



CITY OF TUMWATER
 555 ISRAEL RD. SW, TUMWATER, WA 98501
 (360) 754-4180
 Email: cdd@ci.tumwater.wa.us
**SITE DEVELOPMENT
 GRADING**
Submittal Checklist

TUM -	DATE STAMP
RCVD BY	

APPLICANT INFORMATION *(please print neatly)*

NAME OF APPLICANT: _____ EMAIL: _____

SUBJECT PROPERTY INFORMATION

ADDRESS OF PROPERTY: _____

A Grading (Site Development) Permit applies to grading, excavation and earth work construction, stormwater conveyance and treatment, water and sewer utilities and development of on-site street improvements. This permit does not include off-site development or land clearing (tree and brush removal). In order to grade a site, you must submit a completed permit application and all items on this checklist unless modified or waived by staff.

Per Section 3.6 of the City’s Development Guide, detailed plans, prepared by a licensed engineer, must be submitted to the City for plan review and approval prior to the commencement of any construction.

A. APPLICATION	N/A	Provided	Staff
1. Provide a complete and signed (by owner or authorized representative) application and applicable fee. Note: Payment of the plan check fee is required at the time of application.			
2. Provide three copies of all plans and two copies of all specifications. Draw plans to scale of 1" = 10' to 60'. Plan sheet size shall be 24"x36". All notations and drawings must be clear and legible.			
B. SUBMITTAL REQUIREMENTS	N/A	Provided	Staff
1. Cover sheet.			
2. Site plan.			
3. Utility system map (one drawing with all existing and proposed utilities; including water, sewer, street, storm, gas, power, cable TV, telephone and telecommunications).			
4. Sanitary sewer plan/profile.			
5. Storm sewer plan/profile.			
6. Water plan/profile.			
7. Street plan/profile.			
8. Private utilities plan/profile.			
9. Pump station design report.			
10. Pump station electrical wiring with diagram.			
11. Water use calculations.			
12. Fire flow calculations.			
13. Drainage and erosion control report.			

Site Development/Grading Permit Submittal Checklist

B. SUBMITTAL REQUIREMENTS (CONTINUED)	N/A	Provided	Staff
14. Soils report.			
15. Preliminary Latecomer's Agreement.			
16. Monument preservation documentation form shall be completed by the project's Professional Land Surveyor, if applicable.			
17. Storm Water Pollution Prevention Plan (SWPPP).			
18. Engineer's estimate or an itemized contractor's bid estimate for work within the right-of-way.			
19. Land Clearing Plan (see Land Clearing submittal checklist for requirements).			
C. COVER SHEET REQUIREMENTS	N/A	Provided	Staff
1. Cover sheet shall include the following:			
a. Project title.			
b. Vicinity map.			
c. Sheet index.			
d. Legend (APWA standard symbols).			
D. SITE PLAN REQUIREMENTS	N/A	Provided	Staff
1. The site plan(s) shall show the following:			
a. General vicinity map, north arrow, scale, property boundaries. Section, township, range and $\frac{1}{4}$, $\frac{1}{4}$ section.			
b. Adjacent property lines, ownership, parcel number, and street address.			
c. Existing topography and proposed finished grades. The existing topography shall be shown at least 50 feet beyond the site boundaries.			
d. Existing structures within 100 feet of project boundary.			
e. Environmentally sensitive areas.			
f. 100-year floodplain boundary.			
g. Shoreline boundary.			
h. Existing and proposed wells within 100 feet of the property or within 200 feet of proposed storm facilities.			
i. Existing and proposed fuel tanks.			
j. Existing and proposed on-site septic systems within 100 feet of storm facilities.			
k. Proposed structures including roads and parking surfaces.			
E. PLAN SUBMITTAL - GENERAL STANDARDS	N/A	Provided	Staff
1. North arrow (all sheets).			
2. Datum (NVD 29) – Bench mark designation, elevation and location (on all sheets where elevations are referenced).			
3. Datum – Horizontal, City of Tumwater ground scale (show ties to control, all sheets).			
4. Scale bar (all sheets).			
5. Title block (all sheets).			

