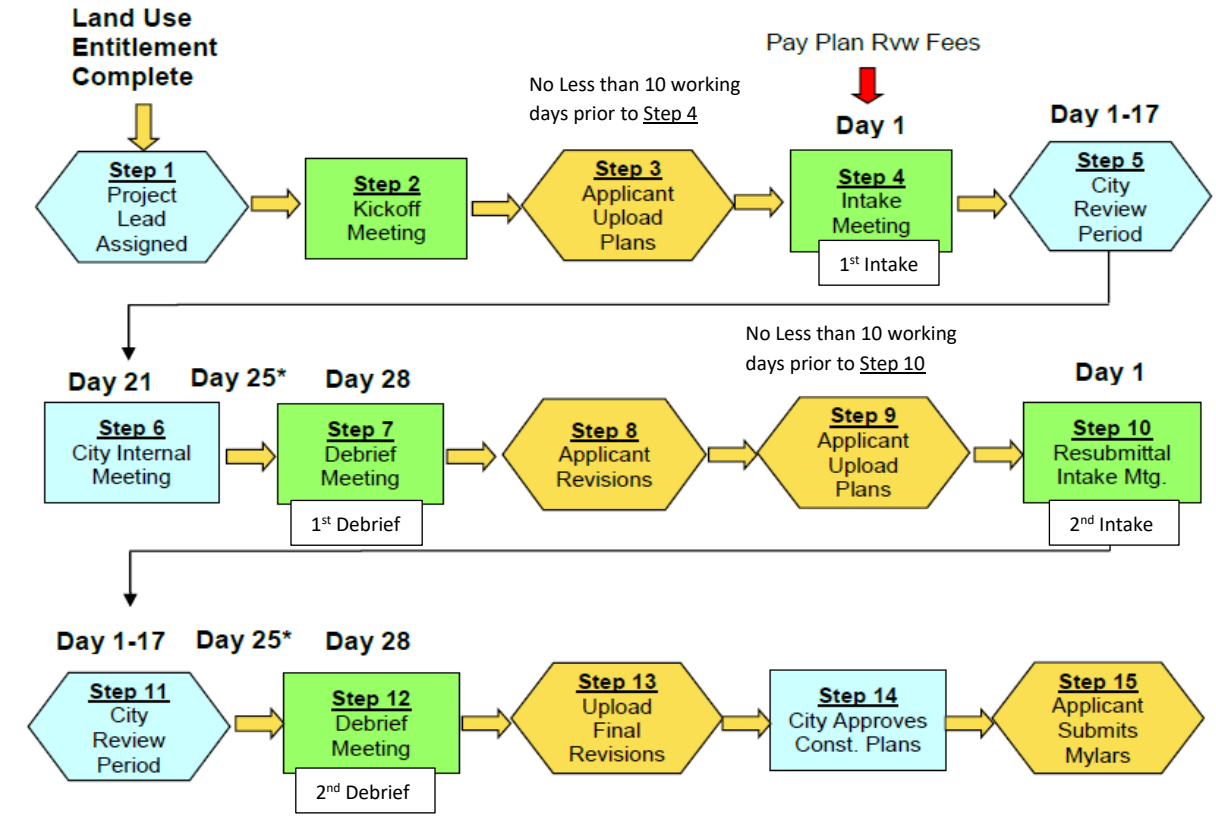
DEVELOPMENT ENGINEERING DIVISION
COORDINATED CIVIL REVIEW (CCR) Process & Intake Checklist

Included in this packet:

Section 1: CCR Flow Chart and Objectives



- Approve compliant civil drawings that satisfy conditions of Land Use Approval letter
- Ensure that you, the applicant, have a clear understanding of the City's expectations for civil drawings in general and specific approval conditions
- Provide an opportunity for you to reach agreement with the City on Civil sheet layout prior to the 1st Intake Meeting
- Reduce the number of review cycles needed to reach civil drawing approval to two review
- Provide a predictable review schedule

Note:

Completion within two review cycles is dependent on the applicant's responsiveness to City review comments. The established timelines do not account for unintended findings, deviation requests and review time, or omissions which may delay the CCR process.

Section 2: CCR Process Steps 1-15

STEP 1: APPLICATION

When you are ready to begin the Coordinated Civil Review (CCR) process, please submit the CCR-General Application form to the Development Engineering Division by clicking the EMAIL button in the upper right corner of the application. An Engineer from the City's Development Engineering Division will be assigned as the City's Project Lead for coordinating your civil review across City departments to the end of construction Mylar approval. Once the application has been processed an email notification will be sent to the applicant with the Civil Plan Case number (i.e. CIVPLAN-xxxx-xxxx) and the assigned Civil Project Lead.

Please see the E-Track Portal webpage (www.redmond.gov/e-track) for more information about user registration and electronic submittals.

STEP 2: KICK-OFF MEETING

The applicant will contact the Project Lead to arrange a kickoff meeting for civil drawing review. This one-hour kickoff meeting includes you (applicant and applicant's design team) and the City's team that will review your plans (utilities, stormwater, fire, transportation, construction inspection, and planning). At the meeting we will discuss conditions of approval for your project and we will explain the City's CCR Intake Checklist and how you upload electronic plans for review. Your team is encouraged to ask clarifying questions at this time and present any design concepts that you would like City feedback on. After the meeting, you are encouraged to contact the City's team for clarifying information while preparing for submittal.

Any deviation requests, which have not been addressed during the Land Use Approval process, should be identified at this time or prior to uploading plans. Unresolved design issues or non-compliance with regulations will jeopardize the success of the meeting. For more information go to Administrative Engineering Deviation Process.

STEP 3: PLAN SUBMITTAL & COMPLETENESS CHECK

At least 10 working days before the scheduled Intake Meeting the applicant must upload 100% construction-ready plans (including Landscape), stamped by a registered professional, to the e-Review Portal (http://land.redmond.gov/eReviewPortal). For plan uploading instructions see Section 4 of this document. If the plans are not uploaded **10 working days prior to the Intake** Meeting the meeting will be rescheduled for a later date. During the 10 working day completeness check the City staff will verify if your submittal is complete and includes all items.

Please refer to the Intake Meeting Document Upload List in Section 6 for required submittal items. All uploaded documents must follow the **Development Engineering Plan Naming Conventions** as shown in Section 5 of this document. Plans that are not named properly and/or uploaded incorrectly may be rejected at Intake.

If there are any questions regarding submittal requirements, you should contact appropriate City staff, **prior to submission.** Marking a checklist item as "Not Applicable" or "N/A" without first speaking with staff **will likely result in the submittal being rejected**. The Intake Meeting will be rescheduled for a later date if the plans are not uploaded 10 working days prior to the meeting or if the submittal is deemed incomplete.

STEP 4: INTAKE MEETING

At the Intake Meeting, the City's reviewers use the CCR Intake Checklist and project specific conditions identified in the Land Use Approval Letter to confirm that all required plans and documents are complete. With a successful and complete Intake, the ***first review*** has begun based on the CCR Process Flow Chart.

Note:

- Plan review fees (and peer review fees if applicable) **are to be paid prior to the City commencing the Intake Meeting**. Please work with your Project Lead to determine your plan review fees.
- Significant changes or additional review cycles during the CCR process may result in adjustments to the review fees.

Submit the following at the first Intake meeting:

- ☐ Two full size 22"x34" complete paper sets
- ☐ Two half size 11"x17" complete paper sets
- ☐ One complete Stormwater Report
- ☐ GIS Review package (see GIS Submittal Requirements below)

GIS - SUBMITALL REQUIREMENTS:

GIS will do a preliminary review of the CAD file and Civil Drawings during the First Intake Meeting (Step 4) and then again at Mylar submittal (Step 15). The review at Mylars will not hold up your project.

All project CAD files must be drawn to meet the Record Drawing Requirements found on the City of Redmond webpage under Permit Forms A-Z named Record Drawing Requirements and Digital Checklist.

GIS Review Package shall be submitted **at FIRST Intake Meeting and at Mylars**:

- ☐ One completed "Digital Construction Drawing Submittal Checklist" found in Section 3 of this document
- ☐ One complete set of electronic plans uploaded to the e-Review portal named as **"CCR_GIS_YEAR_MM_DD.pdf"**
- ☐ One CD or thumb drive with single composite DWG file (AutoCAD 2014 file format or earlier) **(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)**

STEP 5: CITY REVIEW PERIOD

Once the checklist is satisfied, the City reviewers will evaluate your plans for compliance with development standards and satisfaction of Land Use Approval conditions. Each reviewer will red-line the plans and document the comments on the consolidated Issues Matrix. The Issues Matrix will be emailed to the Applicant by the Project Lead and the red-lined plans will be available through the e-Review Portal on Day 25.

The ability to access the plans will occur no later than Day 25, thus allowing you time to consider the comments and formulate any questions or proposed solutions prior to the Debrief Meeting.

STEP 6: CITY INTERNAL MEETING

The Project Lead reviews all comments made and checks for potential conflicts between reviewers. If conflicts are noted, an internal staff meeting is held to resolve them.

STEP 7: DEBRIEF MEETING

At Day 28, the Debriefing Meeting is held between the Applicant's design team and City reviewers. City reviewers provide a brief overview of their comments, noting the items of most significance, and respond to your questions or ideas. Any comment resolutions reached during the meeting are documented on the Issues Matrix.

