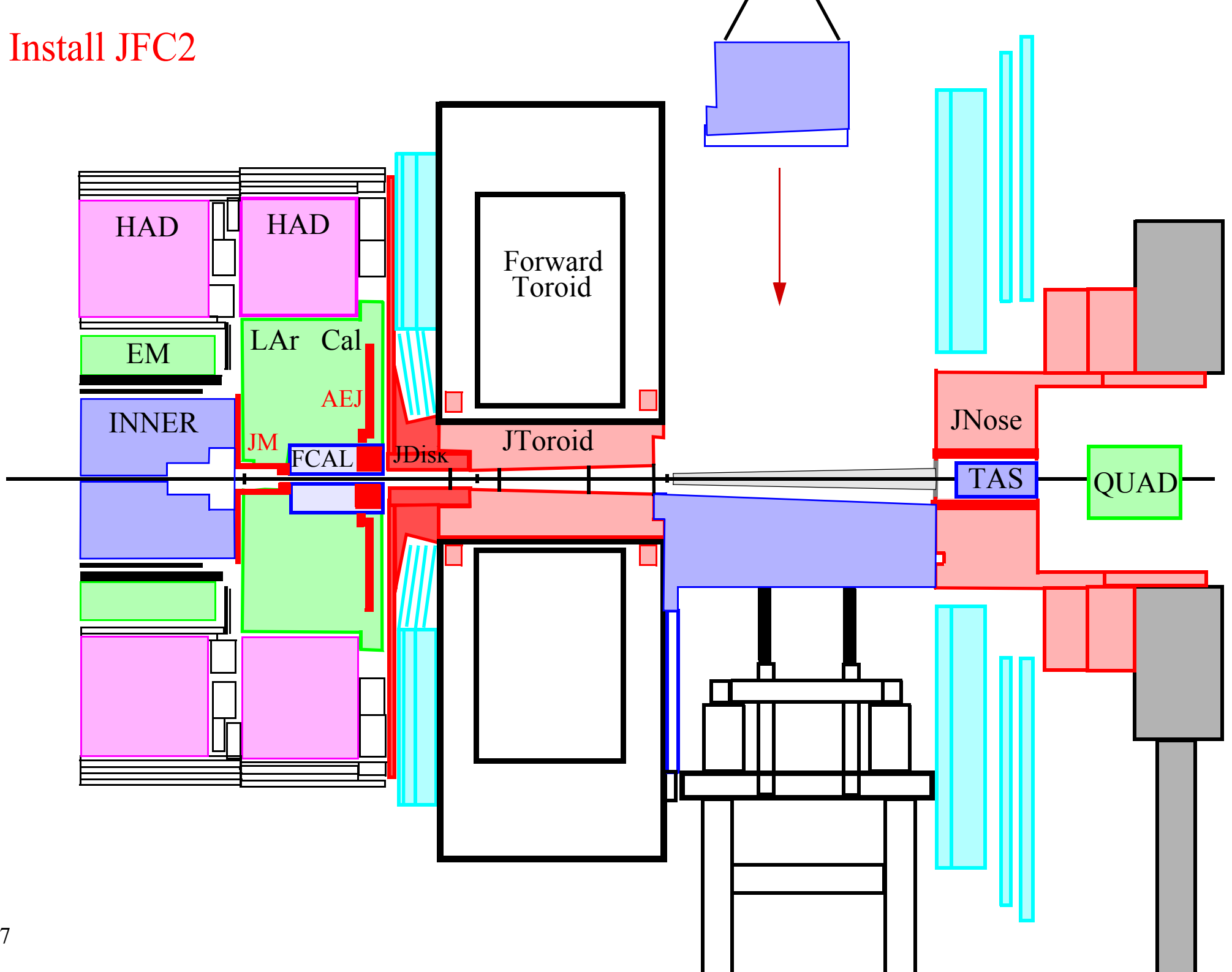


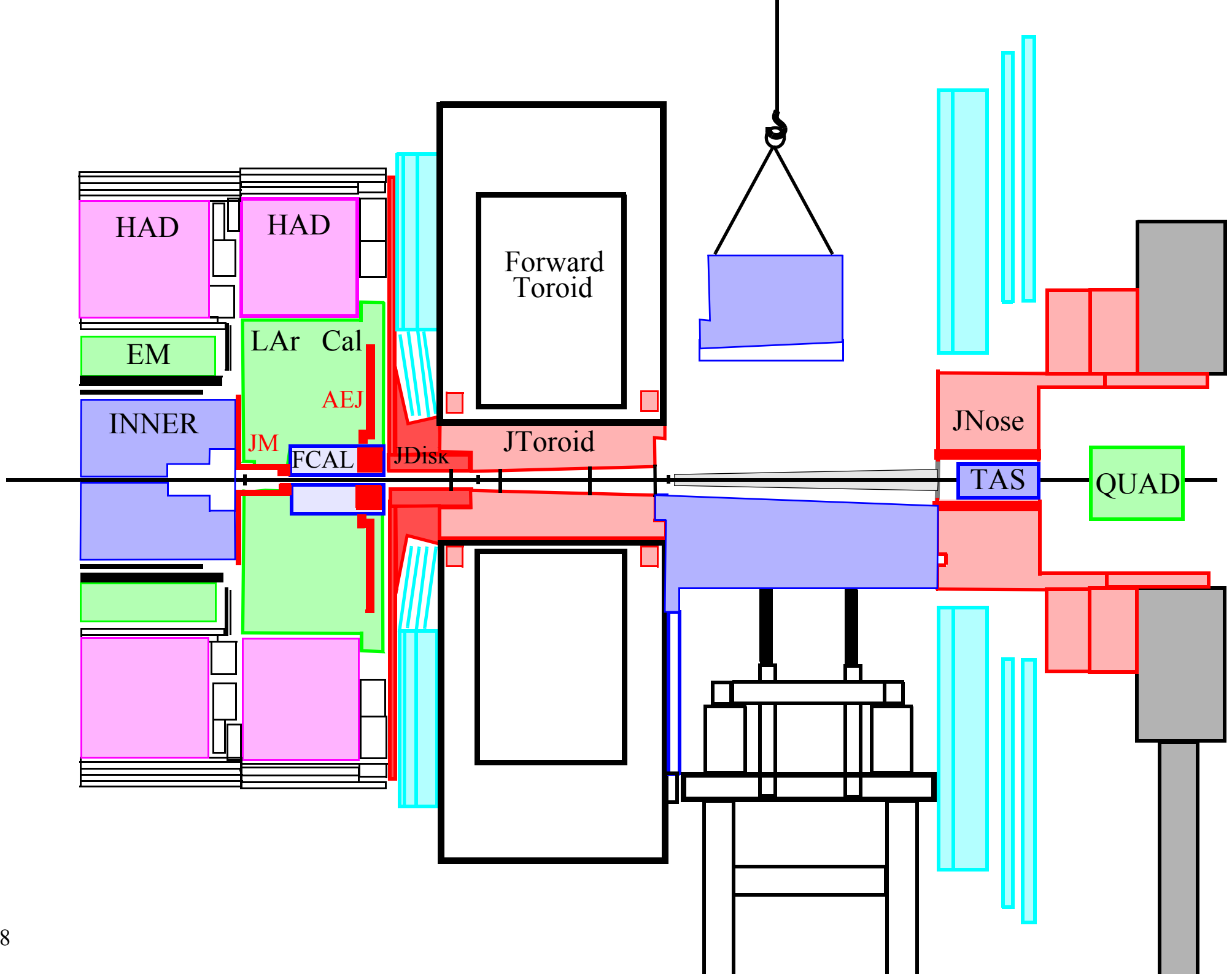


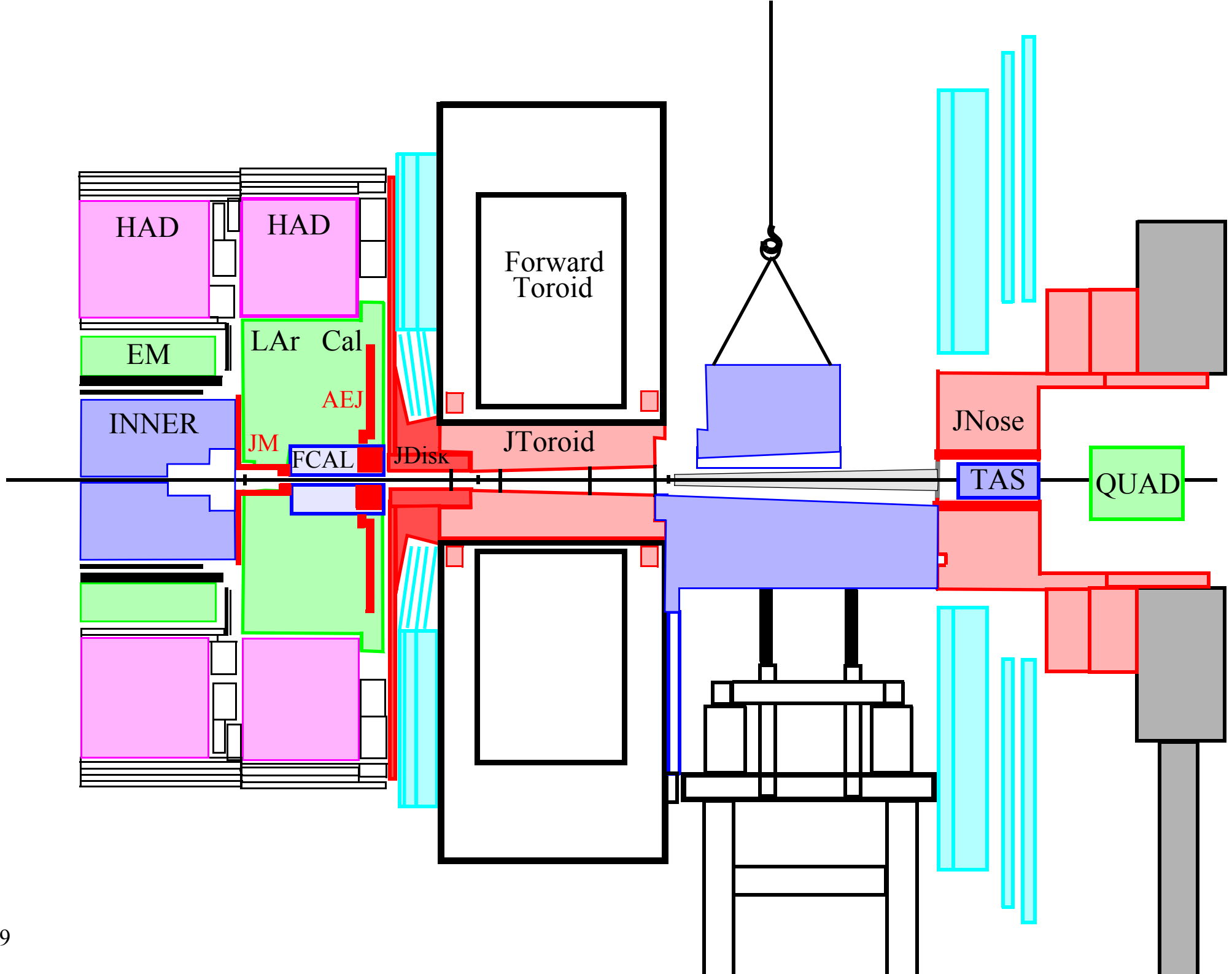
Vacuum test

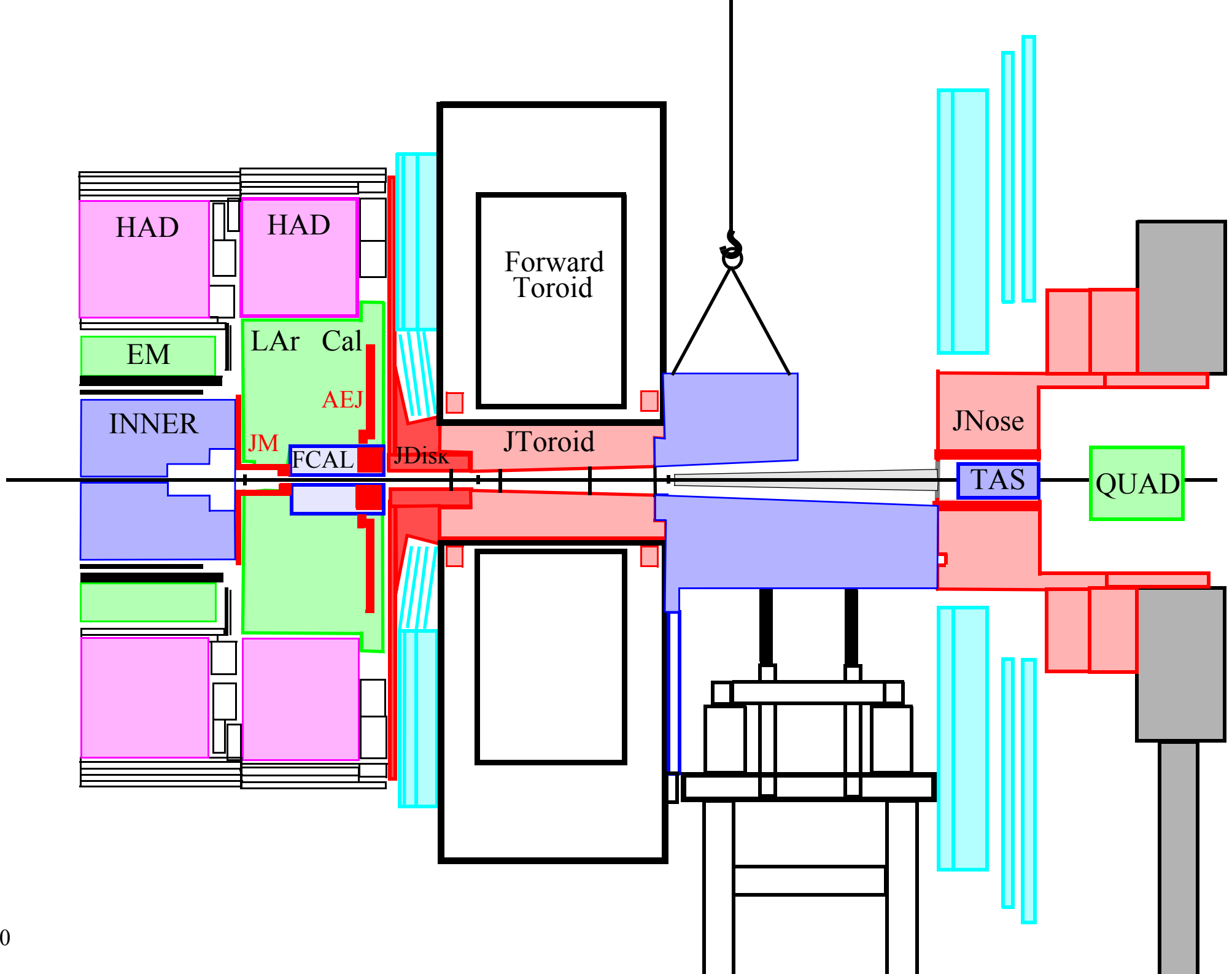


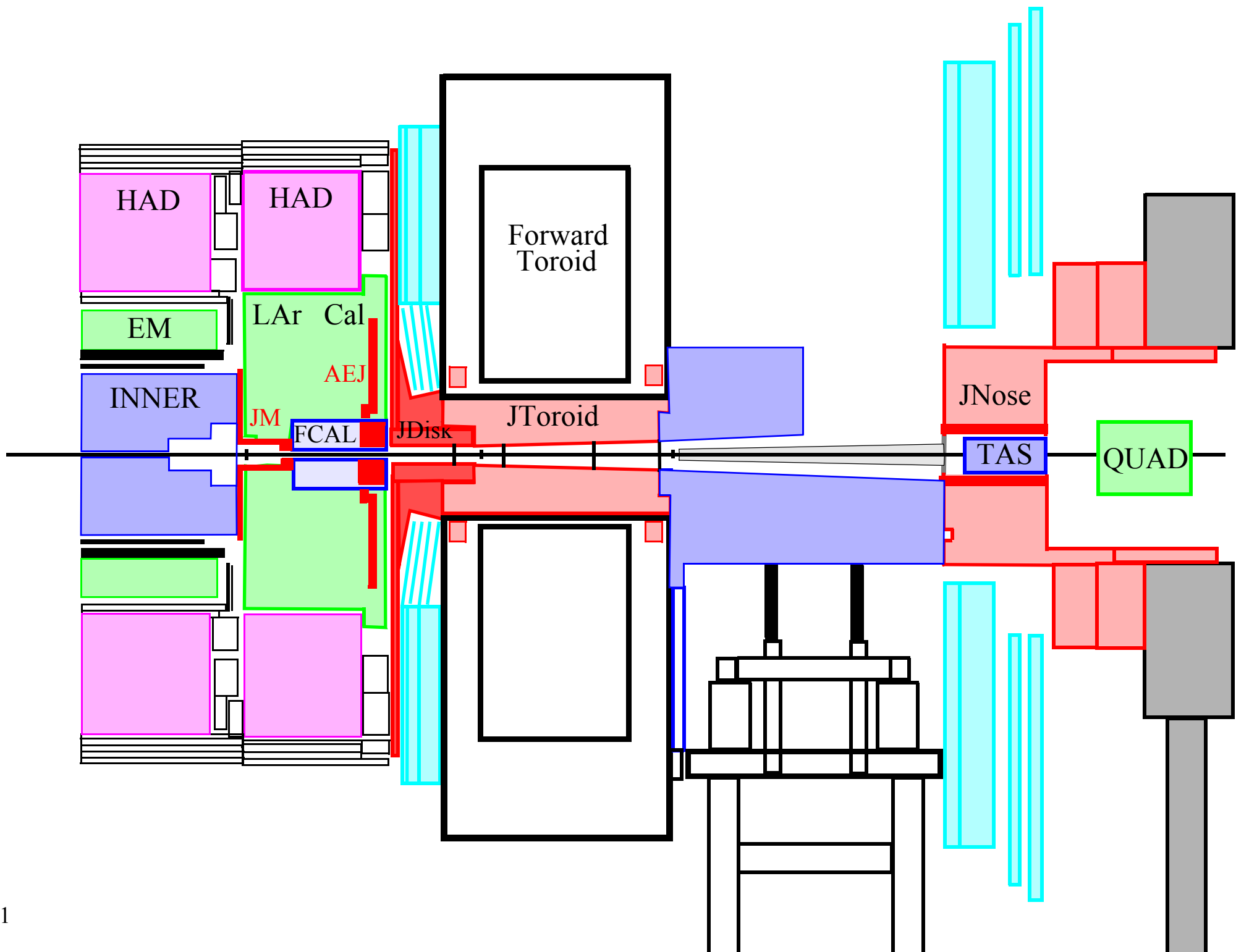
