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Application Requirements for PREP- Land Use Entitlement



Part 1: Application Instructions

INTRODUCTION TO PREP

PREP (Pre Review Entitlement Process) is different than the standard review process. It is an optional review process whereby the applicant achieves a code-compliant proposal prior to submitting an application. PREP is a mutual commitment between the City and the Development Team to create a code-compliant application package within the established timelines.

The established timelines do not account for unintended findings, deviation requests and review time, or omissions which may delay the PREP process.

APPLICABILITY:

This submittal checklist is for the following applications:

- Alteration of Geologic Hazard Area
- Conditional Use Permit
- Essential Public Facility
- Shoreline Permit, Shoreline Conditional Use & Shoreline Variance
- Site Plan Entitlement
- Temporary Use Permit – Long Term (greater than 6 months)

INTAKE PROCEDURE:

Staff will review each submittal package associated to the 30%, 60% and 90% submittal checklist prior to the required meeting to ensure that each item below is included.

Any deviation from the application submittal requirements checklist will not be accepted and deemed incomplete without prior approval from the appropriate City department. If a deviation is approved by the City, please provide written confirmation at the time of submittal.

Following the PREP Kick Off Meeting (30%), the submittal package associated to the 60% & 90% submittal checklist must be uploaded through the E-Review Portal (<http://land.redmond.gov/ereviewportal>). For more information about how to upload electronic documents, please see How to Upload to the E-Review Portal handout attached to <http://redmond.gov/e-track>.

SPECIAL NOTES

The submittal requirements below may change periodically. These submittal requirements are dated **October 2016**.

I. ELECTRONIC PLAN REVIEW 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.

A. File Naming Standards: The submittal items noted in “**Bold**” or designated “**Section**” under

Part 2: Submittal Checklist shall be named accordingly:

- **Report_ReportNAME**
- **Deviation_Subjectof Deviation**
- **SEPA_DocumentName**
- **Notice_DocumentName**
- **All others only by the name listed in the checklist**

format.

Documents: Calculations, reports and other supporting documents (non-drawing files) must be uploaded as a PDF.

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

Plans: Plans must be submitted in a PDF

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

II. PROFESSIONAL

All components of the application shall be prepared by the appropriate professional(s) licensed in the State of Washington. A license stamp or registration number, whichever is applicable, as well as the signature, shall be provided on the face of the application materials

III. PLAN REQUIREMENTS

INSTRUCTIONS

All plans must be submitted in a **searchable PDF format (non-scanned)**. The plans shall be drawn to an **engineering scale of 1" = 20' or larger** are required and shall be uploaded in landscape format in the horizontal position.

Building elevations, floor plans, roof plans, screening plans, and lighting plans shall be drawn to **architectural scale of 1/8" or 1/4" = 1'**.

For the subject property and surrounding properties within fifty (50) feet of the subject property unless otherwise noted, including adjacent rights-of-way, the following information shall be shown. These items shall be prepared by a registered Civil engineer in accordance with **City of Redmond Design Standards**, using NAVD 88 vertical datum and NAD 83-91 horizontal datum.

IV. FORMAT

For the coversheet & site plan, transportation plan, grading plan, fire plan, utility plan and landscape plan shall all use the same base maps, unless prior arrangements have been made.

- A. All plans must make a distinction between existing and proposed features and/or improvements.
- B. A sheet index must be provided on the face of all plan sets
- C. Applicable contact names, phone, address and e-mail shall be provided on each plan sheet.
- D. North Arrow and scale bar must be shown in the same location on each page of the plan sets
- E. Each page of the plans set shall include a legend indicating the symbols used on the page (one legend on front of plan set is not acceptable)
- F. Provide the following plans sets as three individual PDF files. The individual plan pages shall be titled and numbered as bulleted pointed below under each of their respective plan set headings. (which includes all information noted in green in Part 2: Submittal Checklist, attached).

"Plan Set"

- Coversheet
- Site plan
- Transportation Plan
- Utility Plan
- Grading Plan
- Fire Plan
- Landscape Plan
- Tree Preservation Plan

"Architectural Plan Set"

- Building Elevations
- Floor Plans
- Roof Plans
- Lighting Plans

"Composite Plan Set"

- Composite Site Plan
- Composite Landscape Plan
- Composite Utility Plan
- Civil Engineering Plan

Project Name: _____

Part 2: Submittal Checklist

The following information must be submitted a minimum of five (5) days prior to noted meeting.			
SECTION I: GENERAL	30% Must be submitted prior to Kick Off Meeting	60% Must be submitted prior to 1 st Coordination Meeting	90% Must be submitted prior to 2 nd Coordination Meeting
Kick Off Meeting Submittal Form	X		
Memorandum of Understanding – Provide signed MOU	X		
<u>Project Contact Form</u>	X		
<u>SEPA Checklist</u> (RZC 21.70)	X		
Special Design Requirements – outlining special design requirement for specific districts, neighborhood or uses.	X		
Tree Health Assessment - Must be prepared by a certified arborist and shall identify all trees on site that are six (6) inches or greater in diameter and verify that all trees designated as retained are healthy trees. (For more reporting requirements see the Guidelines for Demonstrating Conformance with Tree Protection Standards Part 3). (RZC 21.72)	X		
Critical Areas Report – must contain all applicable information within RZC Appendix 1: Critical Area Reporting Requirements . (RZC 21.64-21.72)	X		
Critical Areas Aquifer Recharge Report – must contain all applicable information within RZC Appendix 1F: Critical Aquifer Recharges Areas (Wellhead Protection) Reporting Requirements .(RZC 21.64-21.72)			
Traffic Study – Submit Phase One: Trip Generation Study/Traffic Modeling. In Phase One of the traffic analysis process, the traffic consultant is required to submit a technical memorandum summarizing the forecasted trip generation for the proposed project, along with justification for the city and possibly by other affected public agencies. Upon approval of the trip generation estimate a determination will be made if the project is subject to transportation concurrency review in accordance with section 21.52 of the Redmond zoning Code. If applicable, the applicant shall submit a request for a certificate of concurrency. The project applicant will be required to pay for the traffic modeling that is part of the concurrency evaluation. (See Part 4 – Requirements for Traffic Study).	X		
Geotechnical Report	X		
Stormwater Report – The Preliminary Stormwater Report must follow the format provided in the 2012 Department of Ecology Stormwater Manual for Western Washington as amended in 2014 (2014 SWMMWW), Volume I, 3.1.7. Project shall provide On-site Stormwater Management BMP's to meet Minimum Requirement #5 and demonstrate compliance with the LID	X		

