STRETCHLEARN · WORKBOOK

Car Wash Business — Workbook

This workbook turns the course into a working business plan and deal file. Each section matches a course module and walks you through the real decisions: choosing a format, screening a corner by traffic count and access, building an all-in capital budget, modeling an unlimited wash club by capture and churn, and making the labor-versus-automation call station by station. Run it against an actual site or an existing wash you are evaluating and you will finish with a defensible volume projection, a capital budget, a membership pro forma, and an operating plan, plus reusable templates you can apply to the next site.

How a Car Wash Makes Money

Pick the format that fits your capital and site, then build fluency in the volume, ticket, and membership metrics that govern the business.

Worksheet: Format selection scorecard

Score each of the four formats against your situation to choose where to focus. Rate fit from 1 (poor) to 5 (strong) on each row, then total each column. The highest-scoring column is your starting format.

Available capital vs typical all-in cost (express 3-7M, full-service high, IBA 200-600K, self-serve low)

Site size and traffic available (express needs 1-2 acres and high AADT)

Appetite for managing labor (full-service heavy, express thin, IBA/self-serve minimal)

Target throughput / cars per day you want to reach

Resale value and membership potential desired

Column total per format (express / full-service / in-bay automatic / self-serve)

Exercise: Volume-leverage model

Prove to yourself how operating leverage works in a wash. Estimate fixed monthly costs and variable cost per car, then compute monthly profit at two volume levels to see how profit scales faster than volume.

• What are your estimated fixed monthly costs (loan, base labor, insurance, base utilities, rent or land equivalent)?

• What is your variable cost per car (water, chemical, power) and your average revenue per car?

• What is monthly profit at 150 cars per day versus 300 cars per day?

• By what multiple does profit grow when volume doubles, and why is it more than 2x?

Exercise: Membership-mix and seasonality check

Map how much of your projected revenue is recurring versus weather-dependent retail. The higher the membership share, the more you neutralize the biggest source of volatility in the business.

• What share of revenue do you project from members versus one-time retail buyers?

• How much does retail volume swing between a post-storm week and a long dry spell in your climate?

• What active member count would you need to cover fixed costs from recurring revenue alone?

• How does your local climate (snow-belt, sun-belt, drought) change build cost and demand pattern?

Checklist: Business-model readiness checklist

[ ] Chosen a primary format and can justify it on capital, site, and labor appetite
[ ] Understand cars per day as the heartbeat metric and have a target CPD
[ ] Designed a four-tier retail menu with a clear top-tier upsell (ceramic, tire shine, undercarriage)
[ ] Defined an unlimited membership concept and a target member count
[ ] Estimated the operating margin and the major cost lines (labor, chemical, water/sewer, utilities)
[ ] Accounted for climate-driven seasonality and freeze or drought requirements

Site Selection and Market Analysis

Screen a corner with the same traffic, access, and trade-area data professional developers use, and decide whether to build, buy, or convert.

Worksheet: Site traffic and capture worksheet

Pull the AADT for the road from the state DOT traffic map, then project volume from a realistic capture rate. Sanity-check the result against comparable washes before you trust it.

Road name and AADT (vehicles per day, from state DOT)

Side of road and commuter direction (going-home side captures more)

Assumed daily capture rate (typically a fraction of one percent)

Projected cars per day (AADT x capture rate)

Comparable wash volumes used to sanity-check the projection

Implied monthly revenue at projected CPD and target average ticket

Worksheet: Trade-area demographics worksheet

Profile the population within 3 to 5 miles using Census data and a tool like Esri Business Analyst or Placer.ai. These drive membership demand and willingness to pay for top tiers.

Population within 3-mile and 5-mile radius

Median household income (sweet spot is middle / upper-middle)

Daytime population and commuter flow past the site

Vehicles per household and share of newer vehicles

Trade-area growth trajectory (new rooftops, development)

Competing washes within 3 miles (count, format, and any permitted/under construction)

Exercise: Drive-the-corner site walk

Visit the site at rush hour and evaluate the physical attributes that traffic count alone hides. Note anything that would stop a driver from easily turning in or feeding the tunnel.

• Can drivers see the site and signage in time to turn in, and is it at or near a signal or anchor?

• Is ingress easy (right-in available), or does a raised median block left turns and cut effective traffic in half?

• Is there enough stacking depth to queue 15 to 25 cars at peak without backing into the street?

• Does the lot allow one-way flow from entrance to pay station to tunnel to vacuums to exit, with room for 20 to 30 vacuum stalls?

Checklist: Site go / no-go screen

[ ] AADT meets the threshold for the format (often 25,000-40,000+ for express)
[ ] Site is visible with easy ingress and no crippling median or single awkward driveway
[ ] Lot is roughly 1-2 acres with adequate stacking, tunnel length, and vacuum space
[ ] Zoning permits a car wash by right, or the conditional-use path is understood
[ ] Water, sewer capacity, and three-phase power are confirmed, with the sewer surcharge known
[ ] Storm-water, oil-water separator, and environmental requirements understood
[ ] Phase I environmental ordered if the parcel is a former gas station or has contamination history
[ ] No new competing express wash permitted or under construction within roughly two miles

Capital Budget and Equipment

Build the true all-in capital budget, specify the tunnel and water systems, choose a POS platform, and size the financing your cash flow can carry.

Worksheet: All-in capital budget worksheet

Itemize every bucket from real quotes and bids, not round numbers, and attach a contingency to the site-work line where overruns hide. The total is your true investment, not the equipment quote.

