## **ReAlign (PRD) 2.0**

May, 24, 2025

Version.2.0

**1. Introduction**

* **1.1. Purpose:** This document outlines the product requirements for Phase 2.0 of the ReAlign platform. ReAlign is designed to be a comprehensive, AI-powered solution that streamlines and automates the loss mitigation process (short sales and loan modifications) for homeowners, negotiators, and real estate agents.
* **1.2. Product Vision (Brief):** To be a transformative platform that actively guides users, automates complex paperwork, fosters collaboration among all stakeholders, and provides essential education within the loss mitigation ecosystem.
* **1.3. Phase 1 Goals & Objectives:**
  + Establish a unified platform structure with three core modules: Tracker, Maker, and Advisor.
  + Deliver significant new utility through the "Maker" (document/calculation tools) and "Advisor" (guidance/coaching) modules.
  + Integrate these new modules with the foundational capabilities of the existing "ReAlign:Tracker MVP."
  + Introduce AI-powered assistance for form-filling, basic guidance, and educational delivery.
  + Provide essential tools to address key pain points for negotiators, agents, and homeowners.
  + Test the feasibility of an experimental AI agent for basic servicer follow-up calls.
  + Ensure a secure, user-friendly platform that builds trust and encourages adoption.

**2. Target Users & Personas**

* **2.1. Homeowners (Distressed):**
  + **Needs:** Clear, step-by-step guidance; simplification of complex processes and paperwork; understanding of their options; a sense of control and support; secure handling of their sensitive information.
  + **Pain Points:** Feeling overwhelmed and stressed; confusion by financial jargon and lender requirements; uncertainty about where to start or if they qualify for help; difficulty gathering and preparing numerous documents accurately.
* **2.2. Short Sale Negotiators (e.g., "Nadia"):**
  + **Needs:** Efficient document collection, preparation, and management; streamlined communication with all parties; tools to manage multiple complex cases effectively; ability to provide clear updates.
  + **Pain Points:** Time-consuming manual paperwork; chasing documents from homeowners; answering repetitive questions; managing diverse and evolving lender requirements; lack of centralized case information.
* **2.3. Real Estate Agents (Listing & Buyer's):**
  + **Needs:** Better understanding of the short sale/loan modification process; ability to guide clients effectively; access to reliable training and information; real-time updates on transaction progress.
  + **Pain Points:** Lack of specialized knowledge in loss mitigation; difficulty explaining complex processes to clients; deals falling through due to process inefficiencies or delays; reputational risk from poorly managed short sales.

**3. Platform Modules & Phase 1 Features**

ReAlign Phase 1 will be organized into three primary modules accessible via the main navigation: **Tracker, Maker, and Advisor.**