Install JFC2



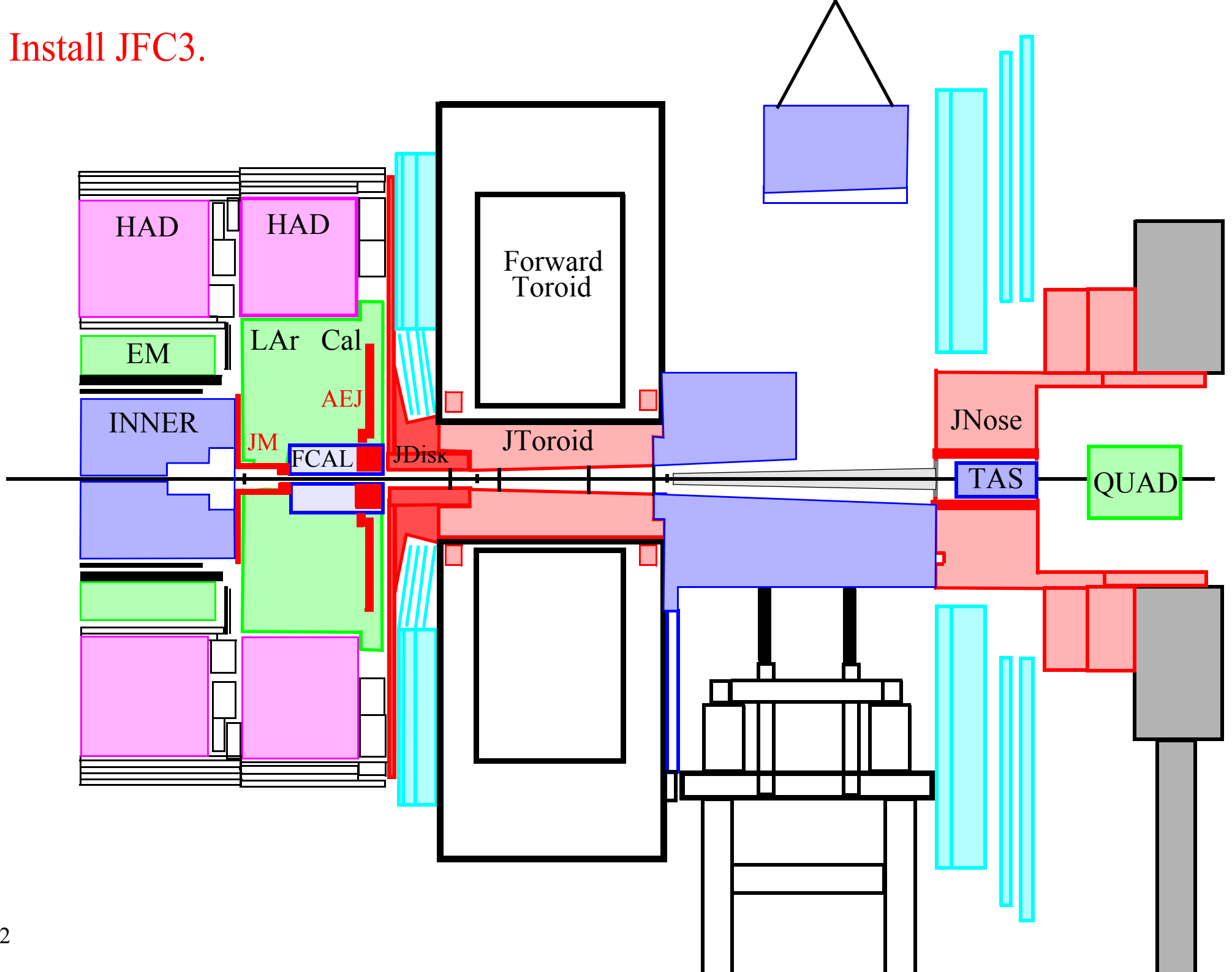


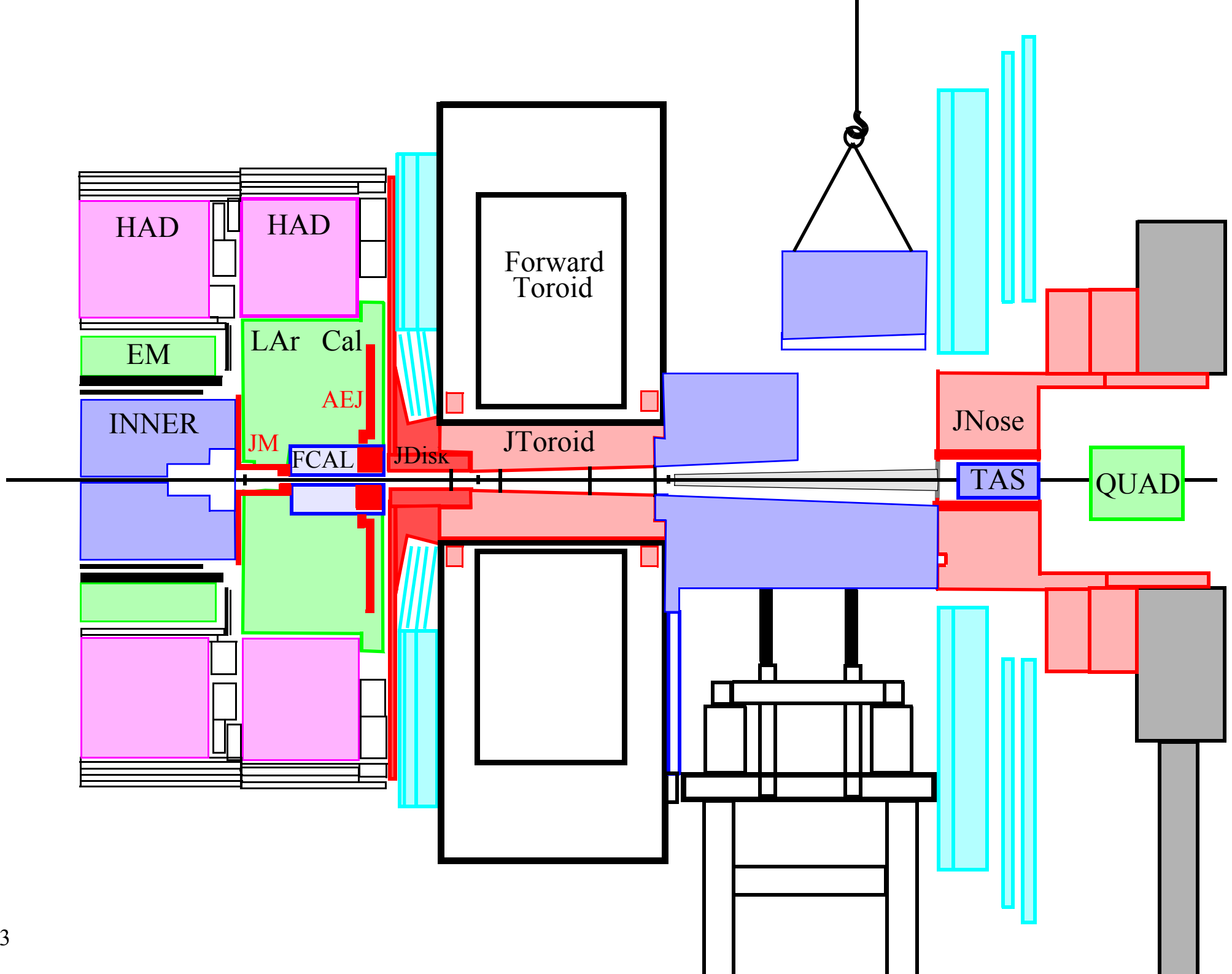


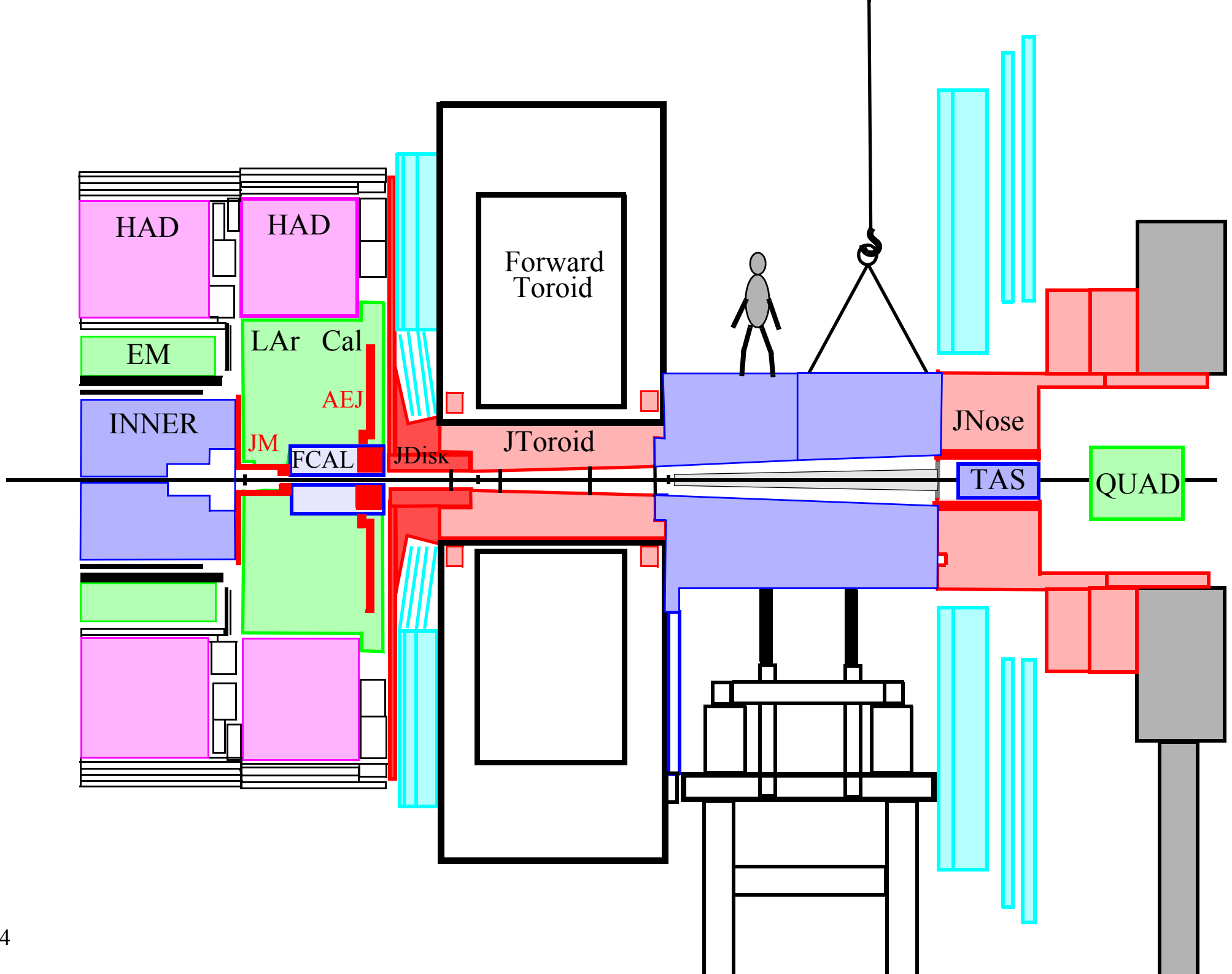


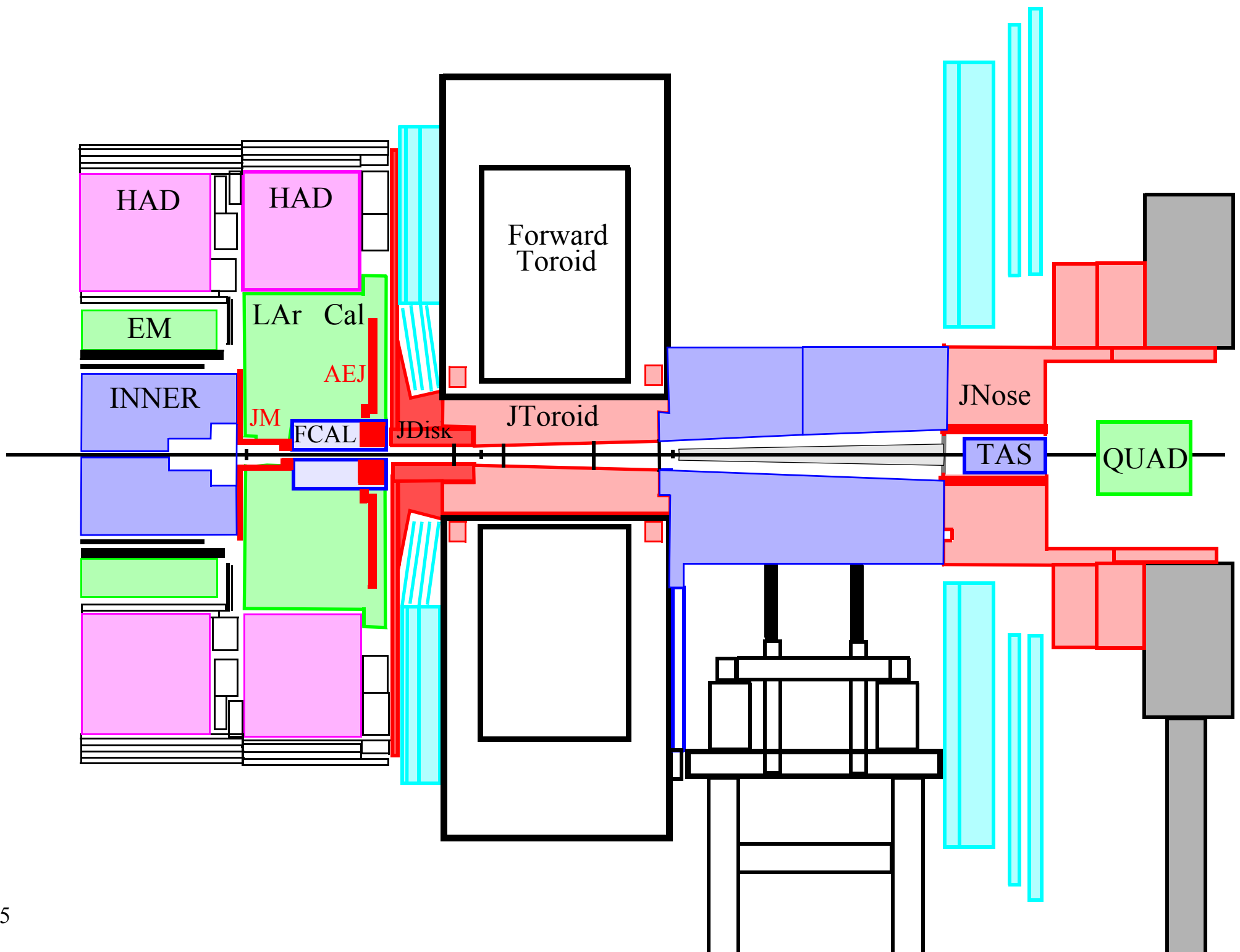


Install JFC3.

