

F L O F M A T R I X

Fractal Liquidity & Order Flow Trading System

CONFLUENCE GRADING
RUBRIC v3.0

SMC Structural Refinement Update

Pre-Scoring Gates | POI Quality Tags | Tier 3 Structural Quality | Session VWAP
17-Point Scoring System | 2 Hard Gates | 8 New Feature Toggles (T31–T38)

Version:	3.0 (SMC Refinement Update)
Supersedes:	v2.0 (Velez Update)
Date:	February 2025
Classification:	CONFIDENTIAL

1. What Changed from v2.0 to v3.0

Version 3.0 integrates six structural refinements identified through a comprehensive review of advanced SMC methodologies (Photon Trading, Andrea Cimi, Carmine Rosato, Fortune Talks, Fabio Valentini). These additions improve POI selection quality, reduce false entries at structurally weak zones, and add a volume-weighted institutional pricing layer (VWAP).

ELEMENT	v2.0 (VELEZ)	v3.0 (SMC REFINEMENT)	CHANGE TYPE
Maximum Score	14 points	17 points	Expanded (Tier 3 added)
Pre-Scoring Gates	None	2 gates	NEW: Premium/Discount + Inducement
Tier 1 (Core SMC + OF)	10 points (6 criteria)	10 points (6 criteria)	Unchanged
Tier 2 (Velez Momentum)	4 points (4 criteria)	4 points (4 criteria)	Unchanged
Tier 3 (Structural Quality)	N/A	3 points (3 criteria)	NEW
POI Quality Tags	None	3 boolean flags per POI	NEW: Flip Zone, Inducement, Sweep Zone
VWAP Integration	None	Session VWAP + SD Bands	NEW: Added to VelezMAModule
Feature Toggles	T01 – T30	T01 – T38	8 new toggles added
A+ Grade Threshold	12 – 14 of 14	15 – 17 of 17	Recalibrated for expanded scale

DESIGN PRINCIPLE: NO GRADE INFLATION

The single biggest risk when adding new criteria is grade inflation — everything starts scoring A+ and the system loses the ability to differentiate between good and exceptional setups. To prevent this, v3.0 uses a layered approach: the new additions are split between hard gates (which block bad trades entirely rather than adding points) and a separate Tier 3 (which is evaluated independently from the existing Tier 1 and Tier 2). The existing 14 criteria and their scoring are completely unchanged.

2. Pre-Scoring Gates (New)

Pre-Scoring Gates are binary checks that fire before the Confluence Scorer evaluates any criteria. If a gate fails, the trade is rejected immediately with Grade C (NO TRADE). Gates do not add or subtract points — they block structurally invalid trades from ever consuming scoring resources.

The rationale for making these gates rather than score modifiers: these conditions are not "nice to have" confluence — they represent fundamental structural violations. Buying in the premium of a range is not a trade that deserves a lower score; it is a trade that should never exist.

2.1 Gate 1: Premium / Discount Filter

PROPERTY	SPECIFICATION
Toggle	T31 — Premium/Discount Gate
Module	HTFStructureMapper (M03)
Evaluation Frequency	Once per session open and after any HTF BOS event
Inputs	Active swing range high (most recent 4H/15m swing high) and active swing range low (most recent 4H/15m swing low)
Calculation	Equilibrium = (Swing High + Swing Low) / 2. Premium Zone = above equilibrium. Discount Zone = below equilibrium.
Gate Logic	LONG trades: POI must be in the Discount (POI midpoint < Equilibrium). If the POI is in the Premium → GATE FAIL → NO TRADE. SHORT trades: POI must be in the Premium (POI midpoint > Equilibrium). If the POI is in the Discount → GATE FAIL → NO TRADE.
When Toggle is OFF	Gate is bypassed. All POIs are eligible regardless of position within the swing range. (Original v2.0 behavior.)

2.1.1 Why This Works

Institutions buy at wholesale (discount) and sell at markup (premium). This is not theory — it is the mechanical reality of how large orders are executed. A fund managing billions cannot buy at the top of a range because there is insufficient opposing liquidity to fill the order without moving the price against them. They must accumulate in the discount where retail traders are panicking and selling.

