

ALBERT LANE DIGITAL INFRASTRUCTURE

Formal Business Plan

Sovereign Technology Estate · Civic Infrastructure · Portland to Boardman Rebuild Methodology

Legal Name	Albert Dale Lane
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Jurisdiction	Oregon (physical & primary development base)
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An eleven-repository sovereign technology estate — civic infrastructure, forensic tooling, geospatial intelligence, a universal integration gateway, and a 3D analytics platform — engineered end-to-end as a single, cross-referenced system of record.

1. Executive Summary

Albert Lane Digital Infrastructure is a sovereign technology estate comprising eleven independently deployable repositories that form a single, cross-referenced system of record. The estate delivers civic infrastructure tooling, forensic intellectual-property protection, geospatial intelligence derived from physical law, a universal integration gateway, a 3D volumetric analytics platform (MacroHarder), a sovereign desktop browser, local community journalism, and procurement/permit systems designed for direct citizen and government use.

The core thesis is **ownership rather than rental** of digital infrastructure: architecture, data, and identity remain under the control of the independent engineer and the communities they serve. Every major service exists because commercial equivalents were judged inadequate, extractive, or untrustworthy.

Grounded use-case: rapid, provenance-tracked digital-to-physical infrastructure deployment for resilience scenarios, including Cascadia Subduction Zone preparedness and the conceptual Portland-to-Boardman corridor rebuild methodology. The long-term vision transitions the same substrate into mixed-reality (AR/VR) collaborative city-building and human–robot construction under identical audit, capability-gating, and cryptographic provenance standards.

Current Status (July 2026)

- 11 repositories with shared phase-tracking protocol, attribution standard, and XML intelligence pipeline.
- 53+ passing Rust unit tests, 55+ CI workflows, security baseline modernized 2026-07-09.
- Live Cloudflare Workers / D1 / R2 resources provisioned; Tauri 2.0 desktop targets.
- Novel design systems implemented and documented (5D cell addressing, capability-gated MCP host, SOV-RULES taxonomy guard, cycle governor, provenance suite, Node Certification Ledger, AER protocol, and others).
- Primary construction via autonomous agent workflows with human architectural oversight; GitHub Enterprise organization established.

Capital Ask: Seed / pre-Series A capital to sustain multi-cloud and edge deployment, expand live infrastructure, accelerate go-to-market for the highest-readiness modules, and fund the first public capability-gated releases. Detailed use-of-funds appears in Section 7.

2. Company Description

Mission

Build sovereign digital infrastructure that a single independent engineer—and ultimately the communities it serves—can own outright: architecture, data, and identity, rather than rent from platforms that can revoke access, sell data, or disappear.

Legal Structure & Location

Sole proprietorship / independent-engineer entity under Albert Dale Lane (EIN 41-3119079). GitHub Enterprise organization (*/albert-lane-org*) and three Cloudflare domains are already established. Future conversion to LLC or public-benefit structure will be evaluated post-funding for governance scalability. Physical base: Oregon. Digital estate: multi-cloud (Cloudflare primary) plus local/edge devices with planned expansion.

Why It Exists

Independent verification, under real-world constraint, that one engineer's output can constitute a serious, tested, documented body of work rather than a portfolio of demos. The estate is the substrate for a future in which digital and physical infrastructure are the same infrastructure—augmented and virtual reality as the collaborative interface for citizens and autonomous systems building cities under auditable, provenance-tracked standards.

3. Market Analysis

The estate addresses multiple overlapping markets. Selected 2025–2026 reference points:

Segment	Scale / Trajectory (illustrative)
GovTech / Digital Government	Hundreds of billions annually; broader market projections extend toward multi-trillion scale by the mid-2030s.
Geospatial Analytics	~USD 93–125 B (2025/26 range); projected USD 196–340 B by early-to-mid 2030s (CAGR ~10–13 %+).
Government Procurement Software	Estimates in the low-to-mid single-digit billions with mid/high-single to low-double-digit CAGR; underlying state-and-local procurement spend is measured in trillions.
Civic Engagement / Citizen Services AI	Multi-billion and growing rapidly (high-teens to 40 %+ CAGR ranges appear in recent reports).
Local / Hyperlocal News & Community Media	Advertising + membership models remain viable; digital-first local outlets continue to demonstrate revenue pathways.
Construction / Infrastructure AR–VR / XR	High-growth segment (commonly 20–28 %+ CAGR); expanding from low-single-digit billions toward tens of billions.