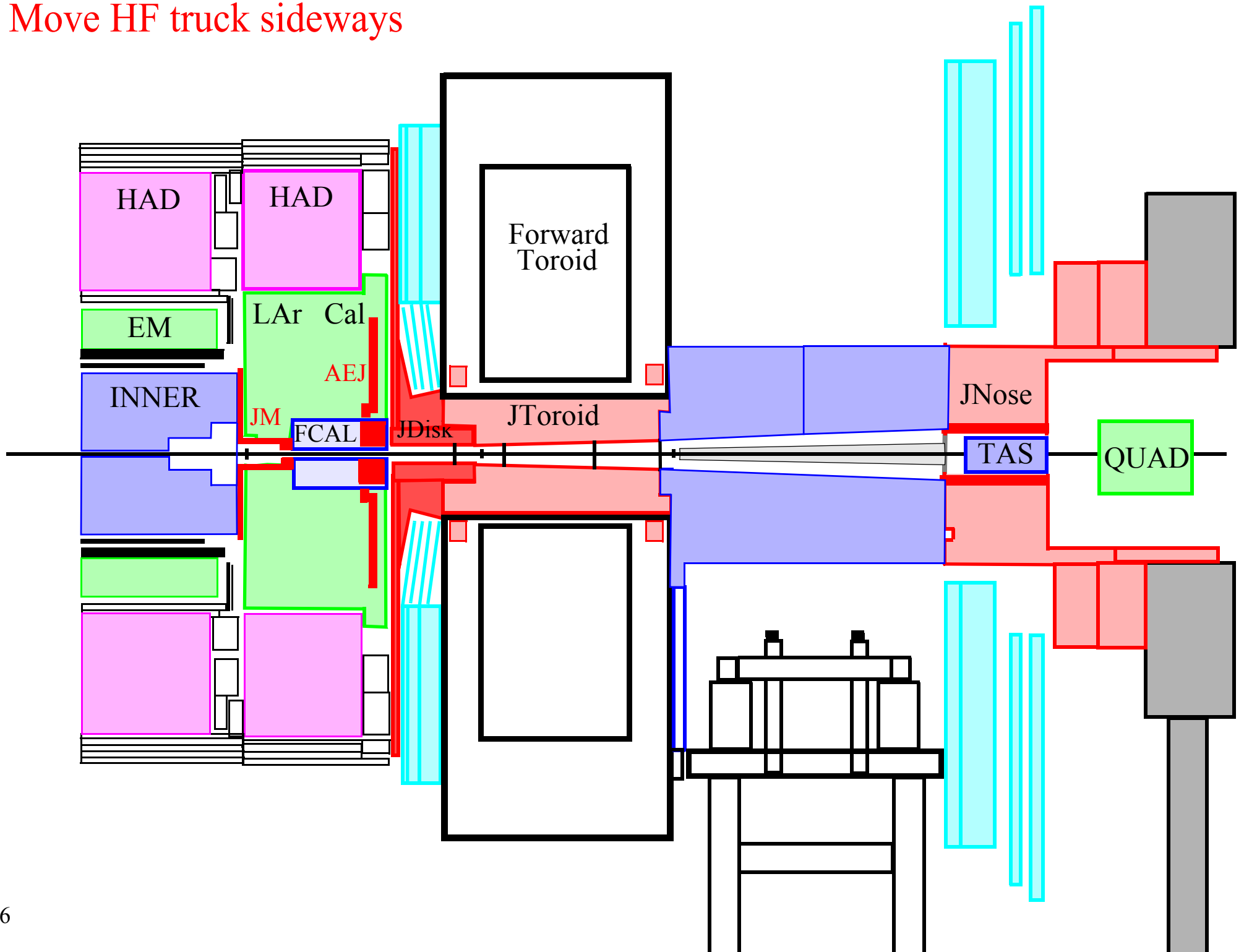




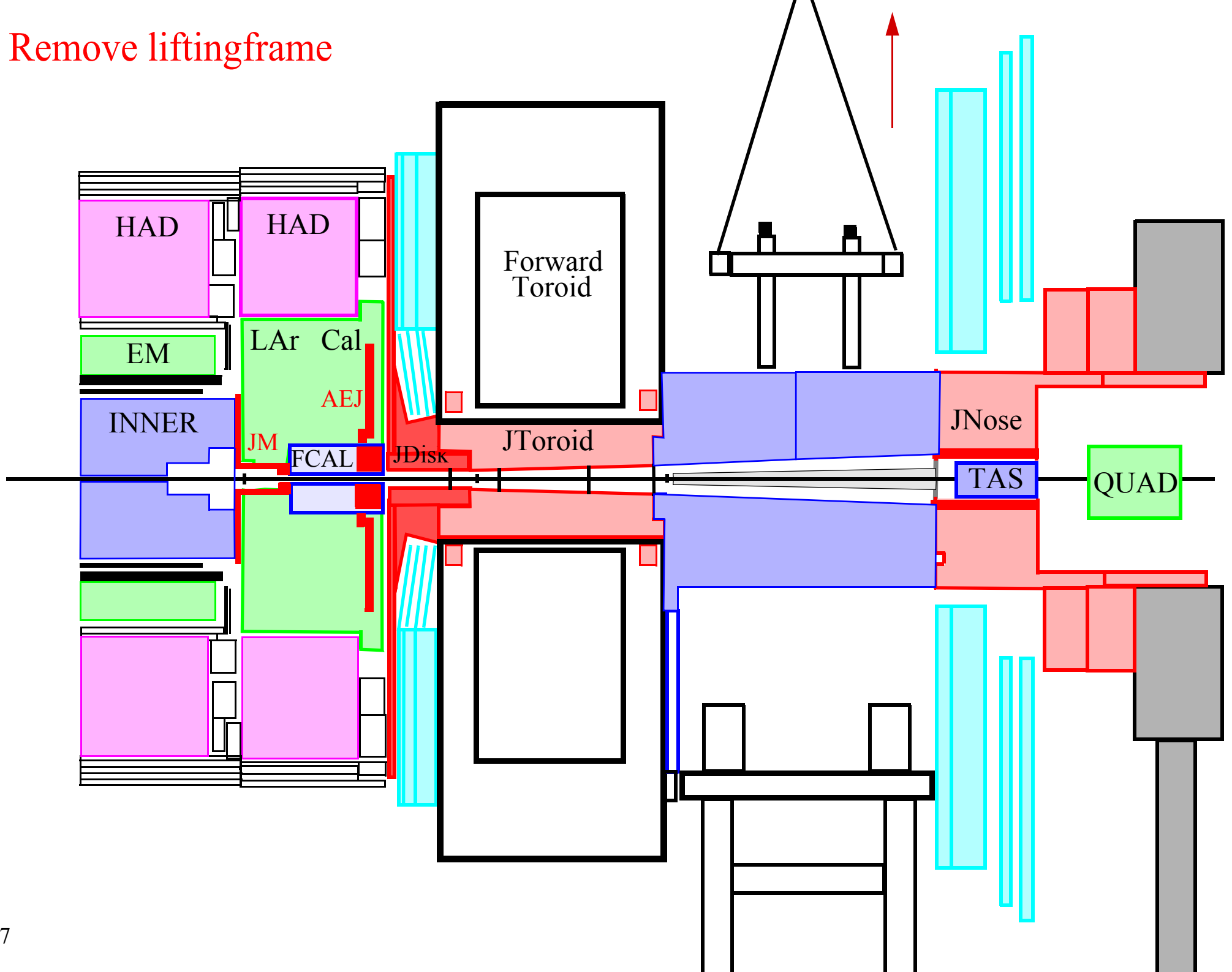




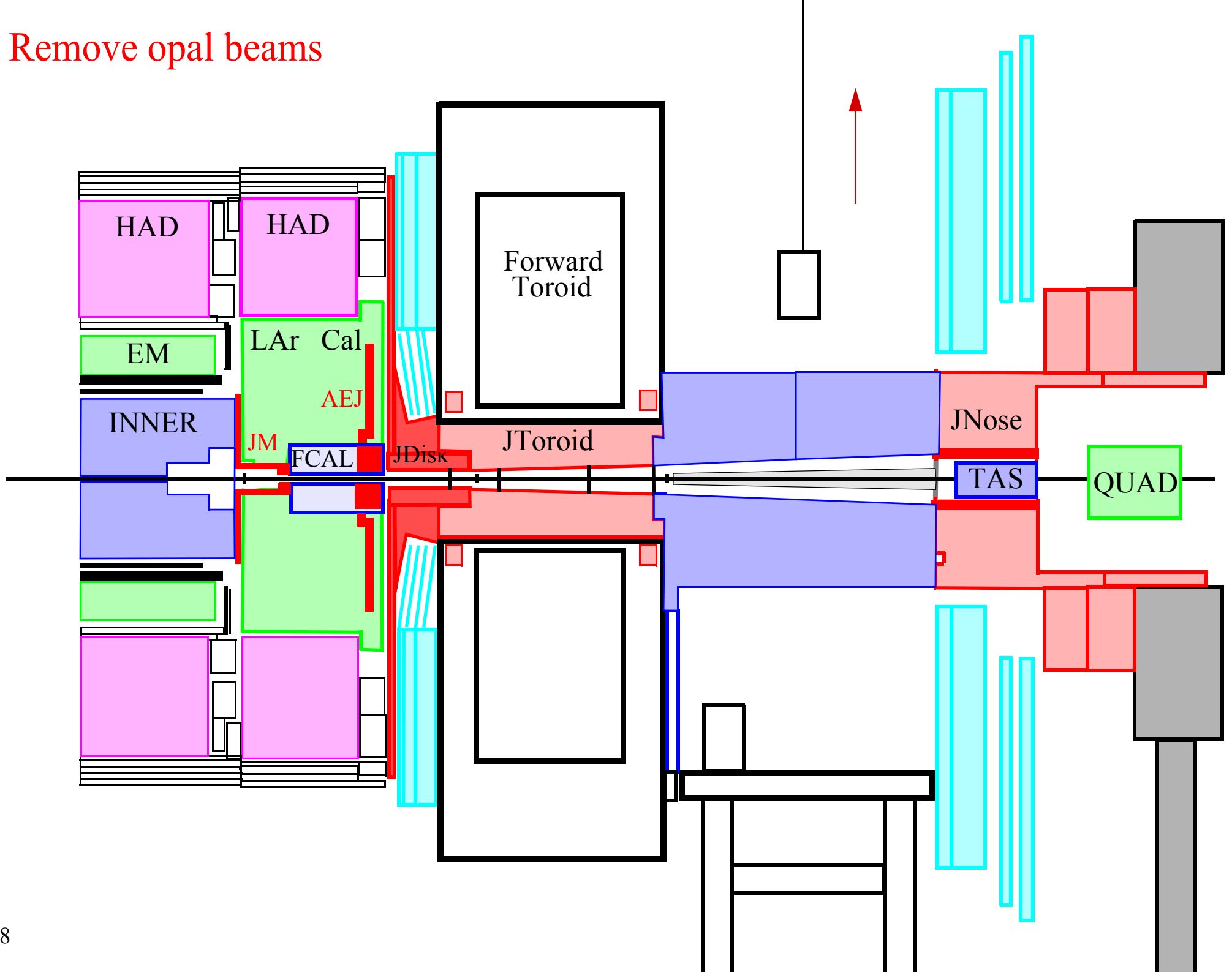
Move HF truck sideways

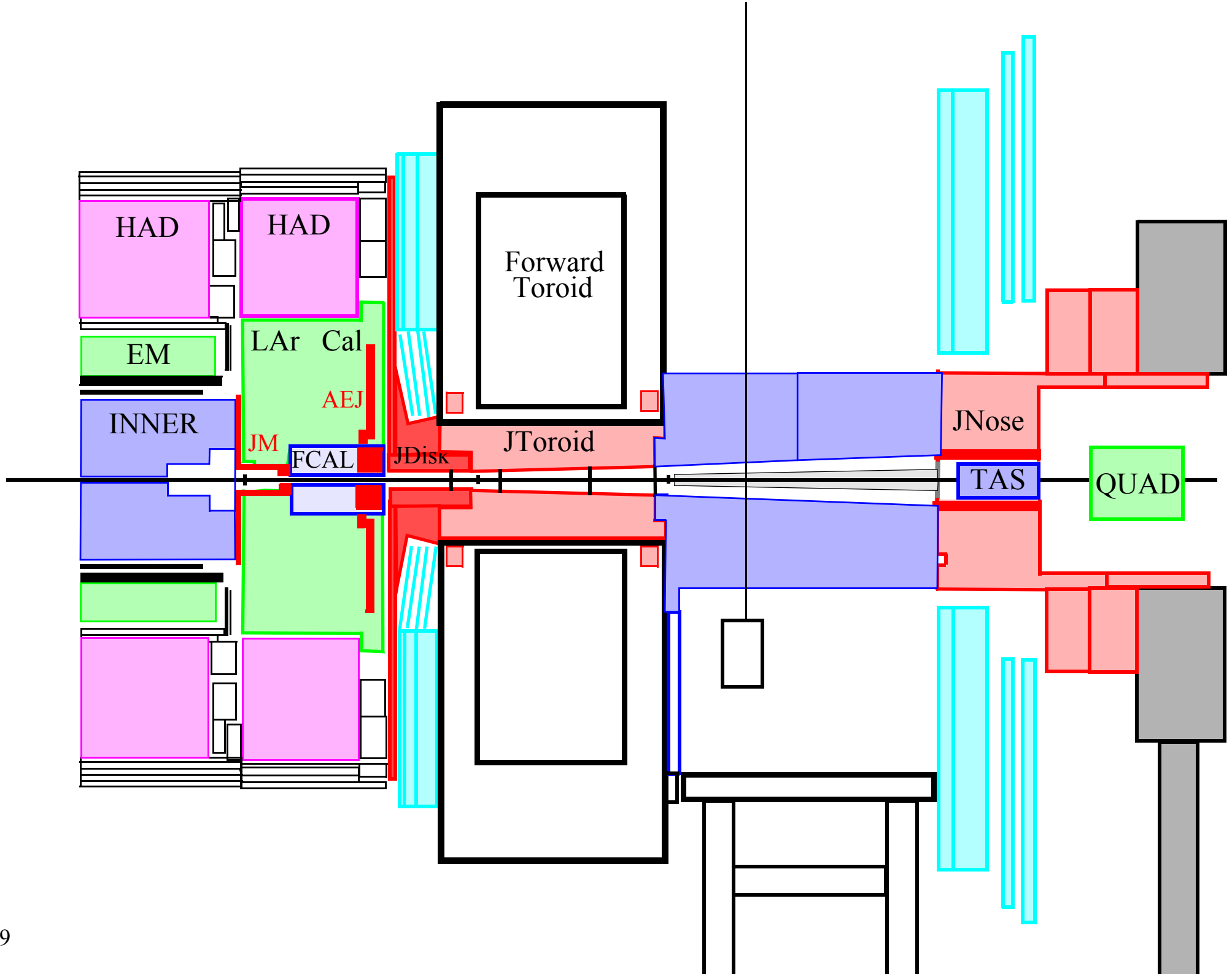


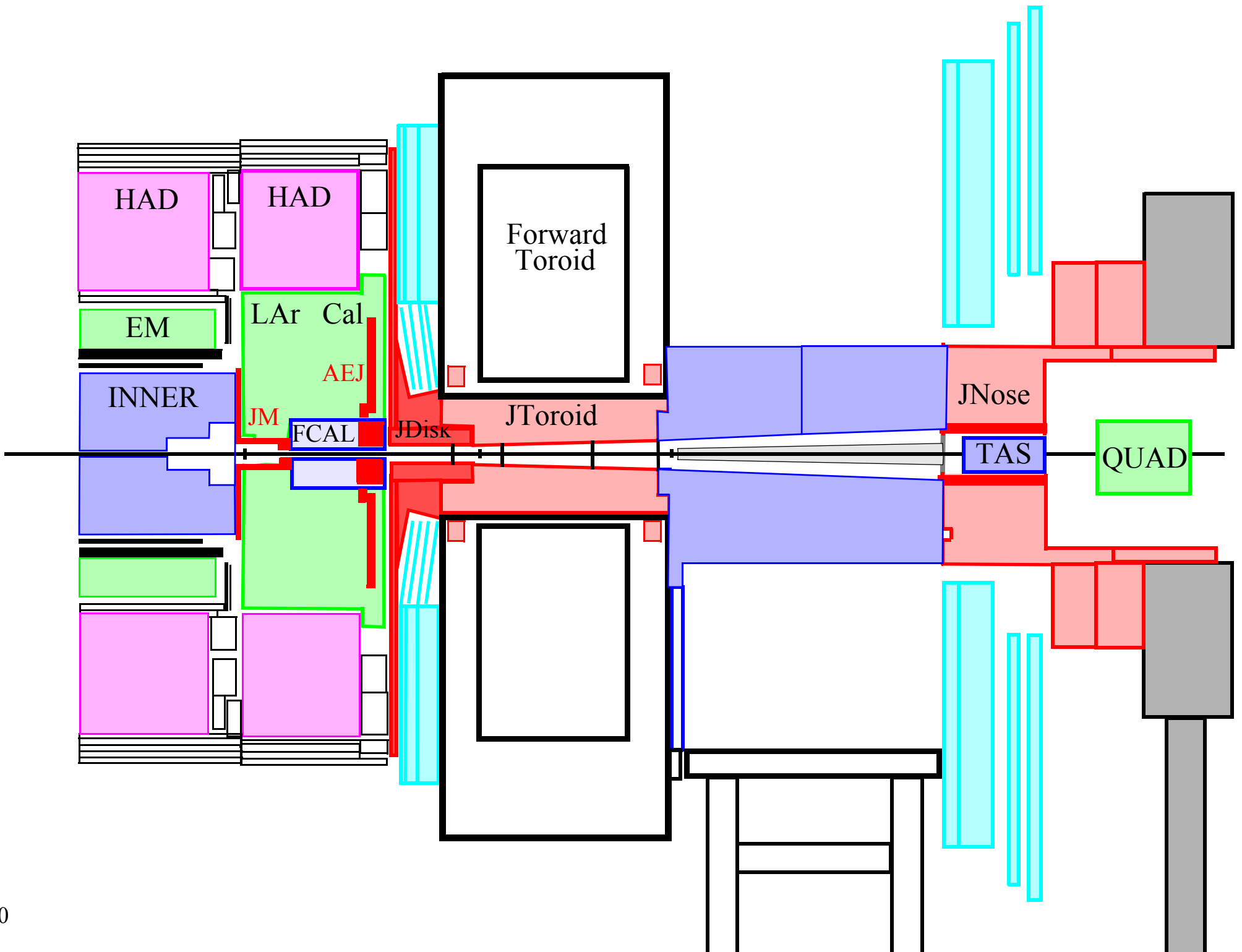
Remove liftingframe



