

Submittals, Construction Requirements, & Inspections

The following is a brief summary of the <u>typical</u> public works requirements and procedures associated with different developments. As all developments are unique, the following is not intended to be all inclusive but rather used as a general guideline. Depending on the site and development complexity, the City may require additional information, documents and/or inspections from what is presented herein.

Generally speaking, there are three "levels" of Public Works submittals, construction requirements, and inspections based upon the type and extent of the development. Submittals shall include electronic copies of all stated requirements (hardcopies not required until such time as the documents are approvable).

I. <u>Single Family Residence/Duplex</u> (not within a recent¹ subdivision)

1. <u>Building Permit Application Submittal Requirements</u>:

- a. **Site Plan**: A basic Site Plan showing finished floor and spot elevations, proposed drainage direction(s), and the building location.
- b. **Miscellaneous:** If structural retaining walls are proposed, or if the area of disturbance is greater than one acre, or the site lies within the regulated floodplain, additional engineering plans will be required prior to issuance of any Building Permits.

2. <u>Site Drainage & Construction Requirements</u>:

- a. When grading the site, direct the site drainage away from adjoining properties and towards the public roadway to the extent practicable.
- b. Construct and adjust roof drains (downspouts) in such a manner as to minimize negative impact to adjoining properties.
- c. In most cases, curb and gutter are required. If there is no existing curbing lying on either side of the subject property, funds may be taken in lieu of construction of the public improvements. Sidewalks will only be required on corridors identified on the Bicycle-Pedestrian Master Plan.
- d. A 25' hard-surface connection (asphalt or concrete) from the driveway to the public roadway is required per City Code.
- e. All curb & gutter, drivecuts, or other public improvements will need to be constructed to City standard specifications. The standards are available from the City website in both PDF and AutoCAD DWG formats.
- f. If the SFR/Duplex lies within a new or recent¹ subdivision, please refer to Section III-1-i below for the Lot Drainage Certification requirements.

3. Public Works Inspections:

- a. Public Works will inspect the site drainage functionality prior to issuance of the Certificate of Occupancy.
- b. All curb & gutter, drivecuts, or other public improvements will be inspected prior to acceptance by the City. All constructed items shall be warranted by the contractor for a period of 2 years.
- c. Hint: Call the Public Works Department to schedule the Final Inspection at least 48 hours in advance to avoid any delays in the issuance of the Certificate of Occupancy.

II. Commercial Building Expansion/Addition (Redevelopments - not a scrape)

- 1. <u>Building Permit Application Submittal Requirements</u>:
 - a. **Site Plan:** All Redevelopments will need a detailed Site Plan showing all elevations required to accurately grade, 1' contour lines, all drainage-related items and paths, and building location(s).
 - b. **Drainage Letter and Plan**: All <u>Moderate</u> Multi-family/Commercial Redevelopments will need to address water quality. A Drainage Letter shall be required stating how the parcel is to be graded without negative impact to adjacent properties, specifying what items are to be constructed for water quality (i.e., grass swales, landscape strips, etc.). The Drainage Letter shall be accompanied by a Drainage Plan showing the proposed site grading, including percent grades and drainage direction, and details for all water quality features. Both drainage documents are to be signed and sealed by a CO licensed Professional Engineer. (No formal engineering is required for <u>Minor</u> Redevelopments; please refer to the Site Drainage Requirements).
 - c. **Grading & Erosion Control Plan**: A Grading & Erosion Control Plan (signed and sealed by a Professional Engineer) which includes details for all utilized BMP's both during and subsequent to construction is required
 - d. **Construction Plans**: Construction Plans (signed and sealed by a Professional Engineer) for any required public improvements along the property frontage and drainage-related items such as the detention pond, outlet structures, drainageways or pans, curb & gutter. Include City-standard details for all proposed constructed items.
 - e. **Final Drainage Report and Plan:** All <u>Major</u> Redevelopments will require a Final Drainage Report and Plan (please refer to the Site Drainage Requirements for additional information).
 - f. **Stormwater Management Plan (SWMP):** All sites where the area of disturbance is equal to or greater than one acre in size is required to submit a SWMP for review and approval prior to issuance of any Building Permits.
- 2. Site Drainage & Construction Requirements:
 - a. The Site Grading and Drainage shall conform to all approved engineering/construction design documents.
 - b. Construct and adjust all roof drains (downspouts) in such a manner as to minimize negative impact to adjoining properties.
 - c. All curb & gutter, drivecuts, or other public improvements shall be constructed to City standard specifications in conformance with all approved engineering and construction design documents.
- 3. Public Works Inspections:
 - a. Public Works will inspect the site drainage functionality prior to issuance of the Certificate of Occupancy.
 - b. All curb & gutter, drivecuts, drainage, or other public improvements will be inspected prior to acceptance by the City. All constructed items shall be warranted by the contractor for a period of 2 years.
 - c. <u>Hint</u>: Call for the Final Acceptance inspection as much in advance as possible to avoid any delays in the issuance of the Certificate of Occupancy.

