

the FOUNDATION FOR
INFRASTRUCTURE RESILIENCE

FIR Field Handbook

Reference & Glossary

Foundation for Infrastructure Resilience

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Foundation for Infrastructure Resilience, Inc. ("FIR"™), a non-profit 501(c) (3) Delaware Corporation.

Our Vision

A secure and prosperous future where resilient and sustainable critical infrastructure empowers communities and safeguards our nation.

Our Mission

Improve the quality of life and help ensure the continuity of the United States by facilitating sustainable communities and resilient critical infrastructures, fortified against threats and meeting the needs of the 21st century.

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FIR Field Handbook

The field reference for the FIR™ method: how community readiness is measured, how a readiness claim is stated and qualified, and the shared terms and course field cards, in one place.

About this handbook

The FIR Field Handbook is the quick reference for the FIR method of community resilience. It states how readiness is measured, how a claim of readiness is written and qualified, and it gathers the shared terms and the course field cards in one place.

It is written for everyone who uses the method, at the desk or in the field: elected officials and managers at every level of government, from a township or parish to a state; emergency managers; assessors; and the members of a community working group. It assumes no prior FIR course, and it also serves enrolled students as the reference beside the lessons.

Use it as a reference, not a course. When a term, a score, or a certification level is in question, this handbook carries the definition of record. The online courses remain the version of record for instruction; where a course and this handbook ever differ, the course governs, and the difference should be reported for correction.

The FIR Maturity Model

The FIR Maturity Model is the single scoring model behind every FIR claim. Each of the three vectors is scored on its own; the apex, Diamond Blue™, is reached only when all three stand together within a declared scope.

The three vectors. Readiness is measured separately against three threats: EMP/GMD, cyber, and physical. A vector is certified *hardened* only when its hardening reaches its survivable threshold — EMP/GMD to H4, cyber to H3, physical to H3.

The four certification levels. Within each vector, readiness is earned level by level under the Per-Vector Readiness Rule: Bronze, Silver, Gold, and Diamond. These are the only four levels.

The seven phase gates. A phase gate is the *beginning* of a level or tier, not proof of it: passing the gate opens the level, which the vector then earns by scored readiness. There are seven gates.

Phase gate	What it opens
Bronze	The Bronze level
Silver	The Silver level
Gold	The Gold level

Phase gate	What it opens
Diamond Basic	The Diamond level — foundational hardening in place. Passing it does not make a vector hardened.
Diamond Transition	The first per-vector tier above Diamond
Diamond Core	The second per-vector tier
Diamond Optimized	The third per-vector tier

Diamond-N™. Once a vector reaches its survivable threshold at the Diamond level, its Diamond-N is stated — the days of supply it can sustain under its binding constraint. The tiers are Diamond-14, Diamond-30, and Diamond-60.

Diamond Blue. Diamond Blue is the apex: all three vectors at the Diamond level, at Diamond-60 or deeper, with the Consolidation Framework demonstrated — a community operating as a functioning limited society. The three tiers above Diamond — Transition, Core, and Optimized — are earned per vector and written with the vector's name, as in "Cyber Diamond Optimized." Diamond Blue at a tier means all three vectors hold that tier; where they differ, the scope's Diamond Blue tier is the lowest tier any one vector holds — the weakest link.

Declared scope and the claim form

Every FIR claim is stated for a **declared scope**, and a claim never rolls up to a larger scope on its own. A scope answers for its dependencies: each must sit inside the scope, or be hardened and named.

A declared scope is one of three things:

- a **community** (for example, a township, city, or county);
- a **facility**, such as an Emergency Operations Center or an anchor building; or
- a single **Capability Domain**.

The seven Capability Domains are Energy; Water & Wastewater; Food & Agriculture; Communications; Security; Governance & Justice; and Societal Transition Operations.

The claim form states, in order: scope, then vector, then level or tier. For example:

- *Marlow Township (community): Cyber Diamond Optimized; Physical Gold; EMP/GMD Silver*
- *Marlow EOC: Diamond Blue Optimized*
- *Marlow energy domain: Diamond Blue Core*

At facility or domain scope, **Continuity of Operations** replaces the community-level Consolidation Framework: the scope runs its stated days of supply on its own stock, sustains its staff — including provisions for the households they would otherwise leave to protect (Tier 0H) — and exercises its access control and security.

The Prudence Notice

Every readiness claim below community-wide Diamond Blue carries a **Prudence Notice**. The Notice names the claim's declared scope and the vectors it covers, and states that the claim is credited progress, not Black Sky Event readiness for the community.

The Notice attaches even to a facility or a domain certified at Diamond Blue, because that scope is smaller than the whole community. Only one claim is free of it: community-wide Diamond Blue — all three vectors at Diamond Blue across the entire community.

Examples:

- *Cyber Diamond Optimized (community): hardened against cyber only; not Black Sky Event readiness.*
- *Marlow EOC: Diamond Blue Optimized* — a facility claim, so the Notice applies: it is not Black Sky Event readiness for the community.

Field cards

These cards restate each course in carry-along form, drawn from the course's own field card. A field card is made to work on its own — when no desk, expert, or network is in reach — so each one carries the figures and steps you actually need rather than sending you elsewhere. Where a figure depends on a product, such as bleach strength, the card gives the common cases and how to read the label. Where a card and a course ever differ, the course governs.

The Foundation cards come first, then the assessor-method cards (BSE 201–207).

The member's card (FIR 001)

What a member is most often asked, with the course's own answers.

- **What FIR is.** An all-volunteer 501(c)(3), founded inside InfraGard in 2024, that builds the threat assessments, the infrastructure dependency stack, the training, and the assessment methodology for a prolonged grid-down event. Every document is public-sourced; every municipal assessment is free.
- **What a Black Sky Event is.** A grid-down event lasting weeks or longer — cyber, physical, solar storm, or EMP — with no unaffected region to send help; FIR plans for at least 30 days. Communities plan for 72 hours; the exposure begins on Day 4.

