

## 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

APPROVED FOR CONSTRUCTION BY: _____ DATE: _____ Director of Public Works  APPROVAL EXPIRES: _____
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### 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

- Annual Cost Estimate of Maintenance
- Construction Inspection Report

Misc.

- Detail Sheet
- Storm General Notes

## **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