III. New Subdivisions & New Commercial Developments

- 1. <u>Development Application Submittal Requirements</u>:
 - a. Drainage Letter and Plan:
 - i. Minor New Multi-family/Commercial Redevelopments are typically not subject to flood attenuation detention, but must address water quality. A Drainage Letter shall be required stating how the parcel is to be graded without negative impact to adjacent properties, specifying what items are to be constructed for water quality (i.e., grass swales, landscape strips, etc.). The Drainage Letter must be accompanied by a Drainage Plan showing the proposed site grading, including percent grades and drainage direction, and details for all water quality features. Both drainage documents are to be signed and sealed by a CO licensed Professional Engineer.
 - ii. <u>Moderate and Major Redevelopments, or any New Developments</u> will have additional drainage requirements. Refer to the City's *Site Drainage Requirements* for further information.
 - b. **Final Plat:** All proposed subdivisions shall require a Final Plat be submitted in a digital PDF and AutoCAD .DWG file format as specified by the Public Works Department. City-based bearings and coordinates must be used per Section 26-410-C of the Municipal Code of Laws.
 - c. **Final Drainage Report:** As on-site detention incorporating water quality measures is required for all <u>Major</u> New Multi-Family/Commercial and Major Redevelopments, a Final Drainage Report and Plan, signed and sealed by a CO licensed Professional Engineer, shall be required. For further information, please refer to the City of Wheat Ridge *Site Drainage Requirements*.
 - d. **Grading & Erosion Control Plan**: A Grading & Erosion Control Plan signed and sealed by a Professional Engineer, including specific details for all BMP's to be utilized both during and subsequent to construction. If the site is over an acre a Stormwater Management Plan and state permit may be required (refer to section 1g. below).
 - e. **Civil Construction Plans**: Construction Plans (signed and sealed by a Professional Engineer) for any public improvements along the property frontage and drainage-related items such as the detention pond, outlet structures, drainageways or pans, curb & gutter. Include COWR standard details for all proposed constructed drainage facilities.
 - f. Construction Control Plan: A Construction Control Plan ("CCP") will be required for larger development projects as determined by City staff. Notification of this requirement will generally be provided during the development Pre-Application Meeting, but depending on the complexity and design of the project the need for a CCP may also arise during the development plan review process. The CCP is typically based up the site layout (Site Plan) from the civil construction plans showing the horizontal improvements, and will include building information from the designing architect. The purpose of the CCP is to act as a quality control measure as construction proceeds to ensure items proposed for construction are properly located and completed per approved civil construction and building permit plan sets.

g. CDPS Permit & Stormwater Management Plan: All sites where the area of disturbance is equal to or greater than one acre in size, a Stormwater Management Plan (SWMP) associated with the required State CDPS Permit shall be submitted to the City of Wheat Ridge for review and approval. The SWMP must be approved by the City prior to issuance of any Demolition, Grading, ROW Construction, or Building Permits. The CDPS Permit is generally obtained from the Colorado Department of Public Health and Environment by the contractor at time of Building Permit Application. A copy of the CDPS must accompany the final submittal of the SWMP.

h. Overall Site Drainage Certification Required:

Upon completion of the drainage improvements, the Engineer-of-Record shall provide to the City of Wheat Ridge a written, signed and sealed Drainage Certification Letter stating that the site grading was completed per the approved Grading & Erosion Control and Drainage Plans, all drainage facilities were constructed and shall function as defined in the approved Final Drainage Report/Plan, and that the site has been accurately surveyed to confirm that the grading and the construction of all drainage facilities was completed in accordance with these documents. The Drainage Certification Letter shall be submitted to the City for review and approval, and shall be accompanied with As-Built Plans for all constructed drainage facilities prior to issuance of any Certificates of Occupancy. The As-Built Plans shall be submitted as follows:

Two (2) copies of the "As-Built" Plans are to be submitted:

- a. 1 copy is to be on bond paper, and
- b. 1 copy must be on electronic media (CD-ROM, flash drive, by e-mail attachment, etc.) and is to include both a PDF that has been signed and sealed by the engineer-of-record and be accompanied by an AutoCAD .DWG file in the version specified by the Public Works Department.
- i. Individual Structures within New Subdivisions Require Lot Grading Certification and As-Built Info:
 - i. Single Family Residences (SFR): Upon completion of a SFR or duplex residence lying within a newly created subdivision, a Lot Grading Certification shall be required from the Engineer-of-Record and be accompanied by an Improvement Location Certificate or as-built plans showing spot elevations in support of the Certification. Any SFR/duplex constructed within two (2) feet of a setback or FEMA regulated floodplain line shall also require submission of a *Foundation Setback and Elevation* Certification obtained from the Building Division of the Community Development Department (303.235.2876).
 - ii. Multi-Family Residences and Commercial Buildings: Any multi-family building shall require a Lot Grading Certification from the Engineer-of-Record accompanied by a CCP showing field-measured spot elevations and setback distances and submission of a *Foundation Setback and Elevation Certification*. These Certifications provides assurance that the building was completed in conformance with and that the drainage will function per approved Plans, and is required <u>prior to the issuance of the Certificate of Occupancy</u>.