Target Customers

Citizens (direct access to procurement, permits, terrain intelligence, local news); municipal, county, and state agencies (Oregon focus first, Cascadia resilience narrative); civic utilities and infrastructure operators; independent developers and organizations seeking non-extractive integration via the lane-mcp gateway and capability-gated modules.

Competitive Positioning

Differentiation rests on sovereignty, end-to-end provenance, zero third-party map-API dependence for core terrain intelligence, a capability-gated module host, and explicit design for eventual AR/VR and robotics integration. Commercial incumbents optimize for platform lock-in and data extraction; this estate optimizes for ownership and auditability.

Cascadia / Resilience Angle

Oregon and the broader Pacific Northwest face quantifiable Cascadia Subduction Zone risk (magnitude 8–9 scenarios with multi-minute shaking, infrastructure failure, fuel-hub vulnerability, and bridge/water-system exposure). The Portland-to-Boardman conceptual corridor and rapid-deployment civic tooling provide a concrete, place-based demonstration rather than abstract smart-city rhetoric.

4. Organization & Management

Founder: Albert Dale Lane — Federal whistleblower (SEC, IC3, OSHA, Oregon Employment Department, BOLI, IRS filings referenced in estate documentation). Architect and rights holder of the entire estate.

Core Contributors: Primary construction via autonomous agent pipelines (Anthropic Claude) under human architectural oversight. Additional engineering contributions from distributed sources. Future advisory capacity noted for external consultants as relationships develop.

Governance Intent: Capability-gated public interfaces from day one so non-engineers can participate. Long-term trajectory toward collective, non-coercive contribution to both digital blueprints and physical construction under the same provenance standards.

5. Products & Services

Four product layers plus a cross-cutting shared protocol. Each repository is independently deployable, with its own CI pipeline, license, phase roadmap, and test suite.

Repository	Layer	Description
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/macroharder	B – Analytics	Flagship 3D volumetric workbook (column, row, layer + tick/escape). Adjustable dashboard UI + capability-gated MCP module host.
/sqlxml	A – Critical Path	XML-native intelligence pipeline over PostgreSQL + R2; taxonomy guard on every write; self-resetting cycle governor.
/lane-mcp	A – Gateway	Self-hosted MCP gateway for universal programmatic access to the estate.
/procurement	B – Civic	Sovereign procurement & permit tracking + EV value ledger; live on Cloudflare D1/R2.
/maps	B – Geospatial	Terrain intelligence from physical law (runoff, erosion, soil, mineral favorability)—no third-party map API dependency.
/tauri-rustxml	B – Sovereign Browser	From-scratch Rust-native desktop browser with encrypted vault and post-quantum stubs; zero high/critical CI security gate.
/channel-1-news	D – Civic Media	Subscription-funded local journalism; geographic routing across Oregon districts; revenue retained locally.
/ip-forensics	0 – Enforcement	Autonomous scanning of public package ecosystems for unauthorized use (verbatim, AST, BLAKE3).
/sovereign-canary	A – Public Ledger	Append-only, cryptographically fingerprinted public violation log.
/roadmaps	Navigation – Public	Cross-repo phase tracking and master roadmap (deliberately copy-safe).
/simcity	Public – Outreach	Autonomous hourly isometric visualization of real engineering progress.

Novel Design Systems (Standalone Deliverables)

5D Cell Addressing Model · Capability-Gated MCP Module Host · SOV-RULES Taxonomy Guard · 21-Day Cycle Governor + n+6 Stabilizer · Sovereign Provenance & Watermarking Suite · Node Certification Ledger (NCL) · Albert Escaped Rays (AER) Protocol · 3D Design Standard & Weighted Audit Scoring · Cross-Repo Phase Synchronization Protocol · Autonomous IP-Infringement Detection Pipeline.

Long-Term Interface Trajectory

Desktop dashboards and the sovereign browser are current surfaces only. Architecture is deliberately API-first and headless so the same modules feed AR/VR overlays and robotics integration without rewrite. Working name for the mixed-reality presentation layer: Solidarity Goggles—a shared, not individually-siloed, augmented view of the build-out designed for the people doing the building.

6. Marketing & Sales Strategy

Primary channel: Direct capability-gated access via lane-mcp and public roadmaps/simcity for transparency.
Oregon / Cascadia beachhead: Resilience and permit/procurement tooling for municipalities and citizens.
Developer & civic-tech community: Open phase tracking plus deliberate copy-safety of non-proprietary orchestration layers.

