



WORK SESSION

AGENDA

**City Commission of the City of Warrenton
Tuesday, September 14, 2021 – 5:00 P.M.
Warrenton City Commission Chambers
225 South Main Avenue
Warrenton, OR 97146**

- 1. Call to Order**
- 2. Roll Call**
- 3. Floodplain Mitigation & Infill Development**
- 4. Adjourn**

Warrenton City Hall is accessible to the disabled. An interpreter for the hearing impaired may be requested under the terms of ORS 192.630 by contacting Dawne Shaw, City Recorder, at 503-861-0823 at least 48 hours in advance of the meeting so appropriate assistance can be provided.

Warrenton Municipal Code[Up](#)[Previous](#)[Next](#)[Main](#)[Collapse](#)[Search](#)[Print](#)[No Frames](#)[Title 16 DEVELOPMENT CODE](#)[Division 3 DESIGN STANDARDS](#)**Chapter 16.152 GRADING, EXCAVATING, AND EROSION CONTROL PLANS**

16.152.010 Purpose.

The purpose of this chapter is to safeguard life, limb, property, and the public welfare by controlling activities that lead to soil erosion and sedimentation into watercourses, wetlands, riparian areas, public and private roadways caused by development activities, including clearing, grading, stripping, excavating, and filling of land.

16.152.020 Scope.

This chapter sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

16.152.030 Permits Required.

Except as provided in Section 16.152.040 of this chapter, no person shall do any grading work without first having attained a grading permit from the building official.

16.152.040 Exempted Work.

A grading permit is not required for the following:

- A. When approved by the building official, grading in an isolated, self-contained area if there is no danger to private or public property.
- B. An excavation below finished grade for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation or exempt any structure having unsupported height greater than five feet after completion of such structure.
- C. Cemetery graves.
- D. Refuse disposal sites controlled by other regulations.
- E. Excavations for wells, tunnels, or utilities.
- F. Mining, quarrying, processing, stockpiling of rock, sand, gravel, aggregate, or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.
- G. Exploratory excavations under the direction of soil engineers or engineering geologists.
- H. An excavation which: (1) is less than two feet in depth; or (2) which does not create a cut slope greater than five feet in height and steeper than one unit vertical in one and one-half units horizontal (66.7% slope).
- I. A fill less than one foot in depth and placed on natural terrain with a slope flatter than one unit vertical in five units horizontal (20% slope), or less than three feet in depth, not intended to support structures, that does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course.

Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other chapter of this Code, or other laws or ordinances of the City of Warrenton.

16.152.050 Hazards.

Whenever the building official determines that any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use, or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt in writing from the building official, shall within the time period specified therein eliminate such excavation or embankment to eliminate the hazard and to be in conformance with the requirements of this Code.

16.152.060 Grading Permit Requirements.

- A. Permits Required. Except as exempted in Section 16.152.040, no person shall do any grading without first obtaining a grading permit from the building official. A separate permit shall be obtained for each site, and may cover both excavations and fills.
- B. Application. To obtain a grading permit, the applicant shall file an application in writing to the City of Warrenton on a form furnished by the building official. Every such application shall contain:
1. Identification and description of work to be covered by the permit for which the application is made, including estimated quantities of work involved.
 2. Description of the land on which the proposed work is to be done by legal description, street address, assessor parcel number, or similar description that will readily identify and definitely locate the proposed building or work.
 3. Indication of the use or occupancy for which the proposed work is intended.
 4. Plans, diagrams, computations, and specifications, and other data as required by this chapter. Plans and specifications shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed, and show in detail that it will conform to all provisions of this Code and relevant laws, ordinances, rules, and regulations of the City.
 5. Applicant's signature.
 6. Other data as required by the building official.
- C. Grading Designation. Grading in excess of 5,000 cubic yards shall be permitted in accordance with the approved grading plan prepared by a civil engineer, and shall be designated as "engineered grading." Grading involving less than 5,000 cubic yards shall be designated as "regular grading" unless the permittee chooses to have the grading performed as engineered grading, or the building official determines that special conditions or unusual hazards exist, in which case grading shall conform to the requirements of engineered grading.
- D. Engineered Grading Requirements. As required by the currently adopted Oregon Structural Specialty Code Appendix J, as may be amended.
- E. Regular Grading Requirements. Each application for a grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work. The plans shall give the location of the work, the name of the owner, and the name of the person who prepared the plan. The plan shall include the following information:
1. General vicinity of the proposed site.
 2. Limiting dimensions and depth of cut and fill.
 3. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet of the proposed grading.
- F. Issuance.
1. The application, plans, specifications, computations, and other data filed by an applicant for a grading permit shall be reviewed by the building official. Such plans may be reviewed by other City departments to

verify compliance with any applicable laws of the City. The building official may require that grading operations and project designs be modified if delays occur which incur weather generated problems not considered at the time the permit was issued. The provisions of UBC Section 106.4 are applicable to grading permits.

2. The building official may require professional inspection and testing by the soils engineer. When the building official has cause to believe that geologic factors may be involved, the grading will be required to conform to engineered grading. (Ord. 1238 § 1, 2020; Ord. 1175-A § 14, 2013)

16.152.070 Grading Inspection.

A. General. Grading operations for which a permit is required shall be subject to inspection by the building official. Professional inspection of grading operations shall be provided by the civil engineer, soils engineer, and the engineering geologist retained to provide such services in accordance with this section for engineered grading and as required by the building official for regular grading.