STEP 8: APPLICANT REVISIONS

The Applicant revises plans, responding in full to all required comments documented in the Issues Matrix. The Applicant must provide a complete response to each comment indicated with a **"C" (for correction**) in the "Response" column of the Issues Matrix. Each response should include justification and the page/sheet number of the update (if applicable). **Comments marked with "R" (for recommendation)** are advisory in nature and are **not** required changes for plan approval. The Applicant may contact any of the reviewers with questions or discussion on design approach. It is highly recommended to contact individual reviewers if you have questions or are uncertain of adequately addressing any comments.

Once you have addressed all required comments, contact your Project Lead to arrange for a second intake meeting.

Note: Actual timelines and scheduling of meetings may vary based on the volume of projects.

STEP 9-14 RESUBMITTAL

The second intake will be identical to first intake, with the same personnel. However, instead of using the civil drawing intake checklist, the comments noted by the City on the Issues Matrix shall be responded to. If staff believes you have fully responded to the initial review comments then the ***second review*** has begun based on the CCR Flow Chart. If any comments are not addressed you will need to correct the deficiencies and contact your Project Lead to arrange another intake when you are ready. Your City reviewers repeat Steps 4, 5 and 6 providing you with any remaining comments and markups by Day 25, as before.

You and your City reviewers attend a second debriefing at Day 28. If additional comments need to be addressed, at the discretion of the Project Lead, a third review may be required. The Applicant will revise the plans as in Step 8 and resubmit as in Step 9 & 10. The City will review and comment as in Steps 11 & 12. The City may ask you to participate in a diagnosis meeting to determine why extra reviews were necessary to help improve the process or the checklist.

Upon completing the Coordinated Civil Review process, the developer submits the final approved construction drawings on Mylar media (Mylars) to the City of Redmond Development Services Center for signature by City Staff. See step 15 for the complete list of submittal items.

STEP 15: MYLAR SUBMITTAL ITEMS

1. Please provide the following items (if applicable to your project) before or upon submittal of the Mylars to City Hall, Development Engineering:

- ☐ **One Full Size Mylars (22"x34"), with City assigned Record Drawing Numbers**
- ☐ One Hard Copy of Stormwater Report
- ☐ One Hard Copy of Stormwater Operation and Maintenance Manual
- ☐ One CD with the electronic file of 1) Stormwater Report; 2) Construction Stormwater Prevention Plan; 3) Stormwater Operation and Maintenance Manual
- ☐ Original final easement and/or right of way dedication documentations with signatures and payments ready for King County recording (Note: not applicable to plats, short plats or BSP's)
- ☐ Fee Payment—remaining plan review fees (if applicable), inspection fees
- ☐ Original Landscape Bonds—Submit to Planner
- ☐ Original Right-of-Way Performance Bond
- ☐ Record Drawing Cash Deposit with City of Redmond Cash Assurance Bond form

GIS Final Submittal package to include:

- ☐ One Hard Copy of "Digital Construction Drawing Submittal Checklist"
- ☐ One complete set of electronic plans uploaded to the e-Review Portal named as "CCR_GIS_YEAR_MM_DD.pdf"
- ☐ One CD or thumb drive with single composite DWG file (AutoCAD 2014 file format or earlier)

Once you have submitted the **GIS Final Submittal** package you may receive comments that are recommendations only, no action is needed, the recommendations are provided as a courtesy to help you prepare for Record Drawing submittal.

2. Upon receipt of the above submittal items and signature of Mylars, the applicant will receive instructions on construction drawing distribution copy requirements and scheduling a pre-construction meeting.

NOTE: *The Mylars will not be signed by City Staff until all applicable items are accepted by the City of Redmond.*

Contact the assigned project lead to arrange for pick up of the City-signed Mylars to make the following submittal sets:

- ☐ Original Signed Mylars (22"x34")
- ☐ Three Full Size Paper Sets (22"x34") – Paper sets must be bound and stapled
- ☐ Twelve Half Size Paper Sets (11"x 17") – Paper sets must be bound and stapled
- ☐ CD of scanned Mylars

Thank you for your participation in making our two-cycle construction plan review process successful. These steps greatly reduce the total time and iterations necessary to approve your plans and reduce delays to your project from other projects in queue.

Section 4: Electronic Plan Submittal Standards

Electronic plans that do not meet the requirements below will fail and will result in the application being deemed incomplete and will not be reviewed until complete. These electronic plans **MUST** be submitted **10 working days** before the scheduled Intake meeting. The applicant **MUST** upload plans and all supporting documents electronically through **e-Review Portal**

HOW TO UPLOAD DOCUMENTS TO E-REVIEW PORTAL

A. **Electronic File Naming Standards;** indicate the file name of each uploaded document. For example; **"CCR_Transportation_Year_MM_DD"** to include all plan sheets related to Transportation. See Section 5 of this packet for the CCR Electronic File Naming Standards.

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 as a PDF in an electronic form. **Plans and Documents:** plans, calculations, reports and other supporting documentation (non-drawing files) must be submitted as a PDF.

D. **Plan Orientation;** All plans must be uploaded in "Landscape" format in the horizontal position.

E. **Reduce the file size and flatten;** the PDF's BEFORE submitting to the City for review, Flatten and merge separate sheets into one PDF file. Follow link for instructions on how to reduce your file size **BEFORE** uploading to the e-track portal. **HOW TO REDUCE FILE SIZE.**

Section 5: Electronic File Naming Standards

Electronic File Naming Standards:

Indicate the naming convention for each drawing in the construction plan set in which the particular submittal must be named. For example, "CCR_TRANSPORTATION_YEAR_MM_DD.pdf" to include all plan sheets related to Transportation within the PDF, and each sheet should also be named according to their titles.

CCR_GIS_YEAR_MM_DD.pdf

Complete Civil Set (all sheets)

CCR_GENERAL_YEAR_MM_DD.pdf

Cover Sheet
Site Plan
Site Survey
Topographic Survey
Layout Dimension Plan

CCR_TRANSPORTATION_YEAR_MM_DD.pdf

Horizontal Control Plan
Offsite Roadway/Walkway/Frontage Improvement Plan
Paving Plan & Profile
Typical Sections (if separated)
Pavement Marking Plan
Signing Plan
Channelization Plan
Traffic Signal Plan
Traffic Control Plan (TCP)
Illumination Plan
Street Light Analysis
PSE Street Light Plan

CCR_UTILITY_YEAR_MM_DD.pdf

Franchise Utility Plan
Composite Utility Plan
Water Plan & Profile
Wastewater Plan & Profile
PRV Details

CCR_GRADING_YEAR_MM_DD.pdf

Demolition Plan
Clearing Plan
T.E.S.C. Plan
T.E.S.C Details & Notes
Grading Plan
Grading Details & Notes

Section 5: Electronic File Naming Standards

CCR_STORMWATER_YEAR_MM_DD.pdf

Stormwater Plan & Profile
Stormwater Details and Notes
Vault Details

CCR_STREAMBANK/SHORELINE/FLOODPLAIN_YEAR_MM_DD.pdf

Overview Buffer Reduction & Replacement Plan
Demolition T.E.S.C. and Stream By-Pass
Stream Corridor Grading
Regarded Stream Segments
Construction Details
Mitigation Grading Plan
Mitigation Grading Specifications and Details
Mitigation Planting Plan
Mitigation Vault Planting Plan
Mitigation Planting Plan
Mitigation Plant Schedule and Planting Specifications
Mitigation Maintenance and Monitoring Plan

CCR_FIRE_YEAR_MM_DD.pdf

Fire Protection Plan
Fire Access Plan

CCR_LANDSCAPE_YEAR_MM_DD.pdf

Landscape Plan
Landscape Details
Irrigation Plan
Irrigation Schedules and Details
Tree Preservation Plan
Plant Schedule and Notes
Trail Plan

CCR_REPORTS_YEAR_MM_DD.pdf *Upload one PDF File for each report

Drainage Report
SWPPP Report
GeoTech Report
Dewatering Report
Streetlight Analysis
Preliminary TCP
Stormwater O&M Manual

All files that are not named properly and or uploaded incorrectly may be rejected at intake.

Section 6: CCR Intake Checklist

Project Name: _____ CivPlan#: _____

CCR Checklist Dated: _____

Note: The Applicant should contact appropriate City staff, ***prior*** to submission, if there are any questions regarding submittal requirements. Marking an item as "Not Applicable" or N/A" without first checking with staff will likely result in the submittal being rejected.

Plan must be uploaded to the e-Review Portal at least 10 working days prior to the Intake Meeting

INTAKE MEETING DOCUMENT UPLOAD LIST

The applicant shall check each of the following items below to confirm that they are included in your Intake submittal package.

☐ One electronic copy of the City's Land Use Approval letter
☐ One electronic copy of the CCR Intake Checklist with your (the applicant's) annotations
☐ One electronic copy of the complete civil plan set (all sheets)
☐ One electronic copy of each applicable plan set shown in Section 5: Electronic File Naming Standards
☐ One electronic copy of Stormwater Report including complete drainage computations
☐ One electronic copy of the SWPPP
☐ One electronic copy of the Stormwater Operations and Maintenance Manual
☐ One electronic copy of any other specific studies or calculations (i.e. Dewatering Plan)
☐ One electronic 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 CD or thumb drive with a single composite DWG file (AutoCAD 2014 file format or earlier) (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.)

