PLAN CHECKLIST

STANDARD ITEMS: WATER, SANITARY SEWER, STORM SEWER, STREET, LIGHTING, AND SIGNALS

( ) Vicinity Map
( ) Legend (APWA Standard Symbols)
( ) North Arrow
( ) Scale Bar
( ) Datum - Bench Mark Elevation And Location (on all sheets where elevations are referenced)
( ) Title Block:
  ( ) Title:
( ) Design By:
  ( ) Drawn By:
  ( ) Date:
  ( ) Checked By:
  ( ) Signature Approval Block
    (see above example):
  ( ) Sheet Number of Total Sheets:
( ) Section, Township and Range (every plan/profile sheet)
( ) Engineers Stamp (signed and dated)
( ) Project Title (cover sheet)
( ) Utility System Map (showing all proposed utilities on one drawing)
( ) Revision Block

PLAN PORTION STANDARD ITEMS

( ) Centerline and Stations
( ) Edge of Pavement and Width
( ) Right-of-Way and Width
( ) Proposed Survey Monumentation Locations and Details
( ) Sidewalk and Width
( ) Roadway Sections
( ) Existing Utilities (above and below ground)
( ) Adjacent Property Lines, Ownership, Parcel Number, and Street Address
( ) Identify Street Names, Right-of-Way, Lots
( ) Identify Match Existing Sheet Numbers and Stations
( ) Easements, Width and Type
( ) Define Survey Baselines
( ) Stations for Structures
( ) Flow Direction Arrows
PROFILE PORTION STANDARD ITEMS

- Profile Grades (decimal FT./FT.)
- Existing Ground
- Scale (horizontal and vertical)
- Stationing
- Vertical Elevation Increments
- Existing Utilities (if available)

Misc.
- Detail Sheet
- General Notes

SANITARY SEWER

Plan View: (Gravity System)
- Manhole
  - Station Shown at Each Manhole (watch spacing)
  - Manholes Numbered
  - Manhole Type Designation
  - Flow Direction (with arrow on pipe)
  - Depth at Property Line and Distance from Downhill Manhole for Side Sewer
  - Distance from Water Lines
  - Service to Each Lot

Profile View:
- Manholes Numbered
- Invert Elevation Showing Direction, In and Out
- Gravity
- Grades Shown (decimal form FT./FT.) slopes, depths
- Type of Pipe
- Size of Pipe
- Length of Pipe (in L.F.)
- Existing Utilities Shown

STEP SYSTEM

- Pipe Alignment, grade and offset, type and size
- Location of water, utilities crossing
- Location of pigging ports
- Location of pressure sustaining valves, check valves, vacuum valves, pressure relief valves, gate valves
- Trench and restoration details showing depth, bedding compaction requirements
() Septic (STEP) Tank
() Inverts elevation
() Size, type, location
() Side sewer location
() Electrical hookups
() Alarm and controls
() Pump operational characteristics
() Pump type

Misc.:
() Detail Sheet
() Sewer General Notes

WATER

Plan View:
() System Map (1” = 300’) showing existing and proposed with line size, valves, and hydrants
() Existing Utility Conflicts
() Fixtures (need horizontal and vertical control)
  () Fire Hydrants (at all intersections. See Yelm Fire District #2)
  () Blow-off (at end of line)
  () Vacuum and Air Release Valves When Required
() Tees, Crosses, Elbows, Adapters and Valves Need Coupling Type, Meter Locations
() Valves (2 each tee, 3 each cross)
() Fire Department Connection
() Thrust Blocking Required at all Fittings Including In-Line Valves
() Distance from Sewer
() Service to Each Lot (include open tracts)

Profile View:
() Existing Utility Crossings
() Show Fixtures (tees, crosses, hydrants)
() Show Valves and Couplers
() Size of Watermain
() Length of Watermain (in L.F.)
() Cover Over Pipe
() Grades (Engineered Design Grade to F.L.)

Misc.
() Detail Sheet
() Water General Notes
STORM SEWER

() Drainage and Erosion Control Plan Report
  () Cover sheet
  () Table of Contents
  () Section 1 - Proposed Project Description
  () Section 2 - Existing Conditions
  () Section 3 - Infiltration Rates/Soils Report
  () Section 4 - Wells
  () Section 5 - Fuel Tanks
  () Section 6 - Sub-Basin Description
  () Section 7 - Analysis of the 100-Year Flood
  () Section 8 - Aesthetic Considerations for Facilities
  () Section 9 - Downstream Analysis
  () Section 10 - Covenants, Dedications, Easements
  () Section 11 - Homeowners - Articles of Incorporation
  () Project Engineers Certificate
  () Facility Summary Form
  () Engineer's Estimate

() Erosion Control Plan Report
  () Section 1 - Construction Sequence and Procedure
  () Section 2 - Trapping Sediment
  () Section 3 - Permanent Erosion Control and Site Restoration
  () Section 4 - Geotechnical Analysis and Report
  () Section 5 - Inspection Sequence

