

Urth licensing: the map, continuous study, platforms, hiring and crew

Version 1.1, prepared 23 September 2026 by the Urth lane (dispatch URTH-20260923-005L3) for Alan to react to. Version 1 (dispatch URTH-20260923-004L1, the same day) is kept unchanged as LICENSING-PLAN-v1. Nothing here has been filed, paid, booked or bought, and none of it is accepted yet. Every date and pay figure is a placeholder to react to, not a recommendation: there is no start date for anything yet. Not legal advice.

New in version 1.1:

- Alan's own study continues after the general contractor exam, into landscape design and landscape architecture (section 5).
- The certifications that strengthen lead-platform profiles, even for work Urth subcontracts (section 6).
- The Small Business Enterprise timing against Urth's own dates (section 7).
- A Hiring and crew chapter, written to become an app section (section 10).
- Section 1 now uses what the public Tax Collector page shows.

How to read the facts. Each fact carries one of three marks:

- **Confirmed:** read on an official page and quoted, either today or in the 21 and 22 September passes.
- **To confirm:** from a vendor page, a search summary or an older document; check before paying or booking.
- **Unknown:** nothing reliable found.

1. This week: the county business tax receipt

The Miami-Dade County business tax receipt expires on Wednesday 30 September 2026, one week from today. Receipts run from 1 October to 30 September. The Tax Collector's reminder, titled "Renew Local Business Tax Receipts and Complete TConsent Attestation by September 30", confirms this.

- **What the public Tax Collector page shows** (read without logging in, 23 Sep):
 - The 2026 receipt, running to 30 September 2026, was paid on 24 March 2026 (\$45).
 - The 2027 receipt (1 October 2026 to 30 September 2027) is **\$45, unpaid, due by 30 September**.
 - The account carries a **"Pending Attestation" flag**. Section 205.0532 of the Florida Statutes now requires a signed declaration, made at consenthub.mdctaxcollector.gov, before the receipt can be completed.
 - Alan said on 23 September that he will do both in the coming days.
 - Version 1 read a 2024 date in a file name as an earlier application. It now looks like the edition of the county's fertilizer affidavit form (to confirm).
- **How to renew.** Online through BTEExpress on the Tax Collector's site (mdctaxcollector.gov), or in person. Alan pays and signs. The lane does not log in.
- **Why on time matters more than usual.** The Small Business Enterprise clock counts the receipt as held without a gap (section 7).
- **If it is late:** 10% is added in October, and more each month after that up to 25% (to confirm; this matches section 205.053 of the Florida Statutes). Operating with no receipt at all can also bring a separate penalty.
- **Fertilizer.** Urth's 2024 affidavit says the company does not apply fertilizer. Keep that wording until someone at Urth holds the state fertilizer certificate. After that, the county wants proof of the Green Industries training "to obtain/renew" the receipt (confirmed, county fertilizer page).
- **Why it matters beyond the fee.** County vendor registration uploads this receipt. The county's Local Preference and the Small Business Enterprise certification both need it **held for at least one year**, so every year it lapses delays both.

2. The map

Every licence, registration and certificate a Miami-Dade and Broward landscaping company needs or benefits from, grouped by who holds it. "Alan today" answers one question: could Alan hold it now, or at least sit the exam?

2a. The company

Item	Issued by	Prerequisites	Exam	Cost	Renewal	Alan today
Miami-Dade Master Lawn Sprinkler certificate of competency	Miami-Dade Construction Trades Qualifying Board, exams by Prov	Trade experience documented by employer letters (application form)	Business and technical parts. Technical: 75 questions, 3 hours (2022 descriptions).	\$315 application (on the county form, which is revised 2010; to confirm)	County cycle (to confirm)	Not yet: experience letters needed. Year 2, study as if.
Florida irrigation specialty contractor (statewide)	Construction Industry Licensing Board	Experience (to confirm)	Business and Finance plus an Irrigation exam (80 questions, 5 hours, confirmed in the official booklet)	To confirm	Every 2 years	New find. The Business and Finance part is the same exam as the general contractor's, so passing it once may count for both (the booklet says passing candidates "may be exempt" from retaking it). Irrigation stays subcontracted (Alan, 23 Sep), so this is optional.
Florida Nursery, Growers and Landscape Association: Certified Horticulture Professional	The association	None	Four-part online exam, 70% each	Exam \$188 non-member, manual \$180 non-member (member prices lower; confirmed)	3 years, 15 continuing education units	Yes. Easy credibility.
Florida Nursery, Growers and Landscape Association: Certified Landscape Contractor	The association	Horticulture Professional plus Landscape Technician, 3 years of experience (1 in Florida)	Four parts: law, accounting, estimating, construction documents	Exam \$375 non-member (confirmed)	3 years, 30 units	Maybe, if Earthy counts. Year 2.

Item	Issued by	Prerequisites	Exam	Cost	Renewal	Alan today
Concrete paver installer (Concrete Masonry and Hardscapes Association)	Industry association	Documented installs: "5 paver projects and 10,000 sq/ft" (to confirm)	Course with exam included	Unknown until checkout	Unknown	Later, once hardscape volume is real (section 6)
Registered landscape architect	State Board of Landscape Architecture	An accredited degree, or 6 years of practical experience with up to 4 credited for education, then 1 more year (sections 481.309 and 481.310, confirmed)	The national four-part exam plus a Florida plants and laws exam (to confirm)	About \$535 per national section and about \$484.50 to the state (to confirm)	Every 2 years, 16 hours	No. Study as if from year 2. The route depends on Alan's degrees (section 5c).
Florida-Friendly Landscaping professional certification	University of Florida extension	None	Online courses and a field module with a test	About \$120–\$150 (confirmed)	4 years	Yes. About 10 hours (sections 5a and 6).
Florida Water Star accredited professional (landscape and irrigation tracks)	Florida's water management districts	Training	Online exam, 80% to pass	About \$75–\$85 (to confirm)	3 years	Yes. Year 2 (section 6).
Irrigation Association Certified Landscape Irrigation Auditor	Irrigation Association	None formal	125 questions, 3 hours (to confirm)	\$495 non-member (to confirm)	Yearly fee	Yes to study. Year 2 (section 6).
Association of Professional Landscape Designers: certified designer	The association	3 years of design work, three installed projects at least 2 years old	Portfolio review	\$450 non-member (confirmed)	Continuing education	Year 4 at the earliest (section 5a)

2c. Hardscape, irrigation and trees: where licences start

- **Pavers, patios, walkways.** The state does not license paver installation (secondary source). The Miami-Dade category list has no paver category. It does have Masonry and Decorative Fence, Concrete Finishing, and Unit Masonry, Marble and Exterior Veneer (the last one has an exam), and Tennis Courts. In 2023 the state stopped counties and cities from licensing some trades the state does not license (House Bill 735). Secondary sources say this includes driveways and decorative stone, but the exact scope and dates are **to confirm**. Working answer: simple paver work is subcontracted or done without a trade licence. Structural walls and concrete forming are subcontracted to licensed firms.
- **Irrigation.** Miami-Dade requires the Master Lawn Sprinkler certificate. Broward has its own irrigation certificate, and whether Broward honours Miami-Dade's is **unknown**. The state irrigation specialty licence may cover both counties, **to confirm**. Irrigation is subcontracted (Alan, 23 Sep), and old controllers found on site visits become leads for those subcontractors. Certificates that help the platform profiles anyway are in section 6.
- **Trees.** Broward's tree-trimmer licence ended on 1 July 2025 (secondary source). No Miami-Dade tree-trimmer licence was found. City tree permits (Miami, Pompano Beach and others) may ask for an arborist's report.

3. Company study plan

Who and how long. Alan, or an office helper later: about 2 hours a week for 16 weeks, starting 28 September 2026.

What it is. None of these items has an exam. The company still has to learn each rule, then decide or file. Every "decide or file" line is Alan's action; the lane files nothing.

Week (Monday)	Topic	Read or use	Time	Decide or file (Alan)
1 (28 Sep)	County business tax receipt	BTEExpress. The Tax Collector's 30 Sep reminder. Section 205.053 of the Florida Statutes.	1 h	Renew before Wed 30 Sep, or note that Urth let it lapse
2 (5 Oct)	Sunbiz report and sales tax	sunbiz.org, Department of Revenue brochure GT-800060	2 h	Put 1 May 2027 on the calendar. Check the sales tax registration.
3 (12 Oct)	Insurance for a landscape company	Section 482.071(4) insurance limits. Insurance clauses in the Miami Beach and Miami-Dade bids on file. State workers' compensation page.	2 h	List questions for an agent. No quote requested yet.
4 (19 Oct)	Miami-Dade vendor registration	County Vendor Academy decks (in Alan's Drive). supplier.miamidadegov.	2 h	Decide when to register
5 (26 Oct)	E-Verify	Section 448.095 of the Florida Statutes, e-verify.gov	1 h	Decide when to enrol
6 (2 Nov)	Small Business Enterprise (Miami-Dade)	County Small Business Enterprise certification pages. Section 7 of this plan.	2 h	Confirm the formation date and the first receipt date. Start the section 7c folder.
7 (9 Nov)	Broward	Broward Tax Collector's business tax receipt page. Broward vendor registration and certification pages.	2 h	Decide whether Broward work needs a Broward receipt
8 (16 Nov)	Nursery stock dealer registration	State Department of Agriculture page on nursery and stock dealer registration	1 h	File 30 days before the first plant resale