* **3.1. Core Platform Features (Underpinning all Modules):**
  + **3.1.1. User Authentication & Profile Management:** Secure registration, login (email/password, consider secure social login options), and profile management for all user types (Homeowner, Negotiator, Agent). Role-Based Access Control (RBAC) to ensure appropriate data visibility and feature access.
  + **3.1.2. Unified Dashboard:** A central dashboard providing a high-level overview. For negotiators/agents: a list of active cases with key statuses. For homeowners: a clear view of their current case status and next steps.
  + **3.1.3. Secure Document Hub:**
    - Secure upload (PDF, DOCX, JPG, PNG, etc.), storage, and organization (tagging, case-specific folders) of all relevant documents.
    - Users can upload their own documents here (e.g., pay stubs, bank statements) before or alongside using "Maker" tools.
    - Documents generated by the "Maker" suite will also be stored and accessible here.
    - Version control for documents generated within the platform is a desirable future enhancement.
  + **3.1.4. In-App Notes & Task Management (Basic):**
    - Ability for users (primarily negotiators, but shareable with homeowners if appropriate for specific notes) to add timestamped notes to a case file.
    - Simple task tracking associated with a case (e.g., "Follow up on X," "Upload Y document").
* **3.2. Module 1: Tracker**
  + **3.2.1. Foundation:** For Phase 1, the "Tracker" module will primarily integrate and provide access to the functionalities of the existing "ReAlign:Tracker MVP." This includes:
    - Negotiator-driven updates on transaction phases.
    - Document status tracking (for documents managed within the Tracker system).
    - Tracker notes for communication among case parties.
    - Public-facing tracker view via magic links for agents and homeowners (as per MVP).
    - Weekly email digests (as per MVP).
    - Mechanism for negotiators to add homeowners, agents (listing/buyer's), and other relevant parties to a case, defining their access/notification preferences (e.g., buyer agents receiving weekly updates).
  + **3.2.2. Phase 1 Enhancements/Integrations:**
    - **Link to "Maker" Documents:** Documents generated or finalized within the "Maker" suite should be easily associated with the relevant case in the "Tracker" module, updating document checklists or status where applicable.
    - **Unified Case View:** Ensure that case information is consistent and seamlessly accessible across Tracker, Maker, and Advisor modules. For instance, case details entered in Tracker should be available when using Maker tools for that case.
* **3.3. Module 2: Maker (Document Creation & Calculation Suite)**
  + **Title:** Tools within this suite will be clearly branded (e.g., "Short Sale Package Maker," "Loan Mod Application Maker," "Document Drafter," "Financial Calculator").
  + **3.3.1. Preparatory Tools:**
    - **Dynamic Document Checklist Generator:** Users answer a few basic questions (e.g., employment type, type of hardship, loan type if known), and the system generates a checklist of commonly required documents for short sales or loan modifications. This helps users understand what to gather.
  + **3.3.2. Form Makers (Template-Based with AI-Assisted Guidance):**
    - **HUD-1 / Closing Disclosure (CD) Estimator:** Interactive template allowing users to input figures to generate an *estimated* HUD-1 or CD. Clearly labels output as an "Estimate for Discussion Purposes Only." AI voice/chat help available for each field.
    - **IRS Form 4506-C Maker:** Digital template of the official IRS Form 4506-C. Users fill fields with clear, step-by-step guidance and contextual AI help (voice/chat). Output as a completed, downloadable PDF. *No direct IRS API integration for automated submission in Phase 1.*
    - **Borrower Financial Statement (BFS) Maker:** A standardized, comprehensive digital form to capture homeowner income, expenses, assets, and liabilities. This will be a ReAlign-standardized form, designed to capture information commonly required across various lender UBAs and financial intake forms. Output as structured data and a professionally formatted PDF. Contextual AI help per field.
    - **Lender-Specific Form Templates (Curated Library):**
      * A library of the most commonly encountered *static* PDF templates from a select number (e.g., top 10-15) of major mortgage servicers (e.g., their specific financial worksheet, hardship affidavit, UBA if a specific version is consistently used).
      * Users can select a template. If the PDF is fillable, they can complete it within the platform or download it. The ReAlign BFS can serve as a primary data entry point, and future phases might explore mapping this data to these templates.
      * *Phase 1 Focus:* Providing access and guidance for these common templates, not dynamic AI generation of *any* lender's unique form.
  + **3.3.3. Document Drafters (Template-Driven with Guided Input & AI Assistance):**
    - **Letter of Explanation (LOE) Drafter:** Guides users through a series of questions about their hardship circumstances, financial situation, and attempts made to resolve the delinquency. The tool uses pre-defined, best-practice templates and structures to assemble a coherent and compelling LOE. Simple AI (e.g., basic NLG for sentence structuring, tone suggestions based on hardship type) can be explored if feasible on Replit for Phase 1. Otherwise, relies on rich, branching templates. Contextual AI help available.