B. Civil Engineer. The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade, and surface drainage of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer.

C. Soils Engineer. The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, building official, and the civil engineer.

D. Engineering Geologist. The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.

E. Permittee. The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this Code, and the permittee shall engage consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the consultants, the contractor, and the building official. In the event of changed conditions, the permittee shall be responsible for informing the building official of such change and shall provide revised plans for approval.

F. Building Official. The building official shall inspect the project at the various stages of work requiring approval to determine that adequate control is being exercised by the professional consultants.

G. Notification of Noncompliance. If, in the course of fulfilling their respective duties under this chapter, the civil engineer, the soils engineer, or the engineering geologist finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the permittee and the building official.

H. Transfer of Responsibility. If the civil engineer, the soils engineer, or the engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the building official in writing of such change prior to the recommencement of such grading.

16.152.080 Grading Fees.

Grading fees shall be set by resolution of the Warrenton City Commission. (Ord. 1175-A § 15, 2013)

16.152.090 Bonds.

The building official may require bonds in such form and amounts as may be deemed necessary to assure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions. In lieu of a surety bond, the applicant may file a cash bond or instrument of credit with the building official in an amount equal to that which would be required in the surety bond.

16.152.100 Cuts.

- A. General. Unless otherwise recommended in the approved soils engineering or engineering geology report, cuts shall conform to the provisions of this section. In the absence of an approved soils engineering report, these provisions may be waived for minor cuts not intended to support structures.
- B. Slope. The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than one unit vertical in two units horizontal (50% slope) unless the permittee furnishes a soils engineering or engineering geology report, or both, stating that the site has been investigated and given an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property.

16.152.110 Fills.

- A. General. Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section. In the absence of an approved soils engineering report, these provisions may be waived for minor fills not intended to support structures.
- B. Preparation of Ground. Fill slopes shall not be constructed on natural slopes steeper than one unit vertical in two units horizontal (50% slope). The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil, and other unsuitable materials scarifying to provide a bond with the new fill and, where slopes are steeper than one unit vertical in five units horizontal (20% slope) and the height is greater than five feet, by benching into sound bedrock or other competent material as determined by the soils engineer. The bench under the toe of a fill on a slope steeper than one unit vertical in five units horizontal (20% slope) shall be at least 10 feet wide. The area beyond the toe of the fill shall be sloped for sheet overflow or a paved drain shall be provided. When fill is to be placed over a cut, the bench under the toe of the fill shall be at least 10 feet wide but the cut shall be made before placing the fill and acceptance by the soils engineer or engineering geologist or both as a suitable foundation for fill.
- C. Fill Material. Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the building official, no rock or similar irreducible material with a maximum dimension of greater than 12 inches shall be buried or placed in fills. The building official may permit the placement of larger rock when the soils engineer properly devises a method of placement and continuously inspects its placement and approves the fill stability. The following conditions shall also apply: (1) prior to issuance of a grading permit, potential rock disposal areas shall be delineated on the grading plan; (2) rock sizes greater than 12 inches in maximum dimension shall be 10 feet or more below grade, measured vertically; and (3) rocks shall be placed so as to assure filling of all voids with well-graded soil.
- D. Compaction. All fills shall be compacted to a minimum of 90% of maximum density.
- E. Slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than one unit vertical in two units horizontal.

16.152.120 Setbacks.

- A. General. Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary.
- B. Top of Cut Slope. The top of cut slopes shall not be made nearer to a site boundary line than one-fifth the vertical height of cut with a minimum of two feet and a maximum of 10 feet. The setback may need to be increased for any required interceptor drains.
- C. Toe of Fill Slope. The toe of fill slope shall be made not nearer to the site boundary line than one half the height of the slope with a minimum of two feet and a maximum of 20 feet. Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the building official deems necessary to protect adjoining property from damage as a result of such grading. These precautions may include, but are not limited, to (1) additional setbacks; (2) provisions for retaining or slough walls; (3) mechanical or chemical treatment of the fill slope surface to minimize erosion; and (4) provisions for the control of surface waters.
- D. Modification of Slope Location. The building official may approve additional setbacks. The building official may require investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

16.152.130 Drainage and Terracing.

- A. General. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of this section for cut or fill slopes steeper than one unit vertical in three units horizontal (33.3% slope).
- B. Terraces.
1. Terraces at least six feet in width shall be established at not more than 30-foot vertical intervals on all cut or fill slopes to control surface drainage and debris except that where only one terrace is required, it shall be a mid-height. For cut or fill slopes greater than 60 feet and up to 120 feet in vertical height, one terrace at approximately mid-height, shall be 12 feet in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet in height shall be designed by a civil engineer and approved by the building official. Suitable access shall be provided to permit proper cleaning and maintenance.
 2. Swales or ditches or terraces shall have a minimum gradient of five percent and must be paved with reinforced concrete not less than three inches in thickness or and approved equal paving. They shall have a minimum depth at the deepest point of one foot and a minimum paved width of five feet.
 3. A single run of swale or ditch shall not collect runoff from a tributary exceeding 13,500 square feet (projected) without discharging into a down drain.
- C. Subsurface Drainage. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.
- D. Disposal.
1. All drainage facilities shall be designed to carry waters to the nearest practicable drainage way approved by the building official or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of non-erosive down-drains or other devices.
 2. Building pads shall have a drainage gradient of two percent toward approved drainage facilities unless waived by the building official. The gradient from the building pad may be one percent if all of the following conditions exist throughout the permit area: (a) no proposed fills are greater than 10 feet in maximum depth; (b) no proposed finish cut or fill slope faces a vertical height in excess of 10 feet; and (c) no existing slope faces, which have a slope face steeper than one unit vertical in 10 units horizontal, have a vertical height in excess of 10 feet.
- E. Interceptor Drains. Paved interceptor drains shall be installed along the top of all cut slopes where the