Site Development/Grading Permit Submittal Checklist

E. PLAN SUBMITTAL - GENERAL STANDARDS	N/A	Provided	Staff
a. Title.			
b. Design by.			
c. Drawn by.			
d. Date.			
e. Checked by.			
f. Signature approval block (see example at end).			
g. Sheet number of total sheets (all sheets, i.e., 1 of 20, 2 of 20, etc).			
h. Section, Township and Range.			
6. Engineer's stamp (signed and dated on all sheets).			
7. Each drawing must be 1" = 10' to 60' scale.			
8. Revision block (all sheets).			
9. Project TUM# (all sheets).			
10. Sheet index providing sheet number of total sheet, i.e., water plan and profile views sheet 2 of 20, water details sheet 10 of 20 (cover sheet only).			

EXAMPLE OF SIGNATURE APPROVAL BLOCK

FOR THE CITY OF TUMWATER	
By: _____	Date: _____
CITY ENGINEER	
EXPIRES ONE YEAR FROM ACCEPTANCE DATE	

F. UTILITY LAYOUT	N/A	Provided	Staff
1. Each utility shown on a separate sheet (storm and roadway may be combined).			
2. Profile views are included on the same sheet as the plan view (unless approved by the City prior to plan submittal).			
G. PLAN PORTION STANDARD ITEMS (LABELED ON ALL SHEETS)	N/A	Provided	Staff
1. Centerline, stations and offsets.			
2. Edge of pavement labeled, with width dimension provided.			
3. Right-of-way labeled, with width dimension provided.			
4. Existing and proposed survey monumentation location and details.			
5. Sidewalks labeled, with width dimension provided.			
6. Planter strip labeled, with width dimension provided.			
7. Roadway sections with dimensions (existing and proposed).			
8. Existing utilities (above and below ground).			
9. Existing and proposed wells (active and inactive).			
10. Identify street names, existing and proposed right-of-way, and lots.			
11. Identify match lines with sheet numbers and stations.			

Site Development/Grading Permit Submittal Checklist

G. PLAN PORTION STANDARD ITEMS (CONTINUED)	N/A	Provided	Staff
12. Easements with width and type.			
13. Note on the plans that the PLS that is responsible for the surveying of the project must obtain a permit from DNR before disturbing a monument.			
14. Stations and offsets for all structures and fittings shall be included.			
15. Type of pipe.			
16. Flow direction arrows (on sewer, storm mains and roads).			
H. PROFILE PORTION STANDARD ITEMS	N/A	Provided	Staff
1. Profile grades (decimal Ft./Ft.).			
2. Existing and finished centerline ground elevations labeled (20-foot spacing).			
3. Scale; horizontal and vertical (match grid lines).			
4. Stationing.			
5. Vertical elevation increments.			
6. Utility crossings.			
I. SANITARY SEWER	N/A	Provided	Staff
PLAN VIEW:			
1. City of Tumwater system map (1" = 300') showing tie-in to existing system, including line-size.			
2. All fittings and structures shall be located on the south and west side of the roadway/drive aisle (6-feet off centerline).			
3. Plan sheets associated with the sewer improvements are presented starting at the connection point of the existing main (Sheet 1) and ending at the point furthest away from the connection.			
4. MANHOLE:			
a. TCHPN coordinate label for each manhole and cleanout.			
b. Station and offset shown at each manhole and cleanout.			
c. Manholes numbered.			
d. Manhole type designation.			
e. Coated manholes in high water table areas.			
5. PIPE:			
a. Flow direction (with arrow on pipe).			
b. Distance from water lines.			
c. Depth at property line.			
d. Service to each lot (station laterals).			
e. Bearing and distance of each pipe run outside of the right-of-way.			
f. Where existing utility conflicts occur, include elevations of the tops and bottoms of the conflicting pipes.			
g. Existing septic tanks/drainfields (with note to abandon, if necessary).			

Site Development/Grading Permit Submittal Checklist

I. SANITARY SEWER (CONTINUED)

N/A

Provided

Staff

PROFILE VIEW:

1. Manholes numbered.
2. Invert elevation, in and out.
3. Rim elevation.
4. Manhole type and size.
5. Grades shown (decimal for Ft./Ft.)
6. Size of pipe.
7. Length of pipe.
8. Existing and proposed utility crossings.

