

New here? The story behind the network — why these centers, and why now — is on the [Why ION](#) page. This Guide covers how the tools work.

Project ION runs as one integrated dashboard. A Planner holds five lenses that re-render the same model for different audiences - Public, Operator, Investor, Government, and Developer, grouped under THE NETWORK - and four input-driven lenses, Employer, Worker, Host and Community, grouped under YOUR NUMBERS, which live on their own pages. A Network Map and Floorplans round out the tools, and an Add-a-location control lets you introduce a new site that flows into every view at once. Everything runs in your browser; nothing about a workforce or your model is uploaded. The Planner, Employer, Worker, Host, and Community lenses share one set of economic assumptions, so changing them keeps time and dollar figures consistent.

Illustrative names only. Any company or organization names used as examples here or anywhere in the dashboard (e.g. “Acme Robotics”) are fictional placeholders for demonstration. They do not indicate, imply, or constitute any involvement, endorsement, partnership, or commitment by any named entity.

WHAT THIS IS

Project ION is an attempt to build a financially viable market for distributed work, education and health services in the communities where people already live. **Whether it can pay for itself is the open question this Planner exists to test.**

Resilience and quantum readiness are why it is worth building. Infrastructure at this scale is built once and inherited — it should be built to hold up for the people who come after. Neither shows up in the coverage ratio a lender tests. Both are the point.

Everything below is how to read the model that tests the first question. Nothing in it settles the second.

THE NINE LENSES AT A GLANCE

Public

Regional benefit

Regional benefit at a glance: jobs kept local, new operations jobs, vehicle-miles and commute-hours avoided, CO2, and the commuter dividend, network-wide.

Operator

Deployment & operations

The whole network as one resilient, dual-use backbone: centers live, the enclave seats they operate, the fiber backbone and the gold NOC mesh, and how the build phases in by deploy year. Adding a site lives in the [Build editor ↗](#) on this lens; suspending a center and designating a Network Operations Center are both done in the [Network roster ↗](#), in its tinted columns.

Investor

Capital & returns

The capital story, by tier and network-wide: total CapEx, the grant / debt / equity stack, NOI, Coverage and yield on cost, how co-location lifts coverage, and a Coverage financing pressure-test that stresses rate, grant and leverage against the lender covenant. Framed as a grant-leveraged capital stack.

Government

Government & policy

I-35 congestion and VMT relief, public-investment leverage, productivity recovered, a by-county breakdown, a **Transportation & corridors** rollup (per-corridor trips removed, peak-period relief, crashes avoided — working planning rates — and the dual-use intelligent-infrastructure framing), and curated federal/state grant alignment.

Developer

Construction & delivery

What the build looks like to the construction/real-estate partner: total floor area to construct, hard construction cost, the delivery pipeline by deploy year, a by-tier split, co-location shell vs standalone, and a per-site table.

Employer

Employer commute savings

What an employer's workforce reclaims moving from its current office(s) to the nearest ION centers - hours, dollars, productivity, CO2 - for one or many employers.

Worker

Your personal savings

What the network gives back to one household - hours reclaimed, dollars saved, time value, miles not driven, CO2 - from your home to your nearest center.

Host

Community / host institution

What hosting an ION center gets a host (a manufacturer, a hospital, a college): a largely-funded facility on their campus, jobs and talent at the door, and a hardened, microgrid-backed site.

Community

Municipal / resident

What a center means for a town and its people — or a whole **county** — jobs, shorter commutes, cleaner air, on-site services, and a community-owned asset, shown side by side for the community and for each worker. A third view, **Design your center**, lets a community leader sketch their own center from a template and print a one-page Center Concept.

TOOLS

Planner

Financial & impact model

Home of the Impact/Operator/Investor/Government lenses. Framed assumptions, per-tier build inputs, the resilience core, Add-a-location (Build editor); deploy year, suspension and NOC (Network roster).

Network Map ↗

Where the sites sit

County-colored, tier-sized sites. **Click any site for a five-lens detail panel** (Public, Operator, Investor, Government, Developer) for that location; the lens dropdown sets the whole-network summary and map color. Shows added sites and a dynamic gold NOC mesh, and a + Add node button lets you place a new site by clicking the map. Host-sited centers render as a unique geometric shape per host.

Floorplans

Schematic floorplans & massing

The enclave-pod module through the tiers, Core plan, stacking, co-location, adjacency, and site massing.

Bulk-upload employee addresses (Employer lens)

In the Employer lens click Upload roster and choose a CSV or Excel (.xlsx / .xls) file. Columns are auto-detected by header: a ZIP or address column becomes the home location; a count / headcount / employees column becomes the number of people; an office / site column tags each person to a current office (match the labels you typed under Current offices). With no header row, the first ZIP-like column is used. The loaded rows drop into the roster box so you can review, set the employer name and offices, then click Add employer.

Paste instead of a file

Any roster box also accepts pasted rows, one per line: a bare ZIP (78660), a ZIP with a count (78660,14), or a full street address. Shorthand also works: *N for a headcount (78660 *14) and @Label for the current office (78660 *14 @ATX-HQ).