tributary drainage area above slopes toward the cut and has a drainage path greater than 40 feet measure horizontally. Interceptor drains shall be paved with a minimum of three inches of concrete or gunitite and reinforced. They shall have a minimum depth of 12 inches and a minimum paved width of 30 inches measured horizontally across the drain. The slope of the drain shall be approved by the building official.

16.152.140 Erosion Control.

A. Slopes. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection of the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the material, such protection may be omitted.

B. Other Devices. Where necessary, check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety.

16.152.150 Completion of Work.

Upon completion of the rough grading work and at the completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is performed for regular grading, as applicable:

A. An as-built grading plan prepared by the civil engineer retained to provide such services in accordance with Section 16.152.070 showing original ground surface elevations, as-graded ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and of the outlets of subsurface drains. As-constructed locations, elevations, and details of subsurface drains shall be shown as reported by the soils engineer.

Civil engineers shall state that to the best of their knowledge the work within the specified area of responsibility was done in accordance with the final approved grading plan.

B. A report prepared by a soils engineer retained to provide such services in accordance with Section 16.152.070, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on recommendations made in the approved soils engineering investigation report. Soils engineers shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions of this chapter.

View the [mobile version](#).



Grading, Fill, and Erosion Control Permit Application

City of Warrenton
 Planning and Building Department
 225 S. Main Ave • P.O. Box 250 • Warrenton, OR 97146
 Ph (503) 861-0920 • Fax (503) 861-2351
 Email: buildingclerk@ci.warrenton.or.us

DEPARTMENT USE ONLY	
Permit no.:	
Submittal Date:	
Permit Issue Date:	
DEVELOPMENT CLEARANCE	
<input type="checkbox"/> Public Works Approved	Date:
<input type="checkbox"/> Planning Approved	Date:
<input type="checkbox"/> Conditions of approval have been provided to applicant.	
<input type="checkbox"/> Development clearance not applicable for this permit.	

NOTICE: Applicant shall receive development clearance review approval from City of Warrenton Public Works, and Planning Departments prior to the initiation of Building Department review procedures. Any and all conditions of approval shall be noted on construction documents.

SITE INFORMATION	
Job Site Address:	
City/State/ZIP:	
Tax Map/ Tax Lot No.:	
<input type="checkbox"/> Single Lot	<input type="checkbox"/> Multiple Lots (Specify # of Lots):
Wetlands: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Floodplain: <input type="checkbox"/> Yes <input type="checkbox"/> No
Existing Site Use:	
Future Site Use:	
DESCRIPTION OF WORK	
APPLICANT INFORMATION	
Name:	
Mailing address:	
City/State/ZIP:	
Phone:	Mobile Phone:
Email:	
PROPERTY OWNER INFORMATION	
<input type="checkbox"/> Same as Applicant Information	
Name:	
Mailing address:	
City/State/ZIP:	
Phone:	Mobile Phone:
CONTRACTOR INFORMATION	
Business name:	
Address:	
City/State/ZIP:	
Phone:	Fax:
Email:	
CCB Lic. No.:	
City of Warrenton Business Lic. No.:	
CIVIL / GEOTECHNICAL ENGINEER	
Business name:	
Address:	
City/state/ZIP:	
Phone:	Fax:
Email:	

GRADING INFORMATION	
Excavation Total Volume (Cubic Yards):	
Excavation Max. Depth (Feet):	
Fill Total Volume (Cubic Yards):	
Fill Max. Depth (Feet):	
Total Disturbed Area (Square Feet):	
SITE CONDITIONS	
<input type="checkbox"/> Material removed or filled exceeding 50 cubic yards either imported, removed, or relocated on-site.	
<input type="checkbox"/> All grading-fill work in excess of 5,000 cubic yards shall have an approved grading plan prepared by a registered civil engineer.	
Property contains known or unknown wetlands, streams, riparian edge.	
<input type="checkbox"/> Contact Oregon Dept. of State Lands for additional information, including wetland determination forms, and delineation applications.	
<input type="checkbox"/> Wetland material removed requires a "Removal-Fill Permit" issued by Oregon Dept. of State Lands.	
<input type="checkbox"/> Area of 1 acre to less than 5 acres, DEQ 1200-C permit required.	
<input type="checkbox"/> Area of 5 acres or greater, DEQ 1200-C permit required.	
<input type="checkbox"/> Steep slopes within the disturbed area exceed (33%) 1-unit vertical in 3-units horizontal.	
<input type="checkbox"/> Retaining walls supporting slopes exceeding (33%), wall height exceeds 48-inches.	
<input type="checkbox"/> Roads and or culverts; new, realigned, or relocated for any proposed development	
<input type="checkbox"/> Commercial or Industrial site development	
PROJECT VALUATION	
<i>Permit fees are based on the value of the work performed. Indicate the value (rounded to the nearest hundred) of the equipment, materials, labor, overhead, and the profit for the work indicated on this application. Minimum Permit Fee:.....\$106.00</i>	
Valuation: \$	