    - **Borrower Contribution Letter Drafter:** Similar template-driven approach for drafting letters regarding borrower contributions, offers, or intent.
    - **Other Common Document Templates:** Provide high-quality templates for common ancillary documents like Authorization to Release Information, Dodd-Frank Certification, request for valuation, etc.
  + **3.3.4. Financial Calculators:**
    - **DTI Calculator:** Input fields for gross monthly income and all relevant debts; calculates front-end (housing) and back-end (total debt) DTI ratios. Shows calculation breakdown and general lender thresholds (for informational purposes).
    - **Insolvency Calculator:** User inputs total assets and total liabilities. Calculates net worth to help determine insolvency status, which can be relevant for certain loss mitigation outcomes.
    - **Pro-Rated Property Tax Calculator:** Estimates property tax proration for a potential closing date, based on annual tax amount and specified closing date.
    - **Estimated Net Proceeds Calculator (Short Sale Focus):** Inputs for property offer price, all mortgage balances, estimated closing costs (commissions, title, escrow, etc.), other liens/judgments. Calculates estimated net proceeds to the lender(s) and potential seller closing costs or required contributions.
  + **3.3.5. AI-Powered Assistance (Integrated across "Maker" Tools):**
    - **AI Voice/Chat Interface for Form Field Help:** Users can click a help icon next to any form field (in Form Makers, Drafters, Calculators) and ask a question via text chat or voice (using browser speech-to-text). The AI (backed by NLU and a knowledge base of field definitions, common questions, and compliance pointers) provides a concise explanation or guidance for that specific field.
  + **3.3.6. Document Packaging & Download:**
    - Users can select completed forms and documents generated/uploaded within ReAlign for a specific case.
    - The system compiles these into a single, organized, downloadable ZIP archive, suitable for submission to lenders.
    - Option to generate a customizable cover sheet listing the contents of the package.
    - *No direct electronic submission to lenders in Phase 1.* User downloads and submits manually (email, fax, lender portal).
* **3.4. Module 3: Advisor (Guidance, Coaching, & Information)**
  + **3.4.1. Simplified "Am I Eligible?" Screener (Pre-Qualification Guidance):**
    - An interactive questionnaire for homeowners asking high-level questions (e.g., "Have you missed payments?", "What is your primary hardship reason?", "Do you want to stay in your home?").
    - Based on answers, it provides *general, non-binding guidance* on which path (short sale vs. loan mod) might be more aligned with their situation and what basic documentation they *might* generally need. Clearly state this is not an approval or denial.
  + **3.4.2. Simplified Process Explainer Tool:**
    - Visual and textual guides explaining the typical stages, key milestones, roles of different parties, and general timelines for short sales and loan modifications. Can use simple flowcharts, short non-interactive avatar-narrated video clips, or clear textual summaries.
  + **3.4.3. Educational Content & Coaching (Foundation for CE Credits/Certification):**
    - **Course Material Delivery:** Short educational modules covering key aspects of loss mitigation (e.g., "Understanding Short Sales," "Navigating Loan Modifications," "Key Lender Communications," "Understanding Financial Worksheets"). Primarily targeted at real estate agents, but relevant content can be available to homeowners.
    - **Non-Interactive AI Avatars:** Content delivered by a selection of pre-rendered, non-interactive AI avatars (using text-to-speech for narration from professionally written scripts). This provides a more engaging format than plain text without the complexity of real-time interactive avatars for Phase 1.
  + **3.4.4. AI Chatbot & Curated Knowledge Base:**
    - **Centralized FAQ/Knowledge Base:** A comprehensive, searchable repository of common questions, answers, best practices, and definitions related to loss mitigation. This will be initially populated by expert input (e.g., Nadia's expertise) and expanded over time.
    - **AI Chatbot:** Accessible within the Advisor suite. Primarily answers questions by querying the curated Knowledge Base. Uses NLU to understand user queries. If no answer is found, it can suggest rephrasing, point to relevant educational modules, or (for negotiators/agents) suggest escalating to a human expert if a channel exists.
  + **3.4.5. EXPERIMENTAL FEATURE: AI Agent Phone Call Follow-Up:**
    - **(Same as detailed in previous PRD, under "Communication & Submission" - see section 3.5.2 in prior response). This is a high-risk, experimental feature for Phase 1 with strictly limited scope, focused on testing basic outbound scripted call feasibility for simple confirmations.** It would be initiated by a negotiator user, likely from within the "Tracker" or "Maker" context after a package has been notionally submitted.