Performance Standard.			
LID Feasibility Analysis and Site Plan - Analysis for LID should be completed as part of the initial project design. The LID Feasibility study is required at the kickoff intake.	X		
Decision Criteria Analysis & Response – Must address how the proposed application will meet the decision criteria associated to the following application types specified in RZC 21.76.070 for the following permits only: <ul style="list-style-type: none"> • Alteration of Geologic Hazard Area • Conditional Use • Master Planned Development • Essential Public Facility • Temporary Use – Long Term 	X		
For Shoreline Permits Only: Cross Section – Provide typical cross-section or sections showing the following: <ul style="list-style-type: none"> • Existing ground elevations • Proposed ground elevation • Height of existing and proposed structures • Ordinary High Water Mark • Areas of shorelines which are of statewide significance 	X		
City Approved Water Supply and Hydrants – (See Part 6-City Approved Water Supply and Hydrants.		X	
Mitigation Plan – Demonstrate compliance with RZC Appendix 1: Critical Areas Reporting Requirements.		X	
Phasing Plan – For projects proposed to be phased, please provide a phasing plan identifying the proposed timing of each phase and a clear delineation of those improvements to be constructed for each phase		X	
Traffic Study – Submit Phase Two: Formal Scoping/Preparation of Traffic Impact Analysis. Phase two of the transportation impact analysis process entails scoping of the analysis and preparation of the report by the transportation consultant. Once the traffic modeling is complete, the applicant's consultant should contact the City to set up a meeting to formally scope the transportation impact analysis. The analysis will be based primarily on the outline presented on the following pages. The specific list of intersections that will need to be reviewed in the transportation impact analysis will be developed from the trip assignment for the project. Depending upon the size and character of the proposed project, certain elements of this outline may be reduced in scope or eliminated. However, other items may also be added if special issues relating to the transportation exist on the project. (See Part 4 – Requirement for Traffic Study).		X	
Noise Study - May be required to analyze current and proposed noise levels as well as methods of attenuation. The study must be conducted by a noise specialist. (RMC 6.36)		X	
Culture Resources Report (if required by the Planning Department) – The applicant shall have a qualified archeologist, as approved by the Administrator, prepare a site study to determine the effect that any proposed action may have on the archeological site and recommend necessary		X	

<p>treatment and mitigation measures.</p> <p>The investigation and written report by the approved archeologist shall include information about the probable significance of the site, the probable effect of the land use action or activity on the integrity of the site, and a set of recommendations for any necessary treatment or mitigation measures. This investigation and report shall include but not be limited to the following:</p> <p>The boundaries of the archeological site. If the boundaries of the archeological site are found to be outside the areas of the proposed project activities (e.g., in critical areas proposed for buffers), the investigation and report shall be deemed complete with this information together with information in below.</p> <ul style="list-style-type: none"> • A description of the archeological features and of the depth and characteristics of any artifacts unearthed during the course of investigation. • The impacts that the proposed construction or use are likely to have on the site. • Recommendations for measures to interpret and protect the site as appropriate to standard archeological practice. • If based on the analysis construction is conditionally recommended, a description of any areas to be monitored during construction. 			
<u>General Application Form</u>			X
<u>SEPA Application Form</u>			X
<u>SEPA CAO Worksheet</u>			X
<u>Greenhouse Gas Emission Worksheet</u>			X
Neighborhood Meeting Notice – Template completed and provided for projects required to conduct a Neighborhood Meeting		X	
Public Notice Site Plan (8 ½" X 11" format) - Must show the following information on the site plan suitable for public notice: <ul style="list-style-type: none"> • Show proposed project • North Arrow • Street numbers and/or names adjacent to the project boundary • Project Name • Identify the boundaries of an critical areas 		X	
Public Notice Tree Preservation Plan(8 ½" X 11" format) - Must show the following information on the tree preservation plan suitable for public notice: <ul style="list-style-type: none"> • Show proposed project • Highlight, in the shade of green, trees on the site designated to remain (trees that are NOT being removed) 		X	

<ul style="list-style-type: none"> • North Arrow • Street numbers and/or names adjacent to the project boundary • Project Name • Show an "X" over each tree proposed to be removed • Include a key stating that the "X" represents trees proposed to be removed 			
Title Report - Provide the full title report that is dated within 90 days of the submittal date for all parcels involved.			X
Composite Site Plan, Civil Engineering Plan, Composite Utility Plan, and Composite Landscape Plan - For large sites, typically <i>three acres or larger</i> , provide a composite site plan, civil engineering plan, composite utility plan and a composite landscape plan showing the entire site.			X
Transportation Certificate of Concurrency – This form must be filled out.		X	
SECTION II: DESIGN REVIEW BOARD			
The Design Review Board meetings are at 7PM on the 1 st & 3 rd Thursday of each month to review land use projects. Please work with your assigned project planner when scheduling a meeting with the Design Review Board. The following Design Review Board materials must be submitted at least 14 days prior to the meeting. Please include all the information below into ONE pdf document titled " Design Review Board Materials ". <i>Applicant should anticipate 3 or more total DRB meetings.</i>	X	X	X
Design Checklist – To obtain the checklist please contact the project planner.	X		
Incorporate the Coversheet & Site Plan (see requirements Section III).	X		
Conceptual Building Elevation – Must show the following information: <ul style="list-style-type: none"> • Design concept and overall massing • Entry locations, windows and mechanical screening 	X		
Design Concept Narrative – The Design Concept Narrative shall be consistent with the standards set forth in RZC Chapter 21.58 through 21.62, Design Standards . The narrative should include text which is based on well-defined concept which responds to the community goals and policies identified within Chapter 21.58 through 21.62, Design Standards .	X		
Photographs	X		
Incorporate the Landscape Plan – Do not mount on foam board. (See requirements Section IV).	X		
Incorporate the Roof Plan - (See requirements Section XII).		X	
Floor Plan – Showing configuration of the interior space as well as rooms and corridors.		X	

Color Site Plan & Elevation Perspectives – Show proposed building as viewed from public right-of-way, public trails or other public spaces as well as neighboring structures. Additionally, call out proposed materials. In addition to the electronic documents, a mounted set may be provided. The mounted set must be at least 24" x 36" in size.		X	
Parking Plan		X	
Contextual Street Elevation – including existing and proposed buildings within 100 feet of the subject property.		X	
Lighting Plan with Utility – including cut sheets and photometrics.			X
Material and Color Board – include all significant materials and colors for: <ul style="list-style-type: none"> • Exterior Finish (color chips, minimum of 4" x 4") • Windows/Frames • Doors/Frames • Trim, Flashings, etc. • Roofing (if visible) and rooftop mechanical equipment screening material) • Material boards must be at least 24" x 36" in size. Items must be labeled to correspond with elevation drawing labels. 			X
SECTION III: COVER SHEET & SITE PLAN			
Applicant's name, address and phone number.	X		
North arrow and date.	X		
Existing and proposed property lines and lots.	X		
Location(s), size(s) in square feet and use(s) of any existing building(s) on site.	X		
Location and width of existing and proposed easements for access, drainage, utilities, etc.; existing and proposed driveways, road easements and right-of-way on the site and on adjacent properties, including those across the street.	X		
Proposed street right-of-way dedication (if applicable).	X		
Any watercourse (stream, drainage, etc.) on or adjacent to the site.	X		
Location of any State Shorelines and their associate wetlands.	X		
Existing critical areas including wetlands, streams, 100 year floodplain, geologic hazard areas (40% slope) and critical wildlife areas together with their associated buffers.	X		
Location of all utility poles, streetlights, etc., in the public right-of-way adjacent to the site.	X		
Proposed building footprint and parking layout.	X		
<u>For a Shoreline Permit Only</u> – Depict the following information on the Cover Sheet & Site Plan submittal:			