DEPARTMENT USE ONLY	
(A) Valuation.....	\$
(B) Plan review 65%, if required (.65 x [A]).....	\$
(C) Investigation Fee, if applicable.....	\$
TOTAL fees and surcharges (A+B+C+D):	\$

MINIMUM REQUIRED SUBMITTAL DOCUMENTS

SITE PLAN (*drawn to appropriate scale, e.g 1"=10'*)

- The location of all property lines with dimensions in relation to site development.
- The names and locations of all internal or adjacent roadways and access easements.
- The location of existing and proposed structures, with full dimensions.
- The location of wetlands, lakes, rivers, streams, channels, ditches, dikes or other water courses on or near development site.
- The direction of surface water flow.

ERROSION CONTROL PLAN (*drawn to appropriate scale, e.g 1"=10'*)

- Show the location of existing vegetation adjacent to any watercourse.
- Show the areas where vegetative cover will be retained and the type and location of measures taken to protect vegetation from damage.
- Show areas where vegetative cover will be removed and the location of all temporary and permanent erosion control measures to be used including but not limited to: silt fencing, straw bales, graveling, mulching, seeding, and sodding.
- Show the type and location of proposed storm water management from roofs, parking and other impervious areas.
- Show any surface water diversion showing ground and surface water diverted to an alternate natural drainage path or a storm water conveyance system.
- Include an indication of slope steepness, by degree, percentage or ratio. Include gradient of surface water flow.
- Show the general topography (elevation of terrain) characteristics of surrounding property.
- Show location of the construction access driveway(s) and vehicle parking area(s). Provide BMP's at construction ingress/ egress (e.g. rock, shaker, plates, etc.)
- Show the location and size of soil/fill stockpiles.
- Show the location of existing and proposed structures, with location of roof down spouts and storm water drainage locations.

ERROSION CONTROL STATEMENT

- A schedule of land disturbance activities, project phasing, and the time frame for placement of both temporary and permanent erosion and sediment control measures.
- The name, address, and phone number of the person(s) responsible for placement, monitoring, and maintenance of the temporary and permanent erosion control measures.
- A statement signed by the property owner and building contractor/developer certifying that any land clearing, construction, or development involving the movement of earth shall conform to the plans as approved by the City of Warrenton Planning, Public Works, and Building Departments.

CONDITIONS OF APPROVAL

- **Work commencing prior to permit issuance is subject to fees in addition to the required permit fees.**
- **Work done without proper inspections will be subject to rejection.**
- **The proposed work shall not violate any recorded deed restrictions that may be attached to or imposed upon the subject property.**
- **Authorization of this permit shall be void after 180 days unless substantial construction or use pursuant thereto has taken place.**
- **This permit grants no rights to trespass on adjacent property and in no way relieves the owner of the property from liability for any damages caused by acts relative to this permit.**
- **The issuance of this permit shall not be construed as Building Department approval for associated new construction site plan or plot plan.**
- **Fire Department access to fire hydrants shall be maintained at all times.**
- **Public right-of-way shall not be in any way impeded, blocked, or temporary ramp(s) installed without proper permits and approvals granted. Please contact Public Works and or ODOT for right-of-way permit and other requirements.**
- **The applicant shall take care to avoid damage to subsurface and above ground utilities, and shall be responsible for repairs to utilities damaged by their actions.**
- **All erosion control measures must be installed and approved prior to beginning of any site work.**
- **It is the responsibility of the permit holder or authorized agent to schedule inspections.**

