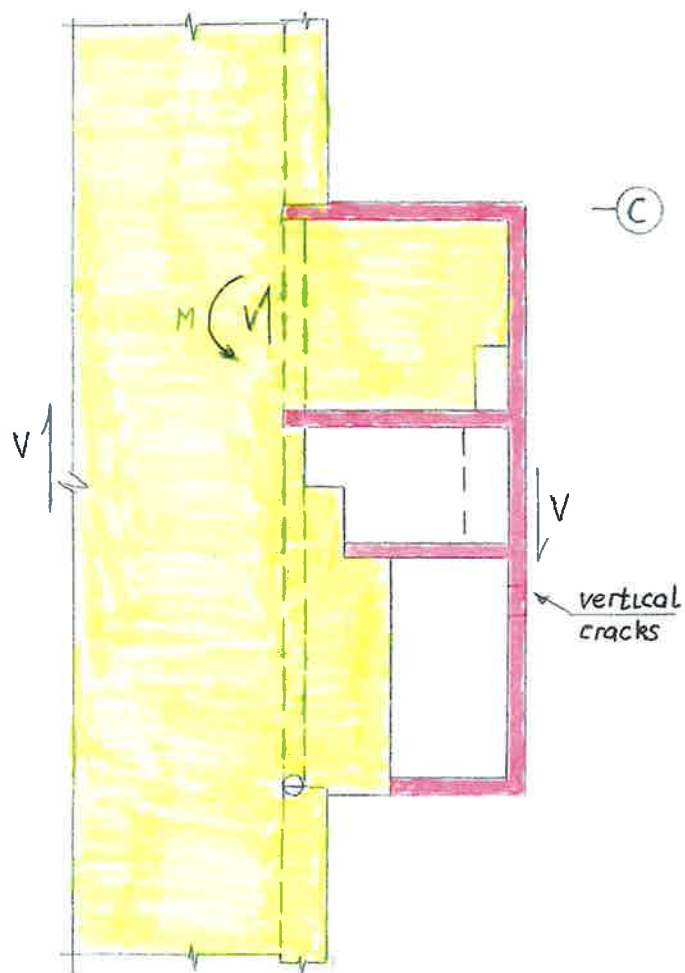
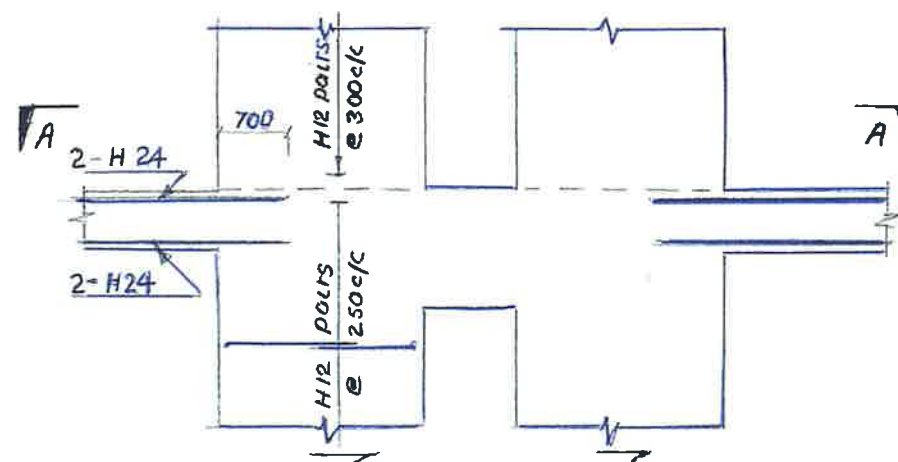