<ul style="list-style-type: none"> • All applications for projects located in open water areas away from land shall provide a longitude and latitude location • Shoreline delineation/limits • Shoreline designation according to Master Program • A surveyed Ordinary High Water Mark (OHWM) of all water bodies located adjacent to or within the boundary of the project shall be shown. Where the ordinary high water mark is neither adjacent to or within the boundary of the project, the plan shall indicate the distance and direction to the nearest ordinary high water mark of a shoreline. • A delineation of all wetlands that will be altered or used as part of the development • A general indication of the character of the vegetation found on the site. • Existing and proposed stormwater runoff system and peak flow rates. • Volume, source and composite of any fill material that is placed on the site whether temporary or permanent • Volume, composition and volume of excavated or dredged materials and proposed disposal area 			
Project Name – show on every page.	X		
Section, Township, Range	X		
Tax Parcel Number(s)	X		
Legal description	X		
Notation of existing zoning classification	X		
Small scale vicinity map relating the proposed development to existing streets, other developments and significant land features within ¼ mile of the subject property.	X		
Name, address, phone number and e-mail address of the owner, developer, builder, surveyor, engineer(s), architect, land use planner, arborist, and other professionals involved.	X		
Proposed IBC Construction type		X	
Sheet Index for plan set		X	
Dwelling units allowed and proposed (residential)		X	
Gross floor area allowed and proposed (non-residential)		X	
Open space/landscape required and proposed		X	
Parking required and proposed		X	
Impervious surface allowed and proposed		X	

Building height allowed and proposed		X	
Notation of water and sewer source		X	
Dimensions and ground elevations of existing and proposed structures		X	
Existing topography at 2-foot contour based upon an actual field survey. Larger contour intervals may be allowed on steep sites. Spot elevation of existing and proposed conditions may be shown for flat sites with no more than 5 feet of total elevation change.		X	
Proposed topography including heights of proposed retaining structures and rockeries.		X	
Existing and/or proposed public or common use areas		X	
If project is within floodplain, the base flood elevation must be shown using NAD 93-91. If the property contains FEMA Floodway, it must be shown as well.		X	
All setbacks including building setbacks and setbacks in accordance with geotechnical recommendations.		X	
SECTION IV: LANDSCAPE PLAN			
Existing vegetation to be retained	X		
General location of proposed trees, shrubs and groundcover.	X		
A plant schedule providing the scientific name, common name, size and spacing of each plant as well as specie alternatives for trees, shrubs and groundcover.	X		
Proposed location and species of required replacement trees. Replacement trees shall be shown on the plan and be distinguished from other landscape trees.	X		
Vegetation for blank screening		X	
Parking/vehicle use area screening		X	
Include location, square footage, percentage and dimensions of applicable landscape areas: <ul style="list-style-type: none"> • Interior parking lot landscaping with computation of vehicle use areas • Linkage system landscaping – Downtown zones only • Perimeter landscaping and parking lot perimeter landscaping • Foundation planting • Minimum required and proposed site landscaping (percentage) 		X	
SECTION V: TREE PRESERVATION PLAN (RZC 21.72)			
Show the surveyed location and dripline of all trees four (6) inches or greater in diameter at breast height (4 1/2' above grade) within the site and for fifty (50) feet outside of the site. Individual trees shall be identified by size and species. Significant trees shall be shaded, marked or	X		

have a separate symbol			
Where stands of more than twenty-five (25) trees will not be disturbed, the applicant must depict the size and species name of each significant tree, within the dripline of the stand together with a note indicating the total number of significant trees within the stand.	X		
Each tree shown must be designated as removed, retained (no construction within five (5) feet of the dripline,) or impacted (tree proposed to remain, but have construction within the dripline or 5 foot dripline setback). Only retained trees may be counted toward the 35% tree retention requirement.	X		
The five (5) foot dripline setback shall also be shown for all trees proposed to be retained and impacted.	X		
Show the complete Tree Retention Summary Table. (See Part 4 – Guidelines for Demonstrating Conformance with Tree Protection Standards).	X		
Location of all proposed water, sewer and storm lines must be shown.		X	
SECTION VI: TRANSPORTATION PLAN			
Onsite Traffic Circulation (including consideration for the following): <ul style="list-style-type: none"> Show the location of the truck/delivery areas. Parking layout (designed by a registered engineer for parking lots exceeding 200 spaces). 	X		
Pedestrian/Transit/Bike Access <ul style="list-style-type: none"> Pedestrian circulation within parking lot All existing and proposed driveways, intersections and land channelization within 150 feet of the subject property. Conceptually show existing and proposed roadway improvement, including sidewalk, curb and gutter, tapers and street lights within 150 feet of the subject property. 	X		
On and Off-Site Conditions within 50 feet of subject property (existing and proposed): <ul style="list-style-type: none"> Driveways, including: maximum/minimum width allowed, width provided, all driveways shown within 150 feet of the proposed site, driveway-to driveway spacing at 150 feet minimum, angle at intersections of street, and emergency access requirements. Intersections, including: site distance triangle, horizontal alignment, minimum 150 feet offset from near edge of adjacent intersections, approach landings, and minimum curb radius provided. 	X		

Street Lighting <ul style="list-style-type: none"> Photometric analysis for full width of street (from curb to curb) is required and shall be prepared by experienced ROW lighting designers to determine if existing conditions meet the lighting requirements. 	X		
<ul style="list-style-type: none"> A separate street light plan showing streetlights incorporated with landscape design based on photometric analysis report is required. Street Light Plan for ROW lighting shall be differentiated from onsite lighting plan. 	X		
<ul style="list-style-type: none"> Streetlight Requirement Worksheet is required. 	X		
<ul style="list-style-type: none"> The streetlights need to be identified if they will be in a City-owned system or a PSE-owned system. 	X		
<ul style="list-style-type: none"> Service cabinet location is shown and availability of the 120/240v single phase service power location is verified if the street light system will be City-owned. 		X	
<ul style="list-style-type: none"> A Letter or Memo of Understanding from PSE with scope and cost agreement is required if the street light system will be PSE-owned. 		X	
Onsite Traffic Circulation (including consideration for the following) <ul style="list-style-type: none"> Backing zones (away from heavy use areas) Stacking/queuing of vehicles. Drop off zones Parking areas, including stall delineation and dimensions. Truck/delivery areas with dimensions and turning radii. 		X	
Pedestrian/Transit/Bike Access <ul style="list-style-type: none"> Sidewalk locations Pedestrian and/or vehicular connections to adjacent properties. Show specific location of existing and proposed roadway improvements, including sidewalk, curb and gutter, tapers, bike lanes and street lights within 150 feet of the subject property. 		X	
On and Off-Site Conditions within 50 feet of subject property (existing and proposed) <ul style="list-style-type: none"> Right-of way, including bearings and distances Streets, edge of payment or curb, sidewalk, street centerlines, and street names. 		X	
SECTION VII: UTILITY PLAN			
Existing and Proposed Utilities <ul style="list-style-type: none"> Location and size of water facilities Location and size of sanitary sewer facilities Water and sewer mains in easement areas must 	X		

