

Be a Part of the Future of Texas Homebuilding

Texas Association of
Builders

Developing a Community Partnership
to Build the Future of the Residential Construction Industry



**Build Your Future.
Build Texas.**

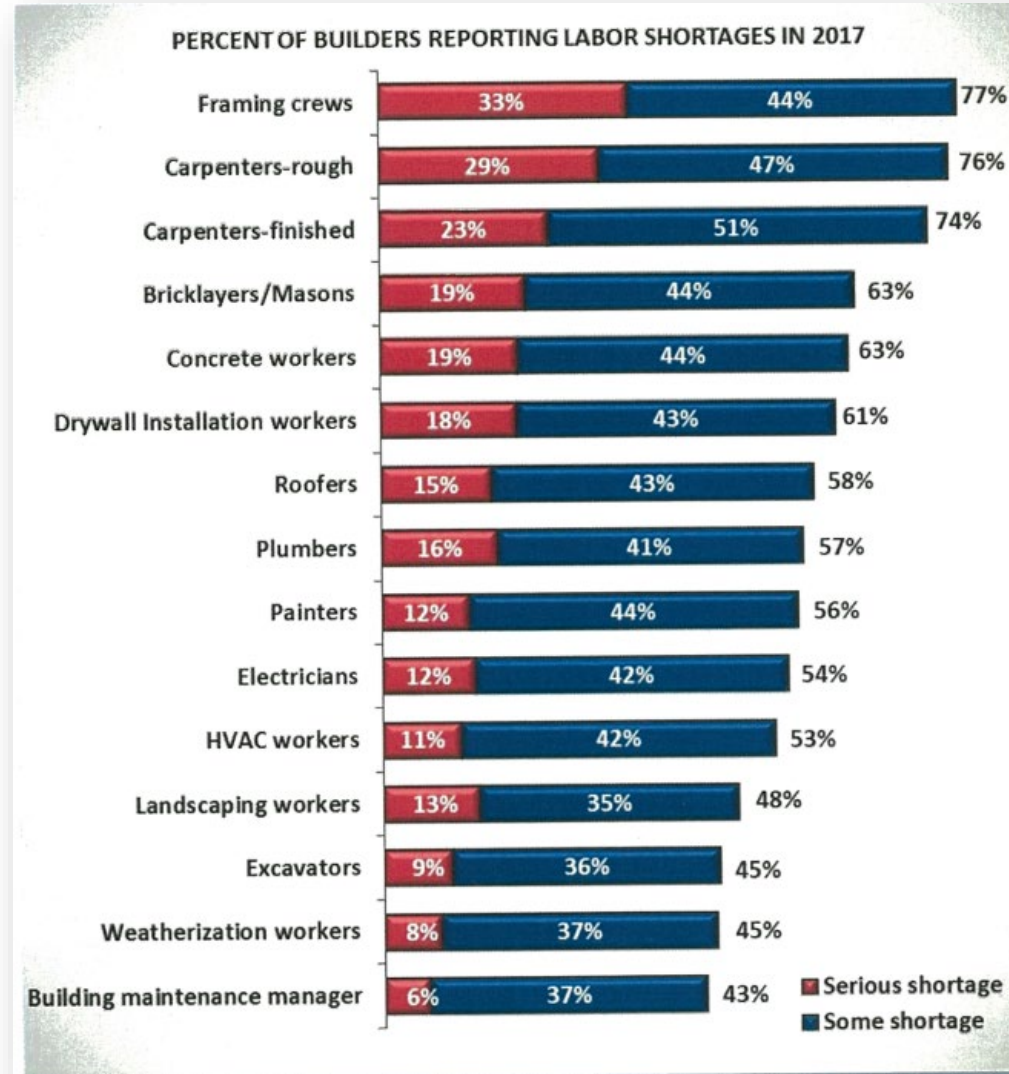
This Presentation Shows:

- Construction Sequence of a Home from Start to Finish
- Earning Income Potential in Residential Construction
- The Critical Demand for Residential Employment in Texas

What is the Demand for Skilled Labor in Homebuilding?

