

“Substantial improvement” means any rehabilitation, addition or other building improvement in which the cost of the improvement equals or exceeds 50% of the market value of the building before start of improvement construction. The City of Tempe Engineering Design Criteria applies to all new and redevelopment projects that will:

- affect the existing lot grading or stormwater retention;
- cumulatively increase the original permitted floor area by at least 25%; or
- increase the valuation (excluding land) by 50% or more (does not apply to single-family residential projects).

Frequently Asked Questions

What type of project requires submittal of a Grading and Drainage plan to Engineering?

The following projects require submittal of a Grading and Drainage plan to the City of Tempe Engineering Division:

- A new single family residence
- An addition, detached accessory structure, patio, gazebo or ramada that increases the total square footage by 25% or more or is in an existing retention area

Please note that 100-year onsite retention is required regardless of the lot's current lot retention designation.

What if my addition is less than 25% of the total square footage and is not in an existing retention area? Do I still need to submit to Engineering?

A preliminary site plan is used to verify the submittal requirements. Most projects will only require a Declaration of Minor Modification. This is a recorded document that may be used for any lot with designated retention requirements. It may be used for an addition, detached accessory structure, gazebo or ramada that is less than 25% of the total square footage or for a new swimming pool. By signing this document, a property owner agrees to: maintain their existing retention, not reduce their existing stormwater capacity and remove all excavated materials from the property. A Declaration of Minor Modification is available at: www.tempe.gov/bsafety/Applications_Forms

I am building a swimming pool. Do I need to submit a plan to Engineering?

A property owner must submit a Declaration of Minor Modification to be officially recorded. By signing this document, a property owner agrees to: maintain their existing retention; not reduce their existing stormwater capacity; and remove all excavated materials from the property. A Declaration of Minor Modification is available at www.tempe.gov/bsafety/Applications_Forms

I have an irrigated lot. Do I need to submit a plan to Engineering?

Yes, irrigated lots have designated retention requirements.

How do I find out what the retention requirement is for my lot?

Contact the Community Development Department, Building Safety Division, at 480-350-8341, select “option 2” and a Senior Civil Engineer will assist you with your request. You may also obtain as-built information for your subdivision from the Engineering Division front counter at 480-350-8200.

Why do I need to submit a grading and drainage plan?

A grading and drainage plan is needed in order to obtain a drainage clearance for your project. A drainage clearance helps to protect the finished floor of any structure from flooding in the event of a greater than the 100-year design storm. A drainage clearance requires that the basin holds the required runoff volume at an elevation below the low lot outfall elevation (usually low curb) so that it doesn't flow off of the lot. The low lot outfall elevation is below that of the finished floor. This ensures that on site retention requirements are met but in the event of a very large storm, the water would flow over the curb at the low lot outfall into the street instead of flooding the floor of the structure.

What kind of plan do I need to submit?

The city requires a plan that has been designed and sealed by an Arizona Registrant, a civil engineer or an architect. A complete copy of the Engineering Design Criteria is available at www.tempe.gov/engineering/design_criteria.htm

Where can I get help with determining the engineering requirements for my project?

We encourage homeowners, or their design professional, to schedule an appointment with a City of Tempe Senior Civil Engineer to discuss the project when it's in early design stage. A courtesy preliminary review will help identify the submittal requirements for the project. For an appointment with a Senior Civil Engineer contact Community Development, Building Safety Division, at 480-350-8341 (select option 2).

How much does a permit cost?

Engineering issues a “Flat Fee” permit for all residential projects that include drainage and/or paving. The flat fee permit includes the plan review fee. (See current fee schedule at: www.tempe.gov/citycode/APPENDIX.htm)

How long does the plan review process take?

- First review – 10 working days
- Second review (if needed) – 6 working days
- Third review (if needed) – 5 working days

Is expedited plan review available?

Yes. The fee for an expedited plan review of 4 working days is double the “Flat Fee” permit amount.

Is over-the-counter plan review available?

No. Over-the-counter plan review is not available. All engineering submittals are required to be submitted for plan review.

Do I need approval from Engineering for my building permit to be issued?

Yes. Approval from City of Tempe Engineering is required prior to issuance of a building permit.

Why should I care about stormwater retention?

There are many benefits to keeping stormwater on-site, including:

- reduced street flooding
- decreased need for costly infrastructure expansions
- less pollution entering local waterways, streets and parks
- reduced damage to property and infrastructure
- enhanced public safety



Why Stormwater Retention is important

Retaining stormwater on-site helps to maintain and enhance Tempe's way of life by reducing polluted run-off that could otherwise end up in our urban parks and lakes, drinking water aquifers and the surrounding environment. In addition to environmental benefits, proper stormwater management helps reduce flooding and safety concerns. Please help protect our water!

Background

The federal Clean Water Act requires the City of Tempe to implement programs to control runoff from new development and redevelopment in order to reduce pollutant discharges to waterways to the maximum extent practicable. Tempe's stormwater retention ordinance is recognized by the U.S. Environmental Protection Agency as the city's most effective stormwater control measure, containing much of Tempe's rainfall and limiting discharges of pollutants to waters of the United States. Implementation and enforcement of this ordinance is required under Tempe's Municipal Separate Storm Sewer Systems (MS4) permit, issued by the Arizona Department of Environmental Quality.

In addition to limiting discharges of pollutants to U.S. waters, the stormwater retention ordinance controls stormwater runoff in order to prevent flooding. In 1991, The City of Tempe joined the Community Rating System (CRS) – a program administered by the Federal Emergency Management Agency (FEMA) to provide lower insurance premiums under the National Flood Insurance Program (NFIP). The Tempe City Council passed an ordinance adopting The FEMA regulations and allowing availability of flood insurance for Tempe residents. Compliance with NFIP/CRS regulations assures the finished floor of a structure does not flood in a 100-year flood event.

Tempe's stormwater retention ordinance has been in effect since 1977 and was modified in April 2004 to accommodate more dense development in and around downtown Tempe, an area designated as the Alternative Retention Criteria Area (ARCA). Outside the ARCA, all new development and substantial improvements to existing developments must provide storage of sufficient volume (on-site retention) to hold the runoff from the 100-year design storm on-site. Inside the ARCA, new development or substantial improvements to existing developments must provide on-site retention for the two-year design storm. The two-year requirement may be waived within the ARCA subject to approval by the City of Tempe Public Works Director of equivalent best management practices for on-site pollutant removal.



Contact information:

**Community Development Department,
Building Safety Division**
480-350-8341 option 2
www.tempe.gov/bsafety

Public Works Engineering Division
480-350-8200
www.tempe.gov/engineering

Public Works Environmental Services
480-350-2678
www.tempe.gov/stormwater



Stormwater Retention

Requirements for
Development and
Redevelopment

