

## Kinneil House - Garden Retaining Wall

### Addendum to Engineer's Report dated 29 April 2016

Engineer: John Turner

- 1 The recommendations of the Engineer's report were as follows
  - 1) Cut down all of the Leylandii trees within 1.5 m of the back face of the wall;
  - 2) Cut back ivy growth and kill the roots;
  - 3) Cut other shrubs growing into the wall and kill the roots;
  - 4) Investigate the rear face of the wall when removing tree balls;
  - 5) Excavate trial hole to determine depth and nature of foundations;
  - 6) Following investigations further action may include taking down and re-building the worst sections of wall as follows:
    - (i) All loose masonry along the top part of the whole wall removing shrub roots where possible;
    - (ii) The top free standing section between chainages 6.0 and 8.3;
    - (iii) The top 750 mm between chainages 9 and 12.5 removing all hawthorn roots embedded into the wall;
    - (iv) The top section between chainages 16 and 21;
    - (v) The whole section of wall where lean is considered to be excessive, i.e., between chainages 24.0 and 33.0

*When re-building consideration will be given to introducing stainless steel joint reinforcement along the length of the wall*

- 2.0 Since the initial report, the Leylandii and other trees on the upper side of the wall have been remove and two trial pits have been dug to determine the nature of the ground, and the nature and depth of the foundation. See figure 1.

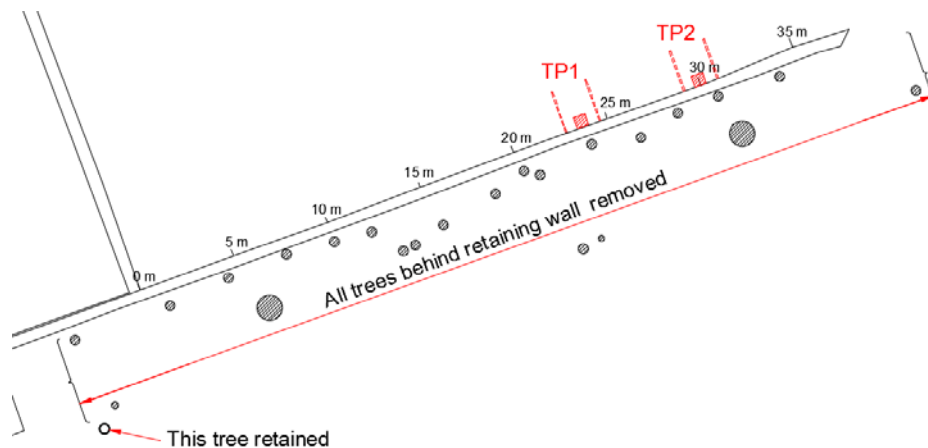


Figure 1 – Location of trial pits

3. The trial pits revealed:
  - (i) that wall has substantially no foundation – it is built directly off re-deposited clay flecked with charcoal, 520 to 600 mm below the existing ground level on the bottom side of the wall. The base stones are recessed back from the main wall by 50 - 60 mm; and
  - (ii) the outward incline of the wall extends down to the bottom of the wall below ground level.
  
4. The removal of the trees adjacent to the back of the wall will have reduced the pressure on the wall to some extent. However, the lack of any foundation, the significant outward lean and the poor condition of some parts of the wall means that there is still an unacceptable risk that the wall will collapse at some time in the future. As this is an amenity area, this potential instability poses a direct risk to the public.
  
5. It is the recommendation that the whole length of the wall should be taken down and rebuilt with a more substantial foundation. Stainless steel joint reinforcement should be provided along the length of the wall to provide some additional lateral strength.

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Senior Civil Engineer  
13 October 2016