Week (Monday)	Topic	Read or use	Time	Decide or file (Alan)
9 (23 Nov)	Hauling and yard waste	County general hauler and landscaper permit pages. Alan's note: call the hauling-permit contact in Alan's notes	1 h	Choose the landscaper permit now or the general hauler permit for lot clearing
10 (30 Nov)	Pest control business licence	Sections 482.071 and 482.152, rule 5E-14.142	2 h	In-house spraying or a subcontractor. Timing of any operator hire (section 10f).
11 (7 Dec)	Fertilizer rules as a company	County Chapter 18-C page. Broward rules (to confirm).	1 h	Change the affidavit once Alan is certified
12 (14 Dec)	What Urth may do without a trade licence	Section 481.329 (landscape architect title). County category list. House Bill 735 summary.	2 h	Subcontract list: irrigation, structural hardscape, pools, lighting
13 (21 Dec)	Holiday week	None	0 h	None
14 (28 Dec)	City receipt or Certificate of Use for the yard	County Certificate of Use page. The city's receipt page once the Kendall site is chosen.	1 h	Waits on the yard
15 (4 Jan)	Government bid readiness	Alan's Government Procurement note: plant material and tree service, Miami Beach general and emergency landscape, fertilizer, pesticide and landscape. Each bid's licence clauses.	2 h	Pick the first bid to prepare for
16 (11 Jan)	Licence calendar	This map	1 h	Every renewal date put on the Urth calendar
17–26 (18 Jan–22 Mar 2027)	Small Business Enterprise file, 1 hour on each milestone	Section 7c	4 h in total	Office proof, money records, net worth statement, the county's three answers
27 (29 Mar 2027)	Small Business Enterprise application window	Section 7a	2 h	Apply, if the receipt has been held a full year and the office rule is met

4. Alan's personal study plan

Pace. Slow and steady: about 5 hours a week, and 7 hours in the general contractor blocks. This is year 1 of continuous study; section 5 carries it on into landscape design and landscape architecture. Each block ends with a full practice test. Booking any exam is Alan's decision.

Studying as if. Where Alan cannot sit an exam today (the general contractor exam, the Lawn and Ornamental operator exam), Alan studies to the same standard, with timed practice tests, so that the knowledge is his whatever the state decides.

Block	Weeks (Mondays)	What	Hours a week	Ends with
A	1–2 (28 Sep–5 Oct)	Green Industries training. Miami-Dade and Broward fertilizer rules.	5	Training certificate. Ready to apply for the fertilizer certificate (\$25).
B	3–8 (12 Oct–16 Nov)	Bed-spraying certificate, using the 21 September kit (nine modules, 53 cards, mock quiz)	5	Two full timed mocks at 80% or more. Ready to book the remote exam.
C	9–20 (23 Nov–8 Feb)	General contractor, Business and Finance (the shared part)	7 (2 in the holiday weeks)	Full 120-question, 6.5-hour mock, open book
D	21–28 (15 Feb–5 Apr)	Lawn and Ornamental operator, as if, plus the state core material	5	Timed mock
E	29–37 (12 Apr–7 Jun)	International Society of Arboriculture Certified Arborist, alongside the Florida chapter's April virtual prep course (9 weeks)	5	200-question mock
F	38–45 (14 Jun–2 Aug)	General contractor, Contract Administration	7	60-question, 4.5-hour mock
G	46–53 (9 Aug–27 Sep 2027)	General contractor, Project Management	7	60-question, 4.5-hour mock
Year 2 onwards	From 4 Oct 2027	Continuous: platform credentials, landscape design, landscape architecture as if (section 5d). Master Lawn Sprinkler and the state irrigation exam are now optional, because irrigation stays subcontracted.	5	Section 5

Block A: fertilizer (weeks 1–2)

- **Week 1.** The Green Industries online course, about 6 hours. It is on the University of Florida Green Industries site (gibmp.ifas.ufl.edu). Take its test.
- **Week 2.** Read the Miami-Dade Chapter 18-C rules:
 - no nitrogen or phosphorus from 15 May to 31 October;
 - at most 4 pounds of nitrogen per 1,000 square feet a year;
 - at least 65% slow-release nitrogen;
 - phosphorus only with a soil test;
 - no fertilizer within 20 feet of water.

Then compare Broward's rules (a 1 June–30 September ban is reported; to confirm). Make 20 flashcards. Section 482.1562 of the Florida Statutes.

Block B: bed spraying (weeks 3–8)

The 21 September kit already holds this block. Study one module or two each week, then take the weekly quiz in NotebookLM.

Week	Modules (kit numbering)	Sources in the kit
3	Law and label	Landscape Maintenance manual chapters 1–2. Applying Pesticides Correctly, chapters I and III.
4	Safety and protective equipment	Applying Pesticides Correctly, chapters VI–VII
5	Calibration and maths	Landscape Maintenance manual chapters 15–16 and appendices. Applying Pesticides Correctly, chapter IX.
6	Drift, environment, storage	Landscape Maintenance manual chapter 9. Applying Pesticides Correctly, chapters V and VIII.
7	Pest identification	Landscape Maintenance manual chapters 8 and 10–14
8	Practices, fertilization, review	Landscape Maintenance manual chapters 3–7. Two timed mocks. Weak-spot loop.

The Green Industries manual is listed by the state for this exam and is still missing from the corpus; download it in week 1.

Block C: general contractor, Business and Finance (weeks 9–20)

Official book list, valid January–December 2026 (confirmed). Only these may enter the room:

- Florida Statutes chapter 455 (2025). A bound PDF is allowed.
- Builder's Guide to Accounting (2001).
- Contractors Manual (2021, with the 2025 Circular E). The 2025 edition is used from 1 February 2026.
- American Institute of Architects documents A201 (2017), A401 (2017) and A701 (2018).

Exam rules (confirmed).

- Books must be bound. Highlighting and underlining are allowed.
- No handwritten notes and **no movable tabs**. The permanent tabs sold by prep companies are the usual answer.
- Nobody may mark the books during the exam.

The skill being tested is finding answers in the books fast, so practise with the physical books and a timer.

Week	Topic	Book	Practice
9	How the exam works. Book setup: permanent tabs and highlighting.	Candidate Information Booklet, reference list	20 lookup drills
10	Business organisation, licensing law	Contractors Manual. Chapter 455.	30 questions
11	Chapter 489 and board rules, lien law	Contractors Manual (Florida law chapters)	30 questions
12	Accounting basics: balance sheet, income statement, ratios	Builder's Guide to Accounting	30 questions
13–14	Holiday weeks (light)	Flashcards only	2 h each
15	Payroll, taxes, Circular E, withholding	Contractors Manual (Circular E)	40 questions

Week	Topic	Book	Practice
16	Insurance, bonds, workers' compensation, safety law	Contractors Manual	40 questions
17	Contracts and bidding: A201, A401, A701	American Institute of Architects documents	40 questions
18	Estimating maths, depreciation, job costing	Builder's Guide to Accounting, Contractors Manual	40 questions
19	Weak spots	All	Half mock: 60 questions in 3 h 15 min
20	Full mock	All	120 questions in 6.5 hours, open book

Block D: Lawn and Ornamental operator, as if (weeks 21–28)

Read in this order:

1. Lawn and Ornamental Pest Management (University of Florida).
2. The Identification Guide to Common Florida Lawn and Ornamental Weeds.
3. Applying Pesticides Correctly (review).
4. Chapter 482 of the Florida Statutes and rule 5E-14.

Weeks	Topic
21–22	Turf grasses and their pests: chinch bugs, sod webworms, mole crickets
23	Turf diseases
24	Weeds and herbicides on turf
25	Ornamentals: insects, mites, scale
26	Palms and nutrition
27	Power equipment calibration, records, restricted-use products
28	Timed mock

This block also prepares Alan to judge the operator Urth hires.

Block E: arborist (weeks 29–37)

- **Book:** the Arborists' Certification Study Guide, 4th edition.
- **Course:** the Florida chapter's virtual prep course runs twice a year, in October and April, for 9 weeks, twice a week (price by phone; to confirm). The Miami Dade College course 0098 at Kendall is not open for enrolment now.
- **Order:** one guide domain per week, a 25-question quiz each week, and a 200-question mock in week 37.
- **Check first:** whether Alan's Earthy years meet the experience rule.

Blocks F and G: general contractor, Contract Administration and Project Management (weeks 38–53)

Official book list, valid January–December 2026 (confirmed). Allowed in the room:

- American Institute of Architects A201, A401 and A701.
- Occupational Safety and Health Administration rules, 29 CFR Part 1926 (1 July 2025 edition).

- Contractors Manual (2021; the 2025 edition from 1 July 2026).
- Principles and Practices of Commercial Construction, 11th edition (2024).
- Energy Efficient Building Construction in Florida (2024).
- Truss safety guide BCSI (2020; the 2025 edition from 1 July 2026).
- Florida Building Code 2023: Building, Accessibility, Residential, Existing Building, Energy Conservation.

Suggested study books, not allowed in the room:

- Builder's Guide to Accounting.
- Walker's Building Estimator's Reference Book, 32nd edition.
- Design and Control of Concrete Mixtures, 17th edition.
- Placing Reinforcing Bars, 10th edition.
- Gypsum Association GA-216 (2018).

