

Vacuum excavation has gone from niche to normal in Sacramento over the past decade. Between aging utilities, tight urban easements, and strict safety expectations, more owners, GCs, and utility crews are moving away from blind digging with teeth and buckets.

Once you start calling around for pricing, though, the numbers can sound all over the place. One outfit talks about hourly truck rates, another quotes per cubic yard, someone else talks mobilization and “soft dig” allowances. If you are trying to budget for 200 cubic yards of material, it helps to translate all of that into realistic production and cost ranges.

What follows reflects how vacuum excavation projects actually play out in and around Sacramento, not just what a rate sheet says on paper.

Quick answer: ballpark cost for 200 cubic yards in Sacramento

For a typical Sacramento job using a full-size hydro-vacuum truck (hydrovac) on mixed soil with normal access, you can expect this kind of range:

- Typical range to excavate 200 cubic yards with vacuum excavation in Sacramento: roughly **\$20,000 to \$40,000** total

That range assumes:

- Full-size hydrovac
- Depths in the 4 to 10 foot range
- Moderate congestion of utilities
- Spoils hauled off within a reasonable distance

At the low end, you have easy sites with loose soil, shallow work, and efficient staging. At the high end, you are dealing with hardpan, heavy traffic control, tight easements, slurry disposal issues, or deep utilities with lots of daylighting and hand exposure.

If someone casually tells you “vac excavation runs about X per yard,” be careful. The real question is: **how many yards can that truck safely pull on your site, per day, under your constraints?** The 200 cubic yard figure is only half the story.

What is vacuum excavation?

Vacuum excavation uses high-pressure water or air to loosen soil, then a powerful vacuum to remove it. You end up with a truck full of spoils and a safe, relatively precise hole around utilities.

In California, and especially in the Sacramento metro area, what most people call “vacuum excavation” is actually **hydro excavation**: high-pressure water through a wand, followed by vacuum. Air excavation exists, but it is slower in our compacted clays and decomposed granite.

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So when you ask, "What is the difference between hydro excavation and vacuum excavation?" the practical answer here is:

- Hydro excavation: water cuts the soil, vacuum removes it. Fast, very effective in hardpan and compacted backfill, but you have wet slurry that must be disposed of correctly.
- Air vacuum excavation: compressed air loosens soil, vacuum removes it. Dry spoils, easier disposal, but slower and often less effective in dense or saturated soils.

Contractors will sometimes use "vac ex" as a shorthand for either one. When you request pricing, be specific if you have a preference or a disposal constraint.

Why owners choose vacuum instead of traditional digging

Vacuum excavation is not cheap compared with a mini excavator and a laborer with a shovel, at least on a straight cost-per-yard basis. It earns its keep in other ways.

Typical reasons clients in Sacramento choose vac excavation include:

1. **Congested corridors.** Anyone who has tried to dig in downtown Sacramento or older neighborhoods has hit spaghetti: abandoned utilities, unmarked laterals, telecom bundles, unknown duct banks. Vacuum excavation lets you daylight lines and then work surgically.
2. **Permit or spec requirements.** Some city, county, utility, and railroad standards require soft digging within a certain distance of known or suspected utilities, or a certain depth from the surface.
3. **Safety and OSHA compliance.** From a "what could go wrong" standpoint, vacuum excavation greatly reduces the risk of damaging gas, electric, or fiber lines when compared with blind bucket digging.

4. **Environmental or legal risk.** If you hit a major gas line or a fiber trunk, the direct repair cost is only part of the story. Schedule delay, claims, regulatory fallout, and reputational damage are what keep project managers up at night.

So the cost conversation has to sit inside a broader risk conversation. Paying more per cubic yard is often cheaper than rolling the dice near critical infrastructure.

How much does vacuum excavation cost per hour?

Pricing in Sacramento usually starts as an hourly rate for the truck and crew, with add-ons for mobilization, traffic control, and dump fees.

Typical ranges for a full-size hydrovac truck and two-person crew in the region are:

- **\$350 to \$550 per hour**, portal to portal

Smaller trailer-mounted vac units can come in lower, but they also move less material and may not meet your production needs.

Keep in mind:

- Many contractors have **minimums**, often 4 to 8 hours.
- **Travel time** from the yard is often billable.
- **Disposal** of wet spoils is increasingly expensive, especially if you are hauling to a facility outside the immediate area.

Instead of asking only, "What does excavation cost per hour?", ask what that rate translates to per day and per yard on jobs similar to yours.