Furthermore, when the macro trend is bullish, old supply zones sitting in the premium of the range are not reversal zones — they are "reaction points" that provide temporary pullbacks to lure shorts before price continues higher. Trading these supply zones as short entries (counter-trend) is exactly the trap that institutional algorithms are designed to create.

By making this a hard gate rather than a score penalty, the system cannot override it with high Order Flow scores or Velez momentum alignment. A structurally invalid location is invalid regardless of how good the tape looks at that moment.

2.2 Gate 2: Inducement Check

PROPERTY	SPECIFICATION
Toggle	T32 — Inducement Gate
Module	POIMapper (M04)
Evaluation Frequency	Calculated once when each POI is first mapped. Updated if new structure forms in the approach leg.
Inputs	The structural leg between the current price and the POI zone. Scanned for minor swing highs/lows, equal highs/lows, trendline touches, and visible structural points.
Detection Logic	<p>For a bullish POI (demand zone): Scan the price leg above the POI for minor equal lows, structural lows, or clustered stop-loss levels. These represent retail sell stops that institutions can sweep to fill their long orders.</p> <p>For a bearish POI (supply zone): Scan the price leg below the POI for minor equal highs, structural highs, or clustered stop-loss levels.</p> <p>If the scan finds at least one structural point with visible liquidity resting at it → has_inducement = true.</p> <p>If the approach leg is a "straight push" with no pullbacks and no structural points → has_inducement = false.</p>
Gate Logic	If has_inducement = false → GATE FAIL → NO TRADE. The POI has no fuel for the expected reaction. Without opposing liquidity (retail stops) built in front of the zone, institutions cannot fill their orders efficiently, and the POI itself becomes the liquidity target — price will sweep through it rather than bounce.
When Toggle is OFF	Gate is bypassed. All POIs are eligible regardless of inducement presence. (Original v2.0 behavior.)

2.2.1 Why This Works

Institutions need counterparty liquidity to fill massive orders without slippage. A 5,000-contract buy order on ES needs 5,000 contracts worth of sell orders to absorb. Those sell orders come from retail stop-losses — and retail traders place their stops at visible structural levels (equal lows, trendline breaks, swing point failures).

If there is no structure built in front of the POI (a "straight push" down to the zone), there are no retail stops available. This creates a dangerous scenario: the POI has no fuel. Instead of bouncing, price will often slice through the zone entirely because institutions need to hunt deeper for liquidity. The inducement check catches this scenario by verifying that the approach leg has built the structural "bait" that institutions require.

GATE EXECUTION ORDER

Gate 1 (Premium/Discount) fires FIRST. If failed, Gate 2 is not evaluated. Gate 2 (Inducement) fires SECOND. If failed, no scoring occurs. Both gates must PASS before the Confluence Scorer begins Tier 1 evaluation. This prevents wasted computation on trades that are structurally invalid.

3. POI Quality Tags (New)

POI Quality Tags are boolean metadata flags attached to each POI at the time of its creation by the POIMapper. They do not participate in gate checks. Instead, they feed into the new Tier 3 scoring criteria. Tags are calculated once per POI and cached — they do not change after initial evaluation.

3.1 Tag: `is_flip_zone`

PROPERTY	SPECIFICATION
Toggle	T33 — Flip Zone Detection
Definition	A Flip Zone is a POI that was created when one side (supply or demand) overpowered a previously valid zone on the opposing side. It represents a zone where a structural battle took place and smart money clearly won.
Detection Algorithm	<p>Step 1: Identify a valid existing demand (or supply) zone on the 15m chart.</p> <p>Step 2: Verify that price reacted to this zone (at least one candle bounced).</p> <p>Step 3: Check if that reaction FAILED to break structure in the expected direction (the bounce did not create a higher high for demand, or lower low for supply).</p> <p>Step 4: Check if the opposing side then VIOLENTLY broke through the failed zone with displacement (candle body > 1.5× ATR).</p> <p>Step 5: If all four conditions are met, the origin of the opposing move (the candle body that initiated the break) is tagged as a FLIP_ZONE POI.</p>
Why It Works	Flip Zones contain trapped traders. When price reacted and failed, traders who entered on that reaction are now underwater. When price returns to the Flip Zone, those trapped traders will exit at breakeven, adding their orders as fuel for the new move. This built-in exit pressure makes Flip Zones significantly more reactive than standard Order Blocks.
Scoring Impact	+1 point in Tier 3 (Structural Quality) when <code>is_flip_zone</code> = true.