APPLICANT SIGNATURE

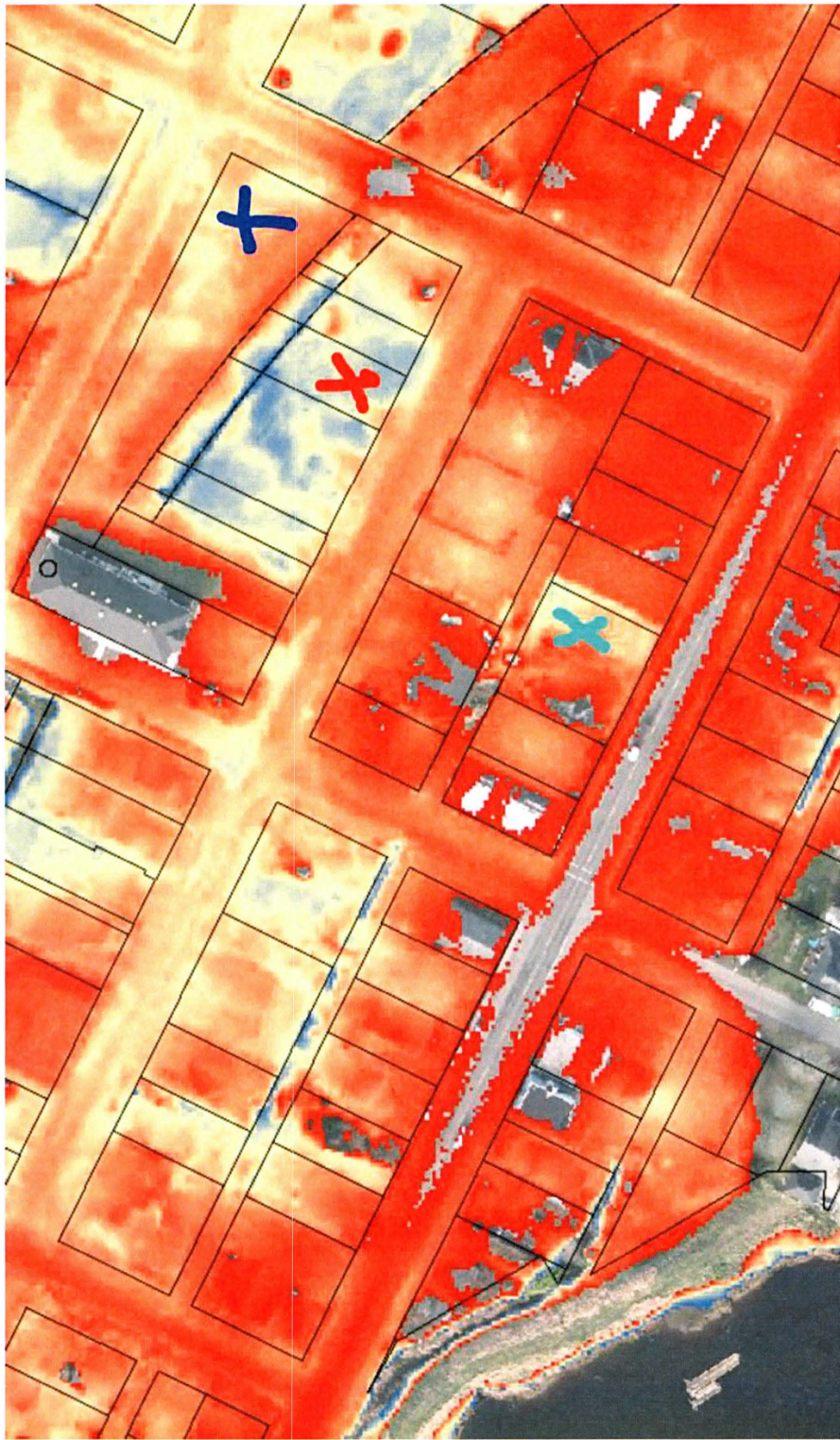
I hereby certify I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not.

Signature:

Date:

Print name:

*******Pre-work inspection is required prior to beginning of site-work. Final inspection is required upon completion of all site-work. Additional inspection may be required to determine compliance as requested by the Building Official.*******



Question and Answers/Solutions

Below are some general questions that have come up over the last month or two with some answers and proposed solutions:

Q1: A development brought in more material than was explained to the City or permitted?
What can we do now and in the future?
Solutions: - The City can Enforce a Stop-Work Order per WMC 16.16
- The City could require a Bond per WMC 16.152.090
- The City could require "engineered grading" for grading that is more than 10 cubic yards. Engineers that develop these plans are required to observe and review the establishment of line, grade, and surface drainage of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer. These engineers are also required to provide as-built plans that include the original ground surface.

Q2: What is the Penalty and Enforcement Process
Answer: - 16.16.30 Penalty - A person violating a provision of this Code shall, upon conviction, be subject to a fine of not less than \$100.00, nor more than \$1,000.00
- 16.16.070 Stop-Work Order Hearing –
 A. Community Development Director may order the work stopped by notice in writing
 B. The Community Development Director shall schedule a public hearing before the Planning Commission

Q3: Can the City remove an unpermitted fill?
Answer: - The City could remove unpermitted fill via abatement initiated by the Community Development Director.
 16.16.060 Abatement of Violations
 16.16.070 Stop-Work Order Hearing (Planning Commission)
 8.16.150 Notice of nuisance determination
 8.16.160 Notice to abate
 8.28.100 Failure to comply with enforcement
 8.16.190 Abatement by the City
- The City could streamline the process by changing the code to allow the City Manager to determine a nuisance instead of the requirement of the Planning Commission to determine that a nuisance exists.

Q4: A permit was not required for stockpiling of material? Is this appropriate and how is the City protected.
Solution: - The City could make the decision to not exempt stockpiling of materials from the requirement to obtain a grading permit.
- The City could then require a Bond and could also require an engineered grading plan.

Q5: Can we provide elevation hubs in neighborhoods with elevations that property owners are not allowed to grade above.

Answer: - This could be done. We would likely need to survey and study individual neighborhood areas and provide reports and calculations that justify the proposed elevations.
- Doing this wouldn't necessarily prevent negative impacts to localized drainages. You could still have a situation where very little fill was brought to the site, but drainage was still negatively impacted.

Q6: What can be done to reduce negative stormwater impact associated with a grading project?

Answer: - Reduce or eliminate fill volume
- Remove material from site that exceeds the proposed fill volume. Material to be removed needs to be in a location that will provide additional stormwater storage area on the site.
- Provide onsite stormwater detention and match post-development flows with pre-development flows.
- Reduce or eliminate impervious surfaces (driveway and roof)

Q7: Can the City develop a grading ordinance that is not too onerous but still protects the public?

Solution: Below is a brief outline of a Proposed Grading Code and associated Policy. The developer will also have the opportunity to request a variance.