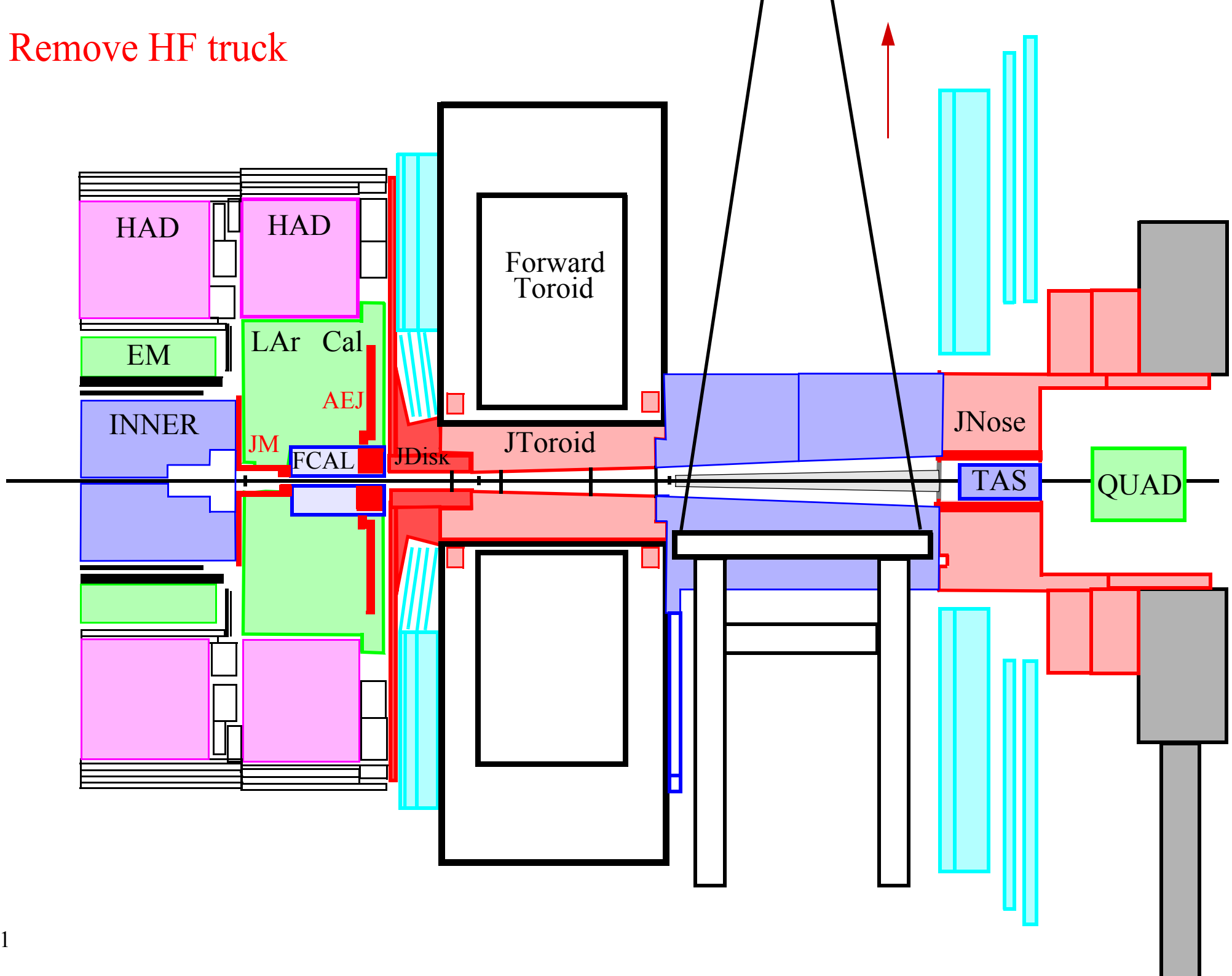
Remove opal beams



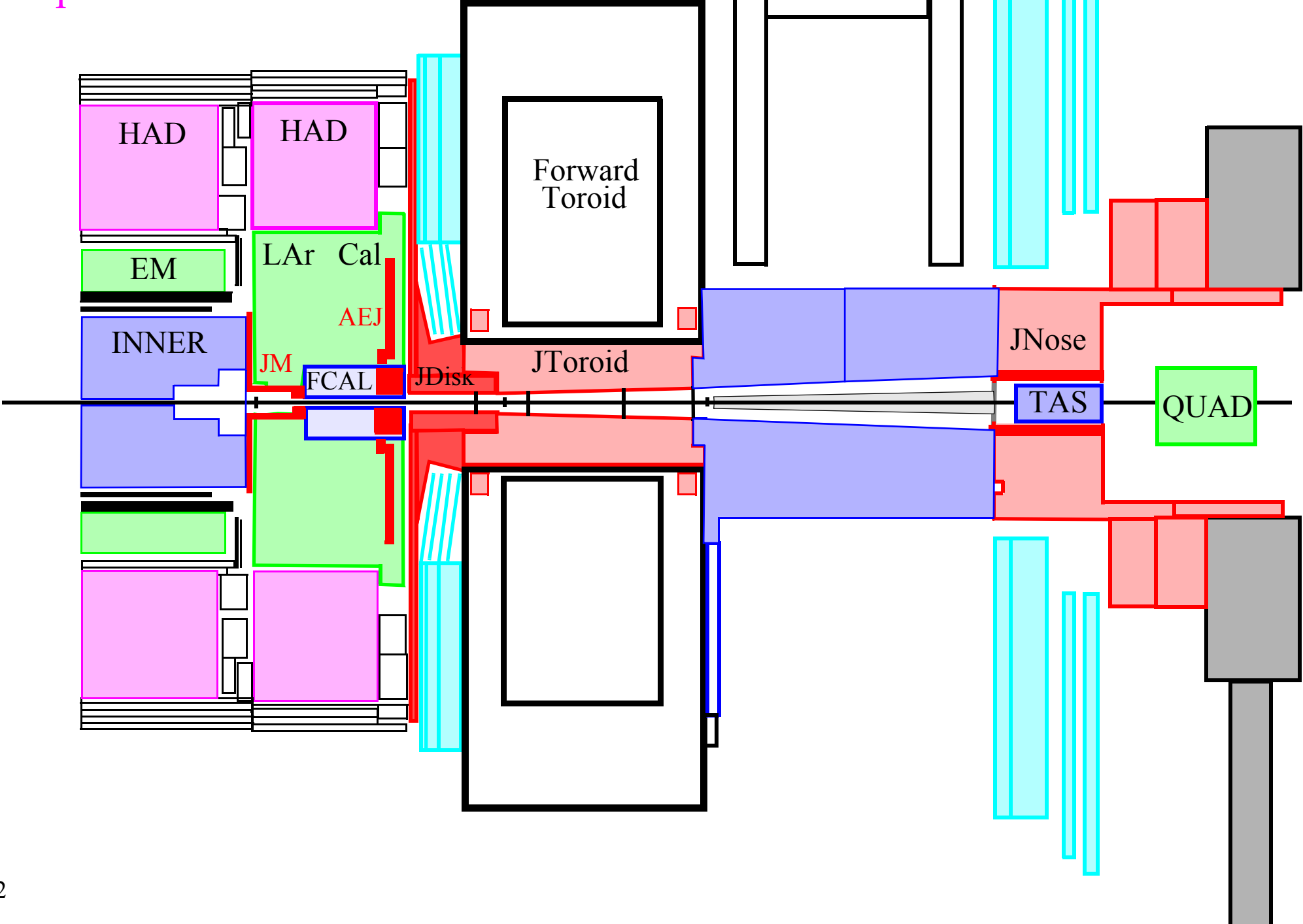




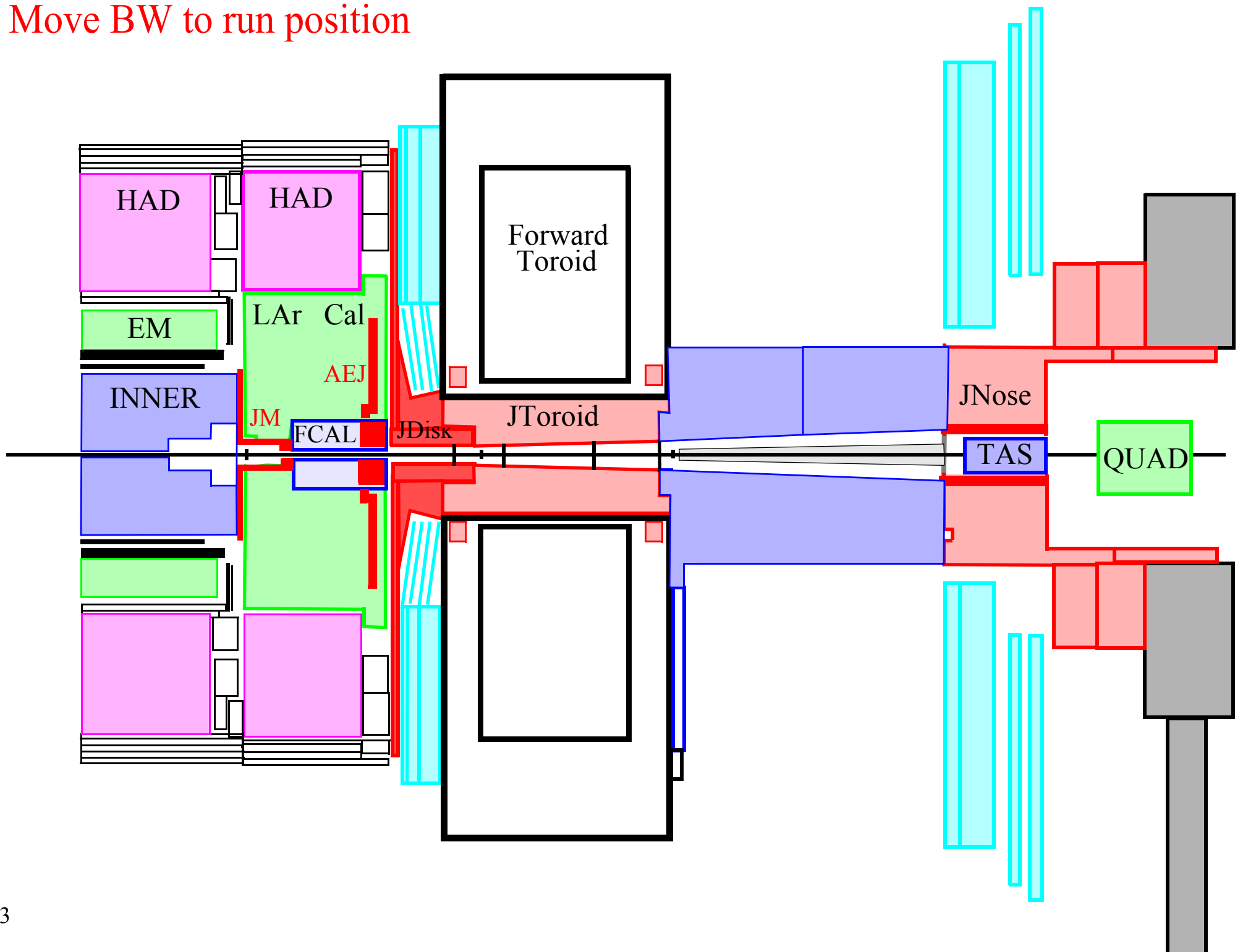
Remove HF truck

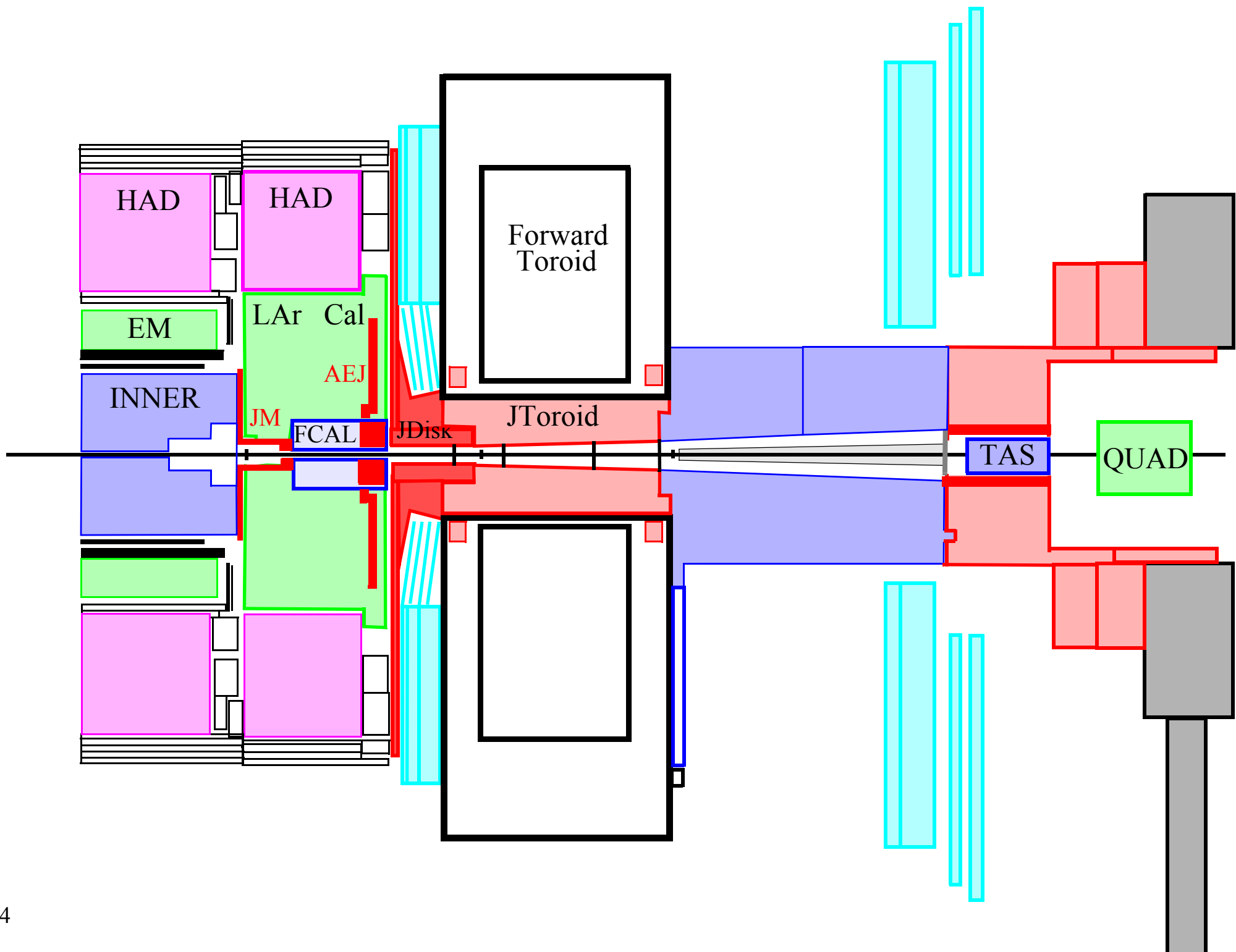


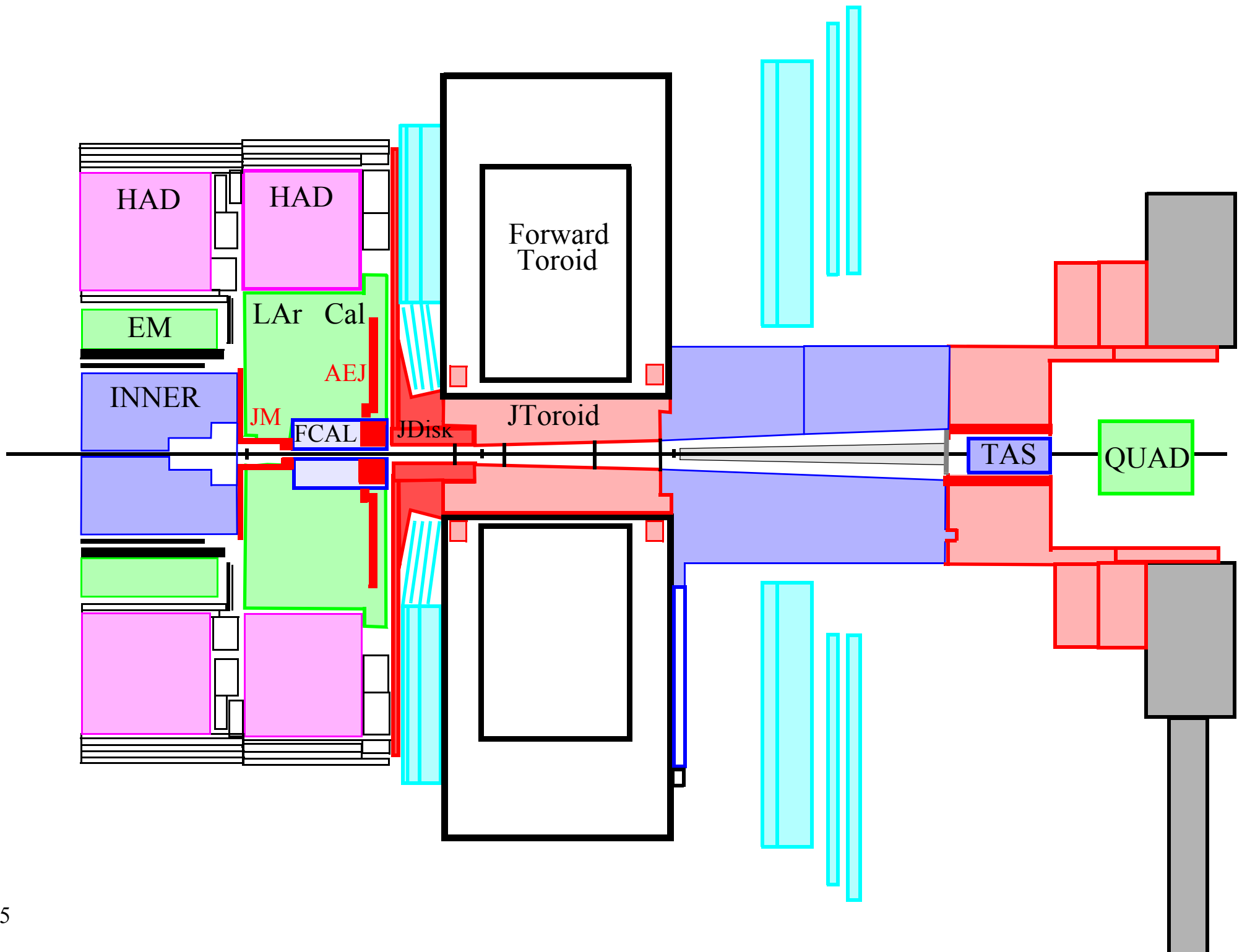
Is there enough crane reach for this operation ?