<p>show 10-foot easement on either side of the main</p> <ul style="list-style-type: none"> • PRV stations shown where required to create water system pressure zones consistent with the Water System Plan. 			
<p>Existing and Proposed</p> <ul style="list-style-type: none"> • Location and size of water facilities, including water meters and side sewers. • Location and size of storm drainage facilities. • Power, power poles, gas, telephone and cable. • Fire hydrants. • Vaults. • Boxes. • Underground duct runs. • Location and size of above ground electrical transformers and emergency generators. • Profiles of storm drainage systems are required at locations where construction conflicts are possible. Minimum vertical clearance is 12", except for sanitary sewer where the minimum is 18" (storm drain above sewer). Show existing and proposed grades and utility inverts. Please note that drop structures are only allowed per approval by the Stormwater Engineer. • New water and sewer mains located within paved areas where reasonably feasible. • All weather drivable access to all sanitary sewer manholes is provided with a maximum grade of 18%. Curve radii shall be a minimum of 25 feet inside, 45 feet outside. • Retaining walls, rockeries, and other structures are excluded from utility easement areas. • The PRV stations shall be shown to scale and include adequate area for construction and maintenance as well as vehicular access to in a soft-surface area consistent with City's design and construction standards. • Any required sewage pump stations to service the project must be patterned after the existing City pump stations with preliminary sizing calculations. • Indicate the source of domestic water for all properties within 150 feet of the proposed project and all associated construction. • If applicable, submit a hydrogeologist's report of likely impacts to wells serving properties for which the water source has been identified. The report must also include proposed monitoring and mitigation in the event of demonstrated impacts. • Existing trees within 8 feet of new or existing water and sewer mains shall be shown as "removed" on the Tree Preservation Plan. 	X		

<ul style="list-style-type: none"> For utilities proposed to cross critical areas, indicate the proposed means of construction for the crossing and whether a critical areas exemption will be required to be obtained for construction. 			
SECTION VIII: FIRE PLAN			
<p>General Requirements</p> <ul style="list-style-type: none"> Property lines Adjacent right-of-way Buildings or structures to remain Labeled location of entry and egress points to site Access roadways 	X		
<p>Emergency Vehicle Access Requirements</p> <ul style="list-style-type: none"> Required access shall comply with current Redmond Fire Department standards and shall be depicted on the plan. All portions of the building shall be within 150 feet of approved access roads. 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. Required access not in a public way shall be in a recorded easement (recording of easement can occur at a later date) and depicted on the plan. 	X		
<p>Fire Protection System (applicable to commercial/multi-family projects)</p> <ul style="list-style-type: none"> A dedicated Fire Alarm/Fire Sprinkler 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. 	X		
<p>Water Supply and hydrants</p> <ul style="list-style-type: none"> Minimum water supply in residential areas in 1500 gpm. Minimum water supply in commercial/multi-family areas is 3500gpm. Maximum hydrant spacing for commercial or multi-family is 300 feet on center. Where commercial structures on a dead end access are over 150 feet from a hydrant, additional on-site hydrants may be required. Show all existing and proposed hydrants on plan. Fire Department Connections and Post Indicator Valves shall be within 40 feet of a hydrant unless otherwise approved by the Fire Code official. 	X		

<p>Additional Access Requirements</p> <ul style="list-style-type: none"> • Required access roads 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 required. • Where more than 100 units are designed in a residential, multifamily, retirement or similar, there shall be a minimum of two access points to the street system. Such access points shall be located so as to provide for general circulation, alternate emergency vehicle access routes, through access and general area transportation design considerations. • Where a gate is desired for an emergency vehicle access roadway, they shall be strobe activated electric gates with key and manual overrides and must have the approval of the Fire Code Office. Obstruction of the required access roads for security or other reasons must be approved by the Fire Code Official. • Obstruction of fire lanes for security or other reasons must be approved by the Fire Marshal. • All portions of required emergency vehicle access roadways not in a public Right Of Way shall be maintained in an approved and recorded Emergency Vehicle Access Easement (EVAE). Show the proposed location of the EVAE on the plans. • All required access road ways shall meet the compaction and load bearing requirements for a 77,000 pound vehicle and adequate point loading characteristics (45,000lbs over 24" x 24" pad) for both wheel systems and outrigger systems. • 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. • Dead ends longer than 150 feet shall provide a turnaround per City of Redmond Standards • Loading and unloading areas shall not occur in fire lanes. Show location of loading, unload and/or delivery areas. • If applicable, show location of generators and note the type and quantity of fuel. 		X	
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<p>Water Supply and Hydrants</p> <ul style="list-style-type: none"> • A fire flow calculation shall be done according to Redmond Fire Department Standards 3.0 – Fire Flow. • 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 1500 gpm and any two or three hydrants (depending on the demand) flowing simultaneously shall be capable of providing the required flow. • Elevators shall meet the requirements of the IBC and the City of Redmond Wellhead Protection Program. 		X	
<p>General Requirements</p> <ul style="list-style-type: none"> • The exterior walls of buildings • Surface parking areas • The location of the fire lane signs and markings • Gate systems (if applicable) • Finished topography at 2-foot intervals • Table showing the construction type and the gross square footage per fire flow area and total per building. 		X	
<p>Additional Access Requirements</p> <ul style="list-style-type: none"> • Roadways shall be within 150 feet of all portions of the exterior walls of a structure or a facility. • Commercial roadways shall be within 50 feet of 25% of the exterior. 			X
<p>Fire Protection Systems</p> <ul style="list-style-type: none"> • Fire Department connections shall terminate in a riser room. The check valve must be accessible. • An approved automatic fire sprinkler system shall be required in all new commercial and multifamily structures 3,000 square feet or larger. • Approved sprinklers may be required in existing buildings. Refer to Redmond Fire Department Standard 5.0. • Commercial additions where the structure after the addition exceeds 5,000 gross square feet require an approved fire sprinkler system. • An approved fire alarm system and means of transmission shall be used to monitor all commercial fire sprinkler systems. • Interior standpipes are required in buildings greater than three stories per the IFC, or as directed by the Fire Marshal. • All buildings which have a fire sprinkler or fire alarm system shall have an approved Knox Box installed. 			X

<p>Water Supply and Hydrants</p> <ul style="list-style-type: none"> • A space of four feet is to be maintained between face of curbs and fire protection equipment (hydrants, FDC's, and PIV's). If four feet cannot be provided, approved protective posts are required • Commercial underground sprinkler supply shall not be less than six (6) inches diameter pipe. Fire Department Connection lines shall be the same pipe size as the sprinkler supply. Unless approved by Fire Code Official. • Five (5) inch locking Storz adapters are required for steamer ports on all hydrants. • Five (5) inch, Storz adapters are required for existing hydrants considered important by Redmond Fire Department in relation to a proposal. 			X
<p>General Requirements</p> <ul style="list-style-type: none"> • The approximate location of elevator and stairways in the building. 			X
SECTION VI: GRADING PLAN			
<p>General Information</p> <ul style="list-style-type: none"> • Provide a grading plan with existing and proposed contour lines at 2-foot intervals. • Designate steep slope areas (40% or steeper and 10-ft vertical relief or more). • Designate areas with greater than 8 feet of cut and/or fill, adjustment from the Technical Committee required. • Designate retaining walls and rockeries over 8 feet, adjustment from the Technical Committee required. • Horizontal scale shall be at 1"=20' • Vertical scale shall be at 1"=5' • North arrow and scape bar shown in the upper left corner of the drawings • Plan view information – present the existing and proposed features, utilities, retaining walls (including height), street improvements/paving, and other features that will affect the design and construction of the site grading and the drainage system. • Legend – identify line types an symbols used • Property lines and site area shown in square feet and acres • Contours – based on field survey (dashed lines for existing, solid lines for proposed) 1 or 2 foot interval (slopes 40% or greater may use 5-foot contours). • Onsite features – easements, buffers, +40% slopes etc. 	X		

