PWA Kit Launch – Performance Confidence Summary

Purpose: Provide assurance that lower PageSpeed Insights (PSI) scores on staging do not reflect real user experience, and confirm readiness to launch.

1. PSI on Staging $\neq$ Real-World Experience
• PSI uses synthetic tests on a throttled mobile network, often hitting uncached HTML and assets.
• Staging lacks CDN edge caching, Dynamic Imaging, and Service Worker caching.
• Production will see reduced TTFB and faster LCP once CDN caching and SW are active.

2. Service Worker Behavior
• Disabled on staging to prevent stale cache and QA issues.
• In production, it pre-caches static assets and uses runtime caching for HTML/images.
• Dramatically improves repeat-visit speed and offline resilience.

3. Key Benefits PWA Kit Adds (Not Captured by PSI)

Benefit	Why PSI Misses It
Instant SPA navigations	PSI tests only first load
Offline & cache resilience	Not part of synthetic test
Edge & browser caching	Not simulated
App-like UX	Qualitative, not measured

4. Post-Launch Optimization Roadmap
• Weeks 1–2: Enable full CDN/SW caching, gather RUM data.
• Weeks 3–6: Tune LCP/INP/CLS (Dynamic Imaging, fonts, code splitting).
• Ongoing: Lighthouse CI checks and Core Web Vitals monitoring.

5. Go-Decision Summary
• Architecture is stable, SEO-safe, and performance-tunable.
• PSI staging scores are temporary diagnostics, not failure indicators.
• Launch now, measure field data, and optimize iteratively.

Executive Message:
"PSI scores on staging are a synthetic snapshot. In production, caching and Service Worker activation will elevate both perceived and measured performance. Launch now with confidence, gather real-world data, and continuously improve."