



## Coordinated Civil Review (CCR) CLEAR AND GRADE INTAKE INSTRUCTION & CHECKLIST

Project Name: \_\_\_\_\_ CIVPLAN \_\_\_\_\_

City Project Lead: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Design Engineer: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

**Note:** Applicant should contact appropriate City staff, prior to submission, if there are any questions regarding submittal requirements. This checklist covers a wide range of potential projects, not all checklist items may apply to your project. Also, your project may require items not included in this checklist.

The standard process for City of Redmond permit work is to submit all materials electronically. Applicants who do not have access to a computer or do not feel they have sufficient training to follow the electronic submittal process may bring paper materials to the Development Services counter, second-floor, Redmond City Hall for assistance.

**Clear and Grade Permit Application materials are expected to be submitted electronically. Electronic plans that do not meet the following requirements will be deemed incomplete and will not be reviewed until complete. The applicant MUST upload the following plans and supporting documents through [E-Track Portal](#). Please see the Electronic Plan Review - Uploading Submittal Materials and Viewing Issues Matrix & Marked Up Drawings handout.**

### A. File Naming Standards:

Indicate the naming convention for each drawing in the construction set in which the particular submittal must be named. For example, **ccr\_grading.pdf** to include all plan sheets related to Clear and Grade within the PDF, and each sheet should also be named according to their titles, examples can be found on the City of Redmond website [Permit Forms A-Z](#) named **Engineering Plan Naming Conventions**.

### B. Plan Sheet Standards:

All plans must be drawn to scale, as specifically identified in the checklist, and each sheet shall state the scale.

### C. Acceptable File Types:

All checklist items shall be submitted in an electronic form (i.e. Flash Drive or CD). If submitting a CD, the CD should be permanently be marked with the Project Name and submission date.

**Plans:** Plans must be submitted in a PDF format.

**Documents:** Calculations, reports and other supporting documents (non-drawing files) must be

### D. Plan Orientation:

All plans must be uploaded in “landscape” format in the horizontal position.

- One electronic set of the civil drawings & landscape plans
- One hard copy set of the civil drawings & landscape plans
- One electronic copy of complete drainage computations
- One electronic copy of the SWPPP
- One electronic copy of any other specific studies or calculations
- One electronic copy of this checklist with your (the applicant's) annotations
- One electronic copy of the City's Land Use Entitlement approval letter
- One copy of Project Construction Cost Estimate separated between:
  - Work in the right of way and/or an existing city easement(s)
  - Work on the project site
- One (1) composite AutoCAD or Microstation file of the preliminary site plan in a CD (this is a single composite file with no external reference files, and it must be geo-referenced in WASHINGTON STATE PLANE NORTH, NAD 83 (91-HARN) projection system.
- One draft of each required easement and/or right of way dedication, which shall include (Note: this **DOES NOT apply** to plats, short plats or BSPs):
  - Index Cover Sheet
  - Conveyance Document (contact reviewer for appropriate template)
  - Signature Page
  - Legal Description (Exhibit A)
  - Map (Exhibit B)
  - [Easements and Dedications Process Overview](#)

Review Notes: [ ] = Reference: Redmond Zoning Code

**GENERAL DRAWING FORMAT AND CONTENT**

*Point of Contact: Andy Chow (425-556-2740)*

\_\_\_\_\_ Cover Sheet

- Vicinity Map - showing the general location of the project.
- Tax Parcel/Plat Number
- Legal Description

\_\_\_\_\_ Title Block/Drawing Title

- Issue or Revision Date
- Section, Township and Range.
- [Record Drawing Requirements and Digital Checklist](#)

- Project Name
- Engineer Information - Company name, address, phone, contact name and contact email.
- Owner Information - name, address, phone and contact.

\_\_\_\_\_ City Approval Block - must be on every sheet at lower right hand corner.

\_\_\_\_\_ Each sheet contains: THIS DEVELOPMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE XXXX (edition in affect in the year the project was vested) CITY OF REDMOND STANDARD SPECIFICATIONS AND DETAILS.

\_\_\_\_\_ Horizontal Scale (applies to Civil, Fire and Landscape plans) - 1" = 20'.

\_\_\_\_\_ Vertical Scale - 1" = 5'.

\_\_\_\_\_ Vertical Datum (NAVD 88) – tie to minimum of two (2) C.O.R. benchmarks.

\_\_\_\_\_ Horizontal Control – tie to minimum of two (2) C.O.R. horizontal control monuments

\_\_\_\_\_ Horizontal coordinates (NAD 83 (91-HARN) on at least two (2) exterior lot/boundary corners must be shown.

Note: Electronic files must also be tied to Redmond’s coordinate system.