Contract Administration (weeks 38–45):

Week	Topic
38	A201 in depth: changes, claims, payment, completion
39	Subcontracts (A401) and bidding (A701)
40	Building Code: occupancy and construction types
41	Building Code: structural loads, wind (the South Florida high-velocity zone)
42	Energy code and accessibility
43	Existing buildings and the Residential code
44	Estimating from Walker
45	Mock: 60 questions in 4.5 hours

Project Management (weeks 46–53):

Week	Topic
46	Scheduling and critical path
47	Occupational safety rules: fall protection, excavation, scaffolds
48	Concrete and reinforcing bars
49	Masonry, trusses and bracing
50	Site work and soils. The most landscape-relevant week.
51	Project controls and quality
52	Weak spots
53	Mock: 60 questions in 4.5 hours

The one timing point. The state rules say candidates must pass every part within **four years of the first attempt** (to confirm on the state page). Studying costs nothing against that clock; only sitting the exam starts it. Keep "study as if" separate from "sit", and start the clock only when the experience question is settled.

5. Continuous study after the general contractor exam: landscape design and landscape architecture

Alan, 23 September: "Studying all the way to general contractor; we should include landscape architecture, landscape design: it's going to be continuous development and study."

The shape. Year 1 (section 4) ends with the general contractor's three parts, studied as if. Study then goes on at the same pace of about 5 hours a week, with no end date:

Period	Weeks (Mondays)	Main track	Why it matters to Urth
Year 1	1–53 (28 Sep 2026–27 Sep 2027)	Fertilizer, bed spraying, general contractor (three parts), Lawn and Ornamental as if, arborist	Section 4
Year 2	54–105 (4 Oct 2027–25 Sep 2028)	Credentials that show on platforms, then landscape design, then the first landscape architecture topics as if	Profiles, better designs, the Florida plant list
Year 3	From week 106 (2 Oct 2028)	Landscape architecture as if (the remaining exam topics). Designer and contractor credentials that need years of experience.	Credentials that need experience become reachable
Year 4 onwards	Open	The route Alan chooses in section 5c	Only if a licence becomes worth it

Every item is "study as if" until Alan decides to sit an exam or apply. The dates only place the study in order.

5a. Landscape design: no licence, one legal line

What the law allows without a licence (confirmed, Florida Statutes, fetched 23 Sep).

- Section 481.329(5): the landscape architecture law "does not prohibit any person from engaging in the practice of landscape design ... or from submitting for approval to a governmental agency planting plans". The same subsection forbids the titles "landscape architect", "landscape architectural", "landscape architecture", "L.A." and "landscape engineering".
- Section 481.303(5) defines landscape design as "consultation for and preparation of planting plans drawn for compensation". It includes "specifications and installation details for plant materials, soil amendments, mulches, edging, gravel, and other similar materials".

The line. The same definition goes on:

- Such plans "may include only recommendations for the conceptual placement of tangible objects".
- "Construction documents, details, and specifications for tangible objects and irrigation systems shall be designed or approved by licensed professionals as required by law."

What that means for Urth's designs (the lane's reading, to confirm with a professional).

- Planting plans, plant schedules, soil, mulch and edging details: Urth can draw and sell these today.
- Patios, walls, pergolas and irrigation systems: Urth can show where they go, as a concept. The construction drawings for them need a licensed professional.
- Which licensed professionals count for which object is **to confirm**. A general contractor builds under permits, but the statute speaks of documents "designed or approved".
- The Brain's planting plan and the Blender property sit on the allowed side, as long as hardscape and irrigation stay conceptual.

Certificates and courses for landscape design.

Credential or course	Who issues it	Prerequisites	Format	Cost	Renewal	When for Alan
Florida Water Star accredited professional, landscape track	Florida's water management districts, with the nursery association	Training	Training, then an online exam, 80% to pass. Landscape and irrigation are separate tracks.	Training about \$25 (subsidised). Exam \$50 member, \$60 non-member. (To confirm.)	3 years, 15 units	Year 2, weeks 66–71, with the irrigation track (section 6)
Miami Dade College	The college	Enrolment	An Associate in Arts in Landscape Architecture (a transfer route) and a horticulture certificate. No design-only certificate found.	To confirm	Not applicable	Only if Alan takes the degree route (section 5c)
Online certificates (for example University of California Los Angeles Extension, New York Botanical Garden)	The school	Varies	Mostly hybrid or in person. A fully online option is not confirmed.	To confirm	Not applicable	Optional; they do not count towards the Florida licence

Software. Planting plans for permits and for the Brain need drawing software. Prices seen, all to confirm on the vendors' pages:

- Land F/X planting module: about \$575–\$695 a year (sources disagree).
- SketchUp Pro: about \$399 a year.
- AutoCAD, and Vectorworks Landmark: about \$1,500 a year or more.

Nothing to buy now. Blender and the Brain already cover concept work.

5b. Landscape architecture: Florida's licence

Who issues it. The Board of Landscape Architecture, under the state Department of Business and Professional Regulation. The law is chapter 481, part II, of the Florida Statutes, and the rules are chapter 61G10 of the Florida Administrative Code.

Education and experience (confirmed, statute text fetched 23 Sep).

- Section 481.309 lets a candidate sit the exam in one of two ways:
 - with "a professional degree program in landscape architecture as approved by the Landscape Architectural Accreditation Board"; or
 - with "not less than 6 years of actual practical experience in landscape architectural work of a grade and character satisfactory to the board".
- On the experience route, "Each year of education completed in a recognized school shall be considered to be equivalent to 1 year of experience, with a maximum credit of 4 years."
- Section 481.310 adds **1 year of practical experience before the licence** is issued:

- A degree holder "may obtain the practical experience after completing the required professional degree".
- "Experience used to qualify for examination ... may not be used to satisfy the practical experience requirement". So the experience route needs 6 years plus 1 more.
- A holder of "a master of landscape architecture degree and a bachelor's degree in a related field" does not need the extra year.
- The board's rule (61G10-11.004) wants the experience "under the direct supervision of a registered landscape architect". It must be documented in seven kinds of work: site design, staking and layout, grading and drainage, irrigation plans, construction details, planting plans and specifications (**to confirm** on the official rule text; read on a mirror). Years spent running Urth would not count unless a registered landscape architect supervised the work.

The exams.

- **The national exam** is the Landscape Architect Registration Examination, run by the Council of Landscape Architectural Registration Boards. The council's page confirms it is "a four-part, fully computerized exam".
- Section names, item counts and times are **to confirm**: the council's blueprint did not read. The lane's working list (to confirm):
 - Project and Construction Management.
 - Inventory, Analysis and Project Programming.
 - Site Design.
 - Grading, Drainage and Construction Documentation.
- Research notes give about 375 items and about 12 hours in total, about \$535 per section (about \$2,140 for all four), three testing windows a year, and 5 years to pass all four after the first pass. All **to confirm**; the council's fee table did not load for automated reading. It did confirm "\$25 practice exams" and that fees are held "through September 30, 2026".
- **The Florida exam**: the state also sets its own exam on "plant materials and specialized aspects of practice in Florida, including laws and regulations". It is computer based, offered daily, and 75 is the pass mark (**to confirm**, board's frequently asked questions and rule 61G10-11).

Fees and renewal (all to confirm against rule 61G10-13).

- First licence: about \$484.50 (application, exam and licence), plus a \$33 test-centre fee.
- Renewal: every 2 years by 30 November of odd years, \$230 active.
- Continuing education: 16 hours per renewal, including 1 hour of Florida laws and rules.

Schools in Florida with an accredited degree (to confirm).

- **University of Florida** (Gainesville): Bachelor of Landscape Architecture, 4 years, and a Master of Landscape Architecture.
- **Florida International University** (Miami): Master of Landscape Architecture. This is the only one in Miami.
- No part-time or online accredited route was found. Admission rules, length for someone with an unrelated bachelor's degree, evening options and cost are **to confirm** with the university.

A link to the general contractor licence (confirmed, section 481.329(3)). A certified general contractor may offer landscape architecture within a design-build contract, as long as the landscape architecture is "offered and rendered by a landscape architect licensed" (or an architect or engineer). So a licensed landscape architect as a partner or employee would let a future Urth general contractor sell design-build.

5c. The routes to a licence, side by side

Nothing to decide now. The lane needs one fact first: **what degrees does Alan hold, and in what subjects?** (Open question 8.)

Route	What it takes	Years before the licence, roughly	What it gives up
A. Master of Landscape Architecture at Florida International University	Admission, then about 3 years of study (length for a non-design bachelor's degree to confirm). With a related bachelor's degree, no extra year of experience.	3–4	Time away from running Urth. The format is in person.
B. Experience under a registered landscape architect	6 years of supervised work (a 4-year degree in any subject may count as up to 4 of them; the rule's wording on "recognized school" to confirm), then 1 more year	3–7, depending on degree credit	Needs a registered landscape architect to supervise Alan's design work: a partner, an employee of Urth, or a firm Urth works with

Route	What it takes	Years before the licence, roughly	What it gives up
C. No licence: design within the law, partner for the rest	Landscape design certificates (5a). A licensed landscape architect signs construction documents when a job needs them.	None	The title, and design-build unless a partner holds the licence

What Alan can study now, as if, whichever route.