How much can a vac ex excavate in a day?

Production varies more than most people expect. I have seen a hydrovac truck pull 100 yards before lunch on a wide-open, shallow, sandy site. I have also seen the same truck struggle to get 30 yards in a full day when working in tight alleys with hard clay and heavy utility congestion.

Realistic daily production for 200-yard level planning in Sacramento looks like this:

- Light, loose soil, good access, shallow work: **80 to 120 cubic yards per 8-10 hour day**
- Mixed soil with some hardpan and utilities: **40 to 80 cubic yards per day**
- Dense clays, tight easements, deep utilities, serious traffic control: **20 to 40 cubic yards per day**

If you are trying to pin down "How much does it cost for a vac excavation?" on your specific project, the absolute key is to walk the site or share detailed photos and utility maps with the contractor and talk deliberately about expected production rate.

Estimating the cost to excavate 200 cubic yards

Let us combine hourly rates and realistic production to bracket cost.

Assume:

- \$400 to \$500 per truck hour, including crew

- 10-hour working day, billed portal to portal
- 40 to 80 yards per day

At 80 yards per day, 200 yards takes about 2.5 working days. At 40 yards per day, it takes about 5 days.

That yields:

- Low production case (40 yards/day, 5 days) at \$400/hr and 10 hr/day: $5 \text{ days} \times 10 \text{ hr} \times \$400 = \textbf{\$20,000}$
- Higher production case (80 yards/day, 2.5 days) at \$500/hr and 10 hr/day: $2.5 \text{ days} \times 10 \text{ hr} \times \$500 = \textbf{\$12,500}$

Then you add:

- Mobilization and demobilization
- Disposal and dump fees
- Traffic control, if needed
- Standby or delays due to site access, inspection, or coordination

On real Sacramento jobs, those items often bump total cost in the direction of **\$20,000 to \$40,000** for 200 cubic yards, especially inside the city grid or near busy arterials.

If you are out in an industrial area with easy staging and light traffic, you may land closer to the low end. If you are downtown or near light rail, budget toward the high end until a contractor can refine it.

Depth, safety rules, and how they affect your price

Many owners ask, "How deep can you vacuum excavation?" The technology itself can go quite deep. I have seen hydrovacs excavate 20 feet and more to daylight deep utilities and structures. The constraint is usually:

- Spoil handling and hose reach
- Stability of the excavation walls
- OSHA trenching and excavation rules

Two depth-related concepts matter a lot for cost.

The 4 foot rule and shoring

People often refer to the "4 foot rule in excavation." OSHA requires a safe means of egress (ladder, ramp, etc.) In trenches 4 feet or deeper. That is just one of several rules.

Another common point of confusion is, "How deep can you dig without shoring?" Federal OSHA requires protective systems (sloping, benching, shoring, or shielding) for trenches at **5 feet or deeper**, unless the excavation is entirely in stable rock. California rules can be more conservative and Cal/OSHA inspectors in the Sacramento area take this seriously.

Vacuum excavation changes the geometry of many excavations. The holes are often narrow and irregular. Even though you are not climbing into most vac holes, safety standards still apply once workers are exposed to potential wall collapse.

Once your work gets past roughly 5 feet deep, vacuum excavation jobs tend to slow down:

- More care in managing the shape of the excavation
- More time spent stabilizing, backfilling, or exposing utilities to a safe working depth

- Potential need for engineered shoring or shields if a person must enter

Deeper work generally means lower daily production and higher cost per cubic yard, even if the truck's raw capability is the same.

How deep can vacuum excavation go?

Strictly in terms of vacuum, modern trucks can pull material from 20 feet or more. The question is not "Can it?" but "Can workers safely do what they need to do at that depth?"

On projects where utilities are known to be very deep, I typically caution owners that vacuum excavation will likely turn into a hybrid solution: vac to expose the utility safely, then conventional equipment and shoring to complete installation or repair.

Soil conditions in Sacramento and why they matter

Sacramento is famous for two things in excavation circles: old utilities and stubborn soil.

In newer developments and some river-adjacent areas you get more straightforward, lighter soils. Elsewhere you hit:

- Compacted fill from decades of development
- Clay that fights you when it is dry and turns to muck when it is saturated
- Decomposed granite and cobbles in certain corridors

This ties into a common homeowner question: "Is it better to dig a hole when the ground is wet or dry?" For hand digging, slightly moist soil often feels easier. For hydrovac, fully saturated, soupy soil can be a pain to manage and haul. Many contractors prefer soil that is not bone dry, but not a swamp either.