Outline of Proposed Grading Code and Associated Policy

A. When is a Grading and Erosion Control Permit required?

Persons proposing to clear, grade, excavate, strip, or fill land (regulated activities) shall obtain a permit before commencing any of the following activities:

- 1 Any proposed clearing, grading, filling, stripping, or excavating (regulated activity) within 100 feet of a river, bay, stream, ditch, stormwater system, watercourse or wetland; or
- 2 Any proposed regulated activity located more than one hundred feet from a river, bay, stream, ditch, stormwater system, watercourse or wetland that exceeds an area of 2,000 square feet; or
- 3 The proposed cumulative volume of excavation and fill exceeds ten cubic yards in a 12-month period; or
- 4 Excavation or fill in excess of one (1) foot deep.

B. What activities are exempt from the Grading and Erosion Control Permit?

The following activities do not require a Grading and Erosion Control Permit:

- 1 Residential landscaping and gardening activities up to 1,000 square feet;
- 2 Forest management activities in an area zoned for forest management;
- 3 Utility construction by public or private utility agencies, involving less than 20 cubic yards of excavation or fill; and
- 4 Emergency repair work by a utility agency; after the emergency repairs are completed, the site shall be subject to the requirements of this ordinance.

C. What needs to be included in a Grading and Erosion Control Permit application?

INFORMATION REQUIRED FOR ALL PERMIT SUBMITTALS

- 1 Drawn to scale with dimensions, including north arrow
- 2 Property lines with dimensions, roads, areas where clearing, grading, excavating, stripping, or filling is to occur
- 3 Areas where existing vegetation cover will be retained
- 4 Locations of any springs, streams or wetland areas on or immediately adjacent to the property
- 5 General direction of slopes with slope arrows showing direction of water flow on existing slopes and graded slopes
- 6 Construction access location and size
- 7 Proposed development location, including dimensions to property lines
- 8 Stock pile(s) location and size
- 9 Setback from property boundary to proposed grading activity
- 10 Type and location of proposed erosion and sedimentation control measures, both short term and post construction
- 11 Type and location of proposed stormwater management from roofs, parking and other impervious areas
- 12 Surface water diversion showing ground and/or surface water diverted to an alternate natural drainage path or a stormwater conveyance system
- 13 Cross section including existing and proposed features, if required.

ADDITIONAL INFORMATION REQUIRED FOR SITES WITH DISTURBED AREAS >2,000 SQUARE FEET

- 14 Location of existing and proposed structures

- 15 Location of existing and proposed parking, access and egress
- 16 Location and square footage of proposed landscape areas

ADDITIONAL INFORMATION REQUIRED FOR SITES WITH MORE THAN 10 CUBIC YARDS, OR IN AN AREA WHERE PONDING OF STORMWATER HAS OCCURRED, OR PART OF A LAND PARTITION OR SUBDIVISION

- 17 Prepared by a Registered Professional Engineer
- 18 Existing and proposed contours at a min. of 1-foot interval
- 19 Location of existing structures and buildings, including those within 25 feet of the development site on adjacent property
- 20 Design details for proposed stormwater system
- 21 The direction of drainage flow, and details of all surface and subsurface drainage devices to be constructed
- 22 Stormwater Report prepared by a Registered Professional Engineer
- 23 Stormwater management system designed by a Registered Professional Engineer capable of meeting the requirements in the current version of the ODOT Hydraulics Manual

D. What needs to be included in a Stormwater Management Plan and Report

SITE ASSESSMENT

- 1 Topography
- 2 Soils and Seasonal High Groundwater
- 3 Infiltration Assessment
- 4 Hydrology – Site Conditions and Natural Features - Show natural and manmade drainage features
- 5 Downstream Conveyance Document the existing and proposed points of discharge for stormwater

CONVEYANCE SYSTEM DESIGN

- 6 Use the most current version of the ODOT Hydraulics Manual
- 7 A written downstream analysis shall document existing conditions and demonstrate adequate conveyance capacity of the natural and constructed drainage system downstream of the project site.
- 8 The downstream analysis shall extend to the distance where the project site contributes less than 15 percent of the cumulative tributary drainage area or 1,500 feet downstream of the approved point of discharge, whichever is greater. In capacity constrained areas, the City may extend the distance of the required downstream analysis.
- 9 When downstream drainage conveyance systems are inadequate or systems are determined to be undersized, or when, in the opinion of the City, property or properties may be adversely affected by the existing and/or proposed stormwater release rates, the applicant may provide additional onsite stormwater flow control measures to reduce contributions to the downstream system, or correct and/or improve downstream drainage conditions so that the proposed stormwater release rates do not have to be restricted further.
- 10 The applicant is responsible to replace, repair, upsize, construct, or reconstruct the downstream conveyance system to provide the capacity necessary to develop the property. The downstream conveyance system may include any open or closed public or private stormwater conveyance system.
- 11 Conveyance systems shall be designed and constructed to minimize downstream damage and erosion and to protect existing natural resources to the maximum extent practicable.
- 12 The site shall be planned and designed to conform generally to onsite natural drainage patterns and discharge to natural drainage paths within a drainage basin. These natural drainage paths

should be modified as necessary to contain and safely convey the peak flows generated by the development.