Office format

Under Current offices, enter one per line as 'Label: ZIP or address' (e.g. ATX-HQ: 78701, or North: 600 Congress Ave, Austin TX). Employees with no @Label tag are assigned to the nearest office.

Export results

Employer lens: Export produces a per-employee CSV (home, current office, before/after commute, minutes saved, travel mode). Planner: Model XLSX downloads the financial workbook; Export Build saves the current scenario - centers, deploy years, and overrides - as a file.

Import a scenario

Planner: Import Build loads a previously exported build file, restoring centers, deploy years, and overrides.

Save / load a Center Concept (Community lens)

In **Design your center**, Save concept downloads your design as a small file (ION-CenterConcept-<name>.json) you can keep, email, or bring to a meeting; Load restores it — on any device. Concepts are scenario files, separate from Planner builds.

Add a site

Planner Build editor: Add a location (name, ZIP/address, county, tier, deploy year, seats, and a **NOC checkbox**) geocodes the point and adds it everywhere - the numbers and every map view. Host lens: '+ Add this center to the network' drops a prospective host's campus in as a site. Network Map: click '+ Add node' then click the map to drop a site at that point.

Change / suspend / **NOC a site**

Planner Network roster: choose **out of network** in the Deploy pick-list to suspend it (it leaves the map and all numbers); pick a year 1–10 to bring it back at that year. Tick a center's **NOC box** to designate it a Network Operations Center; the Map redraws the gold **NOC mesh** accordingly. In the per-tier build blocks, a site Developers field (Name:%, Name:%) splits construction across builders for the Developer lens.

Print / PDF

Every lens has Print / PDF to save the current view as a PDF for a handout or deck.

A note on sharing

Added sites and NOC changes are saved in your browser and sync across the views only when they are served from the same web address (your deployed site) - not when files are opened directly from disk. After adding a site or toggling a NOC, reload the Map to see it.

SHARED ASSUMPTIONS

Space program — the five buckets (per center)

Every center's **gross** floor area divides into five parts. **Efficiency** = usable ÷ gross (default 90%); the remainder is structural **Unusable** loss.

- **Enclave** — secure single-worker rooms; the leasable unit (one enclave carries one seat; floor area = enclaves × SF/enclave).
- **Program** — community services: education, childcare, telehealth, learning.
- **Common** — shared amenities, gathering & internal circulation.
- **Utility** — the hardened resilience core: microgrid, NOC, quantum-safe key management, MEP.
- **Unusable** — structure, exterior walls & vertical shafts (construction loss).

Usable = Enclave + Program + Common + Utility. Enclave is demand-anchored, so the building flexes to fit the seat count; Program, Common, Efficiency, Utility and a per-tier Rent_x are set per tier in the Planner's Per-Tier Build box.

Gas price

\$3.50 / gal (TX avg, AAA Jun 2026)

Vehicle MPG

25 mpg

Maintenance

\$0.15 / mi

Commute speed

30 mph

Work days

240 / yr

Hourly wage

\$34.32 (Austin metro, BLS)

Value-of-time

50% of wage

CO2 factor

404 g / mi (EPA)

Commuter cash savings = miles saved × ((gas / MPG) + maintenance). Productivity = hours saved × wage (full) or × wage × value-of-time. Reset restores these; values persist across Planner, Employer, Worker, and Host.

WHERE ASSUMPTIONS LIVE & WHICH LENSES THEY REACH

The model holds three layers of assumptions. Two are **shared** — change them once and every input lens stays consistent. The third, **Locality**, is scoped to the Planner and the Network Map only. Knowing which layer a number sits in tells you where to change it so the change lands where you expect.

Layer	What it sets	Where you change it	Which lenses it reaches
Global economics	Gas price, vehicle MPG, maintenance, commute speed, work days, hourly wage, value-of-time, CO ₂ factor (the eight listed above).	The Adjust assumptions ↗ panel — in the Planner, and mirrored on each standalone lens (Employer, Host and Community expose the same fields).	Shared everywhere. Saved in your browser and inherited by Employer, Host and Community; the Worker lens runs self-contained on the same default values.
Per-tier build	For each tier (Core / Regional / District / Outpost): seats, floor area per seat, enclave and program share, cost per SF, ION uplift.	The Planner's per-tier build inputs; Explore a center ↗ for a per-site override.	Shared. Anchor and Community price a given tier exactly as the Planner does, through the same store.
Locality	Two tables: Catchment Band (Urban / Suburban / Exurban / Rural — round-trip commute miles per day, rent yield, OPEX/SF) and county incentives (per-job grant, tax abatement).	The Planner's Locality assumptions ↗ expander (“market by Area type, incentives by county”); overridable per center.	Planner & Map only. Not saved to the shared store and not read by Employer, Worker, Host or Community — tuning an Area type or county here does <i>not</i> change those pages. Rent resolves in one sentence: <i>Locality assumptions prices the places, the tier premiums price the product, and the network default catches whatever has no place.</i> A center's per-seat rent uses its own override first (final, violet “Set here”); otherwise its Area type rate (Urban / Suburban / Exurban / Rural, set in Locality assumptions) times its tier's rent premium; the “Enclave rent — network default” slider is the fallback for centers with no Area type and the price of the prototype centers. The slider does not rescale the Area-type rates — banded centers are deliberately immune to it. Band values still set the relative spread between Urban / Suburban / Exurban / Rural; the Explore-a-center Locality table shows which layer is in effect for each value. Service mix: a seat is taken at a service level (Bronze–Platinum — an hour of backup power to sustained islanding); the per-tier mix and its <i>provisional</i> rate multipliers sit in Adjust assumptions, under Rent & revenue; a center override sits in Explore a center, in the block headed CENTER BUILD; and the center's Grade is the ceiling — shares above it roll down.