☐ Electronic copy of **Easement(s)** 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**

GENERAL CONTENT AND DRAWING FORMAT

☐ **Cover Sheet**
- ☐ Applicant/Developer/Owner
- ☐ Area of Disturbance (shown in square feet and acres)
- ☐ City Approval Block - must be on every sheet at lower right hand corner (except on surveys)
- ☐ Drawing Layout - shall be laid out to afford the maximum understanding possible

☐ Each sheet contains: THIS DEVELOPMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE *XXXX* (edition in affect in the year the project was vested) CITYOF REDMOND STANDARD SPECIFICATIONS AND DETAILS

☐ Engineer Stamp, signed and dated, consistently with issued or revised date

☐ Existing Impervious Area (shown in square feet and acres)

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

☐ Horizontal coordinates WASHINGTON STATE PLANE NORTH, 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

☐ Horizontal Scale (applies to Civil and Landscape plans) - 1"= 20'

☐ Legal Description

☐ Legend - identify line types and symbols used

☐ North Arrow & Scale Bar – North should be oriented to top or left side of sheets

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

☐ Property Data - parcel numbers, lot numbers, plat names, and street names

☐ Proposed Impervious Area (shown in square feet and acres)

☐ Section, Township and Range—placed prominently at the center top of all sheets

☐ Sheet Index

☐ Site Area (shown in acres)

☐ Surveyor/Engineer/Planner

☐ Tax Parcel/Plat Number

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

☐ Vertical Scale - 1"= 5'

☐ Vicinity Map - showing the general location of the project.

☐ Water Pressure Zone

☐ Water Quality Facility

☐ Water Quantity Facility

☐ Water Quality Storm Event

☐ Water Quantity Storm Event

☐ **Title Block/Drawing Title**

☐ Engineer Information - Company name, address, phone, contact name and contact email

☐ Owner Information - name, address, phone and contact

☐ Project Name

☐ Issue or Revision Date

GENERAL SITE PLAN

☐ **Site Plan**

☐ All Utility Easements shown with dimensions labeled

☐ Contours—(dashed lines for existing and solid lines for proposed) 2-foot interval (slopes 40% or greater maybe shown with 5 foot contours)

☐ Landscape Plan to be consistent with Civil Site Plan

☐ Lot Numbers

☐ Offsite Information - all features within offsite areas that drain onsite, and all information within 50 feet of all property lines

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

☐ Property Lines - including bearings and distances

☐ Right of Way centerline - including bearings and distances

☐ Setbacks and Buffers - building, detention facilities, infiltration facilities, and critical areas

☐ Show proposed location of garbage and recycling receptacle enclosures and details. Locations shall be approved by both the Stormwater and Planning reviewers as well as Waste Management Company prior to construction approval

☐ Site Area - shown in square feet and acres

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

ENGINEERING / TRANSPORTATION

POINT OF CONTACT: Assigned Engineer: (425) 556-2881 or (425) 556-2740

FRONTAGE IMPROVEMENTS [Redmond Zoning Code]

☐ **Easements**

☐ Other

☐ Sidewalk

☐ Utility

☐ Right of Way Dedication

☐ Profile information of streets and all utilities. Extend information at least 150 feet beyond frontage but further as necessary to demonstrate adequate stopping sight distance and transitions

☐ Plan View Information - shall indicate and identify all existing and proposed features, utilities, street improvements and paving, channelization and any features that will affect the design and construction of the site grading and the drainage system. Information shall include both sides of a frontage street(s) and extend at least 150' beyond the site's frontage(s)

☐ Curb, Gutter, Planter Strip and Sidewalk

☐ Monumentation (PC, PT, Intx, etc.)

☐ Underground conversion required of all existing aerial utility systems.[RZC 21.17]

☐ Install spare conduit for future use

☐ Street Lights: Provide location, wattage, fixture type and mounting height of existing & proposed:

☐ Submit Street Lighting/Illumination Plan by PSE or other if they are City owned light(s)

☐ Luminaire Pole [COR Std. 420, 430, 430B]

☐ "J" Series Light Pole [COR Std. 425]

PAVING REQUIREMENTS

☐ Surfacing Requirements – half or full street grind & overlay may be required for more than one cut in the street [RZC Appendix 2, COR Std. 202]

☐ Street Pavement typical cross section(s) with paving depths and cross slope [RZC Appendix 2, COR Std. 301]

CHANNELIZATION & SIGNING

- ☐ Crosswalk and Stop Bar
- ☐ Raised Pavement Markers
- ☐ Painted Pavement Markers
- ☐ Lane Use Pavement Markings
- ☐ Signing
- ☐ Taper/Transition
- ☐ Superelevations
- ☐ Proposed Channelization Match into Existing Channelization

PUBLIC/PRIVATE STREETS

☐ Profile information of streets and all utilities

☐ Plan View Information - shall indicate and identify all existing and proposed features, utilities, street improvements and paving, channelization and any features that will affect the design and construction of the site grading and the drainage system

Street Name: _____Street Classification: [TMP, RZC Appendix 2]_____

Terrain: (Flat ≤8%, Rolling >8% to 15%, Mountainous > 15%) [RZC Appendix 2]

☐ Right-of-Way & Easements Required [RZC Appendix 2; COR Std 301]

☐ Typical sections provided [RZC Appendix 2, COR Std 301]

☐ Vertical Curb Required [RZC Appendix 2; COR Std 301]

☐ Correct Street Width [RZC Appendix 2; COR Std 301]

☐ Bicycle Lanes Required [TMP, RZC Appendix 2; COR Std 301]

☐ Sidewalk and planter strip required [RZC Appendix 2, COR Std 301]

☐ Parking lane required [RZC Appendix 2, COR Std 301]

☐ Safety rails by sidewalks when height >30 inches, slope >3:1[RZC Appendix 2, COR Std. 321]

☐ Mailbox locations shown; documented approval from by Postal Official [RZC Appendix 2]

☐ Vertical Clearance 16.5 ft. min. above street and 8 ft. min. above walkway [RZC Appendix 2]

☐ Maximum grade permitted [Appendix 2] (Emergency vehicle access roads shall not exceed 15% unless approved by Fire Dept.)

☐ Curve Standards [RZC Appendix 2]:

- ☐ Minimum Horizontal Curve radius provided [RZC Appendix 2]
- ☐ Minimum tangent btwn horizontal curves (100’ local, 200’ arterials) [RZC Appendix 2]
- ☐ Vertical curve data, include actual SSD using AASHTO 1990 [RZC Appendix 2]
- ☐ Stopping Sight Distance Minimums Attained

☐ Guard Rails per WSDOT Design Manual requirements Chpt. 710 [RZC Appendix 2]

☐ Clear Zone 2’ min. behind curb [RZC Appendix 2, WSDOT Design Manual Chpt. 700]

☐ Handicap Ramp [COR Std. 307,308,309 & 310] Provide spot elevations at back and front corners of the ramps. Ramp grades and cross slopes must meet ADA regulations

☐ Existing ground shown to 15 ft. beyond right-of-way line

☐ Existing and Proposed Utilities Shown in Plan and Profile

☐ Profile - Scale, VC Data, elevations labeled every 50 ft., street name, existing/proposed grade

INTERSECTIONS AND CUL-DE-SACS/DEAD ENDS [RZC Appendix 2]

- ☐ Sight Distance Triangles (both directions on intersecting streets)
- ☐ Horizontal Alignment – 80_ to 90_
- ☐ Min. 150 ft. offset (curb-to-curb) with adjacent intersections
- ☐ Approach Landings – 2' in 30' for Arterials; 2'in 20' for Local Access
- ☐ Cul-de-sac maximum length of 600 ft.
- ☐ Cul-de-sac dimensions

DRIVEWAYS [RZC Appendix 2]

Classification: (Residential, Commercial, Industrial)

Driveway Type: (Call out on plan Type "1", Type "2", etc.)

- ☐ Minimum/Maximum width allowed
- ☐ Driveway to Driveway Spacing at Min. 150 ft.
- ☐ Existing driveways (either side) shown within 150 ft. of proposed driveway(s)
- ☐ Driveways intersect streets at Min. 45 Angle

PARKING LOTS [RZC 21.40, COR STD 301]

- ☐ Parking stall dimensions
- ☐ Travel aisle width
- ☐ Check for "Trapped" Stalls
- ☐ Poured in place curbing, or precast wheel stops shall be installed around all parking areas

GENERAL NOTES [RZC Appendix 2]

- ☐ **Confirm the following notes are included in within the plan set [RZC Appendix 2]:**
  - ☐ Safety Railings – "Safety railings shall be required when the bottom of a rock wall, retaining wall, or slope is 30 inches or more below the finished elevation of a sidewalk or other pedestrian facility."
  - ☐ WSDOT Guardrail – "WSDOT approved guardrails shall be required as directed by the City Inspector, subject to approval by the City Transportation Engineer."
  - ☐ Channelization/Signage – "The contractor is responsible for installing all signs and channelization per City of Redmond standards. Contractor shall lay out all signs and channelization, and then contact the Senior Transportation Technician, at (425) 556-2752, 48-hours in advance of installation to verify layout."
  - ☐ Signs/On-site Markings – "All necessary signs and markings on-site, along property frontage, and at specifically designated off-site locations shall be provided by the applicant as required by the Traffic Operations Division whether or not these are indicated on the civil construction drawings."
  - ☐ Pavement Verification – "When requested by the City Inspector, the geotechnical engineer employed by the developer shall verify and subsequently advise the City of Redmond that the installation of the paving section(s) conforms to his/her design. The project will not be accepted until the written documentation is submitted."

