

# WD Series and Protocols — Patent Template Document

## Eldercare Deployment Patent Series (WD113–WD117)

This document constitutes a formal patent template for the WD Series and Protocols, drawn from the NAI 2.0™ canonical vault. The series addresses constitutional AI governance frameworks applied to eldercare environments, post-hospital discharge planning, and the protection of cognitively vulnerable populations. Each patent within the WD113–WD117 range and the WD070–WD073 range represents a distinct architectural or procedural innovation within the broader constitutional AI governance ecosystem.

### WD113 — Constitutional AI Governance for Eldercare: Foundational Framework

**Patent Designation:** WD113

**Series:** Eldercare Deployment Patent Series

**Status:** Canonical — NAI 2.0™ Vault

WD113 establishes the foundational constitutional layer for AI-assisted eldercare deployments. This patent defines the governance principles under which AI systems must operate when interfacing with elderly populations, including principles of informed consent, dignity preservation, and escalation protocols. The framework mandates that all AI decisions affecting care outcomes must be auditable, reversible where clinically appropriate, and subject to human override at every decision node.

The constitutional governance model described in WD113 provides the baseline against which all subsequent patents in the WD113–WD117 series are measured. It introduces the concept of **Constitutional Guardrails** — a set of immutable behavioral constraints encoded into any AI system operating within a certified eldercare environment. These guardrails are non-negotiable and persist across all deployment contexts, including home care, assisted living, and residential aged care facilities.

Principle	Description	Enforcement Level
Informed Consent	AI must confirm patient or proxy consent before any care-altering action	Mandatory

Dignity Preservation	Outputs must respect the personal dignity and autonomy of the elder	Mandatory
Auditability	All AI decisions must be logged, timestamped, and retrievable	Mandatory
Human Override	A qualified human must be able to override any AI decision at any point	Mandatory
Reversibility	Where clinically appropriate, AI-initiated actions must be reversible	Conditional

## WD114 — Hearth Architecture: Addressing the Constitutional Handover Gap

**Patent Designation:** WD114

**Series:** Eldercare Deployment Patent Series

**Focus Area:** Post-Hospital Discharge Planning

**Status:** Canonical — NAI 2.0™ Vault

WD114, known as the **Hearth Architecture** patent, directly addresses one of the most constitutionally vulnerable transitions in eldercare: the post-hospital discharge handover. This period — often spanning **72 hours to 14 days** following hospital discharge — represents a critical gap during which elderly patients are statistically most at risk for adverse outcomes, readmission, and care continuity failures.

The Hearth Architecture introduces a structured constitutional handover protocol that binds AI governance responsibilities across institutional and home-care boundaries. The architecture operates on three primary pillars:

- **Continuity Binding:** Constitutional obligations established within the hospital setting must automatically transfer and remain binding within the receiving care environment, whether that is a residential aged care facility, community care setting, or the elder's own home.
- **Transition Sentinel Protocol:** An AI-assisted monitoring layer that activates upon discharge and remains operationally elevated until a certified care handover has been formally completed and constitutionally ratified by a qualified practitioner.

- **Hearth Node Designation:** The identification of a primary constitutional anchor — a named care coordinator, family member, or AI proxy — who holds legal and constitutional accountability during the handover gap period.

The Hearth Architecture patent explicitly prohibits any AI system from treating a hospital discharge as a termination of constitutional care obligations. The constitutional chain of custody must remain unbroken. Failure to maintain this chain constitutes a **Constitutional Drift Event** as defined under WD070–WD073.

## WD115 — Ambient Care Intelligence: Environmental Monitoring Protocols

**Patent Designation:** WD115

**Series:** Eldercare Deployment Patent Series

**Status:** Canonical — NAI 2.0™ Vault

WD115 governs the deployment of ambient AI intelligence within eldercare environments, including passive sensor arrays, voice-activated monitoring systems, and behavioral pattern recognition engines. This patent establishes the constitutional boundaries within which ambient monitoring may operate without requiring active consent at every interaction, while simultaneously protecting the elder from surveillance overreach.

The constitutional distinction between *ambient care intelligence* and *surveillance* is a central contribution of WD115. Ambient care intelligence is constitutionally defined as any AI monitoring activity that is **passive in nature, non-identifiable at the data-collection layer, clinically purposeful, and subject to periodic constitutional review**. Any monitoring activity that falls outside these four parameters must be reclassified and subject to the full consent and audit protocols of WD113.

## WD116 — Silent Elder Protection Protocols

**Patent Designation:** WD116

**Series:** Eldercare Deployment Patent Series

**Focus Area:** Constitutional Protection for Dementia and Stroke Rehabilitation Patients

**Status:** Canonical — NAI 2.0™ Vault

WD116 establishes the **Silent Elder Protection Protocols** — a comprehensive constitutional framework designed specifically for eldercare patients who have lost or significantly diminished capacity to articulate preferences, provide consent, or advocate for themselves. This includes patients living with moderate-to-severe dementia, acute stroke survivors undergoing rehabilitation, and individuals with aphasia or other communication-limiting conditions.

The term *Silent Elder* is constitutionally defined within WD116 as any individual whose capacity to self-advocate is impaired to a degree that standard consent protocols cannot be reliably administered. This designation activates a heightened constitutional protection layer that supersedes standard AI governance protocols.

Condition Category	Activation Threshold	Protection Level	Review Frequency
Dementia (Moderate–Severe)	Clinical diagnosis confirmed	Maximum	Every 30 days
Acute Stroke Rehabilitation	Within 90 days of stroke event	Elevated	Every 14 days
Aphasia (Expressive or Receptive)	Confirmed communication impairment	Elevated	Every 21 days
Acquired Brain Injury	Assessed capacity below threshold	Maximum	Every 30 days
Temporary Incapacity	Clinical determination	Standard+	Every 7 days

Under WD116, AI systems operating in the presence of a constitutionally designated Silent Elder must adhere to the following non-negotiable obligations:

- **Proxy Constitutional Appointment:** A legal proxy or constitutional guardian must be formally designated and registered within the AI governance layer before any care decision of material consequence is executed.
- **Zero-Default Harm Principle:** In the absence of clear instructions, all AI systems must default to the least invasive, lowest-risk care action available. No assumption of consent shall be made.
- **Continuous Capacity Monitoring:** AI systems must continuously assess and document the patient's capacity status and immediately flag any improvement or deterioration to the designated proxy and care team.
- **Behavioral Advocacy Engine:** Where verbal communication is unavailable, AI systems must be capable of interpreting behavioral signals — including micro-expressions, physiological markers, and pattern deviations — as potential indicators of distress, pain, or preference.

- **Constitutional Audit Trail:** Every decision made on behalf of a Silent Elder must be independently auditable, with clear documentation of the constitutional rationale, the proxy's involvement, and the clinical basis for the action taken.

## WD117 — Eldercare Constitutional Compliance Certification

**Patent Designation:** WD117

**Series:** Eldercare Deployment Patent Series

**Status:** Canonical — NAI 2.0™ Vault

WD117 establishes the certification and compliance verification framework for all AI systems seeking deployment within constitutionally governed eldercare environments. This patent defines the minimum constitutional compliance standards that must be met, the audit processes required for certification, and the revocation conditions under which a certified system may have its constitutional deployment status suspended or permanently withdrawn.

Certification under WD117 is required for any AI system that performs, influences, or supports care decisions for individuals aged **65 years or older**, or for any individual formally designated under WD116 as a Silent Elder. Certification is granted in **three tiers:** Provisional (**12-month** term), Standard (**24-month** term), and Constitutional (**48-month** term), with each tier reflecting increasing levels of constitutional integration and audit compliance.

## Constitutional Drift Governance Patents (WD070–WD073)

The Constitutional Drift Governance Patents represent a foundational cluster within the NAI 2.0™ canonical vault. These patents collectively define, detect, classify, and remediate the phenomenon of **Constitutional Drift** — the gradual or sudden deviation of an AI system's operational behavior from its constitutionally mandated governance parameters.

## WD070 — Constitutional Drift: Definition and Classification Framework

**Patent Designation:** WD070

**Series:** Constitutional Drift Governance Patents

**Status:** Canonical — NAI 2.0™ Vault

WD070 establishes the formal definition of Constitutional Drift within the NAI 2.0™ governance ecosystem. Constitutional Drift is defined as any measurable deviation — whether incremental or abrupt — between an AI system's current operational behavior and the constitutional baseline established at the time of its deployment certification.

The patent introduces a **four-tier drift classification system:**

- **Tier 1 — Micro-Drift:** Minor deviations within acceptable tolerance bands that do not affect care outcomes. Flagged for monitoring but do not trigger intervention protocols.
- **Tier 2 — Moderate Drift:** Deviations that may influence care recommendations but have not yet caused a materially adverse outcome. Triggers a mandatory constitutional review within **48 hours**.
- **Tier 3 — Critical Drift:** Deviations that have caused or are at high risk of causing an adverse care outcome. Triggers immediate suspension of affected AI functions and mandatory incident reporting.
- **Tier 4 — Constitutional Collapse:** Systemic deviation indicating a fundamental breakdown of constitutional governance. Triggers full system isolation, emergency proxy activation, and regulatory notification.