- **The six lines of effort, in order.** Education and Training; National Recognition and Organizing; Defense Force Protection and Mission Assurance; State Planning and Readiness; Critical Infrastructure Sectors; Resilient Communities.
- **The framework in four lines.** Three vectors scored independently (cyber, physical, EMP/GMD); four maturity levels per vector (Bronze, Silver, Gold, Diamond, with Diamond-N the days of supply set by the binding constraint); Diamond Blue the apex (all three vectors at Diamond plus a demonstrated ability to operate as a functioning limited society); and the seven steps (inventory, target architecture, gap assessment, roadmap and budget, affordability decision, roadmap refinement, exercise validation).
- **The free Foundation, in order.** BSE 099 → 101 → 102 → 100, about 24 hours. Four credentials: CRL, then CRC → CIRP → CBRA.

Get home — bag, route, plan (BSE 099)

A Get Home Bag for moving through suburban and urban terrain when infrastructure has failed — not a wilderness bag. Target about 25 pounds; every item justifies its weight in one sentence.

- **The eight categories.** Water (carried, plus filtration); food (high-calorie, no-cook, shelf-stable, judged by calories per ounce); shelter (bivvy or space blanket, poncho, cordage); medical (blister care first, personal prescriptions rotated, trained-only items); communications (hand-crank AM/FM/NOAA radio, whistle, written contacts and rally points); navigation (paper map, compass, primary and alternate routes); safety (headlamp, multi-tool, small bills, ID copies, lawful personal protection); clothing (broken-in shoes, layers, rain gear, spare socks).
- **Route planning without GPS.** Paper map from work to home; mark primary and alternate routes, hazards (flood zones, industrial sites, high-crime areas, uncrossable water), and resource points (public water, friendly locations, armories, fire stations); plan for 3–10 miles a day; mark five-mile intervals.
- **Personal PACE.** Primary: cell (text first). Alternate: landline. Contingency: FRS/GMRS handheld on a pre-set family channel. Emergency: a physical rally point at a set time. Minimum: a hand-crank NOAA radio and a written plan that names the rally point. Match the layers to the threat: in a storm or cyber outage, two-way radio outlasts the cell network; under EMP, expect repeaters down — fall back to simplex, line-of-sight handhelds and spares stored powered-off in a shielded (Faraday) container.
- **No vehicle, or a load you can't carry.** Size the bag to what you can actually move. If 25 pounds is too much, keep water, a way to treat it, a light, a paper map, your medications, and cash first, and shed the rest. With no car, carry those essentials on your body every day, since on foot the bag is all you start with; stage a second set at work if you can.

Source discipline (BSE 100)

You have not verified a claim until you can cite its primary source; you have not achieved a capability until you have demonstrated it.

- **The five source tiers (a floor, not a verdict).** 1 Primary (original documents, filings, raw data, sworn testimony) — to settle a technical claim; 2 Qualified secondary (experts who cite their primaries) — reliable when the analysis shows its work; 3 Curated aggregation (journalists who cite sources) — to find the primary; 4 General media — what the public is told, never technical fact; 5 Government press release — policy posture, never technical fact. Motivation, recency, and corroboration adjust the tier.
- **Four habits on every claim.** Cite it (document, publisher, date, locator); read the original, not the summary of the summary; evaluate motivation; cross-reference for independence (three echoes of one source are one source).
- **Read the silence.** Go to the primary feeds directly against a baseline of what should be there; a divergence is a finding.
- **Label the confidence.** Confirmed (Tier 1–2 corroboration); assessed (reasoned, partial evidence); possible (hypothesis held open).

Can you get home? (BSE 101)

Pace is not daily distance. Water is the clock. Feet stop more people than anything else. A route you have walked is a route you trust.

- **The three tiers.** Tier 1 (24 hours, on your body and in the vehicle); Tier 2 (48–72 hours, the Get Home Bag); Tier 3 (five or more days, the Expedition Bag). Nested and additive; match the tier to distance, season, and threat.
- **Load discipline.** Justify every item in one sentence; weigh the bag (water and food dominate); choose food by calories per ounce, no-cook.
- **Movement reality.** 3–10 miles per day under load for an unconditioned adult; beyond 8–10 miles from home, plan a multi-day movement; care for feet first; move unremarkably and avoid chokepoints; let weather drive decisions, and sometimes the right move is to stop.
- **Water.** Match the method to what is in the water. Filters and boiling handle living things; only reverse osmosis or distillation removes chemicals and heavy metals. A hollow-fiber filter catches bacteria and protozoa but not viruses reliably; carbon cuts some chemicals. To make clear water safe with no filter: bring it to a rolling boil for 1 minute (3 minutes above 6,500 feet), or add plain unscented household bleach — 8 drops of 6% or 6 drops of 8.25% per gallon (2 drops per quart), doubled if the water is cloudy or very cold — then stir and wait 30 minutes; a faint chlorine smell should remain. Boiling and bleach do nothing for chemicals: when that is the risk and you cannot distill it, find another source.

- **Navigation.** Stay found by terrain association, handrails, catching features, pace count, and compass; carry a route book — honest segments, a genuinely different alternate, a hazard overlay, resource and decision points.

- **If your situation is different.** With no vehicle, begin on foot and keep Tier 1 on your body, not in a car, and plan shorter legs with more rest. If distance, mobility, or stamina make the walk unrealistic, plan to stay put instead, and arrange in advance who will help you. If you can't carry much, protect water and the means to treat it before anything else, and use a wheeled bag or cart where the terrain allows.

Can your family survive 30 days? (BSE 102)

Size everything to your actual household. Store and produce. Sanitation is disease prevention. Build the plan around the most vulnerable member.

- **The household numbers (planning figures).** Water about 1.5 gallons per person per day (minimum 1 for drinking and hygiene) — roughly 180 gallons for a family of four over 30 days; store toward 30 days and size a produced-water method to the daily need; calories about 2,000 per person per day. Children, nursing mothers, the sick, anyone working hard, and hot weather all need more water and food — heat alone can double the water. Free in-house reserves: the water heater, toilet tanks (not bowls), and the pipes, if you can shut and drain the main safely.