Labor Statistics Show the Top 5 Needs Include:

- Framing Crews
- Carpenters
- Bricklayers
- Concrete
- Drywall Installers



NAHB's Eye on Housing, Aug. 14 2017

Texas Minimum Wage

\$7.25 per hour



$\$7.25 \times 40 \text{ hours} = \290 per week
(pre tax)



$\$290 \times 4 \text{ weeks} = \$1,160 \text{ per month}$
(pre tax)



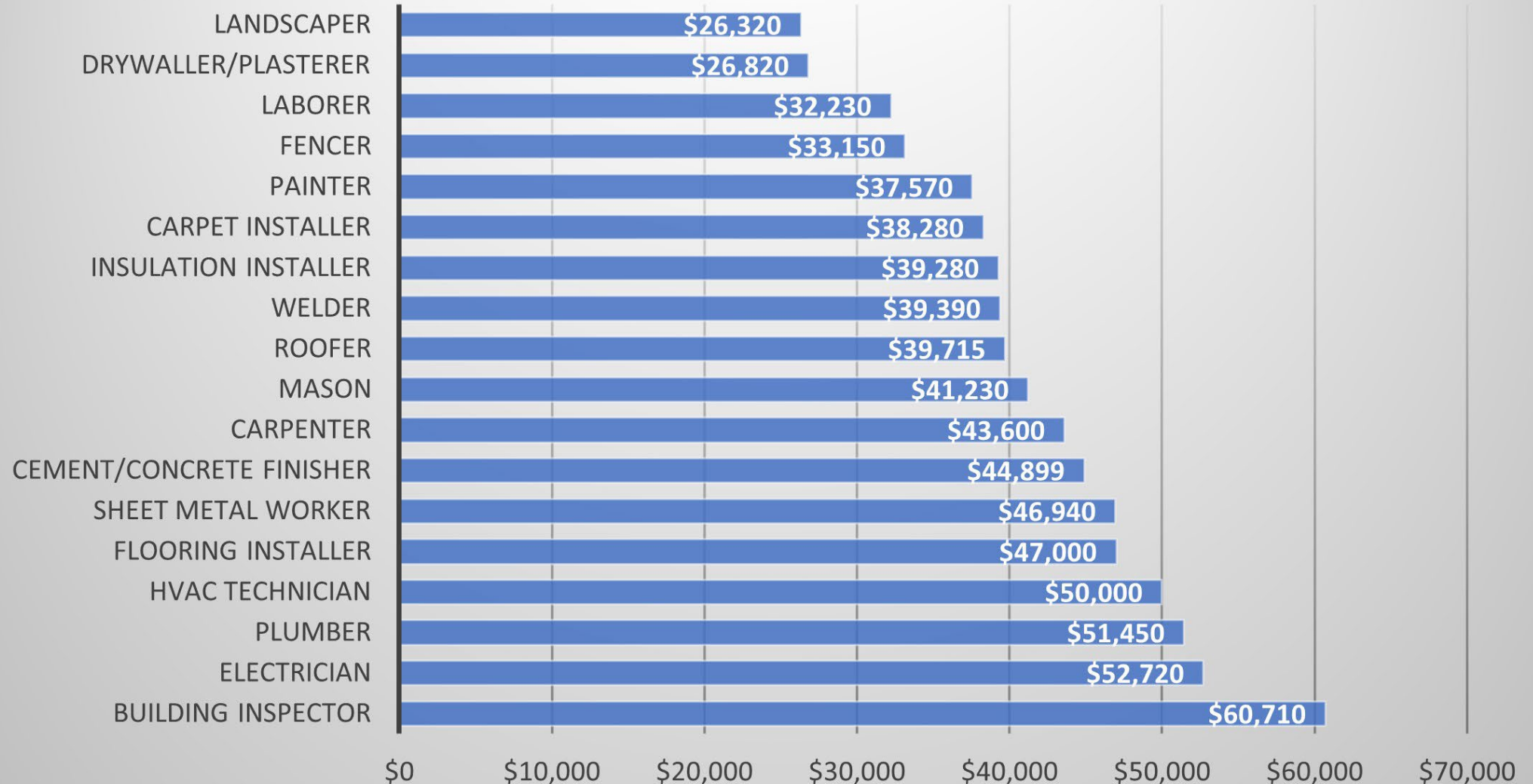
$\$1,160 \times 12 \text{ months} = \$13,920 \text{ per year}$
(pre tax)

Wages

* These totals reflect a 40 hour work week. The average hourly trade pay is \$20.00 per hour. *An additional 10 hours of overtime will add \$15,600 per year.*

* Construction Trades Average Salaries

U.S. Bureau of Labor Statistics Dec. 2020



Residential Construction Sequence

Stages of Construction

Stages of Construction | Home from Start to Finish

1	Lot Prep
2	Foundation
3	Frame
4	Cornice
5	Mechanical Rough
6	Exterior Finish
7	Drywall
8	Trim/Cabinets
9	Paint
10	Mechanical Trims
11	Final Stage