On your 200-yard vacuum excavation, expect:

- Slower production in hard dry clay and old compacted backfill
- More dump fees if spoils have a high water content and must be handled as slurry
- Seasonal effects: winter storms can complicate haul routes and staging areas

If you can schedule the work during a drier window with decent access, it helps both cost and schedule.

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How many hours to dig a 100 foot trench with vac excavation?

Another practical way to think about cost is by linear footage. People often ask, "How long does it take to dig a 100 ft trench?"

Assume:

- Trench 2 feet wide, 5 feet deep
- Volume per linear foot = 2 ft × 5 ft × 1 ft = 10 cubic feet
- 27 cubic feet in a cubic yard, which is why you divide by 27 to convert volume in cubic feet to cubic yards

So each foot of trench is $10 \div 27 \approx 0.37$ cubic yards.

A 100 foot trench at those dimensions is about 37 cubic yards. If your hydrovac is doing 50 yards a day on that soil and access, you are looking at most of a day's work, plus mobilization and cleanup.

Upsize that to 200 cubic yards and you can see why production rates matter more than raw hourly pricing.

Key cost drivers you can actually control

You cannot change the soil type or the location of existing utilities, but you can set your project up so that a vacuum excavation contractor can work efficiently. **Sacramento Vacuum Excavation** The following factors usually have the largest influence on cost, aside from soil and depth:

1. **Access and staging.** A hydrovac truck is a big, heavy unit. If the driver can get close to the excavation and remain parked while working, production jumps. If they must constantly reposition or work from far away with

long hoses, daily yardage drops.

2. **Traffic control.** Working on or near busy roads in Sacramento often requires full traffic control plans, arrow boards, lane closures, and sometimes police presence around critical intersections. That cost can rival the actual digging on some small utility access jobs.
3. **Utility information.** Accurate locates, reasonably current as-builts, and utility coordination can save entire days of guesswork and potholing. Poor information leads to slow, cautious progress.
4. **Spoil management.** If you can provide an approved nearby spoil site for temporary stockpiling, or if you have a plan for on-site reuse of dry material, you may save substantially on dump trips and disposal fees.
5. **Coordination with follow-on trades.** Nothing runs up a vacuum excavation bill like waiting around for inspectors, utility reps, or downstream crews. Clear scheduling keeps the truck moving instead of billing standby.

What kind of training and certifications are required?

When you hire vacuum excavation, you are not just renting a truck. You are paying for trained operators and laborers who know how to handle high-pressure systems, confined spaces, and sensitive utilities.

On a typical Sacramento vacuum excavation crew you should expect:

- A CDL driver for the hydrovac truck. In California, a commercial driver's license is standard for operating these heavy vehicles. Many hydrovac jobs also raise the question, "Is a CDL required for hydrovac jobs?" In practice, yes, for the road-legal trucks almost everyone uses.
- Possible tanker endorsement. Whether you need a tanker endorsement for a hydrovac truck depends on how the vehicle is registered and how it is used. Some operators do require it because the water and slurry tanks meet volume thresholds and behave like tank loads. It is worth asking the contractor about their compliance posture.
- Confined space and excavation safety training. Operators should understand basic trench safety, soil types, benching and shoring concepts, and OSHA excavation requirements.
- Utility awareness. Good vacuum crews know how to recognize unmarked utilities, typical depth ranges, and what "does not look right" when exposing lines.

On the owner side, if you are wondering "What certifications do you need to run an excavator?" for your own employees, the short version is: documented training and evaluation specific to the equipment and tasks, along with OSHA and Cal/OSHA awareness training. For a one-off 200-yard vac project, most owners simply hire a specialty contractor rather than standing up that capability in-house.

Safety rules that quietly shape your bid

A lot of the safety chatter you hear around excavation boils down to a few recurring themes. Some of the phrases floating around the industry, like "5 4 3 2 1 rule" or "3/4/5 rule for excavation," are informal mnemonics for slopes and depths. They are not universally consistent, and they are not a substitute for the actual OSHA standards.

What does matter, and absolutely affects cost, is compliance with requirements that inspectors actually cite in the field. When people talk about "OSHA's 3 most cited violation" in excavation, they are usually pointing to some flavor of:

1. Lack of cave-in protection in trenches deeper than 5 feet.
2. No safe access and egress in trenches 4 feet or deeper.
3. Failure to have a competent person inspect and classify the excavation and soil.