() Drawings and Specification
  () Vicinity map
  () Project Boundaries
  () Sub-Basin Boundaries
  () Off-Site Area Tributary to Project
  () Contours
  () Major Drainage Features
  () Flow Path

() Site Map
  () Existing Topography at Least 50 Feet Beyond Site Boundaries
  () Finished Grades
  () Existing Structures within 100 Feet of Project Boundary
  () Utilities
  () Easements, Both Existing and Proposed
  () Environmentally Sensitive Area
  () 100-Year Flood Plain Boundary
  () Existing and Proposed Wells within 1,200 feet of Proposed Retention Facility
  () Existing and Proposed Fuel Tanks
  () Existing and Proposed On-Site Sanitary Systems within 100 Feet of Detention/Retention Facilities
  () Proposed Structures Including Roads and Parking Surfaces
  () Lot Dimensions and Areas
  () Proposed Drainage Facilities and Sufficient Cross-Section and
Details to Build

() Plan View - Conveyance System
  () Station and Number at each Manhole/Catch Basin
  () Manhole/Catch Basin Type and Size
  () Manhole/Catch Basin Rim Elevation
  () Flow Direction with Arrow on Pipe/Channel
  () Type and Size of Pipe
  () Length of Pipe in Lineal Feet

() Profile View - Conveyance System
  () Station and Number at each Manhole/Catch Basin
  () Rim Elevation
  () Invert In and Out
  () Length of Pipe (in L.F.)
  () Grades (FT./FT.)
  () Design Velocity

() Work Map
  () Unit Areas (including Off-Site Contributing Areas)
  () Percentage Impervious
  () Average Slope
  () Estimated Ultimate Infiltration Rate
  () Conveyance Date, Identifier (for Reference to Model Output), Length, Slope, Inverts
  () Overland Flow Paths and Distances
  () Soil Types
  () Spot Water Surface Elevations, Discharges and Velocities for the Design Event

() Erosion Control Drawing
  () Soil Types
  () Locations of Soil Pits and Infiltration Tests
  () Construction Entrance Detail
  () Silt Fences and Traps
  () Mulching and Vegetation Plan
  () Clearing and Grubbing Limits
  () Existing and Finished Grade
  () Details and Locations of all BMPs Recommended
  () Location and Details of Temporary Sediment Ponds

() Maintenance Report
  () Required Type and Frequency of Long-Term Maintenance
  () Identification of Responsible Maintenance Organization
  () Frequency of Sediment Removal
  () Cleaning of Catch Basins
  () Vegetation Control
STREET

Plan View:
() Flow Direction Arrows at Curb Returns Showing Grade
() Spot Elevations on Curb Returns
() Station PC, PT, PI, and Intersections
() Curve Information Delta, Radius, Length and Tangent
() BCR and ECR (Begin Curb Radius, End Curb Radius)
() Identify All Field Design Situations
() Typical Sections
() Pavement Marking Details With Station and Offset
() Sidewalks
() Driveway Entrances
  () Station
  () Width, Material ( AC, PCC)
  () Driveway Type
() Curb Ramps - Detail and Type
() Public Transit Facilities and Bus Stops

Profile View:
() Vertical Information VPI, BVC, EVC, AP, Low Point, High Point
() Show Grades in Decimal Form with (+ or -) Slope
() Super Elevated Roadways
  () Detail - Show Transitions
  () Special Detail Showing Gutter Flowing Adequately

Misc.
() Detail Sheet
() Street General Notes
() AASHTO Street Design Worksheet, With Soils Report, if Applicable

ILLUMINATION AND SIGNALS

() Lighting
  () Station and Offset to Fixtures
  () Pole Type, including Manufacturer
  () Mounting Height, Arm Length, Anchor Bolt Size and Pattern
  () Power Source
  () Wire size, Type, Conduit
() Line Loss Calculations
() Luminaire Type, Lamp Wattage
() Location of Service Disconnects (5% Max. Voltage Drop from Source to Farthest Luminaire)
() J-Box Location (include station and offset)
() Signals (Follow WSDOT Specs Unless Otherwise Required by the City)
() Station and Offset to Signal Base, Cabinets, Ped. Lead, Loops, etc.
() Wiring Schedule
  () Signal Heads and Mounting Assembly
  () Detection Loops
  () Opticom
  () Control Cabinet, Size and Layout
  () Power Source
  () Conduit
  () Wire Size and Type
() Construction Notes
() J-Box Schedule
() Pedestrian Signal Type with Push Button
() Controller Type, Configuration, and Wiring Schematic

Misc.
() Detail Sheet
() Lighting General Notes
() Line Loss Calculations

MISCELLANEOUS

() Easements and/or Dedication Deeds
() Contract Documents/Specifications

Additional Items:
() Sheet Index (on title sheet if required)
() Field Verify Note on DWG - Expose Connection Points And Verify Fittings 48 Hours Prior To Distributing shut-Down Notices
() Call Before You Dig Note
() Signing - Temporary And Permanent
() Channelization
() Location of Cluster Mailboxes