THE FOUR TIERS — WHAT EACH CENTER IS

A tier is a **center prototype**: a standard seat count, space program, cost basis, technology depth and staffing level. The roster assigns every center one of four. The defaults below ship with the model — every value is editable in the Planner's per-tier Build blocks.

	Core	Regional	District	Outpost
Seats (enclaves)	525	325	125	40
SF per enclave	120	110	105	105
Program share	18%	14%	10%	10%
Shell cost (\$/SF)	\$350	\$300	\$250	\$180
ION technology uplift (\$/SF)	\$110	\$85	\$58	\$40
Mission contract (\$/yr)	\$1.5M	\$630K	\$120K	—
Operations staff (FTE)	10	6	3	1

Working assumptions: the mission-contract values are set by tier pending a first-principles derivation, and the technology uplift and refresh figures are provisional pending vendor quotes.

Core

the flagship — sized to mission, not to seats

The full civic program floor — childcare, telehealth, learning — at the network's largest program share, with the deepest technology stack, a hardened resilience core, and a candidate site for network operations. Its economics lean on the mission contract, so Core is sized to the missions it serves rather than to maximum seat count.

Regional

the mid-size workhorse

A substantial program floor and full ION capability at a lighter cost basis. Regional co-locates readily inside anchor institutions and existing buildings, which is where most of the roster's co-location wins live.

District

the neighborhood capacity machine

A lean program, the lowest build cost per seat among staffed centers, and the strongest debt coverage in the network. When demand grows, District is where seats are added first.

Outpost

the small-town toehold

The smallest staffed footprint — it puts the network within reach of small towns. Outpost carries no mission contract, so it lives or dies on seat rent and community value.

Tier is capacity and build. The center's *Area type* prices its market and its *role* describes its job in the commuter network — the distinction the next note makes precise.

Area type is not the tier. A center's **Area type** is the market character of where it sits — how far people drive, what space rents for, what it costs to run — assigned by location and independent of size. Its **tier** is how big the center is; its **role** (Importer / Ring / Gateway / Anchor) is its job in the commuter network. All three are independent: a small Outpost center in an Exurban town and a Core center in an Urban core draw their

commute, rent and OPEX from their *bands*, but their capacity and build cost from their *tiers*. Because the Area-type and county tables feed only the Planner's own network economics, the standalone lenses don't need them — Worker works from the commute you enter, Employer from geocoded office-to-center distances, and Anchor and Community from the shared per-tier economics. **Mind the mileage convention:** Locality Area-type commute figures are the *daily round trip* (fallback only — roster centers use their measured LODS distances) (Urban 25 = 12.5 miles each way); the Community and Worker lenses ask for *one-way* commutes and double them internally — identical math, different entry convention.

JOBS — WHAT THE MODEL COUNTS

ION's job figures come in four distinct categories. Keeping them separate avoids double-counting and keeps the story honest with economic-development audiences.

Category	What it is	New or kept?	Where it shows
Direct seats	Knowledge-work seats at a center — existing jobs that move to minutes from home instead of a long commute.	Kept local — not newly created.	Impact & Government lenses (“jobs kept local”); Community lens (“jobs minutes from home”).
Operations jobs	Permanent staff hired to run each center — facility management, member services, security, on-site tech support. Working defaults: Core 10 · Regional 6 · District 3 · Outpost 1 FTE per center (adjustable in the Community lens).	New direct hires — the category most relevant to job-creation incentive programs.	Impact & Government lenses (“new operations jobs”); Government by-county table; Community lens.
Induced jobs	Local service, retail, and trades employment supported by commuting dollars recaptured and spent locally — a conservative ×0.4 of direct seats.	New , indirect — an illustrative multiplier, adjustable in the Community lens.	Community lens (inside “total local jobs”).
Construction job-years	Temporary employment while a center is built — about 5.5 job-years per \$1M of construction spending, a standard planning heuristic.	One-time, during the build.	Community lens.

The Community lens's **total local jobs** = direct seats + operations jobs + induced jobs (construction job-years shown separately, one-time). Operations staff cost is already inside facility OPEX in the Planner's economics; the headcounts are display assumptions, not a separate cost line, so adding them creates no double-count.

HOW THE MONEY WORKS

Every financing figure in the Planner comes from one chain: a center earns, it spends, what survives pays the loans, and what pays the loans decides whether the project is fundable. This section walks that chain once. The figures shown are the network at default settings — they move as you adjust assumptions.

What a seat earns and what a seat costs

The Planner prices everything per seat per month, because that is the unit an employer, a lender and a member all recognise.