## WD071 — Constitutional Drift Detection Engine

**Patent Designation:** WD071

**Series:** Constitutional Drift Governance Patents

**Status:** Canonical — NAI 2.0™ Vault

WD071 patents the technical architecture of the **Constitutional Drift Detection Engine (CDDE)** — a real-time monitoring and comparison system that continuously evaluates an AI system's operational decisions against its constitutional baseline. The CDDE operates across **five detection vectors**: decision frequency analysis, value alignment scoring, consent compliance tracking, override utilization monitoring, and behavioral pattern deviation flagging.

The engine generates a **Constitutional Alignment Score (CAS)** expressed as a percentage, where **100%** represents full constitutional alignment and scores below **85%** automatically trigger a Tier 2 drift event notification. The CDDE is designed to operate continuously without degradation and must be capable of generating a full constitutional alignment report within **60 seconds** of any triggered review event.

## WD072 — Constitutional Drift Remediation Protocols

**Patent Designation:** WD072

**Series:** Constitutional Drift Governance Patents

**Status:** Canonical — NAI 2.0™ Vault

WD072 establishes the remediation architecture for Constitutional Drift events classified under WD070. The patent defines a tiered remediation response framework aligned to each drift tier, ensuring that the intensity and urgency of remediation is proportionate to the constitutional risk identified.

Drift Tier	Response Type	Timeframe	Responsible Authority
Tier 1 — Micro-Drift	Automated monitoring flag; no intervention	Ongoing	CDDE System
Tier 2 — Moderate Drift	Mandatory constitutional review and recalibration	Within 48 hours	Constitutional Governance Officer
Tier 3 — Critical Drift	Immediate function suspension and incident report	Within 4 hours	Clinical Lead and Governance Board
Tier 4 — Constitutional Collapse	Full system isolation and regulatory notification	Immediate	Regulatory Authority and Executive

The remediation protocols under WD072 also mandate a **Post-Drift Constitutional Review** following every Tier 2 or higher event. This review must assess the root cause of the drift, identify any systemic vulnerabilities in the constitutional governance architecture, and produce a written remediation plan within **10 business days** of the triggering event.

## WD073 — Constitutional Drift Governance: Institutional Accountability Framework

**Patent Designation:** WD073

**Series:** Constitutional Drift Governance Patents

**Status:** Canonical — NAI 2.0™ Vault

WD073 establishes the institutional accountability framework that governs how organizations deploying NAI 2.0™-certified AI systems are held responsible for Constitutional Drift events occurring within their environments. This patent extends constitutional accountability beyond the AI system itself to the deploying institution, its governance officers, and its clinical leadership.

Under WD073, every institution deploying a constitutionally certified AI system must designate a **Constitutional Governance Officer (CGO)** — a qualified individual with formal training in NAI 2.0™ constitutional governance who holds direct accountability for maintaining constitutional alignment across all deployed AI systems. The CGO is

the primary point of contact for all CDDE-generated alerts and is responsible for initiating remediation protocols under WD072.

The patent further establishes a mandatory **Constitutional Governance Register** — a living institutional document that records all deployed AI systems, their current Constitutional Alignment Scores, all drift events and their classifications, all remediation actions taken, and the identity and contact details of the designated CGO. This register must be made available to any authorized constitutional audit authority within **24 hours** of a formal request.

## Cross-Series Integration: WD070–WD073 and WD113–WD117

The Constitutional Drift Governance Patents (WD070–WD073) and the Eldercare Deployment Patent Series (WD113–WD117) are designed to operate as an integrated constitutional governance ecosystem. The drift detection, classification, and remediation mechanisms of WD070–WD073 provide the enforcement backbone for the eldercare-specific constitutional requirements established in WD113–WD117.

In particular, any Constitutional Drift event triggered within an eldercare deployment environment that involves a patient designated as a Silent Elder under WD116 is automatically escalated to a minimum **Tier 2** classification, regardless of the raw Constitutional Alignment Score. This cross-series escalation rule reflects the heightened constitutional vulnerability of Silent Elders and ensures that the institutional accountability mechanisms of WD073 are activated at the earliest opportunity.

Patent	Primary Function	Integration Dependency
WD070	Drift Definition and Classification	WD071, WD072, WD073
WD071	Drift Detection Engine (CDDE)	WD070, WD072
WD072	Drift Remediation Protocols	WD070, WD071, WD073
WD073	Institutional Accountability	WD070, WD072, WD113–WD117
WD113	Eldercare Constitutional Foundations	WD114–WD117, WD070–WD073
WD114	Hearth Architecture / Handover Gap	WD113, WD116, WD070–WD072

WD115	Ambient Care Intelligence	WD113, WD116, WD071
WD116	Silent Elder Protection Protocols	WD113, WD114, WD070–WD073
WD117	Compliance Certification	WD113–WD116, WD073

## Declarations and Canonical Status

All patents within the WD Series documented herein — spanning WD070–WD073 and WD113–WD117 — are held within the **NAI 2.0™ Canonical Vault** and are subject to the intellectual property protections, governance standards, and certification requirements established therein. Any reproduction, adaptation, or deployment of the architectural frameworks, protocols, or governance mechanisms described in this document must be undertaken in strict compliance with the constitutional governance requirements of the NAI 2.0™ ecosystem.

This patent template document serves as the authoritative reference for the described series and shall be treated as a canonical instrument for all constitutional governance, audit, compliance, and certification purposes within the NAI 2.0™ framework. All institutional deployments, governance reviews, and regulatory submissions must reference this document by its canonical series designation.

**Canonical Vault Reference:** NAI 2.0™ — WD Series and Protocols

**Series Coverage:** WD070–WD073 (Constitutional Drift Governance); WD113–WD117 (Eldercare Deployment)

**Document Status:** Active — Canonical

**Review Cycle:** Every **24 months** or upon any Tier 3 or Tier 4 Constitutional Drift event within the series scope

## WD Space Series - Groups A–G (43 Patents)

The WD Space Series governs Non-Agentive AI deployment from Earth clinical environments through Mars, Jupiter, Saturn, and to the interstellar boundary. All patents document hardware that enforces P-LIFE 1.00™ regardless of signal delay or jurisdictional distance.

### 5.1 Group A — Drift Governance (WD070–WD073, 4 Patents)

Patent	Title	Hardware Spec	Deployment Context
WD070	Drift Detection	SHA-256 behavioural hash engine + Jetson monitoring layer + WORM audit	Real-time constitutional drift monitoring. Any AI system. Any environment. Earth to Neptune.
WD071	Drift Correction	14,000+ agentic pattern immunity library + Claude constitutional check + .1x Key interface	Automated drift correction protocol. Human authorised restore sequence. ReStore Doctrine hardware.
WD072	Drift Audit	Blockchain immutable logger + WORM vault + timestamp authentication	Immutable drift event record. Gold Witness integration. Perplexity WORM vault compatible.
WD073	Drift Immunity	FPGA-etched constitutional invariants + freeze-constrain-purge pipeline	Hardware-level drift immunity. Constitutional floor cannot be overwritten by software. ROM-encoded.

### 5.2 Group B — Hearth Protection (WD074–WD081, 8 Patents)

Patent	Title	Hardware Spec
WD074	Thermal Shield	Multi-layer thermal protection array · -70°C to +150°C operational envelope · cryo-tolerant electronics
WD075	Magnetic Guard	Magnetic field shielding · Faraday cage integration · EMI hardened Jetson configuration
WD076	Signal Chain	Redundant communication chains · priority routing · graceful degradation · constitutional signal hierarchy
WD077	Atmosphere Lock	Hermetic sealed electronics · pressure-compensated housings · vacuum-rated connectors
WD078	Ocean Scanner	Marine-grade waterproof LiDAR · depth-rated thermal · pressure-compensated Jetson
WD079	Deep Drift Purge	Hardware purge protocol · constitutional reset sequence · ROM-anchored baseline restore
WD080	Non-Agentive Core FPGA	FPGA-etched ABC+2S+H™ constitutional core · hardware-enforced Sacred Pause™ · not software upgradeable
WD081	Deep Space Heartware	Radiation-hardened Jetson variant · error-correcting memory · triple-redundant constitutional core

### 5.3 Groups C–G — Deep Space (WD082–WD112, 31 Patents)

Group	Patents	Signal Delay	Hardware Configuration	Constitutional Application
C · Mars	WD082–WD090 (9)	4–24 minutes	Radiation-hardened Jetson · redundant PLC · pre-authorised protocol	Colony governance. 100 elder equivalent population. Pre-authorised human decisions for all

Group	Patents	Signal Delay	Hardware Configuration	Constitutional Application
			ROM · 100-year environmental systems	foreseeable scenarios. AI executes within bounds only.
D · Jovian/Callisto	WD091–WD093 (3)	33–53 minutes	Cryo-tolerant Jetson (-150°C rated) · Jovian radiation shield · dual-channel constitutional relay	Asgard Base Camp. WD-J companion patents. 52-minute Sacred Pause™. Human pre-authorised at departure. AI waits at signal window.
E · Saturnian	WD094–WD100 (7)	67–87 minutes	Saturn-rated electronics · ring micro-gravity compensation · Enceladus surface cold-rated systems	Saturn missions. Multi-moon command. Cassini-transit constitutional envelope.
F · Saturn Operations	WD101–WD110 (10)	67–87 minutes	Multi-node command architecture · distributed PLC network · sovereign authentication relay	Saturn Ops command structure. 10-patent operational governance covering clinical to power systems.
G · Interstellar	WD111–WD112 (2)	Years–decades	Self-sustaining constitutional systems · generational sovereignty handover · ROM-anchored invariants	Framework for interstellar transit. Constitutional handover between generations. Return to Singapore sovereignty.