- The council's \$25 practice exams, once the sections are confirmed.
- Grading and drainage maths: slopes, spot elevations, cut and fill, runoff. This is also general contractor Project Management week 50 (site work and soils).
- Construction documentation: plans, details, specifications.
- Florida plants and materials: the nursery association's plant identification lists are the start. Part of this is free at fnglaplantid.com (to confirm).
- Chapter 481, part II, and rule chapter 61G10.
- Site inventory and analysis. This is what the Brain already does for every property: sun, canopy, drainage, soils. Alan can study it on real Urth properties.

5d. Year 2 week by week (4 October 2027 to 25 September 2028)

About 5 hours a week, 2 in the holiday weeks. The weekly rows are in the study calendar.

Block	Weeks (Mondays)	What	Ends with
H	54–57 (4 Oct–25 Oct 2027)	Florida-Friendly Landscaping professional certification: six online courses, then the field module (dates by county)	Certificate and directory listing, if Alan books the module
I	58–65 (1 Nov–20 Dec 2027)	Horticulture Professional certificate: plant identification first, then practices, safety, general	Timed practice tests at 80% or more
J	66–71 (27 Dec 2027–31 Jan 2028)	Florida Water Star accredited professional: landscape and irrigation tracks (section 6)	Ready to sit both tracks
K	72–76 (7 Feb–6 Mar 2028)	Irrigation Association Certified Landscape Irrigation Auditor, studied as if (section 6)	Timed practice test
L	77–88 (13 Mar–29 May 2028)	Landscape design: principles, site analysis, graphics, planting design for South Florida, the legal line in 5a, drawing software basics. A portfolio project on the lab property, 330 SW 27th Rd.	One planting plan to the standard of a permit set
M	89–100 (5 Jun–21 Aug 2028)	Landscape architecture as if, part 1: grading, drainage and stormwater, then construction documentation	Practice exam for those sections
N	101–105 (28 Aug–25 Sep 2028)	Florida plants and materials, chapter 481 and the board's rules. A review of the three routes with Alan's degree facts.	Alan chooses A, B, C or "later"

Year 3 (from 2 October 2028).

- Landscape architecture as if, part 2: inventory and analysis, site design, project and construction management. Much of the last one repeats the general contractor's Contract Administration and Project Management.
- The nursery association's Certified Landscape Designer, once 2 years of design work can be shown.
- Its Certified Landscape Contractor. This needs the Horticulture Professional certificate, the Landscape Technician certificate and 3 years of experience.
- Year 2 of version 1 (Master Lawn Sprinkler and the state irrigation licence as if) drops to optional, because irrigation stays subcontracted. They come back only if that changes.

6. Certifications that help on lead platforms

Alan, 23 September: "Irrigation I use a subcontractor, but there are certain certifications that would be good to have for lead generation platforms, and we sub it out anyway."

The main finding: two kinds of credential.

- **Licences.** Issued by the state or the county, and checkable in their public databases. Google Local Services asks for them by category. Yelp and Houzz verify them for a paid badge.
- **Certificates.** Issued by associations and universities: irrigation, arborist, horticulture, pavers. No platform found checks them. They go in the profile text, the credentials section (Houzz), the website, and quotes. They build trust and help sales conversations; they do not unlock a category.

So a certificate earns a line on the profile. A category that needs a licence stays closed until someone at Urth holds that licence. Until then, it is offered through a licensed subcontractor.

6a. What each platform shows or asks for

Marks: confirmed means read on the platform's own help page. Alan's notes (23 Sep) add:

- Google Business Profile needs video verification of the trucks.
- Google Local Services needs vehicles.
- Yelp, Nextdoor, Facebook and Yellow Pages are listings, not lead generation.
- Angi has a Jobber connector.

Platform	What it asks for or shows	Checked against state records?	For irrigation, pest and tree work
Google Local Services (the "Google Guaranteed" or "Google Screened" badge)	Background checks (business, owner, field workers), general and professional liability insurance, and state-level business and owner licences for Landscaping, Lawn Care, Tree Service and Pest Control. "On average, this process takes 3–4 weeks." (Confirmed.)	Yes, the documents are reviewed. The name must match the business.	Pest Control and Lawn Care may call for the state pest control licence (to confirm in the sign-up flow). Whether irrigation is its own category in Miami is unknown . Florida has no state landscaping or tree licence, so what Google accepts for those is to confirm in the sign-up flow.
Google Business Profile	Attributes and free text; years in business	No badge for credentials (to confirm)	Certificates go in the description and posts
Angi	Owner background check through Checkr (confirmed on Angi's pages). Licences are self-declared, with spot audits (to confirm).	Not live	Any certificate can be listed

Platform	What it asks for or shows	Checked against state records?	For irrigation, pest and tree work
HomeAdvisor (same group as Angi)	Owner background check, business standing. Licence checks for state-regulated trades (sources conflict; to confirm).	Partly	As Angi
Thumbtack	Background check badge (Checkr). A licence badge only for occupational licences (to confirm).	To confirm	A general business receipt does not earn the badge. Pesticide work needs the state licence.
Yelp	"Verified License" badge: a paid feature "available to businesses in certain categories and regions". Moderators check the trade licence is "in good standing". (Confirmed.)	Yes, for the badge	Whether Miami landscaping qualifies is unknown
Houzz	"Verified License" for "Landscape Contractors" among other categories, on a paid plan. Houzz claims "25% more leads" (its own figure; confirmed that Houzz says it). A credentials and affiliations section, and "Best of Houzz" awards.	Yes, for the badge	The best place to show association certificates
Nextdoor	Business verification with ordinary documents. Licence number recommended.	No	Profile text
Porch	Owner background check badge, rechecked yearly (to confirm)	Unknown	Unknown
Networx, Bark	Not found	Unknown	Research later if Alan lists there
Manufacturer contractor finders (Belgard, and Tremron to research)	Belgard's authorized contractors "receive qualified leads funneled through the company's call center and online Contractor Locator" (to confirm the wording; the programme exists)	Not applicable	A separate lead channel for pavers

6b. The certificates, by trade

Who would hold each one is a choice for Alan. "Alan", "foreman" or "the subcontractor" below is only a placeholder.

Trade	Credential	Issuer	Prerequisites	Exam and study time	Cost	Renewal	Platform use	
Irrigation	Florida Water Star accredited professional, irrigation track	Florida's water management districts, with the nursery association	Training	Training, then an online exam, 80% to pass. About 2–3 weeks at 5 hours.	Training about \$25, exam \$50–\$60 (to confirm)	3 years, 15 units	Florida-specific water-efficiency credential, recognised by the South Florida district. Profile text and quotes.	
Irrigation	Irrigation Association Certified Landscape Irrigation Auditor	Irrigation Association	None formal	125 questions, 3 hours, 70% to pass (to confirm). About 3–4 weeks.	\$250 member, \$495 non-member. Renewal \$75 or \$125 a year. (To confirm.)	Yearly fee	One of the credentials the federal WaterSense programme recognises (to confirm). An "irrigation audit" is something Urth can sell while the repair goes to the subcontractor.	
Irrigation	Irrigation Association Certified Irrigation Technician	Irrigation Association	6 months or 1,000 hours of field work recommended	100 questions, 3 hours (to confirm)	\$175 member, \$300 non-member (to confirm)	Continuing education	A crew-level credential. Only if someone does irrigation work in-house.	
Irrigation	Irrigation Association Certified Irrigation Contractor	Irrigation Association	3 years recommended	150 questions, 3.5 hours (to confirm)	\$250 or \$495 (to confirm)	20 units in 2 years	Only if irrigation comes in-house	
Irrigation (licence)	Miami-Dade Master Lawn Sprinkler, or the state irrigation specialty contractor	County or state (section 2b)	Documented trade experience. State: 4 years, 1 as foreman (to confirm).	Business and technical exams	Section 2b	Section 2b	The licence a platform can check. Held by the subcontractor while irrigation is subcontracted.	

Trade	Credential	Issuer	Prerequisites	Exam and study time	Cost	Renewal	Platform use
Lawn and pest	Bed-spraying certificate, fertilizer certificate	State Department of Agriculture	Sections 2b and 4	Already in Alan's year 1	Section 2b	Section 2b	Personal certificates. They do not make Urth a pest control business.
Lawn and pest (licence)	Pest control business licence with a certified operator	State Department of Agriculture	The operator hire (section 10)	Not applicable	Section 2a	Yearly	What Google's Pest Control and Lawn Care categories and Thumbtack's pest category look for. Do not list pest control as Urth's own service until it holds this licence. List it as done by a licensed partner.
Tree care	International Society of Arboriculture Certified Arborist	The society	3 years of full-time tree work, or a related degree	200 questions, 76% to pass (confirmed on the society's application, August 2025). Already Alan's Block E.	Application \$50, exam \$369 for non-members; \$40 and \$295 for members (confirmed)	3 years, 30 units	Florida has no state tree licence, so this is the main trust mark for tree categories. It also opens county tree bids (section 2b).
Tree care	Tree Risk Assessment Qualification	The same society	Usually the arborist certificate	2-day course and assessment	\$625 member, \$750 non-member (to confirm)	5 years (to confirm)	Risk reports for condominium and homeowners' associations. Later.

