

Lisa Hertzog – Plan Review Coordinator

**Detached One and Two-Family Dwellings
IRC Townhomes**



PLANNING & DEVELOPMENT
PRESERVE
SHAPE
BUILD 

Self-Certification = Plan Review

- Successful Plan Review
- Successful Projects
- Successful Audits



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

We Want You to Succeed

Submittal Requirements

- Getting the Permit Starts with a Complete Submittal Package
- More Documentation is Required of the Self-Certifier than for Regular Submittals
- Review the Submittal Before Completing the Upload Task in SHAPE PHX



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

These documents and many more can be found at:

<https://www.phoenix.gov/pdd/self-certification-program/procedures-forms-and-links>

IRC Scope



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

The provisions of the International Residential Code (IRC) apply to detached one- and two-family dwellings and townhouses not more than three stories above-grade in height with a separate means of egress and their accessory structures.

Typical Single-Family Home



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 



Example of an Accessory Structure to a Single-Family Home



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 



Scope Addendum



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

1. Live/work units complying with the requirements of Section 419 of the *International Building Code* shall be permitted.
2. Owner-occupied lodging houses with five or fewer guestrooms shall be permitted to be constructed in accordance with the *International Residential Code for One- and Two-family Dwellings*.



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 



**Does this
house require
a permit?**

Projects Not Eligible



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

- Floodplain Construction (FEMA SFHA)
- Hillside Construction



**Flood vent
installed in a
residential
garage**

Fire Sprinklers

Per 2018 Phoenix Fire Code
section 903.1,
(aka: Brett Tarver Ordinance)

[https://www.phoenix.gov/
fire/prevention/sprinkler-
ordinance](https://www.phoenix.gov/fire/prevention/sprinkler-ordinance)



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Plans Note:

Per the 2018 Phoenix Fire Code, section 903.1, an Automatic Fire Sprinkler System designed per IRC P2904 or NFPA 13D shall be installed. Fire Sprinkler system shall be under separate plan reviews and permit.

Fire Sprinklers (Retrofit)



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Existing group R-3 occupancies shall be protected by an automatic sprinkler system when:

1. One or more additions are made within a 3-year period and;
2. The aggregate area of the additions exceeds 50% of square footage of the house as of June 17, 2002 and;
3. The new total enclosed area of the building is greater than 5,000 sf.

Fire Flow Testing

Per 2018 Phoenix Fire Code
Appendix B
Section B105, and Table B105.1

Any residential project exceeding 3600
square feet under the roof, must meet
the fire flows shown in the table.



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Plans Note:

PROPERTY OWNER IS RESPONSIBLE FOR CONFIRMING THAT THE FIRE FLOW REQUIREMENTS OF THE PHOENIX FIRE CODE, APPENDIX B, SECTION 105, AND TABLE 105.1 ARE ACHIEVED PRIOR TO COMMENCING CONSTRUCTION. FIRE FLOWS BELOW THE MINIMUMS REQUIRED BY TABLE 105.1 SHALL REQUIRE REVISED PLANS OR THE INSTALLATION OF AN NFPA 13D AUTOMATIC FIRE SPRINKLER SYSTEM.

THE REQUIRED FIRE FLOWS FOR THIS PROJECT
ARE: _____ GPM

Septic Approval



If a parcel does not have access to city sewer and city staff determine a sewer main extension is not feasible, an approved permit for an On-Site Wastewater Treatment facility from the Maricopa County Environmental Services Department is required prior to submittal of self certified projects

