

# The AFC Takeoff Workflow: AI, PlanSwift, and Scaling

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This guide outlines the exact differences between a human estimator using PlanSwift and the AFC AI takeoff engine. It explains when to use which tool, how to combine them for maximum efficiency using scaling factors, and how to rely on AFC AI for the heavy lifting of unit counts, floor splits, and accessories.

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## 1. PlanSwift vs. AFC AI: Material Ordering Accuracy

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When placing a multi-million dollar material order, precision is paramount. Here is how the two methods compare specifically for calculating net square footage.

Factor	PlanSwift (Human Estimator)	AFC AI Takeoff Engine
<b>Measurement Method</b>	Digital polygon trace of actual floor area at scale	Calculation based on printed dimension callouts
<b>Wall Thickness</b>	Traced exactly to the face of the drywall	Relies on labeled dimensions (often centerline)
<b>Irregular Geometry</b>	Exact — every angle, bump-out, and jog is traced	Estimated — relies on available sub-dimensions
<b>Unlabeled Spaces</b>	Traced directly (e.g., closets, entry alcoves)	Excluded or estimated if no dimension is printed
<b>Wet Area Deductions</b>	Traced exactly around shower pans and tubs	Applied as a fixed deduction per unit type
<b>Balconies &amp; Patios</b>	Requires manual exclusion by estimator	Automatically and permanently excluded
<b>Arithmetic Errors</b>	Possible during manual data entry	Eliminated entirely
<b>Fatigue Errors</b>	Increases over 100+ identical units	Zero — consistent logic applied to every unit
<b>Speed</b>	Hours to days depending on project size	Minutes
<b>Net SF Accuracy</b>	<b>Highest (<math>\pm 1-3\%</math>)</b>	<b>Moderate (<math>\pm 5-15\%</math>)</b>

**The Verdict for Material Ordering:** PlanSwift is the gold standard for measuring exact net square footage. Because AFC AI relies on labeled dimensions—which often ignore wall thickness and unlabeled alcoves—it typically under-measures the true wall-to-wall floor area by 5% to 15% (and sometimes more on complex unit types). **For the final material order, a PlanSwift polygon trace is recommended.**

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## 2. How to Apply a Scale Factor to Correct a Full Project

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You do not need to trace an entire 180-unit project in PlanSwift to get an accurate material order. You can use the speed of AFC AI combined with the precision of

PlanSwift by applying a **Scale Factor**.

Here is the exact step-by-step process used on the Mariposa @ Reed Road project:

### **Step 1: Run the AFC AI Takeoff**

Run a Straight Takeoff or Bid Takeoff through AFC AI. The engine will instantly catalog every unit type, count every unit, split them by floor, and generate the baseline dimensions. *Example: AFC AI calculates Building Type I, Floor 1 (32 units) at 15,822 SF.*

### **Step 2: Validate One Floor in PlanSwift**

Have your contractor or estimator use PlanSwift to trace **one representative floor** or one of each unit type. This takes minutes instead of hours. *Example: Contractor traces Building Type I, Floor 1 and gets 21,573 SF net.*

### **Step 3: Calculate the Scale Factor**

Divide the PlanSwift accurate number by the AFC AI baseline number. *Example: 21,573 SF ÷ 15,822 SF = 1.3635 (a 36.35% increase).*

### **Step 4: Apply the Scale Factor to the Entire Project**

Multiply the AFC AI baseline for every other floor and building by the scale factor. Because all units share the same architectural dimensioning logic (e.g., all dimensions are centerline), the discrepancy is proportional across the entire project. *Example: AFC AI calculates Floor 2 at 16,000 SF. Multiply 16,000 × 1.3635 = 21,816 SF true net area.*

This workflow delivers **PlanSwift accuracy at AFC AI speed**.

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## **3. Using AFC AI for Unit Counts, Floor Splits, and Accessories**

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While PlanSwift wins on exact room geometry, AFC AI is the superior tool for the administrative heavy lifting of a commercial takeoff.

## Unit Counts and Aggregation

Counting 180 units across three building types and three floors manually is tedious and highly prone to error. AFC AI reads the architectural schedules and floor plans to instantly aggregate the exact unit mix.

- **How to use it:** Rely on the AFC Takeoff Excel for the definitive unit count. If the architectural schedule says 44 B1 units, the AFC engine will correctly multiply the B1 quantities by 44.

## Floor Splits (Ground vs. Upper)

For renovation logistics and material staging, you must know exactly how much material goes to the ground floor versus upper floors.

- **How to use it:** The AFC engine automatically separates single-story buildings (all ground floor) from multi-story buildings, and calculates the exact split. Use the **Floor Split tab** in the Takeoff Excel to direct your installation crews and delivery staging.

## Accessory Quantities

Rubber base and adhesive calculations require tedious perimeter math and coverage rate division.

- **How to use it:** The AFC engine automatically calculates rubber base linear footage (typically 12% of LVT order SF) and adhesive pails (based on the manufacturer's 200 SF/gal coverage rate). Use the **Accessories tab** in the Takeoff Excel to instantly generate your sundries order.

## Carpet Quantities

Unlike complex living areas, bedrooms and walk-in closets are typically simple rectangles where the labeled dimensions closely match the true area.

- **How to use it:** Rely on the AFC AI carpet quantities directly. The engine calculates the net SF, applies the 10% waste and 5% attic stock rules, and automatically converts the final total into Square Yards (SY) for ordering.