CLEARING,GRADING & STORMWATER MANAGEMENT
POINT OF CONTACT: ASSIGNED ENGINEER (425) 556-2890 OR (425) 556-2495

REDMOND ZONING CODE: Plans shall conform to Title 15 of the Redmond Municipal Code. The general headings listed below must be addressed.

- ☐ Erosion and Sediment Control, including SWPPP
- ☐ Drainage Facilities
- ☐ Water Quality Control
- ☐ Water Quantity Control
- ☐ Stabilization of Disturbed Areas
- ☐ Protection of Adjacent Properties
- ☐ Maintenance
- ☐ Identification of Critical Areas and Associated Buffers, required Native Growth Protection Areas, and their easement/maintenance conditions
- ☐ Identification of Easements
- ☐ Accurate Description of Work Area
- ☐ Control of Pollutants other than Sediment on Construction Sites
- ☐ Source Control of Pollution
- ☐ Controlling Off-Site Erosion
- ☐ Other BMPs
- ☐ Separate Public and Private Drainage
- ☐ Limited Topographic Change
- ☐ Standard Notes found in Appendix I of Stormwater Technical Notebook
- ☐ **Easements**
  - ☐ Storm Drainage
  - ☐ Utility (combined)
  - ☐ Other _____

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, a required component of the Storm Water Site Plan
- ☐ Fully Identify Work - clearing and grading limits shown, with stockpile/staging areas and sequence of construction
- ☐ 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 and Critical Area Buffer
- ☐ Steep Slope Setback

☐ Grades - show existing and proposed contours at 2-foot intervals
☐ 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
☐ Construction Stormwater Runoff Control – show sediment removal BMP
☐ Stabilization of Temporary Conveyance Channels and Outlets – no erosion for 10-year/24-hour storm, as identified by a continuous runoff model. 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, cross-section through the berm, cross section 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 [DOE 2005 Manual, Vol 5, Table 4.4]
☐ Maximum open trench length = 300'
☐ TESC performance bond posted **(Only for Rough Grade Permits)**
☐ Construction Access Routes
☐ Note concerning Removal of Temporary BMPs upon final site stabilization
☐ Preservation of Natural Drainage Systems
☐ Sequence of Construction - describe how construction will proceed in order to limit erosion, include phasing if appropriate

STORMWATER REPORT

☐ Provide Stormwater Report using 2012 DOE Manual format. (See 2012 DOE Manual, Vol I, Chapter 3)

General

☐ Project description - narrative description of the existing and proposed conditions

☐ Sensitive areas - describe wetlands and streams or other water bodies that are on or adjacent to the project (include type and classification of each)

☐ Geologically Hazardous Areas - describe the project's location within Erosion Hazard, Frequently Flooded, Landslide Hazard, Seismic Hazard Areas. Include Standard Maps available on the City's website showing the project location

☐ Wellhead Protection Zones - identify and describe the zone the project is in and any requirements that affect the project or site

☐ Soils Information - description of type of soils on site including NRCS classification (include Geotechnical Report as an appendix to the Stormwater Report)

☐ Off-site Analysis - description of flow routes downstream from the project. Include an exhibit showing the downstream drainage to the point of ultimate discharge (to the receiving water body) and indicate 1/4 mile downstream from the project limits

☐ Construction Stormwater Pollution Plan (SWPPP) - include a brief description of the 12 elements in the Stormwater Report. A separate SWPPP is also required

☐ Flow chart - highlighted and annotated showing progression through chart to determine applicable Minimum Requirements

☐ Existing hard surface area - quantity in SF and AC in tables, provide exhibit showing areas with labels

☐ Proposed hard surface area - quantity in SF and AC in tables, provide exhibit showing areas with labels (break down into PGHS and NPGHS)

☐ Minimum Requirements - describe how the project is meeting each of the 10 Minimum Requirements

☐ Threshold Discharge Area(s) - identify each Threshold Discharge Area, tributary area, and downstream flow pattern

Low Impact Development Standards

☐ Projects shall employ On-site Stormwater Management BMPs in accordance with the threshold, standards, and lists to infiltrate, disperse, and retain stormwater runoff on-site as outlined in the 2012 DOE Manual, Vol I, 2.5.5

☐ Flow chart - highlighted and annotated showing progression through "*Flow Chart for Determining LID MR #5 Requirements*", 2012 DOE Manual, Vol I, Figure 2.5.1

☐ List #1 or List #2 - identify which list will be used for on-site stormwater management BMPs

☐ For each surface, identify all BMPs to be considered and identify which BMP is utilized by the project

☐ All large projects are required to submit a site assessment for LID. Address each element in Stormwater Technical Notebook 8.7.5

☐ Areas for on-site stormwater management infiltration – delineate and label area on exhibits

Permanent Stormwater Facilities

☐ Flow control facility - identify type and size of facility.

☐ Water quality facility - identify type and size of facility. Indicate if the facility is upstream or downstream of detention and sizing calculations

☐ Conveyance system - identify type and size of system

☐ Exhibit showing the permanent stormwater facilities layout

☐ Collect and convey project area tributary to the stormwater management facility. Identify bypass and flow-through basins include areas of each (SF and AC), provide exhibit showing the areas

☐ Offsite areas draining on site - must be safely conveyed through or around site, describe off-site areas flowing onto the project and how these flows are accounted for in the calculations. Provide an exhibit and areas (SF and AC) showing off-site areas. (See 2012 DOE Manual, Vol III, Appendix III-B)

Hydraulic Calculations

☐ Calculations using a continuous simulation modeling software are required. The City prefers WWHM and allows MGS Flood and KCRTS. Other modeling software may be used with Stormwater Engineer approval

☐ WWHM file - provide *.whm* file to the Stormwater Engineer (may be emailed). Other program files may be requested by the Stormwater Engineer

☐ Pre-developed conditions - include areas (SF and AC) in tables and exhibits

☐ Post-developed conditions - include areas (SF and AC) in tables and exhibits

☐ Modeling results - include resulting facility sizes in tables and provide modeling output in Appendix

☐ Plans and details must match hydraulic modeling

☐ Areas for on-site stormwater management infiltration – Areas must match hydraulic modeling

Quantity Control (Detention)

☐ Discharge durations - match discharge durations to developed condition to pre-developed condition from one-half of the 2-year peak flow up to the full 50-year peak flow

☐ Volume - include table showing volume required and volume provided

Quality Control (Water Quality)

☐ All facility sizing (except wetpool-types) should use the 15-minute time series from an approved continuous runoff model

Water Quality Design Storm Volume

☐ Design storm volume - volume of runoff from a 6-month, 24-hour storm or 91% of the entire runoff volume as estimated by an approved continuous runoff model

Downstream of detention

☐ The full 2-year release rate from the detention facility (*Mitigated Flow* dataset - WWHM)

Preceding detention facilities or when detention facilities are not required

☐ 2-year developed flow volume *(Inflow to Mitigated* dataset - WWHM)

Water Quality Design Flow Rate

Downstream of detention

☐ The full 2-year release rate from the detention facility (*Mitigated Flow* dataset - WWHM)

Preceding detention facilities or when detention facilities are not required

☐ 2-year developed flow (*Inflow to Mitigated* dataset – WWHM)

Pipe-sizing Calculations

☐ Pipe capacity - rational method may be used for pipe sizing. Include: "C" factor determination and time of concentration

☐ Backwater analysis - show the hydraulic grade line for 50-year storm, must show no overtopping. Provide table showing hydraulic grade line elevation, rim elevation, and freeboard at each structure

☐ 100-year flow - show safe conveyance of 100-year flow through the site; showing no flooding of buildings. Assume storm inlets are plugged. This may be done on an exhibit with flow arrows showing the flow path

☐ Plans must match calculations

Biofiltration Swale and Ditch Calculations

☐ Biofiltration swale design calculation - sizing procedures for biofiltration swales per 2012 DOE Manual, Vol V, 9.4 included in the Stormwater Report. Plans and details much match calculations

☐ Biofiltration swale stability check - performed for the combination of highest expected flow and least vegetation coverage and height

☐ Ditch stability check - performed for the combination of highest expected flow and least vegetation coverage and height

ADDITIONAL REPORTS

☐ Geotechnical Report. Submitted as separate document and included as an Appendix to the Stormwater Report

☐ Stormwater Pollution Prevention Plan (SWPPP). Submitted as separate document

☐ Operations and Maintenance Manual. Prepared using the template in the Stormwater Technical Notebook, Appendix L. Submitted as separate document

STORMWATER MANAGEMENT PLAN

☐ Design slope - 0.25% minimum and 20% maximum

☐ Concrete inlets may be installed only where downstream catch basins are available to collect sediment. There use should be limited to where maintenance would be difficult

☐ Maintenance access to all catch basins and drainage structures provided. Extreme cases may be waived by the Stormwater Engineer

☐ Minimum pipe size - 12" minimum for public storm systems and 6" minimum for private systems

☐ Pipe data - pipe size, material, length labeled on the plan

☐ Structure data - structure number, structure type and/or size, station and offset labeled on the plan

☐ Structure offset – identify the offsite being to center of frame and grate or center of structure

☐ Structure spacing - provide minimum spacing per STN 8.5.2

☐ 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" from sewer with storm above sewer

☐ Rockeries and Retaining walls - shall not cross or be within 1:1 plane of influence from the structure. Exceptions may 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. Rockeries are not allowed over roof or footing drains

☐ Drains behind sidewalk - required in all cut situations and at the base of slopes