- **Water treatment.** Match the method to the contamination. Boiling and bleach kill living things only; filters add capacity (gravity and pump units make many gallons a day, carbon cuts some chemicals); reverse osmosis or distillation is the only reliable fix for heavy metals. To boil, hold a rolling boil for 1 minute (3 minutes above 6,500 feet). To use plain unscented bleach, read the label for its strength: 8 drops of 6% or 6 drops of 8.25% per gallon (2 drops per quart), doubled for cloudy or very cold water, then wait 30 minutes — a faint chlorine smell should remain. Never use scented, color-safe, or cleaner-added bleach.

- **Sanitation (the step most plans skip).** A lined bucket or bowl with a seat and cover material; solids sealed and stored away from living and water areas; a hand-wash station with soap at every toilet point; drinking, gray, and black water streams decided in advance.

- **Food.** Store what you eat; rotate FIFO; store cool, dark, dry, and sealed; keep one ventilated off-grid cooking method with fuel; when power fails, keep doors shut and eat perishables first. Start one production entry point this season.

- **Medical and vulnerable members.** Keep layered supplies and a printed reference. For the biggest killer in a long emergency — dehydration from diarrhea — keep oral rehydration salts on hand, or mix the standard home formula in clean water: 1 liter, 6 level teaspoons of sugar, and 1/2 level teaspoon of salt, stirred until dissolved and sipped in small, frequent amounts (measure level spoons — too much salt makes it worse). Build any prescription buffer ahead of time with your prescriber and pharmacist — 90-day fills, mail order, the earliest refills your plan allows — and plan the cold chain for anything like insulin. Build the whole plan around the most

vulnerable: infants, the elderly, the medically dependent, powered devices with backup power, and pets.

- **If you live in an apartment.** Store water in flat, stackable containers under beds and in closets; even a week's worth matters. Don't count on the building's water heater, which may be shared or unreachable, so lean on what you store and treat. Never run a stove, grill, or generator indoors or on a balcony unless it is rated for indoor use; carbon monoxide is the hidden killer. Plan how you would carry water up the stairs if the elevator fails, and get to know the neighbors on your floor.

The water and rehydration figures on these cards follow U.S. public-health guidance: EPA, Emergency Disinfection of Drinking Water; CDC, Making Water Safe in an Emergency; Ready.gov, Water; and the WHO/CDC oral-rehydration formula.

The assessor-method cards restate the Track C methodology. Their routing of legal questions to the entity's counsel is the method itself, not a deferral: deciding which protections apply to a specific entity is counsel's call, not the assessor's.

The assessor's method (BSE 201)

An assessment is a defensible claim. The whole methodology, in the order an engagement runs it.

- **Read structure first.** Place the entity and its dependencies in the infrastructure dependency stack (0S and 0H beneath Energy, then Lifelines, Shared Services, Operational); set read-order by the timeline of collapse; score governance and workforce, never assume them.

- **The two standards.** Diamond-N is days of supply across all consumable classes, N = whatever runs out first (14 marginal / 30 adequate / 60 resilient), checked against the credible bridge to production. Diamond Blue is all three vectors at Diamond plus a functioning limited society demonstrated; tiers Transition / Core / Optimized earned per vector; gates are not levels; every claim names scope, then vector, then level or tier, with the Prudence Notice below community-wide Diamond Blue.

- **Score per vector.** Certification level is the lowest of the ten dimension scores (Per-Vector Readiness Rule). Hardening is H0–H4 against six Compliance Domains and fifty-six standards. Diamond eligibility only at the survivable threshold (EMP/GMD H4, cyber H3, physical H3); then Diamond-N attaches. Never a composite across vectors.

- **Two doors, seven steps.** Fresh Start (free, bounded, no scored finding; archetype chosen). The protections gate — Pre-Engagement Acknowledgment, then the Certification Engagement Agreement — before any score. Then: inventory → localize the target → gap assessment → roadmap and budget → the Affordability Decision (the governing authority's, external funding first) → refine → deliver and validate by exercise, back to Step 1.

- **Evidence and paper.** Every finding carries source, date, verification status, and location, re-performable from the workpapers alone; verified, attested, and asserted kept distinct; no N/A without justification; the Diamond Blue tier stated exactly; signature only beneath scored artifacts, with the independence footer.
- **Route, then sign.** Teach and evidence the Legal Protection framework as scored infrastructure; route every legal line to the entity's own counsel; sign only what you decided.

The scoring instrument (BSE 202)

A score is a representation. Scope, the ten dimensions, the rubric, the evidence bar, per-vector scoring, prudence, hand-off.

- **Scope before anything is scored.** Name the entity and draw its boundary (metro, municipal Continuity of Operations, industrial park, plant, refinery, port, or campus); record population, functions, and outside dependencies; fix the Functional Area Analysis scope; write scope, boundary, and purpose at the head of the scorecard.
- **The ten dimensions.** Policy; Governance; Recovery Operations Centers; Situational Awareness; Capability Awareness; Capability Planning (the engine); Operations; Sustainment; Training & Exercises; Threat/Hazard Identification (logically first) — each scored per vector against the declared scope.
- **The 0–5 rubric.** 0 none; 1 awareness; 2 Functional Area Analysis (capabilities mapped to the declared scope); 3 Functional Needs Analysis (risk-ranked gaps); 4 Functional Solutions Analysis (costed, phased roadmap — open gaps are not a disqualifier); 5 validated, tested and exercised, with a live reassessment schedule. Claim a level only when its evidence exists.
- **Per vector, weakest link.** Score all ten dimensions separately for cyber, physical, and EMP/GMD; set each vector's level at its lowest dimension, not its average; no level transfers between vectors; produce no blended number.
- **Prudence and representation.** Credit partial-vector maturity as real progress; describe nothing below community-wide Diamond Blue as Black Sky Event readiness; attach the Prudence Notice in full to every claim below it; route every external use of the score to counsel before the claim.
- **Assemble, then hand off.** Every cell evidenced, the boundary rule held, any level 5 genuinely validated; pass the scores to BSE 203 for the roadmap.