\_\_\_\_\_ North Arrow & Scale Bar – North should be oriented to top or right side of sheets.

\_\_\_\_\_ Drawing Layout - shall be laid out to afford the maximum understanding possible.

\_\_\_\_\_ Engineer Stamp, signed and dated, consistently with issued or revised date.

\_\_\_\_\_ Legend - identify line types and symbols used.

\_\_\_\_\_ Property Data - parcel numbers, lot numbers, plat names, and street names.

\_\_\_\_\_ Phased Project Drawings - depict all construction necessary to complete the phase (each phase shall be independently approved).

**GENERAL SITE PLAN (All Proposed Info. must be distinguished from Existing Info.)**

\_\_\_\_\_ Property Lines - including bearings and distances.

\_\_\_\_\_ Right of Way centerline - including bearings and distances.

\_\_\_\_\_ Lot Numbers.

\_\_\_\_\_ Site Area - shown in square feet and acres.

\_\_\_\_\_ Streets - edge of pavement or curb and sidewalk, centerline, and name shown.

\_\_\_\_\_ Contours - (dashed lines for existing and solid lines for proposed) 1 or 2 foot interval (slopes 40% or greater may be shown with 5 foot contours).

\_\_\_\_\_ Onsite Features - easements, buffers, +40% slopes, etc., including all critical areas and their associated buffers

\_\_\_\_\_ Offsite Information - all features within offsite areas that drain onsite, and all information within 20 feet of all property lines.

\_\_\_\_\_ Utilities (water, sewer, telephone, cable television, gas, power, etc.) shown on the plan.

\_\_\_\_\_ All Utility Easements shown with dimensions labeled.

\_\_\_\_\_ Setbacks and Buffers

Building

From Critical Areas as defined in RZC (in accordance with geo-technical recommendations).

\_\_\_\_\_ Parcel Information – Area (s.f.), existing, proposed, and total onsite impervious area, and water quality and quantity design storms and facilities proposed for quantity and quality control.

\_\_\_\_\_ Landscape Plan to be consistent with Civil Site Plan.

\_\_\_\_\_ Garbage and recycling receptacle enclosure details and locations shall be approved by Waste Management Company prior to the issuance construction approval. Show proposed location on plans.

- Section, Township and Range.
- Project Name
- Engineer Information - Company name, address, phone, contact name and contact email.
- Owner Information - name, address, phone and contact.

**CLEARING, GRADING & STORMWATER MANAGEMENT**  
**POINT OF CONTACT: ASSIGNED ENGINEER (425) 556-2890 OR 2758**

**REDMOND ZONING CODE**

Plans shall conform to Title 15 of the Redmond Municipal Code. The general headings listed below are commonly required for Clear & Grade projects.

**Erosion and Sediment Control, (Surface Water Pollution Prevention Plan)**

- Stabilization of Disturbed Areas
- Protection of Adjacent Properties
- Control of Pollutants other than Sediment on Construction Sites
- Source Control of Pollution
- Controlling Off-Site Erosion
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**Accurate Description of Work Area**

**Identification of Easements**

**Identification of Critical Areas and Associated Buffers**

**Standard Notes found in Appendix I of Stormwater Technical Notebook**

**Drainage Facilities**

- Water Quality Control
- Water Quantity Control

**Easements**

- Storm Drainage
- Utility (combined)

**MINIMUM DESIGN REQUIREMENTS, CLEARING, GRADING & TESC**

Plans shall conform to the **Minimum Design Requirements** identified in the Stormwater Technical Notebook.

\_\_\_\_\_ Project Construction Stormwater Pollution Prevention Plan

\_\_\_\_\_ Fully Identify Work - clearing and grading limits shown, with stockpile/staging areas and sequence of construction

