



Washington County Road Engineering Plan Submittal/Review Checklist

Washington County Land Use Case File Number:

Parcel(s):

Developer/Owner Name(s):

Developer/Owner E-mail(s):

The following elements should be included in plans submitted for review. Please complete the columns under the area noted "Applicant to complete this section" prior to plan submittal. Completing these checklist items will not guarantee plan review approval.

Submitting Engineer will verify each item, sign and seal at the end of the checklist. By signing this form, you certify that the submittal includes all elements. **Any plan set found to be incomplete will not be reviewed until a complete set is submitted.**

All submittals must include the following Preliminary Completeness Verification Items.

Preliminary Completeness Verification
Completed Washington County Road Engineering Plan Submittal/Review Checklist; Upload in “Documents” folder
22”x34” drawings, such that reductions to 11”x17” are clearly legible and scalable with digital signature PE stamp.
Digital signatures in conformance with the Washington County Memo Digital Signatures for Plan Submission and OSBEELS Oregon Administrative Rule (OAR) 820-025-0010 requirements
Plan sheet verification: Use EPR sheet naming convention for upload (see Electronic Plan Review/ProjectDox). Verify sheet title and numbering matches the Sheet Index on the coversheet and the PDox naming. Verify all sheets listed on the index are included in the plan set.
Drainage calculations: Upload in “Documents” folder
Structural calculations: Upload in “Documents” folder
Sight Distance Certification with plan, profile and photo exhibits: Upload in “Documents” folder
Geotechnical report with laboratory data, calculations and boring logs: Upload in “Documents” folder
Proposed Design Exceptions: Upload in “Design Exceptions” folder
County and/or City Notice of Decision: Upload in “Documents” folder
A diagram depicting deferral of sidewalks and street trees: Upload in “Documents” folder
Pavement design report with testing logs, laboratory data and calculations: Upload in “Documents” folder
Preliminary Plat presented in accordance to Washington County Survey requirements: upload in “Documents” folder
Engineer’s estimate of public improvements: Upload in “Documents” folder

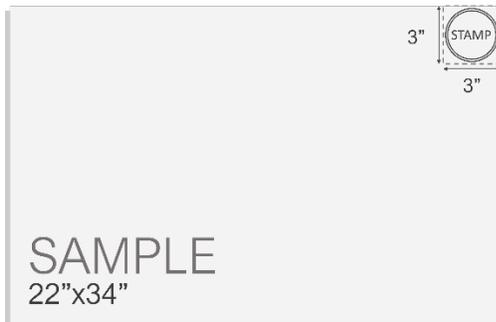
Applicant to provide the Sheet # or N/A for all of the following sections.

Sheet # or N/A	Plan Sheets Will Include the Following Notes and Information
	Note: Mill & Fill: After ‘T’ cut patch backs, mill 2” depth and machine lay hot mix with the associated road work a minimum of 20’ on either side of the trench. Final determination of Mill & Fill area is at the discretion of the county inspector.
	Paving geotextile may be required by inspection staff on the bottom of the final lift at any joints between the existing pavement and new pavement sections. The paving geotextile should consist of Propex Petomat 4598 or Petrotac 4591 or an approved equivalent. The manufacturer recommends that the pavement geotextile overlap the new and existing pavement sections by three inches on each side of the joint, as long as the joint is less than 1/8” wide. Paving geotextile should also be placed over any cracks that are observed in the existing pavement after milling and before placement of the new overlay. Follow manufacturer’s recommendations for joints/cracks wider than 1/8”.
	¹ Title block including: The name of the project, engineering firm, the owner, sheet title, and revision block.
	County casefile number located in the lower right-hand corner of all sheets.
	Identify jurisdictional boundaries for roads where applicable
	Digitally signed professional engineers stamp
	² Area reserved for Washington County approval stamp
	North arrow – Pointing to the top or right of the sheet with stationing ascend following the north arrow
	<p>Include the following note: Work Zone Traffic Control Standards: When designing, applying, installing, maintaining, inspecting and removing traffic control devices, use and follow the most current versions in effect of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Oregon Department of Transportation (ODOT) “Sign Policy and Guidelines for the State Highway System” <input type="checkbox"/> The Manual on Uniform Traffic Control Devices (MUTCD) <input type="checkbox"/> FHWA “Standard Highway Signs” manual <input type="checkbox"/> ODOT “Oregon Temporary Traffic Control Handbook for Operations of 3 Days or Less” when directed by the Engineer only for mobile Pavement marking operations or surveying Work, available on the ODOT Traffic Control Plans Unit website (see 00110.05(e)) <input type="checkbox"/> ODOT “Oregon Portable Changeable Message Sign Handbook”, available on the ODOT Traffic Control Plans Unit Website <input type="checkbox"/> ODOT “Traffic Control Plans Design Manual”, available on the ODOT Traffic Control Plans Unit website
	³ A bar scale shall be provided on all plan view sheets

⁴All text and notations clear and legible

¹Placed on the lower right-hand corner of the sheet, across the bottom edge of the sheet or across the right-hand edge of the sheet.

²The Washington County approval stamp will be located in accordance to images below.