3.2 Tag: `is_sweep_zone`

PROPERTY	SPECIFICATION
Toggle	T34 — Sweep Zone Detection
Definition	A Sweep Zone is an Order Block or FVG that swept a structural high or low at the exact moment it was being created. This indicates that institutional money used the liquidity from the sweep to fill their positions at the zone's origin.
Detection Algorithm	<p>Step 1: When the POIMapper identifies a new 15m Order Block, record the candle(s) that formed it.</p> <p>Step 2: Look LEFT on the chart from the OB formation candle.</p> <p>Step 3: For a bullish OB: Did the OB candle's LOW take out a previous structural low (minor swing low, equal low, or session low)?</p> <p>Step 4: For a bearish OB: Did the OB candle's HIGH take out a previous structural high?</p> <p>Step 5: If yes, the OB is tagged <code>is_sweep_zone</code> = true.</p>
Why It Works	When a demand zone swept sell-side liquidity at its birth, it proves that institutional money used that sweep as their entry vehicle. The stop-losses triggered by the sweep provided the counterparty sell orders that institutions absorbed. This zone is backed by institutional positioning from its inception — making it fundamentally stronger than an OB that formed in quiet conditions.

Scoring Impact	+1 point in Tier 3 (Structural Quality) when is_sweep_zone = true.
-----------------------	--

3.3 Tag: has_inducement (Reused from Gate 2)

The has_inducement tag is calculated by the Inducement Gate (Section 2.2). While the gate uses it as a binary pass/fail check, the tag is also stored on the POI for logging and analysis purposes. There is no additional Tier 3 scoring for inducement because the gate already handles it — POIs without inducement never reach the scoring phase.

4. Session VWAP Integration (New)

Volume Weighted Average Price (VWAP) is the benchmark price that institutional execution algorithms are literally programmed to track. When a fund manager instructs their desk to "buy 10,000 ES at VWAP or better," the algorithm fragments that order across the day, anchored to VWAP. This makes VWAP not just a technical indicator but a mechanical level that generates real institutional order flow throughout the session.

VWAP is fundamentally different from the Velez 200 SMA: the 200 SMA is a time-based average that weights all bars equally, while VWAP weights each price by the volume traded there. A price level where 50,000 contracts traded has far more influence on VWAP than a level where 500 traded. This makes VWAP a more accurate representation of true institutional cost basis.

4.1 VWAP Calculation

ELEMENT	SPECIFICATION
Formula	$\text{VWAP} = \frac{\text{Cumulative}(\text{Typical Price} \times \text{Volume})}{\text{Cumulative}(\text{Volume})}$, where Typical Price = (High + Low + Close) / 3. Calculated on a running basis from session open.
Session Anchor	ES: Resets at 6:00 PM EST (CME Globex session open). Crypto: Resets at 00:00 UTC.
Standard Deviation Bands	+1 SD / -1 SD: First deviation bands. Price between VWAP and $\pm 1\text{SD}$ is the "value area" — roughly 68% of the session's volume has transacted here. +2 SD / -2 SD: Second deviation bands. Price beyond $\pm 2\text{SD}$ is an extreme — only ~5% of volume transacts outside these bands. These represent deep institutional premium/discount.
Update Frequency	Updated on every new bar (2m chart, matching the Velez MA timeframe). Computationally trivial — two running sums and a division.
Module	Added to VelezMAModule (M08). The VWAP and SD calculations run alongside the existing 20 SMA and 200 SMA updates. No new module required.
Toggle	T36 — Session VWAP Integration. When OFF, VWAP scoring criterion returns 0. (Original v2.0 behavior.)

4.2 VWAP Scoring Logic (Tier 3)

CONDITION	SCORE	RATIONALE
LONG entry at or below -1 SD from VWAP	+1	Buying at a deep algorithmic discount. Price is below the level where 84%+ of today's volume transacted. Institutional VWAP algorithms are actively buying here.
SHORT entry at or above +1 SD from VWAP	+1	Selling at a deep algorithmic premium. Institutional VWAP algorithms are actively selling here.
LONG between VWAP and -1 SD	0	Acceptable. Below VWAP (discount) but not extreme. No bonus, no penalty.
LONG above VWAP (but passed Premium/Discount gate)	0	Above the session average price but still in the structural discount. VWAP provides no confirmation, but the structural gate already validated the location.