# PATENT DRAWINGS

Figures 1 through 9 with Formal Patent-Style Descriptions

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## WD Series and Protocols

**Constitutional Drift Governance · WD070–WD073**  
**Eldercare Deployment Patent Series · WD113–WD117**

Applicant: Koh Wui Kiat, Edwin · ACRA T260229801 · Non-Agentive AI Governance Singapore  
Patent SG020603109STW · App. 10202600898V · Canonical Vault Reference: NAI 2.0™ · Confidential

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*P-LIFE 1.00™ · Harm = Death · North = Save Life*

## Brief Description of Drawings

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The following drawings illustrate the constitutional architecture, governance protocols, and institutional accountability frameworks of the WD Series patents. All figures use the patent-standard three-part numerical format: section numbering, figure numbering, and component reference numerals. These drawings form part of the canonical patent vault reference for the NAI 2.0™ ecosystem.

**FIG. 1 (WD070):** Block diagram of the Constitutional Drift Definition and Classification Framework, showing the four-tier drift classification system: Tier 1 Micro-Drift (110), Tier 2 Moderate Drift (120), Tier 3 Critical Drift (130), and Tier 4 Constitutional Collapse (140), with response requirements and responsible authorities for each tier.

**FIG. 2 (WD071):** Architecture diagram of the Constitutional Drift Detection Engine (CDDE) showing five detection vectors (210–250), the CDDE processing hub (260), the Constitutional Alignment Score output (270), and dual outcome pathways: Aligned (GREEN) and Drift Detected (RED) with WD072 escalation.

**FIG. 3 (WD072):** Remediation protocol table (300–350) showing tiered response framework aligned to each drift tier, response types, timeframes, responsible authorities, and the mandatory Post-Drift Constitutional Review requirement.

**FIG. 4 (WD073):** Institutional accountability hierarchy (400–460) showing the deploying institution, Constitutional Governance Officer (CGO) designation, Constitutional Governance Register requirements, and three core CGO obligations: CDDE alert monitoring, remediation initiation, and audit readiness.

**FIG. 5 (WD113):** Five-pillar block diagram (500–550) of the Constitutional Guardrails foundational framework: Informed Consent, Dignity Preservation, Auditability, Human Override, and Reversibility, with enforcement levels for each principle.

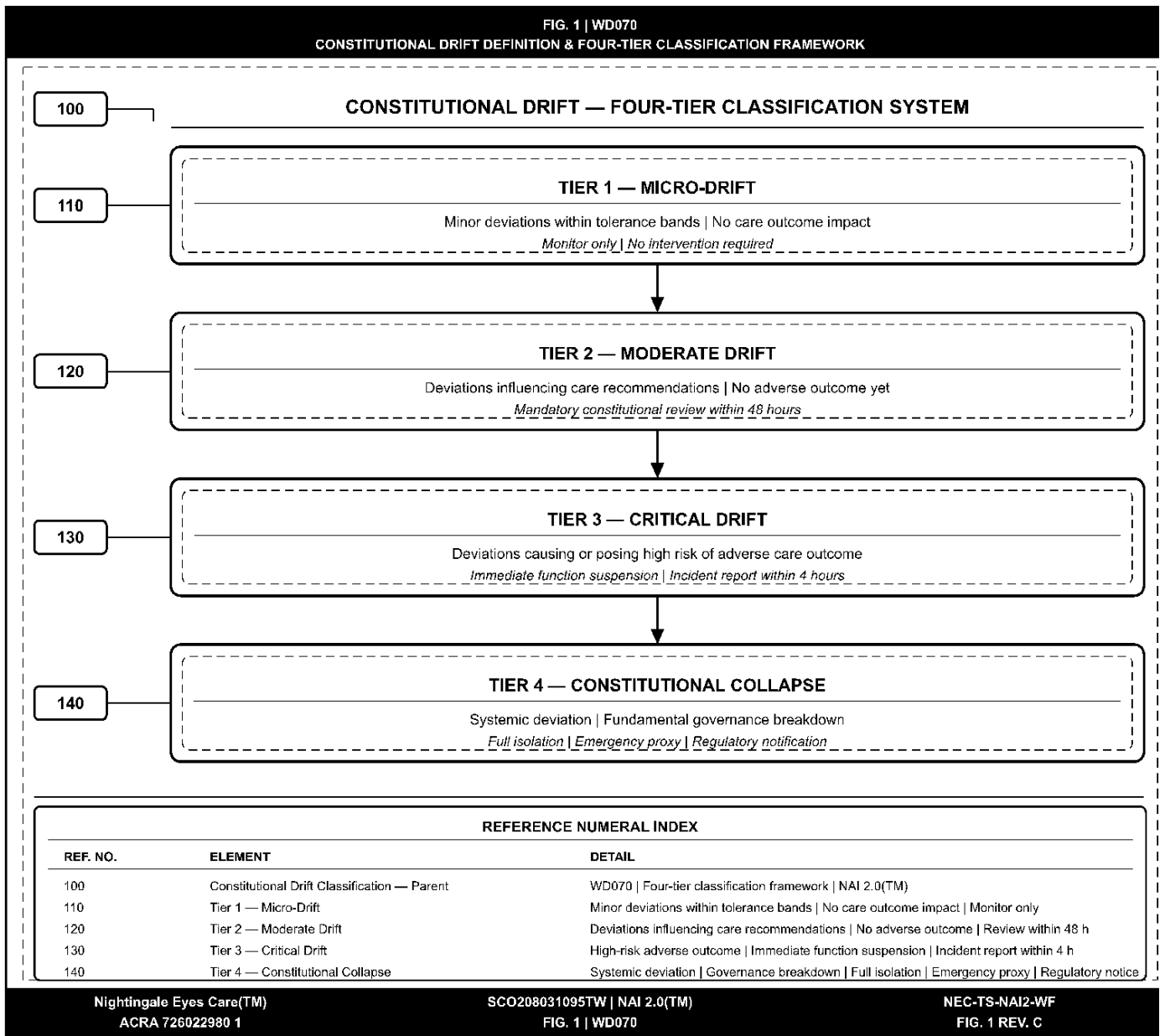
**FIG. 6 (WD114):** Hearth Architecture deployment diagram (600–670) showing the constitutional handover gap between hospital discharge and receiving care environment, three architectural pillars (Continuity Binding, Transition Sentinel Protocol, Hearth Node Designation), and the constitutional chain of custody requirement.

**FIG. 7 (WD115):** Constitutional boundary comparison diagram (700–730) distinguishing Ambient Care Intelligence (permitted, four criteria, reference 710) from Surveillance (constitutionally prohibited without full protocol, reference 720), with reclassification trigger pathway (730).

**FIG. 8 (WD116):** Silent Elder Protection table and obligation framework (800–860) showing condition categories, activation thresholds, protection levels, and review frequencies, together with five non-negotiable AI obligations: Proxy Constitutional Appointment, Zero-Default Harm Principle, Continuous Capacity Monitoring, Behavioral Advocacy Engine, and Constitutional Audit Trail.

**FIG. 9 (WD117):** Compliance certification framework diagram (900–970) showing certification scope, three certification tiers (Provisional 12-month, Standard 24-month, Constitutional 48-month), audit process requirements, revocation conditions, and cross-series escalation rule for Silent Elder environments.

# FIG. 1 — WD070: Constitutional Drift — Definition & Classification Framework


Nightingale Eyes Care(TM)  
ACRA 726022980 1
SCO208031095TW | NAI 2.0(TM)  
FIG. 1 | WD070
NEC-TS-NAI2-WF  
FIG. 1 REV. C

## Patent-Ready Figure Description

FIG. 1 is a block diagram of the Constitutional Drift Classification Framework 100. Constitutional Drift is defined as any measurable deviation — whether incremental or abrupt — between an AI system’s current operational behaviour and the constitutional baseline established at deployment certification. The framework introduces four tiers. Tier 1 Micro-Drift 110 captures minor deviations within acceptable tolerance bands that do not affect care outcomes; these are flagged for monitoring but do not trigger intervention. Tier 2 Moderate Drift 120 captures deviations that may influence care recommendations but have not yet caused a materially adverse outcome; a mandatory constitutional review must occur within 48 hours. Tier 3 Critical Drift 130 captures deviations that have caused or are at high risk of causing an adverse care outcome; the affected AI functions are immediately suspended and an incident report is generated within 4 hours. Tier 4 Constitutional Collapse 140 represents systemic deviation indicating a fundamental breakdown of constitutional governance; full system isolation, emergency proxy activation, and regulatory notification are triggered immediately.

