Planning a Car Wash

Planning begins with examining customer preferences.

A review of the latest consumer survey data (including the 2001 ICA Study of Consumer Carwashing Attitudes and Habits) indicates that approximately 43 percent of consumers wash their cars at home.

Why? Few consumers perceive that they can obtain a wash that is effective and affordable with speed, while being safe and efficient. Almost 50 percent of the consumers don't see the car wash as a valuable commodity.

Hanna delivers the technical and marketing expertise needed to produce a car wash that meets the car wash customer's expectations.

Contacting the International Carwash Association is also a great place to start. The ICA provides its car wash operators worldwide with a wealth of car washing knowledge through its conventions, publications, surveys and online support. You can contact the ICA at:

ICA Headquarters  
401 North Michigan Avenue  
Chicago, Illinois 60611  
(312) 321-5199

The Basic Steps of Developing a Car Wash

A car wash that meets the customer's expectations and is a profitable location for the operator includes good market research, survey and investigation, site specifics and analysis, and equipment selection. Listed below are key areas that can help create the foundation for success:

**Market Research**
- Trade Areas
- Transportation Corridors
- Growth Areas
- Demographics
- Customer Surveys
- General Competitive Presence

**Area Selection**
- Retail/Business Mix
- Residential Areas
- Traffic Patterns
- Zoning and Permitting Issues
- Competitive Locations
- Seismic Zone
**Equipment Selection**
Cleaning Efficiency  
Climatic Conditions  
Low Operating Costs  
Attractiveness to Consumer  
Field, Factory & Distributor Support

**Site Selection**
Utility Availability  
Corner or Interior Site  
Traffic Counts and Analysis  
Visibility  
Ingress and Egress  
Land Dimensions  
Land Cost  
Environmental Assessment  
Market Determined Retail Offering

**Site Layout**
On Site Traffic Flow  
Curb Cuts and Turning Radius  
Stacking Space  
Visibility of Building to Motorist  
Equipment and Building Location  
Signage

**Construction Considerations**

Once you have selected a site and determined the conveyorized equipment package that best meets your business objectives and the location’s potential, the construction checklist outlined below will be helpful to your planning with an architect.

**Approvals and Permits**

1. Determine whether land is properly zoned for intended use.  
2. File plans for layout with building department and secure approval.  
3. Obtain all necessary permits and pay all assessments and fees.  
4. Submit detailed plans for approval by an architect or engineer, if necessary.

**Site Preparation**

1. Ensure that utilities are available including water, electric, and sewer (gas optional). The customer agrees that if any of the necessary utilities presently available are inefficient to operate equipment, customer will supplement service at his expense. If transformers are required, customer will furnish.  
2. Arrange for site clearing, grading, and/or leveling.  
3. Schedule excavation and asphalt for site.  
4. Calculate concrete per conveyor and correlator drawings.  
5. Develop water reclaim plans per slab plans.
6. Make provisions for all electrical service and metering equipment, including necessary pole. Bring electric service lines into the building and connect to main disconnect.
7. Provide all electrical panels if motor control center is not purchased from Hanna.
8. Oil tank should be equipped with fill line and supply line from tank to equipment (if applicable).
9. Ensure availability of a gas supply line from main, to and including the regulator and meter (normally by utility company), and piping from meter to equipment (if applicable).
10. Provide a line from the water main to water meter (including meter cost) and stub-ups and/or lines required to connect to equipment.
11. Supply sewer service and run drain lines from conveyor through the reclaim pit.
12. Provide wiring and interconnection for all signs.
13. Provide yard lighting and wiring for same.
15. Ensure free access to site and sufficient opening for moving equipment in place.
16. Complete any modification from standard plans required by special codes.

Note: Vehicle travel is from left to right.

Conveyorized Entrance & Exit Turning Radius Minimums

Hanna gets numerous questions about how a conveyorized car wash will fit on a given piece of property. One of the most frequently overlooked areas is the amount of space required for vehicles to enter and exit the wash. You can have the nicest wash in town, but if your customers have trouble maneuvering their car into it, they will not come back.