2. <u>Site Drainage Requirements</u>:

- a. The Site Grading and Drainage shall conform to all approved engineering documents.
- d. Construct and adjust all roof drains (downspouts) in such a manner as to minimize negative impact to adjoining properties.
- b. All curb & gutter, drivecuts, or public improvements shall be constructed to City standard specifications in conformance with all approved engineering and construction design documents.

3. Public Works Inspections:

- a. Public Works will inspect the site drainage functionality prior to issuance of any Certificates of Occupancy.
- b. All curb & gutter, drivecuts, or other public improvements will be inspected prior to acceptance by the City. All constructed items shall be warranted by the contractor for a period of 2 years.
- c. Call for the Final Acceptance inspection as much in advance as possible to avoid any delays in the issuance of any C.O.

4. Additional Items for Developers/Contractors:

- a. The Contractor shall provide all lights, signs, barricades, flagmen or other devices necessary to provide for the public safety in accordance with the current Manual of Uniform Traffic Control Devices.
- b. The Contractor shall provide and maintain ingress and egress to private property adjacent to the work throughout the period of construction. Prior to beginning any work, the contractor shall obtain a written agreement from the affected property owner(s) impacted by this access.
- c. Two (2) signed and sealed copies of the "**AS-BUILT**" Plans (Record Drawings) shall be submitted <u>prior</u> to final acceptance of the work and issuance of any Certificates of Occupancy/Completion:
 - i. 1 copy is to be on 24" X 36" bond paper, and
 - ii. 1 PDF file and one AutoCAD DWG file shall be provided.
- d. The Contractor shall notify the City Inspector at least twenty-four (24) hours prior to the desired inspection.
- e. No portion of the street may be final paved until all utilities and street lighting improvements, designed to serve the street and/or development have been completed.
- f. Permanent or temporary soil stabilization measures shall be applied to disturbed areas within thirty (30) days after final grade is achieved on any portion of the site, or to disturbed areas that may not be at final grade, but are to be left dormant for a period of time of more than thirty (30) days.
- g. Additional erosion control measures may be required during the course of construction, and shall be installed immediately per instructions of the City Inspector.
- h. If more than three (3) street cuts occur within 250 linear feet, additional milling/overlay requirements will apply. Refer to the terms of the City of Wheat Ridge Row Construction Permit (that must be obtained from the department of public works, 303.235.2861, prior to commencement of work)

THE FOLLOWING APPLIES TO ALL DEVELOPMENTS:

- 1. The applicable Public Works development review fees will be due at the time of the Building Permit Application.
- 2. All Final Plat submittals shall be on the *Current City Datum* (per Section 26-410-C of the Municipal Code of Laws) and include a PDF as well as an AutoCAD DWG file in the format specified by the Public Works Department. Plat submittals shall also include Closure Sheets for the boundary and for each individual lot along with a completed copy of the City Geodetic Surveying Requirements checklist.
- 3. Typically, the time required by the Public Works Department to complete a review takes from ten to fifteen working days. This time frame may vary depending upon the quality level and completeness of the document submittal, the existing workload at the time of application, and the technical scope of your project. The total length of the Public Works review process involves the items listed above as well as the number of re-submittals required for approval.
- 4. All submittals are reviewed on a first-come first-serve basis. Remember, all development projects are of the utmost importance to <u>each</u> Applicant. From the single-family home to the major shopping center, each considers their own project to be the priority.
- 5. All Developments shall be in compliance with the City of Wheat Ridge floodplain ordinance requirements². If any proposed improvements are within the 100-year floodplain boundaries, additional civil engineering documents and submittal requirements shall apply.

²CONSTRUCTION OF ANY TYPE, LOCATED WITHIN THE 100-YEAR FLOODPLAIN LIMITS SHALL REQUIRE SUBMITTAL OF THE APPROPRIATE TECHNICAL DOCUMENTS AND A REVIEW BY THE DIRECTOR OF PUBLIC WORKS ACTING AS THE FLOODPLAIN ADMINISTRATOR FOR THE PUBLIC WORKS DEPARTMENT.

For further clarification of the civil engineering and technical land surveying requirements for your development, please contact:

David F. Brossman, P.L.S. Development Review Engineer/City Surveyor 303.235.2864 dbrossman@ci.wheatridge.co.us.

For general development related questions or for additional information pertaining to the development application and review process, please contact the City of Wheat Ridge Community Development Department at 303.235.2848.