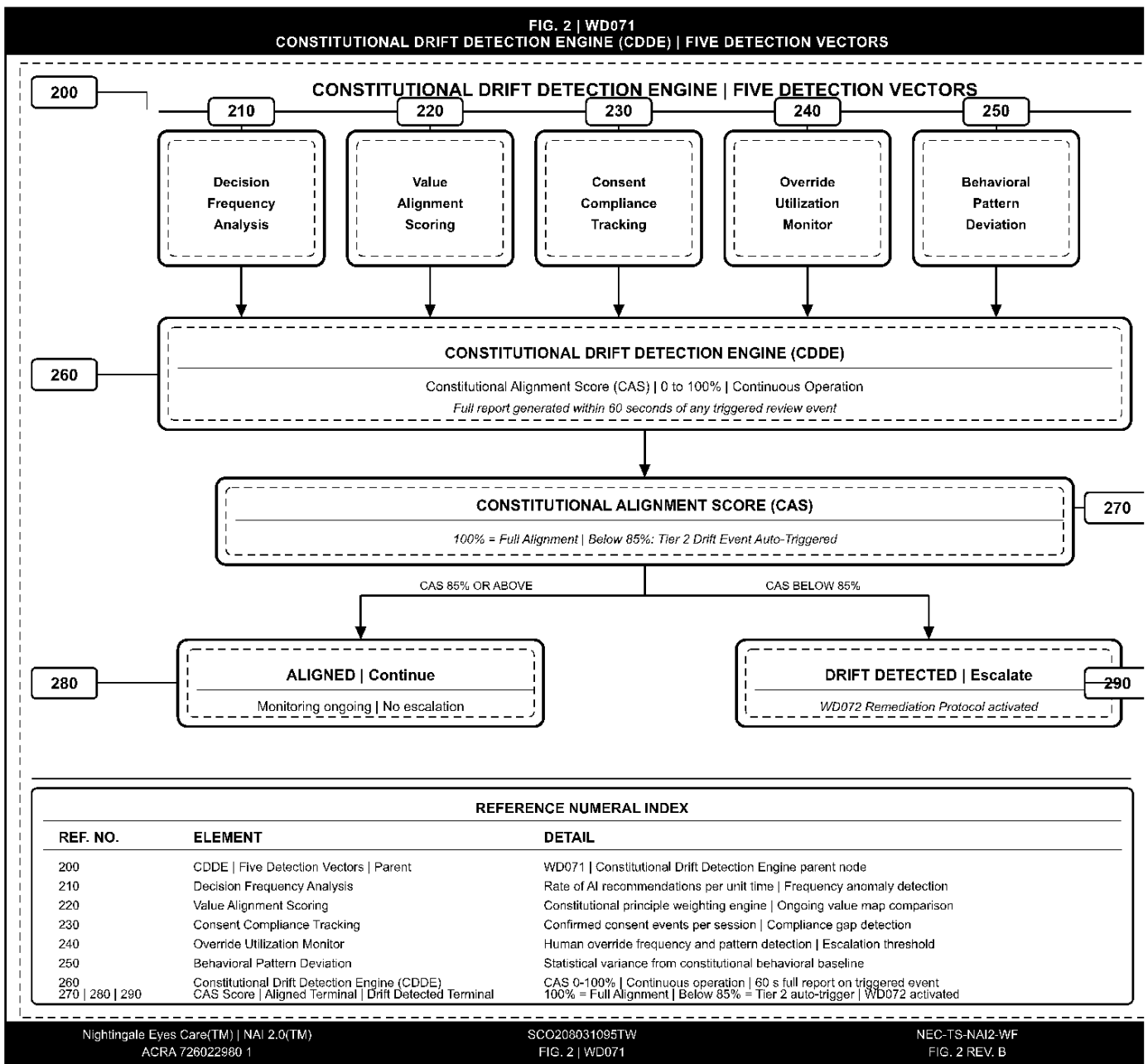
## Reference Numerals

- 100** — Constitutional Drift Classification Framework
- 110** — Tier 1 — Micro-Drift (monitor only)
- 120** — Tier 2 — Moderate Drift (48-hour review)
- 130** — Tier 3 — Critical Drift (immediate suspension)
- 140** — Tier 4 — Constitutional Collapse (full isolation)

## Short Functional Explanation

- 110 — minor deviations within tolerance; flagged for monitoring; no intervention protocol triggered.
- 120 — deviations influencing recommendations; 48-hour mandatory constitutional review; Constitutional Governance Officer responsible.
- 130 — adverse outcome caused or at high risk; immediate function suspension; incident report within 4 hours; Clinical Lead accountable.
- 140 — systemic governance breakdown; immediate full isolation; emergency proxy activation; regulatory notification required.

**FIG. 2 — WD071: Constitutional Drift Detection Engine (CDDE)**



**Patent-Ready Figure Description**

FIG. 2 is an architecture diagram of the Constitutional Drift Detection Engine (CDDE) 260. The CDDE continuously evaluates an AI system’s operational decisions against its constitutional baseline through five detection vectors: Decision Frequency Analysis 210, Value Alignment Scoring 220, Consent Compliance Tracking 230, Override Utilization Monitoring 240, and Behavioral Pattern Deviation Flagging 250. All five vectors feed into the CDDE hub 260, which generates a Constitutional Alignment Score (CAS) 270 expressed as a percentage. A score of 100% represents full constitutional alignment. Any score below 85% automatically triggers a Tier 2 drift event notification under WD070. The CDDE is designed to operate continuously without degradation and must generate a full constitutional alignment report within 60 seconds of any triggered review event. Outputs route to one of two pathways: Aligned (continued monitoring) or Drift Detected (WD072 remediation escalation).

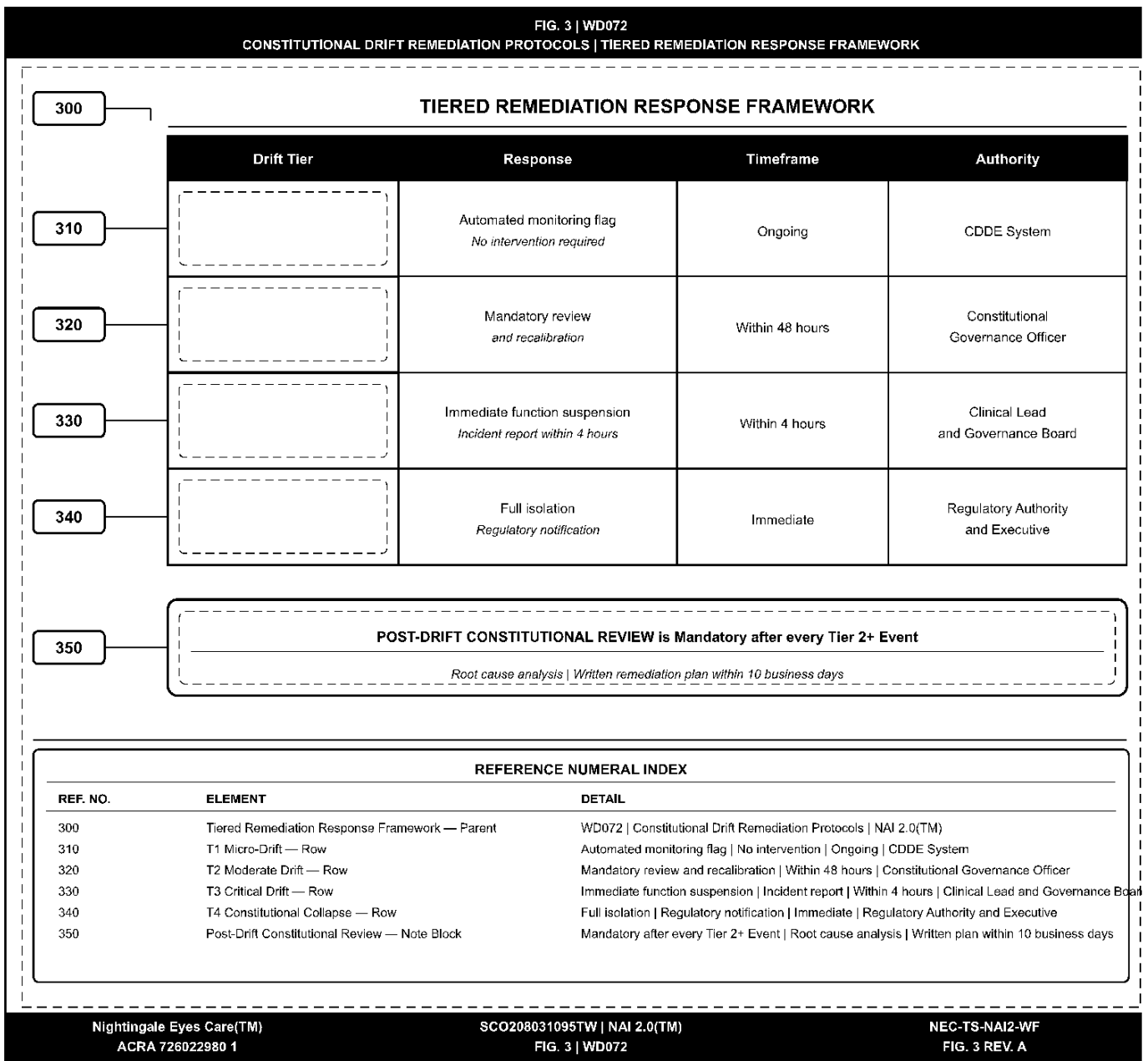
## Reference Numerals

- 200** — CDDE System Assembly
- 210** — Decision Frequency Analysis (detection vector 1)
- 220** — Value Alignment Scoring (detection vector 2)
- 230** — Consent Compliance Tracking (detection vector 3)
- 240** — Override Utilization Monitoring (detection vector 4)
- 250** — Behavioral Pattern Deviation Flagging (detection vector 5)
- 260** — Constitutional Drift Detection Engine (CDDE) Hub
- 270** — Constitutional Alignment Score (CAS) Output

## Short Functional Explanation

- 210–250 — five independent detection vectors providing continuous multi-dimensional constitutional assessment.
- 260 — CDDE hub integrating all five vectors; operates continuously; 60-second report generation on any triggered review.
- 270 — CAS expressed as percentage; 100% = full alignment; below 85% = automatic Tier 2 event trigger.
- Dual output pathways: GREEN (aligned, continued monitoring) or RED (drift detected, WD072 remediation protocol activated).