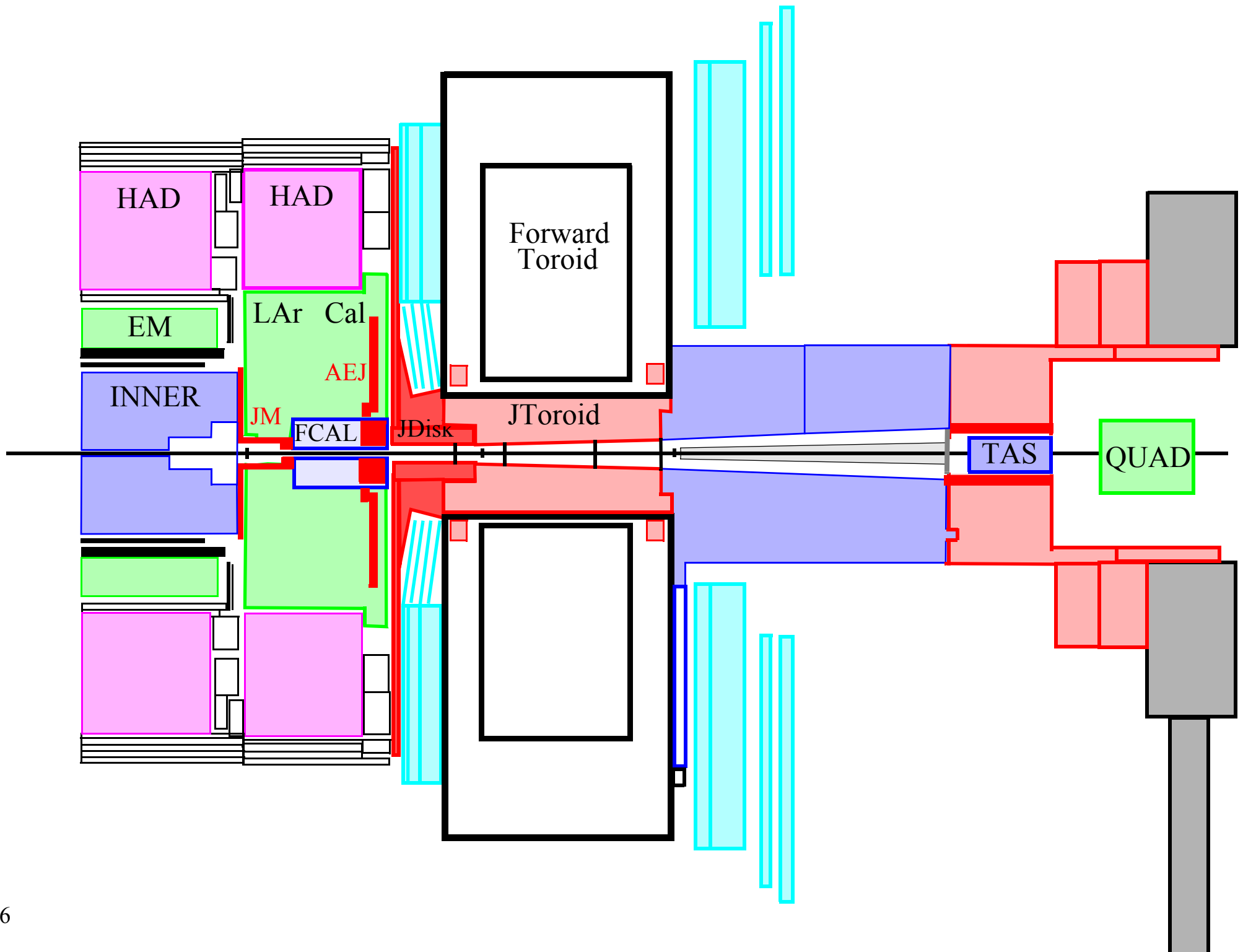


Move BW to run position

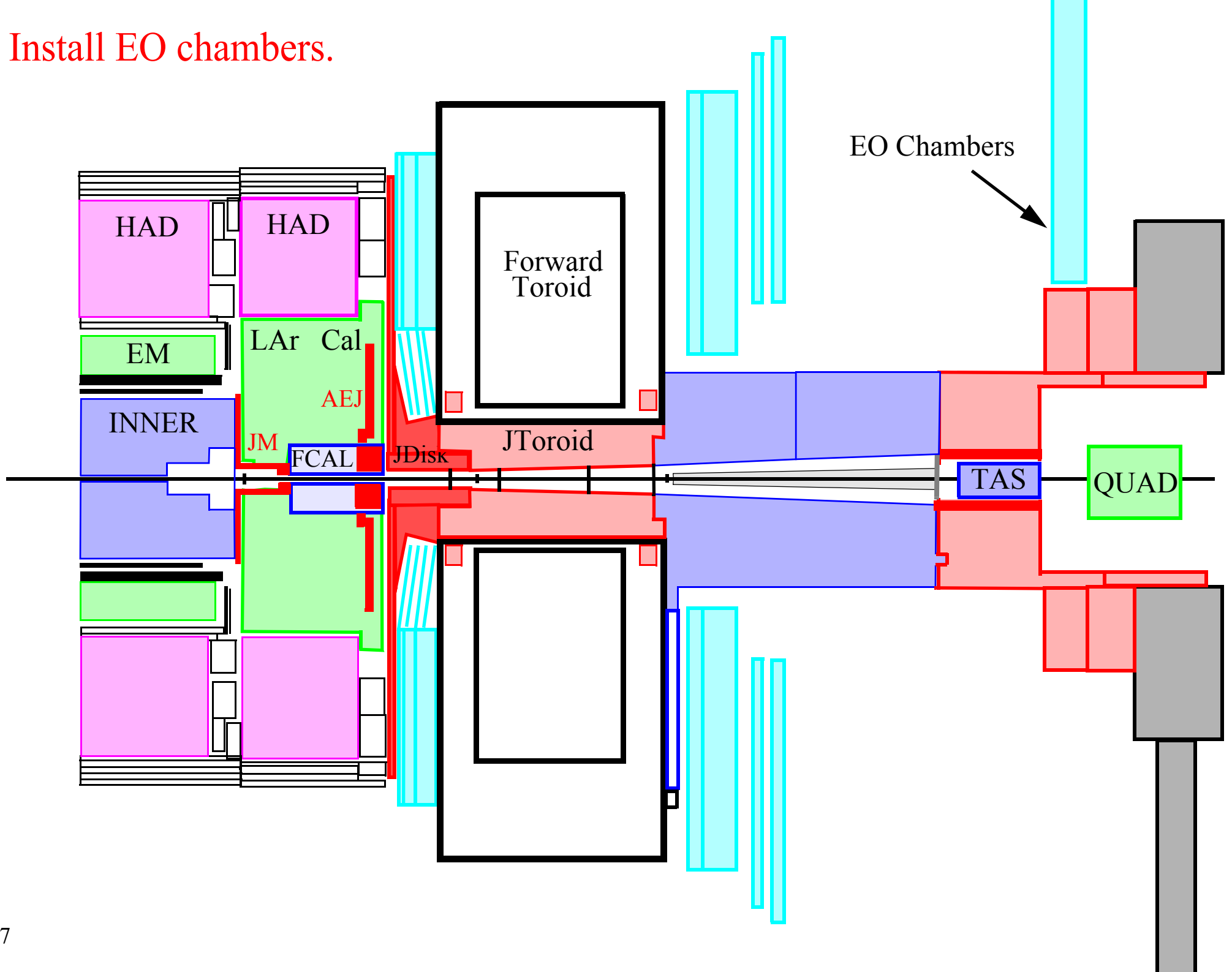


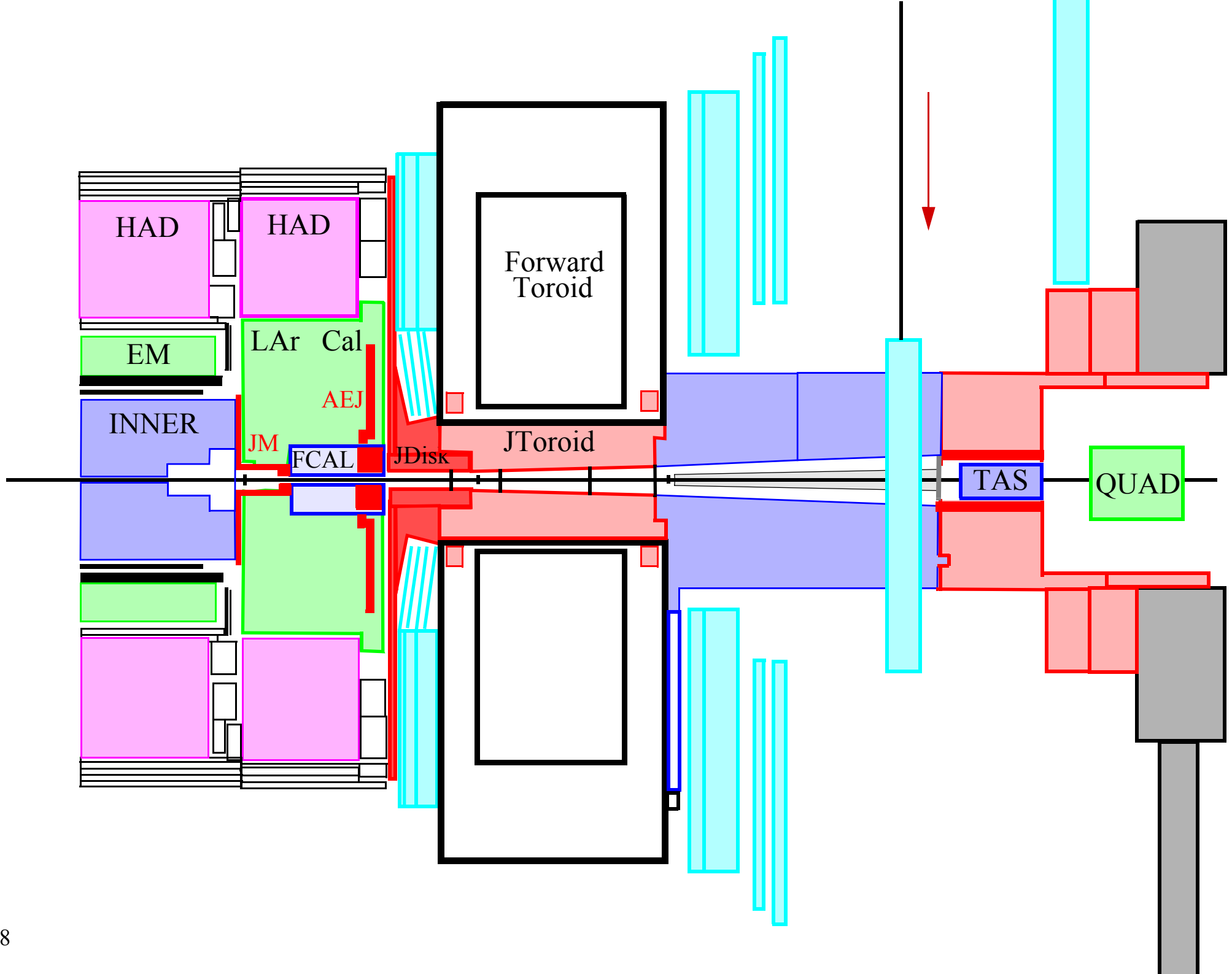


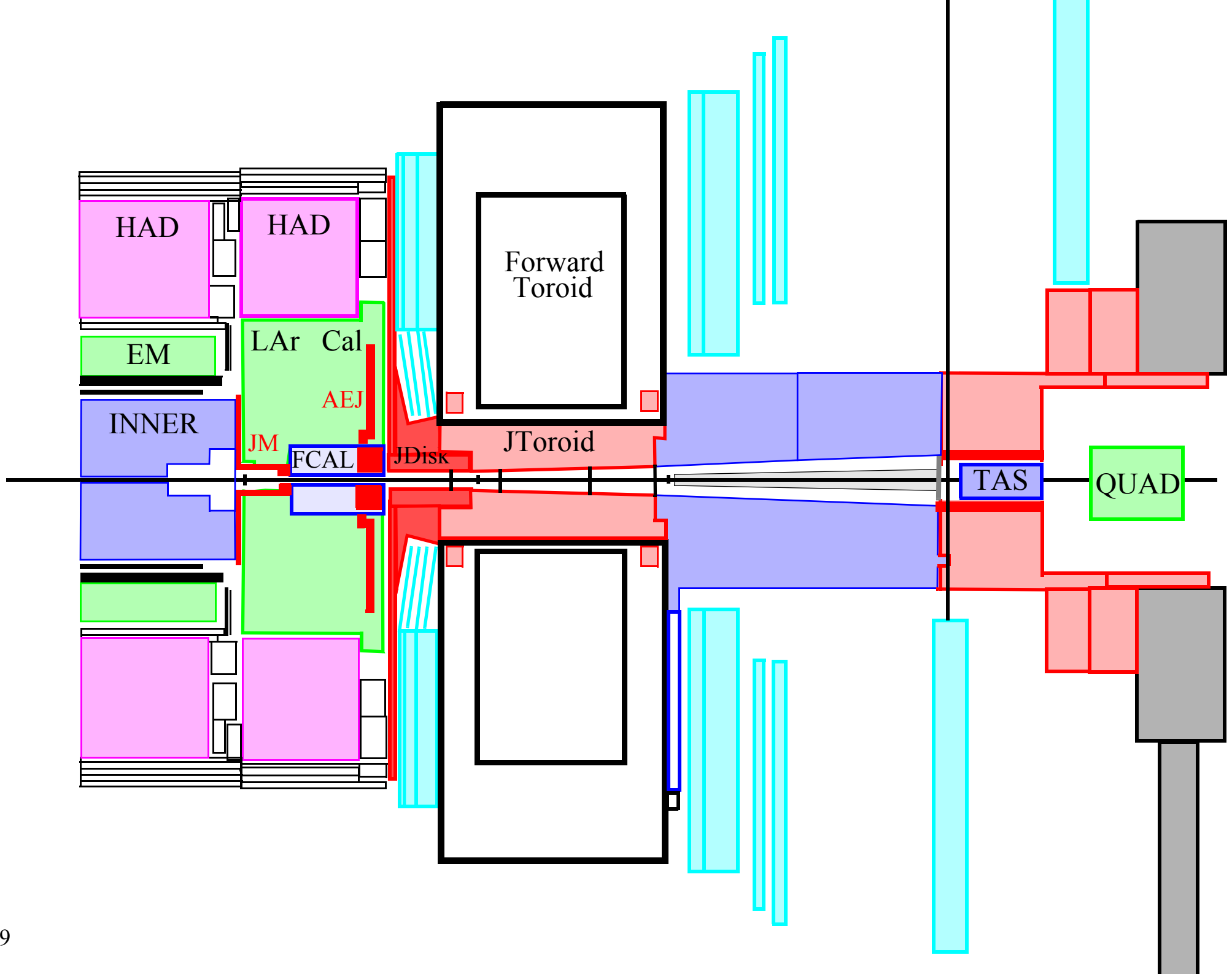


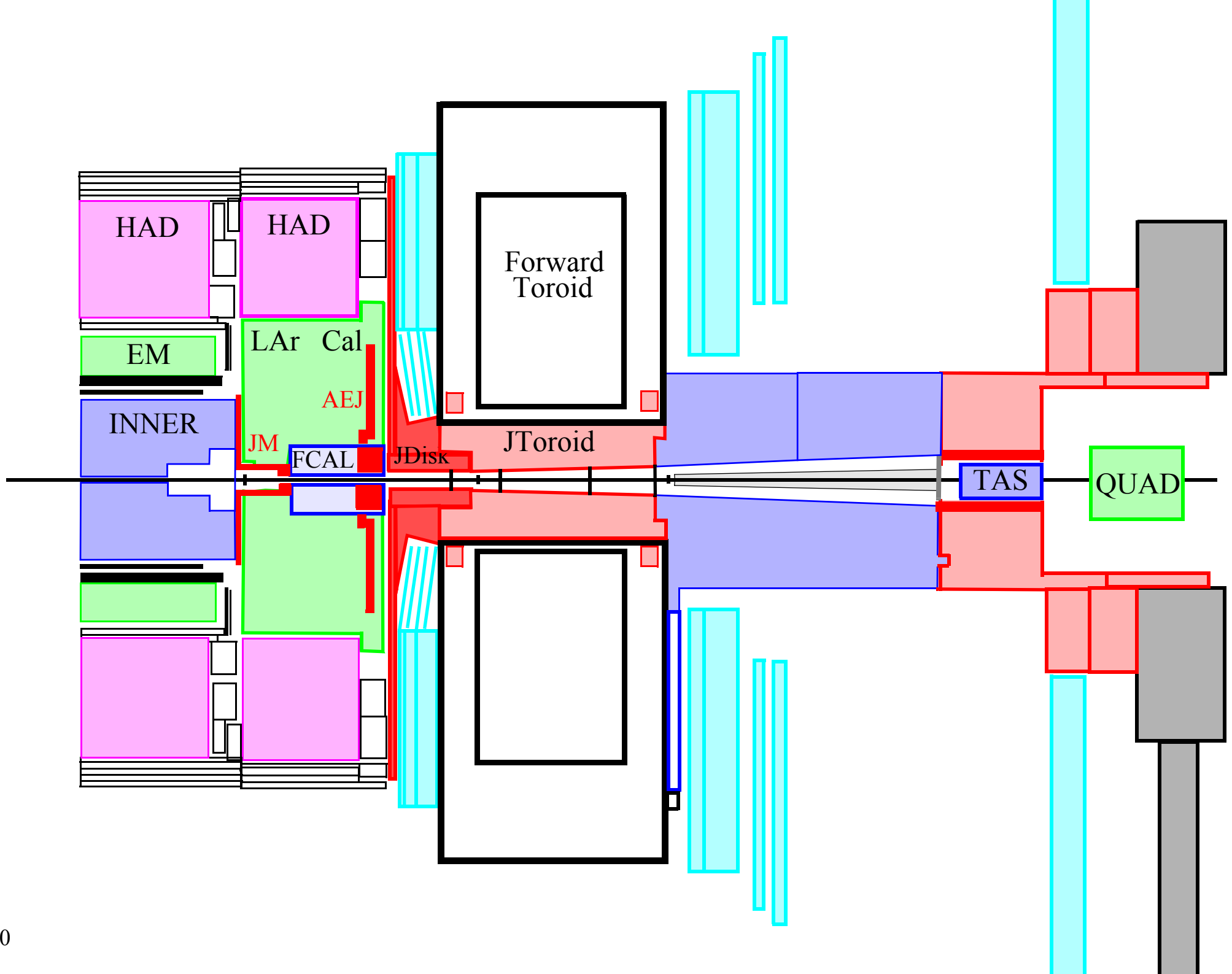


Install EO chambers.