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- \_\_\_\_\_ Disturbed Area - in acres must be shown on the clearing and grading plans
  - \_\_\_\_\_ Limits of Clearing - fenced with 42" orange safety fence or approved filter fence
  - \_\_\_\_\_ Trees to Remain - shall be shown with the dripline designated (must have protective fencing at five feet (5') beyond the dripline if adjacent to cleared areas) - no grading or filling permitted within the dripline. Show pertinent information within 50' of clearing.
  - \_\_\_\_\_ Show all clearing and grading required for critical areas mitigation
  - \_\_\_\_\_ Buffer of Critical Areas
  - \_\_\_\_\_ Steep Slope Setback
  - \_\_\_\_\_ Grades - show existing and proposed contours
  - \_\_\_\_\_ Cut/Fill - shall not exceed 8'
  - \_\_\_\_\_ Stabilization of Disturbed Areas
  - \_\_\_\_\_ Stockpile location and ground slopes
  - \_\_\_\_\_ Estimate of Earthwork Quantities
  - \_\_\_\_\_ Timing and Stabilization of Sediment Trapping Measures
  - \_\_\_\_\_ Filter Fabric Fence [COR Std 502] (no straw bale permitted - must use silt fence)
  - \_\_\_\_\_ Construction Entrance [COR Std 503 or 503A]
  - \_\_\_\_\_ pH sampling for projects including over 40 cubic yards of poured or recycled concrete.
  - \_\_\_\_\_ pH mitigation BMP as required
  - \_\_\_\_\_ Clean Water Diversion - areas onsite and offsite that are not disturbed must be diverted away from disturbed areas.
  - \_\_\_\_\_ Stabilization of Temporary Conveyance Channels and Outlets – no erosion for 10-year/24-hour storm, or for continuous models. 10-year, 1 hour peak with 1.6 factor of safety per SWPPP element #8.
  - \_\_\_\_\_ Storm Drain Inlet Protection – inlet protection must be provided for all storm drain inlets within the construction vicinity
  - \_\_\_\_\_ Temporary Swales and/or Trenches - show shape, dimensions, spot elevations every 50', drainage area, channel stabilization treatment type and computations of flow and velocity (cannot exceed 4 fps without rip-rap lining) [COR Std 504].
  - \_\_\_\_\_ Check Dams - show detail, dimensions and quantity of rock protection. No straw bales allowed.
  - \_\_\_\_\_ Temporary Culverts - show drainage area, 1' minimum cover, type of pipe, length and diameter, and slope.
  - \_\_\_\_\_ Temporary Sediment Pond(s) - show size, bottom elevation, top elevation, cleanout elevation, outlet protection, drainage area, volume required, volume provided, cross-section through the dam, profile through the pond and spillway. Not allowed near future infiltration sites.
  - \_\_\_\_\_ Rip-rap Outlet Protection - show size of stone, quantity and stabilization fabric under stone [COR Std 620].
  - \_\_\_\_\_ Maximum open trench length = 300'
  - \_\_\_\_\_ Construction Access Routes
  - \_\_\_\_\_ Note concerning Removal of Temporary BMPs upon completion of project
  - \_\_\_\_\_ Preservation of Natural Drainage Systems

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## CONVEYANCE SYSTEM

- \_\_\_\_\_ Storm Drain Computations - rational method may be used for pipe sizing. Include: "C" factor determination, time of concentration determination and flow calculations.
- \_\_\_\_\_ Storm Pipe Slope - 0.25% minimum and 20% maximum
- \_\_\_\_\_ Hydraulic Grade Line Computations – hgl for 10 year must be 1' below overflow condition (allowances may be made near detention system or large bodies of water surcharge).
- \_\_\_\_\_ Downstream Analysis - provide storm drain computations and hydraulic grade line computations for existing storm drainage systems which are being revised by changes to the drainage area or system expansion.
- \_\_\_\_\_ Information presented in the calculations is consistent with plan.
- \_\_\_\_\_ Maintenance access to all catch basins and drainage structures has been provided. Extreme cases may be waived by the Stormwater Engineer.
- \_\_\_\_\_ Roof drain stubs should cross sidewalk at close to a 90 degree angle.

## STORMWATER MANAGEMENT PLAN

- \_\_\_\_\_ Minimum Pipe Size - 12" minimum for public storm drain systems and 6" minimum for private systems.
- \_\_\_\_\_ Pipe Data - pipe size, length, slope, and material labeled
- \_\_\_\_\_ Horizontal Clearance - 5' from all other utilities and structures, and 8' from trees (street trees may be 3' minimum with root barrier).
- \_\_\_\_\_ Vertical Clearance - 1' from other utilities - 18" for sewer with storm above sewer
- \_\_\_\_\_ Rockeries/Retaining Walls - shall not cross or be near storm drain pipes. Exceptions shall only be approved where no alternatives exist. Any crossing of a wall shall be perpendicular to the wall and special construction techniques including steel casings may be required. No rockeries allowed over roof or footing drains
- \_\_\_\_\_ Structure Data - structure number, structure type and/or size, type of cover, rim elevation, and all pipe inverts labeled
- \_\_\_\_\_ Structure Spacing - 350' preferred (400' may be allowed)
- \_\_\_\_\_ Easements – shown with dimensions labeled - 20' minimum public easement width - no obstructions allowed in easements
- \_\_\_\_\_ Drains Behind Sidewalk - required in all cut situations and at the base of slopes
- \_\_\_\_\_ Cleanouts Spacing - to be at bends, end of lines and at 100' o.c. (required in all cut situations and at the base of slopes)