Per seat, per month	Network	What it is
Seat rent	\$781	What an enclave seat leases for, after the vacancy allowance.
Revenue behind each seat	\$978	Seat rent <i>plus</i> contract and mission work and anchor co-location value, divided across seats. This, not seat rent alone, is what cost must be read against.
Real-estate cost	\$677	Facility operating cost, staffing, property tax, corporate overhead, and the building mortgage.
Technology cost	\$437	Technology running costs, the backbone access fee, and the technology loan.
All-in cost	\$1,114	Everything above. At default settings this exceeds the revenue behind each seat — the gap is what civic offsets and negotiation have to close.

Two costs that are easy to forget

Property tax. Texas funds local government through property tax rather than income tax, so a real-estate project carries it. The Planner applies a rate to real-estate capital as a stand-in for assessed value — \$8.6M/yr across the network at the default 2.5%. It is set **county by county** in **Locality assumptions** (Operator lens), in the same row as the abatement that reduces it — Texas rates vary by taxing jurisdiction, so a roster spanning several counties cannot be priced from one rate. Leave a county blank and it inherits the network rate from Adjust assumptions; a single center can override it in Explore a center. *The rate is provisional until a real assessment replaces it.*

Corporate overhead. Everything above center level — executives, finance, legal, sales, and the standards function that holds the resilience promise. \$3.0M/yr, allocated across centers by seat share. *An estimate, not a budget.*

Two loans, not one

Buildings and equipment are paid for over very different lives, so the Planner finances them separately.

Loan	Capital	Term	Annual payment
Property loan	\$343.7M of real-estate capital	25 years	\$9.4M/yr
Technology loan	\$117.1M of technology capital	6, 8 and 12 years by class — compute, network, power	\$20.6M/yr

Financing equipment on a building's 25-year term would make the annual cost look far smaller than it is, and would leave the project still paying for compute hardware years after it was replaced. Matching each asset to its own life costs more per year and is the honest number.

The distribution waterfall — who gets paid in what order

Cash is applied in rank order. Nothing at a lower rank is paid until the rank above it is satisfied.

Rank	What	Network
1	Cash after operating costs — revenue less facility, technology and access costs, plus civic offsets. Money earned from outside customers enters here too.	\$25.2M/yr
2	Both loans, ranking equally . If cash is short they take the same percentage shortfall — neither is paid ahead of the other.	\$30.0M/yr due
3	Occupancy reserve, sized in months of debt service. Default zero — a lender would negotiate it.	not funded
4	Replacement reserve. Not funded, because technology is financed over the life of the equipment, so replacement already sits inside the loan.	—
5	Residual, divided in proportion to capital contributed.	—

Coverage is rank 1 divided by rank 2 — \$25.3M against \$30.1M is **0.84**. Below 1.00 the network cannot pay its loans out of operations. Lenders typically want 1.25. Closing that gap is the central question the Planner exists to explore, and the honest answer today is that the default case does not clear it.

Who owns the building at the end

The Planner models the **Owned** case: a single-purpose vehicle owns each center, and the investment return depends on selling it at the hold year. Both of those are controls — **Hold / exit year** and **Sale yield at exit** sit in **Adjust assumptions** → **Financing**, so you can see how much of the return rests on the sale.

A different arrangement is possible: the asset passing to public or community ownership at debt retirement instead of being sold. **That is not what this model computes**. The financing would be identical either way — same grant share, same two loans, same terms, same coverage — so nothing on the operating side moves. What moves is the return, and it moves further than people expect: with no sale the equity is never recovered from operations, the cash-flow series never turns positive, and there is no rate of return to report at all. Whether that is worth doing is a question about who should end up holding public-serving infrastructure. It is not a question the coverage ratio can answer.

The scenario that closes the gap — and what it costs to believe

The Investor lens carries a one-click scenario called **If the five funding asks land**. It sets five things at once and takes coverage from **0.84** to **1.326**, with all-in cost falling from \$1,114 to \$1,008 per seat per month. It changes no rent.

What it assumes

Who has to say yes

Grant at 40% of program capital, not 20%

Grant agencies — roughly double the asks now named in the funding-sources builder

Vendor or equipment-lease paper at 5.5%, not 7%

An equipment financier, pending the RFI

Salvage worth 15% of compute value at end of life

A secondary market, or redeployment down the tier ladder

Outside customers covering 16% of technology cost

Buyers of idle-hour compute, wholesale transport, managed security

A property-tax abatement to 1.5%, from 2.5%

A county or city, through a Chapter 380/381 agreement

It is a checklist, not a forecast. None of the five is papered. Remove any one and the case no longer clears the 1.25 floor — no single item is sufficient on its own. That is the honest use of this scenario: it names the four or five conversations that decide whether the network is financeable, and prices each one.

Two switches that change the picture

Books — Hybrid or Split (Investor lens → [*Financing structure ↗*](#)). Hybrid shows one balance sheet. Split separates it: the building as a real-estate proposition, the technology with an entity that owns and refreshes it as a portfolio. **Every operating figure reads the same either way** — the same coverage, the same cost per seat. Only the presentation of capital differs, and neither entity charges the other anything.