Note: VWAP scoring does not penalize trades that pass the Premium/Discount gate. The gate already ensures the trade is in the correct half of the structural range. VWAP adds a bonus when the trade is also at an extreme within today's volume distribution.

5. The Complete 17-Point Rubric

The complete scoring flow in v3.0 follows this exact sequence:

Gate 1 (Premium/Discount) → **Gate 2** (Inducement) → **Tier 1** (10 pts Core SMC+OF) → **Gate Check** (≥ 7?) → **Tier 2** (4 pts Velez) → **Tier 3** (3 pts Structural Quality) → **Grade**

5.1 Pre-Scoring Gates

#	GATE	LOGIC	IF FAIL	TOGGLE
G1	Premium / Discount	Longs must be in Discount (below 50% EQ of swing range). Shorts must be in Premium.	NO TRADE	T31
G2	Inducement Present	POI must have structural liquidity (minor swing lows/highs, equal levels) built in the approach leg.	NO TRADE	T32

5.2 Tier 1: Core SMC + Order Flow (10 Points) — Unchanged

#	PTS	CRITERION	QUICK CHECK	TOGGLE
1	+2	Daily/4H Trend Alignment	Trade direction matches macro bias? (Modified by Regime Filter.)	T01, T02
2	+2	Major Liquidity Sweep	PDH/PDL or session H/L just swept this session?	T05
3	+1	Fresh (Unmitigated) POI	First touch of this OB/FVG?	T04
4	+2	1m CHOH with Displacement	CHOH candle > 1.5× ATR + leaves FVG?	T06
5	+2	Order Flow Confirmation	CVD divergence + stacked imbalances?	T07
6	+1	Killzone Timing	Inside NY AM/PM or London/NY overlap?	T10

Tier 1 Maximum: 10 points. Minimum 7 required for Tier 2 evaluation.

5.3 Tier 2: Velez Momentum Layers (4 Points) — Unchanged

#	PTS	CRITERION	QUICK CHECK	TOGGLE
7	+1	20 SMA Halt Confluence	2m 20 SMA within POI zone?	T12
8	+1	Flat 200 SMA Confluence	Flat 2m 200 SMA within POI zone?	T13
9	+1	Elephant Bar Confirmation	First reaction candle = Elephant Bar?	T14

10	+1	20 SMA Micro-Trend Alignment	2m 20 SMA sloping + price on right side?	T15
----	----	------------------------------	--	-----

Tier 2 Maximum: 4 points.

5.4 Tier 3: Structural Quality (3 Points) — NEW

Tier 3 evaluates the structural quality of the POI itself and the intraday volume context. These criteria use the POI Quality Tags and VWAP data. Tier 3 is evaluated after Tier 2 (same as how Tier 2 follows Tier 1).

#	PTS	CRITERION	QUICK CHECK	TOGGLE
11	+1	Flip Zone	POI tagged is_flip_zone = true?	T33
12	+1	Sweep Zone	POI tagged is_sweep_zone = true?	T34
13	+1	VWAP Discount/Premium Confirm	Entry at -1 SD or better (longs) / +1 SD or better (shorts)?	T36

Tier 3 Maximum: 3 points. Combined Maximum (Tier 1 + Tier 2 + Tier 3): 17 points.

6. Updated Position Sizing & Grade Thresholds

With the rubric expanded to 17 points, grade thresholds must be recalibrated to maintain the same selectivity. The principle: A+ should remain rare (the top ~10–15% of setups). B should be the most common grade for taken trades. C should still reject roughly 40–50% of evaluated setups.

GRADE	SCORE	RISK	POSITION SIZE	RATIONALE
A+	15 – 17	Full Risk	1.5% – 2.0% of account	The Holy Grail. All three tiers firing, both gates passed, POI has institutional backing. Max 1–2 of these per week expected.
A	13 – 14	Standard Risk	1.0% – 1.5% of account	Strong setup. Core SMC + OF confirmed, Velez contributing, possibly missing one Tier 3 criterion. This should be the bread-and-butter grade for profitable trading.
B	10 – 12	Half Risk	0.5% – 1.0% of account	Solid setup but missing some confluence. Common grade. Still profitable in aggregate but with wider variance per trade.
C	< 10	NO TRADE	—	Insufficient confluence. Trade does not meet the minimum quality threshold. Skip and wait for a better setup.