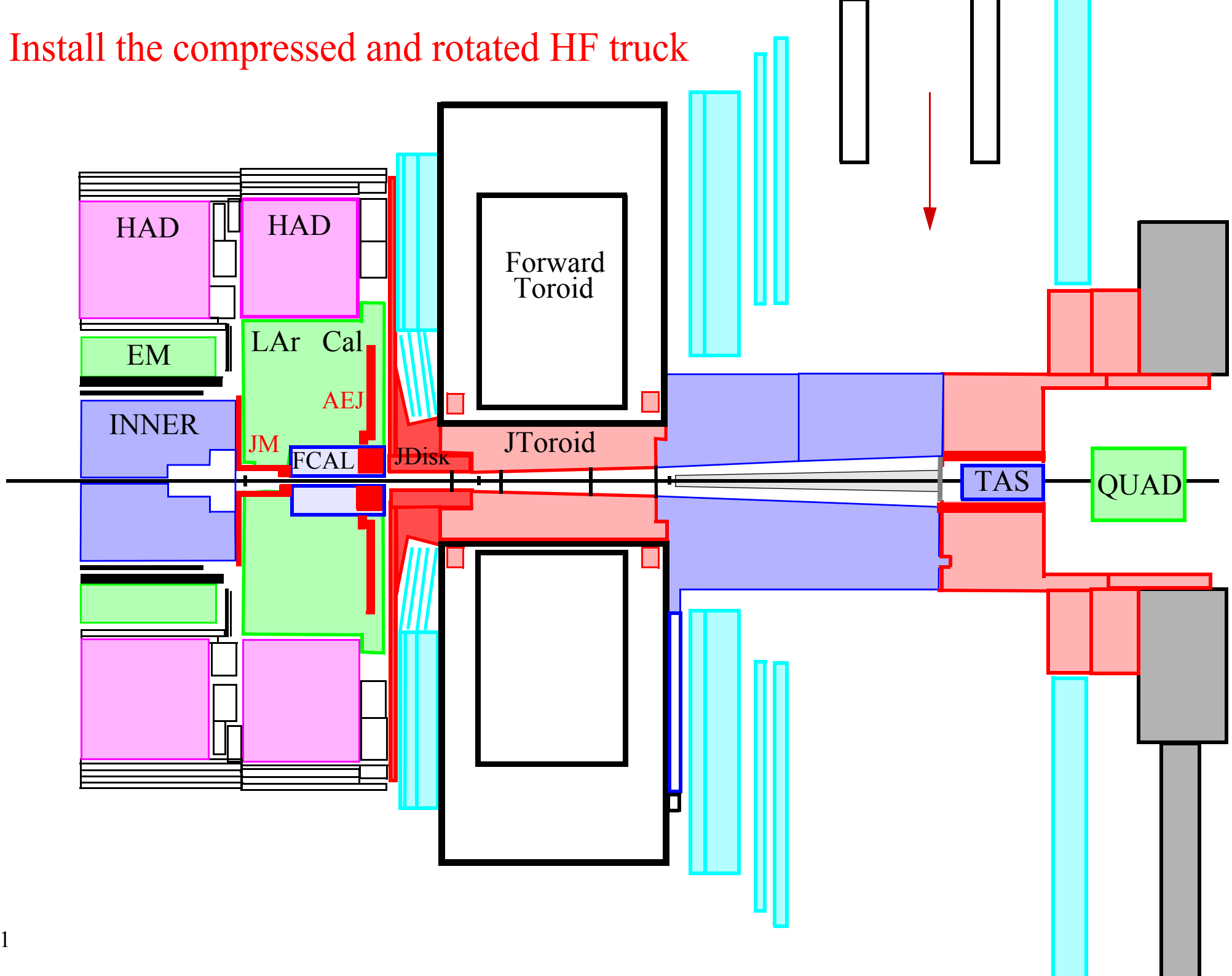




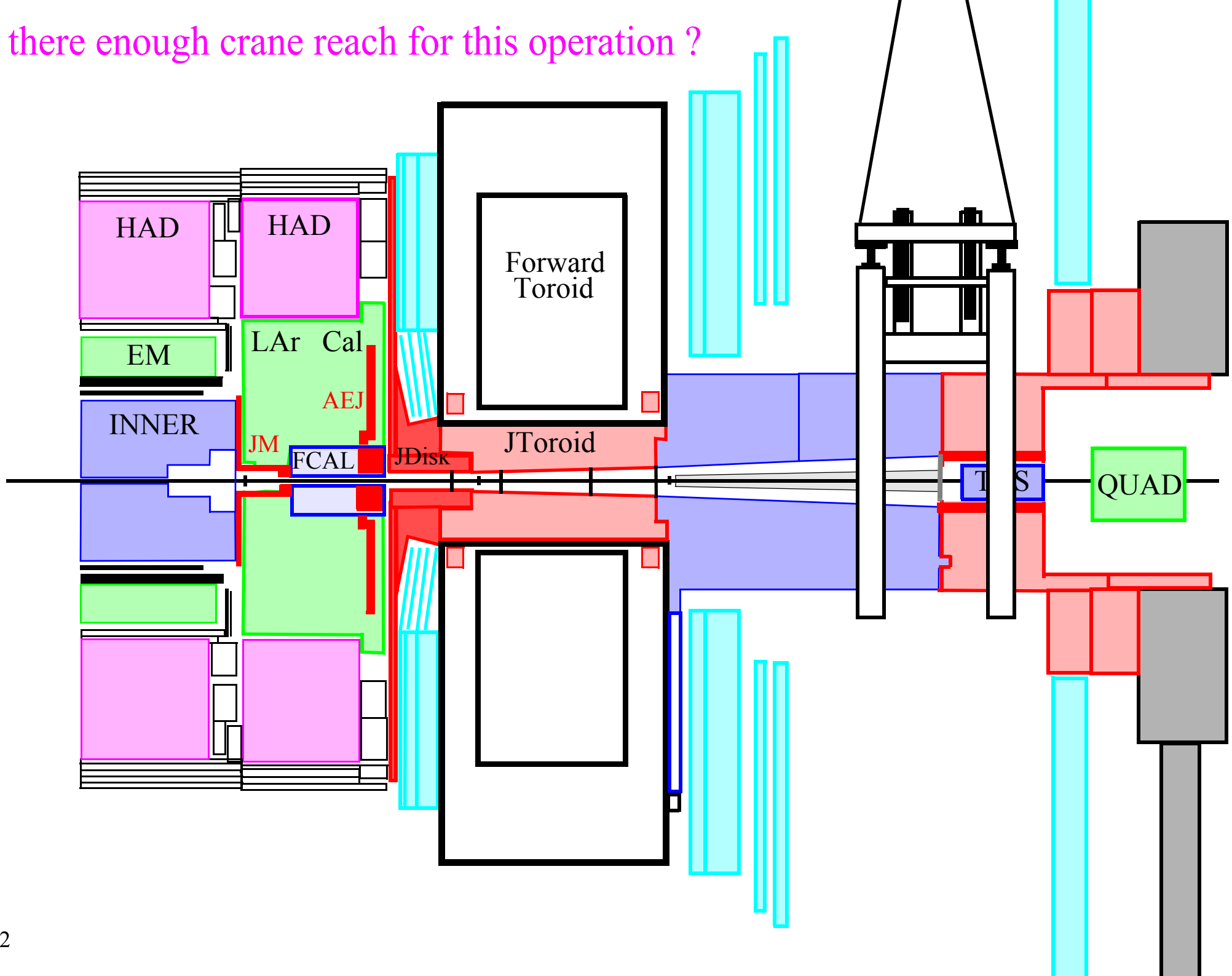


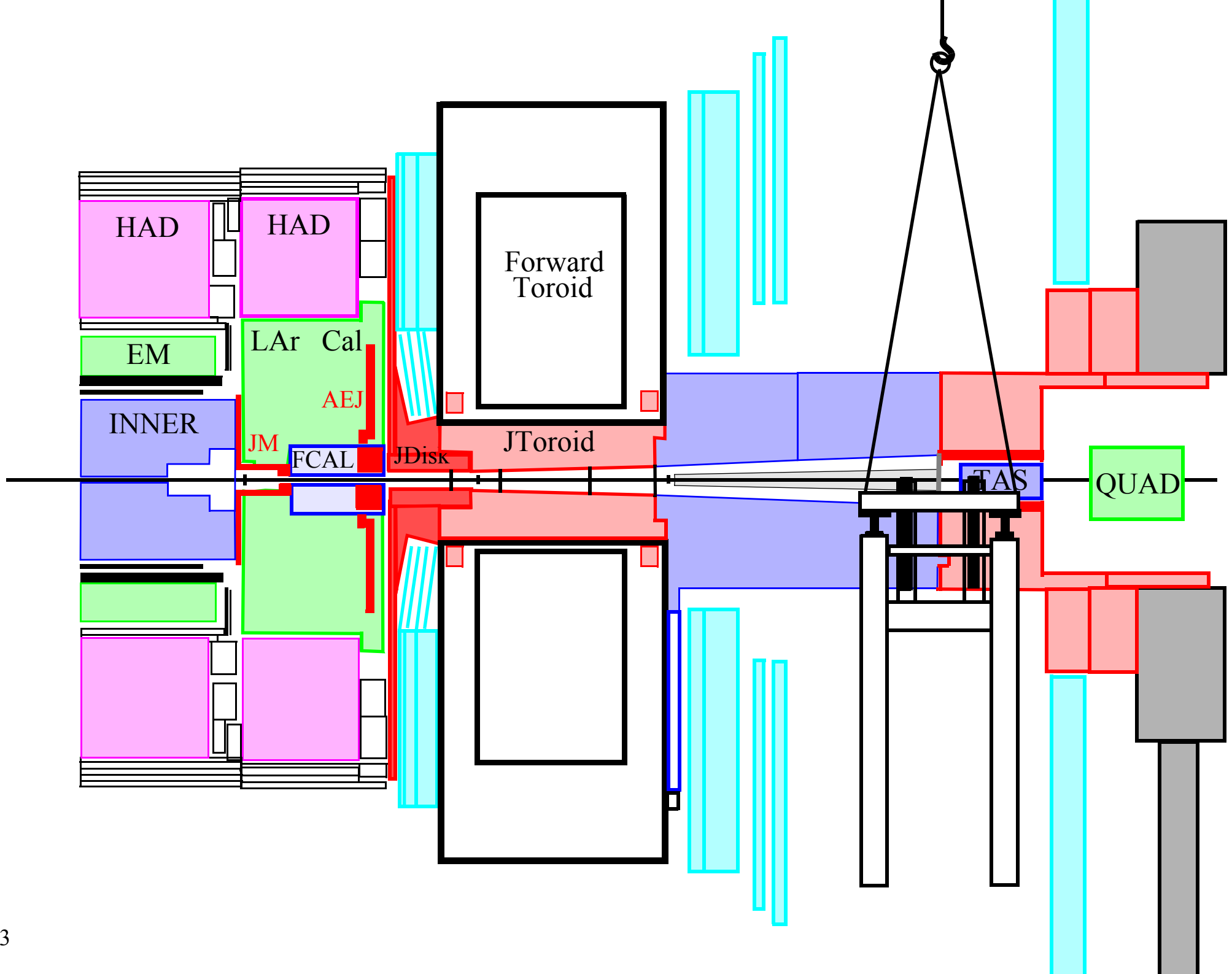


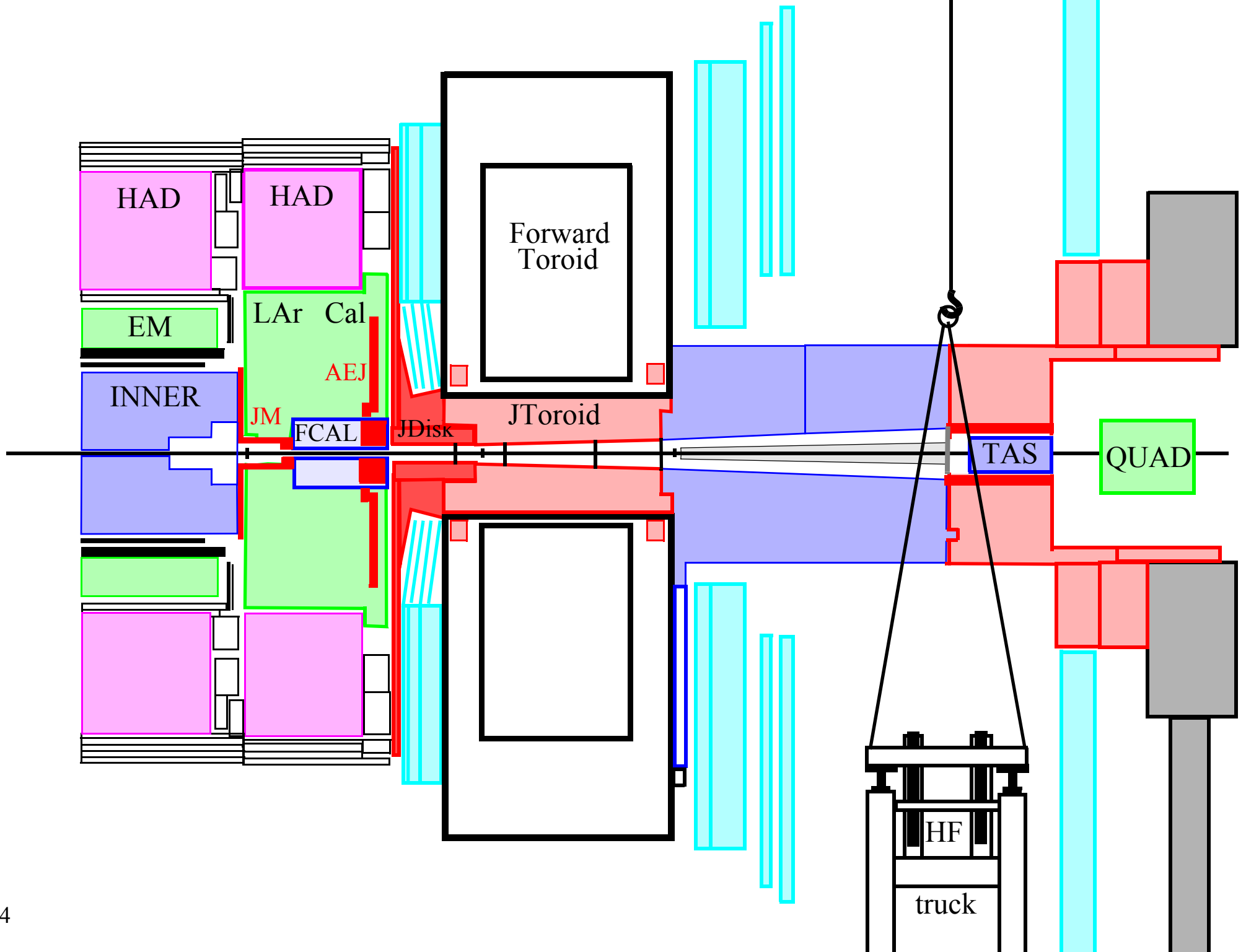
Install the compressed and rotated HF truck



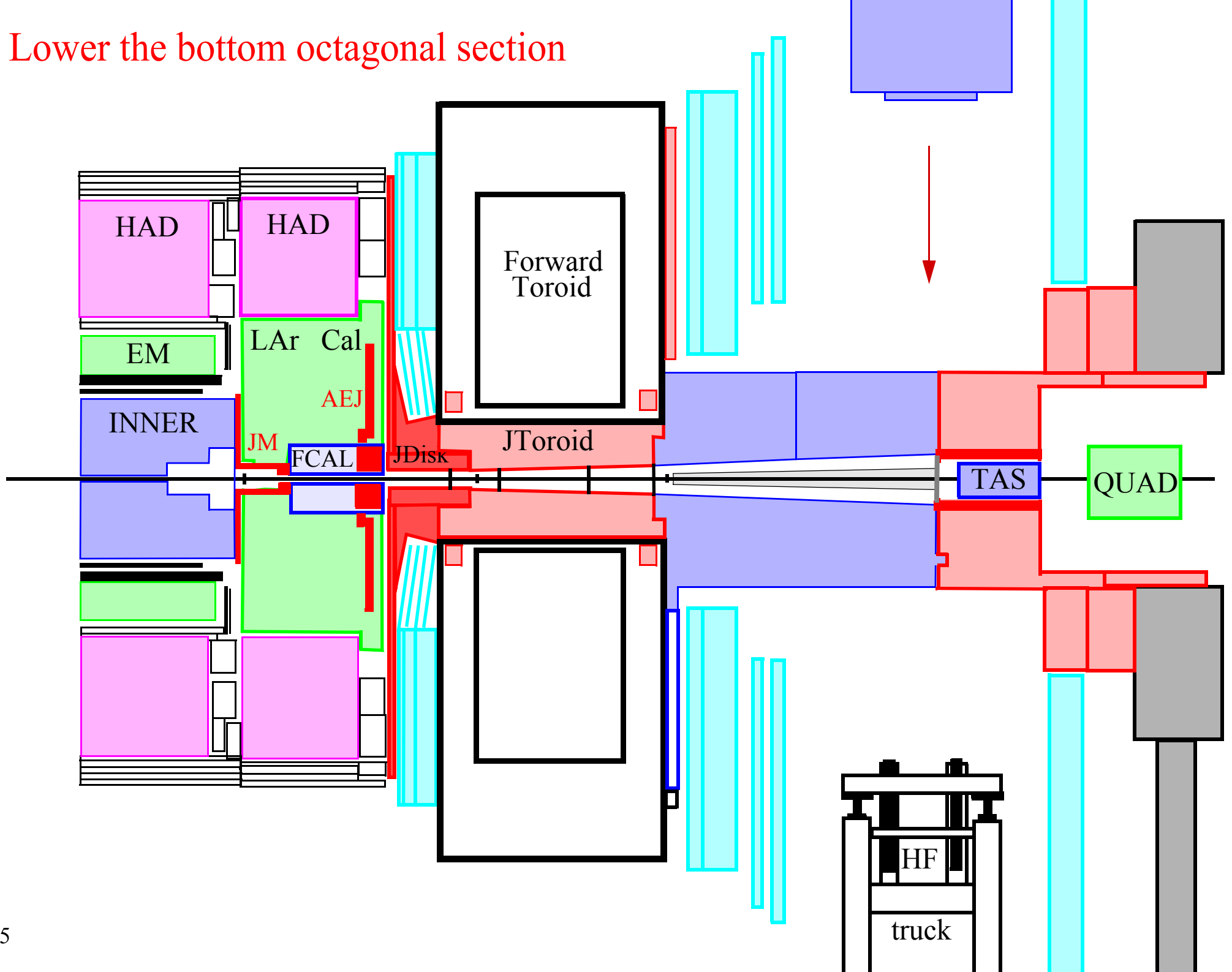
Is there enough crane reach for this operation ?

