

Preliminary Civil Plans Requirements

Transportation

1. General

Submit the following checklist with responses to all items. This document is not complete without the signature of a licensed civil engineer.

Show all proposed improvements in accordance with the <u>Transportation Design Manual</u>, including driveways, private roads, curbs, gutters, sidewalks, planter strips, street lighting and traffic signal equipment.

All civil plans shall be prepared by a professional engineer, licensed in Washington State, with relevant roadway, street lighting and traffic signals design experience.

All transportation-related plans, notes and detail drawings must be included on the plan sheets described below. Other information may also be included on the same sheets, with multipurpose sheet labels, such as "Roadway and Storm Drainage Plan and Profile."

You are responsible for verifying and accurately depicting all locations and dimensions of property lines; setback distances; and the location and width of streets, rights of way and easements.

2. Typical Roadway Cross Sections, Sections and Details

□ Separate roadway sections shall be provided for each differing section of roadway for the entire length of the project.

□ Show all relevant details that are not included in city standard drawings.

□ Show existing and proposed right-of-way and easement locations, with dimensions.

□ Show cross-section details for integration of elements such as pavement section, curb and gutter, planter, sidewalk, retaining walls, pedestrian rails, etc.

- □ Cross-sections shall include proposed garage below grade (annotate garage elevation) and proposed building above grade.
- □ Cross-sections at traffic signal pole locations shall include signal pole foundation depth relative to proposed garage below grade (annotate garage elevation).

3. Right-of-Way and Easement Exhibits

□ Show the existing limits and the centerline of the roadway right-of-way.

 \Box Show the existing right-of-way.

□ Show the existing easements on the property.

□ Show the proposed right-of-way.

 \Box Show the proposed easements.

4. Roadway Plan and Profile

- □ Show the existing limits and the centerline of the roadway right-of-way. Show the existing and proposed pavement width, curb and gutter, sidewalk, planters strip, street trees, etc.
- Show existing driveways on both sides of the street to 100 feet from the proposed access.
 Show streets parallel to the proposed access, if any, up to 150 feet from the proposed access.
- □ Construction centerline and stationing information for staking shall be provided on the plans. A separate centerline and alignment drawing may be used for projects that will have lots of information or are very detailed. The construction centerline shall be tied to the alignment survey.

- □ Show and label existing and proposed right-of-way and easement locations, with dimensions.
- □ Show existing and proposed access easements (non-motorized and vehicle).
- Except for plats, show street names. For plats, designate proposed roads as "Road A,"
 "Road B," etc. Designate proposed tracts as "Tract A," "Tract B," etc.
- □ Show and label the outline of the below grade garage (Show multiple garage outlines if varying based on garage level).
- □ Provide existing and proposed profile alignment data with percent grade at centerline.
- □ Show top of proposed curb elevations and offsets from centerline to the face of the curb.
- □ Show limits of driveway restoration. For gravel driveways, hard surfacing for approaches shall extend to the right of way.
- All utility features adjustments by other utilities shall be noted on the plans.
- □ Show all existing aerial and underground utilities.

5. Driveway Plan and Profiles

- Driveway profiles shall be scaled 1 to 1.
- Driveway profiles shall show the existing and proposed surface elevations. Also indicate right of way limits relative to driveway.
- □ Annotate driveway approach width and reference proposed city standard drawing for applicable driveway option.

- Driveways shall be designed in such a way that minimizes the slope of the driveway.
- Driveway approach grades should be designed to accommodate adjacent sidewalks and minimize change in grade for pedestrians.
- Driveway plans should consider sight distance conflicts with other existing and proposed features.

6. Channelization and Signing Plans

- □ Show all proposed channelization for motorized and non-motorized facilities.
- □ Show proposed sign removals, new signs, sign relocations and replacements.
- □ Show median barriers, C-curbs, traffic islands and guardrails on channelization plans.

7. Traffic Signal Plans

- □ Include preliminary traffic signal plans with proposed signal pole foundation depth.
- □ Include proposed layout Rectangular Rapid Flashing Beacon (RRFB) system.

8. Preliminary Illumination (Street Lighting), Small Wireless Facilities, and Fiber Plans

The Illumination (Street Lighting) Plan sheet may be combined with the Traffic Signal Plan.

The purpose of this preliminary plan is to determine if modifications to the street lighting system are required in order to meet the city's design standards.

Refer to the <u>Transportation Design Manual</u> and Street Lighting Design Guide.

- □ Show the location(s) and type of pole and fixture for all lights included in the analysis. Also include all relevant features on this plan sheet, including but not limited to above and below ground utilities, building awnings/overhangs, below grade garage limits, street trees, crosswalks, driveways, etc.
- □ Show the preliminary Illumination (street lighting) proposed design including an illumination pole schedule.
- □ Where the city owns or will own the street lighting system (generally on arterial streets or downtown), the Preliminary Street Lighting Plan must be submitted by a Washington State-registered civil or electrical engineer experienced in street lighting design, at the developer's request and expense.
- □ Where Puget Sound Energy (PSE) owns or will own the street lighting system (generally on local streets), the Preliminary Street Lighting Plan must be submitted to the city by PSE at the developer's request and expense.
- □ Small Wireless Facilities requirements as discussed in the pre-application conference letter.

□ City Fiber requirements as discussed in the pre-application letter.

- □ Photometric Calculations Plans (separate plan sheet)
- Provide a street light level analysis using AGi32 software to determine optimal street light locations that meet the city's standards. Submit a digital AGi32 file for review. Email the file to the assigned development review engineer.
- □ Include illumination design criteria, and a calculation summary table showing the target and actual minimum average maintained light levels and maximum uniformity ratio for each calculation area.

9. Other

🗆 Sig	ght Distance Exhibits:
	Demonstrate adequate sight distance at each driveway by showing the vehicle and pedestrian sight triangle in accordance with the <u>Transportation Design Manual</u> .
	Address both horizontal and vertical components.
	Label the sight distance setback lines.
	Provide a profile for the vehicle and pedestrian vertical sight distance.
Design vehicle turning exhibits:	
	Provide turning movement simulation for garbage trucks and design vehicles entering and exiting the site, using AutoTurn vehicle simulation software.
	Show vehicle template dimensions.
	Show a vehicle simulation legend, including vehicle body envelope, front tire path and rear tire path.
Prelimina	ry Civil Plans Requirements Checklist completed by:
Name	
Phone	
Email	
Signature	Date