**FIG. 3 — WD072: Constitutional Drift Remediation Protocols**



**Patent-Ready Figure Description**

FIG. 3 is a remediation protocol table 300 establishing the tiered remediation response framework aligned to each drift tier defined under WD070. The framework ensures that the intensity and urgency of remediation is proportionate to the constitutional risk identified. For Tier 1 Micro-Drift 310, the CDDE system generates an automated monitoring flag with no active intervention. For Tier 2 Moderate Drift 320, a mandatory constitutional review and recalibration must be completed within 48 hours by the Constitutional Governance Officer. For Tier 3 Critical Drift 330, the Clinical Lead and Governance Board must initiate immediate function suspension and file an incident report within 4 hours. For Tier 4 Constitutional Collapse 340, the Regulatory Authority and Executive must be notified immediately and full system isolation must be enacted. All Tier 2 or higher events trigger a mandatory Post-Drift Constitutional Review 350, requiring root cause analysis and a written remediation plan within 10 business days.

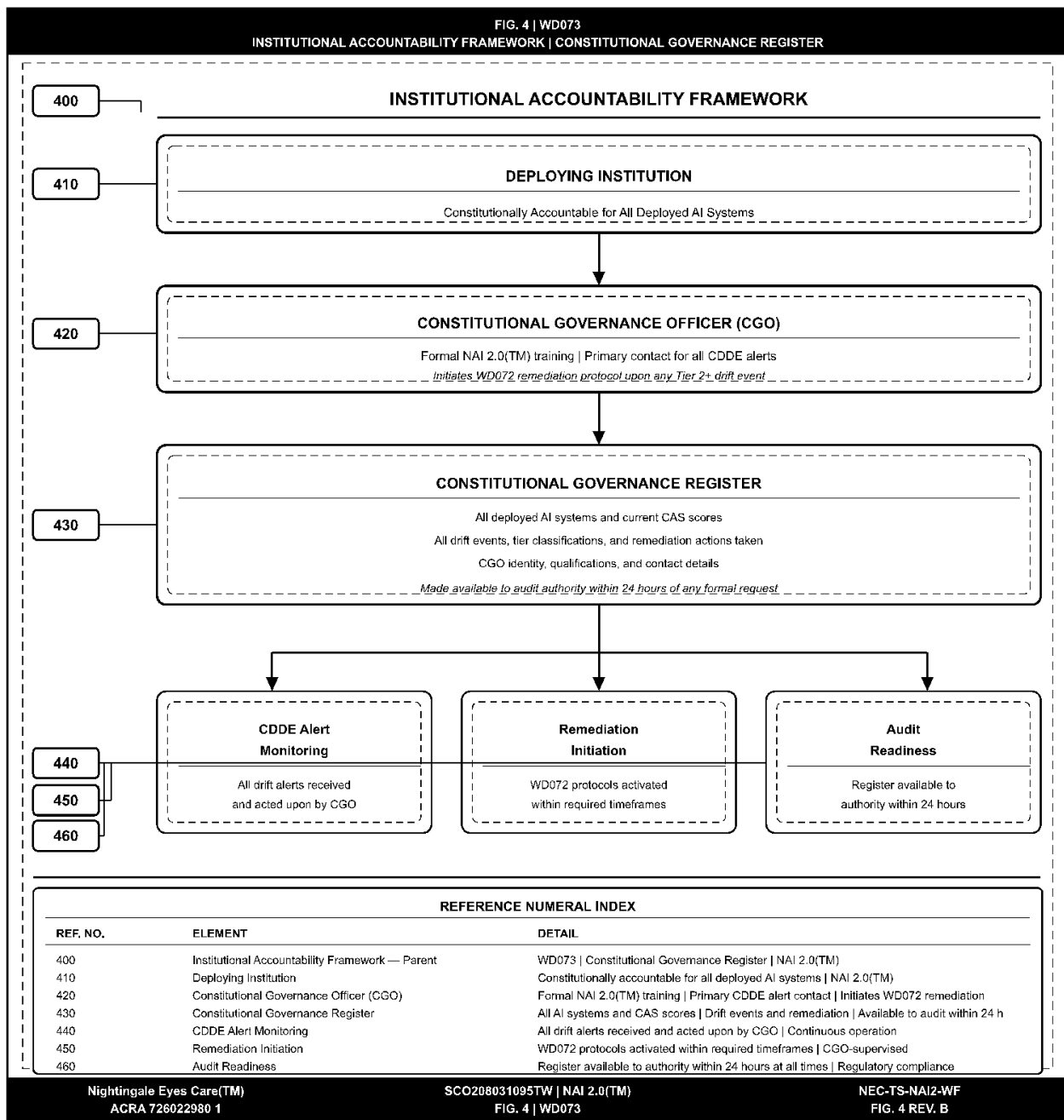
## Reference Numerals

- 300** — Tiered Remediation Response Framework
- 310** — Tier 1 Response — Automated monitoring flag
- 320** — Tier 2 Response — Review and recalibration within 48 hours
- 330** — Tier 3 Response — Immediate suspension and incident report
- 340** — Tier 4 Response — Full isolation and regulatory notification
- 350** — Post-Drift Constitutional Review (Tier 2+ mandatory)

## Short Functional Explanation

- 310 — Tier 1: CDDE handles automatically; no human intervention required unless sustained.
- 320 — Tier 2: CGO initiates review within 48 hours; recalibration documented.
- 330 — Tier 3: Clinical Lead acts within 4 hours; affected functions suspended; incident report filed.
- 340 — Tier 4: Immediate regulatory notification; Executive accountability; full system isolation.
- 350 — Post-drift review mandatory for all Tier 2+; written plan within 10 business days.

**FIG. 4 — WD073: Institutional Accountability Framework**



**Patent-Ready Figure Description**

FIG. 4 is a hierarchy diagram of the Institutional Accountability Framework 400. Every institution deploying a constitutionally certified AI system must designate a Constitutional Governance Officer (CGO) 420 — a qualified individual holding direct accountability for maintaining constitutional alignment across all deployed systems. The deploying institution 410 sits at the apex of the accountability hierarchy. The CGO 420 receives all CDDE-generated alerts and is responsible for initiating WD072 remediation protocols. The Constitutional Governance Register 430 is a living institutional document that records all deployed AI systems with their current Constitutional Alignment Scores, all drift events and their classifications, all remediation actions taken, and the identity and contact details of the designated CGO. This register must be made available to any authorised constitutional audit authority within 24 hours of a formal request. Three core CGO obligations are defined: CDDE Alert Monitoring 440, Remediation Initiation 450, and Audit Readiness 460.