³The scale shall be 1"=2', 4', 5', or 10' vertically and 1"=10', 20', 40', 50' or 100' horizontally for all drawings except structural drawings.

⁴Letter size shall not be smaller than 0.10" high.

**Road Design and Construction Standards (Ordinance 738)*

Sheet # or N/A	Title Sheet Include
	Project name
	Address/taxlot/ ¼ section township and range
	Vicinity map
	Sheet index
	Legend
	Engineering firm name/address/phone number/email
	Developer/owners name/address/phone number/email
	Washington County benchmark datum
	Facility permit Note: This Facility Permit does not include review of Storm Sewer, Sanitary Sewer, Utilities, Erosion Control, 1200C and any work outside of County Easements and ROW.
	Utility note: ATTENTION: Oregon Law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through 952-001-0090. You may obtain copies of the rules by calling the center. (Note: The telephone number for the Oregon Utility Notification Center is 503-232-1987).
	Monument note: This design complies with ORS 92.044 (7) in that no utility infrastructure is designed to be within one (1) foot of a survey monument location shown on a subdivision or a partition plat. No design exceptions or final field location changes shall be permitted if that change would cause any utility infrastructure to be placed within the prohibited area.
	Locate note: Call 811 before you dig

Sheet # or N/A	Preliminary Plat Include
	Existing and proposed ROW lines
	Curbs, sidewalk, lot lines, driveways, ADA ramps
	Easements: utility, sidewalk, sight distance, etc.
	Dimensions: width for curbs, pavement, tracts, easements
	Dimensions to relate sight distance easement to known survey line
	Easement and Tract Notes

Sheet # or N/A	Existing Conditions Site Plans Include
	ROW existing conditions to at least 200' beyond the improvements
	Existing topo/contours
	Existing curbs
	Existing sidewalk locations
	Existing ramp locations
	Driveways, mailboxes, trees
	Road crown
	Locations and size of existing utilities, manholes, underground and overhead
	Location and description of existing survey monuments
	Adjacent property contours to show existing topo
	Adjacent structures

Sheet # or N/A	Site Plans Include
	Proposed lot and tract layout per plat
	Existing and proposed public rights-of-way, property lines, lot numbers and private streets
	All existing and proposed easements, including sight distance easements
	Proposed public street improvements
	Proposed sanitary, storm and water facilities
	Delineated boundaries of all natural and water quality sensitive features
	On or within 100 feet of site, show all sensitive areas as defined in Clean Water Services standards Chapter 3, Table 3.1
	Show all proposed retaining walls and pedestrian/bike paths
	Show all proposed fences and monuments in public ROW or easements
	Existing and proposed topo, proposed curbs, buildings, sidewalk, ramps, driveway approaches, etc.

Sheet # or N/A	Proposed Street and Utility Plans Include
	Plan view over profile view with matching stationing
	Location and size of proposed storm and sanitary sewer facilities
	Storm sewer and street designs may be combined on the same sheet
	Water and sanitary sewer design should be combined on the same sheet
	Pedestrian/bike paths shall be shown in plan and profile
	Retaining walls shall be shown with elevations at base and top of wall
	Lot numbers
	Stationing on mainline
	Lateral length and slope
	Invert elevation at main and end of lateral
	Lateral pipe type and size

Sheet # or N/A	Grading Plans Include (CWS Erosion Control Plans may be used and include the following)
	Existing and proposed contours
	Adjacent property contours and structures
	Site work sections with cut/fill
	Compaction notes
	Construction entrance(s)
	Drainage
	All Grading Plan sheets will include the following note: "Erosion Control Plans are not reviewed or approved as part of this Washington County Facility Permit."

Sheet # or N/A	Street/Roadway Plans View(s) Include
	Labeled ROW, curb, property, easement and tract lines
	Widths of ROW and streets
	Alignment references, from ROW, curb and centerline
	Legal centerline with city or county stationing
	Typical street cross sections by station and pavement structural section with compaction requirements, cold weather, and wet weather structural section(s)
	Label Typical Street Sections with road name, designation, and design or posted speed
	T-cut notes (see page 2, note 1) and ½ street grind and inlay with pavement design recommendations – a minimum of 20’ on either side of the trench
	Lot numbers
	Existing and proposed sidewalks, ramps, driveways and mailboxes
	Road crown lines in transition sections
	Location and size of proposed drainage facilities
	Location and description of existing survey monuments
	References to appropriate details, including detail number and sheet number
	Match lines with sheet number and stationing reference
	Horizontal curve data
	Road cross slope transitions and/or super elevation diagrams
	Clearly identify deferred sidewalks and street trees

Sheet # or N/A	Street/Roadway Profile View(s) Include
	All roads that may be extended need to show the extended profile at least two hundred (200) feet and shall be designed to be compatible with the restraints of the terrain
	All featured and non-featured utilities shown to scale and in bold and half-tone, respectively
	For all featured utilities: Length, size, slope, material, ASTM specification, backfill and bedding specification
	Relevant invert and surface elevations
	Existing and finish ground profiles
	Type and size of all crossings (to scale)
	The top of curb for all cul-de-sacs, eyebrows and intersection curb returns