Fiber backbone owned by a third party (Adjust assumptions → NETWORK DEFAULTS). Set to **Yes**, another entity owns the fiber and ION pays a per-worker access fee to use it. Set to **No**, ION owns it: \$41.6M of capital enters the program, the access fee stops, and the backbone carries its own loan — fiber on 25-year terms, node electronics and the network operations center over 8. Only one of the two can be true at once; the Planner will not charge you a fee to use something you own.

What the figures are, and are not

These are planning estimates for scenario-testing, not an audited pro forma. Values marked provisional are stated placeholders waiting on real market paper — equipment quotes, financing terms, a tax assessment, an organization chart. Every one of them is adjustable, and the point of the Planner is that you can move them and watch what happens.

HOW TO USE EACH

Public (the impact lens — labeled Public in the Planner)

Regional benefit

HOW TO USE IT

1. In the Planner VIEW row, choose Impact.
2. Read the network-total KPIs; adjust assumptions to watch them move.

INPUTS

None - re-renders the model.

NOTES & CAVEATS

- Aggregate community framing, not the individual story (see Worker).

Commute Map — the measured commute evidence, interactive

HOW TO USE IT

Open it from the top navigation (“Commute Map”, beside Network Map) or from the link under any center’s commute diagram in Explore a center. Three toggleable views: **desire lines** (who commutes where, line width $\propto$ office-proxy workers), **exposure** (who lives 20–60 miles from their job), and **retention** (who works in their own community). Hover a center for its full catchment note — residents, exposure, planned seats, savings — with its top flows; **click a center to open it in the Planner**, landed in Explore a center. The “◀ Back to the Planner” button returns.

INPUTS

None — it is an evidence surface, not a model. A variable distance threshold, upper cut-off and a benefit calculator let you re-cut the picture; nothing here changes the Planner’s figures.

NOTES & CAVEATS

- Source: **LEHD LODES8** — the US Census Bureau’s Longitudinal Employer-Household Dynamics *Origin-Destination Employment Statistics*, which records where people live and where they work from employer payroll records rather than surveys. Texas, 2023 (the newest published year) — 12,039,831 employer-reported home-to-work block pairs; office proxy = industry segment SI03. Distances are straight-line and conservative; the 60-mile-plus band is excluded from exposure figures as a workplace-assignment artifact. Table of record: ProjectION-LODES-CommuteExposure-v0.2.csv.
- Needs an internet connection for its base map; the per-center diagrams inside the Planner work offline.

Operator

Deployment & operations

HOW TO USE IT

1. Choose **Operator** ↗ in the Planner VIEW row.
2. The **Build horizon** slider (bar below the hero) filters every lens to the network as deployed through a chosen year; recalculation happens when you release the slider. Its **Year-by-year KPIs** expander shows the whole deployment trajectory in one table — centers, seats, ops jobs, VMT, CO₂, hours, commuter cash, commuter dividend, and cumulative CapEx per year, with the selected year highlighted.
3. Use the horizon/phase controls; the Build editor (add a location) and the **Network roster** (deploy year, suspend, NOC) both live here.
4. **Explore a center** — every control for one center — carries the **QRI Emblem** (three hexagons: Network Integrity, Hub Integrity, Data Sovereignty, joined by cryptographic-agility lines), the **Audit this center** button, and a **View on network map** link. The map's site panel links back the same way — straight into the Facility Audit if you choose — and an open map tab follows your saves live. Scores are **self-assessed**, never verified; an unassessed center shows its tier target, marked *illustrative*.
5. A **quick-nav chip row** under the pinned KPIs jumps to any input surface on the lens, and the **factory comparison is automatic**: whenever your model departs from the factory defaults, the charts show the factory figure beside yours — dashed outlines and small yours/factory rows — and a legend line appears in the build-horizon bar. At factory defaults nothing extra is drawn.

INPUTS

The Build editor and Network roster; each center's BUILD override and service mix; and the **Facility Audit** — 16 criteria answered yes / partial / no, saved as self-assessed with a date. Closing an unfinished audit keeps a per-center draft; Reset clears it.

NOTES & CAVEATS

- Operations emphasis; suspend a site by choosing **out of network** in the Deploy column of the Network roster. When employers commit seats in the Employer lens, a demand-coverage panel shows committed seats vs. modeled capacity (display-only).

Investor

Capital & returns

HOW TO USE IT

1. Choose **Investor** ↗ in the Planner VIEW row.
2. Read CapEx / grant / debt / equity and Coverage; tune financing assumptions.
3. Open the Coverage financing pressure-test and stress the rate, grant cut, and leverage against the 1.25x lender covenant - green clears it, red breaches.

INPUTS

None.

NOTES & CAVEATS

- Grant-leveraged capital-stack framing. The pressure-test reads the live per-tier model without changing it. A demand-coverage panel shows employer-committed seats against modeled capacity.
- **Building sponsorship** (naming rights / corporate sponsorship of a center) is modeled as negotiated *soft revenue*: a per-center annual amount, defaulting to \$0 so the base case never assumes it. Set the “Building sponsorship” assumption to see what a sponsor underwrites — it appears as its own ledger line and flows into NOI and Coverage alongside the other negotiated offsets. It can also be set **per center** in the Explore-a-center Locality table (Center override → global baseline — no Area-type or county layer, since sponsorships attach to individual buildings), so a single sponsored demonstration site can be modeled without touching the rest of the network.

