```
int_seg_well_founded_down  THM

⊢  ∀i:ℤ, j:{i...}. WellFnd{u}({i..j⁻};x,y.x>y)
| by Auto
|    THEN
|    FwdThru:
|    Thm* ∀r:(A→A→Prop), B:Type, f:(B→A).
|         WellFnd{i}(A;x,y.r(x,y)) ⇒ WellFnd{i}(B;x,y.r(f(x),f(y)))
|    {inv_image_ind}
|    on [ WellFnd{u}({i...};x,y.x<y) ]
|    Using:[B:= {i..j⁻} | f(x):= j+i-x]
|
|\
| .....assertion .....
| 1. i : ℤ
| 2. {i...}
| ⊢  WellFnd{u}({i...};x,y.x<y)
|   by BackThru:
|      Thm* ∀n:ℤ. WellFnd{i}({n...};x,y.x<y)
|      {int_upper_well_founded}
|
.\
. 1. i : ℤ
. 2. j : {i...}
. 3. WellFnd{u}({i..j⁻};x,y.j+i-x<j+i-y)
. ⊢  WellFnd{u}({i..j⁻};x,y.x>y)
.   by Rewrite by ∀x,y:ℤ. j+i-x<j+i-y ⟺ x>y
END
```