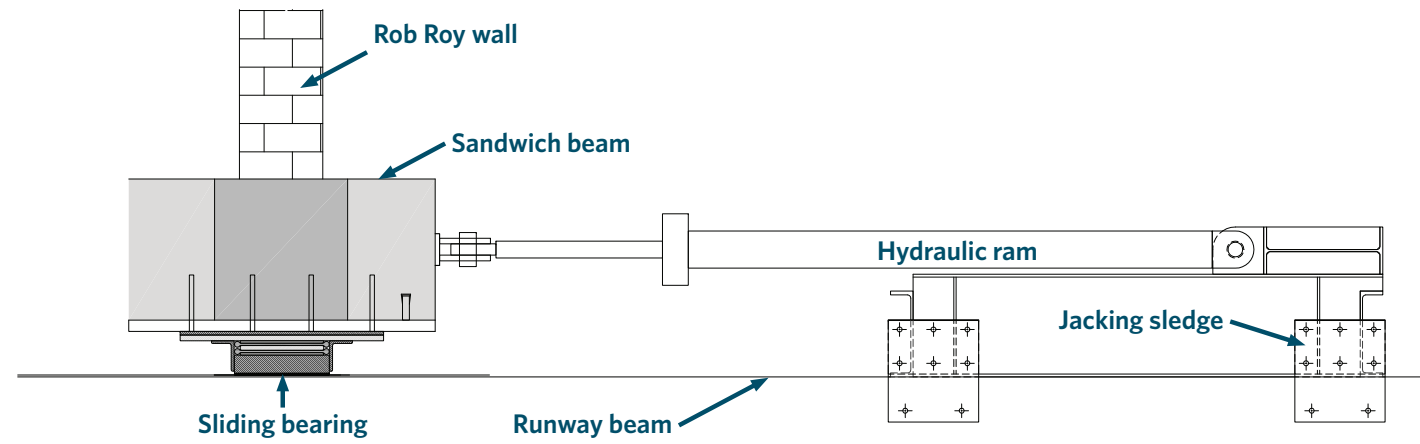
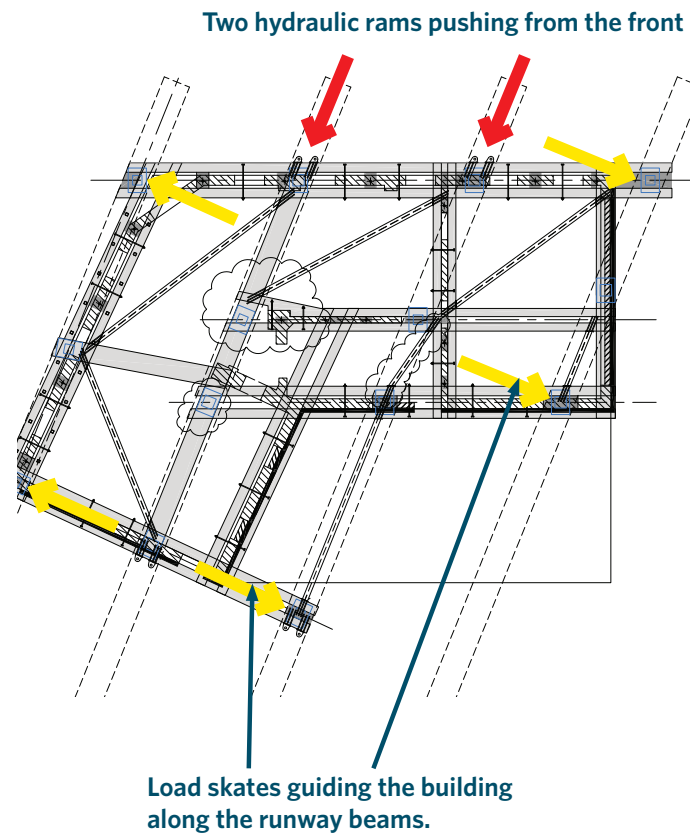


Step 2: The Big Push

Hydraulic pushing rams between the building and the runway beams will gently push the building along. The rams are mounted on jacking sledges, bolted onto the runway beams.



This diagram shows how the building will be pushed from the front street façade side. It will be braced along the side edges with load skate guides that 'lock' it into place over the runway beams against sideways movement during the push (yellow arrows).

