Inference at $*$ 2
of proof for Lemma before_last:

1. T : Type
2. T List
3. u : T
4. v : T List
5. $\forall x{:}T.\ (x \in v) \Rightarrow (\neg(x = \text{last}(v))) \Rightarrow x$ before last$(v) \in v$

$\vdash \forall x{:}T.\ (x \in [u\ /\ v]) \Rightarrow (\neg(x = \text{last}([u\ /\ v]))) \Rightarrow x$ before last$([u\ /\ v]) \in [u\ /\ v]$

by InteriorProof ((((((((((Unfold ‘l_before‘ 0)
CollapseTHEN (
RWO ”cons_sublist_cons” 0))·)
CollapseTHENM (RWO ”cons_member” 0))·)

CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat
3:n)) (first_tok :t) inil_term)))·)
CollapseTHEN (Reduce 0))·)

CollapseTHEN (SimpConcl))·

1:

6. x : T
7. $(x = u) \vee (x \in v)$
8. $\neg(x = \text{last}([u\ /\ v]))$

$\vdash (x = u\ \&\ [\text{last}([u\ /\ v])] \subseteq v) \vee [x; \text{last}([u\ /\ v])] \subseteq v$

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http://www.nuprl.org/FDLcontent/p0_963683_/p122_89337_{before_last}2.html