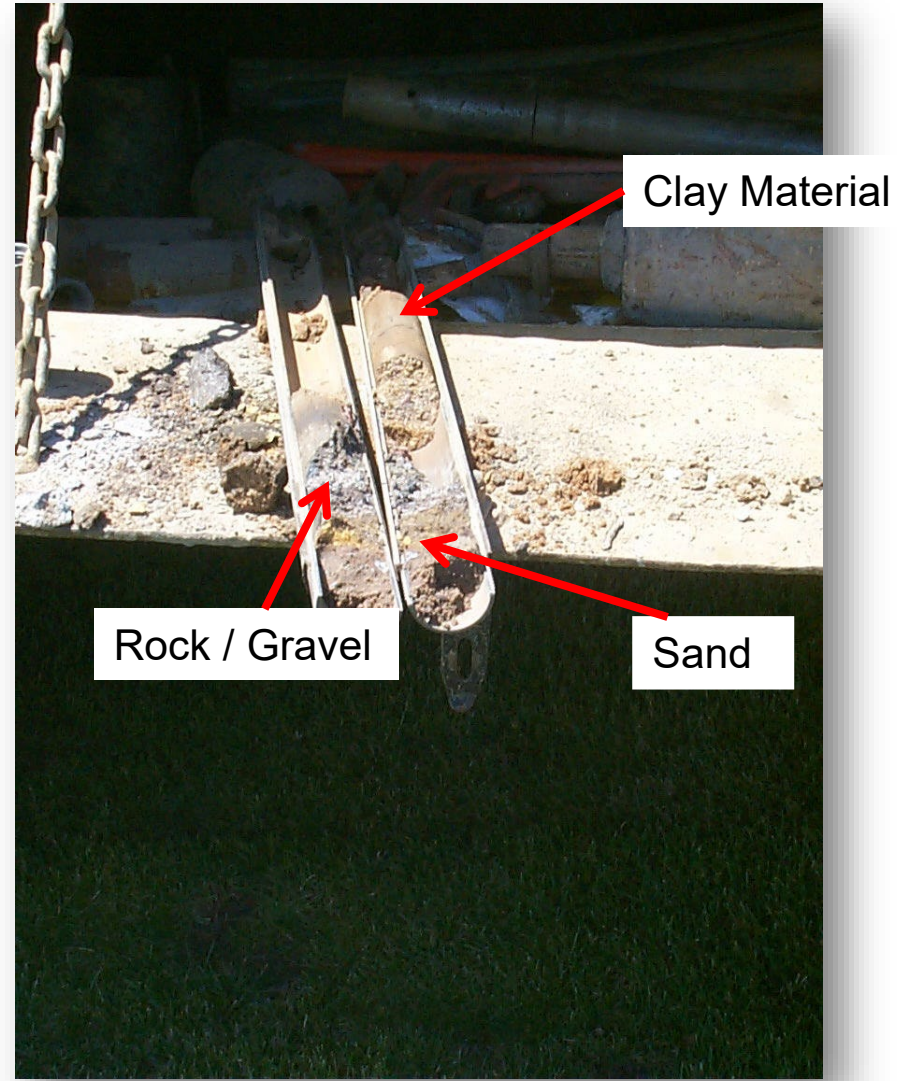
Lot Prep

Soil borings are conducted on certain lots.

A Geotechnical Engineer gives guidance on lots tested.



Cores show different depths of materials for the Geotechnical Engineer to review.



Lot preparation involves the clearing of selected trees in the building pad area.

Excavators can be paid \$1000 per lot to remove trees & prepare the lot.



The Foundation Stage

The Foundation Stage : 5 to 7 Days

Concrete form setters and finishers install the forms, pour and finish concrete. Finishers working a 50 hour week will have an annual salary of \$60,499

- Underground Plumbing
- Vapor Barrier
- Beams and Steel
- Form Float
- Concrete

Foundation forms are set at proper heights



Piping, risers, tub buckets, and PEX water service to islands are in place prior to concrete.



Poly vapor barrier is installed over pad to stop moisture transfer into building envelope. Post tension cables are added and make-up is floated.