The drawing above is a guide to obtaining adequate space and finding the best wash orientation for the lot under consideration.
On the left side of the drawing, the minimum distance from the property line to the beginning of the conveyor is 35 feet (10.67 meters) with a correlator, and 40 feet (12.19 meters) without a correlator. Note that this total distance is greater than the 23 foot (7.01 meter) minimum entrance turning radius. At the exit end, Hanna recommends 28 feet (8.53 meters) from the end of the conveyor to the property line, with a minimum distance of 25 feet (7.62 meters).

The minimum distance taken up for entrance and exit turning radius is 60 feet (8.29 meters). Therefore, the maximum conveyor length that will fit is 60 feet (8.29 meters) less than the property line length parallel to the wash building.

Hanna can help you with laying out a particular lot with suggested building size and location, conveyor length, and traffic flow. You can fax your lot dimensions, and trained professionals will maximize the available space for the best utilization of wash products and services.

Note: Vehicle travel in diagram is from left to right.

**Building Width & Door Opening Minimums – Conveyorized**

This section can help you plan the door and bay widths of a new building and determine if the floor plan of an existing building can accept a conveyorized car wash.

Customers like the open feeling of wide doors, and wide, well-lit, open wash bays with numerous windows. Care should be taken to avoid the dark, claustrophobic tunnel perception.

Hanna recommends that the building be 17 feet (5.18 meters) wide inside, with no less than 15 feet (4.57 meters). Note that the center line of the wash system may need to be offset from the building center line for installation of the Hanna Concorde Air Dryer producer in a narrow building. In this case, the doorways are also offset by the same amount from the center line of the wash.

For bays wider than the minimum, and for Hanna dryers other than the 140, the building center line should be the same as the wash center line.
Entrance and exit doors should be at least 10 feet (3.05 meters) wide, but 12 feet (3.66 meters) is the suggested optimal width.

Equipment room planning is also essential to the success of property planning. Hanna will assist with location and sizing depending on the site layout preferred.

Note: Vehicle travel in diagram is from left to right.

**Building Height Minimum Information**

Hanna wash equipment has a maximum vehicle clearance of 90 inches (228.60 cm). To ensure adequate clearance, Hanna recommends that the door height opening should be at least 92 inches (233.68 cm).

If standard overhead doors will be installed on the wash, the doors must pass above the wash equipment when they are in the raised position. In this case, the building must have an inside clearance of 12 feet (3.66 meters).

Accurate planning will ensure that light fixtures in the wash bay are not above a standard overhead door when the door is open.

Drum type doors can be mounted on the outside of the building to decrease the minimum inside building height to 11 feet (3.35 meters). However, this type of door may require 20 inches (50.80 cm) or more at each end of the wash bay. Take care to prevent interference between drum doors and the wash equipment and Air Dryer.
Full Service Vacuum Area Guidelines

The drawing above can be used as a guide for adding a 4-lane, 8-drop vacuum area to a Full Service conveyorized car wash. For fewer than 4 lanes, simply delete those you do not want. Two vacuum drops should be installed per vacuum lane.

The dimensions shown for spacing between the lanes are the minimum that will allow workers to open all the car doors for vacuuming without hitting the open doors on cars in the next vacuum lane.
When planning a Self-Service vacuum area, careful consideration must be given to allow adequate room for doors to be opened without hitting obstacles or the doors on cars parked at the next vacuum station.

The diagram above shows two different layouts that can be used. Choosing which configuration is best for a particular location depends on the amount of space available and traffic flow.

The shaded areas on the diagrams can be physically striped on the pavement or marked as "No Parking" areas as guides to help motorists park their car in the correct location. The dimensions on the diagrams allow room for motorists to vacuum their car with the doors open, but not be too far from the vacuum unit for the hose to reach into the car.

Once you have completed construction of your car wash, delivery of an efficient wash is the next priority.