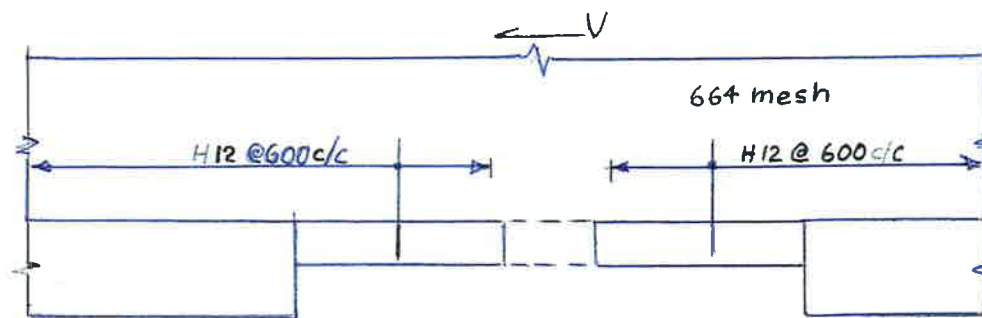
September
 $V = 1100 \text{ kN}$
 February
 $V = 2200 \text{ kN}$



North wall



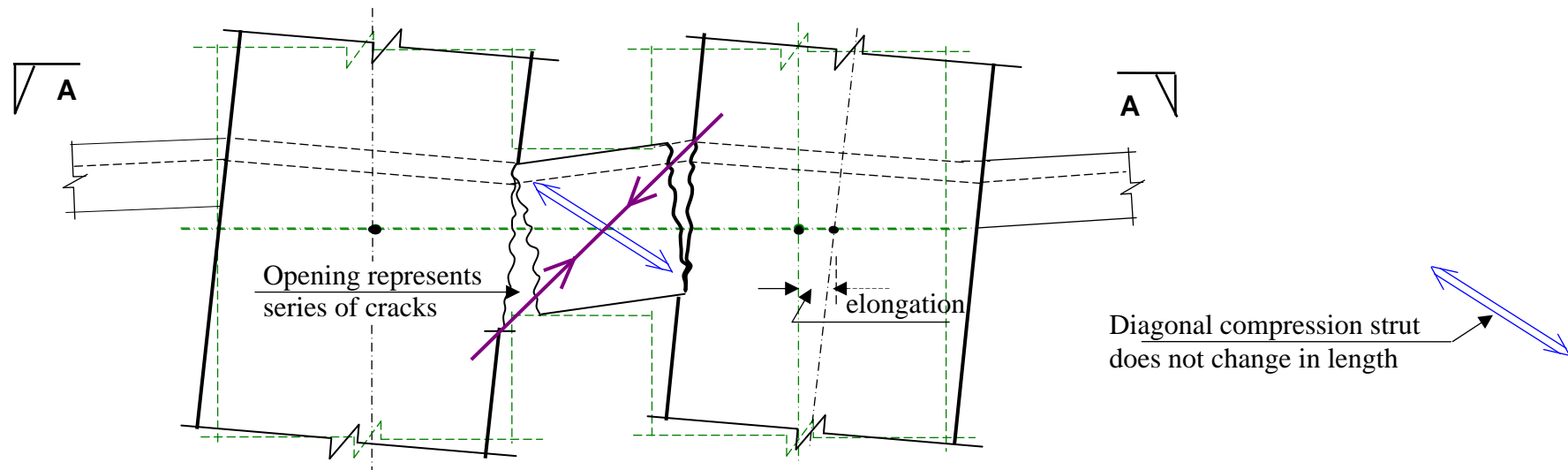
Elevation south wall



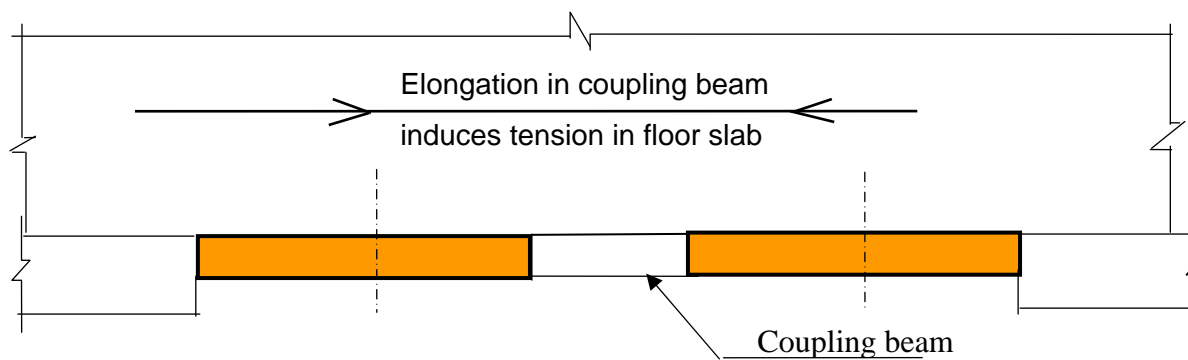
Sectional plan A-A

South wall

Sep. $V = 680 \text{ kN}$
 Feb. $V = 1300 \text{ kN}$

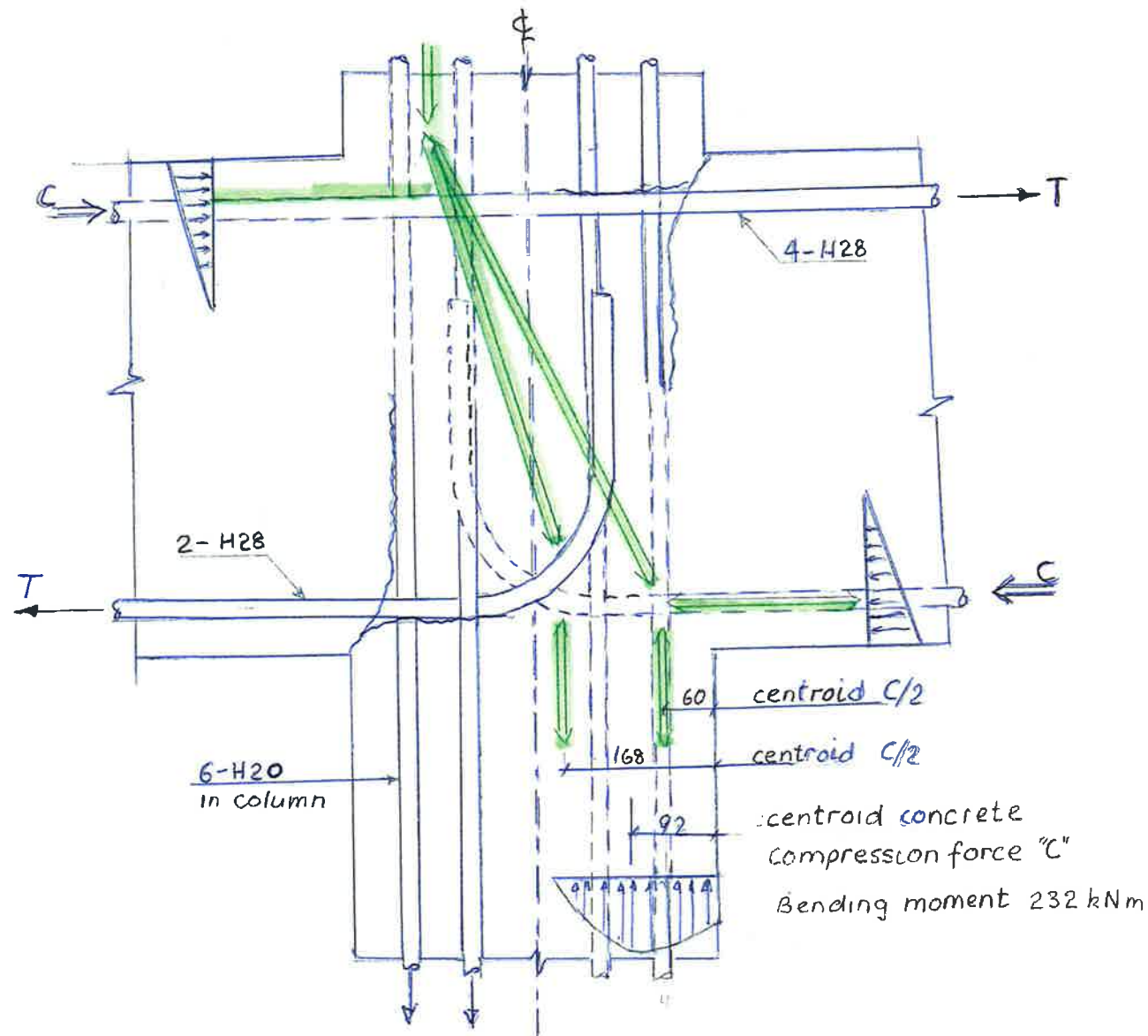