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- \_\_\_\_\_ Cleanouts Specifications - shall be specified with Carson boxes or equal with ungasketted caps in soft area and traffic bearing in paved areas [COR Std 621].
  - \_\_\_\_\_ Footing/Foundation Drains - including pipe size, material, and cleanouts shall be connected to the storm drain system (shown as stubbed to lots only for plats).
  - \_\_\_\_\_ Roof Drains - including pipe size, material, and cleanouts shall be connected to the stormdrain system (shown as stubbed to lots only for plats) 6" minimum
  - \_\_\_\_\_ Footing/Foundation Drains and Roof Drains - shall be connected at a structure only (private onsite structure or at the street).
  - \_\_\_\_\_ 3' Paved Area - around roof drain cleanout or catch basin Type 1A required
  - \_\_\_\_\_ Tracer Wire – must be shown on roof drains from the building to the property line.
  - \_\_\_\_\_ OuVall Protection - sized for 10-year storm (unless otherwise specified by Development Services Division); provide: type, size dimensions and quantity of stone. Stone must be laid on approved filter fabric. Maximum allowable discharge velocity to rock outlet is 10 fps without special design [COR Std 620].

### **PROFILES (Required for Public System)**

- \_\_\_\_\_ Profile - pipes and structures
- \_\_\_\_\_ Other Utilities - labeled and designate size and type
- \_\_\_\_\_ Profile grades - show and label existing and proposed grades
- \_\_\_\_\_ Pipe Cover - 18" minimum
- \_\_\_\_\_ Pipe Profile Information - show invert and top of pipe, pipe size, pipe material, and design slope.
- \_\_\_\_\_ Drop structures only allowed per approval of Stormwater Engineer
- \_\_\_\_\_ Grates: - through-curb inlets at sag curves, possible bypass points and every third inlet; Vaned Grates on Slopes > 5%; Herringbone otherwise.
- \_\_\_\_\_ Utility Crossings - all crossings must be shown, label utility type, line size, invert of utility and storm lines and clearance between pipes (1' minimum vertical clearance and 30 degrees minimum crossing angle).
- \_\_\_\_\_ Structure Profile Information - label type of structure, structure number, size, and pipe inverts
- \_\_\_\_\_ Berm Section - in accordance with geotechnical recommendation for open ponds
- \_\_\_\_\_ Public Storm Structure – with 5' or greater from the top to the invert must be Type II catch basin - 5' for private structure - see Standard detail Plan B-5.20-00.
- \_\_\_\_\_ Type III catch basin required for structures with bottoms between 12' and 25'. See Standard Detail Plan B-15.60-00.



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## INFILTRATION

- \_\_\_\_\_ Soil Permeability Tests or Gradation per DOE - two (2) tests minimum or one (1) for every 5000 s.f. of infiltration system bottom area. Test location must be no more than 20' from the final location of the infiltration system. Note on plans - to be verified by field observation.
- \_\_\_\_\_ Soil Test - must be taken at the proposed bottom of infiltration system.
- \_\_\_\_\_ Excavation or Boring - is required in the trench area to a minimum depth of 4' below the proposed bottom of the trench. Infiltration not feasible if evidence of ground water or bedrock/hard pan.
- \_\_\_\_\_ Infiltration Bed - all infiltration system should be a minimum of 3' above the seasonal high water mark, bedrock, hardpan and impermeable layer.
- \_\_\_\_\_ Setbacks
  - \_\_\_\_\_ Minimum 200' from drinking water wells and springs, septic tanks and drain fields
  - \_\_\_\_\_ Minimum 20' down slope and 100' up slope of building foundations
  - \_\_\_\_\_ Minimum 10' from and NGPE and property line
- \_\_\_\_\_ Down Spout Infiltration System - shall be designed with overall project for typical lot with individual homes.
- \_\_\_\_\_ Maximum Drainage Area
  - \_\_\_\_\_ Down Spout Infiltration Systems - 5000 s.f.
  - \_\_\_\_\_ Infiltration Basin - 50 acres
- \_\_\_\_\_ Infiltration Trench - 15 acres Infiltration System Location - may not be located in an area previously used as a sediment trap.
- \_\_\_\_\_ Inflow to an Infiltration System - must first pass through a pre-settling BMP or a biofilter. Disturbed areas shall not drain to the infiltration system.
- \_\_\_\_\_ Add the following note to the plan: "The contractor shall construct infiltration systems only after the entire area draining to it has been stabilized".
- \_\_\_\_\_ Filter fabric is required on all sides, top and bottom of infiltration trenches.
- \_\_\_\_\_ Maximum Trench Length - 100'