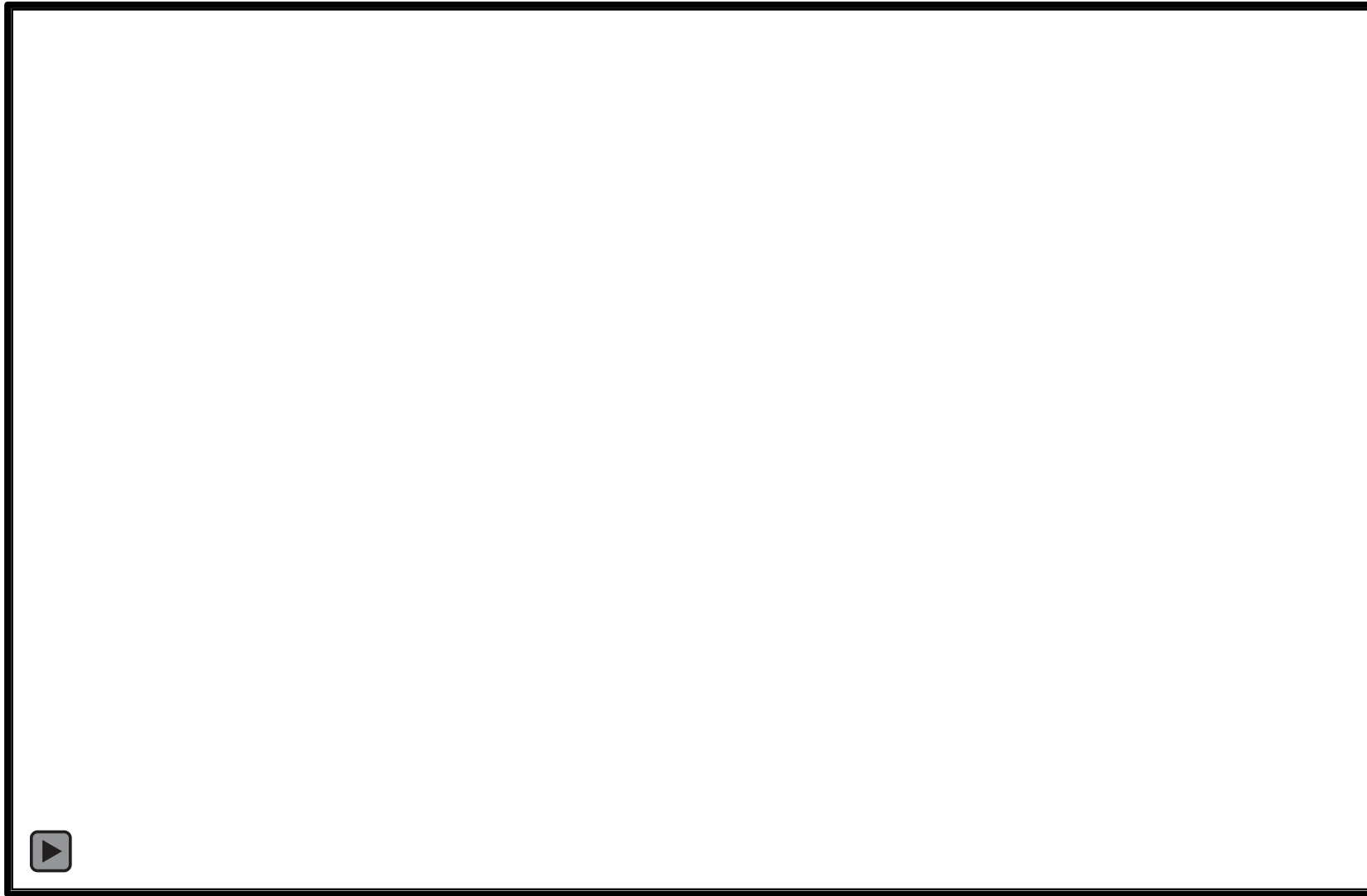
Foundation Pour

Many foundations are pumped allowing a finish crew to pour the concrete in two homes per day.



Post tensioned cables are stressed using a Hydraulic Ram that applies approximately 30,000 psi per cable.





Pulling or stressing the steel cables squeezes the slab together preventing cracks in the foundation.

Framing Stage

Framing Stage : 5 to 10 Days

Residential frame crews can make over \$8,000 per home. Framing one every seven days is \$416,000 per year per crew.

- Walls
- Subfloors
- Stairs
- Roof

Frame



The framer builds the stairs
for second floor access.

Framers who have learned
to cut and build stairs and



roofs are more valuable and can earn more money.

ROOFERS

TRAINING: APPRENTICESHIP



Roofers replace, repair, and install the roofs of buildings using a variety of materials including shingles, bitumen, and metal.