☐ Cleanouts - shall be specified with Carson boxes or equal with ungasketted caps in soft areas and traffic bearing in paved areas (COR Std Detail 621)

☐ Cleanout spacing - at every 100' on center, at bends and end of lines

☐ Footing/foundation drains - include pipe size, material, and cleanouts. Drains shall be connected to the storm drain system (shown as stubbed to lots only for plats)

☐ Roof drains - include pipe size, material, and cleanouts. Drains shall be connect to the storm drain system (shown as stubbed to lots only for plats) or the preferred method, connected to onsite LID BMP

☐ Footing drains and roof drains are separate

☐ Lot drains – connection points located at the low elevation point of the allowable building area of each lot to allow connection of footing drains, roof drains, and other drains

☐ Roof/footing drain stubs should cross sidewalk at 90 degree angle

☐ Maximum of three (3) single family houses may share a common roof/footing drain stub

☐ Tracer wire - required on roof drains from the building to the property line

☐ Outfall protection - sized for the 50-year storm. Provide size and depth of pad and rock specification on the plans. Rock must be laid on approved geo-textile fabric. Maximum allowable discharge velocity to outfall is 10 FPS without special design (2012 DOE Manual, Vol 5, table 4.5.1)

☐ Easements - show and label 20' minimum width on plans, no obstruction allowed within easements

PROFILES

☐ Profiles are required for all public storm conveyance systems. Private conveyance systems may require profiles as determined by the Stormwater Engineer

☐ Profiles show pipes and structures

☐ Pipe data - show inverts and top of pipe, pipe size, material, length, and slope labeled on the profile

☐ Structure data - structure number, structure type and/or size, type of grate/cover, rim elevation, and all pipe inverts with cardinal directions labeled on the profile

☐ Pipe connections – match pipe crowns at structures

☐ Grates - all grates shall be Vaned grates, unless approved by the Stormwater Engineer. Through-curb inlets at sag curves, possible bypass points, and every third structure

☐ Profile grades - show and label existing and finished grades

☐ Other utilities - size and type labeled

☐ Utility crossings - all crossings must be shown; label utility type, pipe size, invert of utility and storm pipes and clearance between pipes using outside diameter. 1' minimum vertical clearance and 90 degree crossing angle required

☐ Storm structures - Type II catch basin required when 5 feet or greater from the rim of the catch basin to the lowest pipe invert

☐ Manhole Type 3 required for structures with bottoms between 12' and 25'

☐ Pipe cover - 18" minimum (including pavement depth)

☐ Drop structures not allowed. Extreme cases may be waived by the Stormwater Engineer. (See STN 8.7.5)

STORMWATER MANAGEMENT FACILITIES

Underground Detention Facilities

☐ Detention volume - show volume required and volume provided on plans

☐ Control Structure - designed and detailed (plan view and cross section required). Shall conform to COR Std Detail 610 or equivalent and plans and details must match hydraulic modeling

☐ Profile of detention vault or tank provided

☐ Structural details and calculations (separate building division review and permit required)

☐ Inverts - show for all pipes entering and leaving control structure and vault/tank

☐ Air vent - 12" diameter minimum for vaults

☐ Public detention vaults require a davit arm socket per COR Std Detail 616

☐ Maintenance Vehicle Access - required to both ends of the detention tanks and their access riser(s). At least two (2) accesses to vaults, one located at each end of each cell with one access near the control structure. Access road pavement shall have minimum 7" depth HMA. (See COR Std Detail DG11 for more information)

☐ Vault foundation drain - show pipe size and material and connection to on-site stormwater system

☐ Detention Tanks - note "Pressure tests may be required by the City Inspector. Tanks that do not pass pressure tests shall be repaired or replaced" must be shown on the plan

☐ Distance between detention system access points - maximum 100' and ladder access must be provided at all ends

☐ Setbacks

- ☐ Minimum 10' from structures, property lines, and right-of-way; or minimum distance to allow construction of a 1:1 slope to the bottom of the facility, whichever is greater
- ☐ Minimum of 50' from slopes > 15%

☐ Fire Hydrant - within 100 feet of detention tank systems 4' diameter or larger, and for all vaults over 1,000 CF of total volume may be required

Wet Pond Detention Facility

☐ Length : Width Ratio - minimum of 3.0 (preferred)

☐ Interior slope - maximum of 3H:1V. Berm slopes may be up to 2H:1V if the berm is submerged one foot

☐ Pond fencing - required where walls or slopes steeper than 3H:1V are designed

☐ Permanent pool - minimum of 6-month/24-hour basin runoff volume

☐ Berm embankment - maximum of 6' high (preferred)

☐ Depth of each cell - maximum of 8' (excluding sediment storage)

☐ 5' wide internal berm set at or 1' below water quality design water surface elevation around perimeter of pond. Plant berm with wetland planting

☐ Multi-celled - minimum of 2 cells (preferred)

☐ Setbacks

- ☐ Minimum 10' from structures, property lines, and right-of-way; or minimum distance to allow construction of a 1:1 slope to the bottom of the facility, whichever is greater
- ☐ Minimum of 50' from slopes > 15%

☐ Maintenance Vehicle Access - a vactor truck shall be able to access the control structure, a backhoe shall be able to access the and bank and bottom and not disturb vegetation, or re-suspend sediment

☐ Inflow pipes to the wetpond shall be submerged with the inlet pipe invert a minimum of three feet from the bottom of sediment storage

☐ Emergency overflow - shall be completely separate from pond outlet

☐ Trees - must be setback from the 100-year water surface. Maintenance access to the pond must be unhindered by trees

☐ Ponds lined or over impermeable soil in Wellhead Protection Zones 1, 2, and 3

INFILTRATION

☐ Soil permeability tests or gradation per DOE - two (2) tests minimum of one (1) for every 5,000 SF of infiltration system bottom area. Test must not be more than 20' from the final location of the infiltration system. Note on plans shall be added that the infiltration test locations to be verified in field observation by geotechnical engineer

☐ Soil test - must be taken at the proposed bottom elevation 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 separation from groundwater/impermeable surface - all infiltration systems should be a minimum of 5' above the average seasonal high groundwater elevation, bedrock, hardpan, and/or impermeable layer. Separation may be reduced to 3' with mounding analysis

☐ Setbacks

- ☐ Minimum of 200' from drinking water wells and springs, septic tanks and drain fields
- ☐ Minimum of 0' from the project's building foundations, with supporting foundation design. Waterproofing of building foundation may be required
- ☐ Minimum of 10' from Native Growth Protection Areas and property lines. Distance may be extended depending on adjacent development
- ☐ Minimum of 50' from slopes > 15%

☐ Roof downspout controls - shall be designed and implemented per 2012 DOE Manual, Vol III, 3.1

☐ Infiltration system location - may not be located in an area previously used as a sediment control facility

☐ Geotextile fabric is required on all sides, top, and bottom of infiltration trenches

☐ Maximum trench length - 100' from inlet sump

☐ Pre-treatment - provide method for preventing debris and oil from entering facility

☐ Observation well - one is required per trench. (See 2012 DOE Manual, Vol. III, 3.3.11 and Figure 3.3.10)

☐ Provision for the 100-year overflow required

☐ Open infiltration system berm - must use impervious material for berm and the berm must be 2' wide at the top of each foot in depth as measured from the ponding area bottom

☐ Maximum ponding - maximum depth is 3' plus 1' of freeboard to the top of the structure (for enclosed system) and 3' plus 1' of freeboard to the top of the berm (for open infiltration system)

☐ Open infiltration system side slopes - shall not exceed 3H:1V

☐ Add the following note to the plan: "The contractor shall construct infiltration systems only after the entire area draining to it has been stabilized"

BIOFILTRATION SWALE (See DOE 2012 ,Vol V, Chapter 9)

☐ Required length - 200' minimum (may be reduced to 150' for redevelopment projects only)

☐ Design storm - 6-month/24-hour storm, high flow bypass required unless otherwise designated

☐ Design Calculation - sizing procedures for biofiltration swales per 2012 DOE Manual, Vol V, 9.4 included in the Stormwater Report. Plans and details much match calculations

☐ Stability Check - performed for the combination of highest expected flow and least vegetation coverage and height

☐ Maximum velocity - 3.0 FPS for stability, 1.0 FPS for the design storm

☐ Swale slope - 1.5% to 2.5%. For slopes less than 1.5%, install an underdrain. For slopes greater than 2.5%, check dams must be provided

☐ Swale bottom width - 8' maximum

☐ Cross sections - show dimensions, design flow depth, and 1' minimum freeboard

☐ Plan view requirements - show grading, slope, spot elevations (a minimum of every 50' and at both ends, bottom width, side slopes, and lining

☐ Biofiltration swales shall be lined or over impermeable soil in Wellhead Protection Zones 1, 2, and 3

☐ Maintenance Vehicle Access - a backhoe must be able to access at least one side of each biofiltration swale

☐ Easement - public systems shall be in tracts or easement, unless approved by the Stormwater Engineer

☐ Vegetation specifications - shall provide for water tolerant plants and shading of vegetation. Biofiltration planting shall be shown on the civil drawings and subject to approval from the Construction Division

☐Setbacks

- ☐ Minimum of 10' from biofiltration swale maximum water surface elevation to buildings or trees
- ☐ Minimum of 5' from biofiltration swale top of bank to property line. Distance may be extended depending on adjacent development
- ☐ Minimum of 50' from slopes > 15%

PROPRIETARY WATER QUALITY FACILITIES

☐ Proprietary filter cartridge systems - not allowed for single-family residential projects

☐ Biofiltration systems such as Filterra and Modular Wetlands - not allowed for single-family residential projects

☐ Treatment facilities approved in the 2014 SWMMWW are allowed for privately maintained multifamily, commercial and industrial sites and may be approved for publically maintained systems by the Stormwater Engineer

☐ GULD approval – all facilities shall have GULD approval from DOE for the level of treatment they are intended to provide (i.e. Basic, Enhanced, Phosphorus, etc.)