J. WATER

N/A

Provided

Staff

PLAN VIEW:

1. City of Tumwater system map (1" = 300') showing existing and proposed mains with line-sizes. The system map shall also include hydrants and the nearest valves to the site.
2. Water main is to be located on the north and east side of the roadway/drive aisle (six-feet off centerline).
3. Plan sheets associated with the water improvements are presented starting at the connection point of the existing main (Sheet 1) and ending at the point furthest away from the connection.
4. Minimum cover over the water main of 3.5-feet.
5. Fixtures (need horizontal and vertical control):
 - a. Fire hydrants (check with City of Tumwater Fire Code Official for location).
 - b. Blow-off.
 - c. Vacuum and air release valves when required.
 - d. A fire hydrant is included at each intersection.
6. Station, offset and size of tees, crosses, elbows, adaptors and valves (coupling type). Label each, using TCHPN coordinates.
7. Valves (2 each tee, 3 each cross).
8. Fire Department connections and PIV.
9. "By Separate Permit" written by the underground sprinkler line (fire line).
10. Thrust blocking.
11. Distance from sewer is called out on all water sheets.
12. Bearing and distance of each pipe run outside of the right-of-way.
13. Service to each lot (include open tracts).
14. Sample station (if required).
15. Domestic meters with station, size and offset information are provided for each building. Duplexes require a meter for each unit.
16. Commercial water services are equipped with reduced pressure backflow assemblies.

Site Development/Grading Permit Submittal Checklist

J. WATER (CONTINUED)

N/A

Provided

Staff

17. IRRIGATION:

- a. Irrigation plan provided.
- b. Irrigation meter with station, size and offset are provided.
- c. Irrigation meters are equipped with a double check valve assembly.
- d. Irrigation sleeves (under driveways and roadways).
- e. Master control valve location identified.
- f. Sam spray heads are included for slopes greater than 3 percent.
- g. Power source and type of service for irrigation system.

PROFILE VIEW (WATER MAIN):

- 1. Existing and proposed utility crossings.
- 2. Show fixtures (tees, crosses, hydrants).
- 3. Type of pipe.
- 4. Show valves and couplers.
- 5. Size of water main.
- 6. Length of water main.
- 7. Cover over pipe.
- 8. Top of pipe elevations every 50-feet provided.
- 9. Street design to insure sufficient cover over the water main for a future street.

MISCELLANEOUS:

- 1. Water detail sheet.
- 2. Water general notes.

K. STORM SEWER

N/A

Provided

Staff

1. Drainage and Erosion Control Plan Report:

- a. Cover sheet.
- b. Table of contents.
- c. Section 1: Proposed project description – specific information outlined in the Drainage Manual is provided.
- d. Section 2: Existing conditions – specific information outlined in the Drainage Manual is provided.
- e. Section 3: Infiltration rates / soils report.
- f. Section 4: Wells.
- g. Section 5: Fuel tanks.
- h. Section 6: Sub-basin description.
- i. Section 7: Analysis of the 100-year floodplain.
- j. Section 8: Aesthetic consideration for facilities.
- k. Section 9: Downstream analysis.
- l. Section 10: Covenants, dedications, easements.

Site Development/Grading Permit Submittal Checklist

K. STORM SEWER (CONTINUED)

N/A

Provided

Staff

- m. Section 11: Homeowners – Articles of incorporations.
 - n. Project Engineer’s certificate.
 - o. Facility summary form.
 - p. On-site stormwater management checklist.
2. Erosion Control Plan Report:
- a. Section 1: Construction sequence and procedure.
 - b. Section 2: Trapping sediment.
 - c. Section 3: Permanent erosion control and site restoration.
 - d. Section 4: Geotechnical analysis and report.
 - e. Section 5: Inspection sequence.
3. Maintenance Report:
- a. See current addition of the City’s storm design manual.
 - b. Required type and frequency of long-term maintenance.
 - c. Identification of responsible maintenance organization.
 - d. Frequency of sediment removal.
 - e. Vegetation control.
4. Drawings and Specifications:
- a. Project boundaries.
 - b. Sub-basin boundaries (shown on overall storm sheet).
 - c. Off-site area tributary to project.
 - d. Existing and proposed contours at maximum 2-foot intervals (confirmed with current survey data, general contours provided by sites like Thurston County GeoData are not acceptable).
 - e. Major drainage features.
 - f. Flow path.
5. Site Map:
- a. Existing topography at least 50 feet beyond site boundaries.
 - b. Finished grade.
 - c. Existing structures within 100 feet of project boundaries.
 - d. Utilities.
 - e. Easements, both existing and proposed.
 - f. Environmentally sensitive areas (including wetlands, streams, lakes, etc.).
 - g. 100-year floodplain boundary.
 - h. Existing wells within 200 feet of proposed storm facility.
 - i. Existing and proposed fuel tanks.
 - j. Existing and proposed on-site sanitary systems within 100 feet of storm facilities.