<ul style="list-style-type: none"> • Offsite information – features within offsite areas that drain onsite, and topography within 50 feet of all property lines. USGS or City contour maps may be used. • Setbacks including building and steep slope setbacks (in accordance with geotechnical recommendations). <p>Grading show proposed limit cuts and fills to 8 feet, limit walls to 8 feet, proposed grading no steeper than 3 to 1, and if grading within 25 feet of steep slope (40%) provide geotechnical report.</p>			
<p>Infiltration</p> <ul style="list-style-type: none"> • Infiltration systems may not be located in an area previously used as sediment trap. 	X		
<p>Biofiltration (see 2014 Department of Ecology Manual, Volume V, Chapter 9)</p> <ul style="list-style-type: none"> • Required length of 200 feet minimum (may be reduced to 150 feet from redevelopment projects only) • Design high flow bypass for 6-month, 24- hour storm, unless otherwise designated • Setbacks must be provided from buildings or trees within 8 feet of the normal high water. • Vehicle access is required for all biofilters to provide for maintenance. 	X		
<p>Wetpond and detention facilities</p> <ul style="list-style-type: none"> • Setbacks – 10 foot minimum away from structure and ROW, and 50 feet minimum away from steep slope (15% or greater) • Berm embankments may be a maximum of 6 feet high. • The toe of an embankment must be a minimum of 55 feet from the right-of-way. 	X		
<p>General Information</p> <ul style="list-style-type: none"> • Profiles of existing or proposed road grades in excess of 10 percent. • All utility easements with dimensions labeled 		X	
<p>Stormwater Management Plan</p> <ul style="list-style-type: none"> • Design pipe slope - .25% minimum and 20% maximum • When specified by the City Stormwater Engineer-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). • Safe 100 Year Flow Conveyance – the 100 year storm flow shall not impact any buildings. • Minimum pipe size 12" minimum for public storm drain system and 6" minimum for private systems. • Pipe data-pipe length, slope labeled • Horizontal clearance – 5 feet from all other utilities and structures and 8 feet from trees (street trees 		X	

<ul style="list-style-type: none"> • may be closer than 8' with root barrier) • Vertical clearance – one foot from other utilities. 18" for sewer with storm above sewer. • Rockeries/retaining walls – shall not cross or be near storm drain pipes, except 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 including structure type and size • Structure spacing-350' preferred (400' may be allowed) • Easement with labeled width. Public easements have 20-foot min width. No obstructions allowed in easements. • Footing/foundation drains – shall be connected to the storm drain system (shown as stubbed to lots only for plats) • Roof drains – shall be connected to the storm drain system (shown as stubbed to lots for plats) 			
<p>Profiles</p> <ul style="list-style-type: none"> • Other utilities – labeled and designated size and type grades • Profile grades – show and label existing and proposed grades • Pipe profile information – show invert and top of pipe, pipe size, pipe material and design slope • Drop structures only allowed per approve of Stormwater Engineer • Utilities crossings – all crossings must be shown, label utility type, line size, invert of utility and storm lines and clearance between pipes (1 foot minimum vertical clearance and 30 degrees minimum crossing angle). • Berm section – in accordance with geotechnical recommendation for open ponds. 		X	
<p>Stormwater Information</p> <ul style="list-style-type: none"> • Proposed underground detention of stormwater facilities must include: <ul style="list-style-type: none"> ◦ Run off determination per the 2005 Department of Ecology Manual. ◦ Area draining to the stormwater management system with bypass and compensation areas. • Maintenance vehicle access, which is required to both ends of detention pipes and two access vaults (one near a control structure). 		X	
<p>Underground Detention</p> <ul style="list-style-type: none"> • Runoff determination-per DOE Manual, for the design storms as established by the Technical Committee review. • Area draining to SWM system, Bypass and Compensation areas 		X	

<ul style="list-style-type: none"> • Offsite areas draining on site-generally do not need to be controlled but, must be safely conveyed. • Detention volume computation – show volume required and volume provided. State/storage curve must match proposed facility • Inverts – show for all pipes entering and leaving control structure or vault • Maintenance vehicle access- required to both ends of detention pipes and two accesses to vaults (one near control structure) • Easement – 5 feet minimum around all public detention systems (20 foot minimum width) • Fire Hydrants – within 100 feet of detention pipe systems 4 feet in diameter or larger, and for all vault systems over 1000 cubic feet of total volume may be required. 			
<p>Infiltration</p> <ul style="list-style-type: none"> • Soil permeability tests or gradation per the 2005 Department of Ecology Manual. At least two tests must be conducted or one test for every 5,000 square feet of infiltration system bottom area. • Soil test must be taken at the proposed bottom of infiltrations system • Excavation or boring is required in the trench area to a minimum depth of 4 feet below the bottom of the trench. Infiltration is not feasible if there is evidence of groundwater or bedrock/heard pan. • All infiltration system should be a minimum of 3 feet above the season high water mark, bedrock, hardpan, and impermeable layer for the infiltration bed. • Setbacks <ul style="list-style-type: none"> ○ Minimum 500 feet from drinking water wells and springs, septic tanks and drain fields ○ Minimum 20 feet down slope and 100 feet up slope of building foundations ○ Minimum 10 feet from NGPE and property line. • Down spout infiltration system shall be signed with overall project in mind for typical lots containing individual homes. • Maximum drainage area <ul style="list-style-type: none"> ○ Down spout infiltration system – 5000 square feet ○ Infiltration basin – 50 acres ○ Infiltration trench – 15 acres • Infiltration system location – may not be located in an area previously used as a sediment trap <p>Infiltration should be setback a minimum of 10 feet from NGPEs and property lines as well as 500 feet from drinking water wells and springs, septic tanks, and drain</p>		X	

fields.			
<p>Biofiltration (see 2005 Department of Ecology Manual, Volume V, Chapter 9)</p> <ul style="list-style-type: none"> • 6% is the maximum swale slope; for slopes greater than 2.5%, check dams must be provided. • Cross section showing dimensions, design flow depth, and 1-foot minimum free board. • Swales/trenches – including ,grading, slope, spot elevations (a minimum of every 50 feet and at both ends), bottom width, side slopes and lining. 		X	
<p>Wetpond and detention facilities</p> <ul style="list-style-type: none"> • Must be setback a minimum of 10 feet away from structures and right-of-way as well as 50 feet away from steep slopes (15% or greater). • The pond interior slope must be a maximum of 3H:1V (preferred), 2H:1V below surface is acceptable. • The permanent pool must be designed to a minimum of the 6-month 24-hour release. • Multi-celled with a minimum of two cells, (preferred). • 5-foot wide safety bench set at 1-foot depth around the pond perimeter. 		X	
<p>General Information</p> <p>Retaining walls and rockeries shall not cross or be located near storm drain pipes, except where no alternative exist. Any crossing shall be perpendicular to the wall and implement special construction techniques.</p> <ul style="list-style-type: none"> • Profiles of storm drainage systems are required for public drainage systems and may be required for private systems where conflicts with other utilities are possible. • Profile information- include existing and proposed grade, utility crossings and crossings clearances, pipe slope, pipe length, manhole depths, inverts. • Phased project drawings – depict all construction necessary to complete the phase (each phase shall be independently approved). 			X
<p>Stormwater Information</p> <ul style="list-style-type: none"> • Detention volume computation showing volume required and volume provided. • Inverts showing all pipes entering and leaving control structure or vault. • Provision of off-site easements and tract or easement for stormwater management whichever is more. Public storm pipes require a 20-foot minimum easement. • Fire hydrant location within 100 feet of detention pipe systems 4 feet in diameter or larger, and for all vault systems over 1,000 cubic feet of total volume may be required. 			X