There are also the broader “5 OSHA requirements” people summarize in safety talks: training, hazard assessment, PPE, recordkeeping, and safe systems of work. On a vacuum excavation project, this shows up as:

- Time spent on tailboard meetings and JHAs
- Slower first day while crew verifies utility markings and soil conditions
- Additional equipment, like shields, ladders, and atmospheric monitors if entering deeper cuts

This is not fat in the estimate. It is the cost of not having your project shut down or, worse, dealing with a serious incident.

How much is a vacuum excavation truck to buy?

If you have recurring work, it can be tempting to ask, “How much is a vac ex to buy?” or “How much is a vacuum excavation truck?” Prices vary by configuration, chassis, and whether the unit is new or used, but for context:

- New full-size hydrovac trucks commonly run **\$450,000 to \$750,000+**
- Used units with some life in them often sit in the **\$200,000 to \$450,000** range

Then you add:

- Skilled operator and laborer wages. The highest salary for an excavator operator or hydrovac operator in busy markets can break six figures when you account for overtime and benefits.
- Maintenance on blower systems, pumps, and tanks.
- Insurance, permitting, and compliance.

For most owners staring at a one-off 200 cubic yard project, renting or subcontracting remains far more reasonable than ownership, even if the contractor’s day rate makes you swallow hard.

How to price out excavating jobs that include vacuum work

If you are a GC or subcontractor trying to stitch vacuum excavation into a larger bid, the goal is to avoid underestimating production and then burning your margin on soft digs.

A simple working method for Sacramento utilities and site work looks like this:

1. Separate **vacuum excavation quantity** (your 200 cubic yards) from conventional excavation. Only assign vac to the areas where you truly need it: utility crossings, high-risk corridors, or spec-mandated zones.
2. For the vac portion, estimate **low and high daily production** based on soil, access, and utility density. Use recent similar jobs if you can.
3. Apply realistic **hourly truck rates** and tack on mobilization, traffic control, and expected dump fees.
4. Carry a **contingency percentage** for underground unknowns. On older Sacramento sites, 10 to 20 percent contingency for the vac scope is common, especially near historic utilities.
5. Get at least one **firm quote or ROM (rough order of magnitude)** from a reputable local vacuum excavation contractor to sanity-check your math before locking your number into a bid.

That process takes the guesswork out and keeps you from penciling in fantasy production that no field crew can hit.

A short checklist before you ask for bids

When you approach contractors for pricing to excavate 200 cubic yards with vacuum excavation in Sacramento, you will get better, tighter numbers if you have a few items ready.

Here is a concise checklist that actually moves the needle:

1. Current and proposed utility information: USA markings, as-builts, and known conflicts.
2. Site access limits: weight limits, overhead lines, narrow alleys, or time-of-day restrictions.
3. Depth and dimensions: expected depth range and whether the excavation is trench, pits, or general potholing.
4. Traffic situation: public right-of-way involvement, lane closures, or requirement for certified traffic control.
5. Spoil handling plan: whether the contractor must haul and dispose, or can stage and respread on site.

Walking through those five items in your RFP or pre-bid meeting will narrow the pricing spread and reduce “surprise” change orders later.

When vacuum excavation is overkill

Despite everything above, vacuum excavation is not the right tool for every 200-yard problem.

If your excavation is:

- Greenfield area, no utilities in the way
- Light soil, big open pads
- No spec language about soft digging or utility protection

Then a conventional excavator or dozer is more appropriate and far cheaper per cubic yard. A 20-ton excavator such as a Cat 320, which is indeed in the 20 ton class, can move hundreds of cubic yards per hour in easy material with a skilled operator. In that sort of setting, the question “How much does an excavator excavate in one hour?” has a very different answer than a hydrovac truck squeezed into an alley.

The art is in using vacuum excavation **surgically**, where the risk justifies the cost, and leaning on traditional iron where it does not.

Bringing it back to your 200 cubic yards

For a project in the Sacramento area that genuinely requires vacuum excavation for 200 cubic yards of material, a reasonable budget range sits around **\$20,000 to \$40,000**, depending mostly on:

- Soil type
- Depth and geometry
- Utility congestion
- Access and traffic control
- Spoil handling and disposal

If you pressure contractors to quote an unrealistically low “per yard” rate without a clear understanding of those variables, you set everyone up for frustration.

A short site walk, a frank discussion of production expectations, and some basic planning go much further. That is how you convert a fuzzy 200-yard question into a reliable number you can defend in a budget meeting or a bid review.