Plot / Site Plans

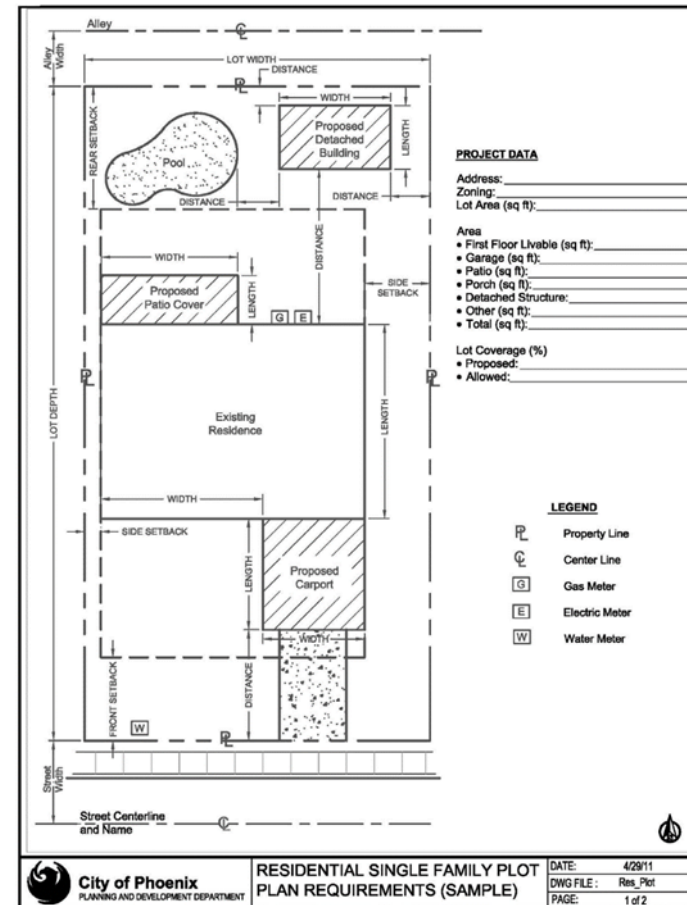
Plot Plans must be pre-approved by Zoning before submitting building plans.

An example of a plot plan and all requirements can be found here:

https://www.phoenix.gov/pdds/site/Documents/dsd_trt_pdf_00285.pdf



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD**



Grading and Drainage Plans



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Grading and Drainage requirements must be met before submitting building plans

City of Phoenix Amendments

All 2018 City of Phoenix amendments can be found
on-line at:

<https://www.phoenix.gov/pdd/devcode/buildingcode>

<https://codes.iccsafe.org/public/collections/I-Codes>



PLANNING & DEVELOPMENT

**PRESERVE
SHAPE
BUILD**

Policies

The following topics and more, are on-line at:

<https://www.phoenix.gov/pdd/topics>



PLANNING & DEVELOPMENT

**PRESERVE
SHAPE
BUILD**

- Self-Certification Requirements
- Residential Plan Review Checklist
- Single Family Design Review

Guidelines and Interpretations

The following topics and more, are on-line at:

<https://www.phoenix.gov/pdd/topics>



PLANNING & DEVELOPMENT

**PRESERVE
SHAPE
BUILD**

- Water Meter Sizing
- Electrical Plans & Specifications Required
- Electrical Services 400 Amps and Greater
- Plot Plan Requirements
- Due Diligence



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Common Errors & Omissions

- **Wall bracing does not meet prescriptive requirements of IRC R602.10**
- **Fire rated assemblies are not detailed on plans**
- **Connection details are not provided**
- **Structural design calculations are not provided for construction that does not meet the prescriptive requirements of the IRC**



**What's wrong
with this picture?**



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Common Errors & Omissions Continued

- Evaluation report listings are not provided for specific materials or are not current (stucco, roof tile, etc.)
- Stairs are not completely detailed on plans
- Compliance with natural light and ventilation requirements of IRC R303 is not demonstrated
- Soils report is not provided when engineered fill is used



**Is this ski ramp
code compliant?**



PLANNING & DEVELOPMENT
**PRESERVE
SHAPE
BUILD** 

Common Errors & Omissions at Inspection

- Mechanical plans are not provided
Manuals J, S and D
- Compliance with energy conservation requirements of IRC Chapter 11 (IECC Residential Provisions) is not demonstrated
- Electrical load calculations, panel schedule and one-line diagrams are not provided
- Gas isometrics are not provided or are not adequately sized



Common Errors & Omissions at Submittal

- Failure to provide all applicable forms

Each time you have to submit a plan again, it is considered another intake meeting and a \$300.00 fee is applied to your submittal.

Forms

The following forms (plus many others) can currently be found on-line at:

<https://www.phoenix.gov/pdd/topics>

- Residential Water Meter Worksheet
- Energy Conservation Code Residential Compliance Certificate
- Residential Construction Survey Requirements
- Other required documents



PLANNING & DEVELOPMENT

**PRESERVE
SHAPE
BUILD**

**Everything you need to know can be
found online at:**

<https://www.phoenix.gov/pdd/self-certification-program>



PLANNING & DEVELOPMENT

**PRESERVE
SHAPE
BUILD**

Questions?

Lisa Hertzog
Plan Review Coordinator
(602)495-0231
lisa.hertzog@phoenix.gov

For Plans Submittal Requirements:
Adriana Hersch
Building Code Examiner (EPR Triage Team)
602-534-4094
adriana.hersch@phoenix.gov

For Audit Questions:
Janeen Mullins
Principal Engineering Technician
602-534-3446
janeen.mullins@phoenix.gov