<p>Infiltration</p> <ul style="list-style-type: none"> • Inflow to an infiltration system must first pass through a water quality BMP. Disturbed areas shall not drain to the infiltration system. • Provisions are required for the 100-year overflow path. • Maximum ponding in an open infiltration basin is 3 feet for the stormwater entering the basin (not to exceed the 100- year, this includes headwaters to pass the stormwater flow out any overflow). 1 foot of free board is required to the top of the structure. • Basin side slopes shall not exceed a 3:1 ratio • Filter fabric is required on all sides, top and bottom of infiltration trenches. 			X
<p>Biofiltration</p> <ul style="list-style-type: none"> • Maximum velocity is 1.0 fps for the design storm 			X
<p>Wetpond and detention facilities</p> <ul style="list-style-type: none"> • The length-to-ratio is a minimum of 3.0, (preferred). • Emergency overflow for an open pond shall be separated from pond outlet. 			X
SECTION X: FLOOR PLANS			
<ul style="list-style-type: none"> • Conceptual on-grade floor plans • Conceptual upper floors plans (if applicable) • Conceptual below grade parking plan (if applicable) 	X		
SECTION XI: BUILDING ELEVATIONS			
<ul style="list-style-type: none"> • Doors and windows • Mechanical equipment and penetrations (including louvers, vents, exhaust fans, meters, etc.). • Scuppers and downspouts • Exterior lighting fixtures/surveillance devices • Notes and graphic representation of exterior materials and architectural details. • Height of buildings measured in accordance with the definition in the RZC. 		X	
SECTION XII: ROOF PLAN			
<p>Rooftop Mechanical Equipment Screening Details</p> <ul style="list-style-type: none"> • Color • Materials • Height • Sight angle within 500 feet 		X	
SECTION XIII: SCREENING PLAN			
<p>Dumpster screening details</p> <ul style="list-style-type: none"> • Colors, materials and height • On-grade utility enclosures • Screen type (wall or landscape) 		X	

<ul style="list-style-type: none"> Noise attenuation 			
SECTION XIV: LIGHTING PLAN			
<p>Exterior Lighting Plans</p> <ul style="list-style-type: none"> Manufacturer specification sheets, cut sheets or other manufacturer information for all proposed lighting fixtures The proposed location, mounting height, and aiming point of all exterior lighting fixtures If building elevations are proposed for illumination, drawings shall be provided for all relevant building elevation showing the fixtures, the portions of the elevations to be illuminated, the luminance levels of the elevations, and the aiming point for any remote lighting fixtures Parking areas Sidewalks/Pedestrian routes Foot candle patterns to ensure no off-site glare or "dark" areas (for safety) 			X
SECTION XV: IRRIGATION PLAN			
<ul style="list-style-type: none"> Show proposed locations and size of irrigation backflow preventers, water meters, and sprinklers. If drought tolerant landscaping is proposed a temporary irrigation plan shall be submitted. 			X

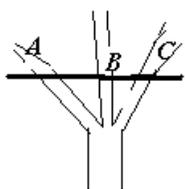
Part 3: Guidelines for Demonstrating Conformance with Tree Protection Standards

Contact: For additional information regarding these guidelines, please contact the City of Redmond's Department of Planning and Community Development at 425.556.2494 or your assigned project planner.

Description: This handout is intended to both summarize tree protection requirements and to provide a sample format for demonstrating compliance with code.

Regulations Summary: The following table summarizes the regulations related to tree preservation in the City of Redmond. For more information, please refer to RZC Chapter 21.32 Landscaping.

Measuring Trees (DBH): Single-Trunk Trees. Trees are measured according to their **Diameter at Breast Height**, or "DBH". "DBH" is the diameter, measured straight across the tree trunk at 4.5' above grade.



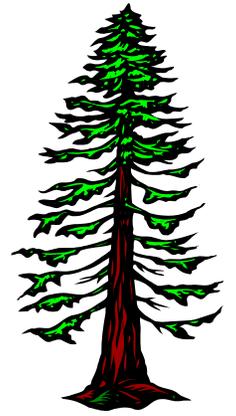
Multi-Trunk Trees. Where trees have more than one trunk or stem at 4.5' and those stems come from the same "base", the DBH for each stem at 4.5' is measured. The DBH is then the **average** of the DBHs of each the stems at 4.5' above the ground.

Example: In the picture to the left, where the horizontal dark line is at 4.5' high, the DBH would be the **average** of the diameters of A, B, & C. So, **DBH = (DBH_A + DBH_B + DBH_C)/3**

Type of Tree (DBH)	Proposed Action and Brief Definition		
	Removal (The tree is cut down/removed from the site.)	Impacted (The tree is left standing, but ground disturbance is occurring within 5' of the tree's dripline.)	Retained (The tree is left standing and ground disturbance is NOT occurring within 5' of the tree's dripline)
Landmark (> 30")	Prohibited , unless approved by an exception. A written exception request is required. Mitigation required, i.e. replacement trees at a ratio of 3:1, if exception is approved.	Prohibited , unless approved by an exception. A written exception request is required. Preferred over Removal.	Required for all Landmark Trees , unless exception is granted.
Significant (6" - 30")	Regardless of the percentage of removed trees, mitigation, i.e. replacement trees at a ratio of 1:1, are required for each removed tree.	Encouraged over Removal.	35% of all Significant Trees Required.
Notes	No more than 65% of healthy Landmark + Significant Trees may be removed , unless approved by an exception. If approved, then mitigation is required, i.e. replacement trees, at a ratio of 3:1 if exception is approved. Tree Replacement Performance Bond required for each replacement tree. 3 year maintenance bond required after performance.	3-year Tree Replacement Performance Bond required for each replacement tree. The bond is used if an impacted tree dies and the applicant does not replace it.	5-year Tree Preservation Bond is required for each Retained Tree. The bond is used if an impacted tree dies and the applicant does not replace it.