Land acquisition cost

Building and site work (tunnel building, pavement, drainage, utilities, landscaping) — the line most prone to overrun

Tunnel equipment and conveyor (length and brand)

Water treatment and reclaim system plus oil-water separator

Vacuums and central producers (20-30 stalls)

Point-of-sale, pay stations, license plate readers, and signage

Soft costs (architecture, civil engineering, permits, legal, loan fees) — 8-15% of project

Site-work contingency (10-15%) and total all-in investment

Exercise: Equipment specification choices

Make the core equipment decisions that determine wash quality, operating cost, and resale. Justify each choice against your market and volume.

• Conveyor type: chain-and-roller or belt, and why (belt is gentler on wheels and AWD but costs more)?

• Cleaning method: friction (foam/cloth) or touch-free, and what does your dirt load and volume favor?

• Equipment brand (Sonny's, Belanger, PECO, Tommy, or for IBA: PDQ, Belanger, Washworld) and the reason, considering parts and service speed?

• Reclaim target (50-80% recycled) and how it cuts your water and sewer cost while satisfying drought or environmental rules?

Worksheet: Financing and debt-coverage worksheet

Size the loan from your ramped operating profit and the lender's required coverage, then stress-test it. Confirm the deal still services debt under lower volume, a new competitor, and higher rates.

Loan type (SBA 7(a)/504, conventional, equipment finance, construction-to-perm, seller note)

Down payment / equity required (SBA 10-20%, conventional 20-30%)

Projected stabilized operating profit (NOI)

Lender required debt service coverage ratio (e.g. 1.25)

Annual debt service and implied DSCR at projected volume

DSCR under stress (volume -20%, new competitor, rate +2%)

Pass / fail: does stressed DSCR stay above ~1.10?

Checklist: Technology and build checklist

[ ] POS / management platform selected (DRB Patheon/SiteWatch, ICS, or Sonny's CWC)
[ ] Automatic license plate recognition specified for member recognition and recurring billing
[ ] Enough pay lanes designed to avoid a bottleneck before the tunnel
[ ] Civil engineer and geotechnical soil report obtained before closing on land
[ ] Reverse-osmosis spot-free rinse and dryer package specified
[ ] Construction timeline mapped (12-24 months ground-up) with a ramp-up assumption to mature volume (2-4 years)
[ ] Equipment service relationship and spare-parts plan established for the chosen brand

Operations, Memberships, and Labor

Plan the membership program, the labor-versus-automation split, and the daily operating discipline so the wash builds recurring revenue and a saleable asset.

Worksheet: Unlimited wash club design

Design and price the membership tiers, then project the base. Price each monthly plan near the cost of two to three single washes so the value is obvious to a weekly washer.

Number of membership tiers and the wash package each maps to

Monthly price per tier (commonly 20-40 dollars) and the single-wash price it compares to

Multi-vehicle household discount (if any)

Target capture rate (share of retail customers converted to members)

Target active member count and projected monthly churn

Projected monthly recurring revenue at the target base

Exercise: Labor-versus-automation station map

Go station by station and decide where a person beats a machine and where automation wins. Reserve human labor for the few spots where selling, judgment, or contact raises revenue or prevents loss.

• Which stations stay human (pay-lane membership selling, load point at peak, prep on heavy dirt, lot/vacuum service, maintenance)?

• Which stations are fully automated (washing, payment, license plate recognition, gate control, chemical dosing, customer vacuums)?

• What is your peak-day crew (manager, loaders/lot attendants, membership sellers) and how does it scale down on slow days?

• What labor-as-percentage-of-revenue target confirms the crew is sized to demand?

Exercise: Throughput and cost-control plan

Identify the constraint that caps cars per hour at peak and the variable costs that erode margin, then plan the fix and the monitoring for each.

• What is the bottleneck at peak (pay lanes, load point, or tunnel speed), and how will you relieve it?

• How will you tune and monitor chemical dosing so cost-per-car stays tight without hurting quality?

• How will you maintain the reclaim system and motors so water savings and uptime hold?

• What preventive-maintenance schedule and spare-parts plan protect against tunnel downtime (which stops all revenue at once)?

Checklist: Operations and metrics dashboard checklist

[ ] Tracking cars per day and peak cars per hour
[ ] Tracking active member count and monthly churn
[ ] Tracking revenue per car and the membership-to-retail mix
[ ] Tracking chemical and water cost per car as early-warning gauges
[ ] Tracking labor as a percentage of revenue against throughput
[ ] Pay-lane staff trained and incentivized to sell memberships with a first-month promotion
[ ] Downtime logged and treated as lost revenue, with fast vendor service in place
[ ] Operating margin and NOI trend monitored as the basis for resale or refinance value

Your Action Plan

1. Choose a primary format using the scorecard and confirm it fits your capital, site, and labor appetite
2. Shortlist candidate corners and pull AADT and trade-area demographics for each
3. Drive each corner at rush hour and run the site go/no-go screen, eliminating any with a crippling median, weak visibility, or saturation
4. Build a realistic volume projection from traffic times capture, sanity-checked against comparable washes
5. Decide build, buy, or convert, and on an acquisition verify reported CPD and member counts against POS exports and bank deposits
6. Assemble the all-in capital budget from real quotes and bids, padding the site-work line with a 10-15% contingency
7. Specify the tunnel equipment, conveyor, reclaim, and POS platform with license plate recognition and a serviceable brand
8. Size debt to the lender's DSCR, stress-test at lower volume and higher rates, and confirm a margin of safety
9. Design and price the unlimited wash club tiers and set targets for capture, member count, and churn
10. Map the labor-versus-automation split station by station, then open and drive cars-per-day, membership growth, throughput, and uptime