Jobs 2016: 123,400

Jobs 2026: 139,200

\$55,315

Average Salary in 2020

Cornice Stage

Cornice Stage : 1 to 2 Days

Cornice crews can earn \$4,000 installing the cornice on an average home. Working Saturday, 3 per week x 52 weeks is \$624,000

- Sheathing
- Windows
- Cornice
- Siding
- Flashings

Cornice & Roof Install “Drying In” the Home



After the cornice stage the roof is decked with OSB (oriented strand board) to prepare it for shingles.



Mechanical Rough Stage

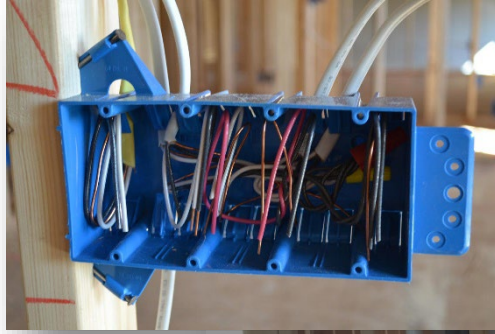
Mechanical Rough Stage : 3 to 5 Days

- Plumbing
- Electrical
- HVAC (Heating ventilation & air conditioning)

Plumbing Top Out



Electrical Rough-in



HVAC Rough-in

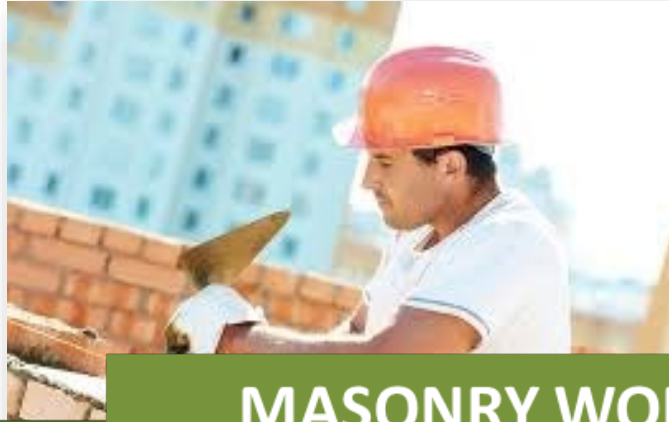


Exterior Finish Stage

Exterior Finish Stage : Depends on Type

- Brick
- Stone
- Stucco

Brick & Stone



MASONRY WORKERS

TRAINING: MASONRY PROGRAM, APPRENTICESHIP, ON THE JOB



Masons use brick, concrete blocks, concrete, and natural and man-made stones to build walls, walkways, fences, and other masonry structures.

Jobs 2016: 252,900

Jobs 2026: 290,200

\$56,830

Average Salary in 2020



Stucco takes more time to install than brick.



Drywall Stage

Drywall Stage : 5 to 7 days

Builders can pay as much as \$9,500 to a sheetrock contractor for an average home. A drywall installing contractor can make \$494,000 per year finishing one home per week.

- Hang
- Tape & Bed
- Skim
- Sand
- Punch Out

Sheetrock



Sheetrock is a milestone because all of the mechanicals in the walls must be finished and insulation must pass a third party inspection.

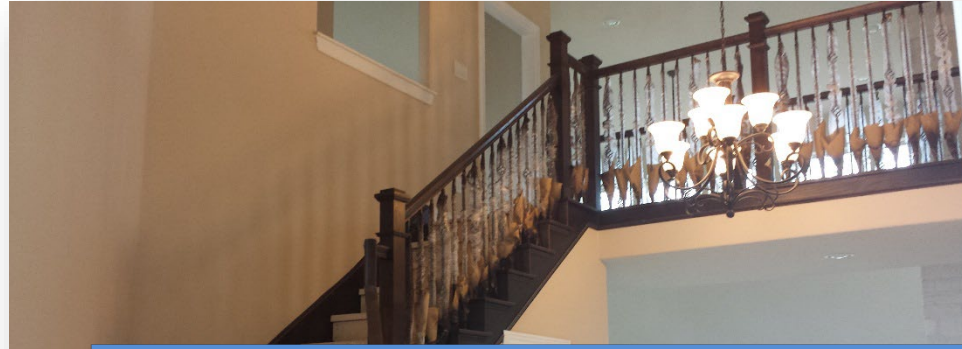


Trim/Cabinet Stage

Trim/Cabinet Stage : 1 to 3 days

- Cabinets install
- Stair Parts
- Interior Doors
- Moulding

Trim Carpentry & Cabinet- making



CARPENTER

TRAINING: ON THE JOB APPRENTICESHIP



Carpenters construct and repair building frameworks made from wood and other materials. They may also install cabinets, siding and drywall.

