```
mapfilter_append  THM

⊢  ∀T:Type, P:(T→𝔹), T':Type, f:({x:T| P(x) }→T'), L1,L2:T List.
   mapfilter(f;P;L1 @ L2) = (mapfilter(f;P;L1) @ mapfilter(f;P;L2))
  by InductionOnList THEN (Reduce 0) THEN (Unfold `mapfilter` 0)
     THEN
     (Reduce 0)
     THEN
     (Repeat SplitOnConclITE)
     THEN
     (Reduce 0)
     THEN
     (Fold `mapfilter` 0)
     THEN
     Obvious
END
```