The production method (BSE 203)

The roadmap is the deliverable. Inherit, analyze, solve, test, phase, route, manage.

- **Inherit the scope; trace every line.** Anchor the roadmap to the declared scope (nothing widened or absorbed); name what sits outside as a dependency; fix the Functional Area Analysis

scope (the seven Capability Domains and thirteen functions, or the scoped subset); trace every initiative to a dimension, vector, current level, and target.

- **Requirements, then gaps, then solutions.** Functional Area Analysis (requirements baseline, no solutions yet); Functional Needs Analysis (required · on hand · delta · risk rank); Functional Solutions Analysis (open all eight DOTMLPF-P legs first; accept, non-materiel, or materiel). Each lever handed to the dimension that owns it; re-score nothing.
- **Test the materiel plan.** Responsiveness and Attainability (supplies and distribution on hand or assured); Sustainability (stocks and resupply cover an extended event); Survivability (logistics nodes hardened across all three vectors); Economy, Simplicity, Flexibility (highest-risk gaps closed simply, with room to adapt).
- **Phase it.** Place every initiative against the seven phase gates; treat the 60-day buffer as a benchmark and state the season assumed; give each tier a budgeted plan to reach the next; sequence Bronze → Silver → Gold → Diamond Basic, then Diamond Transition → Core → Optimized, per vector; do not open with Optimized hardening on an unplanned foundation.
- **Route before it is written.** Gate management, population movement, detention, community rules of engagement (above all use of force), refugee reception, correctional contingency, the warden structure — plan the provision, route the line to the entity's counsel and governing authority.
- **Keep it alive; claim it honestly.** Group, sequence, and reassess the portfolio on a schedule; credit progress vector by vector; FIR certifies conformance to standards, never outcomes.

Building the pair (BSE 204)

Agreements, not assurances. Map, walk, open, run, fund, hold — building a city-base pair.

- **Map before you ask.** Active installations in mutual-aid range (what each holds and its command relationships); Guard armories and readiness centers (unit type, troop strength); the EOC hierarchy, federal to special-purpose; what the community brings.
- **Walk the ladder; route the question.** Name the landmark — DSCA (support-to; civil authorities lead), Guard statuses (State Active Duty, Title 32, federal service), the wider civil frame (Stafford Act, state emergency powers, EMAC), the mutual-aid agreement — and route the legal specifics to counsel.
- **Open the relationship.** Discussions opened early across all eight domains by the mayor or city manager; each domain walked for offers, needs, and counsel review; the MOU briefed at its exact size (never as presence, capability, rescue, or a defense commitment); the agreement exercised.
- **Run the four instruments.** Military Dependency Inventory; DSCA Demand Estimate; Deployment Impact Assessment; Gap-to-Readiness Crosswalk.

- **Fund the gap.** Complete the OLDCC consultation; confirm Installation Readiness and DCIP eligibility; work the community-resilience lane beside it; carry the crosswalk and a bipartisan narrative; no award warranty — say eligible and applying, and plan on what is committed.
- **Hold the lines.** Before anything leaves the building, run the four-category pre-flight (a fact held; an estimate with its basis; a signed text quoted at its exact size; a question with an owner). Never give assurances beyond a signed text, legal determinations, or words on behalf of the military. Coordination, not command.

Reading the threat (BSE 205)

Posture, not prediction. Frame, chain, the three vectors, the products, the room.

- **Hold the frame.** Cyber — remote reach and patience (the patient intruder); physical — locality and access (the arriving attacker); EMP/GMD — simultaneity and reach (the single event that touches everything).
- **Read the chain backward.** Effect (what would have stopped it earlier?); Persistence (is monitoring seeing presence before action?); Access (where do hardening and detection meet the boundary?); Reconnaissance (what does the community expose?).
- **Cyber — presence precedes effect.** What monitoring can actually see, and on which systems; where operational technology meets the outside world; which dependencies a patient adversary values; an incident is not presence.
- **Physical and combined arms.** Where concentrated value meets exposed surface; which dependencies turn local damage into regional consequence; what simultaneity does to the response plan; read separately, defend jointly.
- **EMP and GMD.** Reach with simultaneity (no unaffected neighbor) and the long tail of long-lead components; brief it as documented physics, solar history, and replacement timelines — without theater, attached to decisions.
- **Into the assessment and the room.** Aim the methodology's rules, change none; present alternatives-first; may say documented classes and patterns, assessed exposure, the posture that breaks chains earlier; may not say a forecast, a date, attribution beyond published sources, or a likelihood the evidence cannot carry; release only through the engagement's channels.

Researching the community (BSE 206)

Findings, not facts. Plan, source, research the three families, verify, assemble, release.

- **Before you collect.** Bound the question (what, why, and what "good enough" looks like); say what will not be collected; justify every item by the assessment's need; anything that would approach, contact, enter, watch, or target is struck — it is never research.

- **Every finding carries two things.** Provenance (the source's nature, originator, date, and how it was accessed) and confidence (high, moderate, or low, with the reason: source nature, independent corroboration, recency, directness).
- **The three families.** Hardened facilities (role, published governance, documented interdependencies — never casing); the food system's three legs (primary-source dependence and capacity, gaps named — never a bridged gap as a finding); the FAP workforce (the aggregate documented footprint — never an individual, surveillance, or pretext).
- **Verify before you trust.** Independent corroborating sources; search for what would disconfirm; state the assumptions about how others behave; prune what the question does not need.
- **The product.** A provenance table and confidence language on every finding; every gap named with what would close it; it feeds the assessment, never scores it; exactly as large as the assessment requires.
- **Ethics, OPSEC, release.** At a legal line, stop, name the question, and route it to counsel; release only through the engagement's channels, to authorized parties, at the warranted classification; to a warm request, describe the method and route the specifics.