OVERRIDE RULES (Unchanged from v2.0)

Synthetic MA POI cap: Any trade at a Synthetic MA POI is capped at B grade regardless of total score.
 Type B Cascade Override: During an active Sudden Move Type B classification, position size is reduced to 50% of the graded amount.
 Tier 1 Gate Check: Tier 1 must score ≥ 7 before Tier 2 or Tier 3 are evaluated. This core gate is unchanged.

7. New Feature Toggles (T31 – T38)

ID	FEATURE	LAYER	DEFAULT	DEPENDS ON	WHAT HAPPENS WHEN OFF
T31	Premium/Discount Gate	Structure	ON	T01	Gate bypassed. All POIs eligible regardless of position within swing range.
T32	Inducement Gate	Structure	ON	T05	Gate bypassed. POIs without inducement are still traded.
T33	Flip Zone Detection	Structure	ON	— (root)	Flip Zone tag always false. Tier 3 Flip Zone criterion scores 0.
T34	Sweep Zone Detection	Structure	ON	— (root)	Sweep Zone tag always false. Tier 3 Sweep Zone criterion scores 0.
T35	Market Phase Filter	Structure	OFF	T01, T31	No Phase A–D categorization. Trades evaluated without internal structure alignment check. (Set OFF by default — enable after Premium/Discount gate proves edge in backtesting.)
T36	Session VWAP Integration	Velez	ON	— (root)	No VWAP calculation. Tier 3 VWAP criterion scores 0.
T37	MBO Iceberg Detection	Execution	OFF	T07, T08	Absorption detection uses existing mbp-10 inference only. No MBO schema subscribed. (Set OFF by default — enable after v1.0 if absorption false-positive rate is too high.)
T38	Volume Profile Entry Refinement	Execution	ON	T17	Limit entry placed at 1m FVG midpoint only. No LVN-based entry tick refinement.

NOTE ON DEFAULT-OFF TOGGLES

T35 (Market Phase Filter) and T37 (MBO Iceberg Detection) are set to OFF by default. This is intentional. T35 overlaps significantly with the Premium/Discount gate (T31) — we should test T31 alone first and only enable T35 if backtesting shows additional edge. T37 requires a DataBento schema upgrade (mbp-10 to mbo) which increases data costs significantly. It should only be enabled after v1.0 proves that absorption detection needs more precision than the current T&S inference approach provides.

8. New Function Specifications

The following functions must be added to existing modules to support the v3.0 additions.

8.1 Additions to HTFStructureMapper (M03)

FUNCTION	INPUTS	OUTPUTS	DESCRIPTION & RATIONALE	TOGGLE
calculate_equilibrium()	swing_high: float swing_low: float	equilibrium: float is_premium: bool (given current price) is_discount: bool	Calculates the 50% midpoint of the active structural swing range. Returns the equilibrium price and whether the current price is in premium or discount. Called once per session and after any new 4H/15m swing point forms. The active swing range is defined as the most recent unfilled structural impulse (the swing high/low pair that has not yet been fully retraced).	T31
evaluate_premium_discount_gate()	poi: POI trade_direction: str equilibrium: float	bool (gate_passed)	The Pre-Scoring Gate. For longs: returns true only if POI midpoint < equilibrium. For shorts: returns true only if POI midpoint > equilibrium. If false, trade is immediately rejected.	T31