Site Development/Grading Permit Submittal Checklist

K. STORM SEWER (CONTINUED)

N/A

Provided

Staff

k. Proposed structures including roads and parking surfaces (provide square-footages of these areas).

l. Lot dimensions and areas.

m. Proposed drainage facilities and sufficient cross-sections and details to build (include stations and offsets where necessary).

n. Wellhead protection areas.

PLAN VIEW:

1. City of Tumwater system map (1" = 300') showing tie-in to existing system, including line-size and valves.

2. Manhole/Catch Basin:

a. TCHPN coordinate label for each manhole and catch basin.

b. Station and offset shown at each manhole/catch basin.

c. Manholes/catch basins numbered.

d. Manhole/catch basin type and size.

3. PIPE:

a. Flow direction (with arrow on pipe).

b. Distance from water lines.

c. Type of pipe.

d. Where existing utility conflicts occur, include elevations of the tops and bottoms of the conflicting pipes.

PROFILE VIEW:

1. Manholes/catch basins numbered.

2. Invert elevation (in and out).

3. Rim elevation.

4. Manhole/catch basin type and size.

5. Grades shown (decimal for Ft./Ft.).

6. Size of pipe.

7. Length of pipe.

8. Existing and proposed utility crossings.

9. Work map:

a. Unit areas (including off-site contributing areas).

b. Percentage impervious.

c. Average slope of site.

d. Estimated long term infiltration rate.

e. Conveyance data, identifier (for references to model output), length, slope inverts.

f. Overland flow paths and distances.

g. Soil types.

Site Development/Grading Permit Submittal Checklist

K. STORM SEWER (CONTINUED)

N/A

Provided

Staff

h. Water surface elevation for the design event.

10. Erosion Control Drawing:

a. Soil types.

b. Locations of soil pits and infiltration tests.

c. Construction entrance detail.

d. Silt fence and traps.

e. Mulching and vegetation plan.

f. Clearing and grubbing limits.

g. Existing and finished grade.

h. Details and locations of all BMPs recommended.

i. Location and details of temporary sediment ponds.

j. All existing and proposed catch basins are shown and silt socks referenced for inlet protection.

11. Construction Inspection Report.

MISCELLANEOUS:

1. Storm detail sheet.

2. Storm general notes.

3. Drywell notes and details.

L. STREET

N/A

Provided

Staff

PLAN VIEW:

1. Sight distance calculations, if applicable.

2. Flow direction arrows at curb returns showing grade.

3. Spot elevations on curb returns.

4. Station PC, PT, PI and intersections.

5. Curve information delta, radius, length and tangent provided for all curves.

6. BCR and ECR (begin curb radius, end curb radius) – Station /offset.

7. Identify all field design situations.

8. Edge of pavement and right-of-way (EP & R/W) labeled on drawings.

9. Signing (temporary, proposed and existing labeled on the drawings).

10. Channelization and striping, in accordance with M.U.T.C.D., State and City standards.

11. Mailbox locations (existing and proposed) shown on drawings with stationing.

12. Location of school bus and/or IT bus shelter/pad with stationing.

13. Typical roadway sections provided for each roadway.

14. Pavement marking details with station and offset in accordance with M.U.T.C.D., State and City standards.

15. Sidewalks.

Site Development/Grading Permit Submittal Checklist

L. STREET (CONTINUED)	N/A	Provided	Staff
16. Two-percent roadway slope from centerline to the gutter:			
a. Driveway entrances (information may be shown on tables on each sheet where cuts occur).			
- Station (centerline).			
- Width, material (AC, PCC, other).			
- Driveway type.			
b. Curb ramps – detail and type.			
c. All curb ramps, proposed or existing, satisfy current A.D.A. requirements.			
17. If the project has 500 feet of frontage or the utility poles need to be relocated, provide direction to underground and overhead utilities in the civil drawings.			
18. Landscape Plan for plantings within the right-of-way.			
19. Street trees called out within the right-of-way are approved varieties as listed in the Development Guide.			
PROFILE VIEW:			
1. Vertical information VPI, BVC, EVC, AP, low point, high point (for all curves).			
2. Show grades with (+ or -) slope.			
3. Super elevated roadways:			
a. Detail – Show transitions in and out of the super elevated road section.			
b. Special detail showing gutter flowing adequately is provided.			
MISCELLANEOUS:			
1. Street detail sheet.			
2. Street general notes.			
3. AASHTO street design worksheet, with soils report, if applicable.			
M. ILLUMINATION AND SIGNALS	N/A	Provided	Staff
1. Lighting:			
a. Coordinate table for TCHPN coordinate for all poles and facilities.			
b. Design calculations (for roads with curves and roads that do not meet current roadway standards).			
c. Station and offset to lighting fixtures and appurtenances.			
d. Mounting height, arm length, anchor bolt size/pattern and pole base construction.			
e. Pole type, including manufacturer and model number.			
f. 20-foot “clear zone” from the street lighting to private overhead utilities.			
g. Power Source:			
- Wire size, type, and conduit (maximum conductor per two-inch conduit is as follows: seven #8 conductors or five #4). When conductors exceed the maximum, seven - #8 or five - #4, an additional two-inch conduit shall be provided: upsizing of the conduit shall not be permitted.			
- Line-loss calculations.			

Site Development/Grading Permit Submittal Checklist

M. ILLUMINATION AND SIGNALS (CONTINUED)	N/A	Provided	Staff
- Spare 4-inch conduit for fiber optics included (in addition to the previous checklist item).			
h. Luminaire type, lamp wattage.			
i. Location of service disconnects (5-percent maximum voltage drop from source to farthest luminaire).			
j. J-box locations and stations, TCHPN coordinates (table).			
k. 200-scale map with luminaire locations shown.			
2. On boulevards, arterials, and collector roadways where dual function pedestrian poles are utilized, two circuits are required. One circuit is on the right side of the street and one circuit is on the left side of the street.			
3. Signals (follow WSDOT specs unless otherwise required by the City):			
a. Station and offset to signal base, cabinets, ped, etc.			
b. Pole type, including manufacturer and model number.			
c. Wiring schedule:			
- Signal heads and mounting assembly.			
- Video detection.			
- Opticom.			
- Control cabinet, size and layout.			
- Power source.			
- Conduit.			
- Wire size and type.			
d. Phasing schedule.			
e. Construction notes.			
f. J-box schedule with stationing and type.			
g. Pedestrian signal type with push button (meeting A.D.A. requirements).			
h. Controller type, configuration, and wiring schematic.			
MISCELLANEOUS:			
1. Street lighting detail sheet.			
2. Lighting general notes.			
N. MISCELLANEOUS	N/A	Provided	Staff
1. Field verify note on drawing – expose connection points and verify fittings 48 hours prior to distributing shut-down notices.			
2. Call Before You Dig note (on each applicable sheet). Note to include the following information: 1-800-424-5555 (or 811) 48 hours in advance.			
O. ELECTRONIC SUBMITTAL	N/A	Provided	Staff
1. Compact disc (CD) or USB drive containing all of the plans, reports, etc. as outlined under A through N above, in PDF-file format. Maximum format shall be 300 dpi. Note: Please do not include the application or submittal checklist in electronic format.			

Site Development/Grading Permit Submittal Checklist

NOTICE: Department of Ecology May Require an NPDES Construction Stormwater General Permit

Construction site operators are required to be covered by a Construction Stormwater General Permit if they are engaged in clearing, grading, and/or excavating activities that disturb one or more acres and discharge stormwater to surface water of the state. Smaller sites (such as homebuilders) may require coverage under this permit if they are part of a larger common plan of development that will ultimately disturb one acre or more. Operators of construction sites are required to:

- ~ Develop stormwater pollution prevention plans.**
- ~ Implement erosion prevention & sediment control measures.**
- ~ Obtain coverage under this permit.**

It is the permit holder's responsibility to verify permit coverage.

For Information: www.ecy.wa.gov/programs/wq/stormwater/construction/index.html

I verify that all required documents associated with this application have been submitted.

Signature of Applicant/Representative

Date