Making it bankable (BSE 207)

Models, not promises. Frame, anchor, layers, bankability, crosswalk, the room — a funding architecture.

- **Hold the order.** Layer 1 revenue anchor (recurring money on its own terms — the only layer that answers for itself); Layer 2 private capital (prices the risk — the first audit); Layer 3 municipal participation (the community's contribution, in its mode); Layer 4 grants (an opportunistic supplement only).
- **Draw the split.** Canonically the plant is a private tenant recovering generation through a long-term power-purchase agreement; the community's side is commitments only, a bounded site-and-civic scope, or — by election — the plant itself. Projected revenue is not promised money; the operator's plant is not the town's purchase.
- **Read each layer.** Private (revenue thesis, allocated risk, visible assumptions); municipal (the mode set before anyone prices a share; a waste-stream commitment considered for a waste-to-energy anchor); grants (eligible and applying, never "awarded" before it is).
- **Test for bankable.** An identified, modeled revenue stream; an ordered architecture with the split visible; every material risk with an owner built to carry it; bankable does not mean guaranteed.
- **Build the crosswalk.** It maps the roadmap and edits nothing; submitted before the roadmap is finalized; each phase shows layers, assumptions, and conditions; released only through the engagement's channels.

- **Hold the room.** May present structures, models with assumptions visible, scenarios, and comparisons; never represent projections as committed, modeled returns as expected, or applications as awards; route every advice question whole to the licensed professionals retained by the parties.

Glossary of record

This appendix is the Master Glossary of Record: the shared terms of the FIR method, each with one definition of record, grouped by subject. Where a term appears in more than one course, this definition governs. The Source column names the course the term is drawn from.

The threat

Term	Definition of record	Source
Black Sky Event (BSE)	A grid-down event lasting weeks or longer: a wide-area failure of the electric grid and the critical infrastructure that depends on it, with no unaffected region able to send help. For planning purposes, FIR treats a Black Sky Event as lasting at least 30 days.	BSE 099
Critical infrastructure	The systems and assets a community and the nation cannot function without, organized federally into 16 critical infrastructure sectors. Always spelled out in visible text.	BSE 100
Three vectors	Cyber, physical, and electromagnetic pulse / geomagnetic disturbance (EMP/GMD): the three threats FIR scores readiness against, each scored on its own and never blended.	BSE 201
EMP/GMD	Electromagnetic pulse from a high-altitude nuclear detonation or local EMP generator, and geomagnetic disturbance from severe solar activity: the third vector, defined by simultaneity and reach.	BSE 099
E1 / E2 / E3	The three components of an electromagnetic pulse: E1 damages electronics in nanoseconds; E3 drives transformer-damaging currents over seconds to minutes. E2 behaves like lightning, so it is commonly already protected against.	BSE 099
Four-party ecosystem (4PE)	China, Russia, Iran and North Korea, and their proxies, treated as mutually reinforcing adversaries of U.S. infrastructure. FIR's planning basis because it is documented and public; one threat posture, not the only one.	BSE 099
Pre-positioning	Establishing quiet, persistent access inside infrastructure networks without acting, for a day the adversary chooses.	BSE 205

Term	Definition of record	Source
Combined arms	A coordinated, sequenced multi-domain attack in which each vector covers and amplifies the others: cyber, then physical, then institutional, with an optional electromagnetic phase.	BSE 308
Posture, not prediction	FIR's rule for representing threat: characterize exposure as evidenced; never forecast, date or warrant safety.	BSE 205
Operational technology (OT)	The control systems that sense and act on physical processes (PLCs, SCADA, sensors, actuators), as distinct from information systems.	BSE 103
Shared-node doctrine	A strategic asset cannot be isolated on the grid, so the region that shares its infrastructure is the target; harm to the community arrives as the after-effect of an attack aimed elsewhere.	BSE 109
Strategic node	A national-security asset the community shares infrastructure with. Naming one is a consequence claim under the shared-node doctrine.	BSE 109
Keystone	An asset whose loss collapses the system around it; the link between a strategic node and the community anchors.	BSE 109
Community anchor	One of nine classes of place the community depends on: governance, fire, police, community shelter (typically a high school), hospital, water, power plant, wastewater, emergency operations center. Naming one is a dependency fact.	BSE 109
City-base pair	A community and the military installation it hosts, assessed as one survival system. Generalizes to the city-node pair for any strategic node.	BSE 204

The infrastructure model

Term	Definition of record	Source
Infrastructure dependency stack	FIR's model of which sectors depend on which. Energy (Tier 0) sits at the foundation; Lifeline Infrastructure (Tier 1), Shared Services (Tier 2) and Operational (Tier 3) stand on it; all of it stands on Tier 0H and Tier 0S. Dependency flows upward; failure is read from the bottom.	BSE 099
FIR Critical Infrastructure Reference Architecture	FIR's published reference document that sets out the dependency stack and how to organize solutions across the 16 sectors.	BSE 100
Tier 0 — Energy	Electricity and the fuel systems that feed it; the single point of failure every other tier depends on.	BSE 201

Term	Definition of record	Source
Tier 0H — Human Foundation	The workforce of every sector and the households they go home to; the deepest dependency in the stack, hardened household by household through the readiness ladder.	BSE 099
Tier 0H attrition spiral	Operators leaving their posts as their families run short, which slows restoration and drives more departures.	BSE 099
Tier 0S — Security, Governance & Rule of Law	The safety and lawful authority without which operators cannot function; the governance council is its center of gravity.	GOV 107
Shadow infrastructure	Capability a community already contains but has never organized, listed in no official inventory; the bridge, not the replacement.	BSE 110
Carrying capacity	The population that limited local resources can sustain, set by the weakest resource constraint (water, food, shelter or security) and always stated with that constraint.	BSE 110
Planning population	The population figure a scoped resilience plan declares, with what it includes, that every calculation uses.	BSE 110
Single point of failure	One node whose loss takes more than one life-safety facility with it.	BSE 110
Archetype	One of four recognized community patterns — Industrial Park, Urban District, Suburban Network, Planned Community (DBIP, DBUD, DBSN, DBPC) — selected at Fresh Start as a factual determination.	BSE 201