Trade	Credential	Issuer	Prerequisites	Exam and study time	Cost	Renewal	Platform use
Tree care	Tree Care Industry Association accreditation (company) or Certified Treecare Safety Professional (person)	The association	Safety programme; 3 years with 1 in a safety role	Programme review	To confirm	To confirm	A test for choosing tree subcontractors more than a credential for Urth
Pavers	Concrete Masonry and Hardscapes Association Certified Concrete Paver Installer	The association	"5 paver projects and 10,000 sq/ft" of documented installs (to confirm)	Course and exam	Fee not published (to confirm)	To confirm	Usually the step to a manufacturer's authorized contractor listing (Belgard; Tremron to research), a lead channel of its own
Backflow	Backflow prevention assembly tester	Training (for example the University of Florida's water training centre, 5 days), then the Miami-Dade trade board's written exam, then registration with Miami-Dade Water and Sewer	The course	5-day course and exam	Course price unknown	2 years	Testing is separate from installing or repairing . Installing or repairing likely needs a plumbing licence (to confirm with the county). A tester can sell annual tests. Repairs go to a plumber.

Trade	Credential	Issuer	Prerequisites	Exam and study time	Cost	Renewal	Platform use
General	Florida-Friendly Landscaping professional (section 5a)	University of Florida extension	None	About 10 hours	About \$120–\$150	4 years	A statewide directory listing and a Florida-specific trust mark. The cheapest credential per hour.
General	Nursery association Certified Horticulture Professional (section 5a)	The association	None	About 8 weeks at 5 hours	\$188 exam, \$180 manual (non-member)	3 years	Florida industry recognition
General	National Association of Landscape Professionals: Landscape Industry Certified Technician	The association	Experience	Written and hands-on tests	\$1,150 (to confirm)	To confirm	Low value per dollar at this stage. The manager exam ended on 3 October 2024 (to confirm).
General	Better Business Bureau accreditation (not a certificate)	The bureau	Good standing	None	About \$50–\$200 a month by size (to confirm)	Monthly	Shoppers look it up. It is not part of any platform's checks.
General	Federal WaterSense individual certification (Qualified Water Efficient Landscaper)	Programme partners	Training	About 20 hours	To confirm	To confirm	Florida is not among the listed states: no local provider is confirmed. Skip for now.

6c. The order the costs and hours suggest

This is the lane's reading of cost against study time, for Alan to reshuffle. It is not a conclusion.

- Florida-Friendly Landscaping professional:** about 10 hours and \$150. It could go into year 1 on a spare weekend.
- Horticulture Professional:** about 40 hours and \$370 with the manual.
- Florida Water Star, landscape and irrigation:** about 15 hours and \$85. The irrigation credential that fits a company that subcontracts irrigation.

4. **Certified Landscape Irrigation Auditor:** about 20 hours and \$495. It turns old controllers found on site visits into an audit Urth sells, with the repair subcontracted.
5. **Arborist:** already Alan's Block E, if the experience rule is met.
6. **Paver installer and a manufacturer listing:** only once hardscape volume is real.
7. **Backflow tester:** only if Urth wants to sell annual tests itself. Otherwise the subcontractor holds it.

For every subcontracted trade, the platform profile should say who does the work and name their licence. The subcontractor's licence number and certificate go on the quote. Urth's app should keep a copy of each subcontractor's licence and insurance with their expiry dates (section 10f).

7. Small Business Enterprise certification: timing

Alan, 23 September, on the Small Business Enterprise certification: "in a few months; I think we established the company in February."

7a. What starts the clock

The rule (confirmed, Miami-Dade certification pages, 23 Sep). Each of the county's three Small Business Enterprise programmes requires the firm to "have an active Miami-Dade County Local Business Tax ... receipt for at least one year". The three are Construction, Goods and Services, and Architecture and Engineering.

The clock is the **county business tax receipt**, not the date the company was formed.

Date	What	Mark
February 2026	Urth Landscaping LLC formed (Alan's recollection)	To confirm on the state company register. The register blocks automated reading; one look in a browser settles it. The date does not start the clock.
24 March 2026	The county receipt for 2026 paid, \$45	Confirmed on the public Tax Collector page. Whether this was the account's first receipt is to confirm on the same page. The 2024 date on the fertilizer affidavit file appears to be the form's edition, not an earlier receipt (to confirm).
By 30 September 2026	The 2027 receipt (\$45) and the attestation	Alan's. A lapse would break "active ... for at least one year" (how the county treats a short lapse is to confirm).
About 24 March 2027	One year of receipt, if 24 March 2026 was the first	The likely earliest application date. The study calendar uses the week of Monday 29 March 2027.
From then	Apply online through the county's Business Management Workforce System	The application's own checklist names the documents (confirmed that the checklist comes with the application)

The other rules (confirmed, same pages).

- A physical office in Miami-Dade County ("no virtual offices").
- Personal net worth up to \$3.5 million per owner.
- Size caps on 3-year average gross receipts: \$8 million for Goods and Services and for specialty trades, \$15 million for general contractors.
- Certification is valid for 3 years.
- For the Construction programme, the licence holder (qualifier) must own at least 10% of the firm.

7b. Which programme

- **Goods and Services** looks like the fit for maintenance and installation today (the lane's reading).
- **Construction** needs a licence holder who owns at least 10%. Urth has none today. It becomes possible when Alan or a partner holds a contractor licence. That is another reason for the general contractor track.
- **Architecture and Engineering** includes "landscape architecture". It would only apply with a licensed landscape architect (section 5b).

- Where landscaping services (industry code 561730) sit is **not stated** on the pages. Confirm with the county's certification unit (phone listed on the county page) before applying.

7c. What to prepare now (all Alan's actions; the lane prepares lists, not filings)

- Keep the receipt continuous.** The 2027 receipt and the attestation by 30 September (section 1).
- The office.** A physical Miami-Dade office, no virtual office. Is the Brickell address a real office Urth can show? If it is inside the City of Miami, a city business tax receipt may also be needed. The city normally wants a Certificate of Use first, though "certain lawn maintenance businesses" are reported as exempt (to confirm on the city's current page).
- The company file,** in one folder: articles of organization, operating agreement, the state annual report (due 1 May 2027), both county receipts, the federal employer number letter (kept private; never pasted into a document), and bank account details.
- Money records.** Bank statements from the first month, a simple profit and loss and balance sheet for 2026, and the 2026 federal return when filed. How many years of returns a first-year firm must give is **to confirm**. The rule speaks of a "3-year average". Also the owner's personal net worth statement (the county's form is to confirm).
- Proof of work.** Invoices, contracts, photos, the vehicle and equipment list, and insurance certificates. Property reports made for paying customers also show real work (the test properties do not count).
- County vendor registration** (section 3, week 4). It uses the same receipt and is free.
- Ask the county three questions** (Alan's call): the programme for landscaping, the documents for a firm with one year of history, and whether there is an application fee. The pages show none. A Micro Business Enterprise tier was found only for the county school board (to confirm for the county).

Nearby programmes (brief).

- Broward's small business certification needs a Broward receipt, a city receipt and a Broward address (confirmed). It applies only if Urth opens there.
- Miami-Dade's local business preference has no one-year waiting rule in the text found.
- The state's supplier diversity certification is only for firms at least 51% owned by a minority, woman or veteran (confirmed). It does not apply unless that is true of Urth's owners.

8. Applicators and crew study plan

There is no crew today. This plan is a template: it counts crew weeks from the hire date, and the simulation can drop it into any start date. About 3 hours a week of paid study time is assumed. The simulation should cost it.

Crew week	Who	What	Source	Time
1	Everyone	Heat illness, lightning (Alan's rule: lightning likely means no crew goes out), protective equipment, mower, trimmer and blower safety, traffic	Urth day-one sheet (to write). Occupational safety heat guidance.	4 h
1–2	Everyone	First aid and cardiopulmonary resuscitation	Red Cross or local class, price by location	4–5 h
2	Anyone who spreads fertilizer	Green Industries training, then apply for the fertilizer certificate (\$25)	gibmp.ifas.ufl.edu	6 h
3–4	Hardscape crew	Occupational Safety and Health Administration 10-hour construction course, online	Authorised online providers, about \$42–\$89 (to confirm)	10 h
4–9	Designated sprayers only	Bed-spraying certificate: the same kit as Alan's Block B, one module a week	21 September kit. Spanish-language exam availability to confirm.	3 h a week

Crew week	Who	What	Source	Time
10	Designated sprayers	Book and sit the exam (Alan decides). \$150.	Everblue	3 h
When the pest control business licence exists	Lawn sprayers under the operator	Identification card (\$10): 5 days of field training before working. 4 hours of classroom training within 6 months. 2 hours before each card renewal. All confirmed.	The operator, state-approved courses	40 h + 4 h
Month 3–6	Chainsaw users	Chainsaw safety course	To research	1 day
Month 6 onwards	Foreman track	Florida Nursery, Growers and Landscape Association Certified Horticulture Professional	The association's manual, The Horticulture Professional (2nd edition)	3 h a week for 8 weeks
Optional	Irrigation-minded crew	Irrigation Association Certified Irrigation Technician (100 questions, 3 hours; to confirm)	irrigation.org	Later
Optional	Paver crew	Concrete paver installer course	Concrete Masonry and Hardscapes Association	1–2 days

The limits of personal certificates (confirmed by statute). The bed-spraying and fertilizer certificates are personal. Each worker who sprays beds or spreads fertilizer needs their own, and no holder may supervise uncertified people. Only the pest control business licence, run by the certified operator, lets crew work on identification cards. This is the reason for the operator hire in section 10f.

