



**Residential**  
**Rules and Regulations**  
Public Works and  
Community Development Department

City of Shenandoah  
29955 I-45 North  
Shenandoah, Texas 77381  
281-298-5522  
www.shenandoahtx.us

**Construction Documents**

Submit **plans digitally in a PDF format**. The City of Shenandoah requires a minimum plan size of 18" X 24". Plans on smaller pages will not be accepted. Plans may be emailed to [plans@shenandoahtx.us](mailto:plans@shenandoahtx.us), please note that plans will not be reviewed until an application and all payments are received. All notes and details must be sized for easy viewing and reading. All plans must be designed per the 2015 International Residential Building Code, the 2017 National Electrical Code, 2015 IECC, and local ordinances. The wind load enforced by the City of Shenandoah is 110 MPH/3 second gust. All designs must meet this minimum wind load. Code of Ordinances may be linked from [www.shenandoahtx.us](http://www.shenandoahtx.us), please ***link to the Integrated Development Code to review parking and zoning requirements***. Application for a residential building permit may also be accessed via link to the city's web site. For new residential buildings a tap fee is required to connect to city utilities, this application may be found online as well. Please contact our Customer Service Representatives at 281-298-5522 if you have questions about the permit process or tap fees.

Residential general contractors shall provide general liability insurance in the amount of 1,000,000.00 per occurrence; the City of Shenandoah is required to be a Certificate Holder. Residential subcontractors shall provide general liability insurance in the amount of 1,000,000.00 per occurrences unless Texas state law requires a lesser amount in which case the City will accept the lesser amount; the City of Shenandoah is required to be a Certificate Holder.

***New water account shall be established before you will be allowed to pick up the approved permit.***

**Our typical plan review time for a set of normal building projects is two weeks; however, this depends on the current work load and the size of the project you are submitting. If, during review, information listed below has not been submitted, the plan review will stop and you will be notified that the plans are incomplete. After a second plan review an additional fee will be charged. If plans are resubmitted with any changes/corrections please clearly designate the changes/corrections by clouding the area.**

***Once all inspection have been completed a Certificate of Occupancy will be issued. The Certificate of Occupancy takes up to 72 hours once the final inspections have passed. Under no circumstance are you to occupy, furnish, or bring product into the space without a Certificate of Occupancy in hand.***

**Construction hours are Monday thru Sunday 7 A.M. to 10 P.M.**

**All signs are permitted separately including construction, temporary and permanent sign.**

The City of Shenandoah will no longer accept payment via credit card for fees and fines accessed to building projects. The City of Shenandoah's current fee schedule is posted for review on the City of Shenandoah website, [www.shenandoah.tx.us](http://www.shenandoah.tx.us). The City of Shenandoah strictly adheres to the collection of current fees and fines.

Contractors are required to meet all Storm Water Pollution Plan (SWPP) requirements and maintain all SWPP measures throughout the project; failure to comply with the approved SWPP standards will halt inspections until deficiencies are corrected and inspected for compliance. Any dirt/mud track offsite is required to be cleaned/swept immediately. Stabilized construction entrance and silt fencing required to be in place prior to commencing work.

### General Information

#### Electrical:

1. For houses over 3500 square feet provide a load analysis (two sets) based on the 2017 National Electrical Code.
2. The minimum size electrical service is 100 amperes, 3 wire; all wire is to be copper, an outside electrical main is required.
3. All appliances are to be on a separate branch circuit per local ordinance.
4. Plans need to reflect the location for all outlets, switches, smoke detectors, carbon monoxide detectors, and etc.
5. Spacing for all outlets per 2017 NEC, lighting for stairways per the 2015 IRC.

#### Plumbing:

1. Provide a gas riser diagram listing all gas loads, pipe sizes, and the required size for the main.
2. Show all plumbing fixtures in the house.
3. For water heaters located in the garage provide a detail on how you will protect the heater as required by code.
4. Water meters in Shenandoah shall be Hersey (AMR 442) ¾" minimum size.
5. Plumbing provided for a water softener will require a drain tied to the building drain, and separate permit.
6. All DWV piping must have the labeling visible.

## Mechanical:

1. Provide Manual "J", "S" and "D" to show the size ducts, registers, return air, and location.
2. Provide the energy calculations on the ResCheck and work sheets. Plans must show the R-value and insulation type that will be used for ducts, attic space, walls, and etc. Provide the size for air and heat that will be installed.

## Building:

1. Provide the engineered drawings, details, which must be stamped and signed by a Texas Engineer or designed to 110 MPH/3sec gust using the guide Wood Frame Construction Manual by ICC or AF&PA, in which case limited engineering will be required. Shear walls need to be identified, location of hold downs, straps, and clips need to be called out on the framing pages.
2. Provide the engineer drawing for the foundation linked to the soils report.
3. Provide complete architectural drawings including framing, providing the type and grade of lumber to be used include typical span charts. *This will be field verified and subject to code compliance.*
4. Provide elevation drawings with dimensions and to scale.
5. Provide two site drawings to scale showing property lines, building lines, setbacks, easements, and proposed improvements on the property **no larger than legal size paper.**
6. Provide two complete sets of plans on eighteen-inch by twenty-four inch.
7. Include Truss System Plans which must be stamped by a Texas Engineer.
8. Roof shingles used must be rated for 110 MPH using six nails per shingle. Provide information on the plans for the shingle manufacture and type of shingle to be installed.
9. **Identify on the floor plan all locations for required safety glass and rated doors.**
10. FYI: Erosion control must be in place when construction begins with each project.
11. Drainage shall shed the water away from the slab as prescribed in the IRC and all lots are to drain from back to front, to a public way, or to a drainage easement. Absolutely no drainage to adjacent property will be allowed.

