⌈ Since I_p is a hyperplane in W, see P750, $I_p = H_p$, by P751, $\tilde{I}_p \sim \tilde{w}$.
Let $\{C_\lambda\}$ be a generic pencil. $\Rightarrow$ $\{C_\lambda\}$ cuts out on ℓ a linear system of degree 2 without base points, refer to P750. $\Rightarrow$ The corresponding map expresses ℓ as a 2-sheeted cover of $\mathbb{P}^1$; and by the Riemann-Hurwitz formula, the # of branch points of this map is

$$b = 2g(\mathbb{P}^1) - 2 + 2\chi(\mathbb{P}^1) = 2\cdot 0 - 2 + 2\cdot 2 = 2.$$

$\Rightarrow$ The pencil $\{C_\lambda\}$ contains 2 conics tangent to ℓ, and $\deg I_\ell = 2$. $\Rightarrow$ $I_\ell \sim 2w$. ···· ①
$2L$ a generic double line, and $\{C_\lambda\}$ a generic pencil of conics containing $2L$, $\Rightarrow$ Again $\{C_\lambda\}$ cuts out on ℓ a pencil of degree 2 without base points. $\Rightarrow$ The corresponding map has 2 branch points as before — but one of these two is just the point of intersection of L with ℓ. $\Rightarrow$ $\{C_\lambda\}$ has one point of intersection with I_ℓ other than $2L$; it follows that

$$\mathrm{mult}_{2L}(\{C_\lambda\}, I_\ell) = 1,$$

and so,

$$\mathrm{mult}_{W_0}(I_\ell) = 1. \quad \cdots\cdots \quad ②.$$

$\Rightarrow$ By the result on P605 together with ① & ②,
$\tilde{I}_\ell \sim 2w - e$.
By P751, $\tilde{V}_c \sim 6\tilde{w} - 2e$ and $2\tilde{I}_p + 2\tilde{I}_\ell \sim 2\tilde{w} + 4\tilde{w} - 2e = 6\tilde{w} - 2e$ $\Rightarrow$ $\tilde{V}_c \sim 2\tilde{I}_p + 2\tilde{I}_\ell$. ⌋