☐ Cartridge system location – placed immediately upstream or downstream of detention facility. Avoid separating water quality downstream from detention with long lengths of pipe to prevent the build-up of sediment in the pipes

☐ Tributary area map – show areas routed to each facility with area labeled in SF and AC

☐ Sizing calculations – modeling analysis showing flow and/or volume required for facility

☐ Flow rate – use 15 minute flow rate for the design of water quality facilities expected to have a hydraulic residence time of less than one hour

☐ Modeling - model the filter cartridge systems as sand filters in continuous modeling software (WWHM) and provide the results in the Stormwater Report, showing at least 91% filtration

☐ Filterra system approval – provide review letter stating that Contech has reviewed the plans and approve of the system design

TEMPORARY SHORING

☐ Shoring nails and/or tie-back anchors located within the right-of-way require a Right-of-Way use Agreement. See the Right-of-Way Management, Temporary Shoring Requirements for details and separate requirements

☐ Shoring plans – show location or shoring and shoring nails or tie-back anchors, street names, rights-of-way or property lines, and proposed and existing utilities on the plans and clearly labeled

☐ Special inspections – include all required monitoring and inspections on shoring plans including frequency of inspections and reporting

☐ Shoring Calculations – provide complete shoring calculations

☐ Geotechnical Report

WATER AND SANITARY SEWER

POINT OF CONTACT: ASSIGNED ENGINEER (425) 556-2844 or (425) 556-2495

REDMOND MUNICIPAL CODE: Plans shall conform to Title 13 of the Redmond Municipal Code. The general headings listed below must be addressed.

EASEMENTS

Show proposed easement(s) including combined utility, waterline, sewer, utility access, sump pump, or other with dimensions labeled. 20' minimum width with no obstructions allowed in the easement. Easement widths of less than 20 feet may be approved in not obtainable, but in no case shall easements be less than 15 feet in width. Show existing easement(s), may call out recording numbers of each.

☐ **Easements**

- ☐ Utility (combined)
- ☐ Waterline
- ☐ Sewer
- ☐ Utility Access
- ☐ Sump Pump
- ☐ Other

WATER

☐ Waterlines - show all existing and proposed

☐ Pipe Data - Label pipes with pipe size, length, and material

☐ Water Mains - located in private streets or parking areas, 5 feet from centerline

☐ Water Mains - located in public streets on the north or east side of the street, 10 feet from centerline when the street is 34 feet wide or greater and 7 feet from face of curb if narrower. Preferred location is within rights-of-way of public streets

☐ Horizontal Clearance - located 5' from all other utilities, 10' from sewer line, 8’ from light poles, and 8' from trees. Distance from street trees may be reduced to 3' minimum with root barrier

☐ Vertical Clearance – It is preferred that water main is on top of other utilities. Minimum of 12" between walls of water main pipelines and other pipelines/cables/conduits of other utility facilities, except sanitary sewers which is a minimum of 18 inches of clearance

☐ Crossing Angles - Water mains crossing other pipelines/cables/conduits as close to right angles (90 degrees) as possible

☐ Pipe Cover - Cover of 36 inches over 8-inch diameter and smaller water mains, 48 inches over 12-inch diameter and larger pipes

☐ Tees, valves, elbows, and thrust blocks - show on all junctions, call out all water fittings and appurtenances.

☐ Water Meters - show in a soft area with the size of the water meter and service line labeled. Meters located in front of the lot/parcel to be served and located minimum 18" from driveway edge. Show actual size of water meter vault if the water meter is 3" or larger. Meter shall be installed in soft area if there is landscaped area in between curb face and sidewalk. Meter shall be installed behind the sidewalk within city's right of way or easement, if the sidewalk is adjacent to the curb.

☐ Fire Hydrant, FDC's and PIV's – All lines shall be restrained joints and shown on plans.

☐ Air/vac assemblies - located at high points of water mains.

☐ Restrained Joints – required at locations on unstable soils and fill.

☐ Blowoffs or fire hydrants - located at low points and dead-end mains. Blow-off assemblies on pipe 12" diameter and larger, shall be 4" size or a fire hydrant

☐ Water Profiles - show pipe data, fire hydrants, valves, air-releases, blow-offs, commercial water meter connections with depth of cover and with minimum vertical clearance shown and labeled. Also show stationing and elevations on profile grid.

☐ Rockeries/Retaining Walls - shall not cross or be in close proximity to water mains. Water mains shall not be located within 1:1 plane of influence of structures

SANITARY SEWER

☐ Sewer lines - show all existing and proposed

☐ Pipe Data - label pipes with pipe size, length, slope and material on plan and profile.

☐ Sewer Profile - label all manholes with manhole number, manhole type, manhole diameter, rim elevation, pipe inverts, with size and compass directions of penetrations.

☐ Sewer lines - located in public streets on the south or west side of the street, 5 feet from centerline or on centerline

☐ Sewer Structure Data – Label all manholes with manhole numbers, type, stationing, and diameter.

☐ Horizontal and Vertical Clearance - minimum horizontal and vertical clearances of sewer mains from other utilities is the same as specified for water mains

☐ Pipe Cover - 7 feet of cover preferred with minimum 5 feet cover of sewer mains in both paved and unpaved areas, cover over ductile iron sewer mains is 3 feet in both paved and unpaved areas

☐ Maintenance Vehicle Access - all manholes accessible by City maintenance vehicles with minimum 14' wide paved surfaces with 2' gravel shoulders having 40-foot inside radius and slopes less than 10%

☐ Manhole Spacing - maximum of 350 foot spacing. Manholes installed at the end of all dead end mains and junctions

☐ Drop Manholes - not allowed without approval by Utility Engineer. Generally, drop manholes will not be approved if the drop is less than 5 feet in connecting to existing manhole structures. Drops constructed of ductile iron and ductile iron used to the next upstream manhole. Only outside drop manholes will be approved

☐ Manhole Depth - maximum 25 feet in depth without a special detailed design

☐ Finish Floor Elevation - show elevations on all lots. Minimum finish floor elevation must be 5 feet above the side sewer invert at the property line

☐ Side Sewer - connect with tees to sewer main. No connection to manhole unless at the end of a line. Maximum of 150 feet in length. 2% minimum slope.

☐ Double Services – Maximum 2' differential between finish floor elevations. Wye shall be located within lots to be served.

☐ Cleanouts - provided at every bend and at every 100 feet

☐ Backwater Valves - installed on all side sewers where the finish floor elevation of the building is lower than the invert elevation of the upstream manhole

☐ Minimum pipe slopes:

8" = 0.50%
10" = 0.32%
12"= 0.25%
Dead end run = 1%

☐ Steep slopes - pipes with greater than 20% slope must use ductile iron pipe and pipe anchors, hill holders, which are detailed and located by the Engineer-of-Record.

☐ Special Appurtenances – show and label sump pump, grinder pump, oil/water separator, grease interceptor, and sewer pump station.

☐ Deep Sewers - ductile iron pipe for pipe inverts greater than 15 feet below finish grade

☐ Rockeries/Retaining Walls - shall not cross or be in close proximity to water mains. Water mains shall not be located within 1:1 plane of influence of structures

STANDARD WATER/WASTEWATER NOTES

GENERAL

1. Any Administrative Engineering Deviation Process regarding the water and sewer improvements shall be submitted to the City of Redmond Development Engineering Division for approval prior to implementation in the field
2. All work and materials shall conform to the Standard Specifications and Details of the City of Redmond. Water and Sewer Specifications and Details shall be the specifications and details in effect on the date of approval of these construction drawings
3. The contractor shall be responsible for locating all existing underground utilities. Call underground locate service, 1-800-424-5555 for utility marking. callbeforeyoudig.org
4. No work shall commence prior to a pre-construction conference at the City of Redmond
5. Coordinate with landscaping improvements
6. No trees shall be planted within eight (8) feet of water or wastewater improvements.
7. City of Redmond Design Requirements—Water and Wastewater System Extensions Water & Wastewater Design Requirements

WATER

1. All fire hydrants shall be covered with a burlap sack until the water system has been placed into service
2. Fire hydrants shall be equipped with Storz connectors

WASTEWATER

1. Side sewers shall have a minimum slope of 2%
2. New sanitary sewer mains shall be plugged and not put into service until lines have been cleaned, flushed and tested

PLANNING DEPARTMENT
POINT OF CONTACT: ASSIGNED PLANNER (425) 556-2494

LANDSCAPE PLANS

☐ Certification of plan preparer; registered WA Landscape Architect or certified Nurseryman

☐ Complete plant schedule with legend listing scientific and common names, quantities, spacing, and size of plants to be installed

☐ Minimum Plant size at installation: Street trees 2-1/2" caliper; Deciduous trees 2" caliper; Vine Maples and other multi-stemmed trees 7'- 8' height; Medium and tall shrubs 24" – 30"; ground cover 4" pots (18" o.c.); Replacement trees for significant trees being removed must be 2 ½ " caliper for deciduous trees and 6'-8' tall for evergreen trees