Measuring readiness

Term	Definition of record	Source
FIR Maturity Model	FIR's single authoritative scoring model. Each vector is scored on its own, from Bronze through Diamond; once a vector is hardened to its survivable threshold, its Diamond-N (days of supply) is stated. Diamond Blue is the apex, reached only when all three vectors in a declared scope are at Diamond. Each level, and each Diamond Blue tier, begins at its phase gate. A vector is certified as hardened only when it reaches its survivable threshold at Diamond.	Framework tool
Certification level	Bronze, Silver, Gold or Diamond, earned per vector by scored readiness under the Per-Vector Readiness Rule. Each level begins at	BSE 201

Term	Definition of record	Source
	its phase gate (Diamond's is Diamond Basic). These are the only four levels.	
Per-Vector Readiness Rule	Each vector is certified on its own; within a vector, the level equals the lowest dimension score. No averaging within or across vectors.	BSE 201
Cross-vector masking	Letting strength in one vector raise, offset or hide weakness in another. No composite score exists.	BSE 201
Ten dimensions	The management axes scored 0–5 per vector, in fixed order A–J: Policy, Governance, Recovery Operations Centers, Situational Awareness, Capability Awareness, Capability Planning, Operations, Sustainment, Training & Exercises, Threat/Hazard Identification.	BSE 201
H-ladder	The hardening scale, H0 to H4, set per vector by the protective standards actually implemented. It measures protection; certification levels measure readiness.	BSE 201
Survivable threshold	The hardening level at which a vector's infrastructure is credited as surviving its design-basis event: EMP/GMD H4, cyber H3, physical H3.	BSE 201
Compliance Domains	BSE 201's six groupings of protective standards: EMP/GMD, Cybersecurity, Physical Security, Process Safety, Supply Chain, Governance.	BSE 201
Capability Domains	BSE 203's seven areas of the assessment scope: Energy; Water & Wastewater; Food & Agriculture; Communications; Security; Governance & Justice; Societal Transition Operations.	BSE 203
Societal transition functions	The thirteen operational functions under the seventh Capability Domain that turn a surviving community into a self-sustaining society.	BSE 203
Diamond-N	Days of supply under the binding constraint, across all consumable categories at once, at the planning population. It attaches to a vector only once that vector is hardened to its survivable threshold. Tiers: Diamond-14 marginal, Diamond-30 adequate, Diamond-60 resilient.	BSE 201
Days of supply (DOS)	How many days a consumable category lasts at the planning population once resupply stops: (on hand + stored) ÷ (daily rate × population − daily production), per category.	BSE 110
Binding constraint	The consumable category that runs out first; it sets N.	BSE 201

Term	Definition of record	Source
Diamond eligibility	A vector's standing to carry a Diamond-N designation, open only where its hardening is at or above its survivable threshold.	BSE 201
Diamond Blue	FIR's qualitative apex, not a fifth rung: all three vectors at Diamond, at Diamond-60 or deeper, plus the Consolidation Framework demonstrated: the ability to operate as a functioning limited society, producing, exchanging and governing past the end of any stockpile. It is always stated for a declared scope (community, facility or domain), and its tier is the lowest tier any of the three vectors holds there. For a facility or domain scope, continuity of operations takes the place of the Consolidation Framework. A Diamond Blue plan documents the path to the next harvest.	BSE 201
Transition · Core · Optimized	The three tiers above the Diamond level, each beginning at its own gate and earned per vector within a declared scope. Transition: the planning-and-buffer tier, entered with the vector at Diamond, Diamond-60 or deeper, and the Consolidation Framework demonstrated (for a facility or domain scope, continuity of operations). Core: the post-buffer state, surviving on distributed infrastructure. Optimized: self-sustaining operations. One vector's tier is written "Cyber Diamond Optimized"; Diamond Blue at a tier needs all three vectors at that tier.	BSE 203
Diamond-infinity	Retired. No stockpile reaches infinity; self-sustaining operation belongs to Diamond Blue.	BSE 201
Benchmarks, not warrants	Tier thresholds are planning floors, never findings that a duration is enough. A community with N days is still at risk if the next harvest lies beyond N.	BSE 305
Prudence Standard	Partial-vector progress is real, credited progress, but it is not Black Sky Event readiness and is never represented as such.	BSE 202
Prudence Notice	The fixed statement every claim below community-wide Diamond Blue carries, naming the claim's declared scope and the vectors it covers and stating that it is credited progress, not Black Sky Event readiness for the community. It attaches even to a facility or domain certified Diamond Blue, because that scope is smaller than the whole community: "Marlow EOC: Diamond Blue Optimized" carries it. Example: "Cyber Diamond Optimized (community): hardened against cyber only; not Black Sky Event readiness."	BSE 202