Government

Government & policy

HOW TO USE IT

1. Choose **Government** ↗ in the Planner VIEW row.
2. Read VMT/CO2/jobs, leverage, productivity recovered, the by-county table, the Transportation & corridors rollup (each center carries a primary-corridor assignment; peak share 45% and 1.5 crashes/M-VMT are stated working assumptions), and the program list.

INPUTS

None.

NOTES & CAVEATS

- Programs are framed as aligns-with / eligible-to-apply with sources - not awards or guarantees.

Developer

Construction & delivery

HOW TO USE IT

1. Choose **Developer** ↗ in the Planner VIEW row.
2. Read the construction KPIs, the delivery pipeline, the by-tier split, the by-developer risk-share rollup, and the individual-sites table.
3. In the Build editor, set each site Developers field (e.g. Partner A:60, Partner B:40) to split construction risk across builders.

INPUTS

None - re-renders the model.

NOTES & CAVEATS

- Construction framing (distinct from Operator, which runs the network); hard cost excludes land and financing. Assign multiple builders per site with risk-share % in the Build editor; the by-developer table rolls up each builder dollar exposure, with any unallocated share shown as Unassigned. A demand-coverage panel shows employer-committed seats against modeled capacity.

Employer

Employer commute savings

HOW TO USE IT

1. Add an employer: name, current office(s), and employee homes (bulk-upload, paste, or tag with @Label).
2. Toggle employers on/off for cumulative impact; Export the per-employee CSV.

INPUTS

Employer name; offices; employee homes (ZIP or address, optional count and office tag).

NOTES & CAVEATS

- Moves an employee only if a center saves at least the threshold each way; commute is estimated drive time. The Occupancy & cost panel shows the employer monthly seat cost, netted down by HQ space avoided, an attributable per-job grant (if awarded), and a shell-for-seats credit when the employer hosts a center, flagged with a co-location badge.

Worker

Your personal savings

HOW TO USE IT

1. Enter where you live and where you work now; set days/week.
2. Read your personal numbers and the plain-language summary.

INPUTS

Your home ZIP or address; your current workplace.

NOTES & CAVEATS

- The kitchen-table version of Public - same engine, single household.

Host

Community / host institution

HOW TO USE IT

1. Enter host name, type, site, and center tier.
2. Read the funded facility value, % ION-funded, seats, and your shell contribution; '+ Add this center to the network' to show the whole-network effect.

INPUTS

Host name, host type, site (ZIP or address), center tier.

NOTES & CAVEATS

- Co-location economics now mirror the live per-tier economics and resilience-core hardening from the Planner (synced through the shared store), so a given tier costs the same here as in the Planner; talent and resilience are framed benefits; the host keeps its own building. Add-this-center can host an existing planned center (converting it to co-located, keeping its tier, role and any NOC duty, e.g. Acme Robotics hosting Round Rock) or propose a new one; the in-kind shell is shown as the seat-years earned in the space-swap.

Community

Municipal / resident

HOW TO USE IT

1. Pick a community and a center size, switch **View** to **County**, or choose **Design your center** — no address or sign-up needed. A town sets a sensible default tier and commute (or pick “add your community” and type your own name); **County** auto-loads the real ION centers sited in that county and sums the community benefit (the per-worker panel stays a representative resident).
2. Read the two side-by-side panels: **For the community** (jobs, VMT and CO₂ avoided, dollars kept local, on-site service space, resilience, community-ownership year, local investment) and **For each worker** (fewer miles, less time, fewer dollars, less emissions).

INPUTS

View (single community, county, or design); a town (or your own community name) or a county; center size (tier); typical commute; number of centers. **Design your center** adds: delivery model (new build / renovation / municipal lease), size by seats or by an existing building's SF — entered as gross or as usable interior, which the model grosses up (seats derived, capped 650), cost per SF, SF per seat (bounded 80–150), enclave share (defaults from the tier template — the Planner's Per-Tier Build values — and editable, bounded 40–85%, for communities working from their own building), program-space share and services (childcare / telehealth / learning), siting (standalone or co-located), resilience level, negotiated incentives (job grant, tax abatement; lease \$/SF/yr in lease mode — \$0 = in-kind space), **building sponsorship** (\$/yr, soft, default \$0), and the funding-stack shares you control — **public grant %** (0–40, default 20) and **community bond %** (0–30, default 10); bank debt stays at the lender's fixed LTV and developer equity is always the remainder. Save concept / Load lets you keep a design as a small file and reload or share it.