## Required Inspections

**Note: House must be dried in before any inspections can be done on the inside.**

### Electrical Inspections Required

**T-Pole or Saw Pole:** temporary power for construction purpose.

- **Ditch Cover:** any electrical conduit, wiring, or any electrical system before it is covered.
- **Wall cover:** before walls are insulated or covered.
- **Other inspections as required**
- **Service Final (Temporary Cut In):** service inspection (be sure to strap the service riser, house must be trimmed out or a second service inspection to be called when the house is trimmed out).
- **Electrical Final:** Please punch out the electrical system prior to inspection, make sure everything works per code/ arc fault, GFCI will be tested for proper function/plugs and lighting will be checked/proper

spacing will be checked for plugs on countertop and walls, proper spacing for closet lights, stairway lighting, and etc. **Final inspection will include checking panel schedules.**

### **Plumbing Inspections Required**

- **Ground:** water test with a 5' head on all DWV inspection done before cover, support risers, the entire system to be completely filled with water and to remain full until after the slab has been poured (**Absolutely no air in the risers when filled with water**).
- **Water Line:** water line trench is to be open, pipe labeling up, and under city pressure or a 100 PSI hydro test. (Water account established, correct water meter in place).
- **Water Meter:** Water meter must be in place (Hersey AMR model 442 ¾" as a minimum) and inspected before the water is turned on and used.
- **Building Sewer line:** building drain to the city main to have a 5' head of water / test tee required and no fittings behind the test tee at the city main.
- **Top Out (Wall Cover):** all nail guards, stud shoes, stud guards shall be listed and approved for the use and in place, boring and notching done per the plumbing code, water test through the roof with the entire system to be completely filled with water, provide a water connection to confirm the DWV is on proper test using a hose bib. Provide a spring gauge for the gas test with 35 PSI, city water pressure on the water line or air test at 100 PSI for copper and hydro if other than copper.
- **Shower Pan:** if a shower pan liner is installed, an inspection will be required with a water test to overflow.
- **Gas Test:** completed prior to final inspection.
- **Other inspections as required**
- **Plumbing Final:** provide a diaphragm gauge for the gas test with 3 PSI on a 15 PSI gauge, all plumbing fixtures to be installed and complete, all caulking or grouting to be complete around all tubs, showers, lavatories, and water closets, all hose bibs to have a vacuum breaker with the stud broken off, working platform and travel platform for water heater if in the attic, and etc.

### **Mechanical Inspections Required**

- **Duct Seal:** duct properly sealed and supported, free of restrictions.
- **Insulation:** inspect the insulation and installation for proper R-value and sealing before cover.
- **Grill Seal:** inspect all supply and return grills to make sure they are sealed between the sheetrock and grill.
- **Equipment in Place:** Provide code required travel path and work space.
- **Other Inspections as required**
- **Final Mechanical Inspection:** system to be complete and up and running, all registers to be installed, travel path and work space provided in attic for units, pay close attention to provide unobstructed travel path and proper opening in attic access without obstructions, all flu pipe for heat to have proper clearances, gas flex line to appliances to be properly sized. Energy certificate to be provided before or at time of final.

## Building Inspections Required

- **Slab:** electrical, if any, to be inspected and approved , plumbing ground to be inspected and approved, plumbing ground test with 10' head to be full of water for slab inspection, ***provide a form survey.***
- **Wind Storm (Clip & Strap):** inspect the installation of anchor bolts, hold downs all clips, and straps from the slab to over the roof ridge and all on one side either inside or outside, *this will be done before concealing clips and straps, or hold downs.*
- **Roof Inspection:** call for an inspection for the nailing pattern on the roof sheathing, and a separate roof shingle inspection.
- **Nail Pattern:** call for an inspection for structural sheathing, sheer walls, exterior sheathing, and for sheet rock walls that are shear walls.
- **Frame:** the structure is to be dried in before framing, plumbing, electric, and mechanical cover inspections are requested, exterior sheeting in place, framing meets the IRC and/or engineer design.
- **Brick Tie:** spacing to be each stud by 16" horizontally by 24" vertically.
- **Lath/moisture barrier:** per code and manufacture instructions.
- **Fire Place:** to have proper clearances, provide manufacture installation instructions.
- **Flat work:** patios, sidewalk and etc. call before concrete cover.
- **Driveway/Approach:** call before concrete cover, #3 rebar on 18" centers each way or #4 rebar on 24" centers each way, dowel back into street, 6" thick expansion joint at the property line with ½" smooth bar attached to the redwood and tube slip on one side.
- **Building Final:** all other inspections passed, house is complete and ready to move in, drainage away from slab and draining from back to front.
- **Other Inspections as required**

**It is the responsibility of the owner/contractor to comply with all adopted codes by the City of Shenandoah. Additional information may be required to assure code compliance. Any oversight on the part of the city during plan review or inspection does not relieve the owner/contractor from compliance to all codes.**

**Plans must be onsite for each inspection.**

**A form survey is required before the foundation inspection can be done and if in a flood zone, a FEMA elevation certificate must be provided.**

**I have read the information as stated above.**

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Company Name

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Date

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Printed Name

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Signature

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Email Address

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Contact Number