Sheet # or N/A	Curb Returns and Ramp Details Include
	Stationing of proposed curb
	Curb return data table
	Top of curb elevations at ¼ delta points and at radius returns
	Grade, running, gutter, counter and cross slopes for ramps
	Intersection ID Number from County database
	Turning space location(s) and dimensions
	Crosswalk location(s)
	Profile of top of curb and gutter
	Radius return profile

Sheet # or N/A	Signing, Striping and Street Trees Plans Include
	Existing signs, labeled with sign type and whether to remove, protect, reinstall, etc.
	Proposed signs, labeled with sign type and sign support, per the sign legend
	Existing striping, shown and labeled. Include existing lane dimensions, where applicable
	Proposed striping: Label with striping type and match existing point. Striping should have enough information to locate and install in the field, such as stationing, length and/or lane dimensions
	Show and label proposed street and sidewalk barricades
	Current signing, striping and barricade details
	Street tree locations, sizes and species
	Street trees shadows and streetlight poles within at least 100' of the project boundaries should be shown on the signing plan sheet in order to identify potential conflicts
	Sign visibility note: All signs must be adequately visible based on the sign type and speed of vehicles; field adjustment of trees or other items may be required. Engineer should verify sign visibility
	Street names note: It is the contractor's responsibility to verify the final street names with the County Survey Office at (503) 846-8723 before ordering and installing street name signs. Private roads/tracts shall have street name signs installed if they have a name recorded by the County Survey Office. Cities determine the names of roads under their jurisdiction
	Striping installation note: Contractor shall notify and obtain approval from the Traffic Inspector for striping layout prior to the installation of striping

Sheet # or N/A	Signal Plans Include
	Signal design
	Interconnect plan and communications
	Detection plan, including loop or video
	Equipment table
	Approved details

Sheet # or N/A	Lighting Plans Include
	Separate photometric analysis and design sheets
	Photometric analysis summary table with average horizontal light level and horizontal uniformity target and achieved values provided
	Pole and luminaire schedule
	Approved PGE and/or Washington County Street Lighting Materials
	Poles identified and numbered including existing adjacent poles and fixtures
	Existing adjacent poles and fixtures are included in the photometric analysis summary
	General street lighting notes including and SDL or North Bethany Subarea clause (if applicable) <i>SDL Street Lighting Agreement Clause:</i> <i>Washington County requires that a SDL or a LID be established to pay for power and maintenance of street lighting on local and neighborhood route classified roads. Washington County will not pay for power or maintenance for roadway lighting other than arterial and collector classified roads.</i> <i>North Bethany Subarea SDL Street Lighting Agreement Clause:</i> <i>Washington County requires that streetlights within the North Bethany Subarea be added to the existing North Bethany SDL Assessment Area to pay for power and maintenance.</i>
	Street trees are shown and the following note is included: Maintain a minimum separation of 20 feet between street lights and trees
	Verification the illumination design complies with ORS 92.044 (7) in that no illumination infrastructure is designed to be within one (1) foot of a survey monument location shown on a subdivision or partition plat
	Tax lot numbers or lot numbers as appropriate
	County illumination standard drawings are referenced
	Label private roads as "PRIVATE"
	Obtain and provide PGE work order number (if applicable)
	Right-of-Way (R/W) and Public Utility Easement (P.U.E.) lines are shown and labeled

Sheet # or N/A	Details Include
	Current standard details (Washington County, ODOT, CWS, etc.)
	Driveway plan(s) and profile(s)
	Project specific details (eg. pedestrian access ramps into site)
	Structural details for retaining walls, bridges, etc.

Sheet # or N/A	Engineer’s Estimate of Public Improvements Include
	All work performed subject to the Public Facility Permit
	Utilize recognized unit costs from Oregon DOT weighted average items and prices and/or RSMeans construction cost data *Note your reference source for pricing
	Roadway, stormwater and utilities broken out by section
	Break out pricing estimates for all work by applicable jurisdiction (e.g. City, County, State, CWS)
	Quantity takeoff of items (similar to ODOT’s bid item list)
	Unit prices: Mobilization, erosion control, temporary protection and direction of traffic
	A diagram identifying all deferred items

Sheet # or N/A	Accommodations for Public Traffic Include
	Provide relevant ODOT traffic control details specific to the scope and scale of this project for Temporary Protection & Direction of Traffic (TP&DT)
	Provide relevant ODOT details for Temporary Pedestrian Access Route (TPAR)

If any elements are not included, explain why. Attach additional pages if necessary.

AFFIDAVIT OF CONFORMANCE TO ENGINEERING PLAN SUBMITTAL/REVIEW CHECKLIST

I hereby notify Washington County that the submitted proposed construction plans and estimate for Engineering Plan Review are in conformance with Appendix E of the current *Washington County Road Design and Construction Standards*. **Any required elements missing from the attached plans and estimate will delay plan review until a complete plan and estimate is submitted.** The plans are identical to the submittal to other agencies and/or jurisdictions (such as Clean Water Services, City of Hillsboro, etc.).

Signature (Digital or Wet)

Printed Name

Date