Arborist Report: An Arborist Report shall document (1) the trees on site and (2) any off site trees that will be impacted by clearing or other improvements within 5 feet of its drip line. At a minimum, the arborist's report shall:

- Describe the site in narrative and provide an aerial or site plan documenting the locations of tree stands.
- Describe the methodology, which must be considered the best of available science, that was used to rate each and every tree. Describe how trees were tagged in the field.
- Document through a table the following for each tree of 6" or greater in dbh: Tree Number, Species, DBH, Health, Comment on Health, and Proposed Action. The Tree Number is that number that is affixed to the tree in the field and is used to identify it on a surveyed map.
- Provide a surveyed map locating each tree, numbering each tree with its identification number, illustrating each tree's dripline, and illustrating 5' from each tree's dripline. Symbols shall be used and described in a legend to distinguish the following groups: Unhealthy Trees to be Removed, Significant Trees to be Removed, Landmark Trees to be Removed, Significant Trees to be Impacted, Landmark Trees to be Impacted, Significant Trees to be Retained, and Landmark Trees to be Retained.
- Recommend actions for impacted trees and general management, as appropriate.
- Provide a map illustrating the locations of replacement trees.
- Provide an exception request for any proposed action that would not comply with the tree protection standards, such as: removing a healthy landmark tree or having a retained tree count below the required 35%.



Summarizing Compliance with Code: The following table provides you with the format that is required for summarizing a proposal's conformance with the City's tree protection regulations. The table must appear in the Arborist Report and on the Tree Preservation Plan, both of which are part of the application. **Please include the total number of trees that are 6" or greater and the number of unhealthy trees in the report.**

Proposed Action and Brief Definition				
Tree Type	Removal	Impacted	Retained	Total
Landmark (>30" dbh)	Number of removed landmark	Number of impacted landmark	Number of retained landmark	Total Landmark Trees
	% of Removed Landmark Trees of All Trees	% of Impacted Landmark Trees of All Trees	% of Retained Landmark Trees of All Trees	% Landmark Trees of All Trees
Significant (6" - 30")	Number of removed significant	Number of Impacted significant	Number of Retained significant	Total Significant Trees
	% significant removed of all significant trees	% Impacted of all significant	% Retained of all significant	% Significant Trees of All Trees
Totals	Number of Landmark + Significant Removed	Number of Landmark + Significant Impacted	Number of Landmark + Significant Retained	Total Number of ALL Trees
	% of removed of all Trees	% of Impacted of all Trees	% of Retained of all trees	
Replacement Trees	# of Replacement Trees	N/A	N/A	# of Replacement Trees

Part 4: Requirements for Traffic Study

PHASE ONE: TRIP GENERATION STUDY/TRAFFIC MODELING

In Phase One of the traffic analysis process, the traffic consultant is required to submit a technical memorandum summarizing the forecasted trip generation for the proposed project, along with justification for the methodology used in the forecast. This memorandum is then reviewed by the City and possibly by other affected public agencies. Upon approval of the trip generation estimate a determination will be made if the project is subject to transportation concurrency review in accordance with section 21.52 of the Redmond Zoning Code. If applicable, the applicant shall submit a request for a certificate of concurrency. The project applicant will be required to pay for the traffic modeling that is part of the concurrency evaluation.

PHASE TWO: FORMAL SCOPING/PREPARATION OF TRAFFIC IMPACT ANALYSIS

Phase Two of the transportation impact analysis process entails scoping of the analysis and preparation of the report by the transportation consultant. Once the traffic modeling is complete, the applicant's consultant should contact the City to set up a meeting to formally scope the transportation impact analysis. The analysis will be based primarily on the outline presented on the following pages. The specific list of intersections that will need to be reviewed in the transportation impact analysis will be developed from the trip assignment for the project. Depending upon the size and character of the proposed project, certain elements of this outline may be reduced in scope or eliminated. However, other items may also be added if special issues relating to transportation exist on the project.

INFORMATION PROVIDED BY THE CITY

Information which is part of the City of Redmond's traffic data base can be found on the City's web site at: <http://www.redmond.gov/Transportation/Resources/Engineering/TrafficCounts/>. Additional information required for the study will need to be acquired at the applicant's expense. The City will provide the following information if it is available:

- Current AWDT information (current shall mean within one year of the study date).
- Current PM peak hour counts (current shall mean within one year of the study date).

I. INTRODUCTION

LOCATION OF PROJECT SITE

- a. On local vicinity map.
- b. In relation to other major uses or landmarks.
- c. In relation to the adjacent street system.

DESCRIPTION OF PROPOSED PROJECT OR ACTION

- a. Proposed land use and/or character of project.
- b. Size of project (square feet, number of units, number of employees, etc.)
- c. Number of parking spaces provided.
- d. Number and location of accesses to street system.
- e. Anticipated project phasing, if applicable.

SCOPE OF ANALYSIS/ORGANIZATION OF REPORT

- a. Specific issues analyzed.
- b. General layout of transportation report.

ADDITIONAL INFORMATION REQUIRED

II. EXISTING CONDITIONS

DEFINITION OF STUDY AREA FOR ANALYSIS

- a. All signalized intersections impacted by 20 or more project-generated trips in the PM peak hour (total one-way trips through the intersection).
- b. Intersection of site accesses with street system.
- c. Non-signalized intersections as directed by the City.

PHYSICAL CHARACTERISTICS OF STUDY AREA STREET SYSTEM

- a. Streets within study area.
 - i. Number of lanes (typical and at intersection).
 - ii. Street and shoulder widths.
 - iii. Posted speed limit.
 - iv. Approximate street grades.
 - v. Other geometric features.
- b. Non-motorized & transit facilities.
 - i. Location of sidewalks and trails within the area.
 - ii. Residential projects should identify walk routes to schools within 1 mile radius.
 - iii. Location of bike lanes within the area.
 - iv. Location of transit facilities within the area.
- c. Key intersections in study area.
 - i. Traffic Control (signals, signs, etc.).
 - ii. Turn restrictions.
 - iii. Lane alignment.
 - iv. Sight distance restrictions.

OPERATIONAL CHARACTERISTICS OF STUDY AREA STREET SYSTEM

- a. Traffic Volumes.
 - i. Average weekday traffic volumes (AWDT) on streets.
 - ii. PM peak hour turning movement volumes at key intersections.
 - iii. Schematic of street system showing AWDT and PM turning movements.
- b. Traffic Operations.
 - i. Level of service at all signalized intersections using Circular 212 Critical Volume Sum methodology. Summary table should include level of service ranking from A to F, and critical volume sum for intersection.
 - ii. Level of service at all non-signalized intersections using Highway Capacity Manual (Special Report 209). Summary table should include level of service ranking from A to F, and reserve capacity for each critical movement.
 - iii. Warrant analysis of non-signalized intersections as determined by the City.

- iv. 85th percentile speed on streets.

TRAFFIC ACCIDENT HISTORY WITHIN STUDY AREA

- a. Three-year accident summary at all key intersections. Include accident diagrams.
 - i. Intersection accident rates shall be stated in million entering vehicles (MEV) = (annual # of accidents X 106)/ (annual traffic entering)
 - ii. Accident rates for street sections shall be stated in million vehicle miles travels (MVM) = (annual # of accidents X 106)/ (annual vehicle-miles of traveled)
 - iii. Vehicle-miles = AADT x 365 days/year x section length
- b. Identification of problem areas and accident trends.

PARKING DEMAND/SUPPLY

- a. Existing location and supply.
- b. Existing use characteristics (demand, turnover, etc.).