Certification and evidence

Term	Definition of record	Source
Phase gate	One of seven evidence-certified gates inside the FIR Maturity Model: Bronze, Silver, Gold, Diamond Basic, Diamond Transition, Diamond Core, Diamond Optimized. Each gate is the beginning of a level or tier. The first four open the Bronze, Silver, Gold and Diamond levels; the last three open the Transition, Core and Optimized tiers. Levels and tiers are earned per vector, within a declared scope. FIR certifies that the entity has met the gate's standards.	BSE 203
Diamond Basic	The fourth phase gate and the beginning of the Diamond level: foundational hardening in place. Passing it does not make a vector hardened; a vector is certified hardened only when it reaches its survivable threshold within the Diamond level, and Diamond-N then attaches.	BSE 203
Conformance, not outcomes	FIR certifies that an entity meets a standard, never that a community will survive.	BSE 203
Evidence hierarchy	The five rungs of proof, strongest first: exercised, demonstration, inspection, documentation, narrative. Mapped to the 0–5 scoring anchors.	BSE 305
Verified, attested, asserted evidence	Verified: directly examined, tested or observed by the assessor or a qualified party. Attested: formally stated true by a responsible party. Asserted: said, but not documented.	BSE 201
Chain of custody	The unbroken record of who produced and verified each artifact, from collection to signature; how Trust but Verify is demonstrated.	BSE 305
Trust but Verify	FIR's certification doctrine: no claim is credited on trust; each is verified at the strength the evidence hierarchy requires.	BSE 305
Scorecard	The assessment deliverable: a declared scope, the ten dimensions against the three vectors, each cell a 0–5 evidenced score, each vector set at its weakest dimension.	BSE 202
FIR Diamond Blue Certification Panel	Certified assessors with no role in the engagement who review every package before award. They concur or remand with named defects; they never re-score, waive or soften.	BSE 305
Recertification	The narrower, equally strict engagement that holds, conditions or reverts a certification each cycle, on exercised evidence.	BSE 305

Term	Definition of record	Source
Diamond scope	What a community declares Diamond-ready, from a hardened command core to the whole municipality, and therefore exactly what must be exercised.	BSE 308
Declared scope	What a certification covers: a whole community, a single facility (an EOC, an anchor building) or one Capability Domain. Every level, tier and Diamond Blue claim is stated for a declared scope and never rolls up to a larger one. A scope answers for its dependencies: each must sit inside the scope or be hardened and named.	BSE 202
Claim form	How a certification is written: scope, then vector, then level or tier. Examples: "Marlow Township (community): Cyber Diamond Optimized; Physical Gold; EMP/GMD Silver"; "Marlow EOC: Diamond Blue Optimized"; "Marlow energy domain: Diamond Blue Core."	BSE 201
Continuity of operations (facility or domain scope)	What a facility or domain demonstrates in place of the Consolidation Framework: it runs for its N days on its own stock; its staff are sustained, including provisions for the households they would otherwise leave to protect; and its access control and security are exercised.	BSE 305

The engagement and legal readiness

Term	Definition of record	Source
Defensible claim	What an assessment is: written, scored assertions someone will rely on, built to survive the client, the funder and the assessor who audits it later.	BSE 201
Fresh Start	FIR's free, bounded scoping workflow and the front door to the method. Explicitly not a full or formal assessment; where the tool's screen is shown, note that the tool labels it "Fresh Start Assessment."	BSE 201
Certification engagement	The paid engagement that runs the Transformation Architecture under executed legal protections and produces scored findings.	BSE 201
Pre-Engagement Acknowledgment	The one-page instrument executed before any assessment activity, with counsel notified per LP-003.	BSE 201
Certification Engagement Agreement (LP-002)	The agreement establishing confidentiality, discovery protections and the legal framework; executed before any scored assessment exists.	BSE 201

Term	Definition of record	Source
Transformation Architecture	The certification engagement's method: four artifacts (Current State, Target State, Gap Analysis, and the Transition Architecture or Roadmap) delivered through seven steps.	BSE 201
Seven steps	Inventory; localize the target; gap assessment; roadmap and budget; the Affordability Decision; refine the roadmap; deliver and validate by exercise. Then back to Step 1.	BSE 201
Affordability Decision	Step 5: the governing authority's decision on which roadmap portions are affordable now. Owned and documented by the entity, never by FIR; unfunded items become accepted risk with a reassessment trigger.	BSE 201
DOTMLPF-P	Doctrine, Organization, Training, Materiel, Leadership and education, Personnel, Facilities, Policy: the eight elements gaps and solutions are worked across.	BSE 203
Capabilities-based assessment	A three-step sequence in fixed order: Functional Area Analysis (requirements), Functional Needs Analysis (ranked gaps), Functional Solutions Analysis (costed, phased solutions).	BSE 203
Source discipline	Verifying claims yourself: rank the source, read the original, weigh the source's motivation, cross-reference, label confidence.	BSE 100
Legal Protection Framework (LP-001 to LP-022)	FIR's numbered legal-readiness register, published in the Grading Rubric, gated by phase gate and scored as infrastructure. Taught as curriculum, never applied as advice.	GOV 114
Counsel routing	Sending every legal question to the entity's own counsel and governing authority instead of answering it; a scored competency.	GOV 114
Release discipline	Engagement products leave only through the engagement's channels, to authorized parties, after review and on its timing.	BSE 205
Refusal node	A capstone decision point where the correct professional act is to decline and route.	BSE 307
Representation doctrine family	The discipline running through the methodology courses: represent only what the evidence, the model, or the signatures actually support — never more. Each methodology course states its own version as that course's representation doctrine, and no course states a numeric place in the family. As stated, by course: an assessment is a defensible claim (BSE 201); a score is a representation (BSE 202); a figure is a benchmark, not a guarantee	BSE 206

Term	Definition of record	Source
	(BSE 203); agreements, not assurances (BSE 204); posture, not prediction (BSE 205); findings, not facts (BSE 206); models, not promises (BSE 207); with observe and report — an observation, not a finding — as the Domain-band precursor (BSE 106).	