8.2 Additions to POIMapper (M04)

FUNCTION	INPUTS	OUTPUTS	DESCRIPTION & RATIONALE	TOGGLE
scan_inducement()	poi: POI approach_leg_bars: list[Bar]	has_inducement: bool inducement_levels: list[float]	Scans the structural leg between the current price and the POI for minor swing highs/lows, equal levels, and visible structural points. For bullish POIs, looks for sell-side liquidity (retail stops below lows) built above the zone. Returns false if the approach is a straight push with no pullbacks. Also returns the specific price levels where inducement was identified, for logging.	T32

detect_flip_zone()	zone_history: list[POI] recent_bars: list[Bar]	bool (is_flip_zone) FlipZoneMetadata	When a new OB is identified, checks if it formed by overpowering a previously valid zone: (1) find the old zone that was broken, (2) verify a reaction occurred at that zone before it failed, (3) verify the failure (no structural break in expected direction), (4) verify displacement on the break. Returns metadata including the broken zone ID for logging.	T33
detect_sweep_zone()	ob_candles: list[Bar] historical_structure: list[SwingPoint]	bool (is_sweep_zone) swept_level: float	When a new 15m OB is identified, looks left to check if the OB candle(s) took out a previous structural level at the moment of formation. For bullish OBs: did the candle low sweep a prior swing low? For bearish OBs: did the candle high sweep a prior swing high? Returns the swept level for logging.	T34
evaluate_inducement_gate()	poi: POI	bool (gate_passed)	The Pre-Scoring Gate. Returns true if poi.has_inducement = true. If false, trade is immediately rejected. Only called after Gate 1 (Premium/Discount) has passed.	T32

8.3 Additions to VelezMAModule (M08)

FUNCTION	INPUTS	OUTPUTS	DESCRIPTION & RATIONALE	TOGGLE
update_vwap()	bar: Bar (2m)	vwap: float sd1_upper: float sd1_lower: float sd2_upper: float sd2_lower: float	Updates the Session VWAP and standard deviation bands on each new 2m bar. Running calculation: $\text{cumulative}(\text{TP} \times \text{Vol}) / \text{cumulative}(\text{Vol})$. SD is calculated as the standard deviation of $(\text{TP} - \text{VWAP})$ weighted by volume. Resets at session open (ES: 6PM EST, Crypto: 00:00 UTC).	T36
check_vwap_confluence()	entry_price: float trade_direction: str vwap: float sd1_lower: float sd1_upper: float	int (0 or 1)	Returns +1 if long entry is at or below -1 SD, or short entry is at or above +1 SD. Returns 0 otherwise. This criterion rewards trades taken at extreme intraday institutional discount/premium levels.	T36

8.4 Additions to ExecutionManager (M10)

FUNCTION	INPUTS	OUTPUTS	DESCRIPTION & RATIONALE	TOGGLE
refine_entry_with_vp()	fvg_price: float approach_leg_bars: list[Bar] trade_direction: str	refined_entry: float	After identifying the 1m FVG for limit entry, calculates a micro Volume Profile of the approach leg and finds the nearest LVN within the FVG zone. If the LVN is inside the FVG boundaries, uses the LVN tick as the limit price (tighter entry). If the LVN is outside the FVG, defaults to FVG midpoint. This refinement can improve average R:R by several ticks per trade.	T38

8.5 Future: MBO Iceberg Detection (M07) — Deferred to v3.1

FUNCTION	INPUTS	OUTPUTS	DESCRIPTION & RATIONALE	TOGGLE
detect_iceberg()	mbo_stream: list[MBOEvent] price_level: float window_seconds: float	bool (iceberg_detected) reload_count: int avg_reload_size: float	Monitors the MBO stream for individual limit orders being repeatedly refreshed at the same price level. If the same price shows 5+ order reloads within the window (each reload = new order appearing after previous was filled), iceberg is confirmed. Returns the reload count and average size. Requires DataBento mbo schema (higher cost than mbp-10).	T37

9. Configuration File Additions

The following sections are added to the existing TOML configuration file:

```
# — v3.0 ADDITIONS —

[toggles.structure]      # append to existing section
T31_premium_discount_gate = true
T32_inducement_gate      = true
T33_flip_zone_detection  = true
T34_sweep_zone_detection = true
T35_market_phase_filter  = false  # OFF by default

[toggles.velez]          # append to existing section
T36_session_vwap         = true

[toggles.execution]      # append to existing section
T37_mbo_iceberg_detection = false  # OFF by default (cost)
T38_vp_entry_refinement  = true

[constants.premium_discount]
swing_range_timeframe = "4H"      # Timeframe for swing range
use_15m_for_intraday  = true      # Also calc 15m EQ for tighter filter

[constants.inducement]
min_structural_points = 1          # Min inducement levels required
scan_lookbackBars    = 50         # How far left to scan on 15m chart

[constants.flip_zone]
min_displacement_ratio = 1.5      # ATR mult for break displacement
reaction_min_bars      = 2        # Min bars of reaction before failure

[constants.sweep_zone]
lookback_swings       = 10        # How many prior swing points to check
sweep_threshold_ticks = 2         # How far past the level to count as sweep

[constants.vwap]
session_anchor_es      = "18:00"  # 6PM EST (CME Globex open)
session_anchor_crypto  = "00:00"  # Midnight UTC
sd_confirmation_level  = 1         # SD level needed for +1 point (1 or 2)

[constants.vp_entry]
use_lvn_within_fvg     = true      # Refine limit to LVN tick if within FVG
fallback_to_fvg_mid    = true      # Use FVG midpoint if no LVN found
```