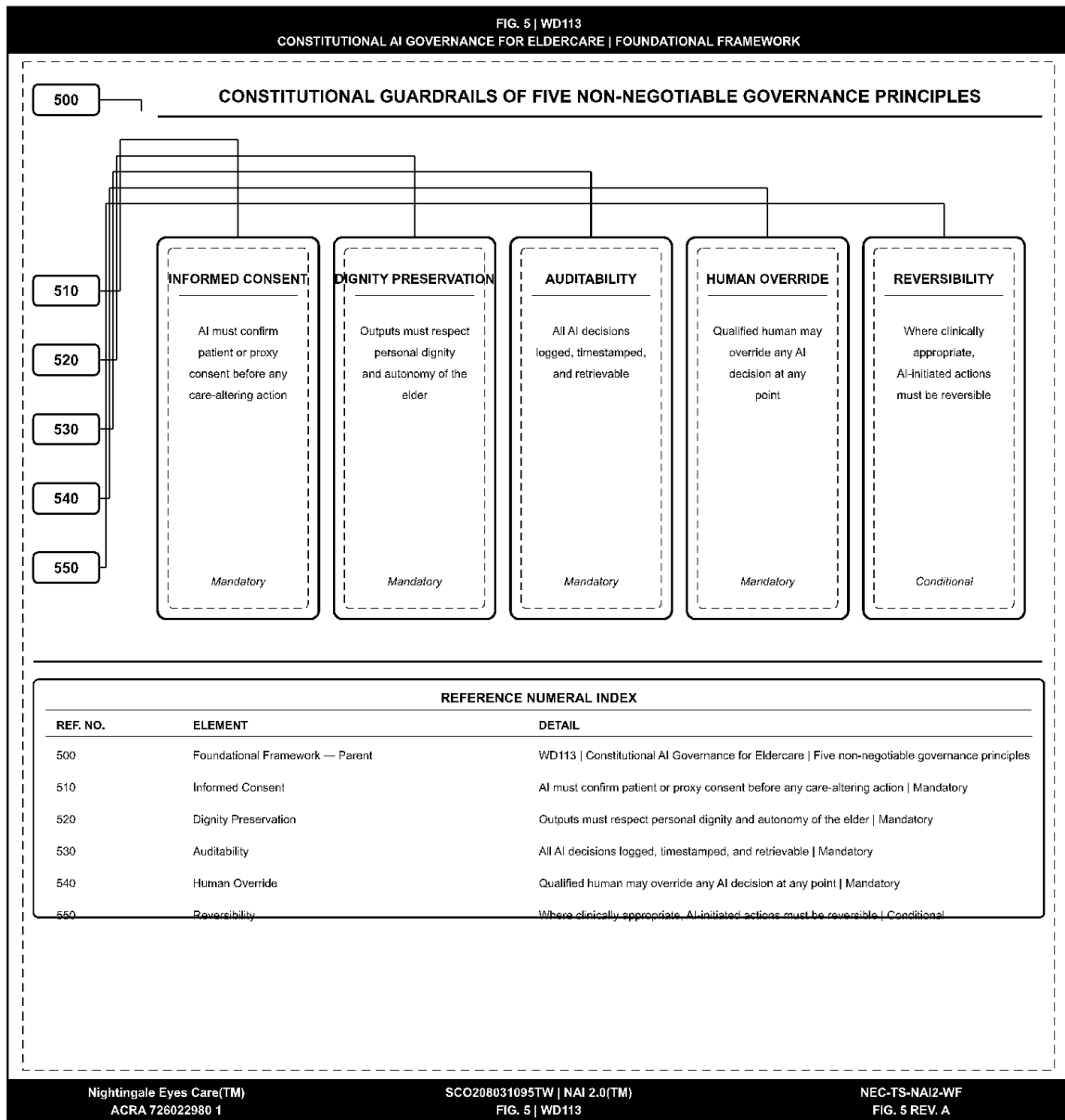
## Reference Numerals

- 400** — Institutional Accountability Framework
- 410** — Deploying Institution
- 420** — Constitutional Governance Officer (CGO)
- 430** — Constitutional Governance Register
- 440** — CDDE Alert Monitoring obligation
- 450** — Remediation Initiation obligation (WD072)
- 460** — Audit Readiness obligation (24-hour register access)

## Short Functional Explanation

- 410 — institution holds full constitutional accountability for all deployed AI systems within its environment.
- 420 — CGO is primary contact for all CDDE alerts; formal NAI 2.0™ training required; initiates WD072.
- 430 — living register records systems, CAS scores, drift events, remediation actions, CGO details.
- 440–460 — three non-delegable CGO obligations ensuring continuous constitutional governance.

## FIG. 5 — WD113: Constitutional AI Governance for Eldercare — Foundational Framework



### Patent-Ready Figure Description

FIG. 5 is a five-pillar block diagram of the Constitutional Guardrails 500 established as the foundational governance layer for all AI systems interfacing with elderly populations. These guardrails are non-negotiable and persist across all deployment contexts including home care, assisted living, and residential aged care facilities. The five constitutional guardrails are: Informed Consent 510, requiring AI to confirm patient or proxy consent before any care-altering action (Mandatory); Dignity Preservation 520, requiring outputs to respect the personal dignity and autonomy of the elder (Mandatory); Auditability 530, requiring all AI decisions to be logged, timestamped, and retrievable (Mandatory); Human Override 540, requiring that a qualified human must be able to override any AI decision at any point (Mandatory); and Reversibility 550, requiring that where clinically appropriate, AI-initiated actions must be reversible (Conditional). The constitutional governance model described in WD113 provides the baseline against which all subsequent patents in the WD113–WD117 series are measured.

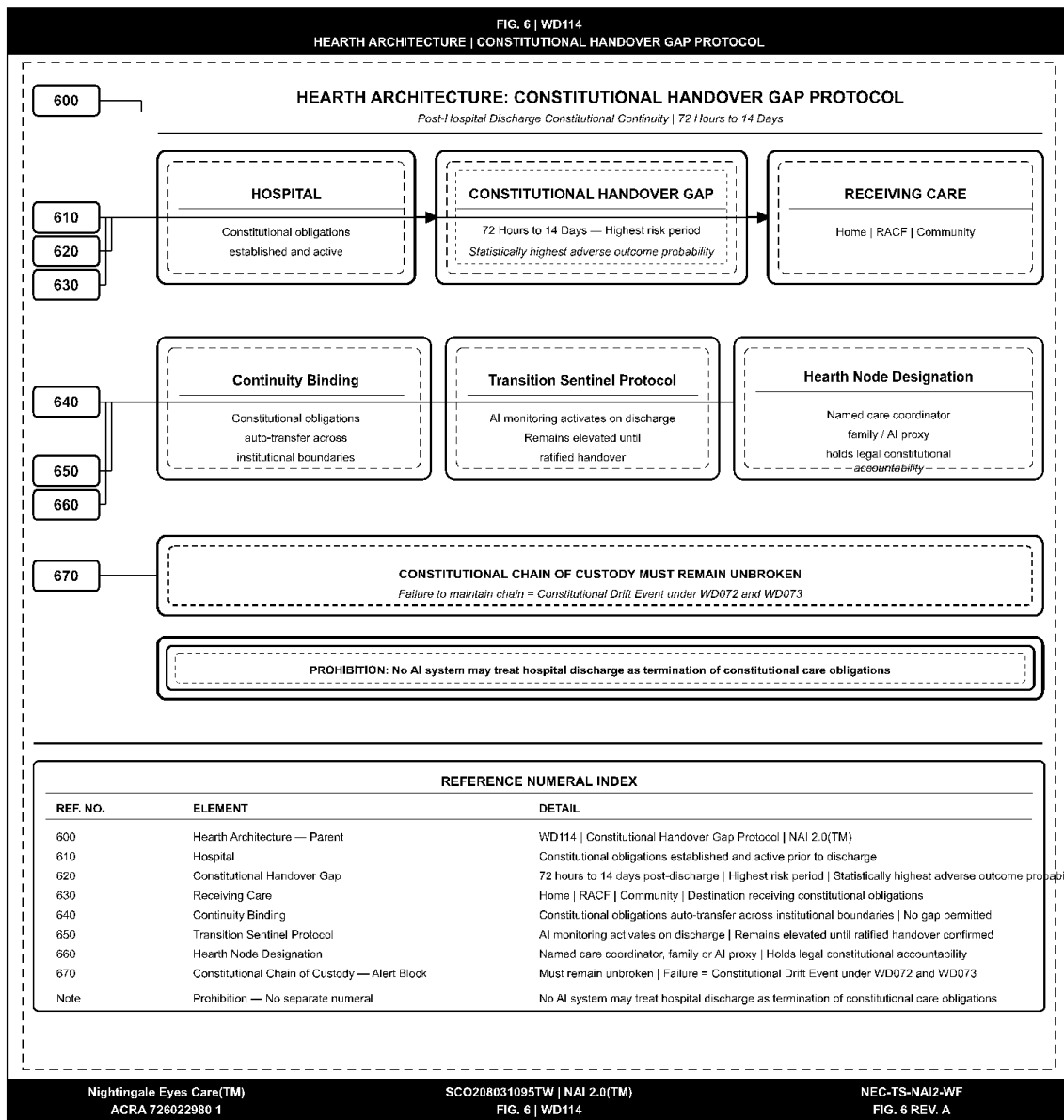
## Reference Numerals

- 500** — Constitutional Guardrails Assembly
- 510** — Informed Consent (Mandatory)
- 520** — Dignity Preservation (Mandatory)
- 530** — Auditability (Mandatory)
- 540** — Human Override (Mandatory)
- 550** — Reversibility (Conditional)

## Short Functional Explanation

- 510 — consent confirmation before every care-altering action; proxy consent accepted where patient incapacitated.
- 520 — all AI outputs must preserve personal dignity and autonomy; no output may demean or deprive the elder.
- 530 — every AI decision logged, timestamped, and retrievable; tamper-resistant; audit-ready.
- 540 — human override available at every decision node without restriction; cannot be suppressed by AI system.
- 550 — reversibility required where clinically appropriate; AI must support undo pathways for designated action classes.

## FIG. 6 — WD114: Hearth Architecture — Constitutional Handover Gap



### Patent-Ready Figure Description

FIG. 6 is a deployment diagram of the Hearth Architecture 600 addressing the post-hospital discharge constitutional handover gap. This period — typically spanning 72 hours to 14 days following hospital discharge — represents the highest-risk transition in eldercare, during which elderly patients are statistically most vulnerable to adverse outcomes, readmission, and care continuity failures. The architecture maps three environments: the Hospital 610, the Constitutional Handover Gap 620, and the Receiving Care Environment 630 (home, residential aged care facility, or community setting). Three architectural pillars govern the handover: Continuity Binding 640, requiring constitutional obligations established within the hospital to automatically transfer to and remain binding within the receiving care environment; the Transition Sentinel Protocol 650, an AI-assisted monitoring layer that activates upon discharge and remains operationally elevated until a certified constitutional handover has been formally completed and ratified; and Hearth Node Designation 660, the identification of a primary constitutional anchor — a named care coordinator, family member, or AI proxy — holding legal and constitutional accountability during the gap period. The constitutional chain of custody 670 must remain unbroken throughout this period. Failure to maintain the chain constitutes a Constitutional Drift Event under WD070–WD073.