NOTES & CAVEATS

- Uses the same per-tier economics as the Planner (synced through the shared store). Individual dollars split into **hard** (fuel, upkeep, tolls, parking) and **soft** (hours saved valued at wage) so they don't double-count; the community 'kept local' figure is those per-worker savings across the whole workforce. Job figures keep four categories separate — direct seats (kept local), new center-operations staff, induced local jobs ($\times 0.4$ of seats), and one-time construction job-years — see “Jobs — what the model counts”. Power resilience scales by tier — an islanding microgrid at Core/Regional down to battery ride-through at Outpost — a working assumption, not a settled spec. The center is privately financed, privately owned and privately operated; the building does not transfer to community ownership. In **municipal lease** designs the space is community-controlled from day one and an annual lease line applies. **Design your center** is scenario-scoped: nothing you design writes back to the shared store, so a sketch can't change the Planner (and vice versa). Its funding stack applies in a fixed order — public grant (your %) → community bond (your %; the Planner's own default is 0%) → bank debt at the lender's 40% LTV of what remains → **developer equity** as the arithmetic remainder — and, with the incentive and sponsorship lines, is an illustrative structure, not a commitment; the “Under the hood” expander shows every template value used, and the printed Center Concept ends with a contact line for follow-up.

Planner

Financial & impact model

HOW TO USE IT

1. Switch lens in the VIEW row.
2. Adjust framed assumptions (watch the Live Impact strip at the top of the panel); use the **per-tier build blocks** or **Explore a center** for per-center settings; set deploy year, suspension and NOC in the **Network roster**; add a location in the Build editor; Reset to defaults.

WHICH ASSUMPTIONS DRIVE THE LENS YOU ARE ON

Open **Adjust assumptions** and each group is marked against the lens in front of you: **drives this lens**, or **not on this lens** with the group stepped back. A group that is not on this lens is not broken — its results appear somewhere else, and the line beneath the heading says where. The Public lens is the sharp case: of the seven groups, exactly one — Commute & community impact — changes anything you can see from there.

THE FUND-LEDGER SLIDERS

The seven sliders under the **Aggregate fund ledger** ↗ are three different things, and are now grouped that way. **Deal terms** (hold year, exit cap rate, escalation) change what a center is worth at exit, so they move Local IRR and SPV Exit in the returns leaderboard. **Downside stress** (recession occupancy hit, B2G stickiness, tech essentiality) moves the Stressed NOI column and the two stress cards, and deliberately leaves the base case alone. **Tech essentiality** cushions the occupancy loss, so it does nothing while the recession hit is at zero. **ERCOT grid-outage days** is not yet wired to any calculation; it is kept, and labelled as such, because the resilience case behind it is real and the arithmetic is still to be written.

KNOWING WHAT YOU CHANGED

The Planner keeps track of every departure from its default figures, so you never have to remember what you moved.

- **The changes counter** sits beside Adjust assumptions and reads *at factory defaults* until you move something. Click it for the full list — which figure moved, from what to what, and where it was set.
- **A changed marker on a collapsed section.** When the figures inside a section have moved since you started, its heading carries a small blue badge reading *N moved* — visible while the section is still shut. Hover it to see the movements; click for all of them. If a section gains or loses rows it says *updated* instead, because there is then nothing to line up one-to-one. **reset baseline** makes the current state the new starting point.
- **The Overrides column** in the Network roster says where each center's figures come from. *Default* — nothing set here, and the area type and county it inherits are untouched. *Locality* — nothing set on this center, but you edited the area type or county it inherits from. *Custom* — a figure was typed in for this center and now replaces the network figure.

BUILDING A DEPLOYMENT BY HAND

The **Deploy** column of the Network roster is a pick-list: a year 1–10, or **out of network**. Suspending never changes a center's year, so putting it back restores exactly what was there. **suspend all** and **restore all** above the table clear or refill the whole network at once, which is the quick way to start from an empty board and add only the centers you want. Suspended centers stay listed, greyed, so the control that brings them back never disappears with them.

Clicking any row opens that center in **Explore a center** just below, and holds the row at the foot of the roster while it is open. The center's gross area, revenue, NOI, coverage and QRI ride the panel's heading bar, so they stay in front of you as you scroll down through its controls.

READING A TABLE OR A CHART

Unless a heading says otherwise, every table and chart in the Planner is about the **26 centers on your roster** — real towns, each with its own rent, commute, county and property. Where a figure is a **prototype** instead, the heading says so. A prototype is one typical center of a given size, in no particular place, priced from the **Adjust assumptions** rail alone.

Three headings name all three bases together: **prototype**, **roster** and **hosted**. Hosted is a prototype rebuilt with a host institution contributing the building.

NETWORK SETTINGS AND CENTER SETTINGS

Controls come in two kinds. A **network setting** lives in **Adjust assumptions** and applies to all 26 centers at once. A **center setting** applies to one center and **overrides** the network setting. It lives in one of three places: what the center *is* (host, size, deploy year) in the **Network roster**; its property and structure under **Explore a center, in the block headed CENTER BUILD**; and its rent, running cost, grants, property tax and commute under **Explore a center, in the block headed CENTER LOCALITY OVERRIDES**. That last one is the group that overrides most of the network defaults, and it is the one people miss. The network default is the bottom of the chain, not the top: a center override beats an Area-type band, which beats the network default.

That ordering is why a network setting can move without changing anything. Two different reasons, and each control says which applies to it: either nothing is reading it yet — a bond rate does nothing until there is a community bond in the stack — or every center already carries its own more specific figure, in which case the network number is only pricing the prototype center.