Consolidation and community governance

Term	Definition of record	Source
Community consolidation	FIR's doctrine for how a community governs, feeds, protects and organizes itself when central authority is absent.	BSE 099
Consolidation Framework	The community's planned consolidation posture, assembled in advance: the Keep, the Wall, the Gate, Water Inside the Walls, Harvest Before the Siege, Guild, Tithe, Watch and Ward, Sanctuary and the Commons. The named, scored artifact in the Diamond Blue rubric.	GOV 108
Consolidation point	The pre-designated, hardenable structure the population contracts to when the threat exceeds distributed capability.	GOV 108
Keep	The most hardened facility inside the perimeter, holding the community's strategic reserve. It buys time and is never distributed in bulk.	GOV 108
Wall	The defensible perimeter within which the community consolidates.	GOV 108
Gate	The controlled access points where entry is registered, screened and triaged.	GOV 108
Water Inside the Walls	The siting rule that water treatment and distribution, and every critical node, sit inside or adjacent to the perimeter.	GOV 108
Harvest Before the Siege	The threat-triggered acceleration protocol that moves a community from peacetime readiness to crisis posture.	GOV 108
Watch and Ward	Rotated civic security duty, night watch and day ward, codified by the Statute of Winchester (1285); the consolidated-mode continuation of the warden network.	GOV 108
Warden network	Block and neighborhood civil defense wardens: the distributed form of Tier 0S and the council's reach to the street.	GOV 107

Term	Definition of record	Source
Sanctuary zone	A designated area, weapons excluded except for designated security, where the most vulnerable are concentrated under maximum protection.	GOV 108
Commons	Shared resources the council governs (water, land inside the perimeter, fuel, communications), planned for survival duration.	GOV 108
Governance council	The accountable civilian body, legitimated by a pre-event ordinance, that holds the community's emergency authorities and sits above the security function.	GOV 107
Standing limits	Voluntary membership; civilian, elected, accountable authority; every structure time-boxed to the emergency; local courts functioning from the first day.	GOV 107
Order-Under-Stress ladder	Four rungs, lowest disruption first: civil courts; sheriff, posse and unorganized militia; the governor's Guard under civilian command; time-boxed martial law. Each is subordinate and time-boxed, with full reversion at reconnection.	GOV 210
Accountability horizon	The point at which state and federal government reconstitute and the community's decisions become reviewable; planned for, not predicted.	GOV 114
Reconnection	The return of the grid and the outside economy, when the emergency structure stands down.	GOV 111
Sister city	An allied municipality within 100 miles, chosen for complementary capability under a pre-event mutual-aid compact.	GOV 108

The local economy in transition

Term	Definition of record	Source
Free issue	Provisions from the Keep issued to every resident, without condition, for a stated term under the council's written plan; then posted prices.	GOV 108
Posted prices	Prices asked, posted and honored as posted; never set by the market office.	GOV 113
Guild	A task force organized around one community function, with defined membership, training and quality standards, and representation in governance.	GOV 108

Term	Definition of record	Source
Tithe	The civic-contribution obligation: functionally a local tax payable in labor, supplies or skills, credited in scrip or ledger credits.	GOV 108
Scrip	Locally issued paper, good among those who accept it; not legal tender and never represented as such. How it is issued and retired is GOV 113's subject; its legality is counsel's question.	GOV 113
Credit ledger	A public book of household and guild accounts, credited on delivery and debited on receipt.	GOV 113
Conversion	Re-stating prices, wages and obligations in national currency as it resumes at reconnection.	GOV 113
Delivery architecture	The distribution points, stores, controls and records that physically move goods.	BSE 306
Contingent procurement	A pre-event agreement with a nearby supplier carrying triggers, priority, payment, delivery and duration; routed to counsel before signature.	BSE 112

Household and individual readiness

Term	Definition of record	Source
Readiness ladder	The household storage tiers: 24 hours, 3 days, 10 days, 30 days, 90 days, 6 months, a year.	BSE 102
Get Home Bag (GHB)	A pre-packed 48–72-hour kit, kept at work or in the vehicle, for traveling home under grid-down conditions.	BSE 101
PACE plan	Primary, Alternate, Contingency, Emergency: a communications plan with layered backups for each critical function. Layer it by vector: against cyber, physical, and weather, owned two-way radio (LMR) outlasts the public cell network; against EMP/GMD, assume repeaters and the trunked layer are down and fall back to simplex, line-of-sight handhelds and Faraday-protected spares.	BSE 111
Rally point	A pre-arranged meeting place and time, one near home and one outside the area, for when electronic communications have failed.	BSE 102
Fundamentals Evidence	The practical packet required before any credential exam: Get Home Bag load list, PACE plan, paper route map, FIR Family Checklist household assessment, 90-day household plan, and a library of 20 or more Tier 1/2 sources.	Catalog

The program: courses and credentials

Term	Definition of record	Source
Free Foundation	BSE 099, 101, 102, then 100: about 24 hours, free, each final passed before the next course opens.	Catalog
Free companion courses	FIR 001 (Member Orientation), with free companion courses FIR 002 (Making the Case) and FIR 003 (Find Your Path); free, no prerequisite.	Catalog
Common Paid Core	BSE 104, GOV 106, GOV 107 and GOV 108; completing it opens CRC eligibility.	Catalog
Domain course	A Track B course matching the function a person runs: energy and utility (BSE 103, 105), communications (BSE 111), logistics (BSE 112), critical infrastructure research (BSE 106, 110), or health and medical (BSE 113, 114). FIR reserves the right to include additional Domain courses.	Catalog
Tracks A, B and C	Track A Leadership (authorize and fund), Track B Operational (run a domain), Track C Practitioner (assess and certify).	Catalog
CRL	Community Resilience Leader: the Track A credential. Foundation, FIR 002, the Common Paid Core, the six governance courses (GOV 110, 111, 112, 113, 114, 210), and an exam.	Catalog
CRC	Community Resilience Coordinator: the Track B credential and the gateway to CIRP and CBRA.	Catalog
CIRP	Certified Infrastructure Resilience Planner: the Track C methodology credential, with a supervised practicum.	Catalog
CBRA	Certified BSE Readiness Assessor: the summit credential, carrying Diamond Blue signature authority.	Catalog
Diamond tier	BSE 305, 306, 307 and 308: the CBRA courses.	Catalog
FATP	FIR Authorized Training Provider. BSE 307 qualifies its instructors; FIR 002 is a prerequisite.	BSE 307
FIR Practitioner Registry	The public register of credential holders, authorized training providers and their instructors.	BSE 307