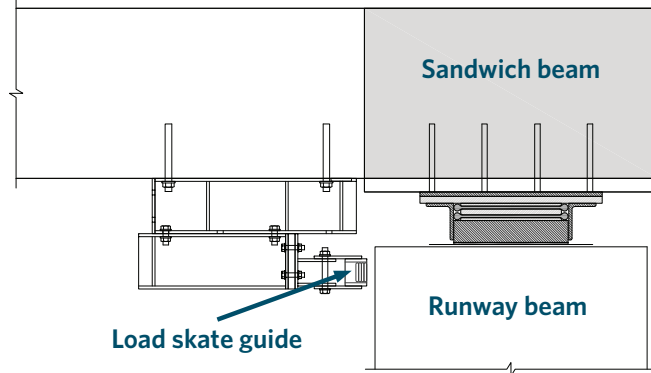


The pushing mechanism

The building will be moved in stages, one small push at a time.

1. Each hydraulic ram is housed in a frame that will be bolted onto the runway beams. As the end of the ram extends against the sandwich beams supporting the Rob Roy, it will push the building about 1.8 metres.
2. The frame will then be unbolted and the ram and frame retracted back against the building. The frame is then re-bolted to the runway beam and the process begins again.
3. Each cycle of bolting, moving and retracting is expected to take about 25 minutes.

This shows a side view of how the load skates will keep the building on track.