- 13 It shall be the responsibility of the owner to provide a conveyance drainage system for all stormwater runoff and/or surface water entering the property from offsite. Surface water, springs, and groundwater shall be incorporated into the drainage design.
- 14 An overland emergency flow path must be identified and/or designed that allows large flow events to discharge without risk of injury or property damage. The emergency overland flow path must be incorporated into the design and show how a 100-year flow event will be accommodated. The emergency flow shall not be allowed to flow through or inundate an existing building. Any emergency overflow structures shall be designed to accommodate the 100-year design storm.
- 15 The onsite conveyance system shall be designed to reduce blockages and minimize the likelihood of nuisance flooding or damage to neighboring properties.
- 16 Developments are required to convey upstream drainage through or around the development using an integrated approach that plans for future development impacts.

What can the City do to help?

- A. The City will develop a grading permit application with a checklist. (1 month)
- B. The City will develop an example grading plan and stormwater report. (3 months)
- C. The City will provide a link to the existing City Stormwater Master Plan that provides useful information needed to develop stormwater report.
<https://www.ci.warrenton.or.us/publicworks/page/storm-water-master-plan-2008>
- D. The City will provide a link to the City's current Engineering Design Standards
<https://www.ci.warrenton.or.us/publicworks/page/engineering-specifications-design-guide>
- E. The City will provide a link to the current ODOT Hydraulics Manual
<https://www.oregon.gov/ODOT/GeoEnvironmental/Pages/Hydraulics-Manual.aspx>
- F. The City will provide a list of engineers that may be able to complete this work.
- G. The City will provide the opportunity for all developments to attend a pre-application meeting where the City will provide any known specific stormwater concerns that will need to be addressed in a plan and report.
- H. Develop an overall interior drainage study – In process with \$200, 000 grant received from IFA (1.5 years)
- I. Develop and interior drainage study that notes neighborhood specific flooding (2-3 years, \$50k+ per area)
- J. Increase capacity of existing stormwater pump stations (2-5 years, \$1-3 million)
- K. Add additional stormwater pump stations (3-8 years, \$1-5 million)
- L. Continue with CIP listed in Stormwater Master Plan
 - a. Ditch Maintenance Permit
 - b. Downtown Conveyance Improvements (SW Alder Ave, SW 2nd Street, Harbor, etc.)
 - c. Pump Stations
- M. The City could develop stormwater storage banks on City property and possibly sell credits. This could be a program like wetland banks. (1-2 years, \$????)

Example 1

Red is Higher Ground, Blue is Lower Ground



Proposed Development:

Aplicant would like to build a new home and fill an area of 4,000 sqft. The proposed fill height 1.5 feet to elevation 9' NAVD.

Known Property Information

Ponding is known to take place on this property
Drainage ditch is located in back yard of property

Proposed Requirements:

Grading and Erosion Control Permit is required. The grading plan will need to be prepared by a registered engineer. In addition, a stormwater report will need to be prepared by a registered engineer.

Likely Conclusion of Stormwater Report

- Downstream analysis might determine ditches and conduit are adequately sized for this project, but the stormwater pump station is undersized.
- Ponding on property takes place when stormwater pump station is not able to keep up with volume of water.
- This property is temporarily storing stormwater until the stormwater station pump can reduce water levels, or the tidegate opens and drains the drainage area.
- Filling this area could cause increased water elevations adjacent to this fill property.

Possible Solutions to Develop this Property

- Provide equal cuts and fills on property or hydraulically adjacent properties.
- Widen drainage ditches to provide equal storage volumes.
- Increase pumping capacity of stormwater pump station.

Example 2

Red is Higher Ground, Blue is Lower Ground



Proposed Development:

Aplicant would like to build a new home and fill an area of 4,000 sqft. The proposed fill height 0.5 feet to elevation 9' NAVD.

Known Property Information

Minor small ponding is known to take place on this property
Drainage ditch is located in back yard of property

Proposed Requirements:

Grading and Erosion Control Permit is required. The grading plan will need to be prepared by a registered engineer. In addition, a stormwater report will need to be prepared by a registered engineer.

Likely Conclusion of Stormwater Report

- Downstream analysis might determine ditches and conduit are adequately sized for this project, but the stormwater pump station is undersized.
- Ponding on property take place because local low spots that are not directly connected to a stormwater system
- This property is temporarily storing stormwater until the small ponding areas rise high enough to drain into stormwater system.
- Filling this area is not likely to cause increased water elevations adjacent to this fill property.

Possible Solutions to Develop this Property

- Don't fill low spots on property
- Provide equal cuts and fills on property or hydraulically adjacent properties.
- Widen drainage ditches to provide equal storage volumes.

Example 3

Red is Higher Ground, Blue is Lower Ground



Proposed Development:

Aplicant would like to build a new home and fill an area of 4,000 sqft. The proposed fill height 1.0 feet to elevation 9' NAVD.

Known Property Information

No known ponding takes place on this property

Drainage system and catch basin is located in back yard of property

Proposed Requirements:

Grading and Erosion Control Permit is required. The grading plan will need to be prepared by a registered engineer. In addition, a stormwater report will need to prepared by a registered engineer.

Likely Conclusion of Stormwater Report

- No known concerns on this property

Possible Solutions to Develop this Property

- Developer could provide a variance request to the City that details the reasons why a stormwater report may not be necessary for this development
- A standard grading plan will still be required (Items 1-16)

Question and Answers/Solutions

Below are some general questions that have come up over the last month or two with some answers and proposed solutions:

Q1: A development brought in more material than was explained to the City or permitted?
What can we do now and in the future?