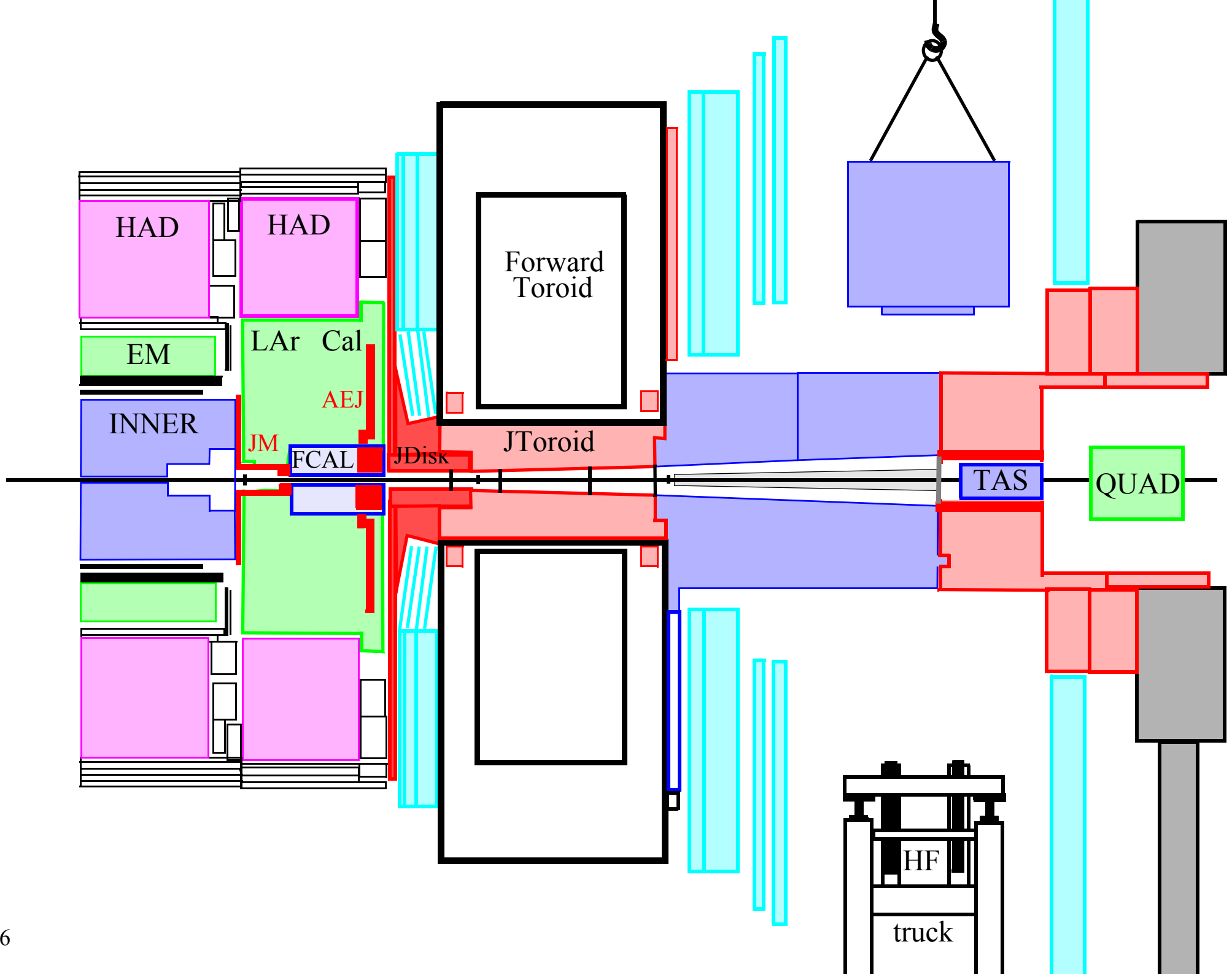


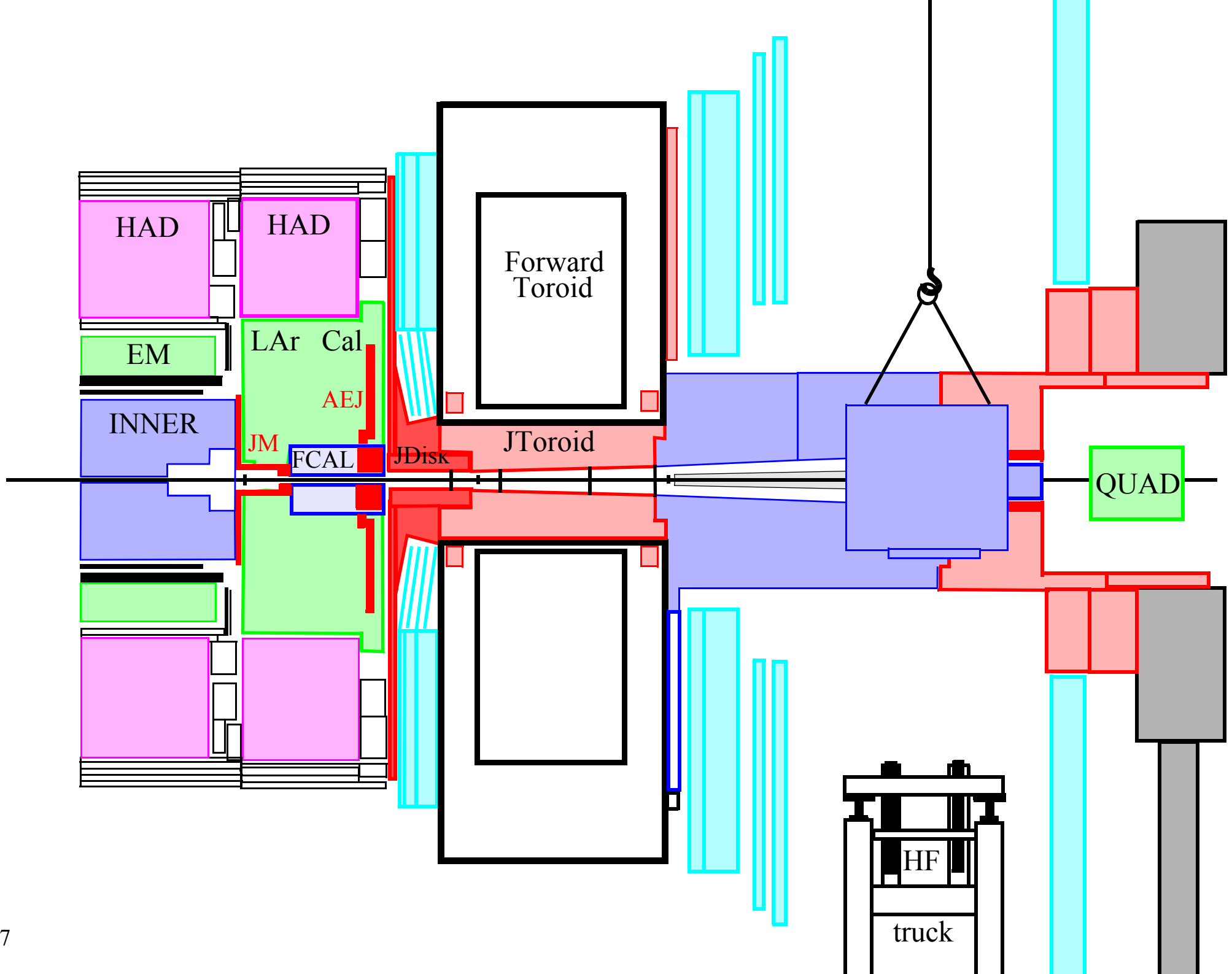


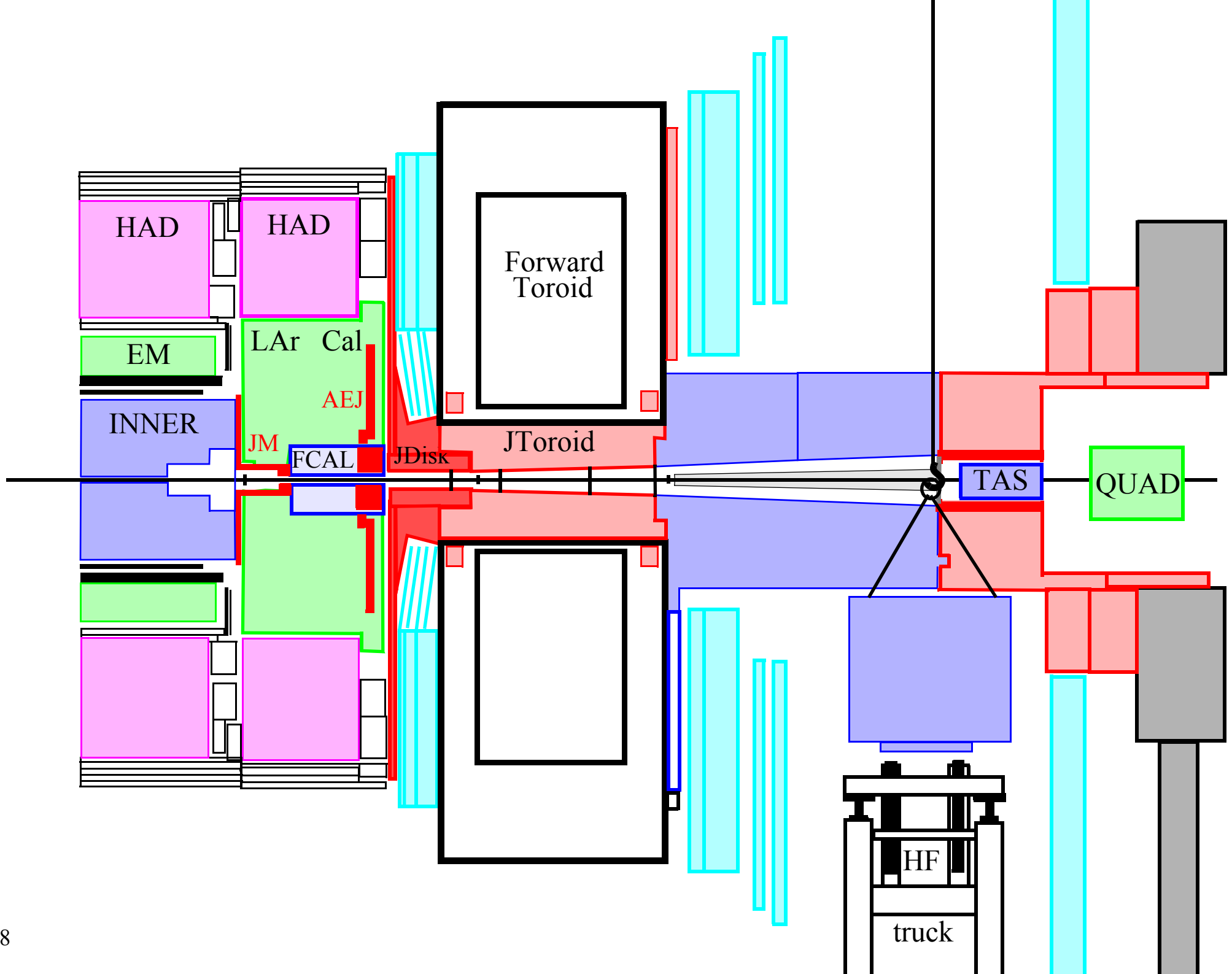


Lower the bottom octagonal section

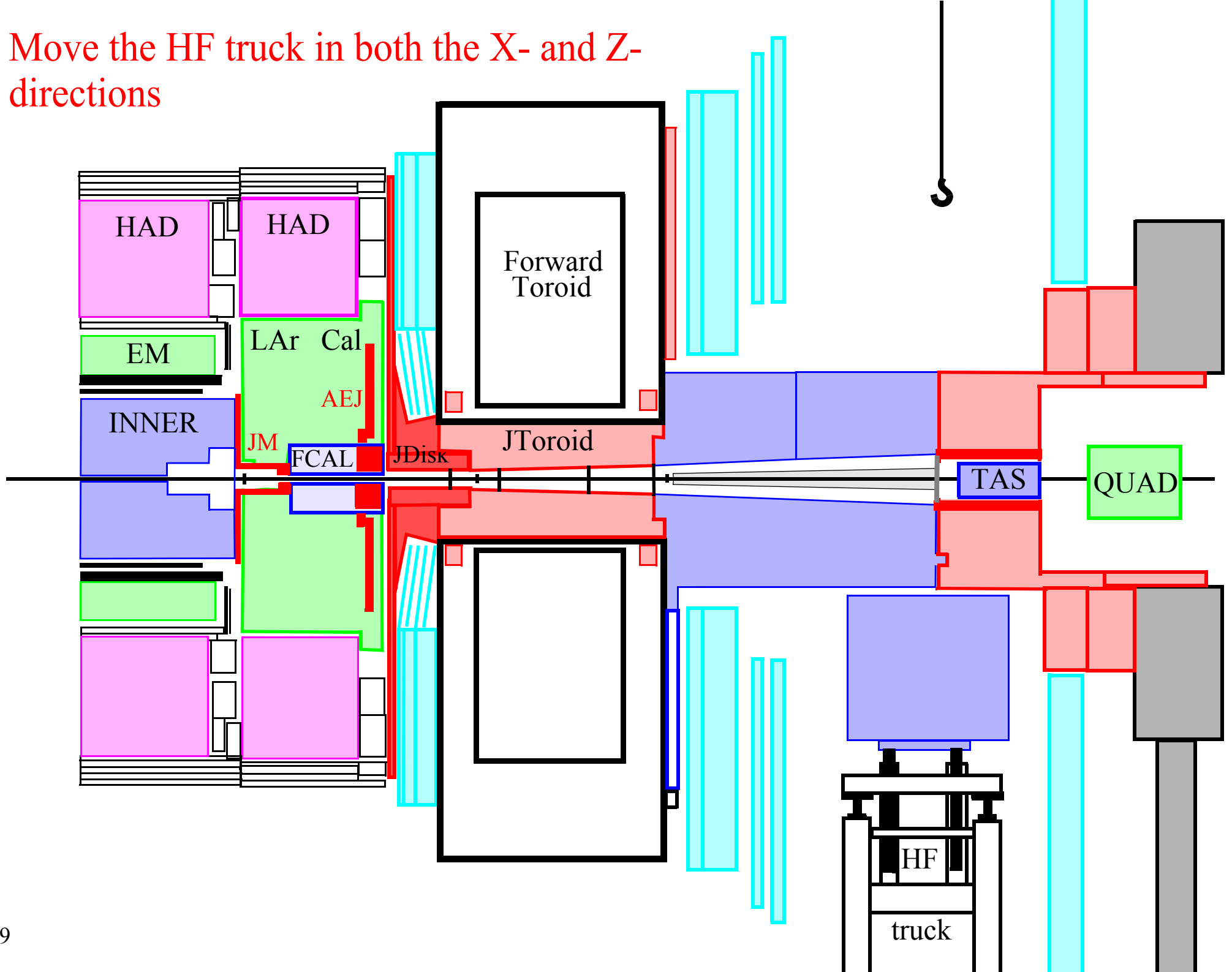


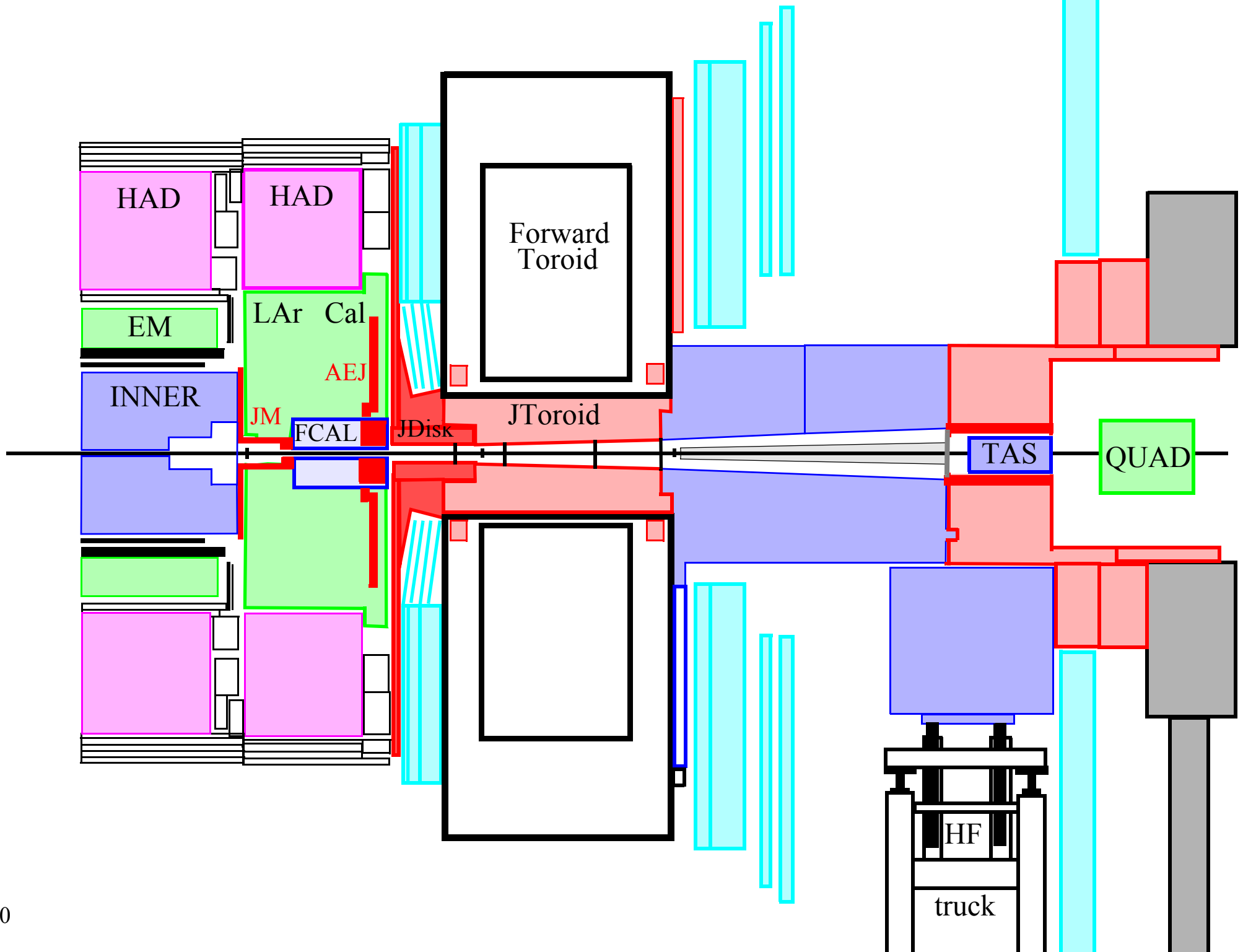




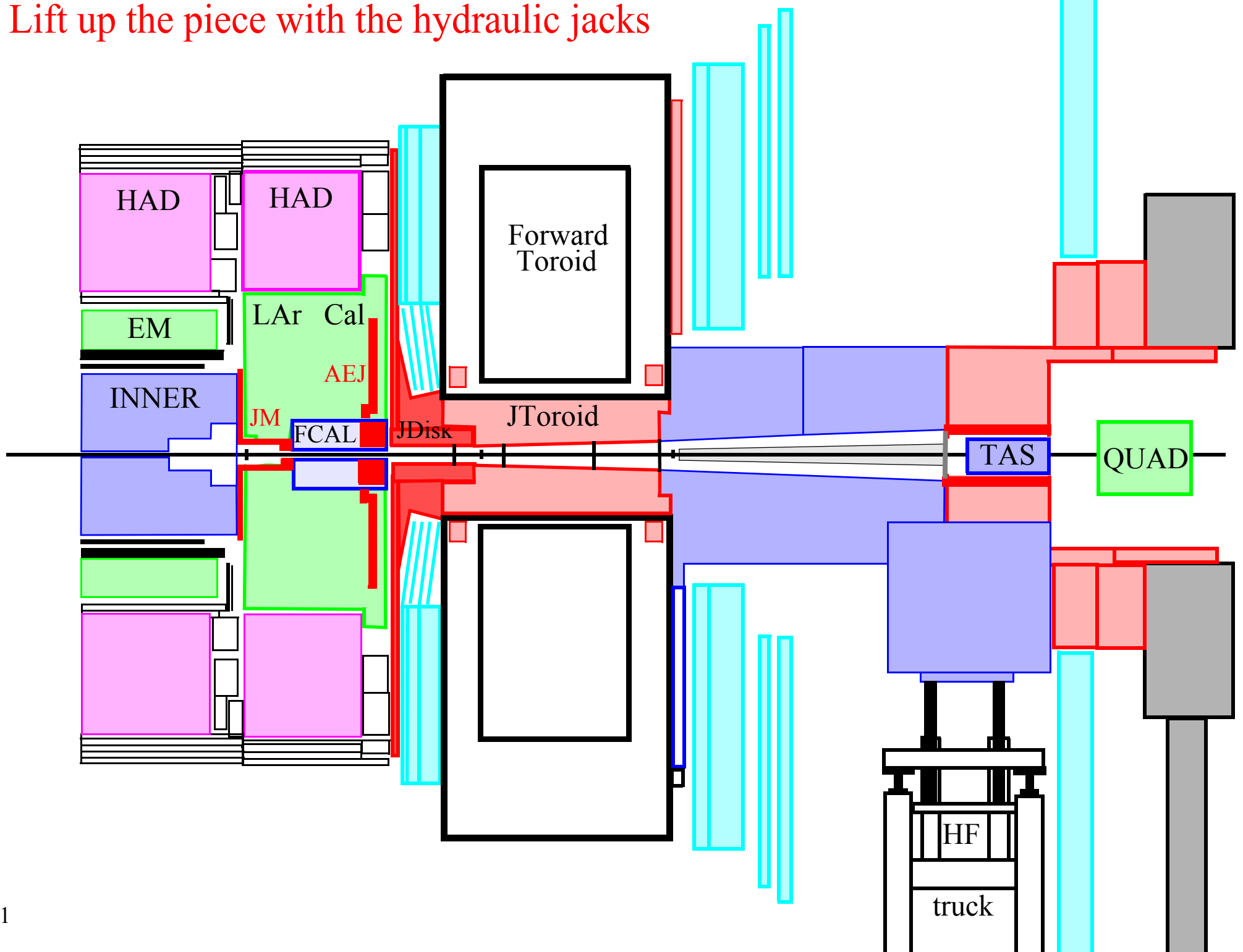


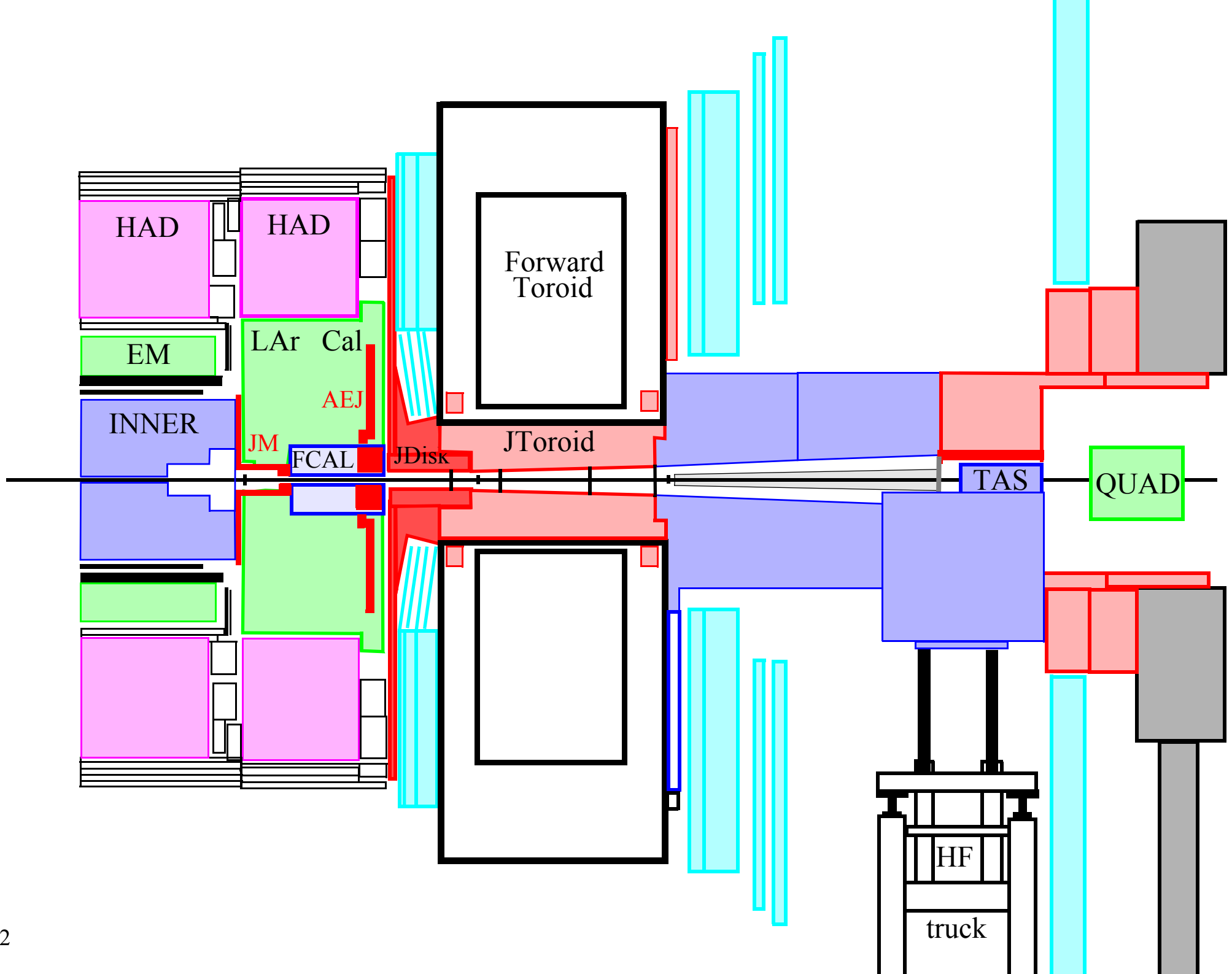