Each group heading also names the lenses its results appear on, because they are not all the same. Commute and community assumptions report on **Public** and **Government**; rent, running cost and incentives report on **Operator** and **Investor**; financing is almost entirely **Investor**. Moving a commute assumption while reading the Investor lens will look like nothing happened.

The Employer, Host, Worker and Community lenses are a third thing entirely — you describing your own situation, not an assumption about the network. Those entries are never saved and never leave the page.

INPUTS

Assumption sliders; per-tier build; per-center overrides; new sites.

NOTES & CAVEATS

- Floor area grosses up via efficiency; cash savings use the EIA method; planning estimates, not an audited pro forma. The **556-mile backbone** is a working route estimate along the planned inter-node corridors, pending carrier route engineering — it drives the network CapEx (route-miles × build \$/mi + NOC) and the per-worker backbone access fee that appears in every center's P&L.

Network Map

Where the sites sit

HOW TO USE IT

1. **Click any site** to open its five-lens detail panel — Public, Operator, Investor, Government and Developer all at once; click another site to switch, or ✕ to close.
2. Use the **Lens** dropdown to set the network-total line and map color; toggle Network layers; use the year slider to phase by deploy year.
3. Use + Add node, then click anywhere on the map to drop a new site (set name, tier, and NOC); the map reloads with it added.
4. Reload after adding a site or changing a NOC in the Planner to see the map update.

INPUTS

None (reads the shared site + NOC store).

NOTES & CAVEATS

- Lenses are color-coded consistently across the map, Planner and this Guide: Public green, Operator blue, Investor amber, Government violet, Developer slate.
- Schematic siting, pending formal assessment.

Floorplans

Schematic floorplans & massing

HOW TO USE IT

1. Use the board switcher; Print to PDF to export.

INPUTS

None.

NOTES & CAVEATS

- Design-development concepts; a licensed architect takes them to code.

HOW THE EMPLOYER ECONOMICS WORK — THE COST WATERFALL & SPACE SWAP

The Employer lens turns relocation choices into a monthly cost for the employer, built as a waterfall. Each line:

Line	How it is computed
Gross ION seat cost	relocated seats × (enclave yield ÷ 12). Enclave yield is the per-seat annual lease, shared with the Planner (default \$9,900/seat/yr, i.e. \$825/seat/mo).
Less: HQ space avoided	relocated seats × your current HQ \$/seat/month (0 if left blank) — the office space you no longer pay for.
Less: attributable grant (if awarded)	relocated seats × (per-job grant ÷ 12), only when “pass attributable grant through” is ticked. Conditional, not guaranteed; when passed to the employer the center forgoes it, so it is never counted twice.
Less: shell-for-seats credit	only when the employer hosts the center — see the swap below.
= Net employer cost	if the offsets exceed the gross, this becomes a net gain (shown in green).

Center roles & siting

Every center has two independent attributes. **Tier** is its size — Core, Regional, District, or Outpost. **Role** is its job in the commuter network: which kind of commute it captures. Role and size are independent — a small center can be a Gateway, a large one an Anchor.

Role	What it does
Importer	Imports jobs from suburban/exurban employers (reverse commute). Austin is the importer core.
Ring	Intercepts inbound super-commuters heading to Austin, catching them before they drive all the way in.
Gateway	Intercepts through-commuters at a corridor convergence point, sized on through-flow rather than local demand.
Anchor	An independent regional / corridor city that serves its own regional catchment (e.g. Killeen, Waco, Temple).

Co-location is a separate choice, not a role: a center can sit *inside a host institution's building* (Government, Commercial, Healthcare, or Academic) instead of standalone. Co-locating cuts the shell CapEx ION would otherwise build and brings a built-in anchor tenant; the host's in-kind shell is credited back as seat-years in the space swap below.

The space swap (shell for seats)

When an employer also hosts its center (co-location), it contributes building shell in kind. That shell is worth the standalone build cost minus the co-located build cost — the shell ION no longer has to build. The swap turns that one-time contribution into an ongoing seat credit:

- **Seat-years earned** = shell value ÷ annual enclave yield (shown on the Host lens).
- **Monthly credit** = shell value ÷ (loan term × 12), capped at the employer's own gross seat cost and applied to its own workforce first.

Worked example (illustrative only)

“Acme Robotics” — a fictional placeholder, not a real participant — relocates 330 employees to a Core center at the default \$9,900/seat/yr:

- Gross seat cost: $330 \times \$825 = \textbf{\$272,250/mo.}$
- Less HQ avoided at \$500/seat/mo: $-\$165,000$, leaving \$107,250/mo.
- Less attributable grant (if awarded): $-\$16,200$, leaving **\$91,050/mo net cost as a tenant.**
- If Acme also *hosts* the center, its $\sim\$23.3\text{M}$ Core shell $\div$ 300 months adds a $-\$77,700/\text{mo}$ credit, giving **roughly $+\$28,000/\text{mo}$ as a net gain.**

So the same employer is about a \$50k/mo tenant, or net-positive as a host — depending on whether it brings a building to the swap. All figures are illustrative and move with your assumptions.

Project ION Planner · schematic planning tools; figures are estimates for storytelling and scenario-testing.