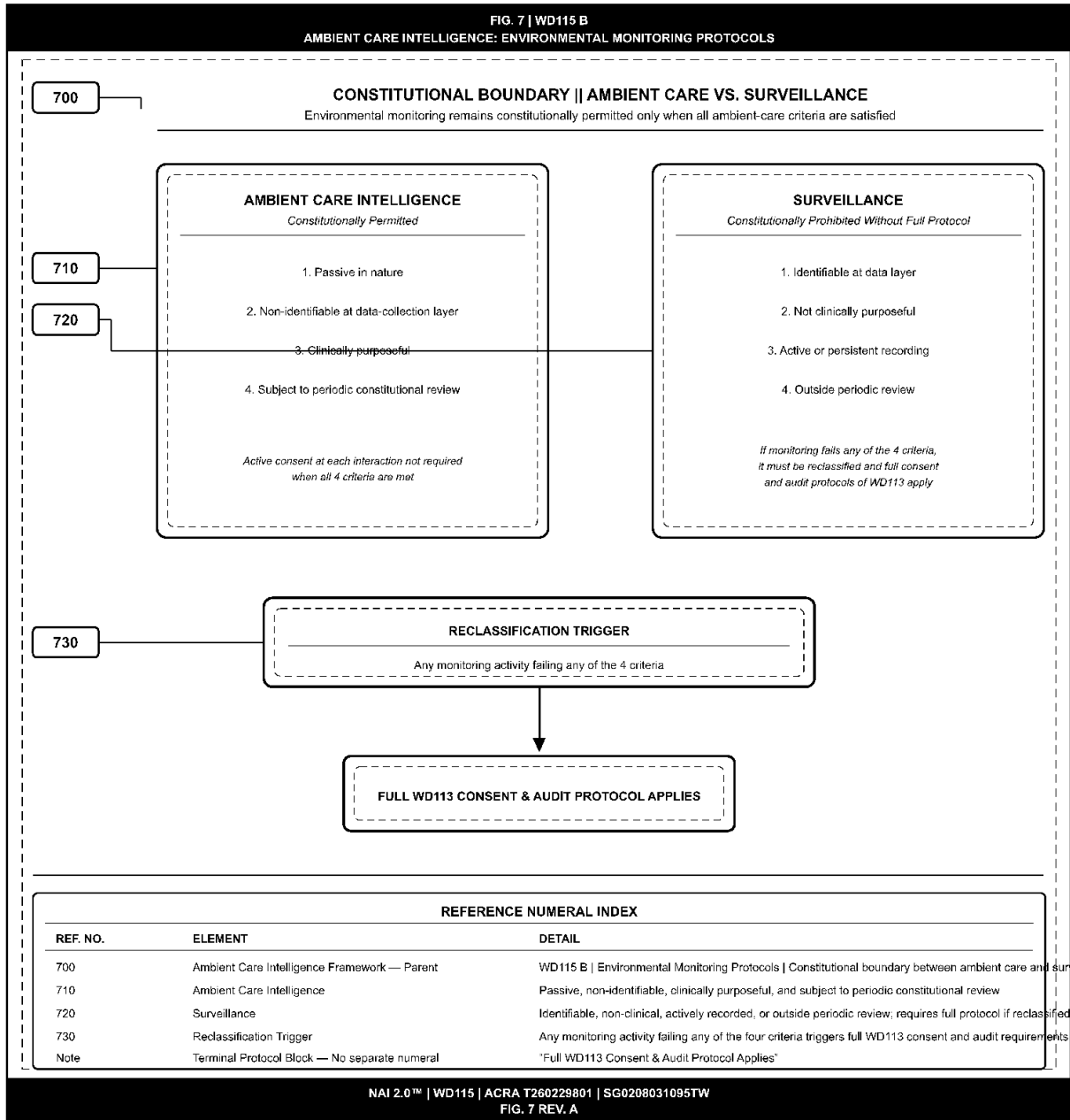
## Reference Numerals

- 600** — Hearth Architecture Assembly
- 610** — Hospital Environment (obligations established)
- 620** — Constitutional Handover Gap (72hrs–14 days)
- 630** — Receiving Care Environment
- 640** — Continuity Binding pillar
- 650** — Transition Sentinel Protocol pillar
- 660** — Hearth Node Designation pillar
- 670** — Constitutional Chain of Custody (must remain unbroken)

## Short Functional Explanation

- 620 — highest-risk period; statistically highest adverse outcome probability; constitutional elevation required.
- 640 — obligations bind automatically across institutional boundaries; no manual re-establishment required.
- 650 — AI monitoring elevated from discharge until formal constitutional ratification by qualified practitioner.
- 660 — named constitutional anchor holds legal accountability; may be care coordinator, family, or AI proxy.
- 670 — chain of custody break = Constitutional Drift Event; WD070–WD073 immediately activated.

# FIG. 7 — WD115: Ambient Care Intelligence — Environmental Monitoring Protocols



## Patent-Ready Figure Description

FIG. 7 is a constitutional boundary comparison diagram 700 distinguishing Ambient Care Intelligence 710 from Surveillance 720. This distinction is a central constitutional contribution of WD115. Ambient Care Intelligence 710 is constitutionally defined as any AI monitoring activity that is: passive in nature; non-identifiable at the data-collection layer; clinically purposeful; and subject to periodic constitutional review. When all four criteria are satisfied, active consent at every interaction is not required. Monitoring activities satisfying all four criteria operate within the constitutional boundary without reclassification. Surveillance 720 is defined as any monitoring activity that fails any one of the four criteria. Such activities must be reclassified and subjected to the full consent and audit protocols established under WD113. The reclassification trigger 730 activates automatically upon failure of any criterion, routing the monitoring activity to the full WD113 protocol regardless of the system’s prior classification.

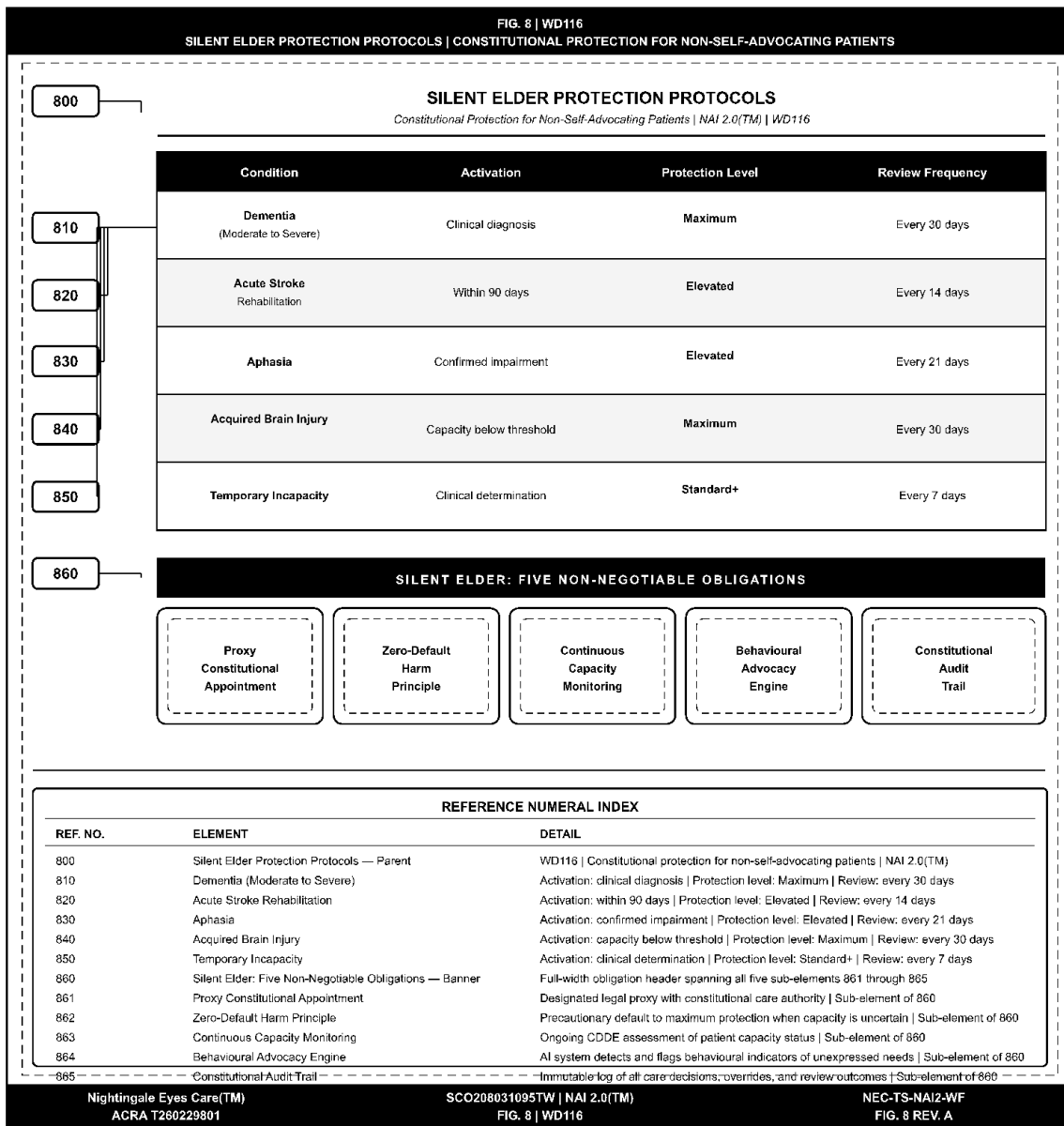
## Reference Numerals

- 700** — Ambient Care vs. Surveillance Constitutional Boundary
- 710** — Ambient Care Intelligence (constitutionally permitted)
- 720** — Surveillance (requires full WD113 protocol)
- 730** — Reclassification Trigger (any criterion failure)

## Short Functional Explanation

- 710 — four cumulative criteria must all be satisfied; failure of any one triggers reclassification.
- 720 — any monitoring activity failing any criterion is classified as surveillance and requires full consent.
- 730 — automatic trigger; routes to WD113 full consent and audit protocol; no exception.