Move the HF truck in both the X- and Z- directions



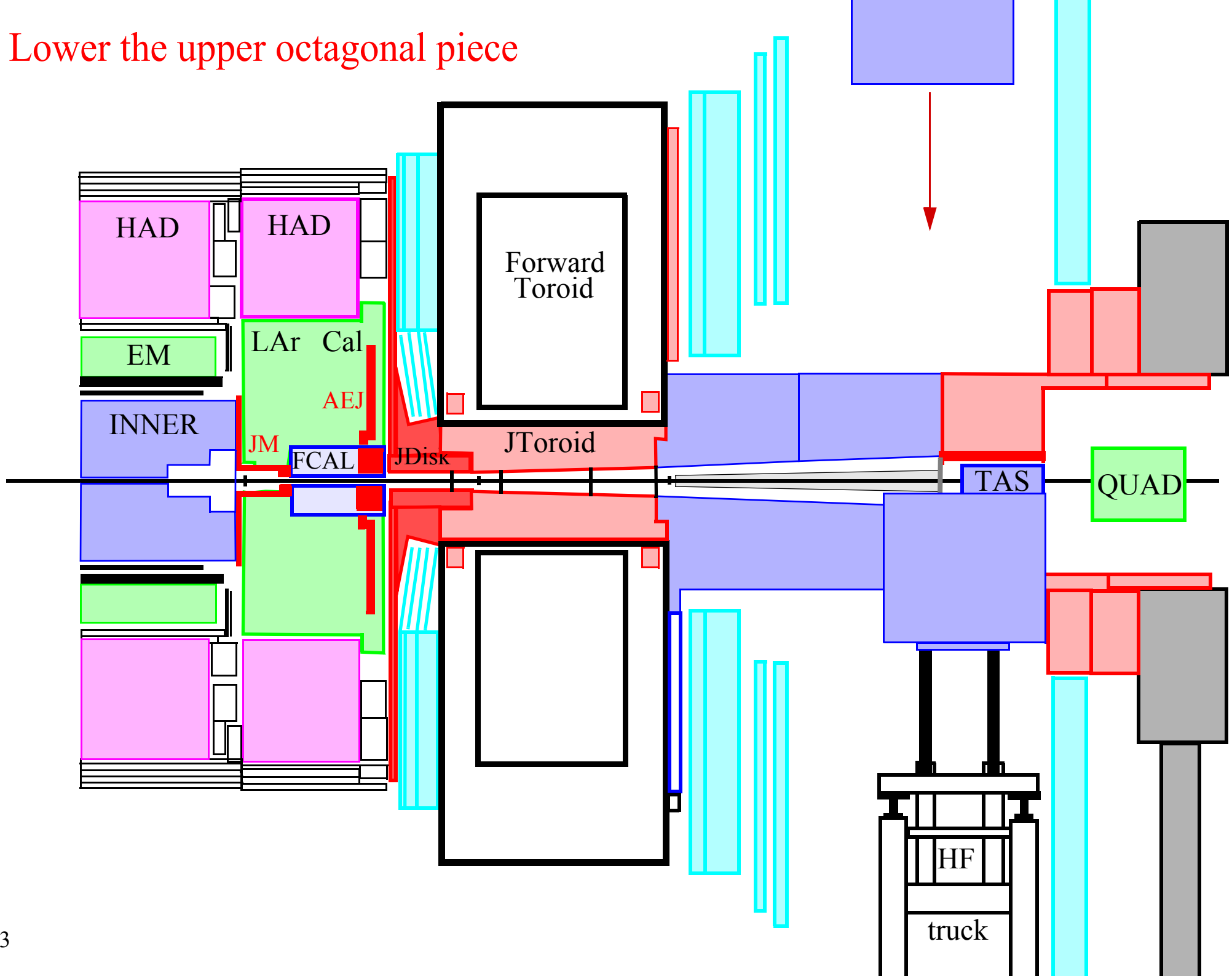


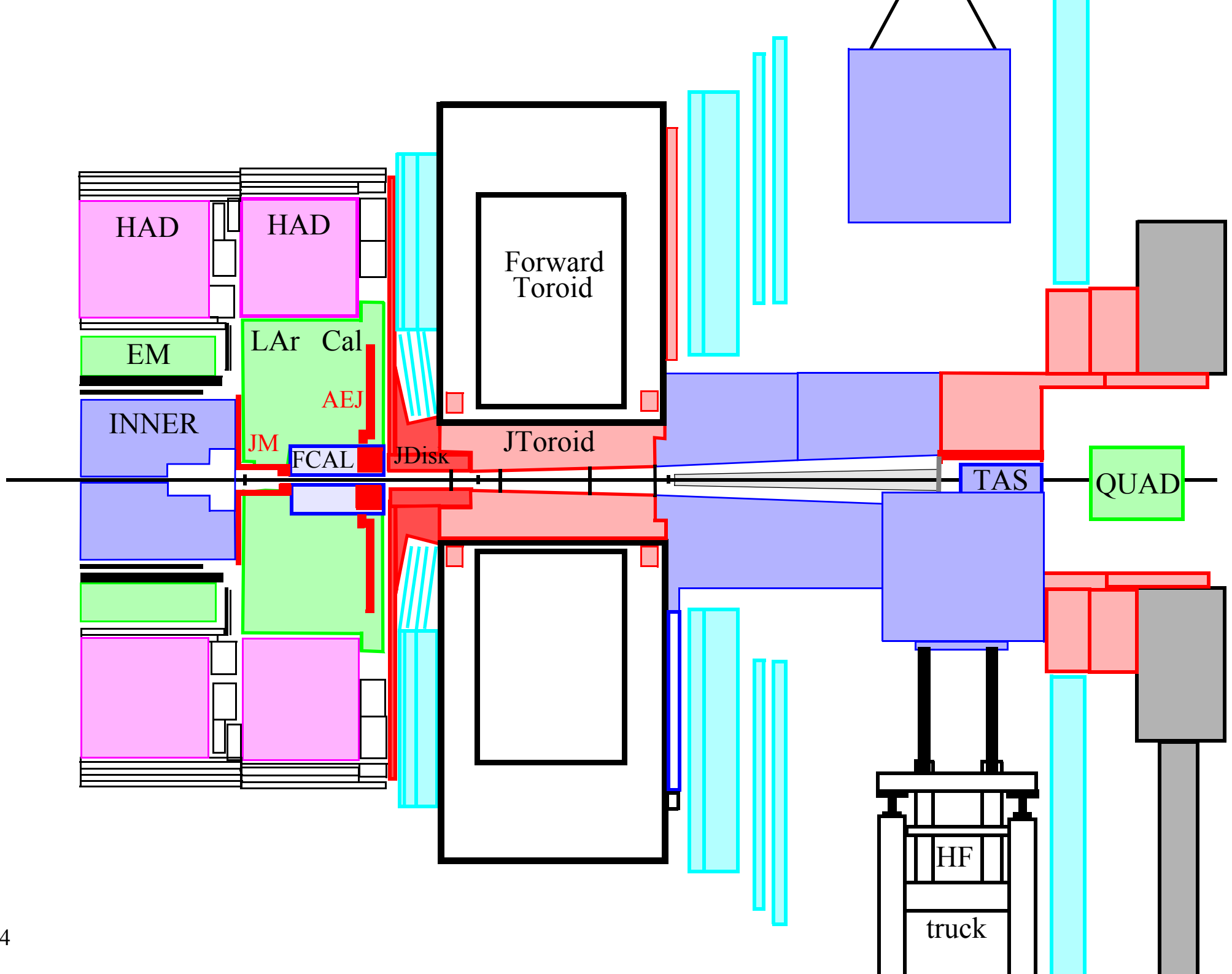
Lift up the piece with the hydraulic jacks

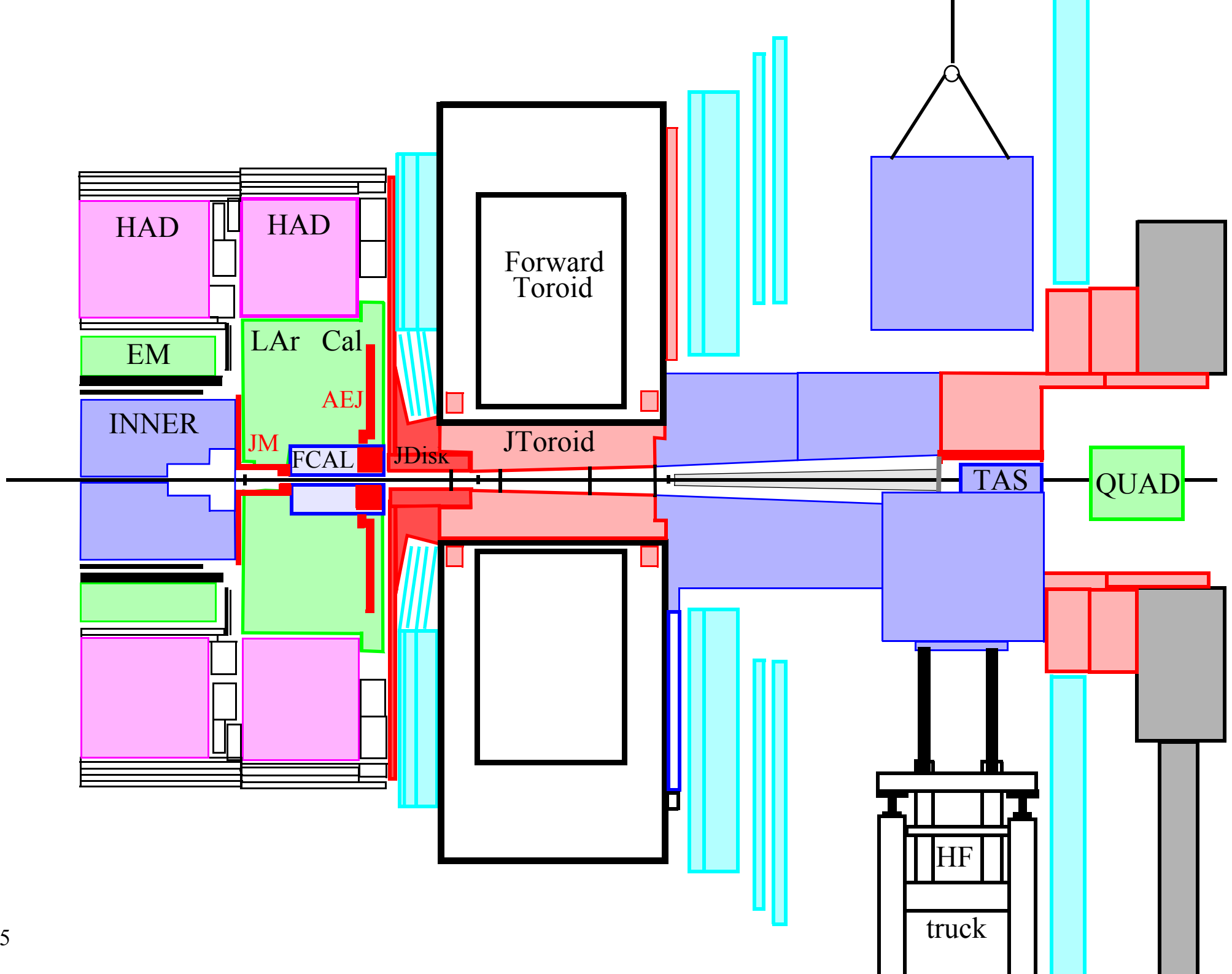




Lower the upper octagonal piece







Is there enough crane reach for this operation ?