☐ Identify which trees are designated as replacement trees, saved trees, and new planting

☐ Note the area in square feet and the percent of the total site devoted to the following type of landscaping: perimeter, interior parking lot, building foundation, and courtyard/patio/plaza

☐ Minimum planting area: 100 square feet with minimum width of 5'

☐ Parking area trees shall be at least 4 feet from pavement edges

☐ Parking lot trees shall be provided at a ratio of 1 tree per 4 parking stalls

☐ Ground cover: Non-vegetative material such as bark, mulch, and gravel is not a substitute for, or should not appear dominant over, plant material

☐ Show location of trees in relation to water lines and meters, and storm drainage lines and sewer lines, underground utility lines shall be 8 feet away from trees, except may be within 4 feet where root barriers are feasible. Shrubs may be planted no closer than 4 feet of all fire hydrants/connections

☐ Show construction fencing around significant trees to be saved. Fencing to be no less than 5 feet out side of the dripline of the subject trees

☐ Blank walls, ground mounted mechanical equipment, and outdoor parking stalls shall be screened with appropriate landscaping

☐ Irrigation plan

CRITICAL AREAS (For sites with regulated Critical Areas):

☐ Final Critical Areas Report per RZC Appendix if required as a condition of preliminary approval

☐ Regulated critical area and its associated buffer must be placed in a separate tract where development is prohibited. Proof of recording must be submitted to the City prior it issuance of Civil Plan Approval (for proposals not associated with a plat or short plat)

☐ Show the location of required critical area fencing and signage and include construction details for each

☐ All required enhancement and mitigation must be shown on the construction drawing plans, including grading plans including landscaping plans or specific enhancement/mitigation plans. This includes any required planting, signage, fencing, stream/wetland enhancement, etc. that is required in the report, if required as a condition of preliminary approval

☐ Critical Areas Monitoring Plan. A Critical Areas Monitoring Plan shall be submitted and approved prior to approval of Civil Drawings

☐ Critical Areas Contingency Plan. A Critical Areas Contingency Plan must be established for indemnity on the event that the critical area mitigation project is inadequate or fails, if required as a condition of preliminary approval

☐ Critical Areas Mitigation Plan. (if required as a condition of preliminary approval)

TREE PRESERVATION PLAN

☐ Certification of plan preparer; registered WA Landscape Architect or certified Nurseryman

☐ Show location, species, size of trees designated for retention

☐ List total percentage of trees to be retained

☐ Identify size and species of replacement trees

☐ Show all tree protection measures

☐ Do not include landscape plans with your building permit application

LANDSCAPE AND CRITICAL AREAS BONDS (Must be submitted prior to Civil Plan approval)

☐ Landscape Bond Calculation Worksheet

☐ Tree Replacement Bond Calculation Worksheet

☐ Tree Preservation Bond Calculation Worksheet

☐ Critical Areas Mitigation Bond. (if required as a condition of preliminary approval)

MISCELLANEOUS

☐ Copies of studies required as a condition of preliminary entitlement approval (i.e. noise study, lighting plans and cut sheets, etc.)

☐ Include site amenities (i.e. site furniture, pavement treatment, site lighting, etc.) as required by the Design Review Board on the site plan. Also include construction details.

☐ Transportation Management Plan (TMP): Required for all commercial and industrial projects that generate 30 or more new trips and have at least 25 employees must be reviewed and approved prior to building permit issuance.

FIRE DEPARTMENT CHECKLIST

(UPDATED 1-20-15)

1 **Checklist.** The following checklist is integral to Entitlement Approval. Requirements shall be complied with in Civil Drawings, Building Permit Submittals, Fire Code Permit Submittal, and/or other applicable processes. If you do not believe the item applies to your project mark N/A. Check if applicable and it has been shown or provided.

2. **General Conditions.** A project is subject to all general criteria of the Redmond Zoning Code and Redmond Municipal Code. Please refer to the items below for a checklist of general Fire Department requirements. The checklist does not substitute for the code; it is intended to be used as a guide in preparing your submittal. Refer to the Redmond Zoning Code and Redmond Municipal Code for detailed information.

3. **Unique Criteria**. Some criteria below apply primarily to commercial and multi-family residential, 3 units or more (**COM**), or single family residential projects, one or two units (**RES**).

Guidance. Some paragraphs are primarily for information and are so designated (**INFO**).
General Fire Department Approval Conditions:

EMERGENCY VEHICLE ACCESS EASEMENTS AND ROADWAY REQUIREMENTS

☐ INFO: Emergency Vehicle Access Easement (EVAE), and roadways are the approved combination of public streets, private streets, private access tracts, and site access roads, lanes, alleys, and designated structures which provide access to Fire Department personnel, vehicles, and equipment for the purpose of providing emergency firefighting, physical and health hazard response, certain systems responses, and emergency medical response to buildings and commercial and residential facilities under all circumstances. This section will provide a guideline to general EVAE and roadway requirements. An EVAE roadway may be designated as a fire lane for marking purposes

☐ Minimum unobstructed surface width shall be 20 feet

☐ Minimum unobstructed height shall be 13'6"

☐ Minimum interior turning radii shall be 25 feet, and exterior radii shall be 45 feet

☐ Portions of some turnaround designs shall have a minimum 28-foot interior radius. See RZC Appendix 2 for illustrations

☐ RES: Where access exceeding 50 feet is needed to one or two dwelling units, a reduction to an unobstructed width of 14 feet is allowed if an approved 20' x 50' emergency vehicle operations area (EVOA) is provided. The EVOA design shall be an approved extension of the emergency vehicle access easement

☐ The minimum load bearing surface of an access roadway shall meet the compaction and load bearing requirements of the Development Engineering Department for a 77,000 pound vehicle and adequate point loading characteristics for both wheel systems and outrigger systems (45,000 lbs. over 24"x24" pad).

☐ The surface shall be an approved all weather driving surface, typically asphalt or concrete. (See City Standard Specifications.) Alternate surfaces must have the approval of the Development Engineering Department and the Fire Department.

☐ The access surfaces shall be in place and able to support the weight of Fire Department vehicles prior to the delivery, use, or storage of combustible building materials to, or at the site except small amounts used for concrete forms

☐ Roadways shall be within 150 feet of all portions of the exterior walls of a structure or a facility. Courtyards may be required to provide access when designated by the Fire Marshal

☐ Roadways shall be within 50 feet of 25 % of the exterior

☐ COM: Dead ends shall be no longer than 150 feet or provide a turnaround per City of Redmond standards

☐ RES: Whenever two dwelling units are served by dead end access longer than 300' there shall be provided a turnaround per City of Redmond standards

☐ Fire lanes must be marked per Redmond Fire Department standards

☐ Fire lanes identified through site plan review shall be included on civil drawings

☐ Additional fire lanes or marking may be required anytime during the life of the development upon evaluation by and direction of the Fire Code Official

☐ The EVAE or roadway shall have a maximum grade of 10%. If off site access grades or on site grades are 10% or more, a design (plan and profile) of the proposed roadways must be submitted for review showing the extent and degree of overage in order to determine if mitigation is possible, and if so, what may be required. If approved, mitigation shall include at a minimum that all structures shall be fire sprinklered. Additional mitigation may also be necessary

☐ COM: Loading and unloading areas shall not occur in fire lanes. Indicate on your submittal the location of loading, unloading and/or delivery areas

☐ RES: Where more than 100 units are designed in a residential development, either single family, multifamily, retirement or similar, there shall be a minimum of two access points to the street system. Such access points shall be so located so as to provide for general circulation, alternate emergency vehicle access routes, through access and general area transportation design considerations. One of these access points may be for emergency vehicle use only where the number of units does not exceed 100

☐ Design of an "emergency vehicle use only" access must be approved by the Fire Department

☐ RES: Where a gate is desired for an emergency vehicle access roadway they shall be strobe activated electric gates with key and manual overrides other designs of emergency gate access shall be approved by the Fire Code Official

☐ COM: Obstruction of fire lanes for security or other reasons must be approved by the Fire Marshal. Only gate or post systems and locks approved by the Fire Marshal may be used

☐ All portions of an emergency vehicle access roadway not in a public Right Of Way, including turnarounds and Emergency Vehicle Operations Areas, shall be maintained in an approved and recorded Emergency Vehicle Access Easement (EVAE). Refer to **"Easements and Dedications Process Overview"**

ADDRESSING & STREET-NAMING CONVENTION

☐ **INFO:** Approved Address numbers and street names are essential for rapid emergency response. Approved names, numbers, and signage shall be provided for all structures and facilities. (Includes suite and unit designation)

☐ One or more signs are required for all buildings and facilities

☐ The building shall have the building address numerals (i.e. 15001) located on the upper 25% of the building face (this may be modified in downtown areas where streets are close to buildings or similar situations) and situated so as to be clearly visible and easily legible from the street fronting the property

☐ Temporary signs shall be used at the job site as soon as construction begins. Numerals shall be high contrast in color, face the street fronting the property, be clearly readable, and be a minimum 6" high. Site access roadways shall be clearly marked to identify drivable surfaces

☐ Both public and/or private streets, avenues and portions thereof shall have appropriate number designations. Name designations shall not be used. Numbers shall be assigned by the Fire Marshal

CITY-APPROVED FIRE PROTECTION SYSTEMS

☐ An approved fire alarm system will be required for one or more of the following reasons:

☐ 1. An approved alarm panel and means of transmission is required for monitoring of the sprinkler system

☐ 2. New buildings 3000 gross square feet or more (unless R-3 single family) require an approved fire alarm system

☐ 3. Existing buildings 6000 gross square feet or more (unless existing R-1) require an approved fire alarm system

☐ 4. Special hazards, occupancies, or situations may also require an approved fire alarm system

☐ An approved automatic fire sprinkler system shall be required for one or more of the following reasons:

☐ **COM:** 1. Buildings with gross square footage of 3,000 square feet or more require an approved fire sprinkler system

☐ 2. All residential occupancies require an approved fire sprinkler system

☐ **COM:** 3. Any building with a calculated occupant load over 200 with an assembly occupancy requires an approved fire sprinkler system throughout

☐ 4. Access grades 10.0% or greater to or within a project site may require mitigation that will include a requirement for an approved fire sprinkler system in every building

☐ **COM:** 5. Where calculated fire flow demand for a building exceeds the available water or exceeds 3500 gpm. an approved fire sprinkler system is required

☐ **COM:** 6. Certain hazardous occupancies and/or storage situations require an approved fire sprinkler system

☐ **COM**: 7. Commercial additions where the structure after the addition exceeds 5,000 gross square feet require an approved fire sprinkler system

☐ All underground sprinkler supply piping, water mains, and hydrants shall be included on civil drawings and shall be approved by the water supplier and the Redmond Fire Department

☐ **COM:** DOH approved back flow prevention is required to be installed inside the fire sprinkler room

A certified backflow assembly tester shall test this assembly. After a satisfactory test is completed, backflow assembly test form shall be submitted to the City of Redmond prior to acceptance of the related job

☐ **COM:** A dedicated riser room (min. 8'x10') with direct exterior access shall be provided in an approved location. The proposed location of this room and the access door shall be indicated on your submittal

☐ **COM:** F.D.C.s shall terminate in a riser room. The check valve must be accessible

☐ **COM:** One or more "Knox Box" key boxes or switches may be required with any project

☐ **COM:** All buildings which have a fire sprinkler or fire alarm system shall have an approved Knox Box. Model 3200 and 4400 recessed with a pre-wired tamper switch boxes are available

☐ A "Knox" padlock is required for certain gates and other approved access applications

☐ A "Knox" key switch is required for use with approved, strobe-activated, electric gates, certain mechanical equipment, and/or some electrical systems

☐ **COM:** Grand Master keying and labeling is required

☐ The fire inspector or fire plan reviewer shall identify the type, number, and location of boxes or locks

☐ **COM:** Standpipes shall be installed as directed through Fire Department Plan Review and in conformance with RFD Standards

☐ **COM:** Interior standpipes are required per the IBC and IFC, or as directed by a Fire Department Plan Reviewer

☐ Exterior standpipes may be required when vehicle access is impossible or inadvisable in the opinion of the Fire Code Official and an exterior supply is needed

CITY-APPROVED WATER SUPPLY AND HYDRANTS

☐ Water System improvements shall be consistent with the City of Redmond Water plan

☐ **RES:** Residential areas shall be master planned to provide a minimum of 1500gpm

☐ **COM:** Most Commercial areas shall be master planned to provide a minimum 3500gpm

☐ Hydrants must be capable of providing sufficient fire flow to meet the required flow of the project as calculated by the Fire Marshal

☐ Any one hydrant shall be capable of providing a minimum of 1500gpm and any two or three hydrants (depending on the demand) flowing simultaneously shall be capable of providing the demand flow

☐ A fire flow calculation shall be done according to RFDS #3

☐ Hydrants shall be located in relation to the building or area they serve

☐ **COM:** The Fire Code Official may consider existing hydrants within 150 feet of a proposed commercial building as providing some portion or coverage

☐ **RES:** The Fire Code Official may consider existing hydrants within 300 feet of a single-family residential project as providing some portion of coverage

☐ **COM:** Maximum hydrant spacing is 300 feet on center for commercial, multi-family, or single family residential 6,000 sq. ft. or more

☐ **RES:** Maximum hydrant spacing is 600 feet on center for surface parking lots, and single-family residential (less than 6,000 square feet per building)

☐ **COM:** Where structures on a dead end access are over 150 feet from a hydrant, an additional hydrant may be required within 150 feet and placed in relation to the overall development and existing hydrant layout

☐ **RES:** Where structures on a dead end access are over 300 feet from a hydrant, an additional hydrant may be required within 150 feet and placed in relation to the overall development and existing hydrant layout

☐ Final hydrant and F.D.C. locations and water mains must be shown on the civil drawings and approved by the water purveyor and Fire Marshal

☐ Hydrants must be in place and serviceable prior to the delivery, use, or storage of combustible building materials

☐ **COM:** Commercial underground sprinkler supply shall not be less than 6" D.I. pipe. F.D.C. lines shall be the same pipe size as the sprinkler supply (to facilitate testing) and of a size hydraulically proven to supply the system demands at normal fire engine working pressure

☐ **COM:** Three and four-plex's shall have a minimum 4" D.I. pipe supply

☐ **RES:** Residential underground supply shall be a minimum 2" high molecular poly pipe or approved alternate

☐ Hydrants shall be no closer than 12'0" to a carport, garage, building, or dumpster

☐ Planter islands or peninsulas for hydrants require a minimum diameter of 8 feet. Four feet is to be maintained between face of curbs and fire protection equipment and if applicable, between hydrants, F.D.C.s, and P.I.V.s. If closer to the curb, approved protective posts are required

☐ Hydrants, F.D.C.s and P.I.V.s should be a minimum of 40 feet from other structures and on the opposite side of the access from the building they serve, unless approved otherwise

☐ F.D.C.s and P.I.V.s shall be located adjacent to a hydrant, unless approved otherwise

☐ A 5", locking, Storz adapter is required for steamer ports on all hydrants

☐ A 5", locking, Storz adapter is required for existing hydrants considered important by Redmond Fire Department in relation to a proposal

☐ **COM:** High rise is as defined by the International Building Code

☐ Bollards are required around natural gas meters if the driving surface is within 20 feet. Placement shall be per Redmond Fire Department standards

☐ **COM:** Permits are required for storage, handling, processing, or use of any hazardous processes or materials regulated by the IFC

☐ **COM:** If some C.O.s are desired prior to others, submit a separate phasing plan to Technical Committee for approval. This plan must indicate limits of construction/occupancy, types and location of barriers, traffic patterns, parking, and phasing of utilities, as well as a plan for maintaining uninterrupted service and access. Phasing is not possible on some projects. In these situations no occupancy will be allowed until all certificates of occupancy are signed

☐ **COM:** Commercial dumpsters and containers with an individual capacity of 1.5 cubic yards or greater shall not be stored or placed within five feet of combustible walls, openings, or combustible roof eave lines. EXCEPTION: Areas containing dumpsters or containers protected by an approved automatic sprinkler system

☐ **COM:** Elevators shall meet the requirements of the IBC

☐ **COM:** Provide the number and size of exits per Redmond Building Code. Exits shall be continuous and unobstructed to a public way

FIRE PROTECTION PLAN

☐ In order to assist in the review of Fire Department requirements and to create a source of information of importance to inspections and emergency response, the following features of the proposed development, as applicable, shall be shown together on a minimal number of plan sheets

☐ For consistent identification label the plan as "**Fire Protection Plan"** or use **FP-1**, etc.

☐ This plan shall also be included with the Civil Drawing set submitted to the City for final review. A minimal amount of other information shall be shown on this sheet (or sheets)

☐ **General site layout** (1:20 to 1:40 scale or as otherwise allowed), showing:

- ☐ Property lines
- ☐ Adjacent Rights Of Way (ROW)
- ☐ The exterior walls of buildings
- ☐ Buildings or structures to remain
- ☐ Labeled location of entry and egress points
- ☐ Access roadways
- ☐ Surface parking areas

- ☐ Loading/unloading/delivery zones
- ☐ The location of fire lane signs and markings
- ☐ Gate systems if applicable
- ☐ Finished topography at 2-foot intervals
- ☐ Designated fire lanes (exclude parking—allow 8' for parking width)
- ☐ Turnarounds and overhang areas
- ☐ EVAE's
- ☐ Location of hydrant's, FDC's, PIV's, and gas meters

☐ Radii shall be labeled and the driving area of the emergency vehicle access shall be shown

☐ A scalable vicinity map showing the involved parcel and their relation to adjoining parcels, and nearest ROW

☐ COM: If a building is fire sprinklered, note the location of the direct exterior access door to the Fire Sprinkler Riser Room

☐ Indicate the location, size, and material for all underground fire sprinkler system supply piping

☐ COM: The approximate location of elevators and stairways in the building

☐ COM: A table showing the gross square footage per floor and total per build

☐ COM: A table indicating a; Building Code Uses, and Construction Typed per building

Section 7: ADDITIONAL RESOURCES

Development Engineering and Construction General Application

City of Redmond/Redmond Zoning Code

Design Requirements Water and Wastewater System Extensions

Overview of the Development Process [RZC 21.76.020]

Appendix 2. Construction Specification and Design Standards for Street Access

Stormwater Technical Notebook

Permit Forms (A-Z) - full list of Documents, Bond Forms and Permit applications in alphabetical format

Fee Schedule (A-Z) – full list of Fees in alphabetical format

City Standard Specifications and Details

City of Redmond Municipal Codes