9. Study tools

The rule for every tool: the official books and pages are the source of truth. An AI tool can explain, quiz and read aloud, but a Florida rule is only believed when it can be found in an official book.

NotebookLM: one notebook per exam

On the free tier, NotebookLM works only from the sources loaded into it and cites them. Reported free limits are 100 notebooks, 50 sources per notebook and 3 audio overviews a day; these are **to confirm**, because the official page redirected. It also makes flashcards, quizzes, mind maps and audio overviews that can be played in the truck between jobs.

Notebook	Load these sources	Where they are
1. Fertilizer	The Green Industries manual. Section 482.1562. Miami-Dade Chapter 18-C page. Broward fertilizer rules.	Manual: download from the University of Florida. County page: 21 September package, file official/text/md-fertilizer-regs.txt.
2. Bed spraying	Landscape Maintenance manual (16 chapters and appendices). Applying Pesticides Correctly (7th edition). Sections 482.156 and 482.071. Rule 5E-14. The kit's 53 flashcards.	21 September package: corpus-text/ (OCR text), official/text/, study/

Notebook	Load these sources	Where they are
3. Lawn and Ornamental operator	Lawn and Ornamental Pest Management. The Florida weeds identification guide. Applying Pesticides Correctly. Sections 482.132, 482.152 and 482.091.	University of Florida bookstore (to buy later). Statutes from leg.state.fl.us.
4. General contractor, Business and Finance	Candidate Information Booklet. 2026 Business and Finance reference list. Chapter 455 (free). Chapter 489 (free). Contractors Manual (as a PDF once bought). Circular E, Internal Revenue Service Publication 15 (free).	Booklet and list: this package, sources/official/. Statutes: flsenate.gov.
5. General contractor, Contract Administration and Project Management	2026 general contractor reference list. Florida Building Code chapters (free to read on codes.iccsafe.org). Occupational safety rules Part 1926 (free on ecf.gov). A201 summary notes.	The books themselves are paid; load only what is legally free or bought.
6. Arborist	The study guide's chapter notes (typed by Alan). Florida chapter course handouts.	After purchase
7. Company rules	Every official page in the 21 and 22 September packages. Alan's Government Procurement note. This plan.	Both packages
8. Landscape design and Florida plants	Sections 481.303 and 481.329. The Florida-Friendly Landscaping course pages. The Horticulture Professional manual. The nursery association's plant identification lists.	sources/official/ (the statutes), then the manual once bought
9. Landscape architecture, as if	Chapter 481 part II, rule chapter 61G10, the national exam's blueprint and practice exams, grading and drainage notes	Statutes in sources/official/; the rest once downloaded or bought

Prompts to paste into NotebookLM. Swap in the notebook's own topic.

1. "Using only these sources, write 20 multiple-choice questions on [module], four options each, one correct. Put the answer and the page it comes from after all 20."
2. "List every number in [chapter] that could be an exam question: limits, dates, fees, distances, percentages. Show each with its sentence and source."
3. "Where do these sources disagree with each other, or look out of date? List each case."
4. "Explain [topic] to a landscaping business owner in plain words, then give three trick questions an examiner might ask."
5. "Make a 10-minute audio overview of [module] for listening while driving, focused on what is most likely to be tested."
6. After a practice test: "I got these wrong: [list]. For each, show the source passage and one new question on the same point."

Practice formats.

- Built-in flashcards and quizzes, once per module.
- Audio overviews for driving time.
- A mind map per book, to learn the layout of an open-book exam.
- The weak-spot loop from the 21 September kit.

Gemini: explanations and a study coach

Gemini is good at plain-word explanations and at drilling. It has no grounded knowledge of the current Florida rules, so every rule it states needs checking. Google AI Pro is \$19.99 a month (confirmed) and is not needed to start.

- **Make a Gem called "Urth exam coach"** with these instructions: "I am studying for [exam]. Quiz me one question at a time from the topic I name. Wait for my answer, then tell me whether it is right and why, citing which official book I should open. Never state a Florida rule without saying it

must be checked in the official source. Keep a running list of my misses and re-ask them at the end."

- **Guided Learning mode.** For concepts: ratios, depreciation, critical path, calibration maths.
- **The exam maths.** "Give me 10 calibration problems (gallons per acre, ounces per 1,000 square feet) and check my working." The same for job costing and percentage-complete billing.
- **Not for:** looking up Florida fees, dates or rules.

Flashcards

- **Anki.** Free on desktop and Android; \$24.99 once on iPhone (confirmed). Import the kit's CSV of 53 cards and every NotebookLM card set. 15 minutes a day.
- **Quizlet.** An alternative if phone-first matters more (about \$36 a year; to confirm).

Prep courses and books worth paying for (prices only; nothing bought)

Exam	Option	Price	Worth it?
General contractor (all three parts)	1 Exam Prep "Ultimate": 19 rented, tabbed and highlighted books, plus courses	\$2,895 plus a \$1,000 refundable book deposit (confirmed on the vendor page)	Only when Alan decides to sit. Until then, buy the three Business and Finance books and the free booklet.
General contractor	1 Exam Prep all-inclusive	\$4,695 (listed as down from \$5,695)	No, not before a sitting date
General contractor	Gold Coast Schools, and CEI (MyContractorExam)	Price not shown (to confirm)	Compare before any purchase
General contractor, Business and Finance	Books only: Contractors Manual, Builder's Guide to Accounting, chapter 455 (free), the three American Institute of Architects documents	To price	Yes: the start of Block C
Bed spraying and operator	Everblue exam fee on top of the state fee	About \$32 remote, \$59 in person (to confirm)	Needed to sit
Bed spraying and operator	State paper exam days: proctoring free, application fee still applies	Next: 2–3 Nov 2026, Tallahassee. Register by about 18–19 Oct.	Too soon for Block B; watch for 2027 dates
Fertilizer	Green Industries course	About \$20 online (to confirm)	Yes
Arborist	Florida chapter virtual prep (October and April)	By phone (to confirm)	Yes, if Alan's eligibility is confirmed
Arborist	Arborists' Certification Study Guide, 4th edition	To price	Yes
Horticulture	The Horticulture Professional manual	\$120 member, \$180 non-member (confirmed)	Yes, for the foreman track

Exam	Option	Price	Worth it?
Free	State Candidate Information Booklet, reference lists, statutes, Florida Building Code read-only, Part 1926 on ecfr.gov, University of Florida extension pages	Free	Always first

10. Hiring and crew

Alan, 23 September: "The hiring and crew employees should be an apps section." This chapter is written as the content of that app section: each part below becomes one screen (10g). There is no crew today and no hiring date. Every trigger, pay figure and order below is a placeholder for the simulation and for Alan to react to.

10a. Roles in order of hire

The order follows what frees Alan's time first. Each hire has a **trigger**, not a date.

Order	Role	Trigger (placeholder)	What the person does	Must hold on day one	Must get soon after
1	Crew member (landscape worker)	Enough recurring route work to keep two people busy most days. Alan's rule: a crew leaves if the schedule is not full.	Mowing, edging, pruning, planting, clean-up, loading	The right to work in the United States (federal form I-9). A Florida driving licence if they will drive.	Day-one safety sheet (week 1). First aid (weeks 1–2). Green Industries training and the \$25 fertilizer certificate (week 2).
2	Crew leader (foreman); may be hire 1 promoted	Alan needs to be off the truck for site visits, sales and estimates	Runs the day's route, quality, customer contact on site, the crew's time and photos in the app	All of hire 1's, plus a driving record the insurer accepts, and English and Spanish (preferred)	Bed-spraying certificate (about 10 weeks, section 8). Horticulture Professional certificate (from month 6).
3–4	Crew members 2 and 3	Installs and hardscape: Alan's modelling note says a two-person crew cannot do hardscape; three or four can. Or a second route.	As hire 1, plus install work	As hire 1	For hardscape: the 10-hour construction safety course (weeks 3–4). For chainsaws: chainsaw safety (months 3–6).

Order	Role	Trigger (placeholder)	What the person does	Must hold on day one	Must get soon after
5	Certified pest control operator in charge , Lawn and Ornamental (10f)	Only if Alan brings lawn spraying in-house. Otherwise it stays with a licensed subcontractor.	Holds Urth's pest control business licence. Runs spraying and trains the crew's identification-card holders.	The state certificate in Lawn and Ornamental. Full-time with Urth by law.	Fertilizer certificate if missing
6	Office coordinator , part-time	Leads wait too long for a reply, or Alan spends evenings on invoices and scheduling	Lead replies, scheduling, invoices, supplier orders, certificate expiry dates	Nothing licensed	Knows the app, Jobber-style scheduling and QuickBooks
7	Second crew leader	A second full crew	As hire 2	As hire 2	As hire 2

Not hired: subcontracted. Irrigation, tree removal and large pruning, backflow, structural hardscape, pools and lighting. For each subcontractor the app keeps the licence, insurance and expiry dates (10g).

Who must hold what, in one place (from sections 2 and 8; confirmed there).