Solutions:

- The City can Enforce a Stop-Work Order per WMC 16.16
- The City could require a Bond per WMC 16.152.090
- The City could require “engineered grading” for grading that is less than 5,000 cubic yards. Engineers that develop these plans are required to observe and review the establishment of line, grade, and surface drainage of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer. These engineers are also required to provide as-built plans that includes the original ground surface.

Q2: What is the Penalty and Enforcement Process

Answer:

- 16.16.30 Penalty - A person violating a provision of this Code shall, upon conviction, be subject to a fine of not less than \$100.00, nor more than \$1,000.00
- 16.16.070 Stop-Work Order Hearing –
 - A. Community Development Director may order the work stopped by notice in writing
 - B. The Community Development Director shall schedule a public hearing before the Planning Commission

Q3: Can the City remove an unpermitted fill?

Answer:

- The City could remove unpermitted fill via abatement initiated by the Community Development Director.
 - 16.16.060 Abatement of Violations
 - 16.16.070 Stop-Work Order Hearing (Planning Commission)
 - 8.16.150 Notice of nuisance determination
 - 8.16.160 Notice to abate
 - 8.28.100 Failure to comply with enforcement
 - 8.16.190 Abatement by the City
- The City could streamline the process by changing the code to allow the City Manager to determine a nuisance instead of the requirement of the Planning Commission to determine that a nuisance exists.

Q4: A permit was not required for stockpiling of material? Is this appropriate and how is the City protected.

Solution:

- The City could make the decision to not exempt stockpiling of materials from the requirement to obtain a grading permit.
- The City could then require a Bond and could also require an engineered grading plan.

Q5: Can we provide elevation hubs in neighborhoods with elevations that property owners are not allowed to grade above.

Answer:

- This could be done. We would likely need to survey and study individual neighborhood areas and provide reports and calculations that justify the proposed elevations.
- Doing this wouldn't necessarily prevent negative impacts to localized drainages. You could still have a situation where very little fill was brought to the site, but drainage was still negatively impacted.

Q6: What can be done to reduce negative stormwater impact associated with a grading project?

Answer:

- Reduce or eliminate fill volume
- Remove material from site that exceeds the proposed fill volume. Material to be removed needs to be in a location that will provide additional stormwater storage area on the site.
- Provide onsite stormwater detention and match post-development flows with pre-development flows.
- Reduce or eliminate impervious surfaces (driveway and roof)

Q7: Can the City develop a grading ordinance that is not too onerous but still protects the public?

Solution: Below is a brief outline of a Proposed Grading Code and Policy. The developer will also have the opportunity to request a variance.

Outline of Proposed Grading Code and Associated Policy

A. When is a Grading and Erosion Control Permit required?

Persons proposing to clear, grade, excavate, strip, or fill land (regulated activities) shall obtain a permit before commencing any of the following activities:

- 1 Any proposed clearing, grading, filling, stripping, or excavating (regulated activity) within 100 feet of a river, bay, stream, ditch, stormwater system, watercourse or wetland; or
- 2 Any proposed regulated activity located more than one hundred feet from a river, bay, stream, ditch, stormwater system, watercourse or wetland that exceeds an area of 2,000 square feet; or
- 3 Any proposed clearing, grading, filling, stripping, or excavating (regulated activity) if any portion of the site has a slope of 35% or greater; or
- 4 The proposed cumulative volume of excavation and fill exceeds ten cubic yards in a 12-month period; or
- 5 Excavation or fill in excess of one (1) foot deep.

B. What activities are exempt from the Grading and Erosion Control Permit?

The following activities do not require a Grading and Erosion Control Permit:

- 1 Residential landscaping and gardening activities up to 1,000 square feet;
- 2 Forest management activities in an area zoned for forest management;
- 3 Utility construction by public or private utility agencies, involving less than 20 cubic yards of excavation or fill; and
- 4 Emergency repair work by a utility agency; after the emergency repairs are completed, the site shall be subject to the requirements of this ordinance.

C. What needs to be included in a Grading and Erosion Control Permit application?

INFORMATION REQUIRED FOR ALL PERMIT SUBMITTALS

- 1 Drawn to scale with dimensions, including north arrow
- 2 Property lines with dimensions, roads, areas where clearing, grading, excavating, stripping, or filling is to occur
- 3 Areas where existing vegetation cover will be retained
- 4 Locations of any springs, streams or wetland areas on or immediately adjacent to the property
- 5 General direction of slopes with slope arrows showing direction of water flow on existing slopes and graded slopes
- 6 Construction access location and size
- 7 Proposed development location, including dimensions to property lines
- 8 Stock pile(s) location and size
- 9 Setback from property boundary to proposed grading activity
- 10 Type and location of proposed erosion and sedimentation control measures, both short term and post construction
- 11 Type and location of proposed stormwater management from roofs, parking and other impervious areas
- 12 Surface water diversion showing ground and/or surface water diverted to an alternate natural drainage path or a stormwater conveyance system
- 13 Cross section including existing and proposed features, if required.

ADDITIONAL INFORMATION REQUIRED FOR SITES WITH DISTURBED AREAS >2,000 SQUARE FEET

- 14 Location of existing and proposed structures
- 15 Location of existing and proposed parking, access and egress
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Likely Conclusion of Stormwater Report

Possible Solutions to Develop this Property