**4. User Experience (UX) & Design Principles**

* **Unified & Intuitive Interface:** Clear navigation between Tracker, Maker, and Advisor modules.
* **Simplicity & Clarity:** Especially for homeowners. Avoid jargon or provide instant explanations.
* **Guided Journeys:** Step-by-step assistance, progress indicators, clear calls to action.
* **Transparency:** Clearly delineate AI-generated content/advice and its limitations.
* **Trust & Security:** Professional design, visible security assurances (padlocks, SSL indicators, privacy statements).
* **Accessibility:** Adherence to WCAG 2.1 AA guidelines.
* **Efficiency:** Streamline common tasks for negotiators and agents.

**5. Technical Considerations (Replit Environment)**

* **5.1. Architecture:**
  + **Frontend:** HTML, CSS, JavaScript. Consider a lightweight, modern framework compatible with Replit's strengths (e.g., React, Vue, or Svelte) if team expertise allows.
  + **Backend:** Python (Flask or Django recommended for Replit).
  + **Database:** Replit DB for initial development; evaluate limitations for production with PII. Consider external managed PostgreSQL or similar for production if Replit DB has constraints on security, backups, or querying for financial data.
  + **AI Services (Leverage APIs):**
    - **Conversational AI (Form Help, FAQ Bot):** Google Dialogflow, AWS Lex, Azure Bot Service, or open-source NLU libraries (e.g., Rasa if self-hosting part is feasible on Replit or via connected services).
    - **Voice Interface:** Browser SpeechRecognition API (for STT) & SpeechSynthesis API (for TTS).
    - **Avatar Narration:** Services like Synthesia, Hour One, or similar for generating avatar videos from scripts if not using simpler animated avatars with standard TTS from AWS Polly, Google Cloud TTS.
    - **AI Agent Phone Call (Experimental):** Twilio Programmable Voice + Functions/Studio, or similar programmable telephony APIs, coupled with a conversational AI service for basic response understanding.
* **5.2. Modularity:** Develop Tracker, Maker, and Advisor functionalities as distinct modules with clear APIs between them if necessary, even if served from a monolithic backend initially.
* **5.3. Security on Replit:**
  + **Crucial:** Deeply investigate and adhere to Replit's security best practices for applications handling highly sensitive PII and financial data.
  + Secure environment variable management for API keys, database credentials, and other secrets.
  + Data encryption: HTTPS/TLS for data in transit. AES-256 (or equivalent) for sensitive data at rest in the database.
  + Input validation, output encoding (prevent XSS), parameterized queries (prevent SQLi).
  + Implement robust access controls and audit trails for sensitive operations.
* **5.4. Data Storage & Backup:** Automated, regular, and secure backups of the database are essential. Test restore procedures.
* **5.5. Scalability:** Design with good practices. Replit's infrastructure needs to be assessed for production load; be prepared to migrate to more scalable hosting if the app grows significantly.

**6. Data Management & Privacy**

* **6.1. Data Handled:** User credentials, PII of all parties, detailed financial information, hardship details, generated legal/financial documents, communication logs.
* **6.2. Compliance:** Adherence to relevant data privacy laws (e.g., CCPA, potentially others depending on user locations). Develop a clear, comprehensive privacy policy and terms of service.
* **6.3. Security Measures:** As detailed in 5.3. Multi-factor authentication (MFA) should be considered for negotiator/admin accounts.
* **6.4. User Consent:** Obtain explicit, granular user consent for data collection, processing, storage, and AI-feature interactions. Clear opt-out mechanisms where appropriate.

**7. Non-Functional Requirements**

* **7.1. Performance:** Fast load times (e.g., <3 seconds for key pages), near real-time calculator responses, quick document generation.
* **7.2. Reliability:** High uptime (target 99.9%). Accuracy of all calculations and document templates is paramount. Data integrity.
* **7.3. Usability:** Easy to learn and use for all target personas. Minimize cognitive load.
* **7.4. Security:** As detailed previously; no critical vulnerabilities.
* **7.5. Maintainability:** Well-structured, commented code. Modular design. Good test coverage.

**8. Success Metrics for Phase 1**

* **Adoption & Engagement (Overall & Per Module):**
  + Number of registered users (homeowners, negotiators, agents).
  + DAU/MAU per module.
  + Average session duration; feature usage frequency within Maker and Advisor.
  + Number of cases actively managed through the integrated platform.
* **"Maker" Suite Utility:**
  + Number and type of documents generated/drafted.
  + Calculator usage and task completion rates.
  + User satisfaction with AI form-filling assistance.
* **"Advisor" Suite Engagement:**
  + Views/completion rates of educational modules and explainers.
  + Usage of AI chatbot and FAQ; quality of answers (user feedback).
  + Usage of the "Am I Eligible?" screener.
* **Experimental AI Agent Phone Call:**
  + Technical success: Call connection rate, script delivery rate.
  + Informational success: Rate of capturing a discernible basic response.
  + Cost per successful interaction. Detailed logging of failure points for iteration.
* **Overall User Satisfaction:** NPS, CSAT surveys, qualitative feedback (interviews, support tickets).

**9. Future Considerations (Post-Phase 1 Roadmap Tease)**

* **Maker:** True dynamic AI generation of lender-specific document packages; intelligent data pre-fill across forms; advanced validation.
* **Advisor:** Interactive AI coaching; personalized learning paths; CE credit integration; more sophisticated AI guidance.
* **Tracker:** Deeper workflow automation; predictive analytics on case timelines; enhanced collaborative features.
* **Platform:** Direct, secure API integrations with lenders/servicers (highly complex, requires partnerships); advanced AI agent capabilities for communication and negotiation assistance.