- Everyone who **spreads fertilizer** needs their own fertilizer certificate (Green Industries training plus \$25).
- Everyone who **sprays beds** needs their own bed-spraying certificate. No holder may supervise uncertified people.
- **Lawn spraying by crew** is only possible under a pest control business licence with a full-time certified operator. Each sprayer then carries a \$10 identification card and gets 5 days of field training.
- **Drivers:** a commercial driving licence is needed only for a truck rated at 26,001 pounds or more, or a combination of that rating where the trailer is rated over 10,000 pounds. The rating counts, not the load. A Class B licence covers a single heavy truck; a Class A covers a heavy combination. Motor vehicle record checks are usually an insurer's condition rather than a state rule.
- **Under 18:** 16- and 17-year-olds may use mowers under 20 horsepower and string trimmers with guards, but **not wood chippers**. School-week hour limits apply (to confirm on the state's child labour page).

10b. Pay basis options

Urth has talked of paying crew by the day. The options:

Basis	How it works	Good for	Watch
Hourly	Rate times hours, time and a half over 40	Simple and clear	Needs clean time records (the app's clock-in)
Day rate	A flat sum per day worked	Matches route work, easy to explain	Still owed overtime (below). The day rate divided by hours must stay at or above the minimum wage.
Day rate plus a deliverables bonus	Day rate, plus a bonus per route completed to the photo standard, or per install signed off	Rewards quality and pace	Under the federal rules, most bonuses go into the regular rate for overtime (to confirm per bonus type)
Salary	Weekly salary	The certified operator; an office role	Crew leaders and crew are almost always non-exempt, so overtime still applies

The overtime rule for day rates (confirmed, federal rule 29 CFR 778.112). For a flat day rate, "his regular rate is determined by totaling all the sums received at such day rates ... in the workweek and dividing by the total number of hours actually worked. He is then entitled to extra half-time pay at this rate for all hours worked in excess of 40 in the workweek."

Florida's minimum wage (confirmed, state Department of Commerce).

- \$14.00 an hour until 29 September 2026.
- **\$15.00 an hour from 30 September 2026**, the last step of the 2020 amendment.
- Adjusted each year for inflation from 2027.

Worked examples (5 days a week, placeholders only):

Day rate	Hours a day	Week's hours	Regular rate	Overtime owed (5 hours at half rate)	Week's pay
\$135	9	45	\$15.00	\$37.50	\$712.50
\$150	9	45	\$16.67	\$41.67	\$791.67
\$170	9	45	\$18.89	\$47.22	\$897.22
\$150	10	50	\$15.00	\$75.00 (10 hours)	\$825.00
\$220	9	45	\$24.44	\$61.11	\$1,161.11

The lowest legal day rate from 30 September 2026 is \$135 for a 9-hour day, or \$150 for a 10-hour day.

What the Miami market pays (confirmed: federal Bureau of Labor Statistics, May 2025 estimates for the Miami, Fort Lauderdale and West Palm Beach area, read through its public data service on 23 Sep):

Occupation	Median an hour	Mean an hour	Middle half (25th to 75th percentile)	As a 9-hour day at the median
Landscaping and groundskeeping workers	\$17.99	\$19.28	\$17.38–\$21.71	about \$162
First-line supervisors of landscaping workers	\$24.68	\$27.15	\$20.47–\$31.00	about \$222
Vegetation pesticide handlers and applicators	\$22.22	\$22.26	not returned	about \$200
Tree trimmers and pruners	\$23.34	\$24.02	not returned	about \$210
Construction laborers (hardscape proxy)	\$21.88	\$22.17	not returned	about \$197
Light truck drivers	\$20.55	\$21.76	not returned	about \$185
Cost estimators (office estimator proxy)	\$36.56	\$39.33	not returned	not applicable

These figures come from employer surveys and are a year old. Job-board day rates in Miami were not gathered (to research). The certified operator's pay is to ask the headhunter (10f).

Costs on top of pay, for the simulation (all to confirm with an agent or accountant):

- Employer payroll taxes.
- Florida reemployment tax: 2.7% on the first \$7,000 of each person's pay for a new employer. Registration once wages pass \$1,500 in a quarter.
- Workers' compensation. Class 0042 covers landscape gardening; 9102 covers lawn maintenance done by separate crews. Rates are to quote.
- Paid study time (section 8), equipment and uniforms.

10c. The headhunter brief (crew leader)

Alan sends this; nothing has been sent. The certified operator has its own brief in 10f.

- **Title:** Landscape crew leader, Miami-Dade, for a new residential and small-commercial landscape company that runs on its own property-intelligence app. Full-time, on payroll.
- **Must have:**
 - 3 or more years on South Florida residential maintenance and install crews, 1 or more leading a crew.
 - A valid Florida driving licence and a driving record an insurer will accept.
 - The right to work in the United States.
 - Comfortable with a phone app for photos, time and job notes.
- **Should have:**
 - The fertilizer certificate and the bed-spraying certificate, or willing to get them in the first 10 weeks. Urth pays the study time and fees.
 - Plant identification for South Florida palms, hedges and turf.
 - Trailer handling.
 - English and Spanish.
- **Useful:** Florida-Friendly Landscaping training, the Horticulture Professional certificate, and experience of small installs and pavers.
- **Pay to ask the headhunter:**
 - The current Miami range for a crew leader.
 - Whether candidates accept a day rate, with overtime paid as the law requires, plus a quality bonus.
 - The fee: typical contingency fees are said to be 15–25% of first-year pay, with a 30–90 day replacement guarantee (to confirm with each firm).
- **Other channels to compare:** referrals from nurseries and suppliers, Spanish-language job boards, and trade schools. Seasonal work visas are not for year one. The programme has a fixed cap, which was reached on 20 March 2026 for this year's second half. Federal filing fees start at \$460 plus \$150, before labour-certification and agent costs.

10d. Onboarding checklist

The app turns each line into a dated task from the hire date.

Before day one

1. A written offer: role, pay basis (day rate or hourly), expected hours, how overtime is paid, and the study plan with paid study hours.
2. If the person will drive: their consent and a driving record check. For any background check through a third party, the federal disclosure and consent forms come first.
3. Workers' compensation in force. Whether Urth counts as construction (required from the first employee) or non-construction (from the fourth, owners counted) is **to confirm** with a carrier. Public bids ask for it anyway.
4. Payroll set up. State reemployment tax registration once the threshold is reached.
5. E-Verify: required for Florida private employers with 25 or more employees (section 448.095, confirmed). It is also needed for public contracts (section 3, week 5). Decide whether to use it from the first hire.
6. Equipment, uniform and protective gear ready. An account on the crew's messaging workspace: Alan prefers Slack to WhatsApp, so the operating system can see what happens.

Day one

7. Form I-9: section 1 on day one, section 2 within 3 business days, with documents seen. The form is kept on file.
8. Federal form W-4.
9. Emergency contact.
10. The day-one safety sheet:
 - Lightning: when lightning is likely, no crew goes out.
 - Heat: water, shade, rest.
 - Protective equipment.
 - Mower, trimmer and blower safety.
 - Traffic.
11. Equipment sign-out.
12. The app: clocking in, job photos, site notes.

First two weeks

13. Florida new hire report, within 20 days of hire.
14. First aid and cardiopulmonary resuscitation class.
15. Green Industries training, then the fertilizer certificate application (\$25).
16. Ride-along sign-offs on each machine.

First 30 days

17. A check-in on pace, quality photos and attendance.
18. Start the section 8 plan: bed spraying for designated sprayers, and the construction safety course for hardscape.

19. If Urth adopts a drug-free workplace programme (section 440.102), its testing steps. The workers' compensation discount is reported at 5% (to confirm).

Day 90

20. Review pay and role. Set the next certificate. Put expiry dates into the certificate tracker.

Heat rules. The federal heat rule is still only a proposal (confirmed status, 2026). The general duty to keep a safe workplace applies. Florida law (House Bill 433, 2024) stops counties and cities from adding their own heat rules. Urth's own rule is the one in the day-one sheet.

10e. When someone leaves

- Final pay.
- Collect equipment.
- Take them off the messaging workspace and the app.
- Keep the I-9 for 3 years after hire or 1 year after leaving, whichever is later.
- If the person was the certified operator in charge, tell the state at once and name a temporary operator for up to 30 days (10f).

10f. The certified operator hire

Why one hire matters

Only one pesticide licence belongs to the company: the **pest control business licence** from the Florida Department of Agriculture and Consumer Services. The department issues it only when the business has a **certified operator in charge** who holds the Lawn and Ornamental category. The law ties that person to one business: the operator in charge "shall have her or his primary occupation with the licensee and shall be a full-time employee of the licensee" (section 482.152, Florida Statutes; confirmed on the official page on 22 September).

Alan cannot earn this certificate by study alone. The exam is open only to someone with three years as a service employee of a licensed pest control company (one year of it in Florida), or a degree in entomology, botany, agronomy or horticulture plus one year (section 482.132; confirmed 22 September). So the company licence depends on hiring one person, which fits Alan's rule "license the company, not personnel who come and go" as closely as the law allows: one qualifying person instead of a certificate for every sprayer. Once the business licence exists, crew members spray lawns under the operator with a \$10 identification card and five days of field training each, not a certificate each.

If that person leaves, the company must tell the department at once and may run under a temporary operator for up to 30 days (rule 5E-14.142). Plan a second person on the path (a crew member working towards the three years, or Alan's own clock if Alan ever works under a licensee) so the licence is not a single point of failure.