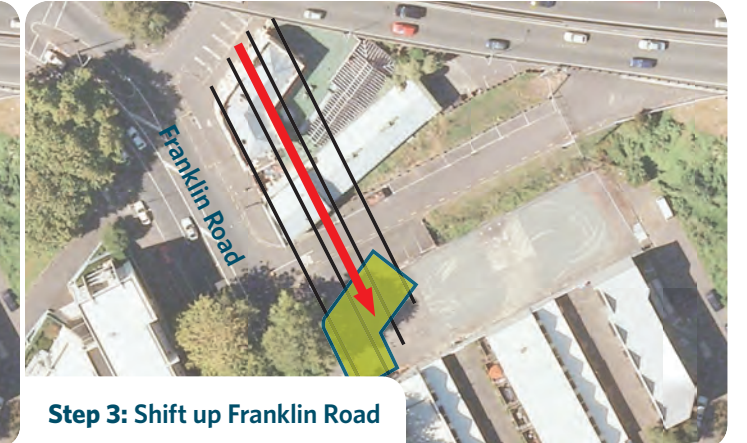
The story in a nutshell



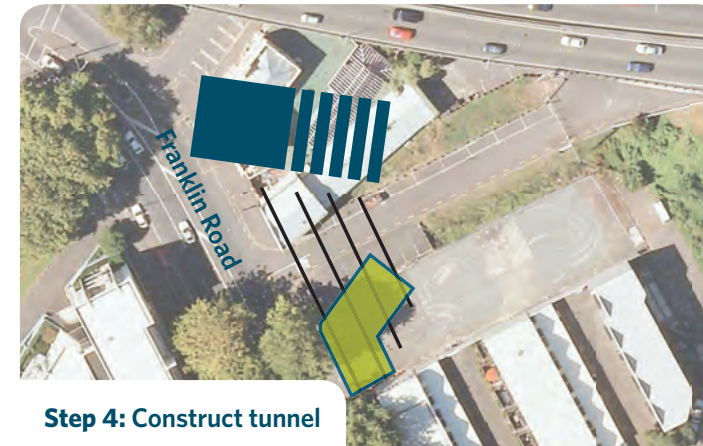
Step 1: Strengthen



Step 2: Build runway beams



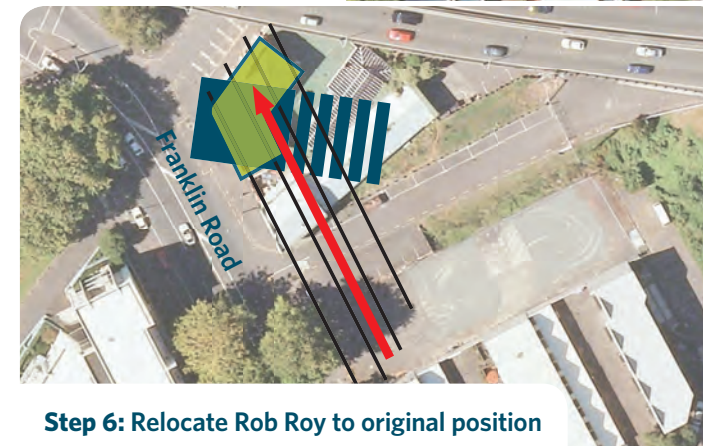
Step 3: Shift up Franklin Road



Step 4: Construct tunnel



Step 5: Re-construct runway beams



Step 6: Relocate Rob Roy to original position



Step 7: Finish Rob Roy

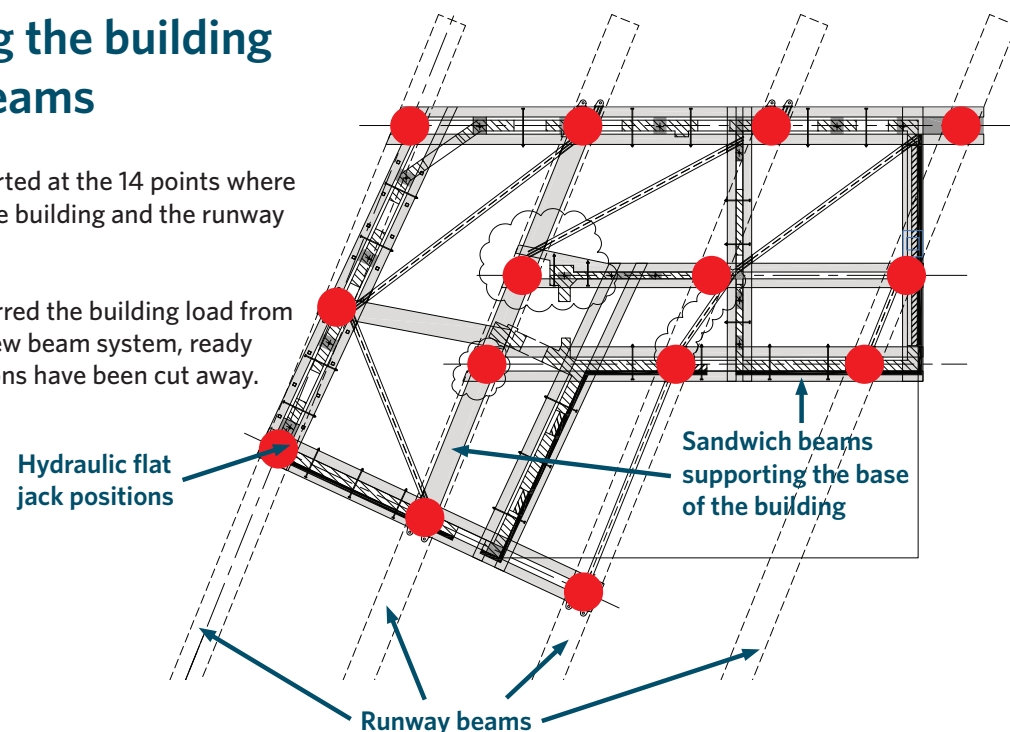
Q: How are we moving the Rob Roy?

A: Carefully!

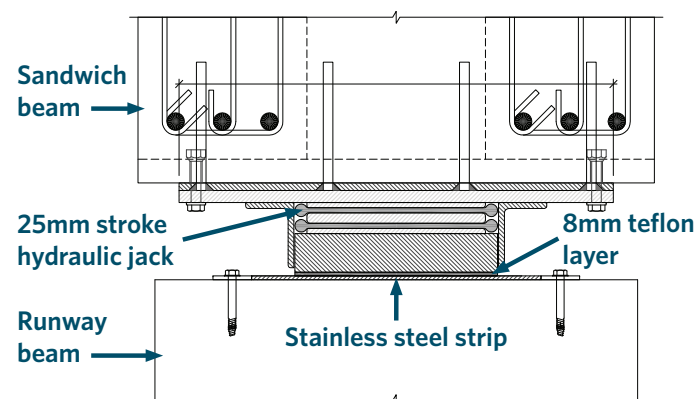
Step 1: Transferring the building onto the runway beams

Hydraulic flat jacks have been inserted at the 14 points where the sandwich beams supporting the building and the runway beams intersect.

These jacks have gradually transferred the building load from its existing foundations onto the new beam system, ready for the move, and the old foundations have been cut away.



