```
term_types_monotone  THM

⊢  ∀ds1,ds2:Collection(dec()), da1,da2:Collection(SimpleType)
   , de:sig(), t:Term.
   ds1 ⊆ ds2 ⇒
   da1 ⊆ da2 ⇒ term_types(ds1;da1;de;t) ⊆ term_types(ds2;da2;de;t)
  by UnivCD THENA Auto THEN TermInd (-3) THEN

     Unfold `term_types` 0 THEN Reduce 0

     THEN Try (Fold `term_types` 0)

     THEN Try (BackThruLemma `st_app_monotone` THEN SmAuto)

     THEN Try (BackThruLemma `dec_lookup_monotone` THEN  Auto)

     THEN Try (BackThruLemma `col_le_weakening`

              THENM RelRST
          THENA Auto)
THEN Try Trivial
END
```