What to ask the headhunters for

Send this as the search brief (Alan sends it; nothing has been sent):

- **Title:** Certified Pest Control Operator in charge, Lawn and Ornamental, for a new Miami-Dade and Broward landscape company. Full-time, on payroll (not a contractor, not shared with another company).
- **Must hold today:** an active Florida certified operator certificate in the **Lawn and Ornamental** category, current on continuing education, with no disciplinary history. The candidate gives the certificate number; Urth checks it on the department's public licence lookup before any interview.
- **Must be willing to:** be named as the operator in charge on Urth's pest control business licence, resign as operator in charge of any other licensee first, and work full time for Urth as the primary occupation.
- **Should have:** the Limited Urban Commercial Fertilizer certificate (or be willing to get it in a week), Green Industries training, three or more years running turf and ornamental routes in South Florida, experience training identification-card employees, record-keeping for restricted-use products, calibration of power sprayers.
- **Useful extras:** International Society of Arboriculture Certified Arborist; Spanish and English; a clean driving record (commercial auto insurance); experience leading a two- to four-person crew (the "foreman who already has it" option).
- **Two shapes to present:** (a) a working foreman who holds the certificate and runs a crew; (b) a dedicated spray-route lead. Alan named (a) as possible ("a foreman who already has it"); the lane suggests (a) for the early years because one person covers both roles.
- **Pay:** ask the headhunter for the current Miami range for both shapes and for the fee structure (percentage of first-year salary, guarantee period). Urth pays crew by the day; ask whether candidates accept a day rate plus a licence stipend, or need a salary.

Interview questions

Licence and history

1. What is your certificate number, category and expiry, and how many continuing education units do you have for this renewal year?
2. Are you the operator in charge for any licensee today? What would you need to do to leave that role?
3. Have you ever received a warning, fine or stop order from the department? Tell me what happened.

Technical (answers Alan can check against the manuals)

4. Walk me through calibrating a 100-gallon skid sprayer for a turf herbicide at a label rate per 1,000 square feet.

- 5. A St. Augustine lawn in Kendall is yellowing in patches in August. What do you look for before you spray anything?
- 6. Chinch bugs versus drought stress: how do you tell them apart on site?
- 7. Which Miami-Dade fertilizer rules change what you do between 15 May and 31 October? What about near a canal?
- 8. What records do you keep for each application, and for how long? What changes for a restricted-use product?
- 9. A customer's dog was on the lawn ten minutes after treatment. What do you do?
- 10. What personal protective equipment do you require for each crew member, and how do you check it daily?

Running a crew and a licence

- 11. How do you train a new identification-card employee in their first five days?
- 12. How would you set up spray routes so they sit next to our mowing routes?
- 13. What would you change first in a company that has never held a pest control licence?
- 14. If you left, how much notice would you give, and would you help us bring in a temporary operator?

Fit

- 15. Why a small new company instead of a large lawn-care firm?
- 16. How do you feel about being paid by the day, with deliverables tracked, like the rest of the crew?

10g. The app section: Hiring and crew

A page specification for the systems map. It is not built yet; building it needs a separate dispatch and Alan's approval. Everything in it is simulated until the first real hire.

Introduction line on the section: "Who Urth hires, in what order, what each person must hold, how they are paid, and what happens from offer to day 90."

Click path, once built: APPS, then the front door, then Hiring and crew.

Screen	Shows	Main fields	Fed by	Feeds
1. Roles	The 10a table: order, trigger, status (not open, open, filled)	role, order, trigger, must hold, must get, pay basis, status	This plan	Simulated operations (crew size and cost), the financial model
2. Candidates	A pipeline: found, screened, licence checked, interview, trial day, offer, hired	name (private), role, source (headhunter, referral, board), licence numbers checked, interview notes, the 10c and 10f questions with answers	Headhunters, referrals	Screen 3 on hire
3. People	One card per person: role, hire date, pay basis, certificates with expiry dates, the section 8 study plan and progress	person, certificate type, number, issued, expires, renewal hours needed	Onboarding, the state's public licence lookups (read only)	Licensing section (expiry alerts), the calendar (study days)
4. Onboarding	The 10d checklist per person, with due dates worked out from the hire date	task, due, done, document stored	Screen 3	Reminders

Screen	Shows	Main fields	Fed by	Feeds
5. Pay calculator	Day rate and hours in; regular rate, overtime owed and the minimum-wage check out, as in the 10b table	day rate, days, hours a day, bonus	Florida minimum wage table (updated each 30 September)	Simulated operations (labour cost per job)
6. Subcontractors	Each subcontractor's trade, licence, insurance and expiry dates, and the platform categories their licence covers	trade, licence number, insurer, expiry, platforms listed	Subcontractor documents	Platform profiles (section 6c), quotes

Rules for the page.

- Private names stay in the app's private store, never in documents or the files page.
- Licence checks are read-only lookups on public state pages.
- No message is sent from the page without Alan pressing send.

11. Open questions for Alan

1. **The county business tax receipt.** The 2027 receipt (\$45) and the attestation are due by Wednesday 30 September. Alan said he will do them in the coming days. Was 24 March 2026 the account's first receipt? That sets the Small Business Enterprise date.
2. **Order of Alan's blocks.** Fertilizer, then bed spraying, then Business and Finance is proposed. Would you rather start the general contractor work first?
3. **Weekly hours.** Is 5 hours a week (7 in general contractor blocks) right for "slow and steady"?
4. **The operator hire.** A working foreman who holds the certificate, or a dedicated spray lead? And when: before the first spring season (the spraying season) or later?
5. **Irrigation.** Subcontracted (Alan, 23 Sep). Which irrigation certificates for the profiles, and who holds them: Alan, a crew leader, or neither (section 6c)?
6. **Arborist eligibility.** Do your Earthy years count as the three years of tree work? One call or email to the International Society of Arboriculture settles it.
7. **The Small Business Enterprise file.** The company's formation date on the state register (February 2026 by Alan's memory). Is the Brickell address a physical office the county will accept? Goods and Services or Construction (section 7b)?
8. **Alan's degrees and subjects.** They decide which landscape architecture route is open, and how long each takes (section 5c).
9. **Hiring.** Day rate, hourly, or a day rate with a quality bonus (section 10b)? And the order of hires in 10a: is the crew leader the first hire, or a promoted crew member?
10. **Platform credentials.** Move the Florida-Friendly Landscaping certificate (about 10 hours) into year 1?
11. **Phone calls that would close most "to confirm" facts** (none made by the lane):
 - Miami-Dade Tax Collector: the receipt fee and category.
 - Broward Tax Collector: whether work-only visits need a Broward receipt.
 - Miami-Dade Construction Trades Qualifying Board: current fees, and a paver category.
 - Broward Central Examining Board: irrigation, and whether it honours Miami-Dade certificates.
 - State Department of Agriculture pest control licensing: exam question counts, operator continuing education hours.
 - The Florida chapter of the International Society of Arboriculture: prep course price.

Added in version 1.1:

- The Miami-Dade Small Business Enterprise certification unit: the programme for landscaping, the documents for a firm with one year of history, and any fee.
- Miami-Dade Water and Sewer: does installing or repairing a backflow assembly need a plumbing licence, beyond the tester certificate?
- Florida International University: the Master of Landscape Architecture's length for Alan's degree, and any part-time path.
- The state Board of Landscape Architecture: exam fees now, and whether the national exam can be sat before the experience is complete.

12. Sources

- **Fetches today (23 Sep), official**, in `sources/official/` with fingerprints in `MANIFEST.sha256` :

- The state construction Candidate Information Booklet (const_cib.pdf).
 - The 2026 general, building and residential contractor reference list.
 - The 2026 Business and Finance reference list.
 - The 2025 general contractor reference list (for comparison).
 - The state reference-list index page.
 - The Miami-Dade Construction Trades Qualifying Board category list.
 - The county personal certification application with its fees.
- **Research notes (23 Sep)**, in `sources/research/` : three read-only web passes, each fact marked confirmed or to confirm, with its address:
 - general contractor (cgc.md);
 - Miami-Dade and Broward (counties.md);
 - applicators, arborist, industry credentials and study tools (applicators-tools.md).
- **Added in version 1.1 (23 Sep)**, in `sources/official/` :
 - Florida Statutes sections 481.303, 481.309, 481.310 and 481.329 (2025 text, flsenate.gov).
 - Miami-area wages for May 2025 from the Bureau of Labor Statistics public data service (bls-oews-miami-2025.json).
- **Research notes added in version 1.1**, in `sources/research/` , each fact marked confirmed, to confirm or unknown:
 - landscape architecture and landscape design (landscape-architecture-design.md);
 - platforms and certificates (platform-certifications.md);
 - Small Business Enterprise timing and hiring (sbe-hiring.md).
- **Urth's own facts**: the direction file for 23 September (the Tax Collector page reading and Alan's words). Private names are left out; where one matters, the plan says "a contact in Alan's notes".
- **Earlier packages, not changed**:
 - 21 September licensing package: official statute and rule texts, the bed-spraying study kit, the corpus.
 - 22 September licence map, its JSON and the 23-fact confirmation pass (growth/C3-licensing/).
- **Alan's notes** (context/ios-notes-urth-20260922.md): LICENCING, and Government Procurement (priorities, hauling permit, Small Business Enterprise, dealer's licence).