A sliding bearing section showing the hydraulic flat jack in place

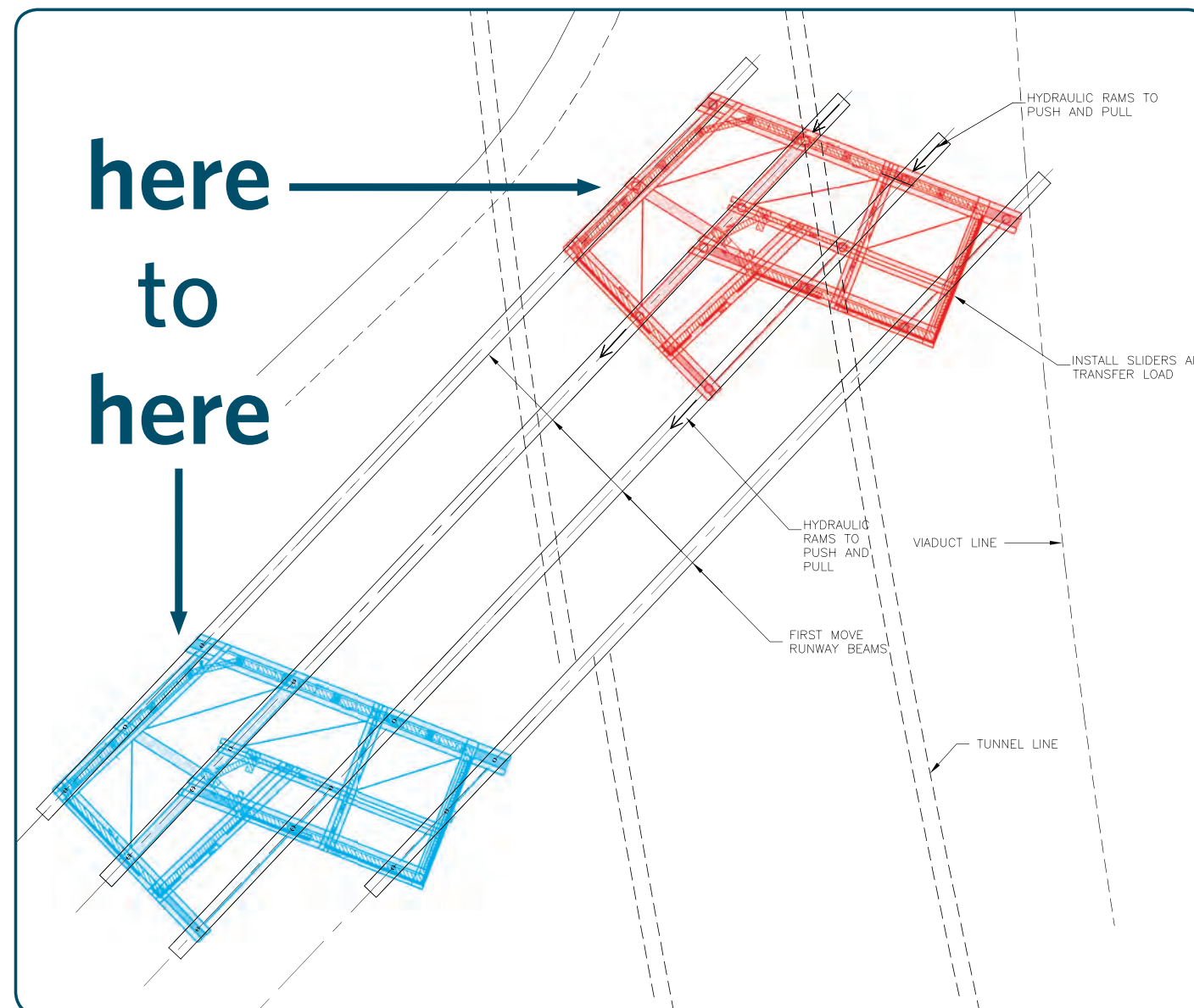


Different ground conditions along the 40m journey means there may be some 'differential settlement' along the way. The hydraulic flat jacks can expand to 25mm to keep the building level as it moves along the runway beams.

The moving team will be constantly monitoring these jacks and adjusting hydraulic pressure during the move to make sure the Rob Roy stays level.

Quick facts

What does it take to move a 600 tonne heritage building from...



Preparation

- A team of 30 people planning the move, including a heritage architect, specialists in heritage building relocation and clever Victoria Park Alliance engineers
- Five months to strengthen and prepare the building, just one day to move
- 21 piles 10-12 metres deep, installed under 4 concrete runway beams.

On the day

- Three to four people inside the building monitoring height levels, hydraulic pressure and building conditions, communicating by 2-way radio with the outside teams
- Teams manning the two rams and sledges for the big push
- 24 strokes of the rams, 20 minutes push cycles and a minimum of 6 hours to move the building to its temporary home
- A time lapse camera recording the event for posterity.