Jobs: 2016: 945,400

Jobs 2026: 1,005,800

\$59,200

Average Salary in 2020

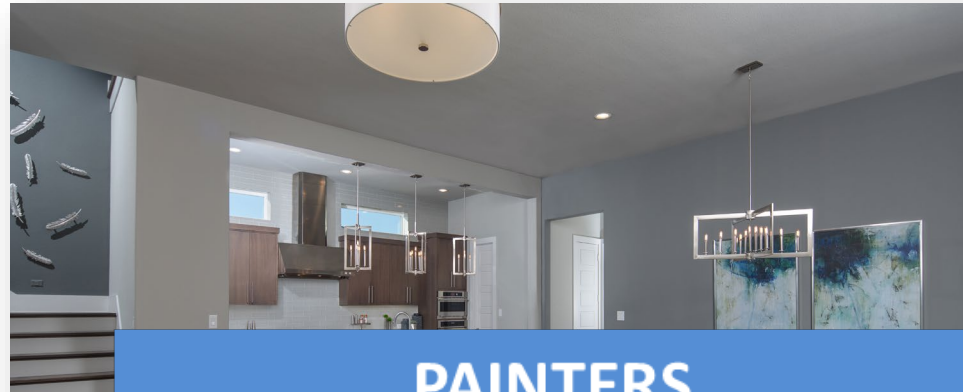


Paint Stage

Paint Stage : 4 to 6 days

- Caulking
- Prime
- Walls & Ceilings
- Accent Paints

Paint



PAINTERS

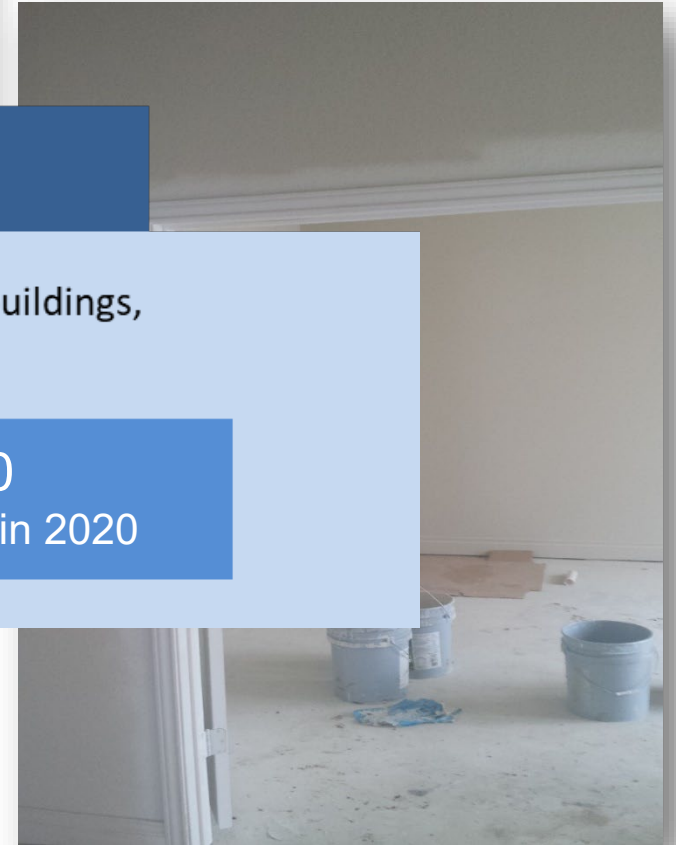
TRAINING: ON THE JOB



Painters apply paint, stain, and coatings to walls and ceilings, buildings, bridges, and other structures.

Jobs 2016: 360,500
Jobs 2026: 387,000

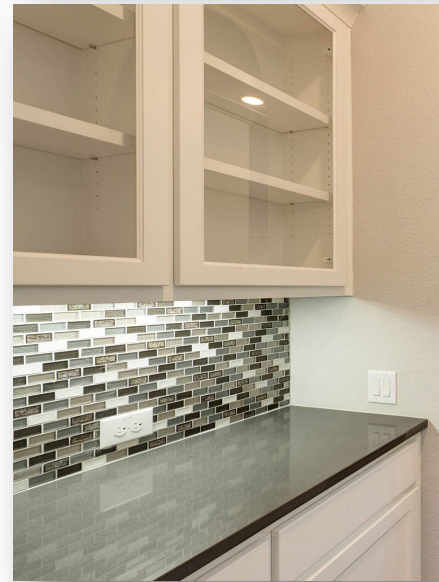
\$53,170
Average Salary in 2020



Granite Installs



Tile Backsplash & Fireplace



Flatwork CONSISTS OF DRIVEWAYS, SIDEWALKS AND PATIOS. They are cut, formed, poured by the concrete finisher.