10. New Backtesting Profiles

Add these profiles to the existing backtesting suite. Each answers a specific research question about the v3.0 additions.

PROFILE	TOGGLES CHANGED	RESEARCH QUESTION	EXPECTED INSIGHT
v3 Baseline	All ON (new defaults)	What is the full v3.0 performance?	New benchmark. Compare against v2.0 Baseline to measure total impact of SMC refinements.
No Gates	T31, T32 OFF	Do the pre-scoring gates improve results?	Measures whether blocking Premium trades and no-inducement trades reduces losses. Key metric: max drawdown reduction vs. v3 Baseline.
No Tier 3	T33, T34, T36 OFF	Does Tier 3 structural quality scoring add edge?	Reverts to 14-point rubric (v2.0 behavior) but keeps gates active. Isolates the scoring expansion from the gate improvements.
Gates Only	T33, T34, T36 OFF	Are the gates alone sufficient?	Tests whether Premium/Discount + Inducement gates provide most of the v3.0 improvement. If this performs similarly to v3 Baseline, Tier 3 criteria are refinements rather than necessities.
EQ Only	T32 OFF (keep T31)	Is Premium/Discount the single highest-value addition?	Isolates the Premium/Discount gate from the Inducement gate. If this already captures 80%+ of the drawdown improvement, deploy Gate 1 first.
VWAP Test	T33, T34 OFF (keep T36)	Does VWAP scoring add edge over structural quality alone?	Tests VWAP as the sole Tier 3 criterion. If VWAP +1 point correlates with higher win rate, institutional volume-weighting is adding real information.

11. Complete Scoring Quick Reference

#	PTS	CRITERION	QUICK CHECK	TIER	TOGGLE
G1	GATE	Premium / Discount	POI in correct half of swing range?	Gate	T31
G2	GATE	Inducement Present	Liquidity built in front of POI?	Gate	T32
1	+2	Daily/4H Trend Alignment	Macro bias match? (Regime Filter modifies)	T1	T01, T02
2	+2	Major Liquidity Sweep	PDH/PDL or session H/L swept?	T1	T05
3	+1	Fresh POI	First touch?	T1	T04
4	+2	1m CHOCH + Displacement	CHOCH > 1.5× ATR + FVG?	T1	T06
5	+2	Order Flow Confirmation	CVD divergence + stacked imbalances?	T1	T07
6	+1	Killzone Timing	Active session window?	T1	T10

7	+1	20 SMA Halt	2m 20 SMA within POI?	T2	T12
8	+1	Flat 200 SMA	Flat 2m 200 SMA within POI?	T2	T13
9	+1	Elephant Bar	Reaction candle = Elephant Bar?	T2	T14
10	+1	20 SMA Micro-Trend	Slope + price aligned?	T2	T15
11	+1	Flip Zone	POI is a validated Flip Zone?	T3	T33
12	+1	Sweep Zone	POI swept structure at birth?	T3	T34
13	+1	VWAP SD Confirmation	Entry at ± 1 SD or deeper?	T3	T36

2 Gates | 13 Scoring Criteria | 17 Maximum Points | 38 Feature Toggles

E N D O F D O C U M E N T

FLOF Matrix — Confluence Grading Rubric v3.0 (SMC Structural Refinement Update)

This document supersedes Confluence Grading Rubric v2.0. Read in conjunction with: Engineering Specification v1.0, Sudden Move Policy, and HTF MA Integration & Feature Toggle System.