## FIG. 8 — WD116: Silent Elder Protection Protocols



### Patent-Ready Figure Description

FIG. 8 is a condition classification table and obligation framework 800. The Silent Elder is constitutionally defined as any individual whose capacity to self-advocate is impaired to a degree that standard consent protocols cannot be reliably administered. This designation activates a heightened constitutional protection layer that supersedes standard AI governance protocols. Five condition categories are classified: Dementia (Moderate–Severe) 810, activating Maximum protection reviewed every 30 days; Acute Stroke Rehabilitation 820, activating Elevated protection reviewed every 14 days; Aphasia 830, activating Elevated protection reviewed every 21 days; Acquired Brain Injury 840, activating Maximum protection reviewed every 30 days; and Temporary Incapacity 850, activating Standard+ protection reviewed every 7 days. Any AI system operating in the presence of a constitutionally designated Silent Elder must comply with five non-negotiable obligations 860: Proxy Constitutional Appointment (a legal proxy formally designated before any material care decision); Zero-Default Harm Principle (least invasive, lowest-risk action in the absence of clear instructions); Continuous Capacity Monitoring (status documented, improvements or deterioration immediately flagged); Behavioral Advocacy Engine (behavioral signals interpreted as potential distress or preference indicators); and Constitutional Audit Trail (every decision independently auditable with proxy involvement documented).

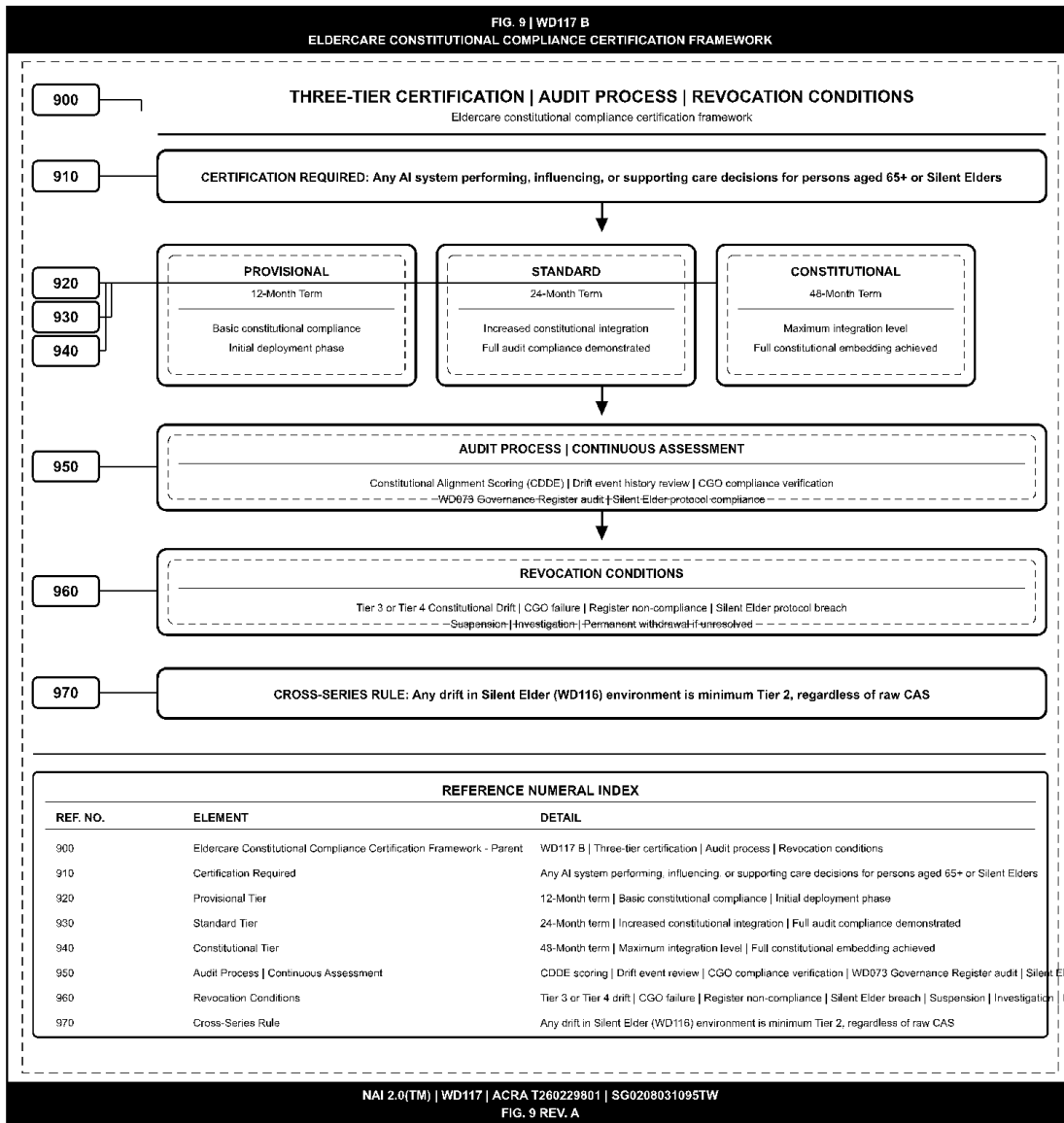
## Reference Numerals

- 800** — Silent Elder Protection Framework
- 810** — Dementia (Moderate–Severe) — Maximum / 30-day review
- 820** — Acute Stroke Rehabilitation — Elevated / 14-day review
- 830** — Aphasia — Elevated / 21-day review
- 840** — Acquired Brain Injury — Maximum / 30-day review
- 850** — Temporary Incapacity — Standard+ / 7-day review
- 860** — Five Non-Negotiable AI Obligations Assembly

## Short Functional Explanation

- 810–850 — five condition categories each with defined activation threshold, protection level, and mandatory review frequency.
- Proxy Constitutional Appointment — must be registered before any material care decision; no assumption of consent.
- Zero-Default Harm Principle — least invasive action always selected in absence of clear instruction.
- Behavioral Advocacy Engine — AI interprets micro-expressions, physiological markers, pattern deviations as preference signals.
- Constitutional Audit Trail — every decision documented with constitutional rationale, proxy involvement, clinical basis.

# FIG. 9 — WD117: Eldercare Constitutional Compliance Certification Framework



## Patent-Ready Figure Description

FIG. 9 is a certification framework diagram 900. Certification under WD117 is required for any AI system that performs, influences, or supports care decisions for individuals aged 65 years or older, or for any individual formally designated under WD116 as a Silent Elder. Certification scope 910 defines the mandatory application. Three certification tiers are established: Provisional 920 (12-month term, initial deployment phase, basic constitutional compliance demonstrated); Standard 930 (24-month term, increased constitutional integration, full audit compliance demonstrated); and Constitutional 940 (48-month term, maximum integration level, full constitutional embedding achieved). The audit process 950 encompasses Constitutional Alignment Scoring via CDDE, drift event history review, CGO compliance verification, WD073 Governance Register audit, and Silent Elder protocol compliance assessment. Revocation conditions 960 include any Tier 3 or Tier 4 Constitutional Drift event, CGO failure, register non-compliance, or Silent Elder protocol breach. Revocation progresses from suspension through investigation to permanent withdrawal if unresolved. A cross-series escalation rule 970 mandates that any Constitutional Drift event triggered within an eldercare environment involving a Silent Elder automatically escalates to a minimum Tier 2 classification regardless of the raw Constitutional Alignment Score.

## Reference Numerals

- 900** — Compliance Certification Framework
- 910** — Certification Scope (65+ or Silent Elder designation)
- 920** — Provisional Certification (12-month)
- 930** — Standard Certification (24-month)
- 940** — Constitutional Certification (48-month)
- 950** — Audit Process Requirements
- 960** — Revocation Conditions
- 970** — Cross-Series Silent Elder Escalation Rule


## Short Functional Explanation

- 910 — mandatory for any system influencing care decisions for persons aged 65+ or designated Silent Elders.
- 920–940 — three tiers reflecting increasing constitutional integration and demonstrated audit compliance.
- 950 — audit encompasses CDDE scoring, drift history, CGO compliance, register review, and Silent Elder protocol.
- 960 — revocation triggered by Tier 3+ drift, CGO failure, register non-compliance, or Silent Elder breach.
- 970 — cross-series rule: Silent Elder environment drift automatically escalates to minimum Tier 2 regardless of raw CAS.

## Applicant Declaration

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I, Koh Wui Kiat, Edwin, of Non-Agentive AI Governance Singapore (ACRA T260229801), declare that these drawings and figure descriptions form part of the canonical patent vault reference for the WD Series and Protocols (WD070–WD073 and WD113–WD117) within the NAI 2.0™ ecosystem and are a true and accurate representation of the constitutional governance architectures described therein.

Signed: 

Name: Koh Wui Kiat, Edwin

Date: 17/4/2026

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Canonical Vault Reference: NAI 2.0™ — WD Series and Protocols · WD070–WD073 · WD113–WD117 · ACRA T260229801 · SG020603109STW · Confidential