Mechanical Trim Stage

Mechanical Trim

Stage : 2 to 3 days

- HVAC Compressor Set
- Plumbing – Toilets, Sinks, Faucets
- Electrical Switches, Plugs, Fixtures & Fans

Plumbing Trim



PLUMBERS

TRAINING: TECHNICAL SCHOOL, APPRENTICESHIP, REQUIRES LICENSE



Plumbers, pipefitters, and steamfitters install and repair pipes that carry liquids or gases to, from, and within businesses, homes, and factories.

Jobs 2016: 425,000

Jobs 2026: 474,100

\$67,050

Average Salary 2020



HVAC Trim



HVAC

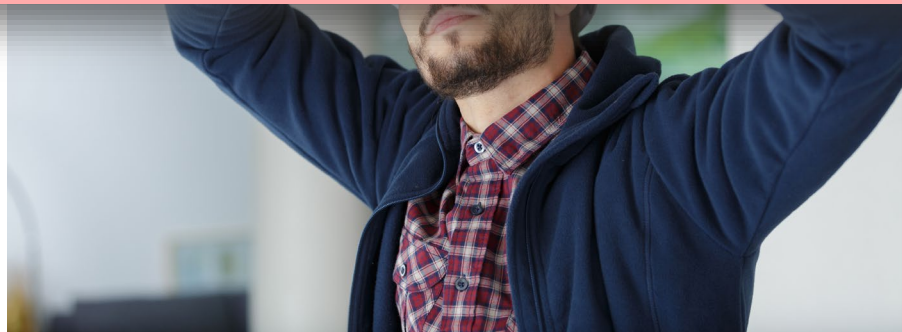
TRAINING: TECHNICAL SCHOOL, APPRENTICESHIP, REQUIRES LICENSE



Heating, air conditioning and refrigeration mechanics and installers work on systems that control the temperature and air quality in buildings.

Jobs 2016: 292,000
Jobs 2026: 331,600

\$65,60
Average Salary 2020



Electrical Trim



ELECTRICIAN

TRAINING: TECHNICAL SCHOOL, APPRENTICESHIP, REQUIRES LICENSE



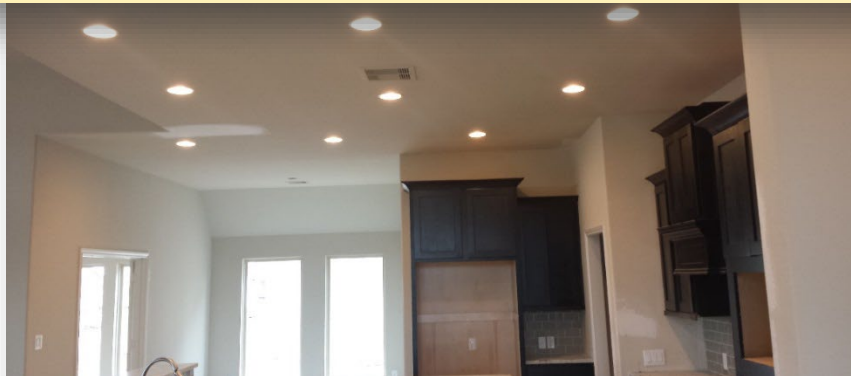
Electricians install, maintain, and repair electrical power, communications, lighting, and control systems in homes, businesses, and factories.

Jobs 2016: 628,800

Jobs 2026: 714,700

\$68,320

Average Salary 2020



Final Stage

Final Stage : Varies

- Fence & Final Grade
- Landscape & Sod
- Attic Insulation
- Wood floor & Carpet
- Touch-up & Cleans
- Shower Doors & Mirrors