Elevation on part of South Wall



Sectional Plan A – A on South Wall

CTV South Wall
RCF 4/7/12



Column

Axial Load 1260 kN

$M_n = 232 \text{ kNm}$

$c = 185 \text{ mm}$

$f'_c = 35 \text{ MPa}$

$f_y = 380 \text{ MPa}$

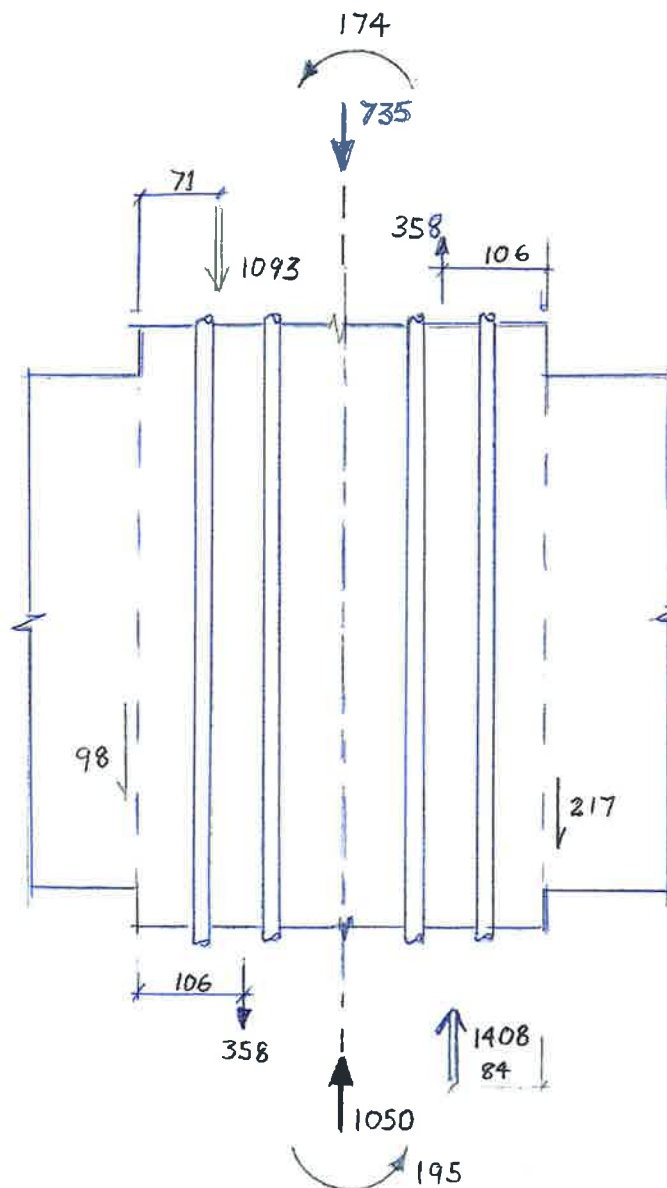
Development beam bottom
bars = $\frac{2}{3}$ code

Moment capacity at
base of joint zone
is approximately
80% of M_n of column

Beam and column shears
not shown

CTV Beam column joint
Internal column level 2,3

RCF 28/6/12



Joint zone shear

$$V_{jv} = 1408 - 217 + 358 = 1549 \text{ kN}$$

$$v_{jv} = \frac{1549000}{550 \times 400} = 7.0 \text{ MPa}$$

Assumed axial loads

735 kN and 1050 kN

Note values do not include an allowance for over-strength