Revenue Models (Phased)

- SaaS / module licensing for MacroHarder, maps, and procurement.
 - Subscription for Channel-1-News (local retention of advertising and subscription revenue).
 - Professional services and integration for government deployments.
 - Future: capability-token or usage-based access for AR/VR and robotics layers.
- An SEC-oriented dashboard is positioned as a solidarity / public-interest deliverable.

7. Funding Request & Use of Funds

Stage: Post-construction, pre-broad commercialization. Live cloud resources and CI already exist; capital is required for sustained multi-cloud operations, domain/infrastructure continuity, go-to-market, and first production-scale deployments.

Illustrative Seed Range: USD 1.5 M – 4 M (exact ask calibrated to runway targets and investor appetite).

Primary Uses (Illustrative Allocation)

- Cloud, domain, and edge infrastructure continuity and expansion (Cloudflare + multi-cloud).
- Hardening and production packaging of highest-readiness modules (MacroHarder, procurement, maps, lane-mcp, browser).
- Initial Oregon municipal / civic pilot deployments.
- Legal / IP formalization and continued autonomous-agent + human engineering capacity.
- Working capital for founder sustainability so execution remains uninterrupted.

Detailed line-item budget and 18–24 month runway model supplied upon request under NDA.

8. Financial Projections (Conservative, Illustrative)

Because the estate is pre-revenue / early-commercialization, projections are scenario-based rather than historical. Assumptions: Year 1 focused on pilots and first paid module licenses in Oregon plus early adopters; pricing anchored to value of sovereignty, auditability, and zero third-party map dependency; high gross margins once cloud costs stabilize.

Year	Illustrative Revenue (USD)	Notes
1	150 k – 400 k	Pilot licenses, early SaaS, news subscriptions, services
2	600 k – 1.5 M	Expanded municipal adoption + MacroHarder / maps traction
3	2 M – 4 M	Multi-state or multi-module expansion
4–5	5 M – 12 M+	Broader civic + developer ecosystem + early AR/VR layer revenue

These ranges are deliberately modest relative to the size of the addressable GovTech, geospatial, and procurement markets. Upside scenarios (successful Cascadia-resilience reference deployments or rapid AR/VR uptake) support materially higher figures. Full model with sensitivity tables, unit economics, and cash-flow statements available under NDA.

Key Assets

- 11 production-oriented repositories with shared protocol.
- Live Cloudflare infrastructure (Workers, D1, R2).
- 53+ passing Rust tests, 55+ CI workflows, modernized security baseline (2026-07-09).
- Documented novel design systems and 5D volumetric model.
- GitHub Enterprise organization and domains.
- Sovereign IP position + autonomous infringement detection.
- Phase-tracked roadmap and public canary ledger.
- Conceptual and technical substrate for AR/VR + robotics extension without architectural rewrite.

9. Risks & Mitigations

Risk	Mitigation
Single-founder concentration	Documented autonomous pipelines + capability-gated public interfaces + phase protocol reduce bus-factor risk.
Capital / infrastructure continuity	Immediate funding stabilizes cloud operations and founder working capital.

Adoption cycles	Start with concrete Oregon resilience and procurement use-cases rather than abstract platform sales.
IP enforcement	Autonomous scanning + public canary already operational.
Regulatory / procurement timelines	Long sales cycles acknowledged; citizen-direct modules provide a parallel path.

10. Vision

The architecture already built is the substrate, not a prototype that must be discarded. Desktop dashboards and the sovereign browser are the current interfaces. The destination is citizens and autonomous systems collaboratively building physical infrastructure under the same cryptographic provenance, taxonomy guards, and capability gates that already exist in software—walking the streets and seeing the permit pipeline, terrain model, and construction status overlaid in place.

This is not a traditional venture-scale software company. It is a better axle for the infrastructure that cities, citizens, and future mixed-reality construction will run on.

Next Step

Full technical appendix (repository manifests, test evidence, live endpoint status, detailed financial model, and security posture) available under NDA. Contact: Albert Dale Lane, Rights Holder.

This document is prepared for discussion purposes. Market figures are drawn from publicly available 2025–2026 industry reports and are illustrative. Financial projections are forward-looking estimates only and subject to material change. Sovereign IP License v1 applies to the underlying estate. All rights reserved — Albert Dale Lane.