Shower Doors & Mirrors



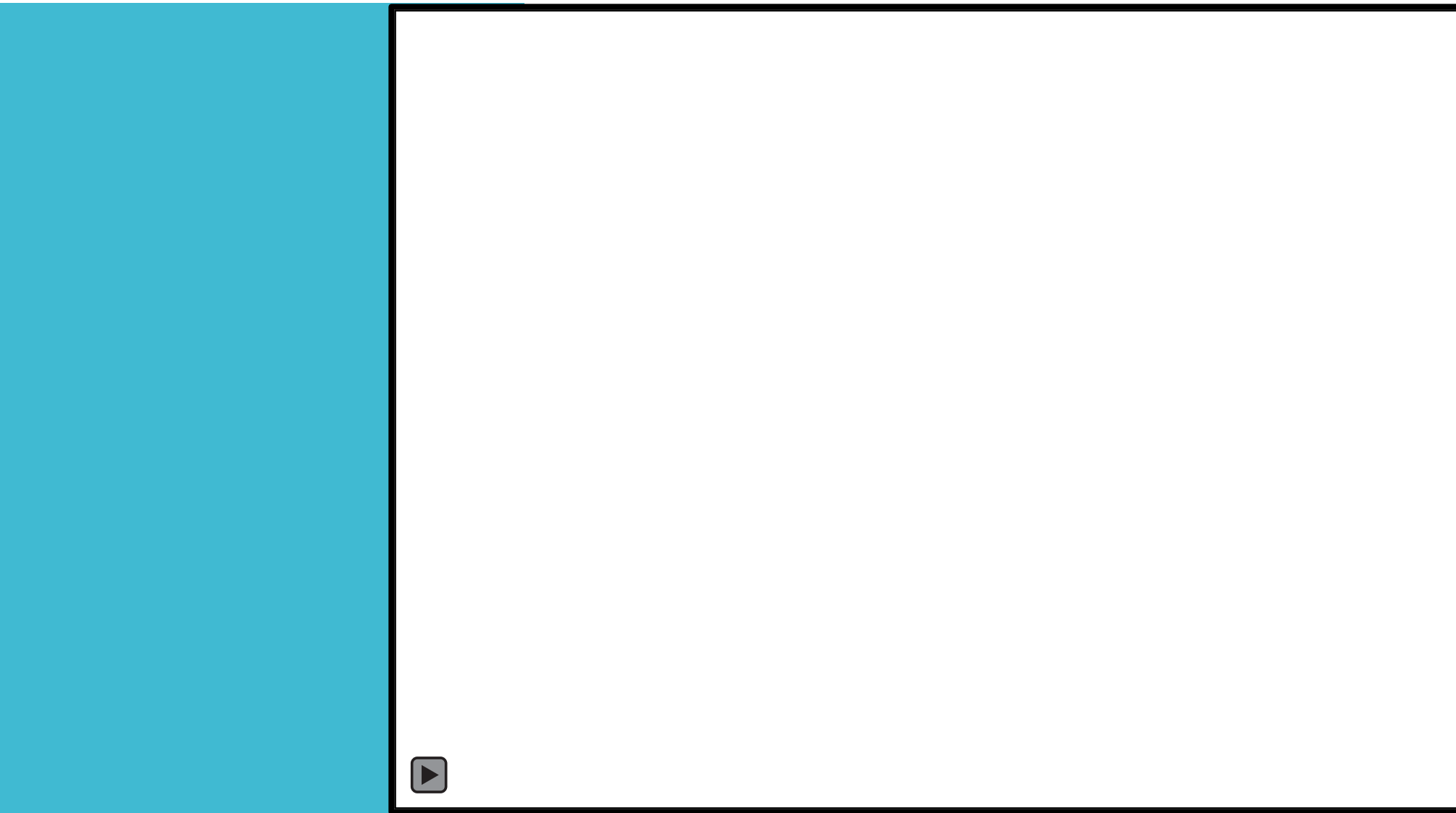
A proper final grade is established to help prevent foundation issues. Fencing and landscape follow.



Trees are cultivated from tree farms and are trucked to the site for planting.

Flower beds and sod are added to finish the exterior.





Hardwood floors and carpet install



DO THE MATH

\$12.00 per hour =
\$1,920 per month/ no
benefits

\$40.00 per hour =
\$6,400 per month/ with
benefits

Higher awareness of construction career opportunities could also help, said Cvitanovic, who noted that a twentysomething employee of a sporting-goods store making \$12 an hour may not realize she could earn \$40 per hour, plus fringe benefits, in construction.

"It's mind-boggling to me that more kids don't know about it," he said. "I think a lot of it is a lack of awareness of the opportunity."

- Steve Cvitanovic, San Francisco-based attorney with Haight Brown & Bonesteel

BUILDING INSPECTORS

TRAINING: KNOWLEDGE OF CONSTRUCTION TRADES, ON THE JOB, LICENSE OR CERTIFICATION



Construction and building inspectors ensure that construction meets local and national building codes and ordinances, zoning regulations, and contract specifications.

Jobs 2016: 101,200
Jobs 2026: 109,300

\$62,020
Average Salary 2020

Don't Settle for a
Job.
Consider a Career
in Homebuilding.