ADDITIONAL INFORMATION REQUIRED

III. FORECASTED CONDITIONS

FORECAST OF NON-PROJECT TRAFFIC VOLUMES

- a. Forecast year.
 - i. Year of project build out.
- b. General traffic volume growth.
 - i. Annual percentage growth in traffic volumes (typically 2%).
- c. Specific traffic volume growth.
 - i. Trip generation from other planned developments.
 - ii. Diversion of traffic due to planned street improvements.

B. FORECAST OF PROJECT GENERATED TRAFFIC VOLUMES

- a. Trip Generation
 - i. ITE Trip Generation (7th Edition) or City approved methodology.
 - ii. Breakdown of new, pass-by and diverted trips.
- b. Mode Split
 - i. Proportion of trips via SOV, HOV, walking, bicycle, or other modes.
- c. Trip Assignment
 - i. Assignment of project trips to specific travel routes as per the short-term trip assignment provided by the City of Redmond traffic model (if used for concurrency testing).
 - ii. Show all streets and intersections impacted by 20 or more trips in the PM Peak Hour. Show other intersections as directed by the City.

C. ANALYSIS OF FORECAST YEAR TRAFFIC OPERATIONS WITH AND WITHOUT PROJECT

- a. Level of Service

- i. All signalized intersections using Circular 212 Critical Volume Sum methodology. Summary table should include level of service ranking from A to F, and critical volume sum for intersection.
 - ii. All non-signalized intersections using Highway Capacity Manual (Special Report 209). Summary table should include level of service ranking from A to F, and reserve capacity for each critical movement.
 - iii. All project accesses to street system using applicable methodology outlined above.
 - iv. Schematic of street system showing AWDT and PM turning movements.
- b. Project Specific Mitigation: Use the following guidelines in determining whether mitigation is required at specific intersections:
- i. If the intersection will operate at LOS-D or better in the forecasted year with the proposed project, no mitigation is required.
 - ii. If the intersection will operate at LOS-E/F in the forecasted year with the proposed project, and the addition of the project traffic decreases the LOS, mitigation may be required to alleviate project impacts. For signalized intersections, the consultant should then use the HCM 209 methodology to assess potential physical improvements to improve the operation of the impacted intersection. The City will review these potential improvements and may require their construction to mitigate project impacts.

SAFETY CONDITION WITHIN STUDY AREA

- a. Analysis of safety problems identified in Existing Conditions section.
- b. Residential projects should coordinate with the City and Lake Washington School District to identify gaps or hazards for school walk routes.
- c. Options available to reduce or eliminate safety problems.
- d. Analysis of entering and stopping sight distance at project accesses and along street frontage(s).

Note: The design speed is used in any analysis shall be 10 mph over the posted speed limit unless otherwise approved by the City.

PARKING DEMAND/SUPPLY

- a. Proposed parking supply.
- b. Analysis of expected parking demand.
 - i. ITE Parking Generation (2nd Edition) or City approved methodology.
- c. Comparison of supply/demand to City Code Requirements.

ADDITIONAL INFORMATION REQUIRED

IV. SUMMARY OF ANALYSIS AND MITIGATION

EXECUTIVE SUMMARY OF TRANSPORTATION IMPACT ANALYSIS

SUMMARY OF IMPACTS AND PROJECT SPECIFIC MITIGATION

Part 5: Requirements for Preliminary Stormwater Report

The Preliminary Stormwater Report must follow the format provided in the 2005 Department of Ecology Stormwater Manual for Western Washington.

I. REPORT COMPONENTS

- a. Describe the proposed development.
- b. State how the site currently drains.
- c. Provide a brief description of the downstream conveyance system.
- d. Include a Drainage Basin Map with the following:
 - i. North arrow.
 - ii. Scale (larger engineering scale may be used where appropriate).
 - iii. Title block.
 - iv. Property lines.
 - v. Proposed and existing contours.
 - vi. Proposed storm drainage inlets.
 - vii. Existing storm drainage.
 - viii. Drainage area to SWM Facility.
 - ix. Off-site areas draining on-site.
 - x. Flow path for time of concentration computations.
 - xi. Legend of symbols.
 - xii. Road and stream names.
- e. Drainage calculations:
 - i. Rainfall intensity (KCSWM Manual Fig. 3.5.1C-3.5.1I).
 - 6-month, 25-hour.
 - ii. Pre-developed conditions:
 - Pervious area.
 - Pervious area land use.
 - Impervious area.
 - Impervious area land use.
 - Drainage calculation results.
 - iii. Post-developed conditions:
 - Pervious area.
 - Pervious area land use.
 - Impervious area.
 - Impervious area land use.
 - Drainage calculation results.
- f. Quantity control:
 - i. Release rate(s) half of previous 2 yr. for post 2 yr., pre 10 yr. for post 10 yr., and pre 50 yr. for post 50 yr.
 - ii. Storage volume required.
 - iii. Storage volume provided.
 - iv. Quantity control facilities.
- g. Quality control:
 - i. Water quality volume required (6-month, 24-hour).
 - ii. Treatment volume provided.

iii. Quality control facilities.

City approved water supply and hydrants

- i. Water System improvements shall be consistent with the City of Redmond Water Plan
- ii. Residential areas shall be master planned to provide a minimum of 1500 gpm
- iii. Most commercial areas shall be master planned to provide a minimum 3500 gpm

Part 6: City Approved Water Supply and Hydrant

- iv. Hydrants must be capable of providing sufficient fire flow to meet the required flow of the project as calculated by the Fire Marshal.
- v. Any one hydrant shall be capable of providing a minimum of 1500 gpm and any two or three hydrants (depending upon demand) flowing simultaneously shall be capable of providing the demand flow.
- vi. A fire flow report may be required. This report may consist of:
 - Results of a functional flow test performed by a fire protection consultant.
 - The test shall record pitot gauge readings for all ports opened, flow calculations for each port flowed, static and residual pressure readings, location of the test (identify specific hydrants used and what each was used for), calculated flow at 20 psi residual, and a flow graph.
 - A hydraulically modeled fire flow estimate from the City of Redmond Water Utility. This flow estimate shall be the gallons per minute available at 20 psi residual for the maximum instantaneous peak.
 - The water pressure zone(s) shall be identified. Any peculiarities of the water supply system at the location should also be noted.
- vii. Hydrants shall be located in relation to the building or area they serve.
- viii. The Fire Marshal may consider existing hydrants within 300 feet of a single family residential project as providing some portion of coverage.
- ix. Maximum hydrant spacing is 300 feet on center for commercial, multi-family, or single family residential 6,000 square feet or more.
- x. Maximum hydrant spacing is 600 feet on center for surface parking lots, and single-family residential 6000 square feet or more.
- xi. Where structures on a dead end street 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.
- xii. Proposed hydrant and FDC locations and existing hydrant locations shall be shown. Hydrant locations must be coordinated with and approved by both the water supplier and the Redmond Fire Department.
- xiii. Hydrants shall be no closer than 12' 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, FDCs and PIVs. If closer to the curb, approved protective posts are required.
- xiv. Hydrants, FDCs and PIVs 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.
- xv. FDCs and PIVs shall be located adjacent to a hydrant, unless approved otherwise.
- xvi. Bollards are required around natural gas meters if the driving surface is within 20 feet. Placement shall be per Redmond Fire Department Standards.